2021



CATALOGO GENERALE

KRINO®
CUTTING TOOLS

Utensili per il taglio dei metalli
METAL CUTTING TOOLS

Outils à métaux
Utensilios para metales
Metallwerkzeuge



PUNTE PER IL TAGLIO DEI METALLI

page 20-129

Metal cutting twist drills
Forets à métaux
Brocas para metales
Metall-Spiralbohrer



UTENSILI CONICI, FRESE e SEGHE A TAZZA

page 130-213

Conical drill bits, hole cutters and hole saws
Forets coniques, fraises et scies trépans
Brocas conicas, fresas y coronas perforadoras
Blechschälbohrer und Lochsägen



MASCHI E FILIERE

page 214-324

Taps and dies
Tarauds et filiéres
Machos y terrajas
Gewindebohrer und Schneideisen



ALESATORI E FRESE FRONTALI

page 325-348

Hand reamers & end mills
Alésoirs et fraises à rainurer
Escariadores y fresas frontales
Reibahlen und langlochfräser

Utensili da taglio per edilizia
BUILDING AND CONSTRUCTION TOOLS

Outils pour bâtiment
Utensilios para construcción
Werkzeuge für Baumaterialien



UTENSILI PER MATERIALI EDILI

page 349-397

Building and contruction tools
Outils pour bâtiment
Utensilios para construcción
Werkzeuge für Baumaterialien

Utensili per il taglio del legno
WOODWORKING TOOLS

Outils à bois
Utensilios para madera
Holzwerkzeuge



UTENSILI PER IL TAGLIO DEL LEGNO

page 398-433

Woodworking tools
Outils à bois
Utensilios para madera
Holzwerkzeuge

Tabelle tecniche
TECHNICAL TABLES

TABELLE TECNICHE

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Technical tables
Tableaux techniques
Prospectos tecnico
Technische Tabellen



Case History

Una singolare “case history” di un’azienda in rapida espansione
La Krino è orgogliosa dei riconoscimenti sulla qualità dei propri utensili da taglio per asportazione di truciolo. La nostra Azienda, fondata nel 1982 a Montevecchia, a nord di Milano ed in prossimità del confine svizzero, appartiene ad un parco industriale di avanguardia specializzato nella produzione di utensili da taglio sin dai primi del 1900.
Lo sviluppo tumultuoso delle attività ha portato alla costruzione, quale polo produttivo e logistico, di un nuovissimo e ampio insediamento industriale a Monticello Brianza, al centro del parco tecnologico. Ciò ha contribuito allo sviluppo e al completamento delle varie linee di utensili di elevata qualità, nel pieno rispetto della ormai diffusa sensibilità ambientale.
Nell’estate 2011 si è completato il processo di acquisizione della Società LTI, azienda storica italiana fondata a Milano nel 1960 e famosa per la produzione di inserti e bussole per avvitatori di alta qualità, riconosciuta a livello internazionale. La produzione è ora effettuata nella sede Krino, avvalendosi degli stessi impianti produttivi e della stessa manodopera qualificata. L’acquisizione del marchio LTI rappresenta un passo importante per la nostra Società, perché ribadisce la volontà di investire in prodotti di qualità di fabbricazione italiana e permette di diversificare, all’interno del medesimo mercato, la già ampia offerta di prodotti.
Consultando il nuovo catalogo avrete modo di apprezzare la gamma e la qualità dei prodotti ed, insieme, conoscerete gli uomini che, partecipi del vostro successo, hanno reso grande la Krino.

Ingegneria degli utensili da taglio

Cutting tools engineering
Tecnologie des outils coupants
Ingenierìa de las herramientas de corte



Krino is proud of the International acclaims for the quality of its cutting tools. Our Company, established in Montevecchia in 1982 near north of Milan and the Swiss border, an industrial area specialized into the cutting tools production since the last century. The fast grow up of activities required a brand new logistic and production plant based in Monticello Brianza, exactly into the center of this technological area. This contributed to the development of a complete range of high quality tools and respectful of the environment. The acquisition of LTI, an internationally recognised Italian manufacturing Company founded in Milan in 1960 and famous for the production of high quality inserts and sockets for drivers, was completed in the summer of 2011. The production is now carried out at the Krino headquarters using the same production facilities and skilled labour. The acquisition of the LTI brand is an important milestone because it reaffirms our company's commitment to invest in high-quality products made in Italy, and allows diversifying the already wide range of products within the same market. Consulting the new catalogue you will appreciate the wide range of our products and you can make the knowledge of our staff who, participating to your success, makes Krino great.

Krino est fière des reconnaissances internationaux pour la qualité de ses produits. Notre société a été crée en 1982 à Montevecchia, à nord de Milan et près de la frontière Suisse, un pole industriel spécialisé dans la production des outils de coupe depuis le début du siècle passé. La rapide croissance de l'entreprise a motivé la création d'un nouveau centre de production et logistique à Monticello Brianza, exactement au centre du pole industriel. Cela a contribué à développer une gamme complète de outillage de coupe de qualité en respectant l'environnement. En el verano del 2011 se completó el proceso de adquisición de la Sociedad LTI, empresa histórica italiana fundada en Milán en 1960 y famosa por la producción de insertos y piezas para atornilladores de alta calidad, reconocida a nivel internacional. La producción actualmente se efectúa en la sede Krino, que utiliza las mismas instalaciones productivas y la misma mano de obra especializada. La adquisición de la marca LTI representa un paso importante para nuestra Sociedad, porque recalca nuestra voluntad de invertir en productos de alta calidad de fabricación italiana y permite diversificar, en el mismo mercado, la amplia oferta de productos ya existente.En consultant ce nouveau catalogue, Vous auriez la possibilité d'apprécier la gamme et la qualité des produits et au même temps Vous irez connaître l'équipe que, impliquée dans Votre réussite, a rendue grand Krino.

Krino es orgullosa de los reconocimientos por la calidad de su productos. Nuestra empresa fundada en el 1982 a Montevecchia, al norte de Milan y cerca de la frontera con la Suisa, hace parte de un parque industrial de vanguardia, especializado en la producción de herramienta de corte desde el principio del siglo pasado. El rapido desarrollo de las actividades ha sacado a la construcción de una nueva emplantación logistica y productiva en Monticello Brianza, en el centro del parco tecnologico y ha contribuido al desarrollo de varias calidades de utensilios de alta calidad, en el lleno respecto de la sensibilidad del medio ambiente. Le processus d'acquisition de la société LTI, entreprise historique italienne fondée à Milan en 1960 et célèbre pour la production d'inserts et de douilles pour visseuses de haute qualité, reconnue à un niveau international, s'est complété pendant l'été 2011. La production est désormais effectuée auprès du siège Krino, en utilisant les mêmes installations de production et la même main d'oeuvre qualifiée. L'acquisition de la marque LTI représente une étape importante pour notre société, car elle réitère la volonté d'investir dans des produits de qualité fabriqués en Italie et permet de diversifier, à l'intérieur du même marché, la déjà vaste offre de produits. Consultando el nuevo catálogo podrán estimar la gama y la calidad de los productos y podrán conocer nuestro equipo que ha hecho grande la Krino.

Campo di applicazione

Ricerca, progettazione e produzione di utensili da taglio e utensili per avvitatori



ISO 9001
BUREAU VERITAS
Certification

La Brianza, soprattutto quella Lecchese, ha un'antichissima tradizione nella lavorazione dei metalli, nucleo di un potente sviluppo artigianale e, poi, industriale. La prima industria per la produzione degli utensili per la lavorazione dei metalli ebbe, così, una naturale affermazione ed, attorno ad essa, nacquero piccoli laboratori artigiani, che ora sono valide realtà manifatturiere. La specializzazione è ora elevata, così che ognuna di queste imprese ha una sua propria identità produttiva: lavorazione del metallo duro così come del superrapido, lavorazioni standard come quelle a disegno. La Krino è orgogliosa di appartenere a questo parco tecnologico e di continuare questa tradizione, indice riconosciuto della qualità made in Italy. Oltre al catalogo dei prodotti standard a norme ISO, che contempla utensili standard tradizionali per utilizzi professionali ed hobbistici, sino a utensili innovativi e tecnologicamente avanzati per le lavorazioni industriali più difficoltose. Siamo in grado di produrre a richiesta utensili speciali a disegno.

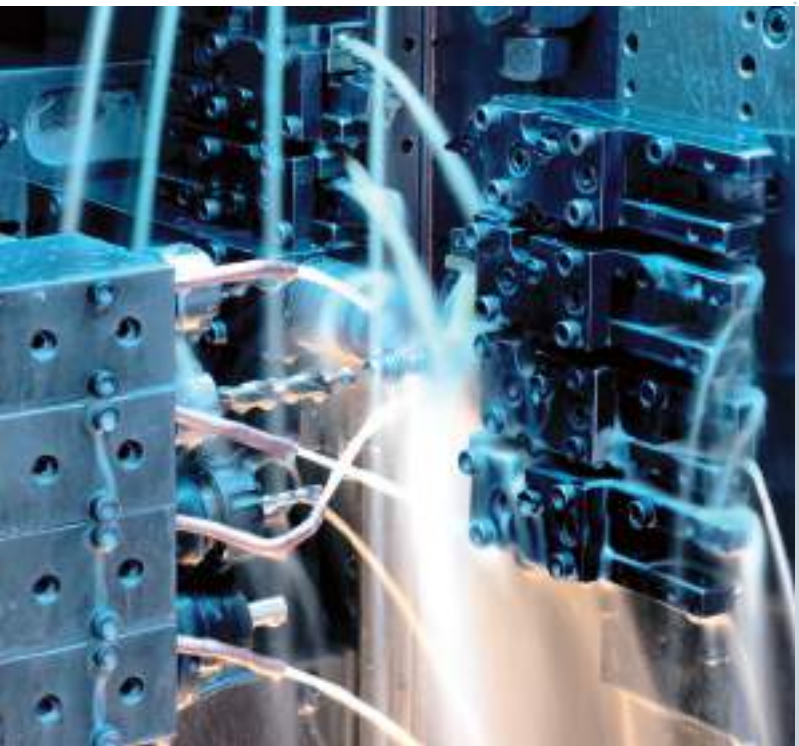
Brianza, above all the region of Lecco, has an ancient tradition of metal works, it was the center of a strong handy craft development that became industrial. The origin of cutting tools industry in our region in fact was born together with small workshops which are now well known manufacturing Companies. The specialization is now very high, so that every Company got its own production identity: hard metal works, high speed steel, standard production or under request. Krino is proud to be a part of this technological area and to carry on with the "made in Italy" tradition. In addition to the catalogue with standard products and in accordance with ISO standards, we are in a position to supply, under request, special tools.

Brianza et surtout la région de Lecco, a une ancienne tradition pour le travail des métaux. C'était le centre d'un fort développement artisanal devenu industriel. En effet l'origine de la production des outils coupants dans notre région a démarré avec les petits ateliers qui maintenant sont devenus des grandes sociétés productrices d' outils. La spécialisation est très élevée. Les sociétés ont suivi leur propre identité : lavoration des pièces en carbure, acier rapide, production standard et au dessin. Krino est orgueilleuse de faire partie de cette région technologique et de continuer la tradition du « Made in Italy ». Au-delà du catalogue avec les produits construits selon les normes ISO, nous sommes dans la position de fournir des outils spéciaux au dessin.

Brianza, sobre todo la región de Lecco, tienes una antigua tradición en el trabajo de los metales. Fue un centro de fuerte desarrollo artesanos que se quedaron industriales. Efectivamente la origen de la producción de utensilios de corte en nuestra region empezó con pequeños talleres que ahora son convertidos en grandes empresas productoras. La especialización es muy elevada y cada empresa a seguido su propia indentidad : trabajo de metal duro, acero rapido, producción estandard y sobre diseño. Krino es orgullosa de hacer parte de esta región tecnologica y de continuar la tradición del « Made in Italy » Más que el catalogo con productos segundo las normas ISO, podemos ofrecer utensilios de fabricaciones especiales.



PRODUZIONE / AUTOMAZIONE
INNOVAZIONE / FORMAZIONE

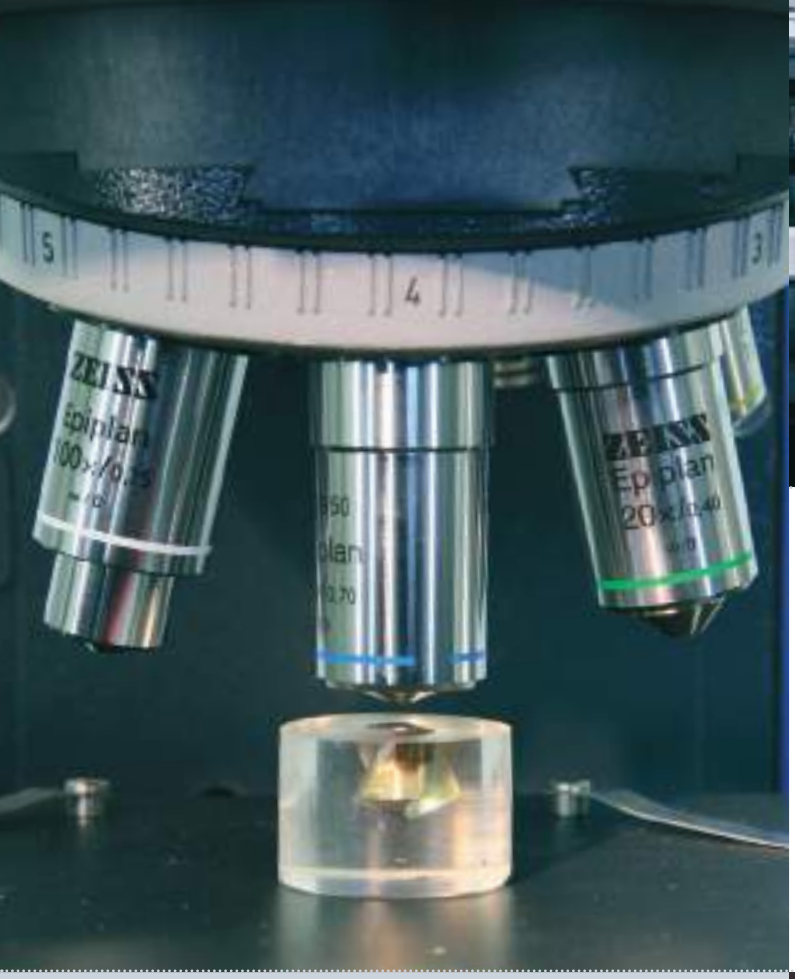


L'esperienza specifica più che trentennale nella produzione degli utensili da taglio in acciaio superrapido dei nostri ingegneri e dei tecnici di laboratorio permettono un'assistenza tecnica qualificata ai nostri clienti in tutte le problematiche che nascono nell'utilizzo industriale e professionale. La formazione del nostro personale è attuata direttamente con corsi specifici, sia all'interno della nostra azienda, così come presso le nostre associazioni di categoria come Confindustria. Corsi di formazione specifici sono inoltre effettuati, all'interno del nostro sito, rivolti alla nostra clientela; l'esperienza è sempre positiva e molto gradita.

Our long experience in high speed steel production and the full knowledge of our engineers and technical staff gives a full and qualified assistance to all our customers for any kind of use, industrial or professional.

Notre longue expérience dans la fabrication des outils en acier rapide et la connaissance de nos ingénieurs et de l'équipe technique donne une complète et qualifié assistance à tous nos clients pour toutes les utilisations soit industrielles que professionnelles.

La experiencia de más de treinta años en la producción de utensilios de corte en acero rapido de nuestro ingenieros y tecnicos de laboratorios, permiten una asistencia tecnica calificada a todos los clientes por cualquier problema de utilización industrial y profesional.





TECNOLOGIA
CONTROLLO QUALITÀ

L'attrezzato laboratorio di controllo qualità garantisce l'intera produzione dei nostri utensili. Specifici ed accurati controlli metallurgici sugli acciai di produzione europea, effettuati prima e dopo il trattamento termico, assicurano elevate prestazioni degli utensili nella sicurezza più completa.

The modern and very well equipped quality laboratory, guarantees the full production of our cutting tools. Specific and precise tests made on steels, before and after heat treatment, allow high performance totally on safety.

Un moderne et bien équipé laboratoire de qualité garantit une entière production d' outillage de coupe. Les tests spécifiques sur les aciers, effectués avant et après les traitements thermiques, permettent des performances élèves en total sécurité.

Un moderno y bien equipado laboratorio de calidad garantiza toda nuestra producción de productos de corte. Controles cuidados de los aceros de producción europea, hechos antes y después del tratamiento termico, aseguran elevadas prestaciones en seguridad.





ILTI SCREWDRIVING TOOLS

UTENSILI SPECIALI A DISEGNO

La nostra Azienda, oltre alla produzione di inserti per avvitatori secondo le norme internazionali, ha una grande esperienza nella produzione di utensili speciali a disegno. È importante che ci inviate un disegno dettagliato, possibilmente insieme ad un campione, specificando in modo particolare il tipo di supporto sul quale avverrà l'operazione di avvitamento. In questo modo possiamo realizzare il trattamento termico specifico in funzione della resistenza che l'inserto incontrerà durante il lavoro. Infatti, avvitare sulla lamiera piuttosto che sulla plastica, in un pannello truciolare od in un foro maschiato, richiede sforzi del tutto differenti, che si traducono in altrettanto diverse esigenze di durezza e resistenza alla torsione.

Our factory is specialized in manufacturing quality screws bits since 1960, according to the international standards. We dedicate the same care in making special tools under your specific design. Just one more point that will permit us to create your tool with all the necessary characteristics regarding the type of support on which the screw driving operation will take place. The cycle of heat treatment that we will use in our plant can be studied in accordance with the function of resistance that the tool will face during the pressure. In fact, to screw on the thin sheet rather than on a plastic one or in a panel of composed wood or in a threaded hole requires different degrees of pressure, which mean different needs of hardness and torque resistance.



Per raggiungere l'eccellenza nel servizio alla clientela offriamo oggi la possibilità di realizzare set e valigette con contenuti specifici: il nostro parco macchine si è infatti ampliato con una fresatrice
taglia spugne che consente la realizzazione di sedi dedicate per l'inserimento di utensili e accessori su esigenza del cliente.

*To achieve excellence in customer service we can offer you to create sets and cases with specific contents: our machine fleet has in fact been expanded with a sponge milling machine that allows the creation
of dedicated seats for the insertion of tools and accessories on customer's request.*

*Pour atteindre l'excellence du service à la clientèle, nous offrons maintenant la possibilité de créer des ensembles et des boîtiers avec des contenus spécifiques: notre parc de machines a en effet été élargi avec
une fraiseuse à éponger qui permet la création de sièges dédiés pour l'insertion d'outils et d'accessoires à la demande du client.*

*Para alcanzar la excelencia en el servicio al cliente, ahora ofrecemos la posibilidad de crear conjuntos y cajas con contenidos específicos: nuestra flota de máquinas se ha ampliado con una fresadora de esponja
que permite la creación de asientos dedicados para la inserción de herramientas y accesorios a petición del cliente.*

customize



Il cliente può personalizzare il contenuto del set scegliendo gli utensili desiderati e decidendo il colore della spugna nella quale saranno disposti.

The customer can customize the contents of the set by choosing the desired tools and deciding the color of the sponge in which they will be arranged..

Le client peut personnaliser le contenu de l'ensemble en choisissant les outils souhaités et en choisissant la couleur de l'éponge dans laquelle ils seront disposés.

El cliente puede personalizar el contenido del conjunto seleccionando las herramientas deseadas y decidiendo el color de la esponja en la que se colocarán.



Ancora non conosci Mr. K?! Cercalo anche sul blog! Blog.Krino.It
Mr. K è il nuovo paladino della ferramenta che ogni mese ci regala preziosi video con consigli e informazioni utili sui nostri prodotti!

You still do not know Mr. K ?! Look for it on the blog too! Blog.Krino.It Mr. K is the new hardware champion who every month gives us precious videos with tips and useful information about our products!

Vous ne connaissez toujours pas M. K?! Cherchez aussi sur le blog! Blog.Krino.It M. K est le nouveau champion du matériel informatique qui, chaque mois, nous fournit de précieuses vidéos contenant des conseils et des informations Utiles sur nos produits!

¿Aún no conoces al Sr. K? ¡Búscalo en el blog también! Blog.Krino.It ¡El Sr. K es el nuevo campeón de hardware que cada mes nos brinda videos valiosos con consejos e información útil sobre nuestros productos!

blog.krino.it

TiFaForare

Krino è presente anche sui social con tutorial, presentazioni di prodotto e tante altre idee, dimostrazione di un'azienda dinamica e al passo coi tempi che non si accontenta dei soliti standard comunicativi.

Krino is also present on social media with tutorials, product presentations and many other ideas, demonstration of a dynamic company that isn't satisfied with the usual communication standards.

Krino est également présent sur les médias sociaux avec des tutoriels, des présentations de produits et de nombreuses autres idées, la démonstration d'une entreprise dynamique et en phase avec l'époque qui n'est pas satisfaite des standards de communication habituels.

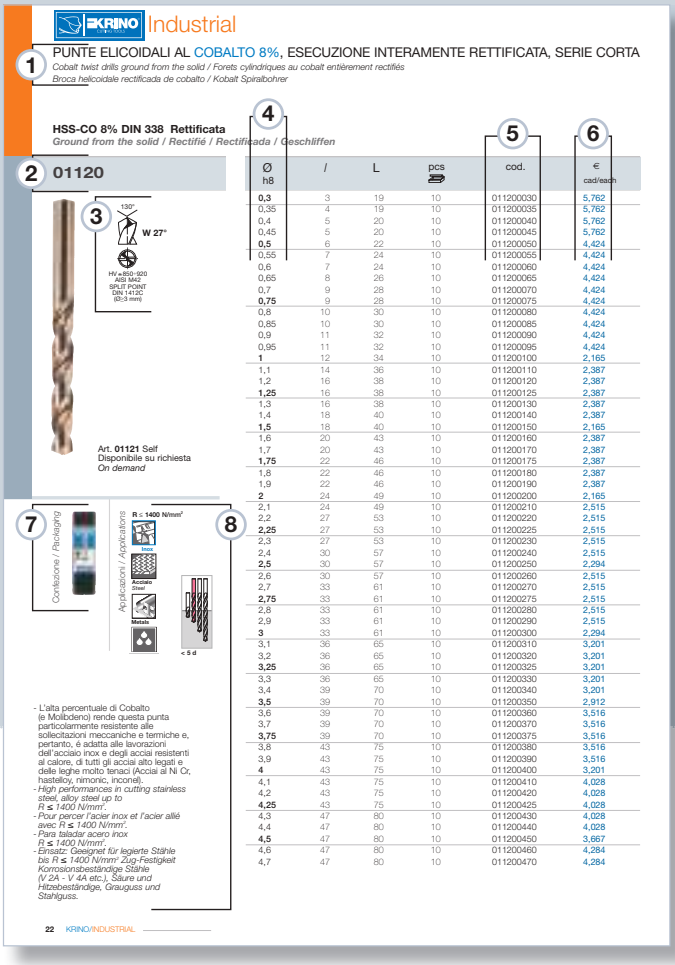
Krino también está presente en las redes sociales con tutoriales, presentaciones de productos y muchas otras ideas, demostraciones de una empresa dinámica y en sintonía con los tiempos que no están satisfechos con los estándares de comunicación habituales.



@KrinoTools

Consultazione
reference/consultation/consultación

La struttura schematica della pagina rende la consultazione del catalogo rapida ed immediata anche grazie alla fotografia del prodotto, corredata da codici specifici, dimensioni, caratteristiche, confezionamento base e norme d'impiego. L'operatore è facilitato nell'impiego degli utensili da simboli molto semplici che specificano le effettive capacità e modalità d'uso.



KRINO Industrial

1 PUNTE ELICOIDALI AL COBALTO 8%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA
Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 8% DIN 338 Rettificata
Ground from the solid / Rectifié / Rectificada / Geschliffen

2 **01120**

3 130° W 27° HV =850-920 AISI M42 SPLIT POINT DIN 1412C (D≥3 mm)

Art. **01121** Self
Disponibile su richiesta
On demand

4 Ø h8	/	L	pcs	5 cod.	6 € cad/each
0,3	3	19	10	011200030	5,762
0,35	4	19	10	011200035	5,762
0,4	5	20	10	011200040	5,762
0,45	5	20	10	011200045	5,762
0,5	6	22	10	011200050	4,424
0,55	7	24	10	011200055	4,424
0,6	7	24	10	011200060	4,424
0,65	8	26	10	011200065	4,424
0,7	9	28	10	011200070	4,424
0,75	9	28	10	011200075	4,424
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0,9	11	32	10	011200090	4,424
0,95	11	32	10	011200095	4,424
1	12	34	10	011200100	2,165
1,1	14	36	10	011200110	2,387
1,2	16	38	10	011200120	2,387
1,25	16	38	10	011200125	2,387
1,3	16	38	10	011200130	2,387
1,4	18	40	10	011200140	2,387
1,5	18	40	10	011200150	2,165
1,6	20	43	10	011200160	2,387
1,7	20	43	10	011200170	2,387
1,75	22	46	10	011200175	2,387
1,8	22	46	10	011200180	2,387
1,9	22	46	10	011200190	2,387
2	24	49	10	011200200	2,165
2,1	24	49	10	011200210	2,515
2,2	27	53	10	011200220	2,515
2,25	27	53	10	011200225	2,515
2,3	27	53	10	011200230	2,515
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2,5	30	57	10	011200250	2,294
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2,75	33	61	10	011200275	2,515
2,8	33	61	10	011200280	2,515
2,9	33	61	10	011200290	2,515
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3,1	36	65	10	011200310	3,201
3,2	36	65	10	011200320	3,201
3,25	36	65	10	011200325	3,201
3,3	36	65	10	011200330	3,201
3,4	39	70	10	011200340	3,201
3,5	39	70	10	011200350	2,912
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3,7	39	70	10	011200370	3,516
3,75	39	70	10	011200375	3,516
3,8	43	75	10	011200380	3,516
3,9	43	75	10	011200390	3,516
4	43	75	10	011200400	3,201
4,1	43	75	10	011200410	4,028
4,2	43	75	10	011200420	4,028
4,25	43	75	10	011200425	4,028
4,3	47	80	10	011200430	4,028
4,4	47	80	10	011200440	4,028
4,5	47	80	10	011200450	3,667
4,6	47	80	10	011200460	4,284
4,7	47	80	10	011200470	4,284

7 Confezione / Packaging

8 Applicazioni / Applications
R ≤ 1400 N/mm²
Inox
Acciaio Steel
Metallo
< 5 d

- L'alta percentuale di Cobalto (e Molibdeno) rende questa punta particolarmente resistente alle sollecitazioni meccaniche e termiche e, pertanto, è adatta alle lavorazioni dell'acciaio inox e degli acciai resistenti al calore, di tutti gli acciai alto legati e delle leghe molto tenaci (Acciai al Ni Cr, hastelloy, nimonic, inconel).
- *High performances in cutting stainless steel, alloy steel up to R ≤ 1400 N/mm².*
- *Pour percer l'acier inox et l'acier allié avec R ≤ 1400 N/mm².*
- *Para taladar acero inox R ≤ 1400 N/mm².*
- *Einsatz: Geeignet für legierte Stähle bis R ≤ 1400 N/mm² Zug-Festigkeit Korrosionsbeständige Stähle (V 2A - V 4A etc.), Säure und Hitzebeständige, Grauguss und Stahlguss.*

22 KRINO/INDUSTRIAL

1 DESCRIZIONE
Description/designation/descripción

2 CODICE FAMIGLIA
Code/code/codigo

3 CARATTERISTICHE
Features/caractéristiques/características

4 DIMENSIONI
Dimensions/dimensions/medídas

5 CODICE ARTICOLO
Item number/code ref./codigo art.

6 LISTINO PREZZI
Price list/tarif de prix/tarifa de precios

7 CONFEZIONAMENTO
Packaging/conditionnement/embalaje

8 APPLICAZIONI E MATERIALI
Applications and materials/applications et materiaux / aplicaciones y materiales

The catalogue is easy to consult, every page has item number, features, packaging and applications to the left side. To the right side appear: size, dimensions, code and gross price. The operator is helped to the tool choice by simple icons showing the real products purpose.

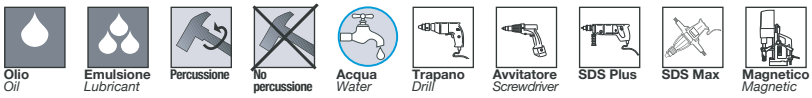
Ce catalogue est de facile consultation, chaque page porte, reference, caracteristiques, conditionnement, et applications dans le côté de gauche. A droite on trouve les dimensions, mesures, codes et tarif brut. L'opérateur est aidé dans le choix de l'outil par de simples icônes indiquant l'objectif réel du produit.

Este catálogo es facíl a consultar, cada página reporta a la izquierda, articulo, caracteristicas, envase y aplicaciones, a la derecha , medida, dimensiones, codigo y precios brutos. Se ayuda al operador a elegir la herramienta mediante iconos simples que muestran el propósito real de los productos.

Una dettagliata simbologia dei materiali da lavorare, di immediata visualizzazione, aiuta ad una agevole scelta.
All materials to work are easily identified by an icons system.
Les symboles détaillés des matériels à travailler, d'une visualisation immédiate, permettent un choix aisé.
Una detallada simbología de los materiales a trabajar de inmediata visualización, ayuda a elegir fácilmente.



MATERIALI
Materials
Materiaux
Materiales



APPLICAZIONI
Applications
Applications
Aplicaciones

Notevole e costante cura é stata dedicata alla costruzione dei nostri utensili, una qualità che significa massima efficienza ed, insieme totale sicurezza per gli utilizzatori. Rendimenti elevati si ottengono solo con un corretto utilizzo dell'utensile. Per questo motivo, invitiamo ad una scelta appropriata dell'utensile, prima di intraprendere una qualsiasi operazione di taglio, avvalendosi delle informazioni specifiche contenute nel catalogo, sulle confezioni dei prodotti e della consulenza tecnica diretta dei tecnici aziendali. Un corretto utilizzo significa anche e sopratutto usare sempre tutte le protezioni di sicurezza individuali richiesta dallo specifico lavoro. La vostra salute é un bene prezioso, difendetela.

A special care has been dedicated during the production of our tools, quality means perfect working order and total safety for the hand users. High performance are possible only with the right use of the tools. For this reason we invite you, before starting with any kind of cutting operation to choose the right tool thanks to the information given by this catalogue or on the products packaging and, when necessary directly from our technical staff. Always use the individual safety protections required by the specific work. Your health is precious, protect it!

Un grand et constant soin a été dédié à la production de nos outils, qualité signifie efficacité et aussi total sécurité pour les utilisateurs. On peut obtenir des performances élevées seulement avec un correct usage de l'outil. Pour cette raison là, nous Vous invitons, avant d'entreprendre n'importe quel opération de coupe, une choix appropriée de l'outil, en Vous référant aux informations spécifiques contenues dans le catalogue, dans les confections des produits et quand c'est nécessaire en demandant une consultation technique directement à notre staff d'entreprise. Usage correct signifie aussi: utiliser toujours toutes les protections de securité exigées par le travaille spécifique. Votre santé est précieux, protégez-la!

Gran atención ha sido dedicada para la construcción de nuestros utensilios, calidad significa máxima eficiencia y total seguridad para los utilizatores. Rendimientos elevados se pueden conseguir solamente con el utilizo correcto de los utensilios. Por esta razón, antes de empezar una operación de corte, elegir el utensilio apropriado gracias a las informaciones contenidas en el catálogo, en el envase de los productos y cuando es necesario preguntando directamente al servicio técnico de la empresa. Utilización correcta es también: utilizar siempre las protecciones de securidad individuales requeridas. Vuestra salud es preciosa, protegedla!

Lavorare in sicurezza
safety works
travailler en sécurité
trabajar en securidad



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TAGLIO DEI METALLI Metal cutting

rettificate - serie corta
fully ground - rectifié - rectificada - geschliffen

cod.		DIN		pag.
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01145	338	HSS-CO 5%	28
01147 **01146**	338	HSS-CO 5%	30 31
01157	ANSI B94	HSS-CO 5% inches	122
01140	338	HSS-CO 5%	40
01305	338	HSS-CO+TiAlN	40
01139	338	HSS-CO 5%	42
01300	338	HSS-CO+TiAlN	43
01160	338	HSS-G+TiN	90
01163 **01164**	338	HSS-G+TiN	92
01162	ANSI B94	HSS-G+TiN inches	121
01089	338	Metallo duro Carbide	78
01220	338	HSS-G Speedmaster	44
01201	338	HSS-G Dual performer	46
01203 **01209**	338	HSS-G Dual performer	48
01060	338	HSS-G	52
01062 **01063**	338	HSS-G	54
01092 W	338	HSS-G Alu	59
01091 H	338	HSS-G	59
01090 LH	338	HSS-G	60
01093	338	HSS+HM Carbide tip	58
01066	338	HSS-G 118°	74
01320	338	HSS+TiN 118°	76
01070	338	HSS-G	82
01072 **01074**	338	HSS-G	84
01115	ANSI B94	HSS-G inches	124
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rettificate - serie corta
fully ground - rectifié - rectificada - geschliffen

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01082 **01084**	338	HSS Black & white	105
01350	338	HSS Basic	96
01352 **01354**	338	HSS Basic	98 99

rullate - serie corta
roll forged - laminés - laminada - rollgewaltze

cod.		DIN		pag.
01006	338	HSS-CO 2%	108
01001	338	HSS	110
01003 **01004**	338	HSS	112
01030	ANSI B94	HSS inches	126
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rettificate - serie extra corta
fully ground - rectifié - rectificada - geschliffen

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01149	1897	HSS-CO 5%	32
01143	1897	HSS-CO 5%	41
01307	1897	HSS-CO+TiAlN	41
01166	1897	HSS-G+TiN	93
01119	1897	Metallo duro Carbide	79
01207	1897	HSS-G Dual performer	49
01094	1897	HSS-G	55
01067 LH	1897	HSS-G	61
01022	1897	HSS-G - 118°	76
01076	1897	HSS-G	85
01077	~1897	HSS-G	86
01087	1897	HSS Black & white	105
01356	1897	HSS-G Basic	100
01050	Norma Krino	HSS-G	85
01051		HSS-CO 5%	32
01148	~1897	HSS-CO 5%	33
01095	~1897	HSS-G	55

rullate - serie extra corta
roll forged - laminés - laminada - rollgewaltze

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rettificate - serie lunga
fully ground - rectifié - rectificada - geschliffen

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01152		340	HSS-CO 5%	34
01376 01377 01378		1869/1 1869/2 1869/3	HSS-CO 5% Parabolic	35
01141		340	HSS-CO 5%	41
01306		340	HSS-CO+TiAlN	41
01168		340	HSS-G+TiN	93
01208		340	HSS-G Dual performer	49
01096		340	HSS-G	56
01078		340	HSS-G	87
01086		340	HSS Black & white	105
01358		340	HSS Basic	101

rullate - serie lunga
roll forged - laminés - laminada - rollgewaltze

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rettificate
fully ground - rectifié - rectificada - geschliffen

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01370 01371 01372		1869/1 1869/2 1869/3	HSS-G Parabolic	57
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01114			HSS-G	58
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01101		8374	HSS	64
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01104		8377	HSS	64
01102		8375	HSS	64
01059 01058 01057		~8376 ~8374 ~8378	HSS	65
01110 01214	60°	333/A	HSS-G HSS-G + TiN	62
01112 01217	60°-120°	333/B	HSS-G HSS-G + TiN	63
01111 01216	60°	333/R	HSS-G HSS-G + TiN	63
01374	60°	~333/A	HSS-G	62
01375	60°	~333/A	HSS-G	62

TECH

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01361 01363	90° 120°	-	Metallo duro Carbide	79
01368 01366		6537K	Metallo duro+TiAlN Carbide+TiAlN	80
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codolo Morse
Morse taper - queue Morse - mango conico - MorseKegel

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01097		345	HSS Fresata-Milled	68
01213		345	HSS-HM Fresata-Milled	73
01025		345	HSS Rullata-Rolled	116
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01069		341	HSS Fresata-Milled	71
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01169		≈1897	HSS-CO+TiN	146
01172		-	HSS-CO	146
01173		-	HSS-CO+TiN	146
01179		-	Metallo duro+TiAlN Carbide+TiAlN	146
01174		-	HSS	147
01175		-	HSS	147
03142		-	Metallo duro Carbide	147
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01206		-	HSS-G+TiAlN	139
01215		-	HSS-G	138
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21207	Weldon 	-	HSS-CO	157
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26031 **26032**		-	HSS+TiAlN Z2 HSS+TiAlN Z3	165
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10401		376/B	HSS-CO +TiAlN	M	229
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10361		~2174	HSS-CO +TiN	M	233
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10267		5156/C-35°	HSS-CO	BSP	234
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10289 LH		5156/C	HSS-CO	BSP	242
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12069		223	HSS	MF	263
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12087		223	HSS	BSF	268
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12085		223	HSS	UNF	270
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10030		~357	C.V.	M	302
12001		~223	C.V.	M	305
12005		~223	C.V.	MF	305
12015		~223	C.V.	BSP	306
12017		~223	C.V.	BSPT	306
12010		~223	C.V.	BSW	307
12012		~223	C.V.	BSF	307
12020		~223	C.V.	UNC	308
12025		~223	C.V.	UNF	308
12032		~223	C.V.	NPT	308
SETS		-	C.V.	-	314
29020		212/2B	HSS-CO		326
29021		212/2C	HSS-CO		326
29026		208/B	HSS-CO		327
29039		311	HSS		327
29040		219B	HSS		328
29001		206B	HSS		329
29005		-	HSS		330
29006		859/B	HSS		
29010		9B	HSS		331
24013		844K	HSS-CO 8%		332
24015			HSS-CO 8%+TiAlN		
24014		844L	HSS-CO 8%		332
24016			HSS-CO 8%+TiAlN		
24017		844K	HSS-CO 8%		333
24019 NR			HSS-CO 8%+TiAlN		

cod.		DIN		pag.
24018		844L	HSS-CO 8%	333
24020 NR			HSS-CO 8%+TiAlN	
24021		844K	HSS-CO 8%	334
24023 NF			HSS-CO 8%+TiAlN	
24022		844L	HSS-CO 8%	334
24024 NF			HSS-CO 8%+TiAlN	
24009		844K	HSS-CO 8%	335
24011			HSS-CO 8%+TiAlN	
24010		844L	HSS-CO 8%	335
24012			HSS-CO 8%+TiAlN	
24001		327D	HSS-CO 8%	336
24003			HSS-CO 8%+TiAlN	
24002		844L	HSS-CO 8%	336
24004			HSS-CO 8%+TiAlN	
24005		327D	HSS-CO 8%	337
24007			HSS-CO 8%+TiAlN	
24006		Norma Krino	HSS-CO 8%	337
24008			HSS-CO 8%+TiAlN	
26100		-	HSS-G	337
24025		845K	HSS-CO 5%	338
24026		845L	HSS-CO 5%	338
24029		845K	HSS-CO 5%	339
NR				
24030		845L	HSS-CO 5%	339
NR				
24177		~6527L	Metallo duro+TiAlN Carbide+TiAlN	347
24185		~6527L	Metallo duro+TiAlN Carbide+TiAlN	
24178		Norma Krino	Metallo duro+TiAlN Carbide+TiAlN	
24186		~6527L	Metallo duro+TiAlN Carbide+TiAlN	
24176		~6527L	Metallo duro+TiAlN Carbide+TiAlN	348
24174		6527L	Metallo duro+TiAlN Carbide+TiAlN	
24175		6527L	Metallo duro+TiAlN Carbide+TiAlN	
24180		Norma Krino	Metallo duro Carbide	
24169		6527L	Metallo duro Carbide	341
24171		6527L	Metallo duro+TiAlN Carbide+TiAlN	
24170		Norma Krino	Metallo duro Carbide	
24172		Norma Krino	Metallo duro+TiAlN Carbide+TiAlN	
24165		6527K	Metallo duro Carbide	340
24167		6527K	Metallo duro+TiAlN Carbide+TiAlN	
24166		6527L	Metallo duro Carbide	
24168		6527L	Metallo duro+TiAlN Carbide+TiAlN	
24182		6527L	Metallo duro+TiAlN Carbide+TiAlN	
24183		6527L	Metallo duro+TiAlN Carbide+TiAlN	342
24184		6527L	Metallo duro+TiAlN Carbide+TiAlN	

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KRINO CUTTING TOOLS ENGINEERING

Industrial
Professional
High Quality Professional

cod.		DIN		pag.
24161		6527L	Metallo duro Carbide	343
24163		6527L	Metallo duro+TiAlN Carbide+TiAlN	
24162		Norma Krino	Metallo duro Carbide	
24164		Norma Krino	Metallo duro+TiAlN Carbide+TiAlN	
24181		Norma Krino	Metallo duro+TiAlN Carbide+TiAlN	
24156		~6527L	Metallo duro Carbide	344
24154		6527K	Metallo duro Carbide	
24155		Norma Krino	Metallo duro Carbide	
24150		6527K	Metallo duro Carbide	345
24152		6527K	Metallo duro+TiAlN Carbide+TiAlN	
24151		Norma Krino	Metallo duro Carbide	
24153		Norma Krino	Metallo duro+TiAlN Carbide+TiAlN	
24157		6527L	Metallo duro Carbide	346
24159		6527L	Metallo duro+TiAlN Carbide+TiAlN	
24158		Norma Krino	Metallo duro Carbide	
24160		Norma Krino	Metallo duro+TiAlN Carbide+TiAlN	
24179		6528	Metallo duro+TiAlN Carbide+TiAlN	

UTENSILI PER EDILIZIA
Building & construction cutting tools

cod.		DIN		pag.
03060		8039	Superior	350
03063				
03065		8039	Superior	350
03067				
03059		-	Superior	351
03072		-	Max4	352
03075		8039	Superspeed	353
03110		8039	Supergranit	354
03112				
03100		8039	Extreme Hard Cut	355
03069		8039	SDD	356
03077		8039	Multik	357
03076		8039	Multik	357
03080		8039	Foratutto	358
03082				
03089		-	Foratutto	359
03140		-	Vetro	359

cod.		DIN		pag.
03052		8039	Standard Plus	360
03053		8039	Standard Plus	360
03054				
03001		8039		362
03005		8039		363
03009				
03011		8039		364
03015				
03160		-	SDS plus K4	366
03169		-	SDS plus HAMMER	368
03167		-	SDS plus 4x4 Speedmaster	370
03155		-	SDS PLUS Standard	372
03156		-	SDS PLUS K8	374
03170		-	SDS MAX	376
03171		-	SDS MAX	377
N 03172		-	SDS PLUS	378
N 03172		-	SDS MAX	378
N 03221	Premium	-	SDS PLUS	379
03220 N		-	SDS PLUS	380
03222				
03210 N		-	SDS MAX	381
03212				
21110		-	M16 M22	382
21111				
21120		-	Conico 1:8	384
21122		-	Filetto a molla With spring	386

N= NEW

cod.		DIN		pag.
21015		-	MD Carbide tip	387
21105		-	MD Carbide grit	388
21106		-	M14	390
03122		-	HEX Keramaster Plus	391
03117		-	HEX Keramaster	392
21104		-	Keramaster	392
03125		-	CIL 6mm	394
03405 03505 03400 03500 03410 03510		-	-	395
03515		-	Special Gres	394

UTENSILI PER IL TAGLIO DEL LEGNO
Wood working cutting tools

cod.		DIN		pag.
05001		~7487	WS	400
05009		-	WS	402
05020 05025		-	WS	401
05200		~7487	HSS	402
05054		-	WS	403
05210 05212		-	WS	404
05030 05033		-	WS	405
05035 05036		-	WS	406

cod.		DIN		pag.
05040 05042 05044		-	WS	406
05037 05038		-	WS	407
05045 05048		-	WS	409
05063		~7483	WS	410
05067		~7483	WS	410
05065		~7483	Metallo duro Carbide tip	410
05058 05060		-	WS Metallo duro	411
05050		-	WS	409
05077		7489	WS	411
05076		-	-	411
05440		-	WS	412
05072 05070		-	WS	412
05432		-	CV	412
05078		-	Metallo duro Carbide tip	430
21100		-	Metallo duro Carbide tip	431
05080		-	WS	432
23405 23410 23415 23400		-	Starlock®	414 415 416 417
23505 23510 23515 23500 23529		-	Universal	418 418 419 419 419

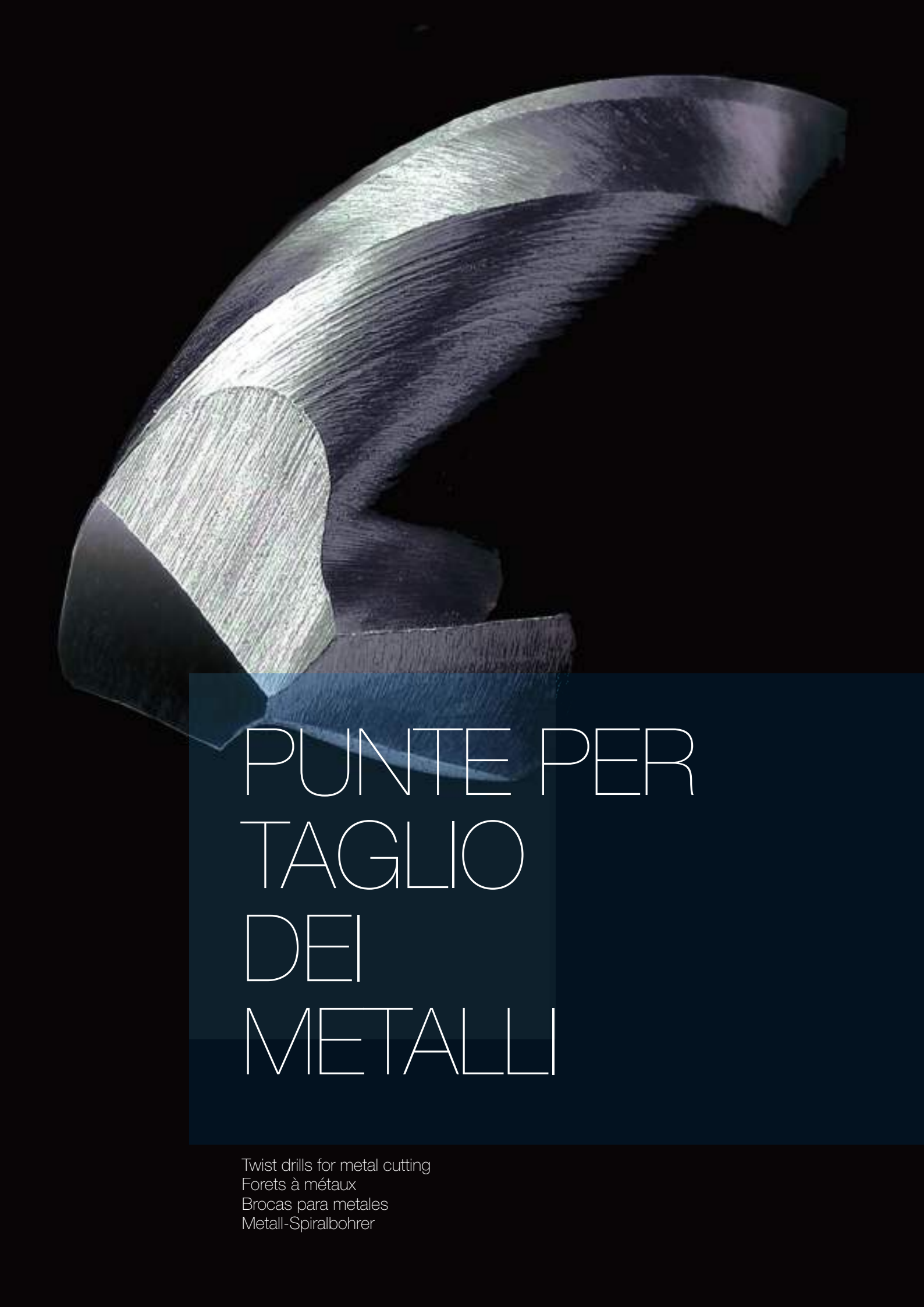
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KRINO CUTTING TOOLS ENGINEERING

Industrial
Professional
High Quality Professional

cod.		DIN		pag.
23600		-	HCS	420
23610			BIM HSS	421
23620			HSS - BIM HSS	422
23630			HCS - HM	423
23700		-	HCS	424
23710			HSS	425
23720		-	BIM HSS	425
23800		-	HCS	426
23810			BIM HSS	427
23815			BIM HSS	428
23820			BIM HSS - HM	429
05400		-		433
05430				
05432				

ACCESSORI
Accessories

	cod.		DIN		pag.
	28150		2185	-	436
	28154		2187	-	436
	28160		-	-	437
	28165		-	-	437
	28158		317 318	-	437 437
	28001		6349	-	438
	28002				438
	28003				438
	28010				438
N	**28004**				439
	2800910		-	SDS PLUS	438
N	**2800710**				439
	2800930		-	SDS PLUS	438
N	**2800730**				440
	2800920		-	1/4 QC	438
	28186100			SDS PLUS	439
	28186200			1/4 QC	439
	28186201			1/4 QC	439
	28186204		-	1/2x20 UNF	439
	28186203			1/2x20 UNF	439
	28186205			3/8x24 UNF	439
	28054		-	Camicia plastica Plastic sleeve	440
	28058				440
	28053		-	Camicia metallica Metal sleeve	440
N	**28055**		-	Camicia metallica Metal sleeve	440
	28051			Griffe MD Carbide jaws	440
	28031		-		441
	28030		-		441
	28032				441
N	**28034**		-		441
	28035				



PUNTE PER TAGLIO DEI METALLI

Twist drills for metal cutting
Forets à métaux
Brocas para metales
Metall-Spiralbohrer

HSS

METALLO DURO
CARBIDE

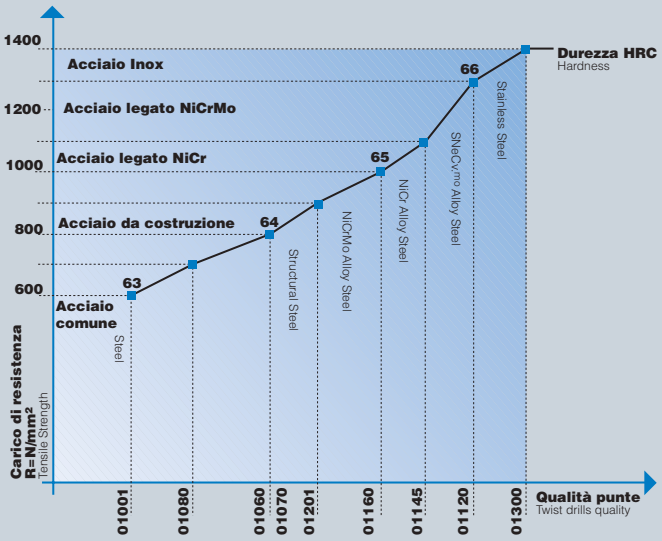
CUTTING TOOLS ENGINEERING

Metal working accounts for over than 60% all process and the great use of strong alloys push our Company to develop 10 models of HSS drills, every one with its own characteristics. Furthermore, in accordance with the international directives about pollution we develop more and more advanced and save tools which allow a real saving and a favorable impact on the environment.

Les perçages des métaux représente le 60% de tous les procès et la grand utilisation des alliages très dures a poussé notre Société au développement de 10 gammes de forets en acier HSS, tous avec leur propres caractéristiques. En outre, en accordance avec les normes internationales en matière de pollution, nous fabriquons des outillages sures et avancés, qui permettent un réel épargne et un favorable impact sur l'environnement.

El corte de los metales representa el 60% de todos los trabajos y la gran utilización de aleaciones muy duras a permitido a nuestra empresa de introducir 10 modelos de brocas HSS. Cada una con su propia caracteristica. Además, con respecto a las directivas internacionales en materia de inquinamento, fabricamos utensilios seguros y avanzados que permiten un real ahorro y un favorable impacto con el ambiente.

Punte per metalli HSS, diagramma dei campi di utilizzo
Table for the selection of metal drills



La lavorazione dei fori nei metalli occupa più del 60% di tutte le lavorazioni per asportazione di truciolo ed è, al tempo stesso, una delle operazione più difficoltose. L'esigenza di aumentare la produttività in queste lavorazioni e l'uso di materiali da forare sempre più duri hanno portato allo sviluppo di leghe di acciaio adeguate alle nuove ed impegnative richieste. La nostra Società, forte di una esperienza più che trentennale nella produzione di utensili per asportazione di truciolo, ha così sviluppato diverse linee di punte per trapano in acciaio superrapido e nuove famiglie di punte in metallo duro integrale, ognuna con caratteristiche proprie, adatte alle necessità industriali, professionali e per il fai da te. Insieme alle esigenze di competitività, che hanno spinto alle condizioni estreme i parametri di taglio, si va sempre più diffondendo una sensibilità ambientale che ha grande influenza sul modo di produrre e vendere i prodotti. Pertanto, mentre la nostra Azienda ottempera alle direttive internazionali sull'inquinamento, ha sviluppato utensili da taglio sempre più qualificati ed avanzati, che permettono un lavoro sicuro, rapido ed efficiente: ciò comporta un effettivo risparmio economico per il nostro cliente, con una benefica ricaduta ambientale.

PUNTE ELICOIDALI AL COBALTO 8%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 8% DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01120





HV ≃ 850÷920
AISI M42
SPLIT POINT
DIN 1412 C
(Ø≥3 mm)

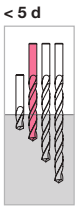
Art. **01121** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*





- L'alta percentuale di Cobalto (e Molibdeno) rende questa punta particolarmente resistente alle sollecitazioni meccaniche e termiche e, pertanto, é adatta alle lavorazioni dell'acciaio inox e degli acciai resistenti al calore, di tutti gli acciai alto legati e delle leghe molto tenaci (Acciai al Ni Cr, hastelloy, nimonic, inconel).
- *High performances in cutting stainless steel, alloy steel up to R ≤ 1400 N/mm².*
- *Pour percer l'acier inox et l'acier allié avec R ≤ 1400 N/mm².*
- *Para taladar acero inox R ≤ 1400 N/mm².*
- *Einsatz: Geeignet für legierte Stähle bis R ≤ 1400 N/mm² Zug-Festigkeit Korrosionsbeständige Stähle (V 2A - V 4A etc.), Säure und Hitzebeständige, Grauguss und Stahlguss.*

Ø h8	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	011200030	6,050
0,35	4	19	10	011200035	6,050
0,4	5	20	10	011200040	6,050
0,45	5	20	10	011200045	6,050
0,5	6	22	10	011200050	4,645
0,55	7	24	10	011200055	4,645
0,6	7	24	10	011200060	4,645
0,65	8	26	10	011200065	4,645
0,7	9	28	10	011200070	4,645
0,75	9	28	10	011200075	4,645
0,8	10	30	10	011200080	4,645
0,85	10	30	10	011200085	4,645
0,9	11	32	10	011200090	4,645
0,95	11	32	10	011200095	4,645
1	12	34	10	011200100	2,273
1,1	14	36	10	011200110	2,506
1,2	16	38	10	011200120	2,506
1,25	16	38	10	011200125	2,506
1,3	16	38	10	011200130	2,506
1,4	18	40	10	011200140	2,506
1,5	18	40	10	011200150	2,273
1,6	20	43	10	011200160	2,506
1,7	20	43	10	011200170	2,506
1,75	22	46	10	011200175	2,506
1,8	22	46	10	011200180	2,506
1,9	22	46	10	011200190	2,506
2	24	49	10	011200200	2,273
2,1	24	49	10	011200210	2,641
2,2	27	53	10	011200220	2,641
2,25	27	53	10	011200225	2,641
2,3	27	53	10	011200230	2,641
2,4	30	57	10	011200240	2,641
2,5	30	57	10	011200250	2,409
2,6	30	57	10	011200260	2,641
2,7	33	61	10	011200270	2,641
2,75	33	61	10	011200275	2,641
2,8	33	61	10	011200280	2,641
2,9	33	61	10	011200290	2,641
3	33	61	10	011200300	2,409
3,1	36	65	10	011200310	3,361
3,2	36	65	10	011200320	3,361
3,25	36	65	10	011200325	3,361
3,3	36	65	10	011200330	3,361
3,4	39	70	10	011200340	3,361
3,5	39	70	10	011200350	3,058
3,6	39	70	10	011200360	3,692
3,7	39	70	10	011200370	3,692
3,75	39	70	10	011200375	3,692
3,8	43	75	10	011200380	3,692
3,9	43	75	10	011200390	3,692
4	43	75	10	011200400	3,361
4,1	43	75	10	011200410	4,229
4,2	43	75	10	011200420	4,229
4,25	43	75	10	011200425	4,229
4,3	47	80	10	011200430	4,229
4,4	47	80	10	011200440	4,229
4,5	47	80	10	011200450	3,850
4,6	47	80	10	011200460	4,498
4,7	47	80	10	011200470	4,498

Ø h8	/	L	pcs	cod.	€ cad/each
4,75	47	80	10	011200475	4,498
4,8	52	86	10	011200480	4,498
4,9	52	86	10	011200490	4,498
5	52	86	10	011200500	4,082
5,1	52	86	10	011200510	6,087
5,2	52	86	10	011200520	6,087
5,25	52	86	10	011200525	6,087
5,3	52	86	10	011200530	6,087
5,4	57	93	10	011200540	6,087
5,5	57	93	10	011200550	5,525
5,6	57	93	10	011200560	6,345
5,7	57	93	10	011200570	6,345
5,75	57	93	10	011200575	6,345
5,8	57	93	10	011200580	6,345
5,9	57	93	10	011200590	6,345
6	57	93	10	011200600	5,769
6,1	63	101	10	011200610	8,042
6,2	63	101	10	011200620	8,042
6,25	63	101	10	011200625	8,042
6,3	63	101	10	011200630	8,042
6,4	63	101	10	011200640	8,042
6,5	63	101	10	011200650	7,641
6,6	63	101	10	011200660	9,436
6,7	63	101	10	011200670	9,436
6,75	69	109	10	011200675	9,436
6,8	69	109	10	011200680	9,436
6,9	69	109	10	011200690	9,436
7	69	109	10	011200700	8,801
7,1	69	109	5	011200710	11,490
7,2	69	109	5	011200720	11,490
7,25	69	109	5	011200725	11,490
7,3	69	109	5	011200730	11,490
7,4	69	109	5	011200740	11,490
7,5	69	109	5	011200750	9,778
7,6	75	117	5	011200760	12,467
7,7	75	117	5	011200770	12,467
7,75	75	117	5	011200775	12,467
7,8	75	117	5	011200780	12,467
7,9	75	117	5	011200790	12,467
8	75	117	5	011200800	11,368
8,1	75	117	5	011200810	13,691
8,2	75	117	5	011200820	13,691
8,25	75	117	5	011200825	13,691
8,3	75	117	5	011200830	13,691
8,4	75	117	5	011200840	13,691
8,5	75	117	5	011200850	12,591
8,6	81	125	5	011200860	16,013
8,7	81	125	5	011200870	16,013
8,75	81	125	5	011200875	16,013
8,8	81	125	5	011200880	16,013
8,9	81	125	5	011200890	16,013
9	81	125	5	011200900	15,156
9,1	81	125	5	011200910	18,640
9,2	81	125	5	011200920	18,640
9,25	81	125	5	011200925	18,640
9,3	81	125	5	011200930	18,640
9,4	81	125	5	011200940	18,640
9,5	81	125	5	011200950	16,134
9,6	87	133	5	011200960	19,495
9,7	87	133	5	011200970	19,495

Ø h8	/	L	pcs	cod.	€ cad/each
9,75	87	133	5	011200975	19,495
9,8	87	133	5	011200980	19,495
9,9	87	133	5	011200990	19,495
10	87	133	5	011201000	18,750
10,1	87	133	5	011201010	22,833
10,2	87	133	5	011201020	22,833
10,25	87	133	5	011201025	22,833
10,3	87	133	5	011201030	22,833
10,4	87	133	5	011201040	22,833
10,5	87	133	5	011201050	21,880
10,6	87	133	5	011201060	26,438
10,7	94	142	5	011201070	26,438
10,75	94	142	5	011201075	26,438
10,8	94	142	5	011201080	26,438
10,9	94	142	5	011201090	26,438
11	94	142	5	011201100	25,242
11,1	94	142	5	011201110	28,726
11,2	94	142	5	011201120	28,726
11,25	94	142	5	011201125	28,726
11,3	94	142	5	011201130	28,726
11,4	94	142	5	011201140	28,726
11,5	94	142	5	011201150	26,770
11,6	94	142	5	011201160	30,008
11,7	94	142	5	011201170	30,008
11,75	94	142	5	011201175	30,008
11,8	94	142	5	011201180	30,008
11,9	101	151	5	011201190	30,008
12	101	151	5	011201200	29,152
12,1	101	151	5	011201210	33,370
12,2	101	151	5	011201220	33,370
12,25	101	151	5	011201225	33,370
12,3	101	151	5	011201230	33,370
12,4	101	151	5	011201240	33,370
12,5	101	151	5	011201250	31,536
12,6	101	151	5	011201260	35,520
12,7	101	151	5	011201270	35,520
12,75	101	151	5	011201275	35,520
12,8	101	151	5	011201280	35,520
12,9	101	151	5	011201290	35,520
13	101	151	5	011201300	33,981
13,25	108	160	3	011201325	51,400
13,5	108	160	3	011201350	51,400
13,75	108	160	3	011201375	51,400
14	108	160	3	011201400	51,400
14,25	114	169	3	011201425	70,333
14,5	114	169	3	011201450	70,333
14,75	114	169	3	011201475	70,333
15	114	169	3	011201500	70,333
15,25	120	178	3	011201525	75,331
15,5	120	178	3	011201550	75,331
15,75	120	178	3	011201575	75,331
16	120	178	3	011201600	75,331
16,5	125	184	1	011201650	91,676
17	125	184	1	011201700	91,676
17,5	130	191	1	011201750	103,899
18	130	191	1	011201800	103,899
18,5	135	198	1	011201850	116,122
19	135	198	1	011201900	116,122
19,5	140	205	1	011201950	132,012
20	140	205	1	011202000	132,012

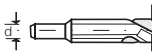
PUNTE ELICOIDALI CILINDRICHE AL COBALTO 8% CON CODOLO RIDOTTO

Cobalt reduced shank twist drills / Forets cylindriques à queue réduite au cobalt
Brocas helicoidales de cobalto con mango reducido / Kobalt-Spiralbohrer mit reduzierten Schaft

HSS-CO 8% DIN 338

01122



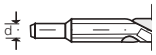


d=10 mm

Art. **01124** Self
Disponibile su richiesta / *On demand*

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	011221025	25,437
10,5	87	133	10	5	011221050	25,437
10,75	94	142	10	5	011221075	29,165
11	94	142	10	5	011221100	29,165
11,25	94	142	10	5	011221125	32,331
11,5	94	142	10	5	011221150	32,331
11,75	94	142	10	5	011221175	35,399
12	101	151	10	5	011221200	35,399
12,25	101	151	10	5	011221225	38,454
12,5	101	151	10	5	011221250	38,454
12,75	101	151	10	5	011221275	41,364
13	101	151	10	5	011221300	41,364
13,25	108	160	10	3	011221325	56,875
13,5	108	160	10	3	011221350	56,875
13,75	108	160	10	3	011221375	56,875
14	108	160	10	3	011221400	56,875
14,25	114	169	10	3	011221425	68,108
14,5	114	169	10	3	011221450	68,108
14,75	114	169	10	3	011221475	68,108
15	114	169	10	3	011221500	68,108
15,25	120	178	10	3	011221525	81,078
15,5	120	178	10	3	011221550	81,078
15,75	120	178	10	3	011221575	81,078
16	120	178	10	3	011221600	81,078
16,5	125	184	10	1	011221650	93,887
17	125	184	10	1	011221700	93,887
17,5	130	191	10	1	011221750	108,421
18	130	191	10	1	011221800	126,083
18,5	135	198	10	1	011221850	126,083
19	135	198	10	1	011221900	126,083
19,5	140	205	10	1	011221950	141,717
20	140	205	10	1	011222000	141,717

01123



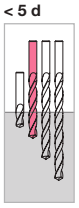
d=13 mm

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	011231325	56,875
13,5	108	160	13	3	011231350	56,875
13,75	108	160	13	3	011231375	56,875
14	108	160	13	3	011231400	56,875
14,25	114	169	13	3	011231425	68,108
14,5	114	169	13	3	011231450	68,108
14,75	114	169	13	3	011231475	68,108
15	114	169	13	3	011231500	68,108
15,25	120	178	13	3	011231525	81,078
15,5	120	178	13	3	011231550	81,078
15,75	120	178	13	3	011231575	81,078
16	120	178	13	3	011231600	81,078
16,5	125	184	13	1	011231650	93,887
17	125	184	13	1	011231700	93,887
17,5	130	191	13	1	011231750	108,421
18	130	191	13	1	011231800	108,421
18,5	135	198	13	1	011231850	124,164
19	135	198	13	1	011231900	124,164
19,5	140	205	13	1	011231950	141,717
20	140	205	13	1	011232000	141,717

Confezione / *Packaging*



< 5 d



PUNTE ELICOIDALI AL COBALTO 8%, SERIE EXTRA CORTA

Cobalt straight shank twist drills, stub serie / Forets au cobalt, série extra courte
Broca de cobalto, serie extra corta / Kobalt Spiralbohrer, extra kurz

HSS-CO 8% DIN 1897



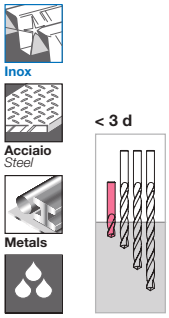


HV ≃ 850÷920
AISI M42
SPLIT POINT
DIN 1412 C

Confezione / *Packaging*



Applicazioni / *Applications*



Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	011260300	2,531
3,25	18	49	10	011260325	3,215
3,5	20	52	10	011260350	3,215
3,75	20	52	10	011260375	3,532
4	22	55	10	011260400	3,532
4,25	22	55	10	011260425	4,047
4,5	24	58	10	011260450	4,047
4,75	24	58	10	011260475	4,290
5	26	62	10	011260500	4,290
5,5	28	66	10	011260550	5,805
6	28	66	10	011260600	6,050

01126



PUNTE ELICOIDALI CILINDRICHE AL COBALTO 8%, SERIE LUNGA

Cobalt long straight shank twist drills / Forets cylindriques série longue au cobalt
Brocas helicoidales serie larga de cobalto / Kobalt Spiralbohrer, lange Ausführung

HSS-CO 8% DIN 340



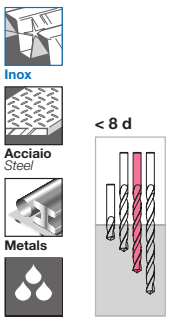


HV ≃ 850÷920
AISI M42
SPLIT POINT
DIN 1412 C

Confezione / *Packaging*

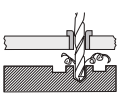


Applicazioni / *Applications*



Ø h8	/	L	pcs	cod.	€ cad/each
3	66	100	10	011280300	5,256
3,25	69	106	10	011280325	5,915
3,5	73	112	10	011280350	5,915
3,75	73	112	10	011280375	7,125
4	78	119	10	011280400	7,125
4,25	78	119	10	011280425	8,495
4,5	82	126	10	011280450	8,495
4,75	82	126	10	011280475	9,314
5	87	132	10	011280500	8,874
5,25	87	132	10	011280525	10,878
5,5	91	139	10	011280550	10,366
5,75	91	139	10	011280575	13,581
6	91	139	10	011280600	12,944
6,5	97	148	5	011280650	15,156
7	102	156	5	011280700	17,539
7,5	102	156	5	011280750	22,308
8	109	165	5	011280800	24,936
8,5	109	165	5	011280850	28,640
9	115	175	5	011280900	32,636
9,5	115	175	5	011280950	37,587
10	121	184	5	011281000	44,274

01128



Industrial

ASSORTIMENTI PUNTE AL COBALTO 8% IN ASTUCCI DI METALLO E ABS DI QUALITÀ

Sets of cobalt twist drills / Assortiments forets au cobalt
Juego brocas de cobalto / Kobalt-geschliffene Spiralbohrersätze

HSS-CO 8% DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01135401 € 108,274



25 pcs
Ø 1÷13 x 0,5 mm
01135402 € 238,216



37 pcs
Ø 1÷10 x 0,25 mm
01135411 € 246,343



49 pcs
Ø 1÷13 x 0,25 mm
01135412 € 548,841

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01135301 € 108,274



25 pcs
Ø 1÷13 x 0,5 mm
01135302 € 238,216



19 pcs
Ø 1÷10 x 0,5 mm
01135250 € 108,274



25 pcs
Ø 1÷13 x 0,5 mm
01135251 € 233,587

Metal



51 pcs
Ø 1÷6 x 0,1 mm
01135403 € 197,304



41 pcs
Ø 6÷10 x 0,1 mm
01135404 € 594,325



91 pcs
Ø 1÷10 x 0,1 mm
01135406 1.023,826

Plastic



91 pcs
Ø 1÷10 x 0,1 mm
01135220 € 696,593



19 pcs
Ø 1÷10 x 0,5 mm
01135101 € 108,274



10 pcs
Ø 1÷10 x 1 mm
01135201 € 61,357



13 pcs
Ø 1,5 - 2 - 2,5 - 3 - 3,3
3,5 - 4 - 4,2 - 4,5 - 5
5,5 - 6 - 6,5
01135203 € 42,112



13 pcs
Ø 2÷8 x 0,5 mm
01135205 € 60,155



6 pcs
Ø 2 - 3 - 4 - 5 - 6 - 8
01135204 € 27,674



19 pcs
Ø 1÷10 x 0,5 mm
01135206 € 108,274

VALIGETTE MAGAZZENO PUNTE AL COBALTO 8%

Cobalt twist drills in metal cases / Forets cobalt en coffret métallique
Surtido de brocas cobalto en caja metalica / Lager Kästen mit Kobalt-geschliffene Spiralbohrersätze

HSS-CO 8% DIN 338



Metal 330x240x55

116 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

01135450 € 460,609



Metal 550x310x55

128 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

01135451 € 800,915

ESPOSITORE DA BANCO-MAGAZZENO PUNTE COBALTO 8%

Cobalt twist drills display / Display forets au cobalt
Expositor brocas de cobalto / Verkaufsschränke für Kobalt Spiralbohrer

HSS-CO 8% DIN 338



Metal 375x240x200

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	10	5,5	10	10	5
1,5	10	6	10	10,5	3
2	10	6,5	5	11	3
2,5	10	7	5	11,5	3
3	10	7,5	5	12	3
3,5	10	8	5	12,5	3
4	10	8,5	5	13	3
4,5	10	9	5		
5	10	9,5	5		

01135501 € 1.223,714



Metal 390x460x230

240 pcs

Ø	pcs	Ø	pcs	Ø	pcs	Ø	pcs
1	10	4,25	10	7,5	5	10,75	2
1,25	5	4,5	10	7,75	2	11	2
1,5	10	4,75	3	8	5	11,25	2
1,75	5	5	10	8,25	2	11,5	2
2	10	5,25	3	8,5	3	11,75	2
2,25	5	5,5	10	8,75	2	12	2
2,5	10	5,75	2	9	3	12,25	2
2,75	5	6	10	9,25	2	12,5	2
3	10	6,25	2	9,5	3	12,75	2
3,25	10	6,5	5	9,75	2	13	2
3,5	10	6,75	2	10	3		
3,75	10	7	5	10,25	2		
4	10	7,25	2	10,5	2		

01135507 € 1.858,492

PUNTE ELICOIDALI AL COBALTO 5%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 5% DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01145





HV ≃ 800÷860
AISI M35
SPLIT POINT
DIN 1412 C
(Ø≥3 mm)

Art. **01144** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*

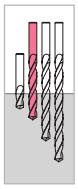


Applicazioni / *Applications*

R ≤ 1200 N/mm²



< 5 d



Ø h8	/	L	pcs	cod.	€ cad/each
0,2	2,5	19	10	011450020	2,435
0,25	3	19	10	011450025	2,435
0,3	3	19	10	011450030	2,435
0,35	4	19	10	011450035	2,435
0,4	5	20	10	011450040	2,435
0,45	5	20	10	011450045	2,435
0,5	6	22	10	011450050	2,435
0,55	7	24	10	011450055	2,435
0,6	7	24	10	011450060	2,435
0,65	8	26	10	011450065	2,435
0,7	9	28	10	011450070	2,435
0,75	9	28	10	011450075	2,435
0,8	10	30	10	011450080	2,435
0,85	10	30	10	011450085	2,435
0,9	11	32	10	011450090	2,435
0,95	11	32	10	011450095	2,435
1	12	34	10	011450100	1,555
1,1	14	36	10	011450110	1,724
1,2	16	38	10	011450120	1,724
1,25	16	38	10	011450125	1,724
1,3	16	38	10	011450130	1,724
1,4	18	40	10	011450140	1,724
1,5	18	40	10	011450150	1,555
1,6	20	43	10	011450160	1,645
1,7	20	43	10	011450170	1,645
1,75	22	46	10	011450175	1,645
1,8	22	46	10	011450180	1,645
1,9	22	46	10	011450190	1,645
2	24	49	10	011450200	1,499
2,1	24	49	10	011450210	1,826
2,2	27	53	10	011450220	1,826
2,25	27	53	10	011450225	1,826
2,3	27	53	10	011450230	1,826
2,4	30	57	10	011450240	1,826
2,5	30	57	10	011450250	1,578
2,6	30	57	10	011450260	1,736
2,7	33	61	10	011450270	1,736
2,75	33	61	10	011450275	1,736
2,8	33	61	10	011450280	1,736
2,9	33	61	10	011450290	1,736
3	33	61	10	011450300	1,578
3,1	36	65	10	011450310	2,163
3,2	36	65	10	011450320	2,163
3,25	36	65	10	011450325	2,163
3,3	36	65	10	011450330	2,163
3,4	39	70	10	011450340	2,163
3,5	39	70	10	011450350	1,961
3,6	39	70	10	011450360	2,558
3,7	39	70	10	011450370	2,558
3,75	39	70	10	011450375	2,558
3,8	43	75	10	011450380	2,558
3,9	43	75	10	011450390	2,558
4	43	75	10	011450400	2,333
4,1	43	75	10	011450410	2,941
4,2	43	75	10	011450420	2,941
4,25	43	75	10	011450425	2,941
4,3	47	80	10	011450430	2,941
4,4	47	80	10	011450440	2,941
4,5	47	80	10	011450450	2,672
4,6	47	80	10	011450460	3,100
4,7	47	80	10	011450470	3,100
4,75	47	80	10	011450475	3,100
4,8	52	86	10	011450480	3,100
4,9	52	86	10	011450490	3,100
5	52	86	10	011450500	2,819
5,1	52	86	10	011450510	3,776
5,2	52	86	10	011450520	3,776
5,25	52	86	10	011450525	3,776
5,3	52	86	10	011450530	3,776
5,4	57	93	10	011450540	3,776
5,5	57	93	10	011450550	3,595
5,6	57	93	10	011450560	4,351
5,7	57	93	10	011450570	4,351
5,75	57	93	10	011450575	4,351
5,8	57	93	10	011450580	4,351
5,9	57	93	10	011450590	4,351
6	57	93	10	011450600	3,990
6,1	63	101	10	011450610	5,127
6,2	63	101	10	011450620	5,127
6,25	63	101	10	011450625	5,127
6,3	63	101	10	011450630	5,127
6,4	63	101	10	011450640	5,127
6,5	63	101	10	011450650	4,745
6,6	63	101	10	011450660	6,267
6,7	63	101	10	011450670	6,267
6,75	69	109	10	011450675	6,267
6,8	69	109	10	011450680	6,267
6,9	69	109	10	011450690	6,267
7	69	109	10	011450700	5,794
7,1	69	109	5	011450710	6,988
7,2	69	109	5	011450720	6,988
7,25	69	109	5	011450725	6,988
7,3	69	109	5	011450730	6,988
7,4	69	109	5	011450740	6,988
7,5	69	109	5	011450750	6,357
7,6	75	117	5	011450760	8,229
7,7	75	117	5	011450770	8,229
7,75	75	117	5	011450775	8,229
7,8	75	117	5	011450780	8,229
7,9	75	117	5	011450790	8,229
8	75	117	5	011450800	7,483
8,1	75	117	5	011450810	8,713
8,2	75	117	5	011450820	8,713
8,25	75	117	5	011450825	8,713
8,3	75	117	5	011450830	8,713
8,4	75	117	5	011450840	8,713
8,5	75	117	5	011450850	7,923
8,6	81	125	5	011450860	10,651

- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

Ø h8	/	L	pcs	cod.	€ cad/each
8,7	81	125	5	011450870	10,651
8,75	81	125	5	011450875	10,651
8,8	81	125	5	011450880	10,651
8,9	81	125	5	011450890	10,651
9	81	125	5	011450900	9,682
9,1	81	125	5	011450910	11,146
9,2	81	125	5	011450920	11,146
9,25	81	125	5	011450925	11,146
9,3	81	125	5	011450930	11,146
9,4	81	125	5	011450940	11,146
9,5	81	125	5	011450950	10,133
9,6	87	133	5	011450960	12,939
9,7	87	133	5	011450970	12,939
9,75	87	133	5	011450975	12,939
9,8	87	133	5	011450980	12,939
9,9	87	133	5	011450990	12,939
10	87	133	5	011451000	11,766
10,1	87	133	5	011451010	15,407
10,2	87	133	5	011451020	15,407
10,25	87	133	5	011451025	15,407
10,3	87	133	5	011451030	15,407
10,4	87	133	5	011451040	15,407
10,5	87	133	5	011451050	14,009
10,6	87	133	5	011451060	17,425
10,7	94	142	5	011451070	17,425
10,75	94	142	5	011451075	17,425
10,8	94	142	5	011451080	17,425
10,9	94	142	5	011451090	17,425
11	94	142	5	011451100	15,836
11,1	94	142	5	011451110	18,991
11,2	94	142	5	011451120	18,991
11,25	94	142	5	011451125	18,991
11,3	94	142	5	011451130	18,991
11,4	94	142	5	011451140	18,991
11,5	94	142	5	011451150	17,267
11,6	94	142	5	011451160	20,908
11,7	94	142	5	011451170	20,908
11,75	94	142	5	011451175	20,908
11,8	94	142	5	011451180	20,908
11,9	101	151	5	011451190	20,908
12	101	151	5	011451200	19,003
12,1	101	151	5	011451210	22,610
12,2	101	151	5	011451220	22,610
12,25	101	151	5	011451225	22,610
12,3	101	151	5	011451230	22,610
12,4	101	151	5	011451240	22,610
12,5	101	151	5	011451250	20,558
12,6	101	151	5	011451260	24,629
12,7	101	151	5	011451270	24,629
12,75	101	151	5	011451275	24,629
12,8	101	151	5	011451280	24,629
12,9	101	151	5	011451290	24,629
13	101	151	5	011451300	22,384
13,1	101	151	3	011451310	35,505
13,2	101	151	3	011451320	35,505
13,25	108	160	3	011451325	35,505
13,3	108	160	3	011451330	35,505
13,4	108	160	3	011451340	35,505
13,5	108	160	3	011451350	35,505
13,6	108	160	3	011451360	37,419
13,7	108	160	3	011451370	37,419
13,75	108	160	3	011451375	37,419
13,8	108	160	3	011451380	37,419
13,9	108	160	3	011451390	37,419
14	108	160	3	011451400	37,419
14,1	108	160	3	011451410	41,276
14,2	114	169	3	011451420	41,276
14,25	114	169	3	011451425	41,276
14,3	114	169	3	011451430	41,276
14,4	114	169	3	011451440	41,276
14,5	114	169	3	011451450	41,276
14,6	114	169	3	011451460	43,394
14,7	114	169	3	011451470	43,394
14,75	114	169	3	011451475	43,394
14,8	114	169	3	011451480	43,394
14,9	114	169	3	011451490	43,394
15	114	169	3	011451500	43,394
15,1	120	178	3	011451510	43,394
15,2	120	178	3	011451520	43,394
15,25	120	178	3	011451525	43,394
15,3	120	178	3	011451530	49,932
15,4	120	178	3	011451540	49,932
15,5	120	178	3	011451550	49,932
15,6	120	178	3	011451560	49,932
15,7	120	178	3	011451570	49,932
15,75	120	178	3	011451575	51,136
15,8	120	178	3	011451580	51,136
15,9	120	178	3	011451590	51,136
16	120	178	3	011451600	51,136
16,25	125	184	1	011451625	52,016
16,5	125	184	1	011451650	52,016
16,75	125	184	1	011451675	52,016
17	125	184	1	011451700	52,016
17,25	130	191	1	011451725	67,514
17,5	130	191	1	011451750	67,514
17,75	130	191	1	011451775	67,514
18	130	191	1	011451800	67,514
18,25	135	198	1	011451825	77,522
18,5	135	198	1	011451850	77,522
18,75	135	198	1	011451875	77,522
19	135	198	1	011451900	77,522
19,25	140	205	1	011451925	89,561
19,5	140	205	1	011451950	89,561
19,75	140	205	1	011451975	89,561
20	140	205	1	011452000	89,561

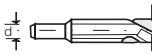
PUNTE ELICOIDALI AL COBALTO 5% CON CODOLO RIDOTTO, ESECUZIONE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 5% DIN 338

01147





d=10 mm

Art. **01151** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 1200 N/mm²



Inox



Acciaio
Steel



Metals



Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	011471025	18,158
10,5	87	133	10	5	011471050	16,746
10,75	94	142	10	5	011471075	20,198
11	94	142	10	5	011471100	18,590
11,25	94	142	10	5	011471125	21,779
11,5	94	142	10	5	011471150	20,037
11,75	94	142	10	5	011471175	23,715
12	101	151	10	5	011471200	21,792
12,25	101	151	10	5	011471225	25,447
12,5	101	151	10	5	011471250	23,363
12,75	101	151	10	5	011471275	27,475
13	101	151	10	5	011471300	25,208
13,25	108	160	10	3	011471325	39,073
13,5	108	160	10	3	011471350	39,073
13,75	108	160	10	3	011471375	40,096
14	108	160	10	3	011471400	40,096
14,25	114	169	10	3	011471425	45,337
14,5	114	169	10	3	011471450	45,337
14,75	114	169	10	3	011471475	46,817
15	114	169	10	3	011471500	46,817
15,25	120	178	10	3	011471525	54,450
15,5	120	178	10	3	011471550	54,450
15,75	120	178	10	3	011471575	56,408
16	120	178	10	3	011471600	56,408
16,5	125	184	10	1	011471650	57,296
17	125	184	10	1	011471700	57,296
17,5	130	191	10	1	011471750	73,757
18	130	191	10	1	011471800	73,757
18,5	135	198	10	1	011471850	84,658
19	135	198	10	1	011471900	84,658
19,5	140	205	10	1	011471950	98,475
20	140	205	10	1	011472000	98,475

- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm2, in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

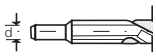
PUNTE ELICOIDALI AL COBALTO 5% CON CODOLO RIDOTTO, ESECUZIONE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 5% DIN 338

01146





Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	011461325	39,073
13,5	108	160	13	3	011461350	39,073
13,75	108	160	13	3	011461375	40,096
14	108	160	13	3	011461400	40,096
14,25	114	169	13	3	011461425	45,337
14,5	114	169	13	3	011461450	45,337
14,75	114	169	13	3	011461475	46,817
15	114	169	13	3	011461500	46,817
15,25	120	178	13	3	011461525	54,450
15,5	120	178	13	3	011461550	54,450
15,75	120	178	13	3	011461575	56,408
16	120	178	13	3	011461600	56,408
16,5	125	184	13	1	011461650	57,296
17	125	184	13	1	011461700	57,296
17,5	130	191	13	1	011461750	73,757
18	130	191	13	1	011461800	73,757
18,5	135	198	13	1	011461850	84,658
19	135	198	13	1	011461900	84,658
19,5	140	205	13	1	011461950	98,475
20	140	205	13	1	011462000	98,475
20,5	145	213	13	1	011462050	102,473
21	145	213	13	1	011462100	102,473
21,5	150	221	13	1	011462150	103,860
22	150	221	13	1	011462200	103,860
22,5	150	221	13	1	011462250	111,551
23	155	229	13	1	011462300	111,551
23,5	155	229	13	1	011462350	120,348
24	160	236	13	1	011462400	120,348
24,5	160	236	13	1	011462450	129,502
25	160	236	13	1	011462500	129,502

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 1200 N/mm²



Inox



Acciaio
Steel



Metals



- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

PUNTE ELICOIDALI AL COBALTO 5%, SERIE EXTRA CORTA

Cobalt straight shank twist drills, stub serie / Forets au cobalt, série extra courte
Broca de cobalto, serie extra corta / Kobalt Spiralbohrer, extra kurz

HSS-CO 5% DIN 1897

Extra corta
Extra short

01149





HV ≃ 800÷860
AISI M35
SPLIT POINT
DIN 1412 C

Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	011490300	2,122
3,2	18	49	10	011490320	2,457
3,25	18	49	10	011490325	2,699
3,5	20	52	10	011490350	2,699
3,75	20	52	10	011490375	2,975
4	22	55	10	011490400	2,975
4,2	22	55	10	011490420	3,166
4,25	22	55	10	011490425	3,393
4,5	24	58	10	011490450	3,393
4,75	24	58	10	011490475	3,609
5	26	62	10	011490500	3,609
5,25	26	62	10	011490525	3,939
5,5	28	66	10	011490550	4,904
5,75	28	66	10	011490575	5,096
6	28	66	10	011490600	5,096
6,5	31	70	10	011490650	5,313
7	34	74	10	011490700	6,420
7,5	34	74	5	011490750	7,372
8	37	79	5	011490800	9,095
8,5	37	79	5	011490850	9,522
9	40	84	5	011490900	11,087
9,5	40	84	5	011490950	12,150
10	43	89	5	011491000	14,677

NORMA KRINO HSS-CO 5%

Super corta
Super short

01051





HV ≃ 800÷860
AISI M35
SPLIT POINT
DIN 1412 C

Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010510300	1,440
3,25	19	40	10	010510325	1,440
3,5	19	40	10	010510350	1,440
3,75	19	40	10	010510375	2,049
4	20	40	10	010510400	2,165
4,25	20	40	10	010510425	2,353
4,5	23	42	10	010510450	2,722
5	23	45	10	010510500	3,016

Super corta - *Super short*

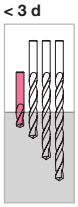


Confezione / *Packaging*



Applicazioni / *Applications*





Punte speciali per la foratura di lamiere e tubi in acciaio inox e lamiere metalliche in genere (acciaio, ferro, rame). Speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori.
Super short twist drills for cutting stainless metal sheets. Special for journeymen's, carpenters, locksmith's, tinsmith's.



PUNTE ELICOIDALI AL COBALTO 5%, SERIE EXTRA CORTA

Cobalt straight shank twist drills, stub serie / Forets au cobalt, série extra courte
Broca de cobalto, serie extra corta / Kobalt Spiralbohrer, extra kurz

HSS-CO 5%

Elica contrapposta
Double ended

01148





Ø h8	/	L	pcs	cod.	€ cad/each
2	10	38	10	011480200	2,860
2,5	10	43	10	011480250	2,860
3	10	46	10	011480300	2,860
3,25	10	49	10	011480325	3,656
3,5	12	52	10	011480350	3,312
3,75	12	55	10	011480375	3,919
4	12	55	10	011480400	3,551
4,1	12	55	10	011480410	4,390
4,25	12	58	10	011480425	4,390
4,5	12	58	10	011480450	4,003
4,75	13	62	10	011480475	5,145
4,9	13	62	10	011480490	4,683
5	13	62	10	011480500	4,683
5,1	13	62	10	011480510	5,668
5,5	16	66	10	011480550	5,668
6	16	66	10	011480600	6,705



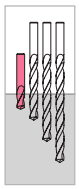
Confezione / *Packaging*



Applicazioni / *Applications*



< 3 d



PUNTE ELICOIDALI CILINDRICHE AL COBALTO 5%, SERIE LUNGA

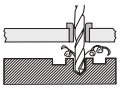
Cobalt long straight shank twist drills / Forets cylindriques série longue au cobalt
Brocas helicoidales serie larga de cobalto / Kobalt Spiralbohrer, lange Ausführung

HSS-CO 5% DIN 340

01152





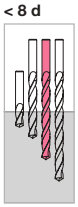


Confezione / *Packaging*



Applicazioni / *Applications*





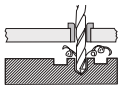
Ø h8	/	L	pcs	cod.	€ cad/each
1	33	56	10	011520100	1,560
1,5	45	70	10	011520150	1,560
1,75	53	80	10	011520175	1,898
2	56	85	10	011520200	3,257
2,25	59	90	10	011520225	2,512
2,5	62	95	10	011520250	3,807
2,75	66	100	10	011520275	3,791
3	66	100	10	011520300	4,077
3,25	69	106	10	011520325	4,544
3,5	73	112	10	011520350	4,544
3,75	73	112	10	011520375	5,684
4	78	119	10	011520400	5,684
4,25	78	119	10	011520425	6,786
4,5	82	126	10	011520450	6,786
4,75	82	126	10	011520475	7,206
5	87	132	10	011520500	7,206
5,25	87	132	10	011520525	9,029
5,5	91	139	10	011520550	9,029
5,75	91	139	10	011520575	9,736
6	91	139	10	011520600	9,736
6,25	97	148	5	011520625	11,654
6,5	97	148	5	011520650	11,654
6,75	97	148	5	011520675	13,538
7	102	156	5	011520700	13,538
7,25	102	156	5	011520725	14,724
7,5	102	156	5	011520750	14,724
7,75	109	165	5	011520775	17,386
8	109	165	5	011520800	17,386
8,25	109	165	5	011520825	18,465
8,5	109	165	5	011520850	18,465
8,75	115	175	5	011520875	21,583
9	115	175	5	011520900	21,583
9,25	115	175	5	011520925	23,921
9,5	115	175	5	011520950	23,921
9,75	121	184	5	011520975	27,818
10	121	184	5	011521000	27,818
10,25	121	184	5	011521025	30,160
10,5	121	184	5	011521050	32,988
10,75	128	195	5	011521075	33,473
11	128	195	5	011521100	38,036
11,25	128	195	5	011521125	36,396
11,5	128	195	5	011521150	41,391
11,75	134	205	5	011521175	42,025
11,8	134	205	5	011521180	42,025
12	134	205	5	011521200	47,789
12,25	134	205	5	011521225	45,170
12,5	134	205	5	011521250	51,363
12,75	134	205	5	011521275	48,346
13	134	205	5	011521300	54,969
13,5	140	214	3	011521350	62,421
14	140	214	3	011521400	62,421
14,5	144	220	3	011521450	70,443
15	144	220	3	011521500	70,443
15,5	149	227	3	011521550	83,045
16	149	227	3	011521600	83,045
16,5	154	235	1	011521650	95,159
17	154	235	1	011521700	95,159
17,5	158	241	1	011521750	109,717
18	158	241	1	011521800	109,717
18,5	162	247	1	011521850	136,696
19	162	247	1	011521900	136,696
19,5	166	254	1	011521950	156,370
20	166	254	1	011522000	156,370

PUNTE ELICOIDALI CILINDRICHE AL COBALTO 5%, SERIE EXTRA LUNGA

Cobalt extra long straight shank twist drills / Forets cylindriques série extra longue au cobalt
Brocas helicoidales serie extra larga de cobalto / Kobalt Spiralbohrer, extra lange Ausführung

HSS-CO 5% Parabolic





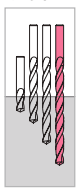
Confezione / *Packaging*



Applicazioni / *Applications*



< 10 d



DIN 1869/1

01376

Ø h8	/	L	pcs	cod.	€ cad/each
3	100	150	1	013760300	33,168
3,5	115	165	1	013760350	33,168
4	120	175	1	013760400	33,874
4,5	125	185	1	013760450	35,187
5	135	195	1	013760500	27,118
5,5	140	205	1	013760550	31,412
6	140	205	1	013760600	31,802
6,5	150	215	1	013760650	39,248
7	155	225	1	013760700	44,996
7,5	155	225	1	013760750	48,151
8	165	240	1	013760800	44,806
8,5	165	240	1	013760850	59,141
9	175	250	1	013760900	60,582
9,5	175	250	1	013760950	71,980
10	185	265	1	013761000	65,577

DIN 1869/2

01377

Ø h8	/	L	pcs	cod.	€ cad/each
3	130	190	1	013770300	47,391
3,5	145	210	1	013770350	41,847
4	150	220	1	013770400	42,820
4,5	160	235	1	013770450	45,980
5	170	245	1	013770500	43,882
5,5	180	260	1	013770550	47,858
6	180	260	1	013770600	45,185
6,5	190	275	1	013770650	67,665
7	200	290	1	013770700	71,672
7,5	200	290	1	013770750	75,450
8	210	305	1	013770800	75,151
8,5	210	305	1	013770850	82,118
9	220	320	1	013770900	78,942
9,5	220	320	1	013770950	91,152
10	235	340	1	013771000	76,512

DIN 1869/3

01378

Ø h8	/	L	pcs	cod.	€ cad/each
3	160	240	1	013780300	61,614
3,5	180	265	1	013780350	54,441
4	190	280	1	013780400	55,700
4,5	200	295	1	013780450	59,768
5	210	315	1	013780500	60,311
5,5	225	330	1	013780550	59,008
6	225	330	1	013780600	56,788
6,5	235	350	1	013780650	83,382
7	250	370	1	013780700	88,376
7,5	250	370	1	013780750	92,990
8	265	390	1	013780800	89,570
8,5	265	390	1	013780850	106,805
9	280	410	1	013780900	97,333
9,5	280	410	1	013780950	123,065
10	295	430	1	013781000	119,228
10,5	295	430	1	013781050	138,575
11	310	455	1	013781100	187,822
11,5	310	455	1	013781150	206,903
12	330	480	1	013781200	208,661
12,5	330	480	1	013781250	208,661
13	330	480	1	013781300	220,814

PUNTE ELICOIDALI AL COBALTO 5% CODOLO CONICO MORSE

Cobalt morse taper shank twist drills / Forets à queue conique morse au cobalt
Brocas helicoidales de cobalto con mango conico / Cobalt Spiralbohrer mit Morsekegel

HSS-CO 5% DIN 345

01150



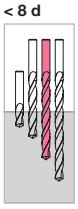


Confezione / *Packaging*



Applicazioni / *Applications*





- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non, con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

Fresata / *Milled / Fraisé / Fresada / Gefräst*

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
7	1	69	150	1	011500700	43,242
7,5	1	69	150	1	011500750	43,242
8	1	75	156	1	011500800	43,242
8,5	1	75	156	1	011500850	43,242
9	1	81	162	1	011500900	43,242
9,5	1	81	162	1	011500950	43,242
10	1	87	168	1	011501000	43,242
10,25	1	87	168	1	011501025	43,242
10,5	1	87	168	1	011501050	43,242
10,75	1	94	175	1	011501075	43,242
11	1	94	175	1	011501100	43,242
11,25	1	94	175	1	011501125	43,242
11,5	1	94	175	1	011501150	43,242
11,75	1	94	175	1	011501175	43,242
12	1	101	182	1	011501200	43,242
12,25	1	101	182	1	011501225	45,716
12,5	1	101	182	1	011501250	45,716
12,75	1	101	182	1	011501275	45,716
13	1	101	182	1	011501300	45,716
13,25	1	108	189	1	011501325	49,972
13,5	1	108	189	1	011501350	49,972
13,75	1	108	189	1	011501375	53,435
14	1	108	189	1	011501400	53,435
14,25	2	114	212	1	011501425	62,814
14,5	2	114	212	1	011501450	62,814
14,75	2	114	212	1	011501475	63,506
15	2	114	212	1	011501500	63,506
15,25	2	120	218	1	011501525	69,089
15,5	2	120	218	1	011501550	69,089
15,75	2	120	218	1	011501575	69,089
16	2	120	218	1	011501600	69,089
16,25	2	125	223	1	011501625	74,016
16,5	2	125	223	1	011501650	74,016
16,75	2	125	223	1	011501675	74,016
17	2	125	223	1	011501700	74,016
17,25	2	130	228	1	011501725	76,736
17,5	2	130	228	1	011501750	76,736
17,75	2	130	228	1	011501775	76,736
18	2	130	228	1	011501800	76,736
18,25	2	135	233	1	011501825	81,596
18,5	2	135	233	1	011501850	81,596
18,75	2	135	233	1	011501875	81,596
19	2	135	233	1	011501900	81,596
19,25	2	140	238	1	011501925	94,883
19,5	2	140	238	1	011501950	94,883
19,75	2	140	238	1	011501975	94,883
20	2	140	238	1	011502000	94,883
20,25	2	145	243	1	011502025	113,794
20,5	2	145	243	1	011502050	113,794
20,75	2	145	243	1	011502075	116,861
21	2	145	243	1	011502100	116,861
21,25	2	150	248	1	011502125	127,766
21,5	2	150	248	1	011502150	127,766
21,75	2	150	248	1	011502175	127,766
22		150	248	1	011502200	127,766

PUNTE ELICOIDALI AL COBALTO 5% CODOLO CONICO MORSE

Cobalt morse taper shank twist drills / Forets à queue conique morse au cobalt
Brocas helicoidales de cobalto con mango conico / Cobalt Spiralbohrer mit Morsekegel

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
22,25	2	155	248	1	011502225	134,840
22,5	2	155	253	1	011502250	134,840
22,75	2	155	253	1	011502275	146,713
23	2	155	253	1	011502300	146,713
23,25	2	155	276	1	011502325	149,088
23,5		155	276	1	011502350	149,088
23,75	3	160	281	1	011502375	163,269
24	3	160	281	1	011502400	163,269
24,25	3	160	281	1	011502425	167,988
24,5	3	160	281	1	011502450	167,988
24,75	3	160	281	1	011502475	167,988
25	3	160	281	1	011502500	167,988
25,25	3	165	286	1	011502525	189,302
25,5	3	165	286	1	011502550	189,302
25,75	3	165	286	1	011502575	191,678
26	3	165	286	1	011502600	191,678
26,25	3	165	286	1	011502625	194,003
26,5	3	165	286	1	011502650	194,003
26,75	3	170	291	1	011502675	205,847
27	3	170	291	1	011502700	205,847
27,25	3	170	291	1	011502725	212,933
27,5	3	170	291	1	011502750	212,933
27,75	3	170	291	1	011502775	212,933
28	3	170	291	1	011502800	212,933
28,25	3	175	296	1	011502825	227,805
28,5	3	175	296	1	011502850	227,805
28,75	3	175	296	1	011502875	231,862
29	3	175	296	1	011502900	231,862
29,25	3	175	296	1	011502925	231,862
29,5	3	175	296	1	011502950	231,862
29,75	3	175	296	1	011502975	243,676
30	3	175	296	1	011503000	243,676
30,25	3	180	301	1	011503025	295,463
30,5	3	180	301	1	011503050	295,463
30,75	3	180	301	1	011503075	295,463
31	3	180	301	1	011503100	295,463
31,25	3	180	301	1	011503125	317,672
31,5	3	180	301	1	011503150	317,672
31,75	3	185	306	1	011503175	317,672
32	3	185	334	1	011503200	317,672
32,25	4	185	334	1	011503225	333,016
32,5	4	185	334	1	011503250	333,016
32,75	4	185	334	1	011503275	333,016
33	4	185	334	1	011503300	333,016
33,25	4	185	334	1	011503325	361,496
33,5	4	185	334	1	011503350	361,496
33,75	4	185	334	1	011503375	361,496
34	4	190	339	1	011503400	361,496
34,25	4	190	339	1	011503425	374,641
34,5	4	190	339	1	011503450	374,641
34,75	4	190	339	1	011503475	374,641
35	4	190	339	1	011503500	374,641
35,25	4	190	339	1	011503525	420,643
35,5	4	190	339	1	011503550	420,643
35,75	4	190	339	1	011503575	420,643
36	4	195	344	1	011503600	420,643

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
36,25	4	195	344	1	011503625	448,028
36,5	4	195	344	1	011503650	448,028
36,75	4	195	344	1	011503675	448,028
37	4	195	344	1	011503700	448,028
37,25	4	195	344	1	011503725	481,987
37,5	4	195	344	1	011503750	481,987
37,75	4	195	344	1	011503775	481,987
38	4	200	349	1	011503800	481,987
38,25	4	200	349	1	011503825	566,342
38,5	4	200	349	1	011503850	566,342
38,75	4	200	349	1	011503875	566,342
39	4	200	349	1	011503900	566,342
39,25	4	200	349	1	011503925	566,342
39,5	4	200	349	1	011503950	566,342
39,75	4	200	349	1	011503975	566,342
40	4	200	349	1	011504000	566,342
40,5	4	205	354	1	011504050	590,082
41	4	205	354	1	011504100	651,326
41,5	4	205	354	1	011504150	651,326
42	4	205	354	1	011504200	679,167
42,5	4	205	354	1	011504250	679,167
43	4	210	359	1	011504300	745,920
43,5	4	210	359	1	011504350	745,920
44	4	210	359	1	011504400	762,661
44,5	4	210	359	1	011504450	762,661
45	4	210	359	1	011504500	812,754
45,5	4	215	364	1	011504550	812,754
46	4	215	364	1	011504600	818,334
46,5	4	215	364	1	011504650	818,334
47	4	215	364	1	011504700	868,417
47,5	4	215	364	1	011504750	868,417
48	4	220	369	1	011504800	946,330
48,5	4	220	369	1	011504850	946,330
49	4	220	369	1	011504900	968,592
49,5	4	220	369	1	011504950	968,592
50	4	220	369	1	011505000	990,843
50,5	4	225	374	1	011505050	990,843
51	4	225	412	1	011505100	1.208,430
51,5	5	225	412	1	011505150	1.208,430
52	5	225	412	1	011505200	1.257,136
52,5	5	225	412	1	011505250	1.257,136
53	5	225	412	1	011505300	1.275,701
53,5	5	230	417	1	011505350	1.275,701
54	5	230	417	1	011505400	1.368,472
54,5	5	230	417	1	011505450	1.368,472
55	5	230	417	1	011505500	1.391,665
55,5	5	230	417	1	011505550	1.391,665
56	5	230	417	1	011505600	1.391,665
56,5	5	235	422	1	011505650	1.391,665
57	5	235	422	1	011505700	1.475,170
57,5	5	235	422	1	011505750	1.475,170
58	5	235	422	1	011505800	1.558,674
58,5	5	235	422	1	011505850	1.558,674
59	5	235	422	1	011505900	1.558,674
59,5	5	235	422	1	011505950	1.614,337
60	5	235	422	1	011506000	1.614,337

Industrial

ASSORTIMENTI PUNTE AL COBALTO 5% IN ASTUCCI DI METALLO E ABS DI QUALITÀ

Sets of cobalt twist drills / Assortiments forets au cobalt
Juego brocas de cobalto / Kobalt-geschliffene Spiralbohrersätze

HSS-CO 5% DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01155401 € 79,060



25 pcs
Ø 1÷13 x 0,5 mm
01155402 € 158,120



37 pcs
Ø 1÷10 x 0,25 mm
01155411 € 178,746



49 pcs
Ø 1÷13 x 0,25 mm
01155412 € 388,423

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01155301 € 79,060



25 pcs
Ø 1÷13 x 0,5 mm
01155302 € 158,120



19 pcs
Ø 1÷10 x 0,5 mm
01155250 € 79,060



25 pcs
Ø 1÷13 x 0,5 mm
01155251 € 158,120

Metal



51 pcs
Ø 1÷6 x 0,1 mm
01155403 € 120,311



41 pcs
Ø 6÷10 x 0,1 mm
01155404 € 326,556



91 pcs
Ø 1÷10 x 0,1 mm
01155410 € 558,005

Plastic



91 pcs
Ø 1÷10 x 0,1 mm
01155220 € 443,424



19 pcs
Ø 1÷10 x 0,5 mm
01155101 € 79,060



10 pcs
Ø 1÷10 x 1 mm
01155201 € 45,827



13 pcs
Ø 1,5 - 2 - 2,5 - 3 - 3,3
3,5 - 4 - 4,2 - 4,5 - 5
5,5 - 6 - 6,5
01155203 € 30,933



13 pcs
Ø 2÷8 x 0,5 mm
01155205 € 43,540



6 pcs
Ø 2 - 3 - 4 - 5 - 6 - 8
01155204 € 20,054



19 pcs
Ø 1÷10 x 0,5 mm
01155206 € 79,060

VALIGETTE MAGAZZENO PUNTE AL COBALTO 5%

Cobalt 5% twist drills in metal cases / Forets cobalt 5% en coffret métallique
Surtido de brocas cobalto 5% en caja metalica / Lager Kästen mit Kobalt-geschliffene Spiralbohrersätze

HSS-CO 5% DIN 338



Metal 330x240x55

116 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

01155450 € 327,701



Metal 550x310x55

128 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

01155451 € 640,497

ESPOSITORE DA BANCO-MAGAZZENO PUNTE COBALTO 5%

5% Cobalt twist drills display / Display forets au cobalt 5%
Expositor brocas de cobalto 5% / Verkaufsschränke für Kobalt 5% Spiralbohrer

HSS-CO 5% DIN 338



Metal 375x240x200

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	10	5,5	10	10	5
1,5	10	6	10	10,5	3
2	10	6,5	5	11	3
2,5	10	7	5	11,5	3
3	10	7,5	5	12	3
3,5	10	8	5	12,5	3
4	10	8,5	5	13	3
4,5	10	9	5		
5	10	9,5	5		

01155501 € 939,553



Metal 390x460x230

255 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs	Ø	pcs
1	10	4,25	10	7,5	5	10,75	2
1,25	5	4,5	10	7,75	2	11	3
1,5	10	4,75	3	8	5	11,25	2
1,75	5	5	10	8,25	2	11,5	3
2	10	5,25	3	8,5	5	11,75	2
2,25	5	5,5	10	8,75	2	12	3
2,5	10	5,75	3	9	5	12,25	2
2,75	5	6	10	9,25	2	12,5	3
3	10	6,25	2	9,5	5	12,75	2
3,25	10	6,5	5	9,75	2	13	3
3,5	10	6,75	2	10	5		
3,75	10	7	5	10,25	2		
4	10	7,25	2	10,5	3		

01155507 € 1.576,618

PUNTE ELICOIDALI CON AFFILATURA A CROCE ED ELICA SPECIALE AD ALTA RESISTENZA PER FORATURE PROFONDE - SERIE CORTA

Twist drills cross cut sharpened and special "high resistance flute design" for deep in to cutting, short serie / Forets helicoidaux, affutage croix et spiral rapide pour perçages profonds / Brocas helicoidales corte forma cruz, helice rapida para perforaciones profundas

Parabolic

HSS-CO 5% DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01140 01305

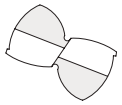


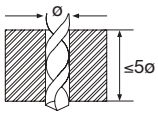
HSS-CO HSS-CO+TiAlN



Parabolic
DIN 1412/C

HV ≈ 800÷860
AFFILATURA A CROCE
CROSS SHARPENING





443

Confezione / *Packaging*

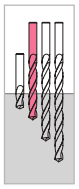


Applicazioni / *Applications*

R ≤ 1200 N/mm²



< 5 d



Ø h8	/	L	Art. 01140 HSS-CO cod.	pcs	€ cad/each	Art. 01305 HSS-CO+TiAlN cod.	pcs	€ cad/each
2	24	49	011400200	10	2,398	013050200	1	9,232
2,25	27	53	011400225	10	2,398	013050225	1	9,232
2,5	30	57	011400250	10	2,398	013050250	1	9,232
2,75	33	61	011400275	10	2,557	013050275	1	9,408
3	33	61	011400300	10	2,557	013050300	1	9,408
3,2	36	65	011400320	10	2,849	013050320	1	9,711
3,25	36	65	011400325	10	2,849	013050325	1	9,711
3,5	39	70	011400350	10	2,849	013050350	1	9,711
3,75	39	70	011400375	10	3,142	013050375	1	10,012
4	43	75	011400400	10	3,142	013050400	1	10,012
4,2	43	75	011400420	10	3,786	013050420	1	11,873
4,25	43	75	011400425	10	3,786	013050425	1	11,873
4,5	47	80	011400450	10	3,786	013050450	1	11,873
4,75	47	80	011400475	10	4,140	013050475	1	12,229
4,8	52	86	011400480	10	4,140	013050480	1	12,229
5	52	86	011400500	10	4,140	013050500	1	12,229
5,2	52	86	011400520	10	4,894	013050520	1	13,019
5,25	52	86	011400525	10	4,894	013050525	1	13,019
5,5	57	93	011400550	10	4,894	013050550	1	13,019
5,75	57	93	011400575	10	5,415	013050575	1	13,546
6	57	93	011400600	10	5,415	013050600	1	13,546
6,25	63	101	011400625	10	7,025	013050625	1	17,843
6,5	63	101	011400650	10	7,025	013050650	1	17,843
6,75	63	101	011400675	10	8,140	013050675	1	18,988
7	69	109	011400700	10	8,140	013050700	1	18,988
7,5	69	109	011400750	5	9,175	013050750	1	20,060
8	75	117	011400800	5	10,094	013050800	1	21,000
8,5	75	117	011400850	5	12,420	013050850	1	23,397
9	81	125	011400900	5	13,448	013050900	1	26,943
9,5	81	125	011400950	5	15,165	013050950	1	28,708
10	87	133	011401000	5	16,871	013051000	1	30,475
10,5	87	133	011401050	5	19,757	013051050	1	35,693
11	94	142	011401100	5	21,862	013051100	1	37,865
11,5	94	142	011401150	5	25,402	013051150	1	41,512
12	101	151	011401200	5	25,402	013051200	1	41,512
12,5	101	151	011401250	5	30,390	013051250	1	48,383
13	101	151	011401300	5	33,179	013051300	1	51,251

- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

HSS-CO 5% DIN 338 Metal



Metal
330x240x55

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1 *	10	6	3
1,5*	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

01142450 € 505,523

*Ø 1mm, 1,5 mm Art. 01145



Abs

19 pcs
Ø 1÷10 x 0,5 mm

01142401 HSS-CO	€ 137,949
01310305 HSS-CO+TiAlN	€ 247,450



Abs

25 pcs
Ø 1÷13 x 0,5 mm

01142402 HSS-CO	€ 293,360
01310306 HSS-CO+TiAlN	€ 449,875

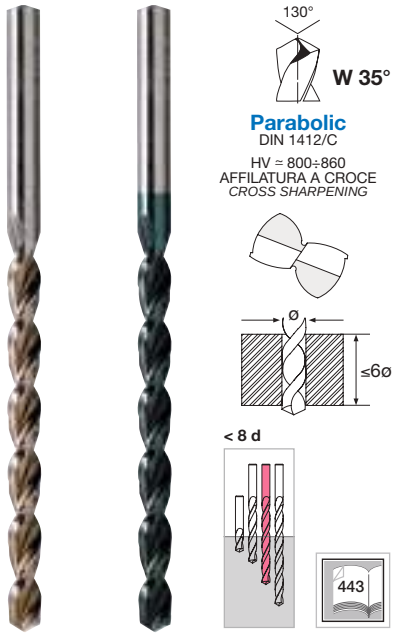
PUNTE ELICOIDALI CON AFFILATURA A CROCE ED ELICA SPECIALE AD ALTA RESISTENZA PER FORATURE PROFONDE

Twist drills cross cut sharpened and special "high resistance flute design" for deep in to cutting / Forets helicoidaux, affutage croix et spiral rapide pour perçages profonds / Brocas helicoidales corte forma cruz, helice rapida para perforaciones profundas

HSS-CO 5% DIN 340 Rettificata

Ground from the solid

01141 01306



Serie lunga *Long serie*

Ø h8	/	L	Art. 01141 HSS-CO cod.	pcs	€ cad/each	Art. 01306 HSS-CO+TiAlN cod.	pcs	€ cad/each
2,5	62	95	011410250	10	4,291	013060250	1	11,157
3	66	100	011410300	10	4,593	013060300	1	11,468
3,25	69	106	011410325	10	5,424	013060325	1	12,314
3,5	73	112	011410350	10	5,424	013060350	1	12,314
3,75	73	112	011410375	10	5,937	013060375	1	12,850
4	78	119	011410400	10	5,937	013060400	1	12,850
4,25	78	119	011410425	10	7,096	013060425	1	15,237
4,5	82	126	011410450	10	7,096	013060450	1	15,237
4,75	82	126	011410475	10	7,530	013060475	1	15,681
5	87	132	011410500	10	7,530	013060500	1	15,681
5,25	87	132	011410525	10	9,087	013060525	1	17,278
5,5	91	139	011410550	10	9,087	013060550	1	17,278
5,75	91	139	011410575	10	9,087	013060575	1	17,278
6	91	139	011410600	10	9,087	013060600	1	17,278
6,25	97	148	011410625	5	13,403	013060625	1	24,329
6,5	97	148	011410650	5	13,403	013060650	1	24,329
7	102	156	011410700	5	15,589	013060700	1	26,565
7,5	102	156	011410750	5	16,828	013060750	1	27,843
8	109	165	011410800	5	18,651	013060800	1	30,682
8,5	109	165	011410850	5	20,473	013060850	1	34,048
9	115	175	011410900	5	21,950	013060900	1	35,561
9,5	115	175	011410950	5	22,295	013060950	1	35,919
10	121	184	011411000	5	24,003	013061000	1	39,548
10,5	121	184	011411050	5	33,116	013061050	1	49,258
11	128	195	011411100	5	36,177	013061100	1	52,389
11,5	128	195	011411150	5	36,911	013061150	1	53,150
12	134	205	011411200	5	40,628	013061200	1	60,858
12,5	134	205	011411250	5	41,874	013061250	1	64,242
13	134	205	011411300	5	43,839	013061300	1	66,254

HSS-CO 5% DIN 1897 Rettificata

Ground from the solid

01143 01307



Serie extra corta *Extra short serie*

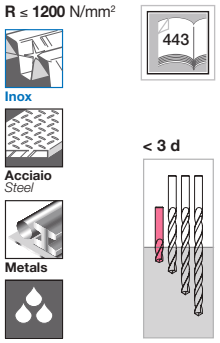
Ø h8	/	L	Art. 01143 HSS-CO cod.	pcs	€ cad/each	Art. 01307 HSS-CO+TiAlN cod.	pcs	€ cad/each
3	16	46	011430300	10	1,626	013070300	1	8,442
3,2	18	49	011430320	10	1,664	013070320	1	8,479
3,25	18	49	011430325	10	1,664	013070325	1	8,479
3,3	18	49	011430330	10	1,664	013070330	1	8,479
3,5	20	52	011430350	10	1,744	013070350	1	8,555
3,7	20	52	011430370	10	1,946	013070370	1	8,761
3,75	20	52	011430375	10	1,946	013070375	1	8,761
3,8	22	55	011430380	10	1,946	013070380	1	8,761
4	22	55	011430400	10	1,946	013070400	1	8,761
4,2	22	55	011430420	10	1,946	013070420	1	9,965
4,25	22	55	011430425	10	2,067	013070425	1	9,965
4,5	24	58	011430450	10	2,195	013070450	1	10,218
4,7	24	58	011430470	10	2,575	013070470	1	10,612
4,75	24	58	011430475	10	2,735	013070475	1	10,612
4,8	26	62	011430480	10	2,832	013070480	1	10,612
5	26	62	011430500	10	2,832	013070500	1	10,612
5,2	26	62	011430520	10	3,478	013070520	1	11,534
5,25	26	62	011430525	10	3,478	013070525	1	11,534
5,5	28	66	011430550	10	3,158	013070550	1	11,205
5,7	28	66	011430570	10	4,779	013070570	1	12,859
5,75	28	66	011430575	10	4,779	013070575	1	12,859
5,8	28	66	011430580	10	4,779	013070580	1	12,859
6	28	66	011430600	10	3,354	013070600	1	11,412
6,5	31	70	011430650	10	4,380	013070650	1	15,087
6,8	34	74	011430680	10	6,368	013070680	1	15,589
7	34	74	011430700	10	5,405	013070700	1	16,141
7,5	34	74	011430750	5	5,769	013070750	1	16,508
8	37	79	011430800	5	6,308	013070800	1	17,061
8,5	37	79	011430850	5	8,786	013070850	1	22,082
9	40	84	011430900	5	8,786	013070900	1	22,082
9,5	40	84	011430950	5	13,095	013070950	1	26,490
10	43	89	011431000	5	13,095	013071000	1	26,490
10,5	43	89	011431050	5	17,085	013071050	1	32,845
11	47	95	011431100	5	18,208	013071100	1	33,992
11,5	47	95	011431150	5	19,438	013071150	1	35,252
12	51	102	011431200	5	21,748	013071200	1	37,620
12,5	51	102	011431250	5	22,208	013071250	1	39,811
13	51	102	011431300	5	22,208	013071300	1	39,811

Parabolic

Confezione / *Packaging*



Applicazioni / *Applications*



PUNTE ELICOIDALI AL COBALTO 5% CON ELICA RAPIDA TIPO W, PER IL TAGLIO DEGLI ACCIAI INOX, ACCIAI RESISTENTI AL CALORE ED AUSTENITICI (V2A-V4A)

Cobalt twist drill with W type flute to cut stainless steel, heat resistant steel, austenitic steel (V2A-V4A)
Forets cylindriques HSS-CO avec eliche especial W / Brocas helicoidales HSS-CO con elica especial W

HSS-CO DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

W 36°

01139





HV ≃ 800÷860
AISI M35
SPLIT POINT
DIN 1412 C
(Ø≥3 mm)



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	011390100	2,210
1,25	16	38	10	011390125	2,210
1,5	18	40	10	011390150	1,731
1,75	22	46	10	011390175	1,980
2	24	49	10	011390200	1,572
2,25	27	53	10	011390225	1,731
2,5	30	57	10	011390250	1,731
2,75	33	61	10	011390275	1,731
2,8	33	61	10	011390280	1,731
3	33	61	10	011390300	1,731
3,2	36	65	10	011390320	1,731
3,25	36	65	10	011390325	2,061
3,3	36	65	10	011390330	2,061
3,4	39	70	10	011390340	2,130
3,5	39	70	10	011390350	2,130
3,7	39	70	10	011390370	2,210
3,75	39	70	10	011390375	2,519
3,8	43	75	10	011390380	2,519
4	43	75	10	011390400	2,379
4,1	43	75	10	011390410	2,608
4,2	43	75	10	011390420	2,608
4,25	43	75	10	011390425	2,767
4,5	47	80	10	011390450	2,678
4,75	47	80	10	011390475	2,926
4,8	52	86	10	011390480	2,926
5	52	86	10	011390500	2,926
5,2	52	86	10	011390520	3,236
5,25	52	86	10	011390525	3,236
5,5	57	93	10	011390550	3,942
5,75	57	93	10	011390575	3,942
6	57	93	10	011390600	3,942
6,25	63	101	10	011390625	6,361
6,5	63	101	10	011390650	6,819
6,75	69	109	10	011390675	8,749
7	69	109	10	011390700	8,171
7,25	69	109	5	011390725	9,197
7,5	69	109	5	011390750	9,197
7,75	75	117	5	011390775	9,864
8	75	117	5	011390800	9,864
8,25	75	117	5	011390825	10,550
8,5	75	117	5	011390850	10,441
8,75	81	125	5	011390875	12,819
9	81	125	5	011390900	12,819
9,25	81	125	5	011390925	13,845
9,5	81	125	5	011390950	13,845
9,75	87	133	5	011390975	15,198
10	87	133	5	011391000	15,198
10,25	87	133	5	011391025	19,061
10,5	87	133	5	011391050	19,061
10,75	94	142	5	011391075	22,345
11	94	142	5	011391100	22,345
11,25	94	142	5	011391125	23,371
11,5	94	142	5	011391150	23,371
11,75	94	142	5	011391175	25,849
12	101	151	5	011391200	25,849
12,25	101	151	5	011391225	28,228
12,5	101	151	5	011391250	28,228
12,75	101	151	5	011391275	28,805
13	101	151	5	011391300	28,805

Confezione / *Packaging*

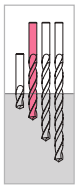


Applicazioni / *Applications*

R ≤ 1200 N/mm²



< 5 d



- V2A è la classificazione tedesca dell'acciaio inox 304, mentre V4A è l'inox 316.
- *V2A is german standard for 304 stainless steel, V4A is 316 stainless steel.*



Abs

19 pcs
Ø 1÷10 x 0,5 mm
01155303 € 120,619



25 pcs
Ø 1÷13 x 0,5 mm
01155304 € 277,772

HSS-CO W36° DIN 338 Metal



Metal 330x240x55

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	**6**	3
1,5	10	**6,5**	3
2	10	**7**	3
2,5	10	**7,5**	3
3	10	**8**	3
3,5	10	**8,5**	2
4	10	**9**	2
4,5	10	**9,5**	2
5	10	**10**	2
5,5	3		

01155454 € 466,116

PUNTE ELICOIDALI CILINDRICHE AL COBALTO RIVESTITE AL TiALN

HSS-CO TiAlN coated twist drills / Forets cylindriques HSS-CO revêtement TiAlN
Brocas helicoidales HSS-CO con recubrimiento de TiAlN / HSS-CO geschliffene Spiralbohrer, TiAlN-beschichtet

HSS-CO TiAlN DIN 338

01300





HV 0,05 ≈ 3300
Riv. TiAlN

Rivestimento TiAlN
TiAlN coating
443

Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	1	013000100	6,995
1,25	16	38	1	013000125	7,184
1,5	18	40	1	013000150	7,184
1,75	22	46	1	013000175	7,046
2	24	49	1	013000200	7,046
2,25	27	53	1	013000225	7,046
2,5	30	57	1	013000250	7,046
2,75	33	61	1	013000275	7,046
3	33	61	1	013000300	7,046
3,2	36	65	1	013000320	7,608
3,25	36	65	1	013000325	7,608
3,5	39	70	1	013000350	7,608
3,75	39	70	1	013000375	7,748
4	43	75	1	013000400	7,748
4,2	43	75	1	013000420	9,420
4,25	43	75	1	013000425	9,420
4,5	47	80	1	013000450	9,420
4,75	47	80	1	013000475	9,420
4,8	52	86	1	013000480	9,420
5	52	86	1	013000500	9,420
5,2	52	86	1	013000520	10,488
5,25	52	86	1	013000525	10,488
5,5	57	93	1	013000550	10,488
5,75	57	93	1	013000575	10,488
6	57	93	1	013000600	10,488
6,25	63	101	1	013000625	15,289
6,5	63	101	1	013000650	15,289
6,75	69	109	1	013000675	16,158
7	69	109	1	013000700	16,158
7,25	69	109	1	013000725	16,158
7,5	69	109	1	013000750	16,158
7,75	75	117	1	013000775	17,266
8	75	117	1	013000800	17,266
8,25	75	117	1	013000825	18,811
8,5	75	117	1	013000850	18,811
8,75	81	125	1	013000875	20,286
9	81	125	1	013000900	20,286
9,25	81	125	1	013000925	20,898
9,5	81	125	1	013000950	20,898
9,75	87	133	1	013000975	23,441
10	87	133	1	013001000	23,441
10,25	87	133	1	013001025	28,902
10,5	87	133	1	013001050	28,902
10,75	94	142	1	013001075	30,912
11	94	142	1	013001100	30,912
11,25	94	142	1	013001125	31,575
11,5	94	142	1	013001150	31,575
11,75	94	142	1	013001175	33,079
12	101	151	1	013001200	33,079
12,25	101	151	1	013001225	35,474
12,5	101	151	1	013001250	35,474
12,75	101	151	1	013001275	37,622
13	101	151	1	013001300	37,622

Confezione / Packaging



Applicazioni / Applications

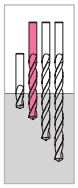
R ≥ 900 N/mm²


Inox


Acciaio
Steel


Metals

< 5 d





19 pcs
Ø 1÷10 x 0,5 mm
01310301 € 193,606



25 pcs
Ø 1÷13 x 0,5 mm
01310302 € 351,574

- **Taglio a secco**, ad altissima velocità di rotazione ed avanzamento su tutti gli acciai durissimi (**acciai alto legati in genere, acciai inox**) e materiali fortemente abrasivi (ghisa, leghe Al-Si).
- *H.S.C. in high alloy steel, stainless steel, abrasive metals as cast iron, Al-Si Alloys.*
- *Les outils revêtues en TiAlN favorisent le coupe de l'acier allié, acier inox, métal abrasif (Alliage Al-Si) avec paramètre de coupe augmentées de 40%.*
- *El recubrimiento TiAlN permite aumentar la velocidad de corte y reducir desgastes de utensilios.*

HSS-CO TiAlN DIN 338 Metal



Metal 330x240x55

71 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	5	**6**	3
1,5	5	**6,5**	3
2	5	**7**	3
2,5	5	**7,5**	3
3	5	**8**	3
3,5	5	**8,5**	2
4	5	**9**	2
4,5	5	**9,5**	2
5	5	**10**	2
5,5	3		

01310452 € 645,359

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE A DOPPIO CONOIDE Speedmaster®

HSS-G fully ground twist drills "Speedmaster®" / Forets cylindriques rectifiés "Speedmaster®"
Brocas helicoidales rectificadas "Speedmaster®" / Geschliffene Spiralbohrer "Speedmaster®"

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01220





W 27°
Doppio conoide
Double conoid
SPLIT POINT
(Ø ≥ 2,5 mm)

AISI M2
HV ≃ 820÷850

Art. **01221** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 900 N/mm²



Acciaio
Steel



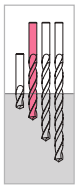
Inox



Metals



< 5 d



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	012200100	1,611
1,25	16	38	10	012200125	1,767
1,5	18	40	10	012200150	1,611
1,75	22	46	10	012200175	1,767
2	24	49	10	012200200	1,611
2,25	27	53	10	012200225	1,792
2,5	30	57	10	012200250	1,635
2,75	33	61	10	012200275	1,926
3	33	61	10	012200300	1,744
3,1	33	61	10	012200310	2,001
3,25	36	65	10	012200325	2,251
3,3	36	65	10	012200330	2,046
3,5	39	70	10	012200350	2,046
3,75	39	70	10	012200375	2,482
4	43	75	10	012200400	2,251
4,1	43	75	10	012200410	2,587
4,25	43	75	10	012200425	2,688
4,3	43	75	10	012200430	2,688
4,5	47	80	10	012200450	2,433
4,75	47	80	10	012200475	3,075
5	52	86	10	012200500	2,930
5,1	52	86	10	012200510	3,983
5,25	52	86	10	012200525	3,983
5,5	57	93	10	012200550	3,692
5,75	57	93	10	012200575	4,322
6	57	93	10	012200600	3,935
6,25	63	101	10	012200625	5,097
6,5	63	101	10	012200650	4,638
6,75	69	109	10	012200675	5,969
7	69	109	10	012200700	5,424
7,25	69	109	5	012200725	6,393
7,5	69	109	5	012200750	5,799
7,75	75	117	5	012200775	7,506
8	75	117	5	012200800	7,144
8,25	75	117	5	012200825	8,209
8,5	75	117	5	012200850	7,724
8,75	81	125	5	012200875	9,735
9	81	125	5	012200900	8,839
9,25	81	125	5	012200925	10,315
9,5	81	125	5	012200950	9,685
9,75	87	133	5	012200975	11,670
10	87	133	5	012201000	11,127
10,25	87	133	5	012201025	12,881
10,5	87	133	5	012201050	12,046
10,75	94	142	5	012201075	14,952
11	94	142	5	012201100	13,596
11,25	94	142	5	012201125	16,260
11,5	94	142	5	012201150	14,770
11,75	94	142	5	012201175	18,124
12	101	151	5	012201200	16,961
12,25	101	151	5	012201225	19,553
12,5	101	151	5	012201250	18,185
12,75	101	151	5	012201275	20,824
13	101	151	5	012201300	19,444



Abs
19 pcs
Ø 1÷10 x 0,5 mm
01229301 € 82,495



25 pcs
Ø 1÷13 x 0,5 mm
01229302 € 170,885

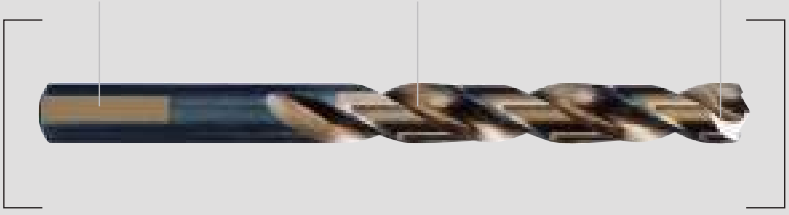
- Taglio altamente professionale con trapani portatili o stazionari in: acciai legati ed altamente legati, acciaio inox fino a R ≤ 900 N/mm², ferro, alluminio, metalli.
- *High quality cuts with portable or bench drilling machines into: alloy steel, high alloy steel, stainless steel up to R ≤ 900 N/mm², iron, aluminium, metals.*
- *Très professionnel découpage avec trépans portatifs ou (stationnaires) en: acier, acier inox jusqu'a R ≤ 900 N/mm², fer, aluminium et métaux.*
- *Corte altamente profesional con taladros portatiles o estacionarios en: aceros aleados y altamente aleados, acero inox hasta R ≤ 900 N/mm², hierro, aluminio, metales.*
- *Beruflicher Schnitt mit tragbaren Bohrers in: legiert und unlegiert Stahl, rostfreier Stahl bis R ≤ 900 N/mm², Aluminium, Eisen.*

Caratteristiche tecniche / Technical features

3 pianetti antisdrucciolo (Ø > 5 mm):
Piena trasmissione della potenza
3 anti-skid flats (Ø > 5 mm):
Full power transmission
3 plats antirotation (Ø > 5 mm):
Plain transmission de la puissance
3 pianos antiresbaladizo (Ø > 5 mm):
Llena trasmisión de la potencia
3 rutschsicheren Pläne – volle
Übermittlung von der Macht

Cave ampie e lisce:
Facile estrazione dei trucioli
Wide and smooth flutes:
Easy chip removal
Rainures grandes et lisses:
Evacuation facile des copeaux
Ranuras anchas y lisas:
Fácil extracción de las virutas
Weiten und glatten Furchen:
einfacher Auszug des Hobelspannes

Affilatura speciale
Special Sharpening
Affûtage Spécial
Afiladura especial
Besonderes Schleifen



ASSORTIMENTI PUNTE RETTIFICATE A DOPPIO CONOIDE Speedmaster®

HSS-G fully ground twist drills "Speedmaster®" / Forets cylindriques rectifiés "Speedmaster®"
Brocas helicoidales rectificadas "Speedmaster®" / Geschliffene Spiralbohrer "Speedmaster®"



HSS-G DIN 338

Metal



37 pcs
Ø 1÷10 x 0,25 mm

01229411 € 157,514

49 pcs
Ø 1÷13 x 0,25 mm

01229412 € 334,293



116 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

Metal 330x240x55

01229450 € 310,501

128 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

Metal 550x310x55

01229451 € 549,610

ESPOSITORE MAGAZZENO PER PUNTE HSS-G RETTIFICATE Speedmaster®

HSS-G twist drills display "Speedmaster®" / Display forets HSS-G rectifies "Speedmaster®"
Expositor de brocas HSS-G rectificadas "Speedmaster®" / Verkaufsschränke für Spiralbohrer "Speedmaster®"

HSS-G DIN 338



168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	10	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	10	12	3
6	10	12,5	3
6,5	5	13	3
7	5		

Metal 375x240x200

01229501 € 756,984



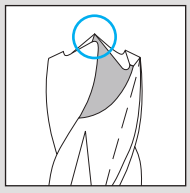
240 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs
1	10	7,25	2
1,25	5	7,5	5
1,5	10	7,75	2
1,75	5	8	5
2	10	8,25	2
2,25	5	8,5	3
2,5	10	8,75	2
2,75	5	9	3
3	10	9,25	2
3,25	10	9,5	3
3,5	10	9,75	2
3,75	10	10	3
4	10	10,25	2
4,25	10	10,5	2
4,5	10	10,75	2
4,75	3	11	2
5	10	11,25	2
5,25	3	11,5	2
5,5	10	11,75	2
5,75	2	12	2
6	10	12,25	2
6,25	2	12,5	2
6,5	5	12,75	2
6,75	2	13	2
7	5		

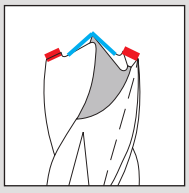
Metal 390x460x230

01229502 € 1.011,955

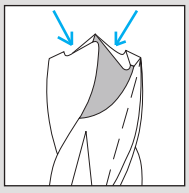
Micropunta autocentrante:
Facile centratura sul pezzo e agevole partenza del taglio.
Micro self-centering tip: Easiness of spot-drilling and start cut.
Micropunta autocentadora: Facilidad de centrado y de principio de corte.
Micro pointe auto-centrant: Facilité du centrage et du début de la coupe.



Doppia coppia di taglienti con spoglia variabile:
Massima capacità di taglio con grande durata del filo tagliente.
Double couple of cutting edges with variable relief: Maximum cutting capacity, with high resistance of the cutting edges.
Pareja doble de cortantes con ángulo de corte variable: Máxima capacidad de corte con elevada resistencia del corte.
Double couple de coupants avec dépouille vairable: Grande capacité de coupe avec une élevée résistance du fil coupant.



Coppia di rompitruciolo:
Evita la formazione di taglienti di riporto.
Double chip-breaker: Avoid the creation of built-up cutting edges.
Pareja de rompevirutas: Evita la formación de filos causados por virutas.
Couple brise-copeaux: Evite la création de tranchants causés par les coupeaux.





PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, "Dual Performer®"

Fully ground straight shank twist drills "Dual Performer®" / Forets cylindriques rectifiés "Dual Performer®"
Brocas helicoidales rectificadas "Dual Performer®" / Geschliffene Spiralbohrer "Dual Performer®"

HSS-G DIN 338 D.P. Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01201





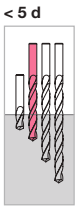
HV ≈ 820
AISI M2 D.P.
SPLIT POINT
DIN 1412C
Ø≥3 mm

Confezione / *Packaging*



Applicazioni / *Applications*





Ø h8	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	012010030	2,642
0,35	4	19	10	012010035	2,642
0,4	5	20	10	012010040	2,642
0,45	5	20	10	012010045	2,642
0,5	6	22	10	012010050	2,642
0,55	7	24	10	012010055	2,642
0,6	7	24	10	012010060	2,642
0,65	8	26	10	012010065	2,642
0,7	9	28	10	012010070	2,642
0,75	9	28	10	012010075	2,642
0,8	10	30	10	012010080	2,642
0,85	10	30	10	012010085	2,642
0,9	11	32	10	012010090	2,642
0,95	11	32	10	012010095	2,642
1	12	34	10	012010100	1,475
1,1	14	36	10	012010110	1,559
1,2	16	38	10	012010120	1,559
1,25	16	38	10	012010125	1,559
1,3	16	38	10	012010130	1,559
1,4	18	40	10	012010140	1,559
1,5	18	40	10	012010150	1,367
1,6	20	43	10	012010160	1,271
1,7	20	43	10	012010170	1,271
1,75	22	46	10	012010175	1,271
1,8	22	46	10	012010180	1,271
1,9	22	46	10	012010190	1,271
2	24	49	10	012010200	1,127
2,1	24	49	10	012010210	1,357
2,2	27	53	10	012010220	1,357
2,25	27	53	10	012010225	1,357
2,3	27	53	10	012010230	1,357
2,4	30	57	10	012010240	1,357
2,5	30	57	10	012010250	1,235
2,6	30	57	10	012010260	1,595
2,7	33	61	10	012010270	1,595
2,75	33	61	10	012010275	1,595
2,8	33	61	10	012010280	1,595
2,9	33	61	10	012010290	1,595
3	33	61	10	012010300	1,450
3,1	36	65	10	012010310	1,799
3,2	36	65	10	012010320	1,799
3,25	36	65	10	012010325	1,799
3,3	36	65	10	012010330	1,799
3,4	39	70	10	012010340	1,799
3,5	39	70	10	012010350	1,631
3,6	39	70	10	012010360	1,871
3,7	39	70	10	012010370	1,871
3,75	39	70	10	012010375	1,871
3,8	43	75	10	012010380	1,871
3,9	43	75	10	012010390	1,871
4	43	75	10	012010400	1,715
4,1	43	75	10	012010410	2,195

- Taglio dei materiali con R ≤ 850 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 850 N/mm².*
- *Puor percer métaux et acier avec R ≤ 850 N/mm².*
- *Para taladrar hierro e acero R ≤ 850 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 850 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe*

Ø h8	/	L	pcs	cod.	€ cad/each
4,2	43	75	10	012010420	2,195
4,25	43	75	10	012010425	2,195
4,3	47	80	10	012010430	2,195
4,4	47	80	10	012010440	2,195
4,5	47	80	10	012010450	2,086
4,6	47	80	10	012010460	2,327
4,7	47	80	10	012010470	2,327
4,75	47	80	10	012010475	2,327
4,8	52	86	10	012010480	2,327
4,9	52	86	10	012010490	2,327
5	52	86	10	012010500	2,183
5,1	52	86	10	012010510	2,975
5,2	52	86	10	012010520	2,975
5,25	52	86	10	012010525	2,975
5,3	52	86	10	012010530	2,975
5,4	57	93	10	012010540	2,975
5,5	57	93	10	012010550	2,854
5,6	57	93	10	012010560	3,297
5,7	57	93	10	012010570	3,297
5,75	57	93	10	012010575	3,297
5,8	57	93	10	012010580	3,297
5,9	57	93	10	012010590	3,297
6	57	93	10	012010600	3,117
6,1	63	101	10	012010610	4,113
6,2	63	101	10	012010620	4,113
6,25	63	101	10	012010625	4,113
6,3	63	101	10	012010630	4,113
6,4	63	101	10	012010640	4,113
6,5	63	101	10	012010650	3,789
6,6	63	101	10	012010660	4,785
6,7	63	101	10	012010670	4,785
6,75	69	109	10	012010675	4,785
6,8	69	109	10	012010680	4,785
6,9	69	109	10	012010690	4,785
7	69	109	10	012010700	4,436
7,1	69	109	5	012010710	5,251
7,2	69	109	5	012010720	5,251
7,25	69	109	5	012010725	5,251
7,3	69	109	5	012010730	5,251
7,4	69	109	5	012010740	5,251
7,5	69	109	5	012010750	4,700
7,6	75	117	5	012010760	5,912
7,7	75	117	5	012010770	5,912
7,75	75	117	5	012010775	5,912
7,8	75	117	5	012010780	5,912
7,9	75	117	5	012010790	5,912
8	75	117	5	012010800	5,577
8,1	75	117	5	012010810	7,602
8,2	75	117	5	012010820	7,602
8,25	75	117	5	012010825	7,602
8,3	75	117	5	012010830	7,602
8,4	75	117	5	012010840	7,602

Ø h8	/	L	pcs	cod.	€ cad/each
8,5	75	117	5	012010850	7,242
8,6	81	125	5	012010860	7,783
8,7	81	125	5	012010870	7,783
8,75	81	125	5	012010875	7,783
8,8	81	125	5	012010880	7,783
8,9	81	125	5	012010890	7,783
9	81	125	5	012010900	7,422
9,1	81	125	5	012010910	8,705
9,2	81	125	5	012010920	8,705
9,25	81	125	5	012010925	8,705
9,3	81	125	5	012010930	8,705
9,4	81	125	5	012010940	8,705
9,5	81	125	5	012010950	8,286
9,6	87	133	5	012010960	8,945
9,7	87	133	5	012010970	8,945
9,75	87	133	5	012010975	8,945
9,8	87	133	5	012010980	8,945
9,9	87	133	5	012010990	8,945
10	87	133	5	012011000	8,525
10,25	87	133	5	012011025	11,510
10,5	87	133	5	012011050	10,072
10,75	94	142	5	012011075	13,848
11	94	142	5	012011100	12,074
11,25	94	142	5	012011125	14,724
11,5	94	142	5	012011150	12,878
11,75	94	142	5	012011175	16,019
12	101	151	5	012011200	13,884
12,25	101	151	5	012011225	17,446
12,5	101	151	5	012011250	15,180
12,75	101	151	5	012011275	19,760
13	101	151	5	012011300	16,019
13,25	108	160	3	012011325	24,257
13,5	108	160	3	012011350	22,027
13,75	108	160	3	012011375	24,988
14	108	160	3	012011400	22,722
14,25	114	169	3	012011425	28,538
14,5	114	169	3	012011450	25,923
14,75	114	169	3	012011475	33,501
15	114	169	3	012011500	30,456
15,25	120	178	3	012011525	36,666
15,5	120	178	3	012011550	33,322
15,75	120	178	3	012011575	37,987
16	120	178	3	012011600	34,522
16,5	125	184	1	012011650	35,720
17	125	184	1	012011700	37,470
17,5	130	191	1	012011750	39,269
18	130	191	1	012011800	41,739
18,5	135	198	1	012011850	45,432
19	135	198	1	012011900	46,920
19,5	140	205	1	012011950	49,149
20	140	205	1	012012000	51,499

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE CON CODOLO RIDOTTO "Dual Performer®"

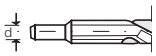
Fully ground straight shank twist drills "Dual Performer®" / Forets cylindriques rectifiés "Dual Performer®"
Brocas helicoidales rectificadas "Dual Performer®" / Geschliffene Spiralbohrer "Dual Performer®"

HSS-G DIN 338 D.P. Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01203

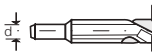




d=10 mm

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	012031025	13,824
10,5	87	133	10	5	012031050	12,373
10,75	94	142	10	5	012031075	16,151
11	94	142	10	5	012031100	14,364
11,25	94	142	10	5	012031125	17,027
11,5	94	142	10	5	012031150	15,191
11,75	94	142	10	5	012031175	18,309
12	101	151	10	5	012031200	16,198
12,25	101	151	10	5	012031225	19,736
12,5	101	151	10	5	012031250	17,458
12,75	101	151	10	5	012031275	22,073
13	101	151	10	5	012031300	18,309
13,25	108	160	10	3	012031325	27,879
13,5	108	160	10	3	012031350	25,348
13,75	108	160	10	3	012031375	28,753
14	108	160	10	3	012031400	26,128
14,25	114	169	10	3	012031425	32,794
14,5	114	169	10	3	012031450	29,820
14,75	114	169	10	3	012031475	38,527
15	114	169	10	3	012031500	35,024
15,25	120	178	10	3	012031525	42,159
15,5	120	178	10	3	012031550	38,322
15,75	120	178	10	3	012031575	43,681
16	120	178	10	3	012031600	39,701
16,5	125	184	10	1	012031650	41,068
17	125	184	10	1	012031700	43,083
17,5	130	191	10	1	012031750	45,168
18	130	191	10	1	012031800	47,998
18,5	135	198	10	1	012031850	52,243
19	135	198	10	1	012031900	53,957
19,5	140	205	10	1	012031950	56,535
20	140	205	10	1	012032000	59,233

01209



d=13 mm

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	012091325	27,879
13,5	108	160	13	3	012091350	25,348
13,75	108	160	13	3	012091375	28,753
14	108	160	13	3	012091400	26,128
14,25	114	169	13	3	012091425	32,794
14,5	114	169	13	3	012091450	29,820
14,75	114	169	13	3	012091475	38,527
15	114	169	13	3	012091500	35,024
15,25	120	178	13	3	012091525	42,159
15,5	120	178	13	3	012091550	38,322
15,75	120	178	13	3	012091575	43,681
16	120	178	13	3	012091600	39,701
16,5	125	184	13	1	012091650	41,068
17	125	184	13	1	012091700	43,083
17,5	130	191	13	1	012091750	45,168
18	130	191	13	1	012091800	47,998
18,5	135	198	13	1	012091850	52,243
19	135	198	13	1	012091900	53,957
19,5	140	205	13	1	012091950	56,535
20	140	205	13	1	012092000	59,233

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 850 N/mm²



Acciaio
Steel



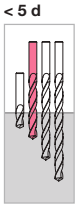
Inox



Metals



< 5 d



PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, SERIE EXTRA CORTA "Dual Performer®"

Straight shank twist drills, stub serie "Dual Performer®" / Forets cylindriques, série extra courte "Dual Performer®"
Brocas helicoidales, serie extra corta "Dual Performer®" / Geschliffene Spiralbohrer, extra kurz "Dual Performer®"

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen





Confezione / *Packaging*



Applicazioni / *Applications*



Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	012070300	1,643
3,25	18	49	10	012070325	1,727
3,5	20	52	10	012070350	1,727
3,75	20	52	10	012070375	1,727
4	22	55	10	012070400	1,727
4,25	22	55	10	012070425	2,183
4,5	24	58	10	012070450	2,183
4,75	24	58	10	012070475	2,314
5	26	62	10	012070500	2,314
5,25	26	62	10	012070525	2,890
5,5	28	66	10	012070550	2,890
5,75	28	66	10	012070575	3,189
6	28	66	10	012070600	3,189

01207



PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, SERIE LUNGA "Dual Performer®"

Long straight shank twist drills "Dual Performer®" / Forets cylindriques série longue "Dual Performer®"
Brocas helicoidales serie larga "Dual Performer®" / Spiralbohrer, lange Ausführung "Dual Performer®"

HSS-G DIN 340 D.P. Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen





Confezione / *Packaging*

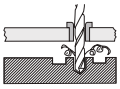


Applicazioni / *Applications*



Ø h8	/	L	pcs	cod.	€ cad/each
3	66	100	10	012080300	3,178
3,25	69	106	10	012080325	3,310
3,5	73	112	10	012080350	3,310
3,75	73	112	10	012080375	3,310
4	78	119	10	012080400	3,310
4,25	78	119	10	012080425	4,208
4,5	82	126	10	012080450	4,208
4,75	82	126	10	012080475	4,544
5	87	132	10	012080500	4,544
5,25	87	132	10	012080525	5,563
5,5	91	139	10	012080550	5,563
5,75	91	139	10	012080575	6,138
6	91	139	10	012080600	6,138
6,5	97	148	5	012080650	7,602
7	102	156	5	012080700	8,333
7,5	102	156	5	012080750	9,053
8	109	165	5	012080800	11,391
8,5	109	165	5	012080850	14,617
9	115	175	5	012080900	14,617
9,5	115	175	5	012080950	16,332
10	121	184	5	012081000	17,961

01208



ASSORTIMENTI PUNTE HSS-G RETTIFICATE "Dual Performer®"

Set of HSS-G twist drills "Dual Performer®" / Assortiments forets rectifiés "Dual Performer®"
Juego brocas rectificadas en HSS-G "Dual Performer®" / Geschliffene Spiralbohrersätze "Dual Performer®"

HSS-G DIN 338 D.P.

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01205401 € 52,917



25 pcs
Ø 1÷13 x 0,5 mm

01205402 € 104,723

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01205301 € 52,917



25 pcs
Ø 1÷13 x 0,5 mm

01205302 € 104,723

Metal



37 pcs
Ø 1÷10 x 0,25 mm

01205411 € 121,263



49 pcs
Ø 1÷13 x 0,25 mm

01205412 € 242,516



51 pcs
Ø 1÷6 x 0,1 mm

01205404 € 85,989



41 pcs
Ø 6÷10 x 0,1 mm

01205405 € 224,885

Metal



91 pcs
Ø 1÷10 x 0,1 mm

01205406 € 406,698

Abs



91 pcs
Ø 1÷10 x 0,1 mm

01205220 € 315,721



19 pcs
Ø 1÷10 x 0,5 mm

01205250 € 52,917



25 pcs
Ø 1÷13 x 0,5 mm

01205251 € 104,723

VALIGETTE ED ESPOSITORI MAGAZZENO PUNTE “Dual Performer®”

Metal case storage and display with HSS-G fully ground twist drills “Dual Performer®” / Display forets cylindriques rectifiés “Dual Performer®”
Expositor de brocas rectificadas “Dual Performer®” / Lager Kästen mit geschliffene Spiralbohrer “Dual Performer®”

HSS-G DIN 338 D.P.

01205450 Ø 1÷10 x 0,5 mm
01205451 Ø 1÷13 x 0,5 mm



150 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

01205450 € 337,126

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

01205451 € 558,676



Metal 375x240x200

540 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,5	10	10	10
1,5	30	6	20	10,5	5
2	50	6,5	5	11	5
2,5	50	7	5	11,5	5
3	80	7,5	5	12	5
3,5	50	8	10	12,5	5
4	80	8,5	5	13	5
4,5	30	9	5		
5	30	9,5	5		

01205501 € 1.146,236



Metal 390x460x230

700 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	20	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	40	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	60	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	40	9,25	2		

01205507 € 1.556,149

PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01060





HV 820
AISI M2
SPLIT POINT
DIN 1412C
(Ø≥2,5)

MICRO DRILLS
HSS-G

Confezione / *Packaging*

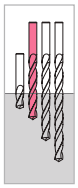


Applicazioni / *Applications*

R ≤ 800 N/mm²



< 5 d



Ø h8	/	L	pcs	cod.	€ cad/each
0,2	2,5	19	10	010600020	2,563
0,21	2,5	19	10	010600021	2,563
0,22	2,5	19	10	010600022	2,563
0,23	2,5	19	10	010600023	2,563
0,24	2,5	19	10	010600024	2,563
0,25	3	19	10	010600025	2,563
0,26	3	19	10	010600026	2,563
0,27	3	19	10	010600027	2,563
0,28	3	19	10	010600028	2,563
0,29	3	19	10	010600029	2,563
0,3	3	19	10	010600030	2,563
0,35	4	19	10	010600035	2,326
0,4	5	20	10	010600040	2,206
0,45	5	20	10	010600045	2,206
0,5	6	22	10	010600050	1,898
0,55	7	24	10	010600055	2,206
0,6	7	24	10	010600060	1,743
0,65	8	26	10	010600065	1,898
0,7	9	28	10	010600070	1,625
0,75	9	28	10	010600075	1,625
0,8	10	30	10	010600080	1,625
0,85	10	30	10	010600085	1,625
0,9	11	32	10	010600090	1,518
0,95	11	32	10	010600095	1,625
1	12	34	10	010600100	1,234
1,1	14	36	10	010600110	1,293
1,2	16	38	10	010600120	1,293
1,25	16	38	10	010600125	1,293
1,3	16	38	10	010600130	1,293
1,4	18	40	10	010600140	1,293
1,5	18	40	10	010600150	1,115
1,6	20	43	10	010600160	1,055
1,7	20	43	10	010600170	1,055
1,75	22	46	10	010600175	1,055
1,8	22	46	10	010600180	1,055
1,9	22	46	10	010600190	1,055
2	24	49	10	010600200	0,925
2,1	24	49	10	010600210	1,115
2,2	27	53	10	010600220	1,115
2,25	27	53	10	010600225	1,115
2,3	27	53	10	010600230	1,115
2,4	30	57	10	010600240	1,115
2,5	30	57	10	010600250	1,021
2,6	30	57	10	010600260	1,282
2,7	33	61	10	010600270	1,282
2,75	33	61	10	010600275	1,282
2,8	33	61	10	010600280	1,282
2,9	33	61	10	010600290	1,282
3	33	61	10	010600300	1,162
3,1	36	65	10	010600310	1,376
3,2	36	65	10	010600320	1,376
3,25	36	65	10	010600325	1,376
3,3	36	65	10	010600330	1,376
3,4	39	70	10	010600340	1,376
3,5	39	70	10	010600350	1,293
3,6	39	70	10	010600360	1,507
3,7	39	70	10	010600370	1,507
3,75	39	70	10	010600375	1,507
3,8	43	75	10	010600380	1,507
3,9	43	75	10	010600390	1,507
4	43	75	10	010600400	1,412
4,1	43	75	10	010600410	1,864
4,2	43	75	10	010600420	1,864
4,25	43	75	10	010600425	1,864
4,3	47	80	10	010600430	1,864
4,4	47	80	10	010600440	1,864
4,5	47	80	10	010600450	1,696
4,6	47	80	10	010600460	1,910
4,7	47	80	10	010600470	1,910
4,75	47	80	10	010600475	1,910
4,8	52	86	10	010600480	1,910
4,9	52	86	10	010600490	1,910
5	52	86	10	010600500	1,757
5,1	52	86	10	010600510	2,444
5,2	52	86	10	010600520	2,444
5,25	52	86	10	010600525	2,444
5,3	52	86	10	010600530	2,444
5,4	57	93	10	010600540	2,444
5,5	57	93	10	010600550	2,349
5,6	57	93	10	010600560	2,717
5,7	57	93	10	010600570	2,717
5,75	57	93	10	010600575	2,717
5,8	57	93	10	010600580	2,717
5,9	57	93	10	010600590	2,717
6	57	93	10	010600600	2,444
6,1	63	101	10	010600610	3,393
6,2	63	101	10	010600620	3,393
6,25	63	101	10	010600625	3,393
6,3	63	101	10	010600630	3,393
6,4	63	101	10	010600640	3,393
6,5	63	101	10	010600650	3,131
6,6	63	101	10	010600660	3,952
6,7	63	101	10	010600670	3,952
6,75	69	109	10	010600675	3,952
6,8	69	109	10	010600680	3,952
6,9	69	109	10	010600690	3,952
7	69	109	10	010600700	3,655
7,1	69	109	5	010600710	4,343
7,2	69	109	5	010600720	4,343
7,25	69	109	5	010600725	4,343
7,3	69	109	5	010600730	4,343
7,4	69	109	5	010600740	4,343
7,5	69	109	5	010600750	3,868
7,6	75	117	5	010600760	4,876
7,7	75	117	5	010600770	4,876
7,75	75	117	5	010600775	4,876
7,8	75	117	5	010600780	4,876
7,9	75	117	5	010600790	4,876
8	75	117	5	010600800	4,604
8,1	75	117	5	010600810	5,992
8,2	75	117	5	010600820	5,992
8,25	75	117	5	010600825	5,992

- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

Ø h8	/	L	pcs	cod.	€ cad/each
8,3	75	117	5	010600830	5,992
8,4	75	117	5	010600840	5,992
8,5	75	117	5	010600850	5,684
8,6	81	125	5	010600860	6,216
8,7	81	125	5	010600870	6,216
8,75	81	125	5	010600875	6,216
8,8	81	125	5	010600880	6,216
8,9	81	125	5	010600890	6,216
9	81	125	5	010600900	5,957
9,1	81	125	5	010600910	7,037
9,2	81	125	5	010600920	7,037
9,25	81	125	5	010600925	7,037
9,3	81	125	5	010600930	7,037
9,4	81	125	5	010600940	7,037
9,5	81	125	5	010600950	6,406
9,6	87	133	5	010600960	7,452
9,7	87	133	5	010600970	7,452
9,75	87	133	5	010600975	7,452
9,8	87	133	5	010600980	7,452
9,9	87	133	5	010600990	7,452
10	87	133	5	010601000	6,704
10,1	87	133	5	010601010	9,527
10,2	87	133	5	010601020	9,527
10,25	87	133	5	010601025	9,527
10,3	87	133	5	010601030	9,527
10,4	87	133	5	010601040	9,527
10,5	87	133	5	010601050	8,316
10,6	87	133	5	010601060	11,415
10,7	94	142	5	010601070	11,415
10,75	94	142	5	010601075	11,415
10,8	94	142	5	010601080	11,415
10,9	94	142	5	010601090	11,415
11	94	142	5	010601100	9,955
11,1	94	142	5	010601110	12,125
11,2	94	142	5	010601120	12,125
11,25	94	142	5	010601125	12,125
11,3	94	142	5	010601130	12,125
11,4	94	142	5	010601140	12,125
11,5	94	142	5	010601150	10,620
11,6	94	142	5	010601160	13,229
11,7	94	142	5	010601170	13,229
11,75	94	142	5	010601175	13,229
11,8	94	142	5	010601180	13,229
11,9	101	151	5	010601190	13,229
12	101	151	5	010601200	11,461
12,1	101	151	5	010601210	14,415
12,2	101	151	5	010601220	14,415
12,25	101	151	5	010601225	14,415
12,3	101	151	5	010601230	14,415
12,4	101	151	5	010601240	14,415
12,5	101	151	5	010601250	12,504
12,6	101	151	5	010601260	16,302
12,7	101	151	5	010601270	16,302
12,75	101	151	5	010601275	16,302
12,8	101	151	5	010601280	16,302
12,9	101	151	5	010601290	16,302

Ø h8	/	L	pcs	cod.	€ cad/each
13	101	151	5	010601300	13,490
13,1	101	151	3	010601310	19,114
13,2	101	151	3	010601320	19,114
13,25	108	160	3	010601325	19,114
13,3	108	160	3	010601330	19,114
13,4	108	160	3	010601340	19,114
13,5	108	160	3	010601350	17,168
13,6	108	160	3	010601360	19,114
13,7	108	160	3	010601370	19,114
13,75	108	160	3	010601375	19,114
13,8	108	160	3	010601380	19,114
13,9	108	160	3	010601390	19,114
14	108	160	3	010601400	17,642
14,1	108	160	3	010601410	22,948
14,2	114	169	3	010601420	22,948
14,25	114	169	3	010601425	22,948
14,3	114	169	3	010601430	22,948
14,4	114	169	3	010601440	22,948
14,5	114	169	3	010601450	19,566
14,6	114	169	3	010601460	22,948
14,7	114	169	3	010601470	22,948
14,75	114	169	3	010601475	22,948
14,8	114	169	3	010601480	22,948
14,9	114	169	3	010601490	22,948
15	114	169	3	010601500	20,906
15,1	120	178	3	010601510	26,127
15,2	120	178	3	010601520	26,127
15,25	120	178	3	010601525	26,127
15,3	120	178	3	010601530	26,127
15,4	120	178	3	010601540	26,127
15,5	120	178	3	010601550	24,536
15,6	120	178	3	010601560	26,127
15,7	120	178	3	010601570	26,127
15,75	120	178	3	010601575	26,127
15,8	120	178	3	010601580	26,127
15,9	120	178	3	010601590	26,127
16	120	178	3	010601600	25,926
16,25	125	184	1	010601625	26,127
16,5	125	184	1	010601650	26,127
16,75	125	184	1	010601675	27,764
17	125	184	1	010601700	27,764
17,25	130	191	1	010601725	27,764
17,5	130	191	1	010601750	29,283
17,75	130	191	1	010601775	29,283
18	130	191	1	010601800	31,549
18,25	135	198	1	010601825	31,549
18,5	135	198	1	010601850	34,775
18,75	135	198	1	010601875	34,775
19	135	198	1	010601900	36,044
19,25	140	205	1	010601925	38,877
19,5	140	205	1	010601950	40,697
19,75	140	205	1	010601975	40,697
20	140	205	1	010602000	40,697

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO, INTERAMENTE RETTIFICATE

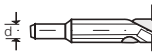
Reduced shank twist drills / Forets cylindriques à queue réduite
Brocas helicoidales con mango reducido / Geschliffene Spiralbohrer mit reduzierten Schaft

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01062

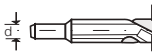




d=10 mm

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	010621025	12,221
10,5	87	133	10	5	010621050	11,011
10,75	94	142	10	5	010621075	14,107
11	94	142	10	5	010621100	12,647
11,25	94	142	10	5	010621125	14,819
11,5	94	142	10	5	010621150	13,313
11,75	94	142	10	5	010621175	15,923
12	101	151	10	5	010621200	14,155
12,25	101	151	10	5	010621225	17,110
12,5	101	151	10	5	010621250	15,199
12,75	101	151	10	5	010621275	18,996
13	101	151	10	5	010621300	16,183
13,25	108	160	10	3	010621325	22,188
13,5	108	160	10	3	010621350	20,252
13,75	108	160	10	3	010621375	22,188
14	108	160	10	3	010621400	20,727
14,25	114	169	10	3	010621425	26,031
14,5	114	169	10	3	010621450	22,650
14,75	114	169	10	3	010621475	26,031
15	114	169	10	3	010621500	23,991
15,25	120	178	10	3	010621525	31,668
15,5	120	178	10	3	010621550	27,621
15,75	120	178	10	3	010621575	31,668
16	120	178	10	3	010621600	28,997
16,5	125	184	10	1	010621650	29,211
17	125	184	10	1	010621700	30,837
17,5	130	191	10	1	010621750	32,367
18	130	191	10	1	010621800	34,621
18,5	135	198	10	1	010621850	37,860
19	135	198	10	1	010621900	39,129
19,5	140	205	10	1	010621950	43,768
20	140	205	10	1	010622000	43,768

01063



d=13 mm

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	010631325	22,188
13,5	108	160	13	3	010631350	20,252
13,75	108	160	13	3	010631375	22,188
14	108	160	13	3	010631400	20,727
14,25	114	169	13	3	010631425	26,031
14,5	114	169	13	3	010631450	22,650
14,75	114	169	13	3	010631475	26,031
15	114	169	13	3	010631500	23,991
15,25	120	178	13	3	010631525	31,668
15,5	120	178	13	3	010631550	27,621
15,75	120	178	13	3	010631575	31,668
16	120	178	13	3	010631600	28,997
16,5	125	184	13	1	010631650	29,211
17	125	184	13	1	010631700	30,837
17,5	130	191	13	1	010631750	32,367
18	130	191	13	1	010631800	34,621
18,5	135	198	13	1	010631850	37,860
19	135	198	13	1	010631900	39,129
19,5	140	205	13	1	010631950	43,768
20	140	205	13	1	010632000	43,768
20,5	145	213	13	1	010632050	45,035
21	145	213	13	1	010632100	45,035
21,5	150	221	13	1	010632150	46,166
22	150	221	13	1	010632200	46,166
22,5	150	221	13	1	010632250	47,686
23	155	229	13	1	010632300	47,686
23,5	155	229	13	1	010632350	48,492
24	160	236	13	1	010632400	48,492
24,5	160	236	13	1	010632450	50,981
25	160	236	13	1	010632500	50,981

Confezione / Packaging



Applicazioni / Applications

R ≤ 800 N/mm²



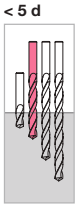
Acciaio
Steel



Metals



< 5 d



PUNTE ELICOIDALI CILINDRICHE, SERIE EXTRA CORTA, INTERAMENTE RETTIFICATE

Straight shank twist drills, stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01094





Confezione / *Packaging*



Applicazioni / *Applications*



Ø h8	/	L	pcs	cod.	€ cad/each
1,5	9	32	10	010940150	0,889
2	12	38	10	010940200	0,889
2,2	13	40	10	010940220	1,079
2,25	13	40	10	010940225	1,079
2,5	14	43	10	010940250	0,985
2,75	16	46	10	010940275	1,222
2,8	16	46	10	010940280	1,222
3	16	46	10	010940300	1,222
3,1	18	49	10	010940310	1,342
3,2	18	49	10	010940320	1,342
3,25	18	49	10	010940325	1,342
3,5	20	52	10	010940350	1,342
3,7	20	52	10	010940370	1,483
3,75	20	52	10	010940375	1,483
3,8	22	55	10	010940380	1,483
4	22	55	10	010940400	1,483
4,1	22	55	10	010940410	1,851
4,2	22	55	10	010940420	1,851
4,25	22	55	10	010940425	1,851
4,5	24	58	10	010940450	1,685
4,75	24	58	10	010940475	1,887
4,8	26	62	10	010940480	1,887
5	26	62	10	010940500	1,757
5,1	26	62	10	010940510	2,468
5,2	26	62	10	010940520	2,468
5,25	26	62	10	010940525	2,468
5,5	28	66	10	010940550	2,326
5,75	28	66	10	010940575	2,777
5,8	28	66	10	010940580	2,777

Ø h8	/	L	pcs	cod.	€ cad/each
6	28	66	10	010940600	2,599
6,25	31	70	10	010940625	3,121
6,5	31	70	10	010940650	3,121
6,75	34	74	10	010940675	3,641
7	34	74	10	010940700	3,641
7,25	34	74	5	010940725	3,868
7,5	34	74	5	010940750	3,868
7,75	37	79	5	010940775	4,700
8	37	79	5	010940800	4,700
8,25	37	79	5	010940825	6,288
8,5	37	79	5	010940850	6,288
8,75	40	84	5	010940875	7,215
9	40	84	5	010940900	7,215
9,25	40	84	5	010940925	8,198
9,5	40	84	5	010940950	8,198
9,75	40	84	5	010940975	9,255
10	43	89	5	010941000	9,255
10,25	43	89	5	010941025	13,227
10,5	43	89	5	010941050	13,227
10,75	47	95	5	010941075	14,109
11	47	95	5	010941100	14,109
11,25	47	95	5	010941125	14,881
11,5	47	95	5	010941150	14,881
11,75	47	95	5	010941175	15,322
12	51	102	5	010941200	15,322
12,25	51	102	5	010941225	16,864
12,5	51	102	5	010941250	16,864
12,75	51	102	5	010941275	17,306
13	51	102	5	010941300	17,306

Art. **01373** Self
Disponibile su richiesta
On demand



Ø 2 ÷ 10x0,5
01068221 € 82,930

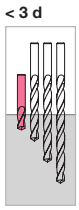
HSS-G Rettificata / *Ground from the solid / Rectifié / Rectificada / Geschliffen*

Elica contrapposta
Double ended

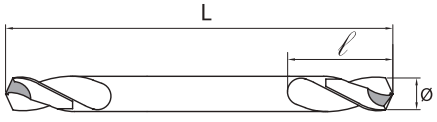
01095







Ø h8	/	L	pcs	cod.	€ cad/each
2	10	38	10	010950200	1,528
2,5	10	43	10	010950250	1,528
3	11	46	10	010950300	1,758
3,2	11	49	10	010950320	1,758
3,25	11	49	10	010950325	1,758
3,3	11	49	10	010950330	1,758
3,4	14	52	10	010950340	1,758
3,5	14	52	10	010950350	1,758
3,75	14	55	10	010950375	1,975
4	14	55	10	010950400	1,975
4,1	14	55	10	010950410	2,350
4,2	17	58	10	010950420	2,350
4,25	17	58	10	010950425	2,350
4,5	17	58	10	010950450	2,589
4,75	17	62	10	010950475	2,863
4,9	17	62	10	010950490	2,863
5	17	62	10	010950500	2,863
5,1	17	62	10	010950510	3,822
5,5	17	66	10	010950550	3,822
6	17	66	10	010950600	4,198
6,5	17	66	10	010950650	4,740





PUNTE ELICOIDALI CILINDRICHE SERIE LUNGA, INTERAMENTE RETTIFICATE

Long straight shank twist drills / Forets cylindriques série longue
Brocas helicoidales serie larga / Spiralbohrer, lange Ausführung

HSS-G DIN 340 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01096





Ø h8	/	L	pcs	cod.	€ cad/each
1	33	56	10	010960100	1,910
1,5	45	70	10	010960150	1,910
1,75	53	80	10	010960175	2,112
2	56	85	10	010960200	2,006
2,25	59	90	10	010960225	2,218
2,5	62	95	10	010960250	2,112
2,75	66	100	10	010960275	2,444
3	66	100	10	010960300	2,444
3,25	69	106	10	010960325	2,657
3,5	73	112	10	010960350	2,599
3,75	73	112	10	010960375	2,764
4	78	119	10	010960400	2,634
4,25	78	119	10	010960425	3,346
4,5	82	126	10	010960450	3,393
4,75	82	126	10	010960475	3,464
5	87	132	10	010960500	3,298
5,25	87	132	10	010960525	4,568
5,5	91	139	10	010960550	4,568
5,75	91	139	10	010960575	4,995
6	91	139	10	010960600	4,995
6,25	97	148	5	010960625	5,648
6,5	97	148	5	010960650	5,376
6,75	97	148	5	010960675	6,585
7	102	156	5	010960700	6,040
7,25	102	156	5	010960725	7,428
7,5	102	156	5	010960750	7,072
7,75	109	165	5	010960775	8,448
8	109	165	5	010960800	8,045
8,25	109	165	5	010960825	11,118
8,5	109	165	5	010960850	11,118
8,75	115	175	5	010960875	11,639
9	115	175	5	010960900	11,639

Ø h8	/	L	pcs	cod.	€ cad/each
9,25	115	175	5	010960925	13,098
9,5	115	175	5	010960950	12,470
9,75	121	184	5	010960975	14,344
10	121	184	5	010961000	13,668
10,25	121	184	5	010961025	16,481
10,5	121	184	5	010961050	16,481
10,75	121	184	5	010961075	16,753
11	128	195	5	010961100	16,753
11,25	128	195	5	010961125	18,497
11,5	128	195	5	010961150	18,497
11,75	128	195	5	010961175	20,145
11,8	128	195	5	010961180	20,145
12	134	205	5	010961200	20,145
12,25	134	205	5	010961225	20,811
12,5	134	205	5	010961250	20,811
12,75	134	205	5	010961275	24,382
13	134	205	5	010961300	24,382
13,5	140	214	3	010961350	33,624
14	140	214	3	010961400	33,624
14,5	144	220	3	010961450	47,590
15	144	220	3	010961500	45,323
15,5	149	227	3	010961550	55,244
16	149	227	3	010961600	52,620
16,5	154	235	1	010961650	54,542
17	154	235	1	010961700	56,084
17,5	158	241	1	010961750	62,242
18	158	241	1	010961800	63,263
18,5	162	247	1	010961850	71,865
19	162	247	1	010961900	73,277
19,5	166	254	1	010961950	77,642
20	166	254	1	010962000	78,533

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²



HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

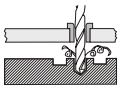
Speciale infissi
Special for casing

01129



Ø h8	/	L	pcs	cod.	€ cad/each
3	16	100	10	011291000300	3,255
5	30	210	10	011292100500	6,502
5,3	30	210	10	011292100530	6,658
5,8	30	150	10	011291500580	5,040
5,8	30	210	10	011292100580	6,884





PUNTE ELICOIDALI CILINDRICHE, SERIE EXTRA LUNGA, INTERAMENTE RETTIFICATE

Extra long straight shank twist drills / Forets helicoidaux, série extra longue
Brocas helicoidales, serie extra larga / Spiralbohrer, extra lange Ausführung

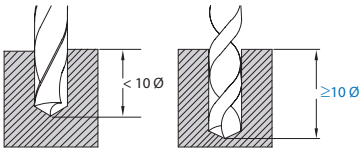
HSS-G DIN 1869 Rettificata

Ground from the solid / Rectifié
Rectificada / Geschliffen





Parabolic



DIN 1869/1 — Art. 01098 — Parabolic Art. 01370

Ø h8	/	L	pcs	cod.	€ cad/each	cod.	€ cad/each
2	85	125	1	010980200	9,690	013700200	14,940
2,5	95	140	1	010980250	10,177	013700250	14,871
3	100	150	1	010980300	11,268	013700300	16,572
3,5	115	165	1	010980350	11,956	013700350	17,110
4	120	175	1	010980400	11,956	013700400	17,379
4,5	125	185	1	010980450	13,002	013700450	19,349
5	135	195	1	010980500	13,002	013700500	19,797
5,25	135	195	1	010980525	15,794	013700525	22,574
5,5	140	205	1	010980550	15,794	013700550	22,574
5,75	140	205	1	010980575	15,794	013700575	22,574
6	140	205	1	010980600	15,794	013700600	22,574
6,5	150	215	1	010980650	18,833	013700650	28,218
6,8	155	225	1	010980680	21,741	-	-
7	155	225	1	010980700	21,741	013700700	32,249
7,5	155	225	1	010980750	24,591	013700750	38,072
7,75	165	240	1	010980775	26,906	-	-
8	165	240	1	010980800	26,906	013700800	41,297
8,5	165	240	1	010980850	28,249	013700850	53,210
9	175	250	1	010980900	35,717	013700900	56,435
9,5	175	250	1	010980950	38,865	013700950	64,498
10	185	265	1	010981000	38,865	013701000	59,661
10,2	185	265	1	010981020	38,865	-	-
10,5	185	265	1	010981050	38,865	013701050	71,573
11	195	280	1	010981100	38,865	013701100	80,263
11,5	195	280	1	010981150	48,968	013701150	87,698
11,75	205	295	1	010981175	48,968	-	-
12	205	295	1	010981200	48,968	013701200	106,064
12,5	205	295	1	010981250	51,285	013701250	111,258
13	205	295	1	010981300	51,285	013701300	106,779

DIN 1869/2 — Art. 01099 — Art. 01371

Ø h8	/	L	pcs	cod.	€ cad/each	cod.	€ cad/each
3	130	190	1	010990300	13,857	013710300	19,210
3,5	145	210	1	010990350	14,391	013710350	20,394
4	150	220	1	010990400	14,880	013710400	20,563
4,5	160	235	1	010990450	17,194	013710450	24,963
5	170	245	1	010990500	17,669	013710500	24,028
5,5	180	260	1	010990550	23,083	013710550	31,981
5,75	180	260	1	010990575	23,083	-	-
6	180	260	1	010990600	23,083	013710600	31,224
6,5	190	275	1	010990650	24,591	013710650	35,026
7	200	290	1	010990700	28,534	013710700	39,594
7,5	200	290	1	010990750	32,796	013710750	47,209
8	210	305	1	010990800	33,403	013710800	47,209
8,5	210	305	1	010990850	43,720	013710850	63,960
9	220	320	1	010990900	52,020	013710900	65,484
9,5	220	320	1	010990950	52,661	013710950	77,665
10	235	340	1	010991000	52,661	013711000	74,620
10,5	235	340	1	010991050	54,644	013711050	97,463
11	250	365	1	010991100	54,644	013711100	111,766
11,5	250	365	1	010991150	57,389	013711150	124,535
12	260	375	1	010991200	68,859	013711200	125,472
12,5	260	375	1	010991250	72,289	013711250	132,827
13	260	375	1	010991300	72,289	013711300	130,964

DIN 1869/3 — Art. 01100 — Art. 01372

Ø h8	/	L	pcs	cod.	€ cad/each	cod.	€ cad/each
3,5	180	265	1	011000350	18,179	013720350	30,636
4	190	280	1	011000400	17,527	013720400	30,636
4,5	200	295	1	011000450	20,887	013720450	38,699
5	210	315	1	011000500	21,777	013720500	38,699
5,5	225	330	1	011000550	23,380	013720550	41,297
6	225	330	1	011000600	24,437	013720600	41,923
6,5	235	350	1	011000650	27,097	013720650	46,760
7	250	370	1	011000700	35,076	013720700	61,274
7,5	250	370	1	011000750	39,850	013720750	69,335
8	265	390	1	011000800	39,850	013720800	70,947
8,5	265	390	1	011000850	52,067	013720850	90,297
9	280	410	1	011000900	56,320	013720900	99,969
9,5	280	410	1	011000950	61,104	013720950	111,258
10	295	430	1	011001000	61,104	013721000	111,258
10,5	295	430	1	011001050	61,104	013721050	116,721
11	310	455	1	011001100	61,104	013721100	133,205
11,5	310	455	1	011001150	64,167	013721150	143,149
12	330	480	1	011001200	76,991	013721200	149,329
12,5	330	480	1	011001250	88,925	013721250	153,538
13	330	480	1	011001300	88,925	013721300	153,538

Confezione / Packaging



Applicazioni / Applications

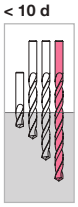
R ≤ 800 N/mm²







< 10 d



PUNTE ELICOIDALI CILINDRICHE HSS RETTIFICATE, SERIE SPECIALI SUPER LUNGHE

Long straight shank twist drills / Forets cylindriques série longue
Brocas helicoidales serie larga / Spiralbohrer, lange Ausführung

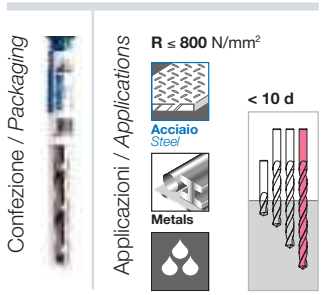
NORMA KRINO HSS-G Rettificata

Ground from the solid / Rectifié
Rectificada / Geschliffen

01105
01114





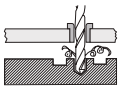


Art. 01105
L = 305 mm

Ø	/	L	d	pcs	cod.	€ cad/each
6	228	305	6	1	011050600	24,401
6,5	228	305	6,5	1	011050650	26,975
7	228	305	7	1	011050700	34,673
7,5	228	305	7,5	1	011050750	39,817
8	228	305	8	1	011050800	43,667
8,5	228	305	8,5	1	011050850	52,018
9	228	305	9	1	011050900	52,018
9,5	228	305	9,5	1	011050950	53,939
10	228	305	10	1	011051000	53,939
10,5	228	305	10,5	1	011051050	55,225
11	228	305	11	1	011051100	55,225
11,5	228	305	11,5	1	011051150	57,154
12	228	305	12	1	011051200	57,154
12,5	228	305	12,5	1	011051250	59,935
13	228	305	13	1	011051300	59,935
14	228	305	13	1	011051400	74,491
15	228	305	13	1	011051500	85,662
16	228	305	13	1	011051600	95,577

Art. 01114
L = 460 mm

Ø	/	L	d	pcs	cod.	€ cad/each
6	330	460	6	1	011140600	38,753
8	330	460	8	1	011140800	61,967
10	330	460	10	1	011141000	89,696
12	330	460	12	1	011141200	122,466
14	330	460	13	1	011141400	171,243
16	330	460	13	1	011141600	214,048



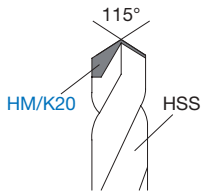
PUNTE ELICOIDALI CON PLACCHETTA IN METALLO DURO K20 PER IL TAGLIO DEI METALLI

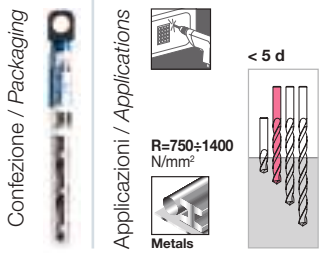
Carbide tipped twist drills for metal cutting / Forets à mise rapportée carbure de tungstene pour métaux
Brocas helicoidales, corte de metal duro para acero / Spiralbohrer mit Schneidplatte aus Hartmetall für Metall

HSS-G DIN 338 Rettificata / *Ground from the solid / Rectifié / Rectificada / Geschliffen*

01093







154

Ø	/	L	pcs	cod.	€ cad/each
2	24	49	1	010930200	27,320
2,5	30	57	1	010930250	27,320
3	33	61	1	010930300	27,320
3,5	39	70	1	010930350	27,320
4	43	75	1	010930400	15,179
4,5	47	80	1	010930450	15,822
5	52	86	1	010930500	16,772
5,5	57	93	1	010930550	17,406
6	57	93	1	010930600	18,039
6,5	63	101	1	010930650	19,929
7	69	109	1	010930700	20,245
7,5	69	109	1	010930750	21,503
8	75	117	1	010930800	23,412
8,5	75	117	1	010930850	26,885
9	81	125	1	010930900	26,885
9,5	81	125	1	010930950	28,784
10	87	133	1	010931000	30,991
10,5	87	133	1	010931050	33,534
11	94	142	1	010931100	36,068
11,5	94	142	1	010931150	39,214
12	101	151	1	010931200	42,372
12,5	101	151	1	010931250	45,537
13	101	151	1	010931300	49,328

- Taglio degli acciai duri trattati ed abrasivi con R da 750 N/mm² a 1400 N/mm², acciai per molle, acciai al manganese, molibdeno puro, ghisa in conchiglia con HB>300, bronzo duro.
- *For drilling in: Hardened steel, tough cast iron, manganese steel, bronze, abrasive tough steel.*
- *Pour percer: acier traité et au manganese, font, acier abrasif.*
- *Para taladar: metales muy abrasivos, aceros tratados, acero manganeso, bronze duro.*
- *Spiralbohrer nach dieser Norm eignen sich zum Bohren von Stahl mit 750 bis 1400 N/mm² (~75 bis 140 Kp/mm²) Zugfestigkeit sowie für Gußeisen, Hartguß, Temperguß, Rotguß, Bronze und Stahlguß.*



Ø 3-4-5-6-8
01068208
€ 84,377



Ø 2-10x0,5
01068417
€ 213,116

Ø 2-13x0,5
01068418
€ 411,676

PUNTE PER ALLUMINIO E PER MATERIALI A TRUCIOLO LUNGO, SERIE CORTA

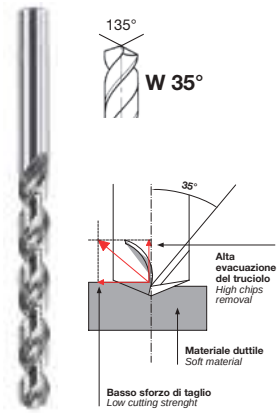
Fully ground twist drills for light alloys / Forets rectifiés pour aluminium et alliage léger
Brocas rectificadas para aluminio y aleaciones ligeras / Geschliffene Spiralbohrer für Alluminium und Leichtmetallegierung

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Alu

01092



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010920100	3,992
1,5	18	40	10	010920150	3,541
2	24	49	10	010920200	3,541
2,25	27	53	10	010920225	4,054
2,5	30	57	10	010920250	3,615
2,75	33	61	10	010920275	4,380
3	33	61	10	010920300	3,982
3,2	36	65	10	010920320	4,820
3,25	36	65	10	010920325	4,820
3,5	39	70	10	010920350	4,380
3,75	39	70	10	010920375	5,238
4	43	75	10	010920400	4,747
4,2	43	75	10	010920420	6,486
4,25	43	75	10	010920425	6,486
4,5	47	80	10	010920450	5,741
4,75	47	80	10	010920475	6,558
5	52	86	10	010920500	5,899
5,2	52	86	10	010920520	8,360
5,25	52	86	10	010920525	8,360
5,5	57	93	10	010920550	7,962
5,75	57	93	10	010920575	8,360
6	57	93	10	010920600	7,596

Ø h8	/	L	pcs	cod.	€ cad/each
6,25	63	101	10	010920625	10,004
6,5	63	101	10	010920650	9,106
6,75	69	109	10	010920675	10,173
7	69	109	10	010920700	9,252
7,25	69	109	5	010920725	13,579
7,5	69	109	5	010920750	14,427
7,75	75	117	5	010920775	16,068
8	75	117	5	010920800	15,426
8,25	75	117	5	010920825	15,654
8,5	75	117	5	010920850	14,467
8,75	81	125	5	010920875	16,357
9	81	125	5	010920900	14,952
9,25	81	125	5	010920925	17,049
9,5	81	125	5	010920950	16,357
9,75	87	133	5	010920975	18,098
10	87	133	5	010921000	16,693
10,5	87	133	5	010921050	20,305
11	94	142	5	010921100	24,669
11,5	94	142	5	010921150	28,962
12	101	151	5	010921200	31,664
12,5	101	151	5	010921250	32,961
13	101	151	5	010921300	32,961



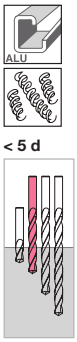
Ø 1÷10x0,5
01068303
€ 151,80

Ø 1÷13x0,5
01068304
€ 312,461

Confezione / *Packaging*



Applicazioni / *Applications*



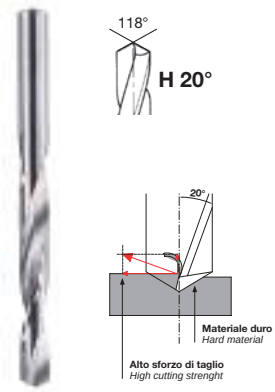
PUNTE PER OTTONE E PER MATERIALI A TRUCIOLO CORTO, SERIE CORTA

Fully ground twist drills for brass / Forets rectifiés pour laiton
Brocas rectificadas para laton / Geschliffene Spiralbohrer für Messing

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01091



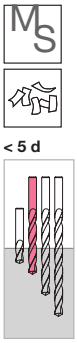
Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010910100	3,992
1,5	18	40	10	010910150	3,541
2	24	49	10	010910200	3,541
2,25	27	53	10	010910225	4,054
2,5	30	57	10	010910250	3,615
2,75	33	61	10	010910275	4,380
3	33	61	10	010910300	3,982
3,25	36	65	10	010910325	4,820
3,5	39	70	10	010910350	4,380
3,75	39	70	10	010910375	5,238
4	43	75	10	010910400	4,747
4,25	43	75	10	010910425	6,486
4,5	47	80	10	010910450	5,741
4,75	47	80	10	010910475	6,558
5	52	86	10	010910500	5,899
5,25	52	86	10	010910525	8,360
5,5	57	93	10	010910550	7,962
5,75	57	93	10	010910575	8,360
6	57	93	10	010910600	7,596
6,25	63	101	10	010910625	10,004
6,5	63	101	10	010910650	9,106

Ø h8	/	L	pcs	cod.	€ cad/each
6,75	69	109	10	010910675	10,173
7	69	109	10	010910700	9,252
7,25	69	109	5	010910725	13,579
7,5	69	109	5	010910750	13,579
7,75	75	117	5	010910775	15,123
8	75	117	5	010910800	14,518
8,25	75	117	5	010910825	14,734
8,5	75	117	5	010910850	13,615
8,75	81	125	5	010910875	15,395
9	81	125	5	010910900	14,072
9,25	81	125	5	010910925	16,046
9,5	81	125	5	010910950	15,395
9,75	87	133	5	010910975	17,033
10	87	133	5	010911000	15,710
10,5	87	133	5	010911050	19,111
11	94	142	5	010911100	23,218
11,5	94	142	5	010911150	27,259
12	101	151	5	010911200	29,801
12,5	101	151	5	010911250	31,022
13	101	151	5	010911300	31,022

Confezione / *Packaging*



Applicazioni / *Applications*



PUNTE ELICOIDALI CILINDRICHE SINISTRE, INTERAMENTE RETTIFICATE

Straight shank twist drills, left hand / Forets helicoidaux, coupe à gauche
Brocas helicoidales izquierdas / Spiralbohrer mit Zylinderschaft, link

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Serie corta
Short serie

01090





Sinistra
Left hand
Gauche
Izquierda
Link



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010900100	3,318
1,5	18	40	10	010900150	2,622
2	24	49	10	010900200	2,622
2,1	24	49	10	010900210	2,622
2,2	27	53	10	010900220	2,622
2,3	27	53	10	010900230	2,622
2,4	30	57	10	010900240	2,622
2,5	30	57	10	010900250	2,622
2,6	30	57	10	010900260	2,622
2,7	33	61	10	010900270	2,622
2,8	33	61	10	010900280	2,622
2,9	33	61	10	010900290	2,622
3	33	61	10	010900300	2,622
3,2	36	65	10	010900320	3,218
3,3	36	65	10	010900330	3,218
3,4	36	65	10	010900340	6,195
3,5	39	70	10	010900350	3,218
3,7	39	70	10	010900370	3,539
3,8	43	75	10	010900380	3,539
4	43	75	10	010900400	3,539
4,1	43	75	10	010900410	4,070
4,2	43	75	10	010900420	4,070
4,5	47	80	10	010900450	4,070
4,6	47	80	10	010900460	4,402
4,7	47	80	10	010900470	4,402
4,8	52	86	10	010900480	4,402
5	52	86	10	010900500	4,402
5,1	52	86	10	010900510	5,961
5,2	52	86	10	010900520	5,961
5,5	57	93	10	010900550	5,961
5,8	57	93	10	010900580	6,526
6	57	93	10	010900600	6,526
6,2	57	101	10	010900620	14,078
6,3	57	101	10	010900630	14,515
6,5	63	101	10	010900650	7,918
7	69	109	10	010900700	9,511
7,5	69	109	5	010900750	10,739
7,8	69	117	5	010900780	20,517
8	75	117	5	010900800	11,535
8,5	75	117	5	010900850	12,187
8,7	75	117	5	010900870	25,101
9	81	125	5	010900900	14,964
9,5	81	125	5	010900950	16,157
10	87	133	5	010901000	17,739
10,5	87	133	5	010901050	22,284
11	94	142	5	010901100	26,109
11,5	94	142	5	010901150	27,327
12	101	151	5	010901200	30,269
12,5	101	151	5	010901250	33,012
13	101	151	5	010901300	33,708
13,5	101	151	5	010901350	52,371

Abs



Ø 1÷10x0,5
01068307
€ 128,436

Ø 1÷13x0,5
01068308
€ 274,428

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²



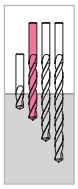
Acciaio
Steel



Metals



< 5 d



PUNTE ELICOIDALI CILINDRICHE SINISTRE, INTERAMENTE RETTIFICATE SERIE EXTRA CORTA

Straight shank twist drills, left hand, stub serie / Forets helicoidaux, coupe à gauche, série extra courte
Brocas helicoidales izquierdas serie extra corta / Spiralbohrer mit Zylinderschaft, link, extra kurz

HSS-G DIN 1897 Rettificata
Ground from the solid / Rectifié / Rectificada / Geschliffen

Serie extra corta
Extra short serie

01067





W 27°

Sinistra
Left hand
Gauche
Izquierda
Link



Ø h8	/	L	pcs	cod.	€ cad/each
1,5	9	32	10	010670150	36,908
2	12	38	10	010670200	18,092
2,2	13	40	10	010670220	28,770
2,5	14	43	10	010670250	27,615
2,7	16	46	10	010670270	31,710
2,8	16	46	10	010670280	37,170
3	16	46	10	010670300	22,418
3,1	18	49	10	010670310	25,967
3,2	18	49	10	010670320	26,880
3,5	20	52	10	010670350	24,675
3,7	20	52	10	010670370	28,707
3,75	20	52	10	010670375	29,400
3,8	22	55	10	010670380	29,400
4	22	55	10	010670400	26,702
4,2	22	55	10	010670420	29,190
4,5	24	58	10	010670450	28,035
4,8	26	62	10	010670480	31,500
5	26	62	10	010670500	28,035
5,1	26	62	10	010670510	31,794
5,2	26	62	10	010670520	33,600
5,5	28	66	10	010670550	28,665
5,7	28	66	10	010670570	35,910
5,8	28	66	10	010670580	35,910
6	28	66	10	010670600	28,665
6,5	31	70	10	010670650	30,345
7	34	74	10	010670700	31,605
7,5	34	74	5	010670750	34,178
8	37	79	5	010670800	34,335
8,5	37	79	5	010670850	34,335
9	40	84	5	010670900	35,994
9,5	40	84	5	010670950	35,994
10	43	89	5	010671000	36,750
10,2	43	89	5	010671020	38,430
10,5	43	89	5	010671050	42,336
11	47	95	5	010671100	52,500
11,5	47	95	5	010671150	57,540
12	51	102	5	010671200	60,270
12,5	51	102	5	010671250	64,785
13	51	102	5	010671300	68,040
14	54	107	3	010671400	79,170
15	56	111	3	010671500	96,180
16	58	115	3	010671600	108,990

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²



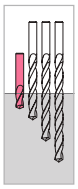
Acciaio
Steel



Metals



< 3 d



PUNTE A CENTRARE, ANGOLO DI SVASATURA 60°

Center drills 60° / Forets à centrer 60°
Brocas de centrar 60° / Zentrierbohrer 60°

HSS-G DIN 333/A 60°

01110 01214 NEW







Ø k12	D h8	L mm	pcs	Art. 01110 HSS-G cod.	€ cad/each	Art. 01214 HSS-G + TiN cod.	€ cad/each
1	3,15	31,5	1	011100100	5,692	012140100	9,262
1,6	4	35,5	1	011100160	5,577	012140160	9,384
2	5	40	1	011100200	5,902	012140200	9,769
2,5	6,3	45	1	011100250	6,356	012140250	10,547
3,15	8	50	1	011100315	7,439	012140315	11,962
4	10	56	1	011100400	14,529	012140400	20,100
5	12,5	63	1	011100500	19,720	012140500	27,322
6,3	16	71	1	011100630	33,178	012140630	40,997

HSS-G~DIN 333/A 60°

01374





Ø	D	L	pcs	cod.	€ cad/each
1	4	120	1	013740100	24,077
1,6	5	120	1	013740160	24,077
2	6	120	1	013740200	24,077
2,5	8	120	1	013740250	26,219
3,15	10	120	1	013740315	50,818

HSS-G~DIN 333/A 60°

01375







Ø	D	L	S	pcs	cod.	€ cad/each
1,6	4	35,5	3,25	1	013750160	14,684
2	5	40	4,2	1	013750200	14,684
2,5	6,3	45	5,35	1	013750250	14,684
3,15	8	50	6,95	1	013750315	18,603
4	10	56	8,4	1	013750400	26,219
5	12,5	63	10,95	1	013750500	40,119
6,3	16	71	14	1	013750630	70,611

PUNTE A CENTRARE, ANGOLO DI SVASATURA 60°

Center drills 60° / Forets à centrer 60°
Brocas de centrar 60° / Zentrierbohrer 60°

HSS-G DIN 333/B 60°/120°



Ø	D	L	pcs	Art. 01112 HSS-G cod.	€ cad/each	Art. 01217 HSS-G + TiN cod.	€ cad/each
1	4	35,5	1	011120100	8,685	012170100	13,881
1,6	6,3	45	1	011120160	9,511	012170160	14,522
2	8	50	1	011120200	10,268	012170200	15,435
2,5	10	56	1	011120250	13,108	012170250	22,292
3,15	11,2	60	1	011120315	15,751	012170315	24,150
4	14	67	1	011120400	24,923	012170400	36,120
5	18	75	1	011120500	31,337	012170500	50,558
6,3	20	80	1	011120630	45,960	012170630	66,570

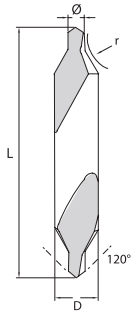
01112
01217
NEW

HSS-G DIN 333/R 60°



Ø	r	D	L	pcs	Art. 01111 HSS-G cod.	€ cad/each	Art. 01216 HSS-G + TiN cod.	€ cad/each
1	3,15	3,15	31,5	1	011110100	5,692	012160100	9,585
1,6	5	4	35,5	1	011110160	5,577	012160160	9,722
2	6,3	5	40	1	011110200	5,902	012160200	10,172
2,5	8	6,3	45	1	011110250	6,356	012160250	11,080
3,15	10	8	50	1	011110315	7,439	012160315	12,712
4	12,5	10	56	1	011110400	14,529	012160400	21,164
5	16	12,5	63	1	011110500	19,720	012160500	29,062
6,3	20	16	71	1	011110630	33,178	012160630	44,018

01111
01216
NEW



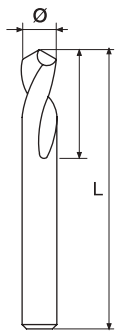
PUNTE A CENTRARE CILINDRICHE PER CENTRI CN 90°-120°

CNC center drills / Forêts à center pour machines CN



Ø	/ mm	L mm	pcs	Art. 01364 HSS-G 90° cod.	€ cad/each	Art. 01365 HSS-G 120° cod.	€ cad/each
3	12	46	1	013640300	12,980	013650300	12,980
4	12	55	1	013640400	13,881	013650400	13,881
5	14	62	1	013640500	15,616	013650500	15,616
6	16	66	1	013640600	18,057	013650600	18,057
8	21	79	1	013640800	27,311	013650800	27,311
10	25	89	1	013641000	34,571	013651000	34,571
12	30	102	1	013641200	48,838	013651200	48,838
14	33	107	1	013641400	69,722	013651400	69,722
16	37	115	1	013641600	76,019	013651600	76,019
20	45	131	1	013642000	129,997	013652000	129,997

01364
01365



Metallo duro - *Carbide*



PUNTE A GRADINO AD ELICHE INDIPENDENTI PER FORI SEDI VITI

Subland twist drills with independent spirals for screws holes / Forets étagés avec hélices indépendantes, pour têtes de vis
Brocas escalonadas con espirales indipendientes, para asientos de tornillos / Stufenbohrer mit selbständigen Schrauben für Zylinderschrauben

Per fori passanti - *For through holes - Pour trous débouchants - Para orificios pasantes - Für Durchgangslöcher*

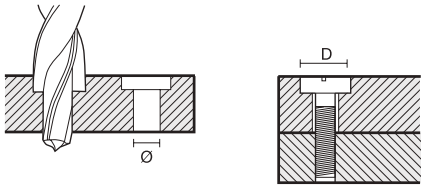
HSS

01103 01104



DIN 8376 DIN 8377

Eliche indipendenti
Independent spirals



Art. 01103 Grado fine / Fine grade

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,4	6	9	57	93	011030300	34,602
4	4,5	8	11	75	117	011030400	38,932
5	5,5	10	13	87	133	011030500	47,593
6	6,6	11	15	94	142	011030600	56,232
8	9	15	19	114	169	011030800	70,068
10	11	18	23	130	191	011031000	104,691

Art. 01104

VITE *thread*	Ø	D	l_1	l	L	M.K.	cod.	€ cad/each
M 5	5,5	10	13	87	168	1	011040500	70,492
6	6,6	11	15	94	175	1	011040600	74,009
8	9	15	19	114	212	2	011040800	99,645
10	11	18	23	130	228	2	011041000	131,151
12	13,5	20	27	140	238	2	011041200	162,764
14	15,5	24	31	160	281	3	011041400	199,064
16	17,5	26	35	165	286	3	011041600	234,196
18	20	30	39	175	296	3	011041800	271,668
20	22	33	43	185	334	4	011042000	316,162

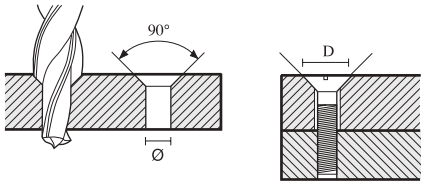
HSS

01101 01102



DIN 8374 DIN 8375

Eliche indipendenti
Independent spirals

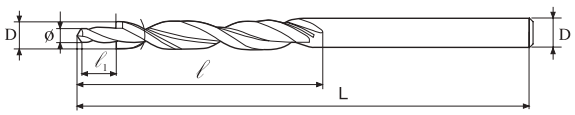


Art. 01101 Grado fine / Fine grade

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,2	6	9	57	93	011010300	39,332
4	4,3	8	11	75	117	011010400	45,113
5	5,3	10	13	87	133	011010500	56,948
6	6,4	11,5	15	94	142	011010600	65,554
8	8,4	15	19	114	169	011010800	111,013
10	10,5	19	23	135	198	011011000	172,139

Art. 01102

VITE *thread*	Ø	D	l_1	l	L	M.K.	cod.	€ cad/each
M 5	5,5	11	13	94	175	1	011020500	76,402
6	6,6	13	15	101	182	1	011020600	102,666
8	9	17,2	19	130	228	2	011020800	131,151
10	11	21,5	23	150	248	2	011021000	181,505



Confezione / *Packaging*



Applicazioni / *Applications*



PUNTA A GRADINO AD ELICHE INDIPENDENTI PER PREFORI DI FILETTATURA

Subland twist drills with independent spirals for thread core hole / Foret étagés avec hélices indépendantes pour trous de taraudage
Brocas escalonadas con espirales independientes para orificios de roscado / Stufenbohrer mit selbständigen Schrauben für Gewindelöcher

Per prefori di filettature - *For thread core holes - Pour trous de taraudage - Para orificios de roscado - Für Gewindelöcher*

HSS



DIN 8378

Eliche indipendenti
Independent spirals



Applicazioni / *Applications*



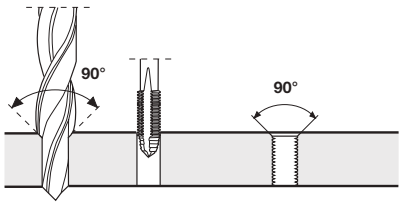
Acciaio
Steel

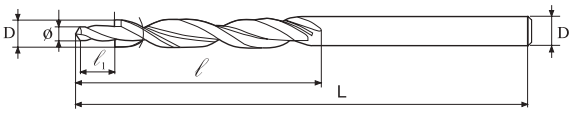


Metals

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	2,5	3,4	8,8	39	70	011170300	43,590
4	3,3	4,5	11,4	47	80	011170400	46,503
5	4,2	5,5	13,6	57	93	011170500	47,959
6	5	6,6	16,5	63	101	011170600	55,222
8	6,8	9,0	21	81	125	011170800	62,482
10	8,5	11	25,5	94	142	011171000	81,375
12	10,2	13,5	30	108	160	011171200	106,071

01117





PUNTE A GRADINO AD ELICA SINGOLA, SERIE CORTA

Subland twist drills, short serie / Forets étagés, série courte / Brocas escalonadas, serie corta / Stufenbohrer, Kurze Ausführung

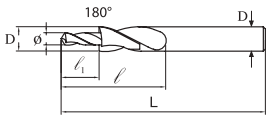
HSS

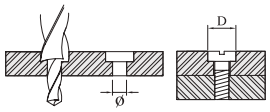
01059 01058 01057



Art. 01059 ~ DIN 8376 Grado fine / Fine grade

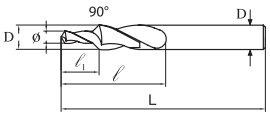
VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,4	6	9	28	66	010590300	15,600
4	4,5	8	11	37	79	010590400	19,509
5	5,5	10	13	43	89	010590500	29,262
6	6,6	11	15	47	95	010590600	42,916
8	9,0	15	19	56	111	010590800	62,413
10	11,0	18	23	62	123	010591000	97,531

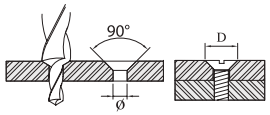




Art. 01058 ~ DIN 8374 Grado fine / Fine grade

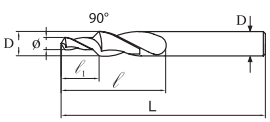
VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,2	6	9	28	66	010580300	15,600
4	4,3	8	11	37	79	010580400	19,509
5	5,3	10	13	43	89	010580500	29,262
6	6,4	11,5	15	47	95	010580600	42,916
8	8,4	15	19	56	111	010580800	62,413
10	10,5	19	23	62	123	010581000	97,531

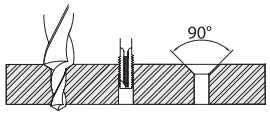




Art. 01057 ~ DIN 8378

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	2,5	3,4	8,8	20	52	010570300	16,385
4	3,3	4,5	11,4	24	58	010570400	16,385
5	4,2	5,5	13,6	28	66	010570500	18,723
6	5,0	6,6	16,5	31	70	010570600	21,069
8	6,8	9,0	21,0	40	84	010570800	28,090
10	8,5	11,0	25,5	47	95	010571000	42,128
12	10,2	13,5	30,0	54	107	010571200	58,515





Applicazioni / *Applications*



Acciaio
Steel



Metals

ASSORTIMENTI PUNTE HSS-G RETTIFICATE IN ASTUCCI DI METALLO E DI PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS-G DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01068401 € 47,251

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01068301 € 50,608

Metal



25 pcs
Ø 1÷13 x 0,5 mm
01068402 € 93,757

Abs



25 pcs
Ø 1÷13 x 0,5 mm
01068302 € 102,278

Metal



37 pcs
Ø 1÷10 x 0,25 mm
01068411 € 105,260

49 pcs
Ø 1÷13 x 0,25 mm
01068412 € 210,522

51 pcs
Ø 1÷6 x 0,1 mm
01068404 € 79,783

Metal



41 pcs
Ø 6÷10 x 0,1 mm
01068405 € 204,436

91 pcs
Ø 1÷10 x 0,1 mm
01068406 € 382,266

Plastic



19 pcs
Ø 1÷10 x 0,5 mm
01068101 € 43,764



10 pcs Ø 1÷10 x 1 mm
01068201 € 27,658

19 pcs Ø 1÷10 x 0,5 mm
01068206 € 45,515



91 pcs
Ø 1÷10 x 0,1 mm
01068220 € 277,007



19 pcs Ø 1÷10 x 0,5 mm
01068250 € 43,764

25 pcs Ø 1÷13 x 0,5 mm
01068251 € 95,990

VALIGETTE ED ESPOSITORI MAGAZZENO PUNTE HSS-G RETTIFICATE

Metal case storage display with HSS-G fully ground twist drills / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS-G DIN 338

01068450 Ø 1÷10 x 0,5 mm
01068451 Ø 1÷13 x 0,5 mm



150 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

01068450 € 301,388

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

01068451 € 498,610



Metal 375x240x200

600 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,5	20	10	10
1,5	30	6	20	10,5	5
2	50	6,5	10	11	5
2,5	50	7	10	11,5	5
3	100	7,5	5	12	5
3,5	50	8	10	12,5	5
4	100	8,5	5	13	5
4,5	30	9	5		
5	30	9,5	5		

01068501 € 1.069,240



Metal 390x460x230

760 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	80	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	60	9,25	2		

01068507 € 1.431,572

PUNTE ELICOIDALI CODOLO CONICO MORSE, ESECUZIONE FRESATA

Morse taper shank twist drills / Forets à queue conique morse / Brocas helicoidales con mango conico/ Spiralbohrer mit Morsekegel

HSS DIN 345 Fresata

Milled / Fraisé / Fresada / Gefräst

01097



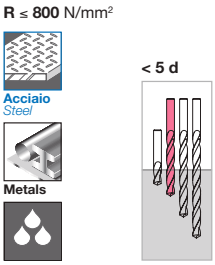




Confezione / *Packaging*



Applicazioni / *Applications*



- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
5	1	52	133	1	010970500	14,844
5,5	1	57	138	1	010970550	18,896
6	1	57	138	1	010970600	14,844
6,25	1	63	144	1	010970625	16,338
6,5	1	63	144	1	010970650	14,844
6,75	1	69	150	1	010970675	16,338
7	1	69	150	1	010970700	14,844
7,25	1	69	150	1	010970725	16,338
7,5	1	69	150	1	010970750	14,844
7,75	1	75	156	1	010970775	16,338
8	1	75	156	1	010970800	14,844
8,25	1	75	156	1	010970825	16,338
8,5	1	75	156	1	010970850	14,844
8,75	1	81	162	1	010970875	16,338
9	1	81	162	1	010970900	14,844
9,25	1	81	162	1	010970925	16,338
9,5	1	81	162	1	010970950	14,844
9,75	1	87	168	1	010970975	16,338
10	1	87	168	1	010971000	14,844
10,25	1	87	168	1	010971025	17,904
10,5	1	87	168	1	010971050	16,268
10,75	1	94	175	1	010971075	17,904
11	1	94	175	1	010971100	16,268
11,25	1	94	175	1	010971125	17,904
11,5	1	94	175	1	010971150	16,268
11,75	1	94	175	1	010971175	19,364
12	1	101	182	1	010971200	17,606
12,25	1	101	182	1	010971225	19,364
12,5	1	101	182	1	010971250	17,606
12,75	1	101	182	1	010971275	21,345
13	1	101	182	1	010971300	19,399
13,25	1	108	189	1	010971325	21,345
13,5	1	108	189	1	010971350	19,399
13,75	1	108	189	1	010971375	24,123
14	1	108	189	1	010971400	21,938
14,25	2	114	212	1	010971425	24,123
14,5	2	114	212	1	010971450	21,938
14,75	2	114	212	1	010971475	24,123
15	2	114	212	1	010971500	21,938
15,25	2	120	218	1	010971525	24,123
15,5	2	120	218	1	010971550	21,938
15,75	2	120	218	1	010971575	27,385
16	2	120	218	1	010971600	24,891
16,25	2	125	223	1	010971625	29,519
16,5	2	125	223	1	010971650	26,826
16,75	2	125	223	1	010971675	31,585
17	2	125	223	1	010971700	28,712
17,25	2	130	228	1	010971725	33,175
17,5	2	130	228	1	010971750	30,160
17,75	2	130	228	1	010971775	34,836
18	2	130	228	1	010971800	31,656
18,25	2	135	233	1	010971825	34,836
18,5	2	135	233	1	010971850	31,656
18,75	2	135	233	1	010971875	38,407
19	2	135	233	1	010971900	34,917
19,25	2	140	238	1	010971925	39,522
19,5	2	140	238	1	010971950	35,938
19,75	2	140	238	1	010971975	40,720
20	2	140	238	1	010972000	37,019
20,25	2	145	243	1	010972025	40,720
20,5	2	145	243	1	010972050	37,019
20,75	2	145	243	1	010972075	43,603
21	2	145	243	1	010972100	39,652
21,25	2	150	248	1	010972125	43,603
21,5	2	150	248	1	010972150	39,652
21,75	2	150	248	1	010972175	44,754
22	2	150	248	1	010972200	40,684
22,25	2	155	248	1	010972225	44,754

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
22,5	2	155	253	1	010972250	40,684
22,75	2	155	253	1	010972275	49,346
23	2	155	253	1	010972300	44,849
23,25	3	155	276	1	010972325	60,701
23,5	3	155	276	1	010972350	55,184
23,75	3	160	281	1	010972375	60,701
24	3	160	281	1	010972400	55,184
24,25	3	160	281	1	010972425	60,701
24,5	3	160	281	1	010972450	55,184
24,75	3	160	281	1	010972475	61,970
25	3	160	281	1	010972500	56,335
25,25	3	165	286	1	010972525	61,970
25,5	3	165	286	1	010972550	56,335
25,75	3	165	286	1	010972575	76,930
26	3	165	286	1	010972600	69,944
26,25	3	165	286	1	010972625	76,930
26,5	3	165	286	1	010972650	69,944
26,75	3	170	291	1	010972675	80,016
27	3	170	291	1	010972700	72,743
27,25	3	170	291	1	010972725	80,016
27,5	3	170	291	1	010972750	72,743
27,75	3	170	291	1	010972775	83,208
28	3	170	291	1	010972800	75,651
28,25	3	175	296	1	010972825	83,208
28,5	3	175	296	1	010972850	75,651
28,75	3	175	296	1	010972875	95,701
29	3	175	296	1	010972900	87,005
29,25	3	175	296	1	010972925	95,701
29,5	3	175	296	1	010972950	87,005
29,75	3	175	296	1	010972975	98,585
30	3	175	296	1	010973000	89,626
30,25	3	180	301	1	010973025	98,585
30,5	3	180	301	1	010973050	89,626
30,75	3	180	301	1	010973075	110,414
31	3	180	301	1	010973100	100,376
31,25	3	180	301	1	010973125	116,145
31,5	3	180	301	1	010973150	105,572
31,75	3	185	306	1	010973175	118,458
32	4	185	334	1	010973200	107,696
32,25	4	185	334	1	010973225	118,458
32,5	4	185	334	1	010973250	107,696
32,75	4	185	334	1	010973275	118,458
33	4	185	334	1	010973300	107,696
33,25	4	185	334	1	010973325	137,311
33,5	4	185	334	1	010973350	124,699
33,75	4	185	334	1	010973375	141,166
34	4	190	339	1	010973400	127,191
34,25	4	190	339	1	010973425	150,149
34,5	4	190	339	1	010973450	137,311
34,75	4	190	339	1	010973475	157,849
35	4	190	339	1	010973500	143,729
35,25	4	190	339	1	010973525	157,849
35,5	4	190	339	1	010973550	143,729
35,75	4	190	339	1	010973575	182,232
36	4	195	344	1	010973600	165,550
36,25	4	195	344	1	010973625	182,232
36,5	4	195	344	1	010973650	165,550
36,75	4	195	344	1	010973675	182,232
37	4	195	344	1	010973700	165,550
37,25	4	195	344	1	010973725	182,232
37,5	4	195	344	1	010973750	165,550
37,75	4	195	344	1	010973775	202,363
38	4	200	349	1	010973800	183,858
38,25	4	200	349	1	010973825	202,363
38,5	4	200	349	1	010973850	183,858
38,75	4	200	349	1	010973875	202,363
39	4	200	349	1	010973900	183,858
39,25	4	200	349	1	010973925	202,363
39,5	4	200	349	1	010973950	183,858
39,75	4	200	349	1	010973975	202,363
40	4	200	349	1	010974000	183,858
40,5	4	205	354	1	010974050	220,878
41	4	205	354	1	010974100	220,878
41,5	4	205	354	1	010974150	227,038
42	4	205	354	1	010974200	227,038

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
42,5	4	205	354	1	010974250	227,038
43	4	210	359	1	010974300	227,038
43,5	4	210	359	1	010974350	227,038
44	4	210	359	1	010974400	236,919
44,5	4	210	359	1	010974450	236,919
45	4	210	359	1	010974500	248,018
45,5	4	215	364	1	010974550	248,018
46	4	215	364	1	010974600	248,018
46,5	4	215	364	1	010974650	248,018
47	4	215	364	1	010974700	273,940
47,5	4	215	364	1	010974750	273,940
48	4	220	369	1	010974800	273,940
48,5	4	220	369	1	010974850	301,080
49	4	220	369	1	010974900	301,080
49,5	4	220	369	1	010974950	310,949
50	4	220	369	1	010975000	310,949
50,5	4	225	374	1	010975050	371,413
51	5	225	412	1	010975100	371,413
52	5	225	412	1	010975200	371,413
52,5	5	225	412	1	010975250	371,413
53	5	225	412	1	010975300	371,413
53,5	5	230	417	1	010975350	452,858
54	5	230	417	1	010975400	452,858
54,5	5	230	417	1	010975450	452,858
55	5	230	417	1	010975500	452,858
55,5	5	230	417	1	010975550	452,858
56	5	230	417	1	010975600	520,727
56,5	5	235	422	1	010975650	520,727
57	5	235	422	1	010975700	520,727
57,5	5	235	422	1	010975750	520,727
58	5	235	422	1	010975800	520,727
58,5	5	235	422	1	010975850	520,727
59	5	235	422	1	010975900	520,727
59,5	5	235	422	1	010975950	520,727
60	5	235	422	1	010976000	520,727
61	5	240	427	1	010976100	687,301
62	5	240	427	1	010976200	687,301
63	5	240	427	1	010976300	687,301
64	5	245	432	1	010976400	687,301
65	5	245	432	1	010976500	687,301
66	5	245	432	1	010976600	873,624
67	5	245	432	1	010976700	873,624
68	5	250	437	1	010976800	873,624
69	5	250	437	1	010976900	873,624
70	5	250	437	1	010977000	1.178,412
71	5	250	437	1	010977100	1.221,593
72	5	255	442	1	010977200	1.284,532
73	5	255	442	1	010977300	1.332,655
74	5	255	442	1	010977400	1.410,392
75	5	255	442	1	010977500	1.436,300
76	5	260	447	1	010977600	1.562,169
77	6	260	514	1	010977700	1.611,522
78	6	260	514	1	010977800	1.662,119
79	6	260	514	1	010977900	1.737,380
80	6	260	514	1	010978000	1.787,976
81	6	265	519	1	010978100	1.889,159
82	6	265	519	1	010978200	1.913,835
83	6	265	519	1	010978300	1.989,107
84	6	265	519	1	010978400	1.989,107
85	6	265	519	1	010978500	2.015,016
86	6	270	524	1	010978600	2.065,613
87	6	270	524	1	010978700	2.090,288
88	6	270	524	1	010978800	2.140,885
89	6	270	524	1	010978900	2.191,470
90	6	270	524	1	010979000	2.191,470
91	6	275	529	1	010979100	2.366,693
92	6	275	529	1	010979200	2.467,874
93	6	275	529	1	010979300	2.492,551
94	6	275	529	1	010979400	2.492,551
95	6	275	529	1	010979500	2.543,147
96	6	280	534	1	010979600	2.615,945
97	6	280	534	1	010979700	2.669,004
98	6	280	534	1	010979800	2.719,601
99	6	280	534	1	010979900	2.917,025
100	6	280	534	1	0109710000	4.149,729

PUNTE ELICOIDALI CODOLO CONICO MORSE, SERIE LUNGA, ESECUZIONE FRESATA

Cobalt long straight shank twist drills / Forets cylindriques série longue au cobalt
Brocas helicoidales serie larga de cobalto / Kobalt Spiralbohrer, lange Ausführung

HSS DIN 341 Fresata

Milled / Fraisé / Fresada / Gefräst

01028



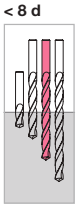


Confezione / *Packaging*



Applicazioni / *Applications*





Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
8	1	100	181	1	010280800	27,312
8,5	1	100	181	1	010280850	28,162
9	1	107	188	1	010280900	31,276
9,5	1	107	188	1	010280950	31,276
10	1	116	197	1	010281000	31,717
10,25	1	116	197	1	010281025	33,335
10,5	1	116	197	1	010281050	33,335
11	1	125	206	1	010281100	34,717
11,5	1	125	206	1	010281150	37,350
12	1	134	215	1	010281200	39,081
12,25	1	134	215	1	010281225	40,794
12,5	1	134	215	1	010281250	40,794
13	1	134	215	1	010281300	40,794
13,25	1	142	223	1	010281325	44,234
13,5	1	142	223	1	010281350	44,234
14	1	142	223	1	010281400	46,959
14,5	2	147	245	1	010281450	49,542
15	2	147	245	1	010281500	54,592
15,5	2	153	251	1	010281550	56,763
16	2	153	251	1	010281600	56,763
16,5	2	159	257	1	010281650	60,114
17	2	159	257	1	010281700	60,114
17,5	2	165	263	1	010281750	63,453
18	2	165	263	1	010281800	67,920
18,5	2	171	269	1	010281850	70,686
19	2	171	269	1	010281900	70,686
19,5	2	177	275	1	010281950	73,790
20	2	177	275	1	010282000	73,790
20,5	2	184	282	1	010282050	85,745
21	2	184	282	1	010282100	85,745
21,5	2	191	289	1	010282150	93,561
22	2	191	289	1	010282200	93,561
22,5	2	198	296	1	010282250	99,073
23	2	198	296	1	010282300	106,889
23,5	3	198	319	1	010282350	110,341
24	3	206	327	1	010282400	120,104
24,5	3	206	327	1	010282450	124,714
25	3	206	327	1	010282500	132,172
25,5	3	214	335	1	010282550	137,909
26	3	214	335	1	010282600	137,909
26,5	3	214	335	1	010282650	152,692
27	3	222	343	1	010282700	152,692
27,5	3	222	343	1	010282750	157,004
28	3	222	343	1	010282800	157,004
28,5	3	230	351	1	010282850	169,974
29	3	230	351	1	010282900	169,974
29,5	3	230	351	1	010282950	178,609
30	3	230	351	1	010283000	178,609
31	3	239	360	1	010283100	201,660
32	4	248	397	1	010283200	223,266
33	4	248	397	1	010283300	250,638
34	4	257	406	1	010283400	267,919
35	4	257	406	1	010283500	273,687
35,5	4	267	416	1	010283550	301,500
36	4	267	416	1	010283600	302,495
36,5	4	267	416	1	010283650	312,667
37	4	267	416	1	010283700	312,575
37,5	4	267	416	1	010283750	329,418
38	4	277	426	1	010283800	328,422
39	4	277	426	1	010283900	357,230
40	4	277	426	1	010284000	368,755
41	4	287	436	1	010284100	401,884
42	4	287	436	1	010284200	423,489
43	4	298	447	1	010284300	468,145
44	4	298	447	1	010284400	478,226
45	4	298	447	1	010284500	512,800
46	4	310	459	1	010284600	524,313
47	4	310	459	1	010284700	545,919
48	4	321	470	1	010284800	592,019
49	4	321	470	1	010284900	606,423
50	4	321	470	1	010285000	613,624

- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

PUNTE ELICOIDALI CODOLO CONICO MORSE CON FORI DI LUBROREFRIGERAZIONE

Morse taper shank twist drills with internal coolant / Forets a queue conique Morse avec trous réfrigérants
Brocas helicoidales con mango conico / Spiralbohrer mit Morsekegel mit Schmierloch

HSS DIN 341 Fresata

Milled / Fraisé / Fresada / Gefräst





Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
10	2	116	233	1	010691000	292,756
11	2	125	242	1	010691100	322,622
12	2	134	251	1	010691200	313,476
13	2	134	251	1	010691300	310,101
14	2	142	259	1	010691400	325,469
15	2	147	264	1	010691500	377,385
16	2	153	270	1	010691600	385,849
17	2	159	276	1	010691700	396,008
18	2	165	282	1	010691800	405,675
19	3	171	307	1	010691900	563,226
20	3	177	313	1	010692000	572,161
21	3	184	320	1	010692100	586,925
22	3	191	327	1	010692200	578,971
23	3	198	334	1	010692300	682,865
24	3	206	342	1	010692400	678,781
25	3	206	342	1	010692500	730,865
26	3	214	335	1	010692600	730,865
27	3	222	343	1	010692700	884,502
28	3	222	343	1	010692800	879,434
29	3	230	351	1	010692900	961,156
30	3	230	351	1	010693000	931,574
32	4	248	397	1	010693200	1.035,740

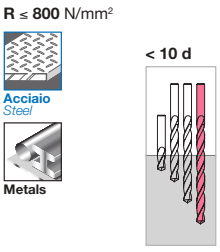
01069



Confezione / *Packaging*



Applicazioni / *Applications*



- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite, taglio di lamierini in pacchi. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

PUNTE ELICOIDALI CODOLO CONICO MORSE, SERIE EXTRA LUNGA, ESECUZIONE FRESATA

Morse taper shank twist drills, extra long serie / Forets à queue conique Morse, série extra longue
Brocas helicoidales con mango conico, serie extra larga / Spiralbohrer mit Morsekegel, extra lange Ausführung

HSS DIN 1870/1 Fresata

Milled / Fraisé / Fresada / Gefräst

01088



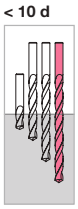


Confezione / *Packaging*



Applicazioni / *Applications*





Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
8	1	165	265	1	010880800	77,800
8,5	1	165	265	1	010880850	87,204
9	1	175	275	1	010880900	87,204
9,5	1	175	275	1	010880950	94,042
10	1	185	285	1	010881000	94,042
10,5	1	185	285	1	010881050	107,723
11	1	195	300	1	010881100	107,723
11,5	1	195	300	1	010881150	117,981
12	1	205	310	1	010881200	112,851
12,5	1	205	310	1	010881250	114,561
13	1	205	310	1	010881300	112,851
13,5	1	220	325	1	010881350	126,531
14	1	220	325	1	010881400	126,531
14,5	2	220	340	1	010881450	141,920
15	2	220	340	1	010881500	150,468
15,5	2	230	355	1	010881550	155,056
16	2	230	355	1	010881600	150,106
16,5	2	230	355	1	010881650	151,755
17	2	230	355	1	010881700	168,251
17,5	2	245	370	1	010881750	184,746
18	2	245	370	1	010881800	181,447
18,5	2	245	370	1	010881850	183,097
19	2	245	370	1	010881900	183,097
19,5	2	260	385	1	010881950	204,541
20	2	260	385	1	010882000	199,591
20,5	2	260	385	1	010882050	242,902
21	2	260	385	1	010882100	224,798
21,5	2	270	405	1	010882150	264,024
22	2	270	405	1	010882200	238,376
22,5	2	270	405	1	010882250	288,163
23	2	270	405	1	010882300	273,076
23,5	3	270	425	1	010882350	340,968
24	3	290	440	1	010882400	310,795
24,5	3	290	440	1	010882450	362,090
25	3	290	440	1	010882500	328,899
25,5	3	290	440	1	010882550	392,264
26	3	290	440	1	010882600	353,038
26,5	3	290	440	1	010882650	416,404
27	3	305	460	1	010882700	365,107
27,5	3	305	460	1	010882750	431,491
28	3	305	460	1	010882800	392,264
28,5	3	305	460	1	010882850	461,665
29	3	305	460	1	010882900	416,404
29,5	3	305	460	1	010882950	482,787
30	3	305	460	1	010883000	428,474
31	3	320	480	1	010883100	518,996
32	4	320	505	1	010883200	531,066
33	4	320	505	1	010883300	555,205
34	4	340	530	1	010883400	600,467
35	4	340	530	1	010883500	609,519
36	4	340	530	1	010883600	648,745
37	4	340	530	1	010883700	654,779
38	4	360	555	1	010883800	694,005
39	4	360	555	1	010883900	730,215
40	4	360	555	1	010884000	733,232
41	4	360	555	1	010884100	784,529
42	4	360	555	1	010884200	799,616
43	4	385	585	1	010884300	875,050
44	4	385	585	1	010884400	875,050
45	4	385	585	1	010884500	920,312
46	4	385	585	1	010884600	965,573
47	4	385	585	1	010884700	1.010,834
48	4	405	605	1	010884800	1.101,357
49	4	405	605	1	010884900	1.146,618
50	4	405	605	1	010885000	1.131,530

- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

PUNTE ELICOIDALI CODOLO CONICO MORSE CON TAGLIENTI IN METALLO DURO

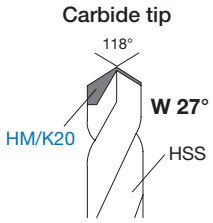
Morse taper shank twist drills with carbide tips / Forets à queue conique Morse
Brocas helicoidales con mango conico / Spiralbohrer mit Morsekegel

DIN 345 HSS/HM Fresata

Milled / Fraisé / Fresada / Gefräst

01213

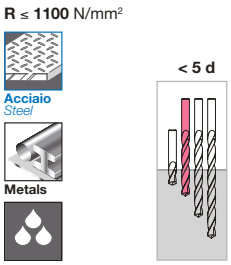




Confezione / *Packaging*



Applicazioni / *Applications*



Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
10	1	87	168	1	012131000	83,234
10,5	1	87	168	1	012131050	83,234
11	1	94	175	1	012131100	83,234
11,5	1	94	175	1	012131150	86,906
12	1	101	182	1	012131200	86,906
12,5	1	101	182	1	012131250	92,885
13	1	101	182	1	012131300	92,885
13,5	1	108	189	1	012131350	107,603
14	1	108	189	1	012131400	107,603
14,5	2	114	212	1	012131450	110,358
15	2	114	212	1	012131500	110,358
15,5	2	120	218	1	012131550	114,957
16	2	120	218	1	012131600	114,957
16,5	2	125	223	1	012131650	125,994
17	2	125	223	1	012131700	125,994
17,5	2	130	228	1	012131750	125,994
18	2	130	228	1	012131800	125,994
18,5	2	135	233	1	012131850	133,349
19	2	135	233	1	012131900	133,349
19,5	2	140	238	1	012131950	171,060
20	2	140	238	1	012132000	171,060
20,5	2	145	243	1	012132050	183,933
21	2	145	243	1	012132100	183,933
21,5	2	150	248	1	012132150	188,533
22	2	150	248	1	012132200	188,533
22,5	2	155	253	1	012132250	193,133
23	2	155	253	1	012132300	193,133
23,5	3	155	276	1	012132350	200,488
24	3	160	281	1	012132400	200,488
24,5	3	160	281	1	012132450	211,523
25	3	160	281	1	012132500	211,523
25,5	3	165	286	1	012132550	263,944
26	3	165	286	1	012132600	263,944
26,5	3	165	286	1	012132650	274,062
27	3	170	291	1	012132700	274,062
27,5	3	170	291	1	012132750	288,771
28	3	170	291	1	012132800	288,771
28,5	3	175	296	1	012132850	321,881
29	3	175	296	1	012132900	321,881
29,5	3	175	296	1	012132950	346,709
30	3	175	296	1	012133000	346,709
30,5	3	180	301	1	012133050	363,920
31	3	180	301	1	012133100	363,920
31,5	3	180	301	1	012133150	404,732
32	4	185	334	1	012133200	404,732
32,5	4	185	334	1	012133250	410,683
33	4	185	334	1	012133300	410,683
33,5	4	185	334	1	012133350	420,038
34	4	190	339	1	012133400	420,038
34,5	4	190	339	1	012133450	428,540
35	4	190	339	1	012133500	428,540

- Taglio di acciai duri con R ≤ 1100 N/mm², acciai per molle, ghisa temperata, molibdeno puro, bronzo duro, materie plastiche termoindurenti con azione abrasiva, materie sintetiche con fibre vetrose,…
- *Cut of hard steels R ≤ 1100 N/mm², spring steel, hard cast iron, Mo, hard bronze, abrasive thermosetting plastics, glass fiber reinforced plastics,…*
- *Pour travaille aciers durs avec R≤ 1100 N/mm², acier pour meule, de fer trempé, de molybdène pur, en bronze, matières plastiques thermodurcissables avec action abrasive, en plastique avec des fibres de verre,…*
- *Para trabajar aceros duro con R≤ 1100 N/mm², aceros de resorte, de hierro fundido templado, molibdeno puro, bronce, plástico termoestable con una acción abrasiva, plásticos con fibras de vidrio,…*

PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA CON ANGOLO AL VERTICE DI 118°

MFully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

118° CLASSIC

01066







AISI M2
HV ≈ 820

Confezione / *Packaging*

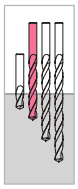


Applicazioni / *Applications*

R ≤ 800 N/mm²



< 5 d



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010660100	0,696
1,1	14	36	10	010660110	0,696
1,2	16	38	10	010660120	0,696
1,25	16	38	10	010660125	0,696
1,3	16	38	10	010660130	0,696
1,4	18	40	10	010660140	0,696
1,5	18	40	10	010660150	0,696
1,6	20	43	10	010660160	0,696
1,7	20	43	10	010660170	0,696
1,75	22	46	10	010660175	0,696
1,8	22	46	10	010660180	0,696
1,9	22	46	10	010660190	0,696
2	24	49	10	010660200	0,696
2,1	24	49	10	010660210	0,696
2,2	27	53	10	010660220	0,696
2,25	27	53	10	010660225	0,696
2,3	27	53	10	010660230	0,696
2,4	30	57	10	010660240	0,696
2,5	30	57	10	010660250	0,696
2,6	30	57	10	010660260	0,696
2,7	33	61	10	010660270	0,696
2,75	33	61	10	010660275	0,696
2,8	33	61	10	010660280	0,696
2,9	33	61	10	010660290	0,696
3	36	61	10	010660300	0,696
3,1	36	65	10	010660310	0,819
3,2	36	65	10	010660320	0,819
3,25	36	65	10	010660325	0,819
3,3	36	65	10	010660330	0,819
3,4	39	70	10	010660340	0,819
3,5	39	70	10	010660350	0,819
3,6	39	70	10	010660360	0,885
3,7	39	70	10	010660370	0,885
3,75	39	70	10	010660375	0,885
3,8	43	75	10	010660380	0,885
3,9	43	75	10	010660390	0,885
4	43	75	10	010660400	0,885
4,1	43	75	10	010660410	1,128
4,2	43	75	10	010660420	1,128
4,25	43	75	10	010660425	1,128
4,3	47	80	10	010660430	1,128
4,4	47	80	10	010660440	1,128
4,5	47	80	10	010660450	1,128
4,6	47	80	10	010660460	1,415
4,7	47	80	10	010660470	1,415
4,75	47	80	10	010660475	1,415
4,8	52	86	10	010660480	1,415
4,9	52	86	10	010660490	1,415
5	52	86	10	010660500	1,415
5,1	52	86	10	010660510	1,869
5,2	52	86	10	010660520	1,869
5,25	52	86	10	010660525	1,869
5,3	52	86	10	010660530	1,869
5,4	57	93	10	010660540	1,869
5,5	57	93	10	010660550	1,869
5,6	57	93	10	010660560	2,157
5,7	57	93	10	010660570	2,157
5,75	57	93	10	010660575	2,157
5,8	57	93	10	010660580	2,157
5,9	57	93	10	010660590	2,157
6	57	93	10	010660600	2,157
6,1	63	101	10	010660610	2,333
6,2	63	101	10	010660620	2,333
6,25	63	101	10	010660625	2,333
6,3	63	101	10	010660630	2,333
6,4	63	101	10	010660640	2,333
6,5	63	101	10	010660650	2,333

- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

Ø h8	/	L	pcs	cod.	€ cad/each
6,6	63	101	10	010660660	2,820
6,7	63	101	10	010660670	2,820
6,75	69	109	10	010660675	2,820
6,8	69	109	10	010660680	2,820
6,9	69	109	10	010660690	2,820
7	69	109	10	010660700	2,820
7,1	69	109	5	010660710	3,308
7,2	69	109	5	010660720	3,308
7,25	69	109	5	010660725	3,308
7,3	69	109	5	010660730	3,308
7,4	69	109	5	010660740	3,308
7,5	69	109	5	010660750	3,308
7,6	75	117	5	010660760	4,170
7,7	75	117	5	010660770	4,170
7,75	75	117	5	010660775	4,170
7,8	75	117	5	010660780	4,170
7,9	75	117	5	010660790	4,170
8	75	117	5	010660800	4,170
8,1	75	117	5	010660810	4,522
8,2	75	117	5	010660820	4,522
8,25	75	117	5	010660825	4,522
8,3	75	117	5	010660830	4,522
8,4	75	117	5	010660840	4,522
8,5	75	117	5	010660850	4,522
8,6	81	125	5	010660860	5,265
8,7	81	125	5	010660870	5,265
8,75	81	125	5	010660875	5,265
8,8	81	125	5	010660880	5,265
8,9	81	125	5	010660890	5,265
9	81	125	5	010660900	5,265
9,1	81	125	5	010660910	5,728
9,2	81	125	5	010660920	5,728
9,25	81	125	5	010660925	5,728
9,3	81	125	5	010660930	5,728
9,4	81	125	5	010660940	5,728
9,5	81	125	5	010660950	5,728
9,6	87	133	5	010660960	6,447
9,7	87	133	5	010660970	6,447
9,75	87	133	5	010660975	6,447

Ø h8	/	L	pcs	cod.	€ cad/each
9,8	87	133	5	010660980	6,447
9,9	87	133	5	010660990	6,447
10	87	133	5	010661000	6,447
10,1	87	133	5	010661010	7,189
10,2	87	133	5	010661020	7,189
10,25	87	133	5	010661025	7,189
10,3	87	133	5	010661030	7,189
10,4	87	133	5	010661040	7,189
10,5	87	133	5	010661050	7,189
10,6	87	133	5	010661060	8,073
10,7	94	142	5	010661070	8,073
10,75	94	142	5	010661075	8,073
10,8	94	142	5	010661080	8,073
10,9	94	142	5	010661090	8,073
11	94	142	5	010661100	8,073
11,1	94	142	5	010661110	8,792
11,2	94	142	5	010661120	8,792
11,25	94	142	5	010661125	8,792
11,3	94	142	5	010661130	8,792
11,4	94	142	5	010661140	8,792
11,5	94	142	5	010661150	8,792
11,6	94	142	5	010661160	10,142
11,7	94	142	5	010661170	10,142
11,75	94	142	5	010661175	10,142
11,8	94	142	5	010661180	10,142
11,9	101	151	5	010661190	10,142
12	101	151	5	010661200	10,142
12,1	101	151	5	010661210	11,092
12,2	101	151	5	010661220	11,092
12,25	101	151	5	010661225	11,092
12,3	101	151	5	010661230	11,092
12,4	101	151	5	010661240	11,092
12,5	101	151	5	010661250	11,092
12,6	101	151	5	010661260	12,020
12,7	101	151	5	010661270	12,020
12,75	101	151	5	010661275	12,020
12,8	101	151	5	010661280	12,020
12,9	101	151	5	010661290	12,020
13	101	151	5	010661300	12,020



19 pcs
Ø 1÷10 x 0,5 mm

01068431
€ 41,458



19 pcs
Ø 1÷10 x 0,5 mm

01068311
€ 48,815



37 pcs
Ø 1÷10 x 0,25 mm

01068413
€ 92,603



49 pcs
Ø 1÷13 x 0,25 mm

01068414
€ 208,427

25 pcs
Ø 1÷13 x 0,5 mm

01068432
€ 91,880

25 pcs
Ø 1÷13 x 0,5 mm

01068312
€ 97,771



Metal 330x240x55

150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	**6**	5
1,5	10	**6,5**	5
2	10	**7**	5
2,5	10	**7,5**	5
3	20	**8**	5
3,5	10	**8,5**	5
4	10	**9**	5
4,5	10	**9,5**	5
5	10	**10**	5
5,5	5		

01068460 € 251,816

PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE EXTRA CORTA CON ANGOLO AL VERTICE DI 118°

Fully ground straight shank twist drills, stub serie / Forets cylindriques rectifiés, série extra courte
Braocas helicoidales rectificadas, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01022







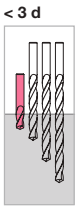
Ø h8	/	L	pcs	cod.	€ cad/each
2,5	14	43	10	010220250	0,918
3	16	46	10	010220300	1,139
3,2	18	49	10	010220320	1,251
3,25	18	49	10	010220325	1,251
3,5	20	52	10	010220350	1,251
3,7	20	52	10	010220370	1,383
3,75	20	52	10	010220375	1,383
4	22	55	10	010220400	1,383
4,2	22	55	10	010220420	1,726
4,25	22	55	10	010220425	1,726
4,5	24	58	10	010220450	1,571
5	26	62	10	010220500	1,637
5,5	28	66	10	010220550	2,167
6	28	66	10	010220600	2,423

Confezione / *Packaging*



Applicazioni / *Applications*





- Taglio dei materiali con R≤800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R≤800 N/mm².*
- *Pour percer métaux et acier avec R≤800 N/mm².*
- *Para taladrar hierro y acero R≤800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R≤800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

PUNTE ELICOIDALI CILINDRICHE CON RIVESTIMENTO AL NITRURO DI TITANIO SUI TAGLIENTI E CON ANGOLO AL VERTICE DI 118°

TiN coated twist drills / Forets cylindriques au nitrure de titan / Brocas helicoidales con recubrimiento de titanio / Geschliffene Spiralbohrer, TiN-beschichtet

HSS-G DIN 338 Rivestita al Titanio sui taglienti / *Titanium coated / Titan / Titanio / TiN-beschichtet* — 118° TiN

01320









Ø h8	/	L	pcs	cod.	€ cad/each
2	24	49	10	013200200	1,294
2,1	24	49	10	013200210	1,294
2,2	27	53	10	013200220	1,294
2,25	27	53	10	013200225	1,294
2,3	27	53	10	013200230	1,294
2,4	30	57	10	013200240	1,294
2,5	30	57	10	013200250	1,294
2,6	30	57	10	013200260	1,528
2,7	33	61	10	013200270	1,528
2,75	33	61	10	013200275	1,528
2,8	33	61	10	013200280	1,528
2,9	33	61	10	013200290	1,528
3	33	61	10	013200300	1,528
3,1	36	65	10	013200310	1,740
3,2	36	65	10	013200320	1,740
3,25	36	65	10	013200325	1,740
3,3	36	65	10	013200330	1,740
3,4	39	70	10	013200340	1,740
3,5	39	70	10	013200350	1,740
3,6	39	70	10	013200360	2,030
3,7	39	70	10	013200370	2,030
3,75	39	70	10	013200375	2,030
3,8	43	75	10	013200380	2,030
3,9	43	75	10	013200390	2,030
4	43	75	10	013200400	2,030
4,1	43	75	10	013200410	2,587
4,2	43	75	10	013200420	2,587
4,25	43	75	10	013200425	2,587

Ø h8	/	L	pcs	cod.	€ cad/each
4,3	47	80	10	013200430	2,587
4,4	47	80	10	013200440	2,587
4,5	47	80	10	013200450	2,587
4,6	47	80	10	013200460	2,943
4,7	47	80	10	013200470	2,943
4,75	47	80	10	013200475	2,943
4,8	52	86	10	013200480	2,943
4,9	52	86	10	013200490	2,943
5	52	86	10	013200500	2,943
5,1	52	86	10	013200510	3,602
5,2	52	86	10	013200520	3,602
5,25	52	86	10	013200525	3,602
5,3	52	86	10	013200530	3,602
5,4	57	93	10	013200540	3,602
5,5	57	93	10	013200550	3,602
5,6	57	93	10	013200560	3,992
5,7	57	93	10	013200570	3,992
5,75	57	93	10	013200575	3,992
5,8	57	93	10	013200580	3,992
5,9	57	93	10	013200590	3,992
6	57	93	10	013200600	3,992
6,1	63	101	10	013200610	4,695
6,2	63	101	10	013200620	4,695
6,25	63	101	10	013200625	4,695
6,3	63	101	10	013200630	4,695
6,4	63	101	10	013200640	4,695
6,5	63	101	10	013200650	4,695
6,6	63	101	10	013200660	5,286

01320

Ø h8	/	L	pcs	cod.	€ cad/each
6,7	63	101	10	013200670	5,286
6,75	69	109	10	013200675	5,286
6,8	69	109	10	013200680	5,286
6,9	69	109	10	013200690	5,286
7	69	109	10	013200700	5,286
7,1	69	109	5	013200710	6,145
7,2	69	109	5	013200720	6,145
7,25	69	109	5	013200725	6,145
7,3	69	109	5	013200730	6,145
7,4	69	109	5	013200740	6,145
7,5	69	109	5	013200750	6,145
7,6	75	117	5	013200760	7,460
7,7	75	117	5	013200770	7,460
7,75	75	117	5	013200775	7,460
7,8	75	117	5	013200780	7,460
7,9	75	117	5	013200790	7,460
8	75	117	5	013200800	7,460
8,1	75	117	5	013200810	8,832
8,2	75	117	5	013200820	8,832
8,25	75	117	5	013200825	8,832
8,3	75	117	5	013200830	8,832
8,4	75	117	5	013200840	8,832
8,5	75	117	5	013200850	8,832
8,6	81	125	5	013200860	9,667
8,7	81	125	5	013200870	9,667
8,75	81	125	5	013200875	9,667
8,8	81	125	5	013200880	9,667
8,9	81	125	5	013200890	9,667
9	81	125	5	013200900	9,667
9,1	81	125	5	013200910	10,728
9,2	81	125	5	013200920	10,728
9,25	81	125	5	013200925	10,728
9,3	81	125	5	013200930	10,728
9,4	81	125	5	013200940	10,728
9,5	81	125	5	013200950	10,728
9,6	87	133	5	013200960	11,798
9,7	87	133	5	013200970	11,798
9,75	87	133	5	013200975	11,798
9,8	87	133	5	013200980	11,921

Ø h8	/	L	pcs	cod.	€ cad/each
9,9	87	133	5	013200990	11,921
10	87	133	5	013201000	11,921
10,1	87	133	5	013201010	13,148
10,2	87	133	5	013201020	13,148
10,25	87	133	5	013201025	13,148
10,3	87	133	5	013201030	13,148
10,4	87	133	5	013201040	13,148
10,5	87	133	5	013201050	13,148
10,6	87	133	5	013201060	14,396
10,7	94	142	5	013201070	14,396
10,75	94	142	5	013201075	14,396
10,8	94	142	5	013201080	14,396
10,9	94	142	5	013201090	14,396
11	94	142	5	013201100	14,396
11,1	94	142	5	013201110	15,612
11,2	94	142	5	013201120	15,612
11,25	94	142	5	013201125	15,612
11,3	94	142	5	013201130	15,612
11,4	94	142	5	013201140	15,612
11,5	94	142	5	013201150	15,612
11,6	94	142	5	013201160	17,250
11,7	94	142	5	013201170	17,250
11,75	94	142	5	013201175	17,250
11,8	94	142	5	013201180	17,250
11,9	101	151	5	013201190	17,250
12	101	151	5	013201200	17,250
12,1	101	151	5	013201210	19,091
12,2	101	151	5	013201220	19,091
12,25	101	151	5	013201225	19,091
12,3	101	151	5	013201230	19,091
12,4	101	151	5	013201240	19,091
12,5	101	151	5	013201250	19,091
12,6	101	151	5	013201260	20,876
12,7	101	151	5	013201270	20,876
12,75	101	151	5	013201275	20,876
12,8	101	151	5	013201280	20,876
12,9	101	151	5	013201290	20,876
13	101	151	5	013201300	20,876

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 900 N/mm²



Acciaio
Steel



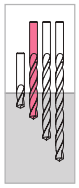
Inox



Metals



< 5 d



- Rendimenti elevati e maggiore durata dei taglienti nella foratura degli acciai legati, nelle ghise e nei metalli in genere.
- *High level of performances in cutting alloy steel, cast iron, metals up to R ≤ 900 N/mm².*
- *Pour percer métaux et acier allié avec R ≤ 900 N/mm².*
- *Para taladrar acero aleado con elevada velocidad de corte R ≤ 900 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis zu einer Zug-Festigkeit von R ≤ 900 N/mm², Temperguss, Sintereisen, Aluminium legiert und unlegiert, Kupfer, Bronze.*



19 pcs
Ø 1÷10 x 0,5 mm
Ø 1÷1,5 mm art. 01160

01170311
€ 93,756

25 pcs
Ø 1÷13 x 0,5 mm
Ø 1÷1,5 mm art. 01160

01170312
€ 188,319



Metal 330x240x55

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	**6**	3
1,5	10	**6,5**	3
2	10	**7**	3
2,5	10	**7,5**	3
3	10	**8**	3
3,5	10	**8,5**	2
4	10	**9**	2
4,5	10	**9,5**	2
5	10	**10**	2
5,5	3		

Ø 1÷1,5 mm art. 01160

01170452 € 335,268

PUNTE ELICOIDALI CILINDRICHE IN METALLO DURO INTEGRALE PER CENTRI DI LAVORO CNC

Tungsten carbide drill bits for CNC / Forets en carbure pour CNC
Broca de metal duro para CNC / Hartmetall Spiralbohrer für CNC

VHM ~ DIN 338 Metallo Duro

Carbide / Carbure / Metal duro / Hartmetall

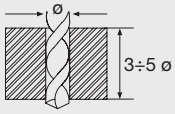
Serie corta
Short serie

01089





Metallo duro
Solid Carbide



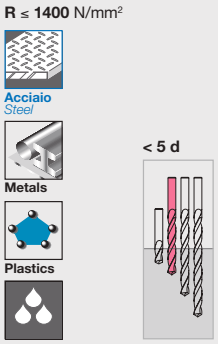
Ø h7	/	L	pcs	cod.	€ cad/each
1	12	34	1	010890100	7,208
1,1	14	36	1	010890110	8,354
1,2	16	38	1	010890120	8,717
1,3	16	38	1	010890130	8,476
1,4	18	40	1	010890140	8,419
1,5	18	40	1	010890150	7,991
1,6	20	43	1	010890160	8,112
1,7	20	43	1	010890170	8,838
1,8	22	46	1	010890180	8,904
1,9	22	46	1	010890190	9,024
2	24	49	1	010890200	11,986
2,1	24	49	1	010890210	12,898
2,2	27	53	1	010890220	13,803
2,3	27	53	1	010890230	13,625
2,4	30	57	1	010890240	15,199
2,5	30	57	1	010890250	15,563
2,6	30	57	1	010890260	16,168
2,7	33	61	1	010890270	18,282
2,8	33	61	1	010890280	17,798
2,9	33	61	1	010890290	17,798
3	33	61	1	010890300	17,676
3,1	36	65	1	010890310	20,097
3,2	36	65	1	010890320	19,436
3,3	36	65	1	010890330	19,436
3,4	39	70	1	010890340	21,495
3,5	39	70	1	010890350	21,309
3,6	39	70	1	010890360	22,882
3,7	39	70	1	010890370	23,069
3,8	43	75	1	010890380	24,764
3,9	43	75	1	010890390	25,181
4	43	75	1	010890400	25,612
4,1	43	75	1	010890410	25,975
4,2	43	75	1	010890420	25,909
4,3	47	80	1	010890430	29,178
4,4	47	80	1	010890440	29,243
4,5	47	80	1	010890450	30,146
4,6	47	80	1	010890460	30,332
4,7	47	80	1	010890470	31,115
4,8	52	86	1	010890480	35,473
4,9	52	86	1	010890490	36,386
5	52	86	1	010890500	35,232
5,1	52	86	1	010890510	40,391
5,2	52	86	1	010890520	38,564
5,3	52	86	1	010890530	38,929
5,4	57	93	1	010890540	43,464
5,5	57	93	1	010890550	42,317
5,6	57	93	1	010890560	43,827
5,7	57	93	1	010890570	46,731
5,8	57	93	1	010890580	45,280

Ø h7	/	L	pcs	cod.	€ cad/each
5,9	57	93	1	010890590	46,434
6	57	93	1	010890600	44,554
6,1	63	101	1	010890610	53,699
6,2	63	101	1	010890620	53,457
6,3	63	101	1	010890630	53,996
6,4	63	101	1	010890640	57,749
6,5	63	101	1	010890650	56,418
6,6	63	101	1	010890660	57,629
6,7	63	101	1	010890670	58,542
6,8	69	109	1	010890680	64,838
6,9	69	109	1	010890690	74,638
7	69	109	1	010890700	64,958
7,1	69	109	1	010890710	66,950
7,2	69	109	1	010890720	74,458
7,3	69	109	1	010890730	75,492
7,4	69	109	1	010890740	73,796
7,5	69	109	1	010890750	72,763
7,6	75	117	1	010890760	83,845
7,7	75	117	1	010890770	84,450
7,8	75	117	1	010890780	81,964
7,9	75	117	1	010890790	83,053
8	75	117	1	010890800	80,576
8,1	75	117	1	010890810	94,313
8,2	75	117	1	010890820	93,410
8,3	75	117	1	010890830	94,137
8,4	75	117	1	010890840	94,256
8,5	75	117	1	010890850	91,352
8,6	81	125	1	010890860	119,621
8,7	81	125	1	010890870	109,754
8,8	81	125	1	010890880	109,027
8,9	81	125	1	010890890	111,383
9	81	125	1	010890900	106,243
9,1	81	125	1	010890910	112,474
9,2	81	125	1	010890920	121,917
9,3	81	125	1	010890930	120,892
9,4	81	125	1	010890940	122,522
9,5	81	125	1	010890950	118,350
9,6	87	133	1	010890960	132,208
9,7	87	133	1	010890970	131,481
9,8	87	133	1	010890980	128,212
9,9	87	133	1	010890990	130,996
10	87	133	1	010891000	125,549
10,2	87	133	1	010891020	148,310
10,5	87	133	1	010891050	146,856
10,8	94	142	1	010891080	183,570
11	94	142	1	010891100	170,531
11,5	94	142	1	010891150	187,294
12	101	151	1	010891200	211,089

Confezione / *Packaging*



Applicazioni / *Applications*



- Taglio di ghisa, acciai duri al manganese, bronzi e metalli abrasivi, plastiche rinforzate con fibre.
- *Suitable for cutting into cast iron, Mn hard steel, bronzes, abrasive materials, fiber reinforced plastics.*

Caratteristiche del metallo duro
Features of hard metal
Caractéristiques du metal dur
Caracteristicas del metal duro

Il metallo duro è un prodotto sinterizzato costituito principalmente da WC e Co in proporzioni variabili. Da questa proporzione dipendono le caratteristiche specifiche dell'utensile: la qualità a grana fine K20 che usiamo per i nostri prodotti è composta dal 94% di WC e dal restante 6% di Co e presenta una resistenza a rottura di 2200 MPa e una durezza di 91.9 HVA. Tale prodotto è caratterizzato da un'ottima resistenza a usura e da una discreta resistenza a flessione anche se, naturalmente, si consiglia di evitare qualsiasi urto o eccessivo sforzo flettente. Vista l'elevata durezza, l'utensile è infatti discretamente fragile e sensibile a condizioni di lavoro non omogenee. Si consideri poi che il metallo duro è mediamente rigido il doppio rispetto all'acciaio superrapido: pertanto, con punte in metallo duro, si producono di norma fori molto più cilindrici.

The hard metal is produced by sintering of WC and Co powders. The main features of the product depend on the content of these 2 components: we chose K20 fine grain type, which means 94% WC and 6% Co, with 2200 MPa resistance and 91.9 HVA hardness. This product has an excellent wear resistance and a good bending resistance. By the way, it's recommended to avoid any accidental crash, because the product is very hard and thus fragile. The hard metal stiffness is quite double comparing to the high speed steel one: you can drill "very cylindrical" holes with an hard metal tool.

Le métal dur est un produit fritté constitué principalement de WC et Co en proportions variables. C'est de ces proportions que dépendent les caractéristiques spécifiques de l'outil : la qualité à grain fin K20 que nous utilisons pour nos produits est composée de 94% de WC et du restant 6% de Co et présente une résistance à la rupture de 2200 MPa et une dureté de 91,9 HVA. Ce produit se distingue par une excellente résistance à l'usure et à une résistance correcte à la flexion même si, naturellement, nous conseillons d'éviter tout choc ou effort de flexion excessif. Étant donnée la dureté élevée, l'outil est en fait assez fragile et sensible aux conditions de travail non homogènes. Il faut aussi considérer que le métal dur est en moyenne deux fois plus rigide que l'acier super rapide : de fait, des trous bien plus cylindriques sont produits en général avec des forets en métal dur.

El metal duro es un producto sinterizado constituido principalmente por WC y Co en proporciones variables. De esta proporción dependen las características específicas del utensilio: el tipo de grano fino K20 que usamos para nuestros productos está formado por el 94% de WC y por el restante 6% de Co; y presenta una resistencia a la ruptura de 2200 MPa y una dureza de 91.9 HVA. Este producto se caracteriza por una óptima resistencia al desgaste y por una discreta resistencia a la flexión aunque, naturalmente, se aconseja evitar cualquier golpe o excesivo esfuerzo de flexión. Considerada la elevada dureza, el utensilio es bastante frágil y sensible en condiciones de trabajo no homogéneas. Hay que considerar que el metal duro es medianamente el doble de rígido con respecto al acero super rápido: por tanto, con puntas de metal duro, normalmente se realizan orificios mucho más cilíndricos.

PUNTE ELICOIDALI CILINDRICHE IN METALLO DURO INTEGRALE PER CENTRI DI LAVORO CNC

Tungsten carbide drill bits for CNC / Forets en carbure pour CNC
Broca de metal duro para CNC / Hartmetall Spiralbohrer für CNC

VHM DIN 1897/6539 Metallo duro

Carbide / Carbure / Metal duro / Hartmetall

Serie extra corta
Extra short serie

01119

Carbide



Ø h7	/	L	pcs	cod.	€ cad/each
0,5	6	26	1	011190050	12,057
0,6	6	26	1	011190060	11,132
0,7	6	26	1	011190070	10,231
0,8	6	26	1	011190080	9,202
0,9	6	26	1	011190090	8,817
1	6	26	1	011190100	6,115
1,1	7	28	1	011190110	7,332
1,2	8	30	1	011190120	7,144
1,3	8	30	1	011190130	7,016
1,4	9	32	1	011190140	6,947
1,5	9	32	1	011190150	7,648
1,6	10	34	1	011190160	7,416
1,7	10	34	1	011190170	6,947
1,8	11	36	1	011190180	7,203
1,9	11	36	1	011190190	7,203
2	12	38	1	011190200	10,677
2,1	12	38	1	011190210	11,449
2,2	13	40	1	011190220	12,220
2,3	13	40	1	011190230	12,161
2,4	14	43	1	011190240	13,121
2,5	14	43	1	011190250	13,448
2,6	14	43	1	011190260	13,892
2,7	16	46	1	011190270	15,693
2,8	16	46	1	011190280	15,120
2,9	16	46	1	011190290	15,248
3	16	46	1	011190300	15,120
3,1	18	49	1	011190310	17,179
3,2	18	49	1	011190320	16,793
3,3	18	49	1	011190330	17,049
3,4	20	52	1	011190340	18,009
3,5	20	52	1	011190350	17,752
3,6	20	52	1	011190360	19,424
3,7	20	52	1	011190370	19,296
3,8	22	55	1	011190380	20,711
3,9	22	55	1	011190390	20,839
4	22	55	1	011190400	21,167
4,1	22	55	1	011190410	21,739
4,2	22	55	1	011190420	21,353
4,3	24	58	1	011190430	23,095
4,4	24	58	1	011190440	23,095
4,5	24	58	1	011190450	23,738
4,6	24	58	1	011190460	24,510
4,7	24	58	1	011190470	24,570
4,8	26	62	1	011190480	28,170
4,9	26	62	1	011190490	28,754
5	26	62	1	011190500	27,657
5,1	26	62	1	011190510	31,600
5,2	26	62	1	011190520	30,300
5,3	26	62	1	011190530	30,684
5,4	28	66	1	011190540	34,217
5,5	28	66	1	011190550	32,871
5,6	28	66	1	011190560	33,900
5,7	28	66	1	011190570	35,187
5,8	28	66	1	011190580	35,187
5,9	28	66	1	011190590	35,445

Ø h7	/	L	pcs	cod.	€ cad/each
6	28	66	1	011190600	34,347
6,1	31	70	1	011190610	40,975
6,2	31	70	1	011190620	41,421
6,3	31	70	1	011190630	41,618
6,4	31	70	1	011190640	43,934
6,5	31	70	1	011190650	43,093
6,6	31	70	1	011190660	44,250
6,7	31	70	1	011190670	45,092
6,8	34	74	1	011190680	49,011
6,9	34	74	1	011190690	55,860
7	34	74	1	011190700	48,566
7,1	34	74	1	011190710	51,009
7,2	34	74	1	011190720	56,471
7,3	34	74	1	011190730	57,184
7,4	34	74	1	011190740	56,343
7,5	34	74	1	011190750	55,254
7,6	36	79	1	011190760	60,460
7,7	36	79	1	011190770	60,716
7,8	36	79	1	011190780	59,687
7,9	36	79	1	011190790	60,786
8	36	79	1	011190800	58,145
8,1	36	79	1	011190810	60,527
8,2	36	79	1	011190820	63,359
8,3	36	79	1	011190830	64,447
8,4	36	79	1	011190840	64,704
8,5	36	79	1	011190850	62,389
8,6	40	84	1	011190860	82,403
8,7	40	84	1	011190870	78,082
8,8	40	84	1	011190880	77,251
8,9	40	84	1	011190890	78,409
9	40	84	1	011190900	75,321
9,1	40	84	1	011190910	78,082
9,2	40	84	1	011190920	86,571
9,3	40	84	1	011190930	86,701
9,4	40	84	1	011190940	88,057
9,5	40	84	1	011190950	84,900
9,6	43	89	1	011190960	93,004
9,7	43	89	1	011190970	93,330
9,8	43	89	1	011190980	91,975
9,9	43	89	1	011190990	94,418
10	43	89	1	011191000	89,472
10,2	43	89	1	011191020	102,336
10,5	43	89	1	011191050	102,463
10,8	47	95	1	011191080	106,639
11	47	95	1	011191100	116,742
11,5	47	95	1	011191150	139,698
12	51	102	1	011191200	154,750
12,5	51	102	1	011191250	158,292
13	51	102	1	011191300	173,729
13,5	54	107	1	011191350	229,956
14	54	107	1	011191400	199,584
14,5	56	111	1	011191450	265,109
15	56	111	1	011191500	215,536
15,5	58	115	1	011191550	357,306
16	58	115	1	011191600	267,761

PUNTE A CENTRARE IN METALLO DURO INTEGRALE PER CENTRI DI LAVORO CNC

Solid carbide center drills for CNC / Forets à centrer en carbure pour CNC
Brocas de puntear CNC en metal duro integral / Hartmetall Zentrierbohrer für CNC

VHM Metallo duro */ Carbide / Carbure / Metal duro / Hartmetall*

01361 01363

01361



01363



Ø h7	/	L	pcs	cod. 90°	€ cad/each	cod. 120°	€ cad/each
5	10	50	1	013610500	39,438	013630500	39,438
6	15	50	1	013610600	51,268	013630600	51,268
8	20	63	1	013610800	70,986	013630800	70,986
10	22	72	1	013611000	98,585	013631000	98,585
12	22	73	1	013611200	157,742	013631200	157,742
14	25	75	1	013611400	212,686	013631400	212,686
16	25	82	1	013611600	276,047	013631600	276,047
20	30	104	1	013612000	473,226	013632000	473,226

01361 01363

PUNTE IN METALLO DURO INTEGRALE RIVESTITE TiAlN CON GAMBO RINFORZATO, SERIE CORTA DIN 6537K

TiAlN coated tungsten carbide drill bits with reinforced shank, short serie DIN 6537K /Forets en carbure, série courte DIN 6537K, avec TiAlN
Broca de metal duro, serie corta DIN 6537K con TiAlN / Hartmetall Spiralbohrer, kurz Ausführung DIN 6537K, mit TiAlN

VHM+TiAlN DIN 6537K Metallo Duro
Carbide / Carbure / Metal duro / Hartmetall

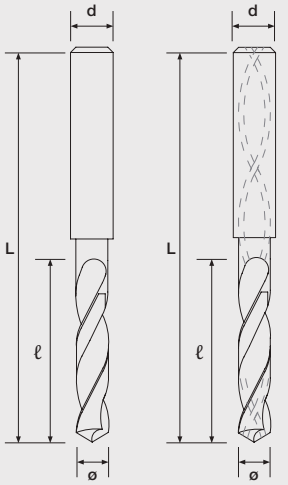
01368 01366



VHM+TiAlN VHM+TiAlN



Metallo duro
Solid Carbide



Profondità di foratura 3 ø
Cutting depth 3 ø

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 1200 N/mm²

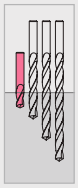


Acciaio
Steel



Metals

< 3 d



Rivestimento TiAlN
TiAlN coating



- Acciai induriti, acciai per lavorazioni a caldo, acciai legati fino a 1200 N/mm², acciai dolci, bronzo, ghisa, leghe Al-Si.
- *Structural and case hardened steels, cast steels, heat treatable steels, alloyed steels up to 1200 N/mm², carbon steels, bronze, cast iron, high alloyed Al-Si alloys.*

Ø m7	d h6	/	L	pcs	Art. 01368 senza fori / without holes cod.	€ cad/each	Art. 01366 con fori / with holes cod.	€ cad/each
3	6	20	62	1	013680300	70,925	013660300	84,080
3,1	6	20	62	1	013680310	70,925	013660310	84,080
3,2	6	20	62	1	013680320	70,925	013660320	84,080
3,3	6	20	62	1	013680330	70,925	013660330	84,080
3,4	6	20	62	1	013680340	70,925	013660340	84,080
3,5	6	20	62	1	013680350	70,925	013660350	84,080
3,6	6	20	62	1	013680360	70,925	013660360	84,080
3,7	6	20	62	1	013680370	70,925	013660370	84,080
3,8	6	24	66	1	013680380	70,925	013660380	84,080
3,9	6	24	66	1	013680390	70,925	013660390	84,080
4	6	24	66	1	013680400	70,925	013660400	91,126
4,1	6	24	66	1	013680410	70,925	013660410	91,126
4,2	6	24	66	1	013680420	70,925	013660420	91,126
4,3	6	24	66	1	013680430	70,925	013660430	91,126
4,4	6	24	66	1	013680440	70,925	013660440	91,126
4,5	6	24	66	1	013680450	70,925	013660450	91,126
4,6	6	24	66	1	013680460	70,925	013660460	91,126
4,7	6	28	66	1	013680470	70,925	013660470	91,126
4,8	6	28	66	1	013680480	70,925	013660480	91,126
4,9	6	28	66	1	013680490	70,925	013660490	91,126
5	6	28	66	1	013680500	70,925	013660500	91,126
5,1	6	28	66	1	013680510	70,925	013660510	91,126
5,2	6	28	66	1	013680520	70,925	013660520	91,126
5,3	6	28	66	1	013680530	70,925	013660530	91,126
5,4	6	28	66	1	013680540	70,925	013660540	91,126
5,5	6	28	66	1	013680550	70,925	013660550	91,126
5,6	6	28	66	1	013680560	70,925	013660560	91,126
5,7	6	28	66	1	013680570	70,925	013660570	91,126
5,8	6	28	66	1	013680580	70,925	013660580	91,126
5,9	6	28	66	1	013680590	70,925	013660590	91,126
6	6	28	66	1	013680600	70,925	013660600	91,126
6,1	8	34	79	1	013680610	70,925	013660610	123,638
6,2	8	34	79	1	013680620	70,925	013660620	123,638
6,3	8	34	79	1	013680630	70,925	013660630	123,638
6,4	8	34	79	1	013680640	70,925	013660640	123,638
6,5	8	34	79	1	013680650	70,925	013660650	123,638
6,6	8	34	79	1	013680660	70,925	013660660	123,638
6,7	8	34	79	1	013680670	70,925	013660670	123,638
6,8	8	34	79	1	013680680	70,925	013660680	123,638
6,9	8	34	79	1	013680690	70,925	013660690	123,638
7	8	34	79	1	013680700	70,925	013660700	123,638
7,1	8	41	79	1	013680710	70,925	013660710	123,638
7,2	8	41	79	1	013680720	70,925	013660720	123,638
7,3	8	41	79	1	013680730	70,925	013660730	123,638
7,4	8	41	79	1	013680740	70,925	013660740	123,638
7,5	8	41	79	1	013680750	70,925	013660750	123,638
7,6	8	41	79	1	013680760	70,925	013660760	123,638
7,7	8	41	79	1	013680770	70,925	013660770	123,638
7,8	8	41	79	1	013680780	70,925	013660780	123,638
7,9	8	41	79	1	013680790	70,925	013660790	123,638
8	8	41	79	1	013680800	70,925	013660800	123,638
8,1	10	47	89	1	013680810	79,546	013660810	138,616
8,2	10	47	89	1	013680820	79,546	013660820	138,616
8,3	10	47	89	1	013680830	79,546	013660830	138,616
8,4	10	47	89	1	013680840	79,546	013660840	138,616
8,5	10	47	89	1	013680850	79,546	013660850	138,616
8,6	10	47	89	1	013680860	79,546	013660860	138,616
8,7	10	47	89	1	013680870	79,546	013660870	138,616
8,8	10	47	89	1	013680880	79,546	013660880	138,616
8,9	10	47	89	1	013680890	79,546	013660890	138,616
9	10	47	89	1	013680900	79,546	013660900	138,616
9,1	10	47	89	1	013680910	79,546	013660910	138,616
9,2	10	47	89	1	013680920	79,546	013660920	138,616
9,3	10	47	89	1	013680930	79,546	013660930	138,616
9,4	10	47	89	1	013680940	79,546	013660940	138,616
9,5	10	47	89	1	013680950	79,546	013660950	138,616
9,6	10	47	89	1	013680960	79,546	013660960	138,616
9,7	10	47	89	1	013680970	79,546	013660970	138,616
9,8	10	47	89	1	013680980	79,546	013660980	138,616
10	10	47	89	1	013681000	79,546	013661000	138,616
10,2	12	55	102	1	013681020	118,635	013661020	198,395
10,5	12	55	102	1	013681050	118,635	013661050	198,395
11	12	55	102	1	013681100	118,635	013661100	198,395
11,5	12	55	102	1	013681150	118,635	013661150	198,395
12	12	55	102	1	013681200	118,635	013661200	198,395
12,5	14	60	107	1	013681250	159,216	013661250	277,222
13	14	60	107	1	013681300	159,216	013661300	277,222
13,5	14	60	107	1	013681350	159,216	013661350	277,222
14	14	60	107	1	013681400	159,216	013661400	277,222
14,5	16	65	115	1	013681450	205,379	013661450	338,400
15	16	65	115	1	013681500	205,379	013661500	338,400
15,5	16	65	115	1	013681550	205,379	013661550	338,400
16	16	65	115	1	013681600	205,379	013661600	338,400

PUNTE IN METALLO DURO INTEGRALE RIVESTITE TiAlN CON GAMBO RINFORZATO, SERIE LUNGA DIN 6537L

TiAlN coated tungsten carbide drill bits with reinforced shank, long serie DIN 6537L / Forets en carbure, série longue DIN 6537L, avec TiAlN
Broca de metal duro, serie larga DIN 6537L con TiAlN / Hartmetall Spiralbohrer, lange Ausführung DIN 6537L, mit TiAlN

VHM+TiAlN DIN 6537L Metallo Duro

Carbide / Carbure / Metal duro / Hartmetall

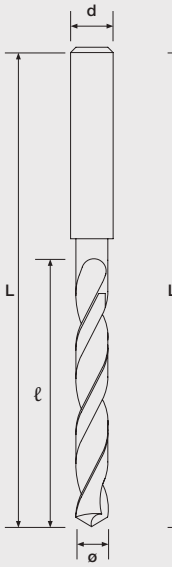
01369 01367

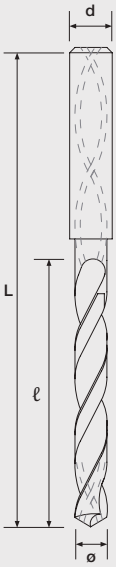


140° W 27°

Metallo duro
Solid Carbide

VHM+TiAlN VHM+TiAlN





Profondità di foratura 5 ø
Cutting depth 5 ø

Confezione / *Packaging*

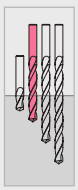


Applicazioni / *Applications*

R ≤ 1200 N/mm²



< 5 d



- Acciai induriti, acciai per lavorazioni a caldo, acciai legati fino a 1200 N/mm², acciai dolci, bronzo, ghisa, leghe Al-Si.
- *Structural and case hardened steels, cast steels, heat treatable steels, alloyed steels up to 1200 N/mm², carbon steels, bronze, cast iron, high alloyed Al-Si alloys.*

Ø m7	d h6	/	L	pcs	Art. 01369 senza fori / without holes cod.	€ cad/each	Art. 01367 con fori / with holes cod.	€ cad/each
3	6	28	66	1	013690300	81,102	013670300	108,668
3,1	6	28	66	1	013690310	81,102	013670310	108,668
3,2	6	28	66	1	013690320	81,102	013670320	108,668
3,3	6	28	66	1	013690330	81,102	013670330	108,668
3,4	6	28	66	1	013690340	81,102	013670340	108,668
3,5	6	28	66	1	013690350	81,102	013670350	108,668
3,6	6	28	66	1	013690360	81,102	013670360	108,668
3,7	6	28	66	1	013690370	81,102	013670370	108,668
3,8	6	36	74	1	013690380	81,102	013670380	108,668
3,9	6	36	74	1	013690390	81,102	013670390	108,668
4	6	36	74	1	013690400	81,102	013670400	116,942
4,1	6	36	74	1	013690410	81,102	013670410	116,942
4,2	6	36	74	1	013690420	81,102	013670420	116,942
4,3	6	36	74	1	013690430	81,102	013670430	116,942
4,4	6	36	74	1	013690440	81,102	013670440	116,942
4,5	6	36	74	1	013690450	81,102	013670450	116,942
4,6	6	36	74	1	013690460	81,102	013670460	116,942
4,7	6	44	82	1	013690470	81,102	013670470	116,942
4,8	6	44	82	1	013690480	81,102	013670480	116,942
4,9	6	44	82	1	013690490	81,102	013670490	116,942
5	6	44	82	1	013690500	81,102	013670500	116,942
5,1	6	44	82	1	013690510	81,102	013670510	116,942
5,2	6	44	82	1	013690520	81,102	013670520	116,942
5,3	6	44	82	1	013690530	81,102	013670530	116,942
5,4	6	44	82	1	013690540	81,102	013670540	116,942
5,5	6	44	82	1	013690550	81,102	013670550	116,942
5,6	6	44	82	1	013690560	81,102	013670560	116,942
5,7	6	44	82	1	013690570	81,102	013670570	116,942
5,8	6	44	82	1	013690580	81,102	013670580	116,942
5,9	6	44	82	1	013690590	81,102	013670590	116,942
6	6	44	82	1	013690600	81,102	013670600	116,942
6,1	8	53	91	1	013690610	82,525	013670610	129,177
6,2	8	53	91	1	013690620	82,525	013670620	129,177
6,3	8	53	91	1	013690630	82,525	013670630	129,177
6,4	8	53	91	1	013690640	82,525	013670640	129,177
6,5	8	53	91	1	013690650	82,525	013670650	129,177
6,6	8	53	91	1	013690660	82,525	013670660	129,177
6,7	8	53	91	1	013690670	82,525	013670670	129,177
6,8	8	53	91	1	013690680	82,525	013670680	129,177
6,9	8	53	91	1	013690690	82,525	013670690	129,177
7	8	53	91	1	013690700	82,525	013670700	129,177
7,1	8	53	91	1	013690710	82,525	013670710	129,177
7,2	8	53	91	1	013690720	82,525	013670720	129,177
7,3	8	53	91	1	013690730	82,525	013670730	129,177
7,4	8	53	91	1	013690740	82,525	013670740	129,177
7,5	8	53	91	1	013690750	82,525	013670750	129,177
7,6	8	53	91	1	013690760	82,525	013670760	129,177
7,7	8	53	91	1	013690770	82,525	013670770	129,177
7,8	8	53	91	1	013690780	82,525	013670780	129,177
7,9	8	53	91	1	013690790	82,525	013670790	129,177
8	8	53	91	1	013690800	82,525	013670800	129,177
8,1	10	61	103	1	013690810	91,154	013670810	148,055
8,2	10	61	103	1	013690820	91,154	013670820	148,055
8,3	10	61	103	1	013690830	91,154	013670830	148,055
8,4	10	61	103	1	013690840	91,154	013670840	148,055
8,5	10	61	103	1	013690850	91,154	013670850	148,055
8,6	10	61	103	1	013690860	91,154	013670860	148,055
8,7	10	61	103	1	013690870	91,154	013670870	148,055
8,8	10	61	103	1	013690880	91,154	013670880	148,055
8,9	10	61	103	1	013690890	91,154	013670890	148,055
9	10	61	103	1	013690900	91,154	013670900	148,055
9,1	10	61	103	1	013690910	91,154	013670910	148,055
9,2	10	61	103	1	013690920	91,154	013670920	148,055
9,3	10	61	103	1	013690930	91,154	013670930	148,055
9,4	10	61	103	1	013690940	91,154	013670940	148,055
9,5	10	61	103	1	013690950	91,154	013670950	148,055
9,6	10	61	103	1	013690960	91,154	013670960	148,055
9,7	10	61	103	1	013690970	91,154	013670970	148,055
9,8	10	61	103	1	013690980	91,154	013670980	148,055
10	10	61	103	1	013691000	91,154	013671000	148,055
10,2	12	71	118	1	013691020	136,076	013671020	216,107
10,5	12	71	118	1	013691050	136,076	013671050	216,107
11	12	71	118	1	013691100	136,076	013671100	216,107
11,5	12	71	118	1	013691150	136,076	013671150	216,107
12	12	71	118	1	013691200	136,076	013671200	216,107
12,5	14	77	124	1	013691250	179,385	013671250	290,686
13	14	77	124	1	013691300	179,385	013671300	290,686
13,5	14	77	124	1	013691350	179,385	013671350	290,686
14	14	77	124	1	013691400	179,385	013671400	290,686
14,5	16	83	133	1	013691450	232,928	013671450	358,677
15	16	83	133	1	013691500	232,928	013671500	358,677
15,5	16	83	133	1	013691550	232,928	013671550	358,677
16	16	83	133	1	013691600	232,928	013671600	358,677

PUNTE ELICOIDALI CILINDRICHE, INTERAMENTE RETTIFICATE, SERIE CORTA, FINITURA BRILLANTE

Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01070



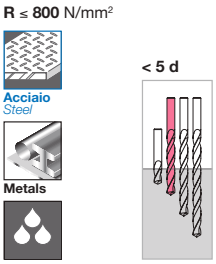


Art. **01071** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*



- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe*

Ø h8	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	010700030	2,486
0,35	4	19	10	010700035	2,255
0,4	5	20	10	010700040	2,141
0,45	5	20	10	010700045	2,141
0,5	6	22	10	010700050	1,842
0,55	7	24	10	010700055	2,141
0,6	7	24	10	010700060	1,692
0,65	8	26	10	010700065	1,842
0,7	9	28	10	010700070	1,577
0,75	9	28	10	010700075	1,577
0,8	10	30	10	010700080	1,577
0,85	10	30	10	010700085	1,577
0,9	11	32	10	010700090	1,474
0,95	11	32	10	010700095	1,577
1	12	34	10	010700100	1,197
1,1	14	36	10	010700110	1,254
1,2	16	38	10	010700120	1,254
1,25	16	38	10	010700125	1,254
1,3	16	38	10	010700130	1,254
1,4	18	40	10	010700140	1,254
1,5	18	40	10	010700150	1,082
1,6	20	43	10	010700160	1,025
1,7	20	43	10	010700170	1,025
1,75	22	46	10	010700175	1,025
1,8	22	46	10	010700180	1,025
1,9	22	46	10	010700190	1,025
2	24	49	10	010700200	0,897
2,1	24	49	10	010700210	1,082
2,2	27	53	10	010700220	1,082
2,25	27	53	10	010700225	1,082
2,3	27	53	10	010700230	1,082
2,4	30	57	10	010700240	1,082
2,5	30	57	10	010700250	0,991
2,6	30	57	10	010700260	1,244
2,7	33	61	10	010700270	1,244
2,75	33	61	10	010700275	1,244
2,8	33	61	10	010700280	1,244
2,9	33	61	10	010700290	1,244
3	33	61	10	010700300	1,129
3,1	36	65	10	010700310	1,336
3,2	36	65	10	010700320	1,336
3,25	36	65	10	010700325	1,336
3,3	36	65	10	010700330	1,336
3,4	39	70	10	010700340	1,336
3,5	39	70	10	010700350	1,254
3,6	39	70	10	010700360	1,462
3,7	39	70	10	010700370	1,462
3,75	39	70	10	010700375	1,462
3,8	43	75	10	010700380	1,462
3,9	43	75	10	010700390	1,462
4	43	75	10	010700400	1,370
4,1	43	75	10	010700410	1,807
4,2	43	75	10	010700420	1,807

Ø h8	/	L	pcs	cod.	€ cad/each
4,25	43	75	10	010700425	1,807
4,3	47	80	10	010700430	1,807
4,4	47	80	10	010700440	1,807
4,5	47	80	10	010700450	1,646
4,6	47	80	10	010700460	1,853
4,7	47	80	10	010700470	1,853
4,75	47	80	10	010700475	1,853
4,8	52	86	10	010700480	1,853
4,9	52	86	10	010700490	1,853
5	52	86	10	010700500	1,703
5,1	52	86	10	010700510	2,372
5,2	52	86	10	010700520	2,372
5,25	52	86	10	010700525	2,372
5,3	52	86	10	010700530	2,372
5,4	57	93	10	010700540	2,372
5,5	57	93	10	010700550	2,280
5,6	57	93	10	010700560	2,636
5,7	57	93	10	010700570	2,636
5,75	57	93	10	010700575	2,636
5,8	57	93	10	010700580	2,636
5,9	57	93	10	010700590	2,636
6	57	93	10	010700600	2,372
6,1	63	101	10	010700610	3,291
6,2	63	101	10	010700620	3,291
6,25	63	101	10	010700625	3,291
6,3	63	101	10	010700630	3,291
6,4	63	101	10	010700640	3,291
6,5	63	101	10	010700650	3,038
6,6	63	101	10	010700660	3,835
6,7	63	101	10	010700670	3,835
6,75	69	109	10	010700675	3,835
6,8	69	109	10	010700680	3,835
6,9	69	109	10	010700690	3,835
7	69	109	10	010700700	3,545
7,1	69	109	5	010700710	4,214
7,2	69	109	5	010700720	4,214
7,25	69	109	5	010700725	4,214
7,3	69	109	5	010700730	4,214
7,4	69	109	5	010700740	4,214
7,5	69	109	5	010700750	3,752
7,6	75	117	5	010700760	4,731
7,7	75	117	5	010700770	4,731
7,75	75	117	5	010700775	4,731
7,8	75	117	5	010700780	4,731
7,9	75	117	5	010700790	4,731
8	75	117	5	010700800	4,467
8,1	75	117	5	010700810	5,813
8,2	75	117	5	010700820	5,813
8,25	75	117	5	010700825	5,813
8,3	75	117	5	010700830	5,813
8,4	75	117	5	010700840	5,813
8,5	75	117	5	010700850	5,514
8,6	81	125	5	010700860	6,031

Ø h8	/	L	pcs	cod.	€ cad/each
8,7	81	125	5	010700870	6,031
8,75	81	125	5	010700875	6,031
8,8	81	125	5	010700880	6,031
8,9	81	125	5	010700890	6,031
9	81	125	5	010700900	5,779
9,1	81	125	5	010700910	6,827
9,2	81	125	5	010700920	6,827
9,25	81	125	5	010700925	6,827
9,3	81	125	5	010700930	6,827
9,4	81	125	5	010700940	6,827
9,5	81	125	5	010700950	6,216
9,6	87	133	5	010700960	7,229
9,7	87	133	5	010700970	7,229
9,75	87	133	5	010700975	7,229
9,8	87	133	5	010700980	7,229
9,9	87	133	5	010700990	7,229
10	87	133	5	010701000	6,504
10,2	87	133	5	010701020	9,242
10,25	87	133	5	010701025	9,242
10,4	87	133	5	010701040	9,242
10,5	87	133	5	010701050	8,068
10,75	94	142	5	010701075	11,074
11	94	142	5	010701100	9,658
11,25	94	142	5	010701125	11,764
11,5	94	142	5	010701150	10,303
11,75	94	142	5	010701175	12,835
12	101	151	5	010701200	11,120
12,25	101	151	5	010701225	13,985
12,4	101	151	5	010701240	13,985
12,5	101	151	5	010701250	12,133
12,75	101	151	5	010701275	15,816
13	101	151	5	010701300	13,088
13,25	108	160	3	010701325	18,544
13,5	108	160	3	010701350	16,655
13,75	108	160	3	010701375	18,544
14	108	160	3	010701400	17,117
14,25	114	169	3	010701425	22,263
14,5	114	169	3	010701450	18,982
14,75	114	169	3	010701475	22,263
15	114	169	3	010701500	20,282
15,25	120	178	3	010701525	27,742
15,5	120	178	3	010701550	23,805
15,75	120	178	3	010701575	27,742
16	120	178	3	010701600	25,153
16,5	125	184	1	010701650	25,347
17	125	184	1	010701700	26,936
17,5	130	191	1	010701750	28,410
18	130	191	1	010701800	30,608
18,5	135	198	1	010701850	33,738
19	135	198	1	010701900	34,969
20	140	205	1	010702000	39,483

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO INTERAMENTE RETTIFICATE

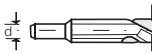
Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01072



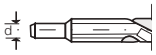


d=10 mm

Art. **01073** Self
Disponibile su richiesta / *On demand*

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	010721025	11,857
10,5	87	133	10	5	010721050	10,683
10,75	94	142	10	5	010721075	13,686
11	94	142	10	5	010721100	12,270
11,25	94	142	10	5	010721125	14,377
11,5	94	142	10	5	010721150	12,915
11,75	94	142	10	5	010721175	15,448
12	101	151	10	5	010721200	13,733
12,25	101	151	10	5	010721225	16,599
12,5	101	151	10	5	010721250	14,745
12,75	101	151	10	5	010721275	18,430
13	101	151	10	5	010721300	15,701
13,25	108	160	10	3	010721325	21,526
13,5	108	160	10	3	010721350	19,649
13,75	108	160	10	3	010721375	21,526
14	108	160	10	3	010721400	20,109
14,25	114	169	10	3	010721425	25,255
14,5	114	169	10	3	010721450	21,973
14,75	114	169	10	3	010721475	25,255
15	114	169	10	3	010721500	23,275
15,25	120	178	10	3	010721525	30,723
15,5	120	178	10	3	010721550	26,798
15,75	120	178	10	3	010721575	30,723
16	120	178	10	3	010721600	28,133
16,5	125	184	10	1	010721650	28,340
17	125	184	10	1	010721700	29,917
17,5	130	191	10	1	010721750	31,401
18	130	191	10	1	010721800	33,588
18,5	135	198	10	1	010721850	36,730
19	135	198	10	1	010721900	37,963
19,5	140	205	10	1	010721950	42,463
20	140	205	10	1	010722000	42,463

01074



d=13 mm

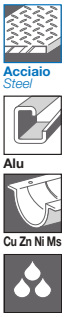
Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	010741325	21,526
13,5	108	160	13	3	010741350	19,649
13,75	108	160	13	3	010741375	21,526
14	108	160	13	3	010741400	20,109
14,25	114	169	13	3	010741425	25,255
14,5	114	169	13	3	010741450	21,973
14,75	114	169	13	3	010741475	25,255
15	114	169	13	3	010741500	23,275
15,25	120	178	13	3	010741525	30,723
15,5	120	178	13	3	010741550	26,798
15,75	120	178	13	3	010741575	30,723
16	120	178	13	3	010741600	28,133
16,5	125	184	13	1	010741650	28,340
17	125	184	13	1	010741700	29,917
17,5	130	191	13	1	010741750	31,401
18	130	191	13	1	010741800	33,588
18,5	135	198	13	1	010741850	36,730
19	135	198	13	1	010741900	37,963
19,5	140	205	13	1	010741950	42,463
20	140	205	13	1	010742000	42,463

Confezione / Packaging

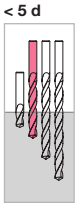


Applicazioni / Applications

R ≤ 800 N/mm²



< 5 d



PUNTE ELICOIDALI CILINDRICHE INTERAMENTE RETTIFICATE, SERIE EXTRA CORTA

Straight shank twist drills, stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Extra corta
Extra short





HV ≃ 820
SPLIT POINT
DIN 1412C
(Ø≥3)

Ø h8	/	L	pcs	cod.	€ cad/each
1,5	9	32	10	010760150	0,838
2	12	38	10	010760200	0,838
2,2	13	40	10	010760220	1,017
2,25	13	40	10	010760225	1,017
2,5	14	43	10	010760250	0,927
2,75	16	46	10	010760275	1,151
2,8	16	46	10	010760280	1,151
3	16	46	10	010760300	1,151
3,1	18	49	10	010760310	1,264
3,2	18	49	10	010760320	1,264
3,25	18	49	10	010760325	1,264
3,3	18	49	10	010760330	1,264
3,5	20	52	10	010760350	1,264
3,7	20	52	10	010760370	1,398
3,75	20	52	10	010760375	1,398
3,8	22	55	10	010760380	1,398
4	22	55	10	010760400	1,398
4,1	22	55	10	010760410	1,744
4,2	22	55	10	010760420	1,744
4,25	22	55	10	010760425	1,744
4,5	24	58	10	010760450	1,588
4,75	24	58	10	010760475	1,777
4,8	26	62	10	010760480	1,777
5	26	62	10	010760500	1,654

Ø h8	/	L	pcs	cod.	€ cad/each
5,1	26	62	10	010760510	2,325
5,2	26	62	10	010760520	2,325
5,25	26	62	10	010760525	2,325
5,5	28	66	10	010760550	2,190
5,75	28	66	10	010760575	2,616
5,8	28	66	10	010760580	2,616
6	28	66	10	010760600	2,449
6,25	31	70	10	010760625	2,654
6,5	31	70	10	010760650	2,939
6,75	34	74	10	010760675	3,270
7	34	74	10	010760700	3,430
7,5	34	74	5	010760750	3,642
8	37	79	5	010760800	4,426
8,5	37	79	5	010760850	5,923
9	40	84	5	010760900	6,795
9,5	40	84	5	010760950	7,723
10	43	89	5	010761000	8,717
10,5	43	89	5	010761050	9,136
11	47	95	5	010761100	10,254
11,5	47	95	5	010761150	11,175
12	51	102	5	010761200	12,880
12,5	51	102	5	010761250	14,088
13	51	102	5	010761300	15,099

01076



Confezione / *Packaging*





Ø 2 ÷ 10x0,5 mm

01075221
€ 74,178



10211

275

PUNTE ELICOIDALI SUPERCORTE PER LATTONIERI

Extra short twist drills for portable applications / Forets cylindriques série extra courte spécial
Brocas helicoidales, serie extra corta special / Spiralbohrer, spezial extra kurz

NORMA KRINO HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Supercorta
Supershort





HV ≃ 750÷820
SPLIT POINT
DIN 1412C

Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010500300	0,919
3,2	19	40	10	010500320	0,963
3,25	19	40	10	010500325	0,963
3,3	19	40	10	010500330	0,963
3,5	19	40	10	010500350	0,963
3,6	19	40	10	010500360	1,062
3,75	19	40	10	010500375	1,062
4	20	40	10	010500400	1,062
4,1	20	40	10	010500410	1,302
4,2	20	40	10	010500420	1,302
4,25	20	40	10	010500425	1,302
4,5	23	42	10	010500450	1,302
5	23	45	10	010500500	1,423

01050

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²



Acciaio
Steel



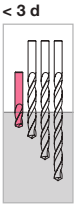
Alu



Cu Zn Ni Ms



< 3 d



- Punte speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori. Foratura dolce e precisa, grazie all'affilatura split point autocentrante, su lamiere e tubi in acciaio, rame e plastica.
- *Super short twist drills for cutting metal sheets, special for journeymen's, carpenters, locksmith's, tinsmith's.*



Super corta - *Super short*



PUNTE ELICOIDALI INTERAMENTE RETTIFICATE

Fully ground twist drills / Forets rectifiés avec
Brocas rectificadas / Geschliffene Spiralbohrer

HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Elica contrapposta
Double ended

01077

NEW



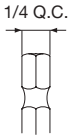


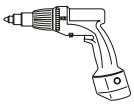
Ø h8	/	L	pcs	cod.	€ cad/each
2	10	38	10	010770200	0,778
2,5	10	43	10	010770250	0,932
3	11	46	10	010770300	1,143
3,2	11	49	10	010770320	1,201
3,25	11	49	10	010770325	1,201
3,3	11	49	10	010770330	1,365
3,4	14	52	10	010770340	1,509
3,5	14	52	10	010770350	1,509
3,75	14	55	10	010770375	1,634
4	14	55	10	010770400	1,749
4,1	14	55	10	010770410	1,749
4,2	17	58	10	010770420	2,134
4,25	17	58	10	010770425	2,134
4,5	17	58	10	010770450	2,134
4,75	17	62	10	010770475	2,508
4,9	17	62	10	010770490	2,816
5	17	62	10	010770500	2,816
5,1	17	62	10	010770510	2,835
5,5	17	66	10	010770550	3,133
6	17	66	10	010770600	3,364

HSS-G ~DIN 338

01079







Ø h8	d ⬡	/	L	pcs	cod.	€ cad/each
1,5	1/4	18	60	10	010790150	1,361
2	1/4	24	69	10	010790200	1,361
2,5	1/4	30	77	10	010790250	1,415
3	1/4	33	81	10	010790300	1,769
3,25	1/4	36	85	10	010790325	1,881
3,5	1/4	39	90	10	010790350	1,881
4	1/4	43	95	10	010790400	2,057
4,25	1/4	43	95	10	010790425	2,410
4,5	1/4	47	100	10	010790450	2,410
5	1/4	52	106	10	010790500	2,588
5,5	1/4	57	113	10	010790550	3,120
6	1/4	57	113	10	010790600	3,462
6,5	1/4	63	121	10	010790650	4,634
7	1/4	69	109	10	010790700	5,364
7,5	1/4	69	109	5	010790750	6,913
8	1/4	75	117	5	010790800	6,913
8,5	1/4	75	117	5	010790850	8,604
9	1/4	81	125	5	010790900	9,997
9,5	1/4	81	125	5	010790950	11,016
10	1/4	87	133	5	010791000	11,412



Ø 3-4-5-6-8 mm

01068700
€ 20,489

Confezione / Packaging

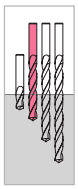


Applicazioni / Applications

R ≤ 800 N/mm²



< 5 d



PUNTE ELICOIDALI CILINDRICHE SERIE LUNGA, INTERAMENTE RETTIFICATE, FINITURA BRILLANTE

Long straight shank twist drills / Forets cylindriques série longue
Brocas helicoidales serie larga / Spiralbohrer, lange Ausführung

HSS-G DIN 340 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01078





Ø h8	/	L	pcs	cod.	€ cad/each
1,5	45	70	10	010780150	1,836
1,75	53	80	10	010780175	2,031
2	56	85	10	010780200	1,929
2,25	59	90	10	010780225	2,133
2,5	62	95	10	010780250	2,031
2,75	66	100	10	010780275	2,350
3	66	100	10	010780300	2,350
3,25	69	106	10	010780325	2,555
3,5	73	112	10	010780350	2,499
3,75	73	112	10	010780375	2,658
4	78	119	10	010780400	2,534
4,25	78	119	10	010780425	3,217
4,5	82	126	10	010780450	3,262
4,75	82	126	10	010780475	3,331
5	87	132	10	010780500	3,171
5,25	87	132	10	010780525	4,392
5,5	91	139	10	010780550	4,392
5,75	91	139	10	010780575	4,803
6	91	139	10	010780600	4,803
6,25	97	148	5	010780625	5,431
6,5	97	148	5	010780650	5,169
6,75	97	148	5	010780675	6,332
7	102	156	5	010780700	5,807
7,25	102	156	5	010780725	7,141
7,5	102	156	5	010780750	6,800
7,75	109	165	5	010780775	8,123
8	109	165	5	010780800	7,735
8,25	109	165	5	010780825	10,690
8,5	109	165	5	010780850	10,690
8,75	115	175	5	010780875	11,191
9	115	175	5	010780900	11,191
9,25	115	175	5	010780925	12,594
9,5	115	175	5	010780950	11,990
9,75	121	184	5	010780975	13,793
10	121	184	5	010781000	13,143
10,5	121	184	5	010781050	15,847
11	128	195	5	010781100	16,109
11,5	128	195	5	010781150	17,785
12	134	205	5	010781200	19,371
12,5	134	205	5	010781250	20,010
13	134	205	5	010781300	23,444
13,5	140	214	3	010781350	32,332
14	140	214	3	010781400	32,332
14,5	144	220	3	010781450	45,760
15	144	220	3	010781500	43,580
15,5	149	227	3	010781550	53,120
16	149	227	3	010781600	50,596
16,5	154	235	1	010781650	52,444
17	154	235	1	010781700	53,927
17,5	158	241	1	010781750	59,849
18	158	241	1	010781800	60,830
18,5	162	247	1	010781850	69,102
19	162	247	1	010781900	70,459
19,5	166	254	1	010781950	74,656
20	166	254	1	010782000	75,512

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²



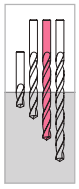
Acciaio
Steel

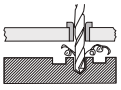


Metals



< 8 d





ASSORTIMENTI PUNTE HSS-G RETTIFICATE BRILLANTI IN ASTUCCI DI METALLO E DI PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS-G DIN 338

Metal



51 pcs
Ø 1÷6 x 0,1 mm
01075407 € 82,176



41 pcs
Ø 6÷10 x 0,1 mm
01075408 € 204,436



91 pcs
Ø 1÷10 x 0,1 mm
01075410 € 382,266

Plastic



19 pcs
Ø 1÷10 x 0,5 mm
01075101 € 45,078



10 pcs Ø 1÷10 x 1 mm
01075201 € 27,392

19 pcs Ø 1÷10 x 0,5 mm
01075206 € 45,078



91 pcs
Ø 1÷10 x 0,1 mm
01075220 € 277,007

Plastic



19 pcs Ø 1÷10 x 0,5 mm
01075250 € 45,078

25 pcs Ø 1÷13 x 0,5 mm
01075251 € 98,870

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01075301 € 50,122

Abs



25 pcs
Ø 1÷13 x 0,5 mm
01075302 € 101,296



19 pcs
Ø 1÷10 x 0,5 mm
01075401 € 46,796



25 pcs
Ø 1÷13 x 0,5 mm
01075402 € 92,855

VALIGETTA MAGAZZENO ED ESPOSITORI PUNTE HSS-G RETTIFICATE BRILLANTI

Metal case storage display with HSS-G fully ground twist drills / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS-G DIN 338

01075450 Ø 1÷10 x 0,5 mm
01075451 Ø 1÷13 x 0,5 mm



150 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

01075450 € 301,388

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

01075451 € 498,610



Metal 375x240x200

600 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,5	20	10	10
1,5	30	6	20	10,5	5
2	50	6,5	10	11	5
2,5	50	7	10	11,5	5
3	100	7,5	5	12	5
3,5	50	8	10	12,5	5
4	100	8,5	5	13	5
4,5	30	9	5		
5	30	9,5	5		

01075501 € 1.069,240



Metal 390x460x230

760 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	80	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	60	9,25	2		

01075507 € 1.431,572

PUNTE ELICOIDALI CILINDRICHE CON RIVESTIMENTO AL NITRURO DI TITANIO

TiN coated twist drills / Forets cylindriques au nitrure de titan
Brocas helicoidales con recubrimiento de titanio / Geschliffene Spiralboher, TiN-beschichtet

HSS-G DIN 338 Rivestita al titanio

Titanium coated / Titan /Titanio / TiN-beschichtet

01160





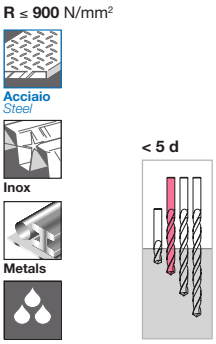


Art. **01161** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*



- Rendimenti elevati e maggiore durata dei taglienti nella foratura degli acciai legati, nelle ghise e nei metalli in genere.
- *High level of performances in cutting alloy steel, cast iron, metals up to R ≤ 900 N/mm².*
- *Pour percer métaux et acier allié avec R ≤ 900 N/mm².*
- *Para taladrar acero aleado con elevada velocidad de corte R ≤ 900 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis zu einer Zug-Festigkeit von R ≤ 900 N/mm², Temperguss, Sintereisen, Aluminium legiert und unlegiert, Kupfer, Bronze.*

Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	011600100	1,235
1,1	14	36	10	011600110	1,235
1,2	16	38	10	011600120	1,235
1,25	16	38	10	011600125	1,116
1,3	16	38	10	011600130	1,116
1,4	18	40	10	011600140	1,116
1,5	18	40	10	011600150	1,043
1,6	20	43	10	011600160	1,391
1,7	20	43	10	011600170	1,391
1,75	22	46	10	011600175	1,259
1,8	22	46	10	011600180	1,306
1,9	22	46	10	011600190	1,306
2	24	49	10	011600200	1,198
2,1	24	49	10	011600210	1,391
2,2	27	53	10	011600220	1,391
2,25	27	53	10	011600225	1,391
2,3	27	53	10	011600230	1,391
2,4	30	57	10	011600240	1,391
2,5	30	57	10	011600250	1,259
2,6	30	57	10	011600260	1,703
2,7	33	61	10	011600270	1,703
2,75	33	61	10	011600275	1,703
2,8	33	61	10	011600280	1,703
2,9	33	61	10	011600290	1,703
3	33	61	10	011600300	1,547
3,1	36	65	10	011600310	1,847
3,2	36	65	10	011600320	1,847
3,25	36	65	10	011600325	1,847
3,3	36	65	10	011600330	1,847
3,4	39	70	10	011600340	1,847
3,5	39	70	10	011600350	1,679
3,6	39	70	10	011600360	1,943
3,7	39	70	10	011600370	1,943
3,75	39	70	10	011600375	1,943
3,8	43	75	10	011600380	1,943
3,9	43	75	10	011600390	1,943
4	43	75	10	011600400	1,762
4,1	43	75	10	011600410	2,327
4,2	43	75	10	011600420	2,327
4,25	43	75	10	011600425	2,327
4,3	47	80	10	011600430	2,327
4,4	47	80	10	011600440	2,327
4,5	47	80	10	011600450	2,112
4,6	47	80	10	011600460	2,529
4,7	47	80	10	011600470	2,529
4,75	47	80	10	011600475	2,529
4,8	52	86	10	011600480	2,529
4,9	52	86	10	011600490	2,529
5	52	86	10	011600500	2,302
5,1	52	86	10	011600510	3,081
5,2	52	86	10	011600520	3,081
5,25	52	86	10	011600525	3,081
5,3	52	86	10	011600530	3,081
5,4	57	93	10	011600540	3,081
5,5	57	93	10	011600550	2,807
5,6	57	93	10	011600560	3,382
5,7	57	93	10	011600570	3,382
5,75	57	93	10	011600575	3,382
5,8	57	93	10	011600580	3,382

Ø h8	/	L	pcs	cod.	€ cad/each
5,9	57	93	10	011600590	3,382
6	57	93	10	011600600	3,070
6,1	63	101	10	011600610	3,789
6,2	63	101	10	011600620	3,789
6,25	63	101	10	011600625	3,789
6,3	63	101	10	011600630	3,789
6,4	63	101	10	011600640	3,789
6,5	63	101	10	011600650	3,441
6,6	63	101	10	011600660	4,221
6,7	63	101	10	011600670	4,221
6,75	69	109	10	011600675	4,221
6,8	69	109	10	011600680	4,221
6,9	69	109	10	011600690	4,221
7	69	109	10	011600700	3,825
7,1	69	109	5	011600710	5,229
7,2	69	109	5	011600720	5,229
7,25	69	109	5	011600725	5,229
7,3	69	109	5	011600730	5,229
7,4	69	109	5	011600740	5,229
7,5	69	109	5	011600750	4,749
7,6	75	117	5	011600760	6,080
7,7	75	117	5	011600770	6,080
7,75	75	117	5	011600775	6,080
7,8	75	117	5	011600780	6,080
7,9	75	117	5	011600790	6,080
8	75	117	5	011600800	5,527
8,1	75	117	5	011600810	7,387
8,2	75	117	5	011600820	7,387
8,25	75	117	5	011600825	7,387
8,3	75	117	5	011600830	7,387
8,4	75	117	5	011600840	7,387
8,5	75	117	5	011600850	6,703
8,6	81	125	5	011600860	8,010
8,7	81	125	5	011600870	8,010
8,75	81	125	5	011600875	8,010
8,8	81	125	5	011600880	8,010
8,9	81	125	5	011600890	8,010
9	81	125	5	011600900	7,290

Ø h8	/	L	pcs	cod.	€ cad/each
9,1	81	125	5	011600910	9,053
9,2	81	125	5	011600920	9,053
9,25	81	125	5	011600925	9,053
9,3	81	125	5	011600930	9,053
9,4	81	125	5	011600940	9,053
9,5	81	125	5	011600950	8,236
9,6	87	133	5	011600960	9,424
9,7	87	133	5	011600970	9,424
9,75	87	133	5	011600975	9,424
9,8	87	133	5	011600980	9,424
9,9	87	133	5	011600990	9,424
10	87	133	5	011601000	8,573
10,25	87	133	5	011601025	10,540
10,5	87	133	5	011601050	9,581
10,75	94	142	5	011601075	11,391
11	94	142	5	011601100	10,348
11,25	94	142	5	011601125	12,398
11,5	94	142	5	011601150	11,272
11,75	94	142	5	011601175	13,082
12	101	151	5	011601200	13,431
12,25	101	151	5	011601225	14,328
12,5	101	151	5	011601250	14,629
12,75	101	151	5	011601275	15,935
13	101	151	5	011601300	15,469
13,5	108	160	3	011601350	23,187
14	108	160	3	011601400	24,987
14,5	114	169	3	011601450	27,696
15	114	169	3	011601500	29,783
15,5	120	178	3	011601550	32,911
16	120	178	3	011601600	34,947
16,5	125	184	1	011601650	38,043
17	125	184	1	011601700	40,377
17,5	130	191	1	011601750	43,869
18	130	191	1	011601800	46,395
18,5	135	198	1	011601850	50,166
19	135	198	1	011601900	52,981
19,5	140	205	1	011601950	54,685
20	140	205	1	011602000	57,213

Caratteristiche del rivestimento TiN
Features of TiN coating
Caractéristiques du revêtement TiN
Caracteristicas del recubrimiento TiN

Il rivestimento monostrato TiN ha lo scopo di incrementare la resistenza a fenomeni di usura e ossidazione cui gli utensili sono sottoposti durante le lavorazioni di foratura: ha ottime caratteristiche di microdurezza (HV 0.05 2300), un basso coefficiente di attrito (0.4), una temperatura massima di esercizio pari a 500°C. Il rivestimento di pochi µm, depositato per via fisica mediante vapore (Physical Vapour Deposition), consente pertanto di aumentare la vita utile degli utensili da taglio, migliorando anche la finitura superficiale ed il conseguente scorrimento dei trucioli di lavorazione.

TiN monolayer coating can increase both wear and oxidation resistance of every tool. It has high hardness (HV 0.05 2300), low friction coefficient (0.4), maximum working temperature 500°C. The coating thickness is very low (µm) and it's produced by Physical Vapour Deposition. TiN coating increases the life cycle of the tool, also improving the surface finishing and the drilling chips removal.

Le revêtement monocouche TiN sert à augmenter la résistance aux phénomènes d'usure et d'oxydation auxquels les outils sont soumis pendant les travaux de perçage : il possède des caractéristiques optimales de microdureté (HV 0,05 2300), un coefficient de frottement faible (0,4), une température maximale de fonctionnement égale à 500°C. Le revêtement de quelques µm, déposé par un procédé physique par le biais de la vapeur (Physical Vapour Deposition), permet donc d'augmenter la vie utile des outils de coupe, en améliorant aussi la finition de la surface et donc l'évacuation des copeaux d'usinage produits.

El recubrimiento monocapa TiN tiene la finalidad de aumentar la resistencia al desgaste y a la oxidación que sufren los utensilios durante los trabajos de perforado: tiene óptimas características de microdureza (HV 0.05 2300), un bajo coeficiente de fricción (0.4), una temperatura máxima de funcionamiento equivalente a 500°C. El recubrimiento de pocos µm, depositado físicamente con vapor (Physical Vapour Deposition), consiente aumentar la duración de los utensilios de corte, mejorando también el acabado superficial y el consiguiente deslizamiento de las virutas generadas durante la actividad.

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO RIVESTITE AL TiN

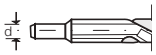
Reduced shank TiN coated twist drills / Forets cylindriques au nitrure de titan à queue degageé
Brocas helicoidales con recubrimiento de titanio y mango reducido / Geschliffene Spiralbohrer TiN-beschichtet mit reduzierten Schaft

HSS-G DIN 338 Rivestita al titanio

Titanium coated / Titan /Titanio / TiN-beschichtet

01163

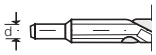




d=10 mm

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	011631025	12,867
10,5	87	133	10	5	011631050	11,883
10,75	94	142	10	5	011631075	13,716
11	94	142	10	5	011631100	12,650
11,25	94	142	10	5	011631125	14,712
11,5	94	142	10	5	011631150	13,561
11,75	94	142	10	5	011631175	15,336
12	101	151	10	5	011631200	15,587
12,25	101	151	10	5	011631225	17,627
12,5	101	151	10	5	011631250	18,106
12,75	101	151	10	5	011631275	18,587
13	101	151	10	5	011631300	18,226
13,5	108	160	10	3	011631350	29,088
14	108	160	10	3	011631400	31,104
14,5	114	169	10	3	011631450	34,137
15	114	169	10	3	011631500	36,475
15,5	120	178	10	3	011631550	39,977
16	120	178	10	3	011631600	42,254
16,5	125	184	10	1	011631650	45,720
17	125	184	10	1	011631700	48,335
17,5	130	191	10	1	011631750	52,243
18	130	191	10	1	011631800	55,060
18,5	135	198	10	1	011631850	59,294
19	135	198	10	1	011631900	62,447
19,5	140	205	10	1	011631950	64,352
20	140	205	10	1	011632000	67,183

01164



d=13 mm

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,5	108	160	13	3	011641350	29,088
14	108	160	13	3	011641400	31,104
14,5	114	169	13	3	011641450	34,137
15	114	169	13	3	011641500	36,475
15,5	120	178	13	3	011641550	39,977
16	120	178	13	3	011641600	42,254
16,5	125	184	13	1	011641650	45,720
17	125	184	13	1	011641700	48,335
17,5	130	191	13	1	011641750	52,243
18	130	191	13	1	011641800	55,060
18,5	135	198	13	1	011641850	59,294
19	135	198	13	1	011641900	62,447
19,5	140	205	13	1	011641950	64,352
20	140	205	13	1	011642000	67,183

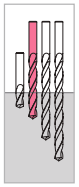
Confezione / Packaging



Applicazioni / Applications



< 5 d



PUNTE HSS-G RETTIFICATE RIVESTITE AL TiN, SERIE EXTRA CORTA

HSS-G TiN coated twist drills, stub serie / Forets au nitrure de Titan, série extra courte
Brocas de Titanio serie extra corta / TiN-beschichtet Spiralbohrer, extra kurz

HSSG+TiN DIN 1897







Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	011660300	1,547
3,25	18	49	10	011660325	1,847
3,5	20	52	10	011660350	1,679
3,75	20	52	10	011660375	1,943
4	22	55	10	011660400	1,762
4,5	24	58	10	011660450	2,112
5	26	62	10	011660500	2,302
5,5	28	66	10	011660550	2,807
6	28	66	10	011660600	2,981
6,5	28	66	10	011660650	4,410

01166



PUNTE ELICOIDALI HSS-G RETTIFICATE RIVESTITE AL TiN, SERIE LUNGA

HSS-G TiN coated twist drills, long serie / Forets au nitrure de Titan, série longue
Brocas de Titanio serie larga / TiN-beschichtet Spiralbohrer, lange Ausführung

HSSG+TiN DIN 340

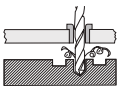






Ø h8	/	L	pcs	cod.	€ cad/each
3	66	100	10	011680300	2,949
3,25	69	106	10	011680325	3,106
3,5	73	112	10	011680350	3,106
3,75	73	112	10	011680375	3,453
4	78	119	10	011680400	3,453
4,25	78	119	10	011680425	3,969
4,5	82	126	10	011680450	3,969
4,75	82	126	10	011680475	4,472
5	87	132	10	011680500	4,472
5,25	87	132	10	011680525	5,229
5,5	91	139	10	011680550	5,229
5,75	91	139	10	011680575	5,756
6	91	139	10	011680600	5,756
6,5	97	148	5	011680650	6,055
7	102	156	5	011680700	7,794
7,5	102	156	5	011680750	9,352
8	109	165	5	011680800	11,391
8,5	109	165	5	011680850	13,346
9	115	175	5	011680900	14,629
9,5	115	175	5	011680950	16,068
10	121	184	5	011681000	18,706

01168



ASSORTIMENTI PUNTE AL TITANIO IN ASTUCCI DI METALLO E ABS

Sets of TiN coated twist drills / Assortiments forets au titan
Juego brocas de titanio / HSS-TiN Spiralbohrersätze

HSSG+TiN DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01170401 € 48,921



25 pcs
Ø 1÷13 x 0,5 mm
01170402 € 109,353



37 pcs
Ø 1÷10 x 0,25 mm
01170411 € 110,313



49 pcs
Ø 1÷13 x 0,25 mm
01170412 € 226,643

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01170301 € 48,921



25 pcs
Ø 1÷13 x 0,5 mm
01170302 € 109,353

Plastic



19 pcs
Ø 1÷10 x 0,5 mm
01170101 € 44,606



19 pcs Ø 1÷10 x 0,5 mm
01170250 € 44,606

25 pcs Ø 1÷13 x 0,5 mm
01170251 € 76,739

Metal



51 pcs
Ø 1÷6 x 0,1 mm
01170407 € 56,595



41 pcs
Ø 6÷10 x 0,1 mm
01170408 € 185,133



91 pcs
Ø 1÷10 x 0,1 mm
01170410 € 392,841



91 pcs
Ø 1÷10 x 0,1 mm
01170220 € 297,149



10 pcs
Ø 1÷10 x 1 mm
01170201 € 28,777



13 pcs
Ø 1,5 - 2 - 2,5 - 3 - 3,3
3,5 - 4 - 4,2 - 4,5 - 5
5,5 - 6 - 6,5
01170203 € 18,706



13 pcs
Ø 2÷8 x 0,5 mm
01170205 € 23,022



6 pcs
Ø 2 - 3 - 4 - 5 - 6 - 8
01170204 € 14,524



19 pcs
Ø 1÷10 x 0,5 mm
01170206 € 44,606

VALIGETTE MAGAZZENO PUNTE AL TITANIO

HSSG+TiN twist drills in metal cases / Forets HSSG+TiN en coffret métallique
Surtido de brocas HSSG+TiN en caja metalica / Lager Kästen mit HSSG+TiN Spiralbohrersätze

HSSG+TiN DIN 338



Metal 330x240x55

116 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

01170450 € 214,199



Metal 550x310x55

128 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

01170451 € 371,590

ESPOSITORE DA BANCO-MAGAZZENO PUNTE AL TITANIO

HSSG+TiN twist drills display / Display forets au HSSG+TiN
Expositor brocas de HSSG+TiN / Verkaufsschränke für HSSG+TiN Spiralbohrer

HSSG+TiN DIN 338



Metal 375x240x200

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	10	5,5	10	10	5
1,5	10	6	10	10,5	3
2	10	6,5	5	11	3
2,5	10	7	5	11,5	3
3	10	7,5	5	12	3
3,5	10	8	5	12,5	3
4	10	8,5	5	13	3
4,5	10	9	5		
5	10	9,5	5		

01170501 € 554,125



Metal 390x460x230

255 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs	Ø	pcs
1	10	4,25	10	7,5	5	10,75	2
1,25	5	4,5	10	7,75	2	11	3
1,5	10	4,75	3	8	5	11,25	2
1,75	5	5	10	8,25	2	11,5	3
2	10	5,25	3	8,5	5	11,75	2
2,25	5	5,5	10	8,75	2	12	3
2,5	10	5,75	3	9	5	12,25	2
2,75	5	6	10	9,25	2	12,5	3
3	10	6,25	2	9,5	5	12,75	2
3,25	10	6,5	5	9,75	2	13	3
3,5	10	6,75	2	10	5		
3,75	10	7	5	10,25	2		
4	10	7,25	2	10,5	3		

01170507 € 949,928

PUNTE ELICOIDALI CILINDRICHE "BASIC", ESECUZIONE RETTIFICATA, SERIE CORTA, FINITURA LUCIDA

"Basic" fully ground straight shank twist drills / Forets cylindriques rectifiés "basic"
Brocas helicoidales rectificadas "basic" / Geschliffene Spiralbohrer "basic"

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01350





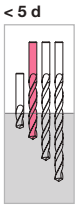
Art. **01351** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*





Ø h8	/	L	pcs	cod.	€ cad/each
0,2	2,5	19	10	013500020	1,189
0,25	3	19	10	013500025	1,189
0,3	3	19	10	013500030	1,189
0,35	4	19	10	013500035	1,189
0,4	5	20	10	013500040	1,189
0,45	5	20	10	013500045	1,189
0,5	6	22	10	013500050	1,024
0,55	7	24	10	013500055	1,024
0,6	7	24	10	013500060	1,024
0,65	8	26	10	013500065	1,024
0,7	9	28	10	013500070	1,024
0,75	9	28	10	013500075	1,024
0,8	10	30	10	013500080	1,024
0,85	10	30	10	013500085	1,024
0,9	11	32	10	013500090	1,024
0,95	11	32	10	013500095	1,024
1	12	34	10	013500100	0,768
1,1	14	36	10	013500110	0,798
1,2	16	38	10	013500120	0,798
1,25	16	38	10	013500125	0,798
1,3	16	38	10	013500130	0,798
1,4	18	40	10	013500140	0,798
1,5	18	40	10	013500150	0,697
1,6	20	43	10	013500160	0,655
1,7	20	43	10	013500170	0,655
1,75	22	46	10	013500175	0,655
1,8	22	46	10	013500180	0,655
1,9	22	46	10	013500190	0,655
2	24	49	10	013500200	0,573
2,1	24	49	10	013500210	0,666
2,2	27	53	10	013500220	0,666
2,25	27	53	10	013500225	0,666
2,3	27	53	10	013500230	0,666
2,4	30	57	10	013500240	0,666
2,5	30	57	10	013500250	0,635
2,6	30	57	10	013500260	0,768
2,7	33	61	10	013500270	0,768
2,75	33	61	10	013500275	0,768
2,8	33	61	10	013500280	0,768
2,9	33	61	10	013500290	0,768
3	33	61	10	013500300	0,718
3,1	36	65	10	013500310	0,890
3,2	36	65	10	013500320	0,890
3,25	36	65	10	013500325	0,890
3,3	36	65	10	013500330	0,890
3,4	39	70	10	013500340	0,890
3,5	39	70	10	013500350	0,860
3,6	39	70	10	013500360	0,963
3,7	39	70	10	013500370	0,963
3,75	39	70	10	013500375	0,963
3,8	43	75	10	013500380	0,963
3,9	43	75	10	013500390	0,963
4	43	75	10	013500400	0,932
4,1	43	75	10	013500410	1,107
4,2	43	75	10	013500420	1,107
4,25	43	75	10	013500425	1,107
4,3	47	80	10	013500430	1,107
4,4	47	80	10	013500440	1,107
4,5	47	80	10	013500450	1,066
4,6	47	80	10	013500460	1,189
4,7	47	80	10	013500470	1,189
4,75	47	80	10	013500475	1,189
4,8	52	86	10	013500480	1,189
4,9	52	86	10	013500490	1,189
5	52	86	10	013500500	1,128
5,1	52	86	10	013500510	1,548
5,2	52	86	10	013500520	1,548
5,25	52	86	10	013500525	1,548
5,3	52	86	10	013500530	1,548
5,4	57	93	10	013500540	1,548
5,5	57	93	10	013500550	1,506

- Taglio dei materiali con R ≤ 700 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 700 N/mm².*
- *Puor percer métaux et acier avec R ≤ 700 N/mm².*
- *Para taladrar hierro e acero R ≤ 700 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 700 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

Ø h8	/	L	pcs	cod.	€ cad/each
5,6	57	93	10	013500560	1,650
5,7	57	93	10	013500570	1,650
5,75	57	93	10	013500575	1,650
5,8	57	93	10	013500580	1,650
5,9	57	93	10	013500590	1,650
6	57	93	10	013500600	1,578
6,1	63	101	10	013500610	2,019
6,2	63	101	10	013500620	2,019
6,25	63	101	10	013500625	2,019
6,3	63	101	10	013500630	2,019
6,4	63	101	10	013500640	2,019
6,5	63	101	10	013500650	1,947
6,6	63	101	10	013500660	2,346
6,7	63	101	10	013500670	2,346
6,75	69	109	10	013500675	2,346
6,8	69	109	10	013500680	2,346
6,9	69	109	10	013500690	2,346
7	69	109	10	013500700	2,275
7,1	69	109	5	013500710	2,550
7,2	69	109	5	013500720	2,550
7,25	69	109	5	013500725	2,550
7,3	69	109	5	013500730	2,550
7,4	69	109	5	013500740	2,550
7,5	69	109	5	013500750	2,407
7,6	75	117	5	013500760	3,033
7,7	75	117	5	013500770	3,033
7,75	75	117	5	013500775	3,033
7,8	75	117	5	013500780	3,033
7,9	75	117	5	013500790	3,033
8	75	117	5	013500800	2,869
8,1	75	117	5	013500810	3,718
8,2	75	117	5	013500820	3,718
8,25	75	117	5	013500825	3,718
8,3	75	117	5	013500830	3,718
8,4	75	117	5	013500840	3,718
8,5	75	117	5	013500850	3,534
8,6	81	125	5	013500860	3,871
8,7	81	125	5	013500870	3,871
8,75	81	125	5	013500875	3,871
8,8	81	125	5	013500880	3,871
8,9	81	125	5	013500890	3,871
9	81	125	5	013500900	3,698
9,1	81	125	5	013500910	4,047
9,2	81	125	5	013500920	4,047
9,25	81	125	5	013500925	4,047
9,3	81	125	5	013500930	4,047
9,4	81	125	5	013500940	4,047
9,5	81	125	5	013500950	3,871
9,6	87	133	5	013500960	4,641
9,7	87	133	5	013500970	4,641
9,75	87	133	5	013500975	4,641
9,8	87	133	5	013500980	4,641
9,9	87	133	5	013500990	4,641
10	87	133	5	013501000	4,324
10,1	87	133	5	013501010	5,788
10,2	87	133	5	013501020	5,788
10,25	87	133	5	013501025	5,788
10,3	87	133	5	013501030	5,788
10,4	87	133	5	013501040	5,788
10,5	87	133	5	013501050	5,163
10,6	87	133	5	013501060	6,926
10,7	94	142	5	013501070	6,926
10,75	94	142	5	013501075	6,926
10,8	94	142	5	013501080	6,926
10,9	94	142	5	013501090	6,926
11	94	142	5	013501100	6,197
11,1	94	142	5	013501110	7,386
11,2	94	142	5	013501120	7,386
11,25	94	142	5	013501125	7,386
11,3	94	142	5	013501130	7,386
11,4	94	142	5	013501140	7,386

Ø h8	/	L	pcs	cod.	€ cad/each
11,5	94	142	5	013501150	6,608
11,6	94	142	5	013501160	7,970
11,7	94	142	5	013501170	7,970
11,75	94	142	5	013501175	7,970
11,8	94	142	5	013501180	7,970
11,9	101	151	5	013501190	7,970
12	101	151	5	013501200	7,119
12,1	101	151	5	013501210	8,697
12,2	101	151	5	013501220	8,697
12,25	101	151	5	013501225	8,697
12,3	101	151	5	013501230	8,697
12,4	101	151	5	013501240	8,697
12,5	101	151	5	013501250	7,766
12,6	101	151	5	013501260	9,210
12,7	101	151	5	013501270	9,210
12,75	101	151	5	013501275	9,210
12,8	101	151	5	013501280	9,210
12,9	101	151	5	013501290	9,210
13	101	151	5	013501300	8,226
13,1	101	151	3	013501310	11,391
13,2	101	151	3	013501320	11,391
13,25	108	160	3	013501325	11,391
13,3	108	160	3	013501330	11,391
13,4	108	160	3	013501340	11,391
13,5	108	160	3	013501350	11,391
13,6	108	160	3	013501360	12,386
13,7	108	160	3	013501370	12,386
13,75	108	160	3	013501375	12,386
13,8	108	160	3	013501380	12,386
13,9	108	160	3	013501390	12,386
14	108	160	3	013501400	12,386
14,1	108	160	3	013501410	14,403
14,2	114	169	3	013501420	14,403
14,25	114	169	3	013501425	14,403
14,3	114	169	3	013501430	14,403
14,4	114	169	3	013501440	14,403
14,5	114	169	3	013501450	14,403
14,6	114	169	3	013501460	15,070
14,7	114	169	3	013501470	15,070
14,75	114	169	3	013501475	15,070
14,8	114	169	3	013501480	15,070
14,9	114	169	3	013501490	15,070
15	114	169	3	013501500	15,070
15,1	120	178	3	013501510	16,739
15,2	120	178	3	013501520	16,739
15,25	120	178	3	013501525	16,739
15,3	120	178	3	013501530	16,739
15,4	120	178	3	013501540	16,739
15,5	120	178	3	013501550	16,739
15,6	120	178	3	013501560	17,661
15,7	120	178	3	013501570	17,661
15,75	120	178	3	013501575	17,661
15,8	120	178	3	013501580	17,661
15,9	120	178	3	013501590	17,661
16	120	178	3	013501600	17,661
16,25	125	184	1	013501625	20,089
16,5	125	184	1	013501650	20,089
16,75	125	184	1	013501675	21,093
17	125	184	1	013501700	21,093
17,25	130	191	1	013501725	23,685
17,5	130	191	1	013501750	23,685
17,75	130	191	1	013501775	24,863
18	130	191	1	013501800	24,863
18,25	135	198	1	013501825	24,863
18,5	135	198	1	013501850	24,863
18,75	135	198	1	013501875	26,707
19	135	198	1	013501900	26,707
19,25	140	205	1	013501925	29,812
19,5	140	205	1	013501950	29,812
19,75	140	205	1	013501975	30,641
20	140	205	1	013502000	30,641

Professional

PUNTE ELICOIDALI CILINDRICHE “BASIC”, CON CODOLO RIDOTTO, INTERAMENTE RETTIFICATE, FINITURA LUCIDA

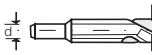
Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01352





Ø	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	013521025	8,140
10,5	87	133	10	5	013521050	7,529
10,75	94	142	10	5	013521075	9,264
11	94	142	10	5	013521100	8,546
11,25	94	142	10	5	013521125	9,736
11,5	94	142	10	5	013521150	8,953
11,75	94	142	10	5	013521175	10,304
12	101	151	10	5	013521200	9,467
12,25	101	151	10	5	013521225	11,020
12,5	101	151	10	5	013521250	10,100
12,75	101	151	10	5	013521275	11,524
13	101	151	10	5	013521300	11,031
13,25	108	160	10	3	013521325	15,497
13,5	108	160	10	3	013521350	15,497
13,75	108	160	10	3	013521375	15,787
14	108	160	10	3	013521400	15,787
14,25	114	169	10	3	013521425	17,897
14,5	114	169	10	3	013521450	17,897
14,75	114	169	10	3	013521475	18,603
15	114	169	10	3	013521500	18,603
15,25	120	178	10	3	013521525	20,360
15,5	120	178	10	3	013521550	20,360
15,75	120	178	10	3	013521575	21,323
16	120	178	10	3	013521600	21,323
16,5	125	184	10	1	013521650	23,883
17	125	184	10	1	013521700	24,933
17,5	130	191	10	1	013521750	27,663
18	130	191	10	1	013521800	28,895
18,5	135	198	10	1	013521850	28,895
19	135	198	10	1	013521900	30,834
19,5	140	205	10	1	013521950	34,090
20	140	205	10	1	013522000	34,968

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 700 N/mm²



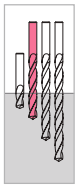
Metals



Acciaio
Steel



< 5 d



PUNTE ELICOIDALI CILINDRICHE “BASIC”, CON CODOLO RIDOTTO, INTERAMENTE RETTIFICATE, FINITURA LUCIDA

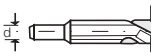
Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01354



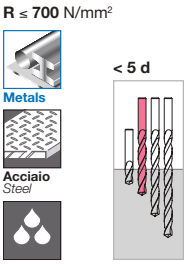


Ø	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	013541325	15,497
13,5	108	160	13	3	013541350	15,497
13,75	108	160	13	3	013541375	15,787
14	108	160	13	3	013541400	15,787
14,25	114	169	13	3	013541425	17,897
14,5	114	169	13	3	013541450	17,897
14,75	114	169	13	3	013541475	18,603
15	114	169	13	3	013541500	18,603
15,25	120	178	13	3	013541525	20,360
15,5	120	178	13	3	013541550	20,360
15,75	120	178	13	3	013541575	21,323
16	120	178	13	3	013541600	21,323
16,5	125	184	13	1	013541650	23,883
17	125	184	13	1	013541700	24,933
17,5	130	191	13	1	013541750	27,663
18	130	191	13	1	013541800	28,895
18,5	135	198	13	1	013541850	28,895
19	135	198	13	1	013541900	30,834
19,5	140	205	13	1	013541950	34,090
20	140	205	13	1	013542000	34,968
20,5	145	213	13	1	013542050	36,273
21	145	213	13	1	013542100	36,273
21,5	150	221	13	1	013542150	37,172
22	150	221	13	1	013542200	37,172
22,5	150	221	13	1	013542250	38,303
23	155	229	13	1	013542300	38,303
23,5	155	229	13	1	013542350	39,949
24	160	236	13	1	013542400	45,738
24,5	160	236	13	1	013542450	41,372
25	160	236	13	1	013542500	45,738

Confezione / *Packaging*



Applicazioni / *Applications*



Professional

PUNTE ELICOIDALI CILINDRICHE "BASIC", RETTIFICATE LUCIDE, SERIE EXTRA CORTA

Straight shank twist drills, stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01356







Confezione / *Packaging*

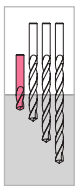


Applicazioni / *Applications*

R ≤ 700 N/mm²



< 3 d



Ø	/	L	pcs	cod.	€ cad/each
1,5	9	32	10	013560150	0,667
2	12	38	10	013560200	0,707
2,2	13	40	10	013560220	0,882
2,25	13	40	10	013560225	0,882
2,5	14	43	10	013560250	1,064
2,75	16	46	10	013560275	1,064
2,8	16	46	10	013560280	1,064
3	16	46	10	013560300	1,139
3,1	18	49	10	013560310	1,251
3,2	18	49	10	013560320	1,251
3,25	18	49	10	013560325	1,251
3,5	20	52	10	013560350	1,251
3,7	20	52	10	013560370	1,383
3,75	20	52	10	013560375	1,383
4	22	55	10	013560400	1,383
4,1	22	55	10	013560410	1,161
4,2	22	55	10	013560420	1,161
4,25	22	55	10	013560425	1,161
4,5	24	58	10	013560450	1,161
4,75	24	58	10	013560475	1,349
4,8	26	62	10	013560480	1,349
5	26	62	10	013560500	1,349
5,1	26	62	10	013560510	1,548
5,2	26	62	10	013560520	1,548
5,25	26	62	10	013560525	1,548
5,5	28	66	10	013560550	1,548
5,75	28	66	10	013560575	1,737
6	28	66	10	013560600	1,737
6,25	31	70	10	013560625	1,923
6,5	31	70	10	013560650	1,923
6,75	34	74	10	013560675	2,221
7	34	74	10	013560700	2,221
7,25	34	74	5	013560725	2,478
7,5	34	74	5	013560750	2,478
7,75	37	79	5	013560775	2,757
8	37	79	5	013560800	2,757
8,25	37	79	5	013560825	3,176
8,5	37	79	5	013560825	3,176
8,75	40	84	5	013560875	3,750
9	40	84	5	013560900	3,750
9,25	40	84	5	013560925	4,199
9,5	40	84	5	013560950	4,199
9,75	40	84	5	013560975	4,646
10	43	89	5	013561000	4,646
10,25	43	89	5	013561025	4,949
10,5	43	89	5	013561050	4,949
10,75	47	95	5	013561075	4,949
11	47	95	5	013561100	5,250
11,25	47	95	5	013561125	5,698
11,5	47	95	5	013561150	5,698
11,75	47	95	5	013561175	6,448
12	51	102	5	013561200	6,448
12,25	51	102	5	013561225	6,750
12,5	51	102	5	013561250	6,750
12,75	51	102	5	013561275	7,198
13	51	102	5	013561300	7,198

PUNTE ELICOIDALI CILINDRICHE "BASIC", RETTIFICATE LUCIDE, SERIE LUNGA

Long straight shank twist drills / Forets cylindriques, série longue
Brocas helicoidales, serie larga / Geschliffene Spiralbohrer, lange Ausführung

HSS DIN 340 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01358





HV ≈ 750÷820
SPLIT POINT
DIN 1412C

Confezione / *Packaging*

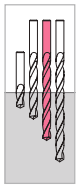


Applicazioni / *Applications*

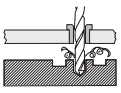
R ≤ 700 N/mm²



< 8 d



Ø	/	L	pcs	cod.	€ cad/each
1	33	56	10	013580100	1,094
1,5	45	70	10	013580150	1,274
1,75	53	80	10	013580175	1,388
2	56	85	10	013580200	1,388
2,25	59	90	10	013580225	1,511
2,5	62	95	10	013580250	1,511
2,75	66	100	10	013580275	1,721
3	66	100	10	013580300	1,919
3,25	69	106	10	013580325	2,337
3,5	73	112	10	013580350	2,337
3,75	73	112	10	013580375	2,575
4	78	119	10	013580400	2,575
4,25	78	119	10	013580425	2,825
4,5	82	126	10	013580450	2,825
4,75	82	126	10	013580475	3,038
5	87	132	10	013580500	3,038
5,25	87	132	10	013580525	3,523
5,5	91	139	10	013580550	3,523
5,75	91	139	10	013580575	3,919
6	91	139	10	013580600	3,919
6,25	97	148	5	013580625	4,506
6,5	97	148	5	013580650	4,506
6,75	97	148	5	013580675	5,183
7	102	156	5	013580700	5,183
7,25	102	156	5	013580725	5,973
7,5	102	156	5	013580750	5,973
7,75	109	165	5	013580775	6,923
8	109	165	5	013580800	6,923
8,25	109	165	5	013580825	7,544
8,5	109	165	5	013580850	7,544
8,75	115	175	5	013580875	8,682
9	115	175	5	013580900	8,682
9,25	115	175	5	013580925	9,270
9,5	115	175	5	013580950	9,270
9,75	121	184	5	013580975	10,796
10	121	184	5	013581000	10,796
10,25	121	184	5	013581025	12,016
10,5	121	184	5	013581050	12,016
10,75	128	195	5	013581075	14,007
11	128	195	5	013581100	14,007
11,25	128	195	5	013581125	15,537
11,5	128	195	5	013581150	15,537
11,75	134	205	5	013581175	17,420
11,8	134	205	5	013581180	17,420
12	134	205	5	013581200	17,420
12,25	134	205	5	013581225	18,622
12,5	134	205	5	013581250	18,622
12,75	134	205	5	013581275	19,403
13	134	205	5	013581300	19,403
13,5	140	214	3	013581350	21,315
14	140	214	3	013581400	24,446
14,5	144	220	3	013581450	26,937
15	144	220	3	013581500	28,639
15,5	149	227	3	013581550	29,279
16	149	227	3	013581600	30,365
16,5	154	235	1	013581650	33,120
17	154	235	1	013581700	34,128
17,5	158	241	1	013581750	37,454
18	158	241	1	013581800	40,319
18,5	162	247	1	013581850	42,482
19	162	247	1	013581900	45,270
19,5	166	254	1	013581950	47,354
20	166	254	1	013582000	50,243



Professional

ASSORTIMENTI PUNTE HSS "BASIC", RETTIFICATE LUCIDE, IN ASTUCCI DI METALLO E DI PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01360401 € 36,978



25 pcs
Ø 1÷13 x 0,5 mm

01360402 € 62,755



37 pcs
Ø 1÷10 x 0,25 mm

01360411 € 84,046



49 pcs
Ø 1÷13 x 0,25 mm

01360412 € 154,644

Plastic



19 pcs
Ø 1÷10 x 0,5 mm

01360101 € 34,740

Abs



19 pcs Ø 1÷10 x 0,5 mm
01360301 € 37,827

25 pcs Ø 1÷13 x 0,5 mm
01360302 € 63,961



19 pcs Ø 1÷10 x 0,5 mm
01360250 € 34,740

25 pcs Ø 1÷13 x 0,5 mm
01360251 € 72,816

VALIGETTE MAGAZZENO ED ESPOSITORI CON PUNTE HSS “BASIC”, RETTIFICATE LUCIDE

Ground drills storage displays / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS DIN 338

01360450 Ø 1÷10 x 0,5 mm
01360451 Ø 1÷13 x 0,5 mm



150 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

01360450 € 218,519

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

01360451 € 358,596



Metal 375x240x200

600 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,5	20	10	10
1,5	30	6	20	10,5	5
2	50	6,5	10	11	5
2,5	50	7	10	11,5	5
3	100	7,5	5	12	5
3,5	50	8	10	12,5	5
4	100	8,5	5	13	5
4,5	30	9	5		
5	30	9,5	5		

01360502 € 773,222



Metal 390x460x230

760 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	80	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	60	9,25	2		

01360507 € 1.086,996

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, QUALITÀ STANDARD, FINITURA BLACK & WHITE

Standard fully ground straight shank twist drills / Forets cylindriques rectifiés, qualité standard
Brocas helicoidales rectificada standard / Geschliffene Spiralbohrer standard

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01080



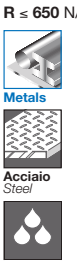


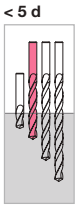
Art. **01081** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*





- Taglio del ferro, acciaio, metalli in genere con R ≤ 650 N/mm².
- *For drilling in iron, steel, metals up to R ≤ 650 N/mm².*
- *Pour percer fer, acier, métaux avec R ≤ 650 N/mm².*
- *Para taladrar hierro y aceros R ≤ 650 N/mm².*
- *Einsatz in Eisen, Stahl bis R ≤ 650 N/mm².*

Ø	/	L	pcs	cod.	€ cad/each
1	12	34	10	010800100	0,596
1,1	14	36	10	010800110	0,637
1,2	16	38	10	010800120	0,637
1,25	16	38	10	010800125	0,637
1,3	16	38	10	010800130	0,596
1,4	18	40	10	010800140	0,596
1,5	18	40	10	010800150	0,596
1,6	20	43	10	010800160	0,637
1,7	20	43	10	010800170	0,637
1,75	22	46	10	010800175	0,637
1,8	22	46	10	010800180	0,585
1,9	22	46	10	010800190	0,585
2	24	49	10	010800200	0,585
2,1	24	49	10	010800210	0,679
2,2	27	53	10	010800220	0,679
2,25	27	53	10	010800225	0,679
2,3	27	53	10	010800230	0,627
2,4	30	57	10	010800240	0,627
2,5	30	57	10	010800250	0,627
2,6	30	57	10	010800260	0,679
2,7	33	61	10	010800270	0,679
2,75	33	61	10	010800275	0,679
2,8	33	61	10	010800280	0,637
2,9	33	61	10	010800290	0,637
3	33	61	10	010800300	0,637
3,1	36	65	10	010800310	0,846
3,2	36	65	10	010800320	0,846
3,25	36	65	10	010800325	0,846
3,3	36	65	10	010800330	0,783
3,4	39	70	10	010800340	0,783
3,5	39	70	10	010800350	0,783
3,6	39	70	10	010800360	0,908
3,7	39	70	10	010800370	0,908
3,75	39	70	10	010800375	0,908
3,8	43	75	10	010800380	0,866
3,9	43	75	10	010800390	0,866
4	43	75	10	010800400	0,866
4,1	43	75	10	010800410	0,982
4,2	43	75	10	010800420	0,982
4,25	43	75	10	010800425	0,982
4,3	47	80	10	010800430	0,930
4,4	47	80	10	010800440	0,930
4,5	47	80	10	010800450	0,930
4,6	47	80	10	010800460	1,044
4,7	47	80	10	010800470	1,044
4,75	47	80	10	010800475	1,044
4,8	52	86	10	010800480	0,951
4,9	52	86	10	010800490	0,951
5	52	86	10	010800500	0,951
5,1	52	86	10	010800510	1,400
5,2	52	86	10	010800520	1,400
5,25	52	86	10	010800525	1,400
5,3	52	86	10	010800530	1,264
5,4	57	93	10	010800540	1,264
5,5	57	93	10	010800550	1,264
5,6	57	93	10	010800560	1,473
5,7	57	93	10	010800570	1,473
5,75	57	93	10	010800575	1,473
5,8	57	93	10	010800580	1,337
5,9	57	93	10	010800590	1,337
6	57	93	10	010800600	1,337
6,1	63	101	10	010800610	1,661
6,2	63	101	10	010800620	1,661
6,25	63	101	10	010800625	1,661
6,3	63	101	10	010800630	1,506
6,4	63	101	10	010800640	1,506
6,5	63	101	10	010800650	1,506
6,6	63	101	10	010800660	1,703
6,7	63	101	10	010800670	1,703
6,75	69	109	10	010800675	1,703
6,8	69	109	10	010800680	1,672
6,9	69	109	10	010800690	1,672
7	69	109	10	010800700	1,672
7,1	69	109	5	010800710	2,237
7,2	69	109	5	010800720	2,237
7,25	69	109	5	010800725	2,237
7,3	69	109	5	010800730	2,048
7,4	69	109	5	010800740	2,048
7,5	69	109	5	010800750	2,048
7,6	75	117	5	010800760	2,403
7,7	75	117	5	010800770	2,403
7,75	75	117	5	010800775	2,403
7,8	75	117	5	010800780	2,205
7,9	75	117	5	010800790	2,205
8	75	117	5	010800800	2,205
8,1	75	117	5	010800810	3,312
8,2	75	117	5	010800820	3,312
8,25	75	117	5	010800825	3,312
8,3	75	117	5	010800830	3,009
8,4	75	117	5	010800840	3,009
8,5	75	117	5	010800850	3,009
8,6	81	125	5	010800860	3,553
8,7	81	125	5	010800870	3,553
8,75	81	125	5	010800875	3,553
8,8	81	125	5	010800880	3,207
8,9	81	125	5	010800890	3,207
9	81	125	5	010800900	3,207
9,1	81	125	5	010800910	3,731
9,2	81	125	5	010800920	3,731
9,25	81	125	5	010800925	3,731
9,3	81	125	5	010800930	3,376
9,4	81	125	5	010800940	3,376
9,5	81	125	5	010800950	3,376
9,6	87	133	5	010800960	3,949
9,7	87	133	5	010800970	3,949
9,75	87	133	5	010800975	3,949
9,8	87	133	5	010800980	3,585
9,9	87	133	5	010800990	3,585
10	87	133	5	010801000	3,585
10,25	87	133	5	010801025	4,524
10,5	87	133	5	010801050	4,116
10,75	94	142	5	010801075	4,713
11	94	142	5	010801100	4,347
11,25	94	142	5	010801125	5,088
11,5	94	142	5	010801150	4,598
11,75	94	142	5	010801175	5,475
12	101	151	5	010801200	5,151
12,25	101	151	5	010801225	5,978
12,5	101	151	5	010801250	5,673
12,75	101	151	5	010801275	7,691
13	101	151	5	010801300	6,949
13,25	108	160	3	010801325	12,320
13,5	108	160	3	010801350	12,320
13,75	108	160	3	010801375	12,655
14	108	160	3	010801400	12,655
14,25	114	169	3	010801425	14,588
14,5	114	169	3	010801450	14,588
14,75	114	169	3	010801475	17,190
15	114	169	3	010801500	17,190
15,25	120	178	3	010801525	18,819
15,5	120	178	3	010801550	18,819
15,75	120	178	3	010801575	19,707
16	120	178	3	010801600	19,707
16,5	125	184	1	010801650	22,068
17	125	184	1	010801700	23,041
17,5	130	191	1	010801750	25,569
18	130	191	1	010801800	26,708
18,5	135	198	1	010801850	26,708
19	135	198	1	010801900	28,505
19,5	140	205	1	010801950	31,516
20	140	205	1	010802000	32,321

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, QUALITÀ STANDARD

Standard fully ground straight shank twist drills / Forets cylindriques rectifiés, qualité standard
Brocas helicoidales rectificada standard / Geschliffene Spiralbohrer standard

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen



01082 d=10 mm

Ø	/	L	pcs	cod.	€ cad/each
10,25	87	133	5	010821025	6,607
10,5	87	133	5	010821050	6,183
10,75	94	142	5	010821075	6,809
11	94	142	5	010821100	6,419
11,25	94	142	5	010821125	7,210
11,5	94	142	5	010821150	6,697
11,75	94	142	5	010821175	7,646
12	101	151	5	010821200	7,279
12,25	101	151	5	010821225	6,753
12,5	101	151	5	010821250	7,847
12,75	101	151	5	010821275	9,990
13	101	151	5	010821300	9,197
13,25	101	151	3	010821325	16,173
13,5	108	160	3	010821350	16,173
13,75	108	160	3	010821375	16,543
14	108	160	3	010821400	16,543
14,25	114	169	3	010821425	18,606
14,5	114	169	3	010821450	18,606
14,75	114	169	3	010821475	21,386
15	114	169	3	010821500	21,386
15,25	120	178	3	010821525	23,116
15,5	120	178	3	010821550	23,116
15,75	120	178	3	010821575	24,075
16	120	178	3	010821600	24,075
16,5	125	184	1	010821650	26,599
17	125	184	1	010821700	27,637
17,5	130	191	1	010821750	30,326
18	130	191	1	010821800	31,543
18,5	135	198	1	010821850	31,543
19	135	198	1	010821900	33,462
19,5	140	205	1	010821950	36,677
20	140	205	1	010822000	37,547

01084 d=13 mm

Ø	/	L	pcs	cod.	€ cad/each
13,25	101	151	3	010841325	16,173
13,5	108	160	3	010841350	16,173
13,75	108	160	3	010841375	16,543
14	108	160	3	010841400	16,543
14,25	114	169	3	010841425	18,606
14,5	114	169	3	010841450	18,606
14,75	114	169	3	010841475	21,386
15	114	169	3	010841500	21,386
15,25	120	178	3	010841525	23,116
15,5	120	178	3	010841550	23,116
15,75	120	178	3	010841575	24,075
16	120	178	3	010841600	24,075
16,5	125	184	1	010841650	26,599
17	125	184	1	010841700	27,637
17,5	130	191	1	010841750	30,326
18	130	191	1	010841800	31,543
18,5	135	198	1	010841850	31,543
19	135	198	1	010841900	33,462
19,5	140	205	1	010841950	36,677
20	140	205	1	010842000	37,547

01082
01084

HSS DIN 1897 - serie corta

01087 **01086**



Ø	/	L	pcs	cod.	€ cad/each
3	16	46	10	010870300	0,725
3,25	18	49	10	010870325	0,962
3,5	20	52	10	010870350	0,890
3,75	20	52	10	010870375	1,032
4	22	55	10	010870400	0,985
4,25	22	55	10	010870425	1,116
4,5	24	58	10	010870450	1,057

Ø	/	L	pcs	cod.	€ cad/each
4,75	24	58	10	010870475	1,080
5	26	62	10	010870500	1,080
5,25	26	62	10	010870525	1,152
5,5	28	66	10	010870550	1,436
5,75	28	66	10	010870575	1,519
6	28	66	10	010870600	1,519

01087

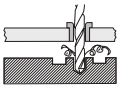


HSS DIN 340 - serie lunga

Ø	/	L	pcs	cod.	€ cad/each
3	66	100	10	010860300	1,271
3,25	69	106	10	010860325	1,615
3,5	73	112	10	010860350	1,615
3,75	73	112	10	010860375	1,698
4	78	119	10	010860400	1,698
4,25	78	119	10	010860425	2,327
4,5	82	126	10	010860450	2,327
4,75	82	126	10	010860475	2,363
5	87	132	10	010860500	2,363
5,25	87	132	10	010860525	2,694
5,5	91	139	10	010860550	2,694

Ø	/	L	pcs	cod.	€ cad/each
5,75	91	139	10	010860575	2,754
6	91	139	10	010860600	2,754
6,5	97	148	5	010860650	3,574
7	102	156	5	010860700	3,645
7,5	102	156	5	010860750	4,216
8	109	165	5	010860800	4,691
8,5	109	165	5	010860850	7,077
9	115	175	5	010860900	7,113
9,5	115	175	5	010860950	7,956
10	121	184	5	010861000	8,027

01086



Professional

ASSORTIMENTI PUNTE HSS-G RETTIFICATE, QUALITÀ STANDARD, IN ASTUCCI DI METALLO E PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01085401 € 30,180

25 pcs
Ø 1÷13 x 0,5 mm
01085402 € 54,324



19 pcs
Ø 1÷10 x 0,5 mm
01085301 € 34,045

25 pcs
Ø 1÷13 x 0,5 mm
01085302 € 58,946



37 pcs
Ø 1÷10 x 0,25 mm
01085411 € 74,849



49 pcs
Ø 1÷13 x 0,25 mm
01085412 € 132,801

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01085101 € 30,180



19 pcs
Ø 1÷10 x 0,5 mm
01085250 € 30,180

25 pcs
Ø 1÷13 x 0,5 mm
01085251 € 54,324

VALIGETTA MAGAZZENO ED ESPOSITORI PUNTE HSS RETTIFICATE STANDARD

Metal case storage and display with HSS fully ground twist drills / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS DIN 338

01085450 Ø 1÷10 x 0,5 mm
01085451 Ø 1÷13 x 0,5 mm



150 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

01085450 € 195,285

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

01085451 € 331,403



Metal 375x240x200

720 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,5	30	10	10
1,5	30	6	40	10,5	5
2	50	6,5	10	11	5
2,5	70	7	10	11,5	5
3	100	7,5	5	12	5
3,5	70	8	20	12,5	5
4	100	8,5	5	13	5
4,5	50	9	5		
5	50	9,5	5		

01085501 € 745,652



Metal 390x460x230

900 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	5
2,25	10	6,5	20	10,75	2
2,5	50	6,75	3	11	5
2,75	10	7	10	11,25	2
3	100	7,25	2	11,5	5
3,25	10	7,5	5	11,75	2
3,5	100	7,75	2	12	5
3,75	10	8	20	12,25	2
4	100	8,25	2	12,5	5
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	5
4,75	10	9	5		
5	100	9,25	2		

01085507 € 1.088,884

Professional

PUNTE ELICOIDALI CILINDRICHE DI ALTA QUALITÀ AL COBALTO 2%, ESECUZIONE RULLATA, CON TAGLIENTI SPECIALI ROMPITRUCIOLO

Cobalt rolled straight shank twist drills / Forets cylindriques au cobalt laminés
Broca helicoidale laminada de cobalto / Kobalt Rollgewalzte spiralbohrer

HSS-CO 2%

01006





W 27°

HV ≃ 800÷820
SPLIT POINT
DIN 1412C
(Ø≥3 mm)

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 700 N/mm²



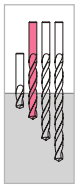
Metals



Acciaio
Steel



< 5 d



Ø	/	L	pcs	cod.	€ cad/each
1	12	34	10	010060100	0,218
1,25	16	38	10	010060125	0,218
1,5	18	40	10	010060150	0,218
1,75	22	46	10	010060175	0,273
2	24	49	10	010060200	0,273
2,25	27	53	10	010060225	0,364
2,5	30	57	10	010060250	0,364
2,75	33	61	10	010060275	0,591
3	33	61	10	010060300	0,552
3,25	36	65	10	010060325	0,792
3,5	39	70	10	010060350	0,792
3,75	39	70	10	010060375	0,958
4	43	75	10	010060400	0,958
4,25	43	75	10	010060425	1,137
4,5	47	80	10	010060450	1,137
4,75	47	80	10	010060475	1,336
5	52	86	10	010060500	1,336
5,25	52	86	10	010060525	1,691
5,5	57	93	10	010060550	1,691
5,75	57	93	10	010060575	1,901
6	57	93	10	010060600	1,901
6,25	63	101	10	010060625	2,208
6,5	63	101	10	010060650	2,208
6,75	69	109	10	010060675	2,681
7	69	109	10	010060700	2,681
7,25	69	109	5	010060725	3,045
7,5	69	109	5	010060750	3,045
7,75	75	117	5	010060775	3,534
8	75	117	5	010060800	3,534
8,25	75	117	5	010060825	3,887
8,5	75	117	5	010060850	3,887
8,75	81	125	5	010060875	4,533
9	81	125	5	010060900	4,533
9,25	81	125	5	010060925	4,920
9,5	81	125	5	010060950	4,920
9,75	87	133	5	010060975	5,524
10	87	133	5	010061000	5,576
10,25	87	133	5	010061025	6,006
10,5	87	133	5	010061050	6,006
10,75	94	142	5	010061075	6,739
11	94	142	5	010061100	6,739
11,25	94	142	5	010061125	7,333
11,5	94	142	5	010061150	7,333
11,75	94	142	5	010061175	8,280
12	101	151	5	010061200	8,280
12,25	101	151	5	010061225	9,079
12,5	101	151	5	010061250	9,079
12,75	101	151	5	010061275	9,766
13	101	151	5	010061300	9,766

- Taglio dei materiali con R ≤ 700 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite.
- *High performances in cutting alloy steel up to R ≤ 700 N/mm².*
- *Puor percer métaux et acier avec R ≤ 700 N/mm².*
- *Para taladrar hierro e acero R ≤ 700 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 700 N/mm2 Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

ASSORTIMENTI PUNTE RULLATE AL COBALTO 2% IN ASTUCCI DI METALLO DI QUALITÀ

HSS-CO 2% rolled twist drills in high quality metal cases / Forets HSS-CO 2% laminés en coffret métallique
Surtido de brocas laminada en caja metalica / Rollgewalzte Spiralbohrersätze in Metallkassetten

HSS-CO 2%

Metal		Abs	
			
19 pcs Ø 1÷10 x 0,5 mm	**25 pcs** Ø 1÷13 x 0,5 mm	**19 pcs** Ø 1÷10 x 0,5 mm	**25 pcs** Ø 1÷13 x 0,5 mm
01008401 € 48,680	**01008402** € 100,641	**01008301** € 49,709	**01008302** € 102,021

Descrizione / *Description / Description / Descripciòn*

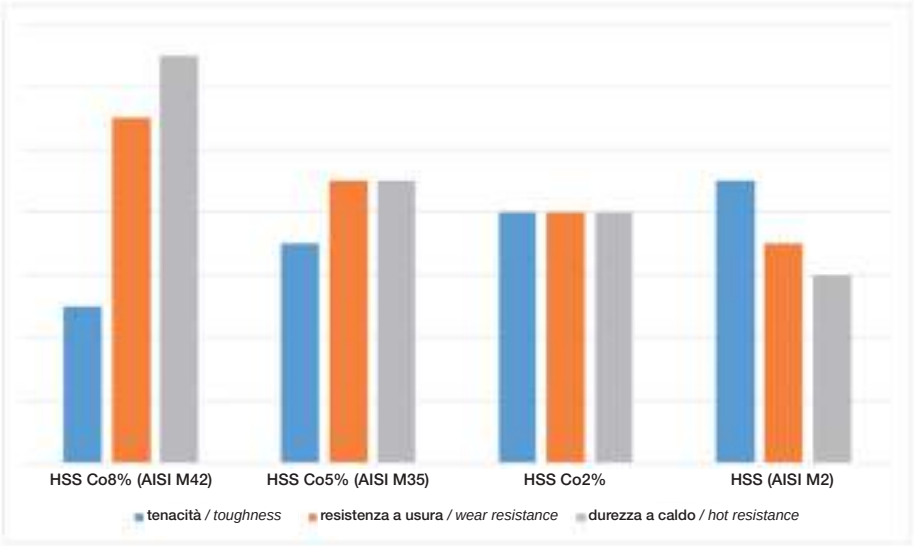
Punta con affilatura che funziona da rompitruciolo, per lavorare tutti quei materiali con trucioli lunghi che potrebbero diventare pericolosi durante il processo di foratura. Il doppio angolo di affilatura dei taglienti crea infatti una discontinuità che favorisce la rottura del truciolo appena generato. La punta è rullata e viene costruita con un acciaio superrapido al cobalto 2%. Questo contributo di cobalto favorisce il mantenimento delle caratteristiche dell'utensile anche a temperature elevate. La punta può pertanto essere utilizzata nella foratura di materiali più duri e resistenti rispetto alla semplice punta rullata in HSS (art. 01001).

This twist drill has a proper sharpening that works as a chipbreaker, to cut into all those long chipped materials that could become dangerous during the drilling process. The double sharpening angle of the cutting edges creates a discontinuity that helps the breakage of the newly generated chip. The tip is rolled forged and it's made with a 2% cobalt high speed steel. This cobalt content promotes the maintenance of the tool characteristics even at high temperatures. This twist drill can therefore be used to drill into harder and more resistant materials than the simple rolled drill bit made of HSS (item 01001).

Ce foret hélicoïdal a un affûtage approprié qui fonctionne comme un brise-copeaux, pour couper tous les matériaux à copeaux longs qui pourraient devenir dangereux pendant le processus de forage. Le double angle d'affûtage des arêtes de coupe crée une discontinuité qui favorise la rupture de la nouvelle puce. L'embout est laminé et fabriqué avec un acier rapide à 2% de cobalt. Cette teneur en cobalt favorise le maintien des caractéristiques de l'outil même à des températures élevées. Ce foret hélicoïdal peut donc être utilisé pour forer des matériaux plus durs et plus résistants que le simple foret laminé en HSS (art. 01001).

Esta broca helicoidale tiene un afilado adecuado que funciona como un rompevirutas, para cortar en todos esos materiales largos astillados que podrían volverse peligrosos durante el proceso de perforación. El doble ángulo de afilado de los bordes cortantes crea una discontinuidad que ayuda a la rotura del chip recién generado. La punta está laminada y está hecha con un acero HSS al 2% de cobalto. Este contenido de cobalto promueve el mantenimiento de las características de la herramienta incluso a altas temperaturas. Por lo tanto, esta broca helicoidal se puede utilizar para taladrar en materiales más duros y más resistentes que la broca laminada simple hecha de HSS (art. 01001).

Confronto di alcune proprietà di acciai superrapidi
Properties comparison of some high speed steels
Comparaison de certaines propriétés des aciers HSS
Comparación de algunas propiedades de los aceros HSS



PUNTE ELICOIDALI CILINDRICHE, SERIE CORTA, ESECUZIONE RULLATA

Rolled straight shank twist drills / Forets cylindriques laminés
Broca helicoidale laminada / Rollgewalzte spiralbohrer

HSS DIN 338 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01001



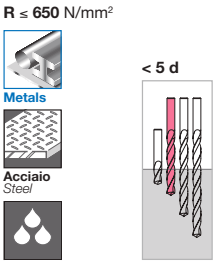


Art. **01002** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*



- Per forare: tutti i metalli, ferro, acciaio etc...
- *For drilling in: iron, steel, metals...*
- *Pour percer: fer, acier, métaux...*
- *Para taladrar: hierro, acero etc...*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 650 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe*

Ø	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	010010030	1,172
0,35	4	19	10	010010035	1,040
0,4	5	20	10	010010040	1,040
0,45	5	20	10	010010045	1,040
0,5	6	22	10	010010050	0,860
0,55	7	24	10	010010055	1,040
0,6	7	24	10	010010060	0,860
0,65	8	26	10	010010065	0,837
0,7	9	28	10	010010070	0,726
0,75	9	28	10	010010075	0,726
0,8	10	30	10	010010080	0,726
0,85	10	30	10	010010085	0,759
0,9	11	32	10	010010090	0,793
0,95	11	32	10	010010095	0,759
1	12	34	10	010010100	0,481
1,1	14	36	10	010010110	0,481
1,2	16	38	10	010010120	0,481
1,25	16	38	10	010010125	0,481
1,3	16	38	10	010010130	0,447
1,4	18	40	10	010010140	0,447
1,5	18	40	10	010010150	0,336
1,6	20	43	10	010010160	0,380
1,7	20	43	10	010010170	0,380
1,75	22	46	10	010010175	0,380
1,8	22	46	10	010010180	0,380
1,9	22	46	10	010010190	0,380
2	24	49	10	010010200	0,347
2,1	24	49	10	010010210	0,390
2,2	27	53	10	010010220	0,390
2,25	27	53	10	010010225	0,390
2,3	27	53	10	010010230	0,390
2,4	30	57	10	010010240	0,390
2,5	30	57	10	010010250	0,347
2,6	30	57	10	010010260	0,413
2,7	33	61	10	010010270	0,413
2,75	33	61	10	010010275	0,413
2,8	33	61	10	010010280	0,413
2,9	33	61	10	010010290	0,413
3	33	61	10	010010300	0,380
3,1	36	65	10	010010310	0,481
3,2	36	65	10	010010320	0,481
3,25	36	65	10	010010325	0,481
3,3	36	65	10	010010330	0,481
3,4	39	70	10	010010340	0,481
3,5	39	70	10	010010350	0,447
3,6	39	70	10	010010360	0,547
3,7	39	70	10	010010370	0,547
3,75	39	70	10	010010375	0,547
3,8	43	75	10	010010380	0,547
3,9	43	75	10	010010390	0,547
4	43	75	10	010010400	0,490
4,1	43	75	10	010010410	0,614
4,2	43	75	10	010010420	0,614
4,25	43	75	10	010010425	0,614
4,3	47	80	10	010010430	0,614
4,4	47	80	10	010010440	0,614
4,5	47	80	10	010010450	0,547
4,6	47	80	10	010010460	0,702
4,7	47	80	10	010010470	0,702
4,75	47	80	10	010010475	0,702
4,8	52	86	10	010010480	0,702
4,9	52	86	10	010010490	0,702
5	52	86	10	010010500	0,636
5,1	52	86	10	010010510	0,869
5,2	52	86	10	010010520	0,869
5,25	52	86	10	010010525	0,869

Ø	/	L	pcs	cod.	€ cad/each
5,3	52	86	10	010010530	0,869
5,4	57	93	10	010010540	0,869
5,5	57	93	10	010010550	0,793
5,6	57	93	10	010010560	0,894
5,7	57	93	10	010010570	0,894
5,75	57	93	10	010010575	0,894
5,8	57	93	10	010010580	0,894
5,9	57	93	10	010010590	0,894
6	57	93	10	010010600	0,826
6,1	63	101	10	010010610	1,094
6,2	63	101	10	010010620	1,094
6,25	63	101	10	010010625	1,094
6,3	63	101	10	010010630	1,094
6,4	63	101	10	010010640	1,094
6,5	63	101	10	010010650	0,994
6,6	63	101	10	010010660	1,284
6,7	63	101	10	010010670	1,284
6,75	69	109	10	010010675	1,284
6,8	69	109	10	010010680	1,284
6,9	69	109	10	010010690	1,284
7	69	109	10	010010700	1,172
7,1	69	109	5	010010710	1,395
7,2	69	109	5	010010720	1,395
7,25	69	109	5	010010725	1,395
7,3	69	109	5	010010730	1,395
7,4	69	109	5	010010740	1,395
7,5	69	109	5	010010750	1,284
7,6	75	117	5	010010760	1,729
7,7	75	117	5	010010770	1,729
7,75	75	117	5	010010775	1,729
7,8	75	117	5	010010780	1,729
7,9	75	117	5	010010790	1,729
8	75	117	5	010010800	1,629
8,1	75	117	5	010010810	1,853
8,2	75	117	5	010010820	1,853
8,25	75	117	5	010010825	1,853
8,3	75	117	5	010010830	1,853
8,4	75	117	5	010010840	1,853
8,5	75	117	5	010010850	1,686
8,6	81	125	5	010010860	2,121
8,7	81	125	5	010010870	2,121
8,75	81	125	5	010010875	2,121
8,8	81	125	5	010010880	2,121
8,9	81	125	5	010010890	2,121
9	81	125	5	010010900	1,932
9,1	81	125	5	010010910	2,399
9,2	81	125	5	010010920	2,399
9,25	81	125	5	010010925	2,399
9,3	81	125	5	010010930	2,399
9,4	81	125	5	010010940	2,399
9,5	81	125	5	010010950	2,165
9,6	87	133	5	010010960	2,678
9,7	87	133	5	010010970	2,678
9,75	87	133	5	010010975	2,678
9,8	87	133	5	010010980	2,678
9,9	87	133	5	010010990	2,678
10	87	133	5	010011000	2,489
10,1	87	133	5	010011010	3,806
10,2	87	133	5	010011020	3,806
10,25	87	133	5	010011025	3,149
10,3	87	133	5	010011030	3,806
10,4	87	133	5	010011040	3,806
10,5	87	133	5	010011050	2,869
10,6	87	133	5	010011060	4,352
10,7	94	142	5	010011070	4,352
10,75	94	142	5	010011075	3,650

Ø	/	L	pcs	cod.	€ cad/each
10,8	94	142	5	010011080	4,352
10,9	94	142	5	010011090	4,352
11	94	142	5	010011100	3,292
11,1	94	142	5	010011110	4,732
11,2	94	142	5	010011120	4,732
11,25	94	142	5	010011125	3,940
11,3	94	142	5	010011130	4,732
11,4	94	142	5	010011140	4,732
11,5	94	142	5	010011150	3,571
11,6	94	142	5	010011160	5,057
11,7	94	142	5	010011170	5,057
11,75	94	142	5	010011175	4,219
11,8	94	142	5	010011180	5,057
11,9	101	151	5	010011190	5,057
12	101	151	5	010011200	3,862
12,1	101	151	5	010011210	5,548
12,2	101	151	5	010011220	5,548
12,25	101	151	5	010011225	4,621
12,3	101	151	5	010011230	5,548
12,4	101	151	5	010011240	5,548
12,5	101	151	5	010011250	4,230
12,6	101	151	5	010011260	5,815
12,7	101	151	5	010011270	5,815
12,75	101	151	5	010011275	4,854
12,8	101	151	5	010011280	5,815
12,9	101	151	5	010011290	5,815
13	101	151	5	010011300	4,487
13,25	108	160	3	010011325	6,552
13,5	108	160	3	010011350	6,072
13,75	108	160	3	010011375	6,552
14	108	160	3	010011400	6,072
14,25	114	169	3	010011425	7,422
14,5	114	169	3	010011450	6,798
14,75	114	169	3	010011475	9,687
15	114	169	3	010011500	8,807
15,25	120	178	3	010011525	10,904
15,5	120	178	3	010011550	9,912
15,75	120	178	3	010011575	11,977
16	120	178	3	010011600	10,894
16,25	125	184	1	010011625	13,862
16,5	125	184	1	010011650	11,519
16,75	125	184	1	010011675	13,862
17	125	184	1	010011700	11,519
17,25	130	191	1	010011725	15,045
17,5	130	191	1	010011750	12,535
17,75	130	191	1	010011775	15,045
18	130	191	1	010011800	13,774
18,25	135	198	1	010011825	17,647
18,5	135	198	1	010011850	14,699
18,75	135	198	1	010011875	17,647
19	135	198	1	010011900	14,699
19,25	140	205	1	010011925	20,581
19,5	140	205	1	010011950	17,178
19,75	140	205	1	010011975	20,581
20	140	205	1	010012000	17,178
20,5	145	213	1	010012050	19,466
21	145	213	1	010012100	21,263
21,5	150	221	1	010012150	22,905
22	150	221	1	010012200	23,963
22,5	150	221	1	010012250	24,422
23	155	229	1	010012300	26,385
23,5	155	229	1	010012350	31,387
24	160	236	1	010012400	32,179
24,5	160	236	1	010012450	32,693
25	160	236	1	010012500	33,474

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO, ESECUZIONE RULLATA

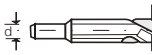
Reduced shank twist drills / Forets cylindriques à queue réduite
Brocas helicoidales con mango reducido / Rollgewalzte Spiralbohrer mit reduzierten Schaft

HSS DIN 338 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01003



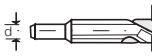


d=10 mm

Art. **01005** Self
Disponibile su richiesta / *On demand*

Ø	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	010031025	4,794
10,5	87	133	10	5	010031050	4,051
10,75	94	142	10	5	010031075	5,392
11	94	142	10	5	010031100	4,478
11,25	94	142	10	5	010031125	5,707
11,5	94	142	10	5	010031150	4,739
11,75	94	142	10	5	010031175	6,023
12	101	151	10	5	010031200	5,032
12,25	101	151	10	5	010031225	6,474
12,5	101	151	10	5	010031250	5,415
12,75	101	151	10	5	010031275	6,983
13	101	151	10	5	010031300	5,809
13,25	108	160	10	3	010031325	9,024
13,5	108	160	10	3	010031350	7,501
13,75	108	160	10	3	010031375	9,024
14	108	160	10	3	010031400	7,501
14,25	114	169	10	3	010031425	9,724
14,5	114	169	10	3	010031450	8,358
14,75	114	169	10	3	010031475	11,155
15	114	169	10	3	010031500	10,266
15,25	120	178	10	3	010031525	12,859
15,5	120	178	10	3	010031550	11,236
15,75	120	178	10	3	010031575	12,859
16	120	178	10	3	010031600	12,374
16,25	125	184	10	1	010031625	14,968
16,5	125	184	10	1	010031650	13,018
16,75	125	184	10	1	010031675	14,968
17	125	184	10	1	010031700	13,018
17,25	125	184	10	1	010031725	16,120
17,5	130	191	10	1	010031750	14,022
17,75	130	191	10	1	010031775	16,120
18	130	191	10	1	010031800	14,022
18,25	130	191	10	1	010031825	18,603
18,5	135	198	10	1	010031850	16,176
18,75	135	198	10	1	010031875	18,603
19	135	198	10	1	010031900	16,176
19,25	135	198	10	1	010031925	21,399
19,5	140	205	10	1	010031950	18,603
19,75	140	205	10	1	010031975	21,399
20	140	205	10	1	010032000	18,603

01004



d=13 mm

Ø	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	010041325	9,024
13,5	108	160	13	3	010041350	7,501
13,75	108	160	13	3	010041375	9,024
14	108	160	13	3	010041400	7,501
14,25	114	169	13	3	010041425	9,724
14,5	114	169	13	3	010041450	8,358
14,75	114	169	13	3	010041475	11,155
15	114	169	13	3	010041500	10,266
15,25	120	178	13	3	010041525	12,859
15,5	120	178	13	3	010041550	11,236
15,75	120	178	13	3	010041575	12,859
16	120	178	13	3	010041600	12,374
16,25	125	184	13	1	010041625	14,968
16,5	125	184	13	1	010041650	13,018
16,75	125	184	13	1	010041675	14,968
17	125	184	13	1	010041700	13,018
17,25	130	191	13	1	010041725	16,120
17,5	130	191	13	1	010041750	14,022
17,75	130	191	13	1	010041775	16,120
18	130	191	13	1	010041800	14,022
18,25	135	198	13	1	010041825	18,603
18,5	135	198	13	1	010041850	16,176
18,75	135	198	13	1	010041875	18,603
19	135	198	13	1	010041900	16,176
19,25	140	205	13	1	010041925	21,399
19,5	140	205	13	1	010041950	18,603
19,75	140	205	13	1	010041975	21,399
20	140	205	13	1	010042000	18,603
20,5	145	213	13	1	010042050	25,708
21	145	213	13	1	010042100	27,681
21,5	150	221	13	1	010042150	29,487
22	150	221	13	1	010042200	30,648
22,5	150	221	13	1	010042250	31,145
23	155	229	13	1	010042300	33,323
23,5	155	229	13	1	010042350	38,805
24	160	236	13	1	010042400	39,663
24,5	160	236	13	1	010042450	40,237
25	160	236	13	1	010042500	41,106

Confezione / Packaging



Applicazioni / Applications

R ≤ 650 N/mm²



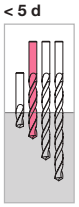
Metals



Acciaio
Steel



< 5 d



PUNTE ELICOIDALI CILINDRICHE SERIE LUNGA, ESECUZIONE RULLATA

Straight shank twist drills, long serie / Forets cylindriques, série longue
Brocas helicoidales, serie larga / Spiralbohrer, lange Ausführung, rollgewalzt

HSS DIN 340 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01020



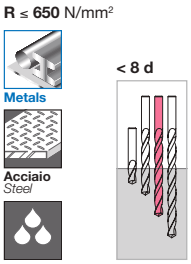


Art. **01021** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*

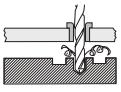


Applicazioni / *Applications*



Ø	/	L	pcs	cod.	€ cad/each
1,5	45	70	10	010200150	1,745
1,75	53	80	10	010200175	1,353
2	56	85	10	010200200	1,353
2,2	59	90	10	010200220	1,436
2,25	59	90	10	010200225	1,436
2,5	62	95	10	010200250	1,436
2,75	66	100	10	010200275	1,471
2,8	66	100	10	010200280	1,471
3	66	100	10	010200300	1,471
3,2	69	106	10	010200320	1,710
3,25	69	106	10	010200325	1,710
3,5	73	112	10	010200350	1,710
3,75	73	112	10	010200375	1,875
3,8	78	119	10	010200380	1,875
4	78	119	10	010200400	1,875
4,2	78	119	10	010200420	2,219
4,25	78	119	10	010200425	2,219
4,5	82	126	10	010200450	2,219
4,75	82	126	10	010200475	2,363
4,8	87	132	10	010200480	2,363
5	87	132	10	010200500	2,363
5,2	87	132	10	010200520	2,956
5,25	87	132	10	010200525	2,956
5,5	91	139	10	010200550	2,956
5,75	91	139	10	010200575	3,183
5,8	91	139	10	010200580	3,183
6	91	139	10	010200600	3,183
6,25	97	148	5	010200625	3,823
6,5	97	148	5	010200650	3,823
6,75	97	148	5	010200675	4,488
7	102	156	5	010200700	4,488
7,25	102	156	5	010200725	4,831
7,5	102	156	5	010200750	4,831
7,75	109	165	5	010200775	5,426
8	109	165	5	010200800	5,426
8,25	109	165	5	010200825	5,937
8,5	109	165	5	010200850	5,937
8,75	115	175	5	010200875	6,317
9	115	175	5	010200900	6,317
9,25	115	175	5	010200925	6,424
9,5	115	175	5	010200950	6,424
9,75	121	184	5	010200975	7,422
10	121	184	5	010201000	7,422
10,5	121	184	5	010201050	9,512
11	128	195	5	010201100	10,260
11,5	128	195	5	010201150	10,627
12	134	205	5	010201200	11,625
12,5	134	205	5	010201250	12,040
13	134	205	5	010201300	13,678
13,5	140	214	3	010201350	19,961
14	140	214	3	010201400	19,961
14,5	144	220	3	010201450	21,255
15	144	220	3	010201500	26,183
15,5	149	227	3	010201550	27,334
16	149	227	3	010201600	29,769
17	154	235	1	010201700	35,681
18	158	241	1	010201800	39,244
19	162	247	1	010201900	43,269
20	166	254	1	010202000	48,577

- Per forare: tutti i metalli, ferro, acciaio etc...
- *For drilling in: iron, steel, metals...*
- *Pour percer: fer, acier, métaux...*
- *Para taladrar: hierro, acero etc...*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 650 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe*



PUNTE ELICOIDALI CILINDRICHE SERIE EXTRA CORTA, ESECUZIONE RULLATA

Straight shank twist drills-stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Rollgewalzte Spiralbohrer, extra kurz

HSS DIN 1897 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01018



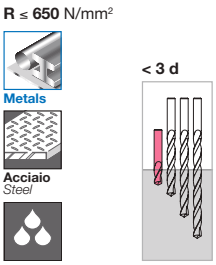


Art. **01019** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*



Ø	/	L	pcs	cod.	€ cad/each
2	12	38	10	010180200	0,461
2,2	13	40	10	010180220	0,484
2,25	13	40	10	010180225	0,484
2,5	14	43	10	010180250	0,484
2,75	16	46	10	010180275	0,496
2,8	16	46	10	010180280	0,496
3	16	46	10	010180300	0,496
3,2	18	49	10	010180320	0,564
3,25	18	49	10	010180325	0,564
3,3	18	49	10	010180330	0,564
3,5	20	52	10	010180350	0,564
3,75	20	52	10	010180375	0,622
3,8	22	55	10	010180380	0,622
4	22	55	10	010180400	0,622
4,2	22	55	10	010180420	0,736
4,25	22	55	10	010180425	0,736
4,5	24	58	10	010180450	0,736
4,75	24	58	10	010180475	0,853
4,8	26	62	10	010180480	0,853
5	26	62	10	010180500	0,853
5,2	26	62	10	010180520	1,059
5,25	26	62	10	010180525	1,059
5,5	28	66	10	010180550	1,059
5,75	28	66	10	010180575	1,072
5,8	28	66	10	010180580	1,072
6	28	66	10	010180600	1,072
6,5	31	70	5	010180650	1,406
7	34	74	5	010180700	1,590
7,5	34	74	5	010180750	1,819
8	37	79	5	010180800	2,315
8,5	37	79	5	010180850	2,627
9	40	84	5	010180900	3,064
9,5	40	84	5	010180950	3,329
10	43	89	5	010181000	4,158





PUNTE ELICOIDALI SUPERCORTE PER LATTONIERI

Extra short twist drills for portable applications / Forets cylindriques série extra courte spécial
Brocas helicoidales, serie extra corta special / Spiralbohrer, spezial extra kurz

NORMA KRINO HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen



130°
W 27°
HV ≃ 750÷820
SPLIT POINT
DIN 1412C

01050

Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010500300	0,919
3,2	19	40	10	010500320	0,963
3,25	19	40	10	010500325	0,963
3,3	19	40	10	010500330	0,963
3,5	19	40	10	010500350	0,963
3,6	19	40	10	010500360	1,062
3,75	19	40	10	010500375	1,062
4	20	40	10	010500400	1,062
4,1	20	40	10	010500410	1,302
4,2	20	40	10	010500420	1,302
4,25	20	40	10	010500425	1,302
4,5	23	42	10	010500450	1,302
5	23	45	10	010500500	1,423

Confezione / *Packaging*

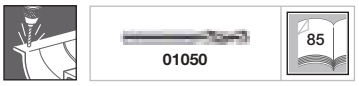


Applicazioni / *Applications*

R ≤ 800 N/mm²



- Punte speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori. Foratura dolce e precisa, grazie all'affilatura split point autocentrante, su lamiere e tubi in acciaio, rame e plastica.
- *Super short twist drills for cutting metal sheets, special for journeymen's, carpenters, locksmith's, tinsmith's.*



PUNTE ELICOIDALI SUPERCORTE AL COBALTO PER LATTONIERI

HSS-CO extra short twist drills for portable applications / Forets extra court spécial au cobalt
Brocas helicoidales, serie extra corta de cobalto / Cobalt Spiralbohrer, spezial extra kurz

NORMA KRINO HSS-CO Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen



130°
W 27°
HV ≃ 850
SPLIT POINT
DIN 1412C

01051

Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010510300	1,440
3,25	19	40	10	010510325	1,440
3,5	19	40	10	010510350	1,440
3,75	19	40	10	010510375	2,049
4	20	40	10	010510400	2,165
4,25	20	40	10	010510425	2,353
4,5	23	42	10	010510450	2,722
5	23	45	10	010510500	3,016

Confezione / *Packaging*

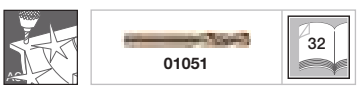


Applicazioni / *Applications*

R ≤ 1200 N/mm²



- Punte speciali per la foratura di lamiere e tubi in acciaio inox e lamiere metalliche in genere (acciaio, ferro, rame). Speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori.
- *Super short twist drills for cutting stainless metal sheets. Special for journeymen's, carpenters, locksmith's, tinsmith's.*



Professional

PUNTE ELICOIDALI CODOLO CONICO MORSE, ESECUZIONE RULLATA

Morse taper shank twist drills / Forets à queue conique morse
Brocas helicoidales con mango conico / Spiralbohrer mit Morsekegel

HSS DIN 345 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01025





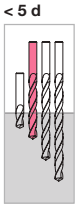


Confezione / *Packaging*



Applicazioni / *Applications*





Ø	M.K.	/	L	pcs	cod.	€ cad/each
5	1	52	133	1	010250500	8,937
6	1	57	138	1	010250600	8,937
6,25	1	63	144	1	010250625	8,937
6,5	1	63	144	1	010250650	8,937
6,75	1	69	150	1	010250675	8,937
7	1	69	150	1	010250700	8,937
7,25	1	69	150	1	010250725	8,937
7,5	1	69	150	1	010250750	8,937
7,75	1	75	156	1	010250775	8,937
8	1	75	156	1	010250800	8,937
8,25	1	75	156	1	010250825	9,298
8,5	1	75	156	1	010250850	9,298
8,75	1	81	162	1	010250875	9,298
9	1	81	162	1	010250900	9,298
9,25	1	81	162	1	010250925	9,298
9,5	1	81	162	1	010250950	9,298
9,75	1	87	168	1	010250975	9,298
10	1	87	168	1	010251000	9,298
10,25	1	87	168	1	010251025	9,669
10,5	1	87	168	1	010251050	9,669
10,75	1	94	175	1	010251075	9,669
11	1	94	175	1	010251100	9,669
11,25	1	94	175	1	010251125	10,345
11,5	1	94	175	1	010251150	10,345
11,75	1	94	175	1	010251175	10,345
12	1	101	182	1	010251200	10,345
12,25	1	101	182	1	010251225	10,752
12,5	1	101	182	1	010251250	10,752
12,75	1	101	182	1	010251275	10,997
13	1	101	182	1	010251300	10,997
13,25	1	108	189	1	010251325	15,581
13,5	1	108	189	1	010251350	13,220
13,75	1	108	189	1	010251375	15,581
14	1	108	189	1	010251400	13,220
14,25	2	114	212	1	010251425	16,815
14,5	2	114	212	1	010251450	14,289
14,75	2	114	212	1	010251475	18,375
15	2	114	212	1	010251500	15,581
15,25	2	120	218	1	010251525	18,607
15,5	2	120	218	1	010251550	15,850
15,75	2	120	218	1	010251575	18,607
16	2	120	218	1	010251600	15,850
16,25	2	125	223	1	010251625	21,016
16,5	2	125	223	1	010251650	17,828
16,75	2	125	223	1	010251675	21,016
17	2	125	223	1	010251700	17,828
17,25	2	130	228	1	010251725	22,727
17,5	2	130	228	1	010251750	19,271
17,75	2	130	228	1	010251775	22,727
18	2	130	228	1	010251800	19,271
18,25	2	135	233	1	010251825	23,948
18,5	2	135	233	1	010251850	20,259
18,75	2	135	233	1	010251875	23,948
19	2	135	233	1	010251900	20,259
19,25	2	140	238	1	010251925	24,843
19,5	2	140	238	1	010251950	21,085
19,75	2	140	238	1	010251975	24,843
20	2	140	238	1	010252000	21,644
20,25	2	145	243	1	010252025	30,210
20,5	2	145	243	1	010252050	26,065
20,75	2	145	243	1	010252075	30,210
21	2	145	243	1	010252100	26,845
21,25	2	150	248	1	010252125	31,651
21,5	2	150	248	1	010252150	27,416
21,75	2	150	248	1	010252175	31,651
22	2	150	248	1	010252200	27,416
22,25	2	150	248	1	010252225	35,783
22,5	2	155	253	1	010252250	30,944
22,75	2	155	253	1	010252275	35,783
23	2	155	253	1	010252300	30,944
23,25	3	155	276	1	010252325	40,613
23,5	3	155	276	1	010252350	37,261
23,75	3	160	281	1	010252375	40,613
24	3	160	281	1	010252400	37,261
24,25	3	160	281	1	010252425	43,067
24,5	3	160	281	1	010252450	38,750
24,75	3	160	281	1	010252475	43,067

- Taglio dei materiali con R ≤ 650 N/mm² quali acciai legati, ghise tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 650 N/mm².*
- *Puor percer métaux et acier avec R ≤ 650 N/mm².*
- *Para taladrar hierro e acero R ≤ 650 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 650 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

Ø	M.K.	/	L	pcs	cod.	€ cad/each
25	3	160	281	1	010252500	38,750
25,25	3	165	286	1	010252525	42,777
25,5	3	165	286	1	010252550	42,777
25,75	3	165	286	1	010252575	51,830
26	3	165	286	1	010252600	47,129
26,25	3	165	286	1	010252625	53,377
26,5	3	165	286	1	010252650	48,537
26,75	3	170	291	1	010252675	49,338
27	3	170	291	1	010252700	49,338
27,25	3	170	291	1	010252725	57,240
27,5	3	170	291	1	010252750	52,039
27,75	3	170	291	1	010252775	57,240
28	3	170	291	1	010252800	52,039
28,25	3	175	296	1	010252825	61,663
28,5	3	175	296	1	010252850	56,019
28,75	3	175	296	1	010252875	65,246
29	3	175	296	1	010252900	59,323
29,25	3	175	296	1	010252925	67,248
29,5	3	175	296	1	010252950	61,128
29,75	3	175	296	1	010252975	67,248
30	3	175	296	1	010253000	61,128
30,25	3	180	301	1	010253025	77,023
30,5	3	180	301	1	010253050	73,345
30,75	3	180	301	1	010253075	77,023
31	3	180	301	1	010253100	73,345
31,25	3	180	301	1	010253125	82,796
31,5	3	180	301	1	010253150	78,850
31,75	4	185	306	1	010253175	95,420
32	4	185	334	1	010253200	95,420
32,25	4	185	334	1	010253225	98,295
32,5	4	185	334	1	010253250	98,295
32,75	4	185	334	1	010253275	105,754
33	4	185	334	1	010253300	105,754
33,25	4	185	334	1	010253325	109,978
33,5	4	185	334	1	010253350	109,978
33,75	4	185	334	1	010253375	115,482
34	4	190	339	1	010253400	115,482
34,25	4	190	339	1	010253425	118,950
34,5	4	190	339	1	010253450	118,950
34,75	4	190	339	1	010253475	124,605
35	4	190	339	1	010253500	124,605
35,25	4	190	339	1	010253525	128,374
35,5	4	190	339	1	010253550	128,374
35,75	4	190	339	1	010253575	144,735
36	4	195	344	1	010253600	144,735
36,25	4	195	344	1	010253625	147,261
36,5	4	195	344	1	010253650	147,261
36,75	4	195	344	1	010253675	147,261
37	4	195	344	1	010253700	147,261
37,25	4	195	344	1	010253725	149,775
37,5	4	195	344	1	010253750	149,775
37,75	4	195	344	1	010253775	162,367
38	4	200	349	1	010253800	162,367
38,25	4	200	349	1	010253825	164,878
38,5	4	200	349	1	010253850	164,878
38,75	4	200	349	1	010253875	164,878
39	4	200	349	1	010253900	164,878
39,25	4	200	349	1	010253925	168,650
39,5	4	200	349	1	010253950	168,650
39,75	4	200	349	1	010253975	168,650
40	4	200	349	1	010254000	168,650
40,25	4	205	354	1	010254025	201,383
40,5	4	205	354	1	010254050	201,383
40,75	4	205	354	1	010254075	201,383
41	4	205	354	1	010254100	201,383
41,25	4	205	354	1	010254125	207,667
41,5	4	205	354	1	010254150	207,667
41,75	4	205	354	1	010254175	207,667
42	4	205	354	1	010254200	207,667
42,25	4	205	354	1	010254225	210,192
42,5	4	205	354	1	010254250	210,192
42,75	4	205	354	1	010254275	210,192
43	4	210	359	1	010254300	210,192
43,25	4	210	359	1	010254325	213,962
43,5	4	210	359	1	010254350	213,962
43,75	4	210	359	1	010254375	213,962

Ø	M.K.	/	L	pcs	cod.	€ cad/each
44	4	210	359	1	010254400	213,962
44,25	4	210	359	1	010254425	221,515
44,5	4	210	359	1	010254450	221,515
44,75	4	210	359	1	010254475	221,515
45	4	210	359	1	010254500	221,515
45,25	4	215	364	1	010254525	226,553
45,5	4	215	364	1	010254550	226,553
45,75	4	215	364	1	010254575	226,553
46	4	215	364	1	010254600	226,553
46,25	4	215	364	1	010254625	256,762
46,5	4	215	364	1	010254650	256,762
46,75	4	215	364	1	010254675	256,762
47	4	215	364	1	010254700	256,762
47,25	4	215	364	1	010254725	263,045
47,5	4	215	364	1	010254750	263,045
47,75	4	215	364	1	010254775	263,045
48	4	220	369	1	010254800	263,045
48,25	4	220	369	1	010254825	274,380
48,5	4	220	369	1	010254850	274,380
48,75	4	220	369	1	010254875	274,380
49	4	220	369	1	010254900	274,380
49,25	4	220	369	1	010254925	280,676
49,5	4	220	369	1	010254950	280,676
49,75	4	220	369	1	010254975	280,676
50	4	220	369	1	010255000	280,676
50,5	4	225	374	1	010255050	339,823
51	5	225	412	1	010255100	339,823
52	5	225	412	1	010255200	363,737
53	5	225	412	1	010255300	368,776
54	5	230	417	1	010255400	393,946
55	5	230	417	1	010255500	401,498
56	5	230	417	1	010255600	449,325
57	5	235	422	1	010255700	449,325
58	5	235	422	1	010255800	455,620
59	5	235	422	1	010255900	455,620
60	5	235	422	1	010256000	465,687
61	5	240	427	1	010256100	633,009
62	5	240	427	1	010256200	705,817
63	5	240	427	1	010256300	705,817
64	5	245	432	1	010256400	705,817
65	5	245	432	1	010256500	705,817
66	5	245	432	1	010256600	888,431
67	5	245	432	1	010256700	888,431
68	5	250	437	1	010256800	888,431
69	5	250	437	1	010256900	888,431
70	5	250	437	1	010257000	1.124,120
71	5	250	437	1	010257100	1.164,836
72	5	255	442	1	010257200	1.211,725
73	5	255	442	1	010257300	1.258,614
74	5	255	442	1	010257400	1.330,190
75	5	255	442	1	010257500	1.354,866
76	6	260	447	1	010257600	1.473,320
77	6	260	514	1	010257700	1.520,210
78	6	260	514	1	010257800	1.568,329
79	6	260	514	1	010257900	1.639,906
80	6	260	514	1	010258000	1.686,795
81	6	265	519	1	010258100	1.781,805
82	6	265	519	1	010258200	1.805,249
83	6	265	519	1	010258300	1.876,815
84	6	265	519	1	010258400	1.876,815
85	6	265	519	1	010258500	1.900,257
86	6	270	524	1	010258600	1.948,391
87	6	270	524	1	010258700	1.971,836
88	6	270	524	1	010258800	2.019,955
89	6	270	524	1	010258900	2.066,845
90	6	270	524	1	010259000	2.066,845
91	6	275	529	1	010259100	2.233,431
92	6	275	529	1	010259200	2.328,440
93	6	275	529	1	010259300	2.351,885
94	6	275	529	1	010259400	2.351,885
95	6	275	529	1	010259500	2.400,006
96	6	280	534	1	010259600	2.467,874
97	6	280	534	1	010259700	2.518,470
98	6	280	534	1	010259800	2.565,359
99	6	280	534	1	010259900	2.752,913
100	6	280	534	1	0102510000	3.993,591

Professional

ASSORTIMENTI PUNTE HSS RULLATE IN ASTUCCI DI METALLO DI QUALITÀ

HSS rolled twist drills in high quality metal cases / Forets HSS laminés en coffret métallique
Surtido de brocas laminada en caja metalica / Rollgewalzte Spiralbohrersätze in Metallkassetten

HSS-DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01016401 € 17,992



25 pcs
Ø 1÷13 x 0,5 mm
01016402 € 39,357



19 fori - holes
Ø 1÷10 x 0,5 mm
01016401V € 10,582



25 fori - holes
Ø 1÷13 x 0,5 mm
01016402V € 17,124



19 pcs
Ø 1÷10 x 0,5 mm
01016405 € 17,501



25 pcs
Ø 1÷13 x 0,5 mm
01016406 € 37,426



19 fori - holes
Ø 1÷10 x 0,5 mm
01016405V € 8,812



25 fori - holes
Ø 1÷13 x 0,5 mm
01016406V € 11,711



37 pcs
Ø 1÷10 x 0,25 mm
01016411 € 57,951



49 pcs
Ø 1÷13 x 0,25 mm
01016412 € 102,621



37 fori - holes
Ø 1÷10 x 0,25 mm
01016411V € 30,850



49 fori - holes
Ø 1÷13 x 0,25 mm
01016412V € 34,621



51 pcs
Ø 1÷6 x 0,1 mm
01016407 € 36,824



41 pcs
Ø 6÷10 x 0,1 mm
01016408 € 88,133

91 pcs
Ø 1÷10 x 0,1 mm
01016410 € 253,527

ASSORTIMENTI PUNTE HSS RULLATE

HSS rolled twist drills sets / Assortiments forets HSS laminés
Juegos brocas helicoidales en HSS laminadas / Rollgewalzte Spiralbohrersätze

HSS-DIN 338

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01016305 € 23,625

Abs



25 pcs
Ø 1÷13 x 0,5 mm

01016306 € 50,400



10 pcs
Ø 1÷10 x 1 mm

01016201 € 12,434

13 pcs
Ø 2 ÷ 8 x 0,5 mm

01016205 € 12,312

19 pcs
Ø 1÷10 x 0,5 mm

01016206 € 16,295



6 pcs Ø 2 ÷ 8 mm
Ø 2 - 3 - 4 - 5 - 6 - 8

01016204 € 6,886

13 pcs Ø 1,5 ÷ 6,5 mm
Ø 1,5 - 2 - 2,5 - 3 - 3,3 - 3,5
4 - 4,2 - 4,5 - 5 - 5,5 - 6 - 6,5

01016203 € 8,579

7 pcs Ø 1,5 ÷ 6 mm
Ø 1,5 - 2 - 3 - 4 - 5 - 5,5 - 6

01016202 € 6,275



19 pcs Ø 1÷10 x 0,5 mm

01016250 € 17,158

25 pcs Ø 1÷13 x 0,5 mm

01016251 € 39,942



8 pcs
4 pcs Ø 4 - 5 - 6 - 8
4 pcs Ø 4 - 5 - 6 - 8

09010230 € 9,825



9 pcs
5 pcs Ø 3 - 4 - 5 - 6 - 8
4 pcs Ø 4 - 5 - 6 - 8

09010231 € 10,268



9 pcs
3 pcs Ø 4 - 6 - 8
3 pcs Ø 4 - 6 - 8
3 pcs Ø 4 - 6 - 8

09010232 € 10,469



91 pcs
Ø 1÷10 x 0,1 mm

01016220 € 182,275



19 pcs HSS
Ø 1÷10 x 0,5 mm

01016101 € 15,976



19 pcs HSS + W
13 pcs Ø 1-1,5-2-2,5-3-3,5 4-4,5-5-5,5-6-8-10
6 pcs Ø 4-5-6-8-9-10

09001102 € 15,636



18 pcs
6 pcs Ø 3 - 4 - 5 - 6 - 8 - 10
6 pcs Ø 3 - 4 - 5 - 6 - 8 - 10
6 pcs Ø 3 - 4 - 5 - 6 - 8 - 10

09005105 € 16,146



19 pcs HSS + W + BITS
HSS Ø 2 - 3 - 4 - 5 - 6 - 8 - 10
W Ø 4 - 5 - 6 - 8 - 10
BITS Ø 4,5 - 6 - 1 - 2 Pz1 Pz2
● Porta inserti magnetico *magnetic holder* 1Pc

09001107 € 15,636

ESPOSITORE DA BANCO-MAGAZZENO PUNTE TRAPANO HSS RULLATE

HSS rolled twist drills display / Display forets HSS laminés
Expositor de brocas HSS laminada / Verkaufsschränke für Spiralbohrer

HSS-DIN 338



Metal 330x240x55

150 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

01016450 € 163,332



Metal 550x310x55

168 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

01016451 € 295,894

HSS-DIN 338



Plastic 400x345x210

610 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	30	7,5	5
1,5	50	8	10
2	50	8,5	5
2,5	50	9	5
3	100	9,5	5
3,5	50	10	10
4	100	10,5	5
4,5	30	11	5
5	30	11,5	5
5,5	10	12	5
6	20	12,5	5
6,5	10	13	5
7	10		

01016510 € 465,145



Plastic 390x460x230

1.100 pcs
Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs
1	50	7,25	5
1,25	10	7,5	30
1,5	50	7,75	3
1,75	10	8	30
2	50	8,25	3
2,25	10	8,5	20
2,5	100	8,75	3
2,75	20	9	20
3	100	9,25	2
3,25	20	9,5	20
3,5	100	9,75	2
3,75	20	10	10
4	100	10,25	2
4,25	10	10,5	5
4,5	50	10,75	2
4,75	10	11	5
5	50	11,25	2
5,25	10	11,5	5
5,5	30	11,75	2
5,75	10	12	5
6	30	12,25	2
6,25	10	12,5	5
6,5	30	12,75	2
6,75	10	13	5
7	30		

01016507 € 1.055,750



Metal 375x240x200

880 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	50	5,5	10	10	10
1,5	100	6	20	10,5	5
2	100	6,5	10	11	5
2,5	100	7	10	11,5	5
3	150	7,5	5	12	5
3,5	100	8	10	12,5	5
4	100	8,5	5	13	5
4,5	30	9	5		
5	30	9,5	5		

01016501 € 562,197

710 pcs *COMBI SET*
HSS DIN 8039

Ø	pcs	Ø	pcs	Ø	pcs
1	50	6	20	3	5
1,5	50	6,5	10	4	10
2	50	7	10	5	5
2,5	50	8	10	6	5
3	100	9	10	7	5
3,5	50	10	10	8	10
4	100	11	5	9	5
4,5	30	12	5	10	5
5	20	13	5	12	5
5,5	20			14	5

09020502 € 535,126

PUNTE ELICOIDALI CILINDRICHE CON RIVESTIMENTO AL NITRURO DI TITANIO

TiN coated twist drills / Forets cylindriques au nitrure de titan
Brocas helicoidales con recubrimiento de titanio / TiN Geschliffene Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS-G+TiN ANSI B94 Rettificata */ Ground from the solid / Rectifié / Rectificada / Geschliffen*

01162

INCHES





Rivestimento TiN
TiN coating



Ø inch	Ø mm	/ inch	L inch	pcs	cod.	€ cad/each
1/16	1,59	7/8	1-7/8	10	0116214	0,971
5/64	1,98	1"	2"	10	0116215	1,068
3/32	2,38	1-1/4	2-1/4	10	0116216	1,283
7/64	2,78	1-1/2	2-5/8	10	0116217	1,595
1/8	3,17	1-5/8	2-3/4	10	0116218	1,691
9/64	3,57	1-3/4	2-7/8	10	0116219	1,883
5/32	3,97	2"	3-1/8	10	0116220	2,002
11/64	4,37	2-1/8	3-1/4	10	0116221	2,183
3/16	4,76	2-5/16	3-1/2	10	0116222	2,458
13/64	5,16	2-7/16	3-5/8	10	0116223	2,842
7/32	5,56	2-1/2	3-3/4	10	0116224	3,129
15/64	5,95	2-5/8	3-7/8	10	0116225	3,297
1/4	6,35	2-3/4	4"	10	0116226	3,526
17/64	6,75	2-7/8	4-1/8	10	0116227	3,959
9/32	7,14	2-15/16	4-1/4	5	0116228	4,569
19/64	7,54	3-1/16	4-3/8	5	0116229	4,868
5/16	7,94	3-3/16	4-1/2	5	0116230	5,300
21/64	8,33	3-5/16	4-5/8	5	0116231	7,170
11/32	8,73	3-7/16	4-3/4	5	0116232	7,505
23/64	9,13	3-1/2	4-7/8	5	0116233	7,986
3/8	9,52	3-5/8	5"	5	0116234	8,177
25/64	9,92	3-3/4	5-1/8	5	0116235	8,455
13/32	10,32	3-7/8	5-1/4	5	0116236	9,100
27/64	10,72	3-15/16	5-3/8	5	0116237	9,269
7/16	11,11	4-1/16	5-1/2	5	0116238	10,695
29/64	11,51	4-3/16	5-5/8	5	0116239	11,031
15/32	11,91	4-5/16	5-3/4	5	0116240	11,547
31/64	12,30	4-7/16	5-7/8	5	0116241	12,446
1/2	12,70	4-1/2	6"	5	0116242	13,777

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 900 N/mm²



Acciaio
Steel



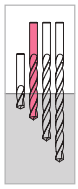
Inox



Metals



< 5 d



- Rendimenti elevati e maggiore durata dei taglienti nella foratura degli acciai legati, nelle ghise e nei metalli in genere con R ≤ 900 N/mm².
- *High level of performances in cutting alloy steel, cast iron, metals up to R ≤ 900 N/mm².*
- *Pour percer mètaux et acier allié avec R ≤ 900 N/mm².*
- *Para taladrar acero aleado con elevada velocidad de corte R ≤ 900 N/mm².*



Abs

21 pcs
Ø 1/16÷3/8 x 1/64
01167401 € 62,351



Abs

29 pcs
Ø 1/16÷1/2 x 1/64
01167402 € 134,294

PUNTE ELICOIDALI IN POLLICI AL COBALTO 5%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid in inches / Forets cylindriques au cobalt entièrement rectifiés en pouce
Broca helicoidale rectificada de cobalto in pulgada / Kobalt Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS-CO 5% ANSI B94 Rettificata */ Ground from the solid / Rectifié / Rectificada / Geschliffen*

01157





HV ≃ 800÷860
AISI M35
SPLIT POINT
DIN 1412 C

Ø inch	Ø mm	/ inch	L inch	pcs	cod.	€ cad/each
1/16	1,59	7/8	1-7/8	10	0115714	2,112
5/64	1,98	1"	2"	10	0115715	2,112
3/32	2,38	1-1/4	2-1/4	10	0115716	2,195
7/64	2,78	1-1/2	2-5/8	10	0115717	2,195
1/8	3,17	1-5/8	2-3/4	10	0115718	2,195
9/64	3,57	1-3/4	2-7/8	10	0115719	2,673
5/32	3,97	2"	3-1/8	10	0115720	2,867
11/64	4,37	2-1/8	3-1/4	10	0115721	3,250
3/16	4,76	2-5/16	3-1/2	10	0115722	3,526
13/64	5,16	2-7/16	3-5/8	10	0115723	3,908
7/32	5,56	2-1/2	3-3/4	10	0115724	4,677
15/64	5,95	2-5/8	3-7/8	10	0115725	4,677
1/4	6,35	2-3/4	4"	10	0115726	6,224
17/64	6,75	2-7/8	4-1/8	10	0115727	7,889
9/32	7,14	2-15/16	4-1/4	5	0115728	8,092
19/64	7,54	3-1/16	4-3/8	5	0115729	8,404
5/16	7,94	3-3/16	4-1/2	5	0115730	9,016
21/64	8,33	3-5/16	4-5/8	5	0115731	9,640
11/32	8,73	3-7/16	4-3/4	5	0115732	11,608
23/64	9,13	3-1/2	4-7/8	5	0115733	11,798
3/8	9,52	3-5/8	5"	5	0115734	13,166
25/64	9,92	3-3/4	5-1/8	5	0115735	13,790
13/32	10,32	3-7/8	5-1/4	5	0115736	17,386
27/64	10,72	3-15/16	5-3/8	5	0115737	20,324
7/16	11,11	4-1/16	5-1/2	5	0115738	21,247
29/64	11,51	4-3/16	5-5/8	5	0115739	21,247
15/32	11,91	4-5/16	5-3/4	5	0115740	23,633
31/64	12,30	4-7/16	5-7/8	5	0115741	25,792
1/2	12,70	4-1/2	6"	5	0115742	26,259

Confezione / *Packaging*

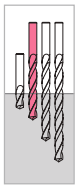


Applicazioni / *Applications*

R ≤ 1200 N/mm²



< 5 d



- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

ASSORTIMENTI PUNTE AL COBALTO IN POLLICI

HSS-CO fully ground twist drills sets in inches / Assortiments forets HSS-CO rectifié en pouce
Expositor de brocas de cobalto rectificadas in pulgada / HSS-CO geschliffene Spiralbohrersätze aus Zoll

INCHES

HSS-CO 5%

Abs



21 pcs
Ø 1/16÷3/8 x 1/64

01159401 € 94,434

Abs



29 pcs
Ø 1/16÷1/2 x 1/64

01159402 € 236,713



Metal 330x240x55

122 pcs
Ø 1/16÷3/8 x 1/64

Ø	pcs	Ø	pcs
1/16	10	15/64	3
5/64	10	1/4	3
3/32	10	17/64	3
7/64	10	9/32	3
1/8	10	19/64	3
9/64	10	5/16	3
5/32	10	21/64	2
11/64	10	11/32	2
3/16	3	23/64	2
13/64	3	3/8	2
7/32	3		

01159450 € 428,096



Metal 375x240x200

168 pcs
Ø 1/16÷1/2 x 1/64

Ø	pcs	Ø	pcs
1/16	10	19/64	3
5/64	10	5/16	3
3/32	10	21/64	3
7/64	10	11/32	3
1/8	10	23/64	3
9/64	10	3/8	3
5/32	10	25/64	2
11/64	10	13/32	2
3/16	3	27/64	2
13/64	3	7/16	2
7/32	3	29/64	2
15/64	3	15/32	2
1/4	3	31/64	2
17/64	3	1/2	2
9/32	3		

01159501 € 856,203

PUNTE ELICOIDALI CILINDRICHE IN POLLICI, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA, FINITURA BRILLANTE

Fully ground straight shank twist drills in inches / Forets cylindriques rectifiés en pouce
Brocas helicoidales rectificadas in pulgada / Geschliffene Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS-G ANSI B94 Rettificata */ Ground from the solid / Rectifié / Rectificada / Geschliffen*

01115





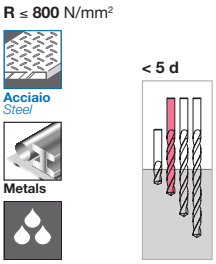
Bright finish

Ø inch	Ø mm	/ inch	L inch	pcs	cod.	€ cad/each
1/16	1,59	7/8	1-7/8	10	0111514	0,803
5/64	1,98	1”	2”	10	0111515	0,852
3/32	2,38	1-1/4	2-1/4	10	0111516	0,983
7/64	2,78	1-1/2	2-5/8	10	0111517	1,139
1/8	3,17	1-5/8	2-3/4	10	0111518	1,198
9/64	3,57	1-3/4	2-7/8	10	0111519	1,331
5/32	3,97	2”	3-1/8	10	0111520	1,414
11/64	4,37	2-1/8	3-1/4	10	0111521	1,535
3/16	4,76	2-5/16	3-1/2	10	0111522	1,739
13/64	5,16	2-7/16	3-5/8	10	0111523	2,027
7/32	5,56	2-1/2	3-3/4	10	0111524	2,230
15/64	5,95	2-5/8	3-7/8	10	0111525	2,350
1/4	6,35	2-3/4	4”	10	0111526	2,529
17/64	6,75	2-7/8	4-1/8	10	0111527	2,842
9/32	7,14	2-15/16	4-1/4	5	0111528	3,310
19/64	7,54	3-1/16	4-3/8	5	0111529	3,526
5/16	7,94	3-3/16	4-1/2	5	0111530	3,861
21/64	8,33	3-5/16	4-5/8	5	0111531	5,336
11/32	8,73	3-7/16	4-3/4	5	0111532	5,577
23/64	9,13	3-1/2	4-7/8	5	0111533	5,960
3/8	9,52	3-5/8	5”	5	0111534	6,080
25/64	9,92	3-3/4	5-1/8	5	0111535	6,282
13/32	10,32	3-7/8	5-1/4	5	0111536	6,786
27/64	10,72	3-15/16	5-3/8	5	0111537	7,590
7/16	11,11	4-1/16	5-1/2	5	0111538	8,812
29/64	11,51	4-3/16	5-5/8	5	0111539	9,100
15/32	11,91	4-5/16	5-3/4	5	0111540	9,532
31/64	12,30	4-7/16	5-7/8	5	0111541	10,287
1/2	12,70	4-1/2	6”	5	0111542	11,439

Confezione / *Packaging*



Applicazioni / *Applications*



- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- *High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm².*
- *Puor percer métaux et acier avec R ≤ 800 N/mm².*
- *Para taladrar hierro e acero R ≤ 800 N/mm².*
- *Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.*

ASSORTIMENTI PUNTE HSS RETTIFICATE IN POLLICI

HSS fully ground twist drills sets in inches / Assortiments forets HSS rectifiés en pouce
Expositor de brocas HSS rectificadas in pulgada / Geschliffene HSS Spiralbohrersätze aus Zoll

INCHES

HSS-G

Abs



21 pcs
Ø 1/16÷3/8 x 1/64

01118401 € 54,473

Abs



29 pcs
Ø 1/16÷1/2 x 1/64

01118402 € 125,900



Metal 330x240x55

150 pcs
Ø 1/16÷3/8 x 1/64

Ø	pcs	Ø	pcs
1/16	10	15/64	5
5/64	10	1/4	5
3/32	10	17/64	5
7/64	10	9/32	5
1/8	10	19/64	5
9/64	10	5/16	5
5/32	10	21/64	5
11/64	10	11/32	5
3/16	10	23/64	5
13/64	5	3/8	5
7/32	5		

01118450 € 352,556



Metal 375x240x200

540 pcs
Ø 1/16÷1/2 x 1/64

Ø	pcs	Ø	pcs
1/16	50	19/64	5
5/64	50	5/16	10
3/32	50	21/64	5
7/64	50	11/32	5
1/8	50	23/64	5
9/64	50	3/8	10
5/32	50	25/64	5
11/64	30	13/32	5
3/16	30	27/64	5
13/64	10	7/16	5
7/32	10	29/64	5
15/64	10	15/32	5
1/4	10	31/64	5
17/64	5	1/2	5
9/32	5		

01118501 € 1.097,959

Professional

PUNTE HSS RULLATE IN POLLICI

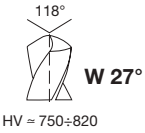
HSS roll-forged straight shank twist drills-jobber's length / Forets cylindriques laminés en HSS en Pouce
Broca helicoidale laminada HSS in pulgada / HSS rollgewalzt Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS ANSI B94 Esecuzione rullata */ Rolled / Laminé / Laminada / Rollgewalzt*

01030





Ø inch	Ø mm	/ inch	L inch	pcs	cod.	€ cad/each
1/64	0,40	13/64	7/8	10	0103011	0,819
1/32	0,79	13/32	1-1/4	10	0103012	0,819
3/64	1,19	5/8	1-3/4	10	0103013	0,819
1/16	1,59	7/8	1-7/8	10	0103014	0,320
5/64	1,98	1"	2"	10	0103015	0,333
3/32	2,38	1-1/4	2-1/4	10	0103016	0,343
7/64	2,78	1-1/2	2-5/8	10	0103017	0,379
1/8	3,17	1-5/8	2-3/4	10	0103018	0,393
9/64	3,57	1-3/4	2-7/8	10	0103019	0,476
5/32	3,97	2"	3-1/8	10	0103020	0,536
11/64	4,37	2-1/8	3-1/4	10	0103021	0,546
3/16	4,76	2-5/16	3-1/2	10	0103022	0,641
13/64	5,16	2-7/16	3-5/8	10	0103023	0,712
7/32	5,56	2-1/2	3-3/4	10	0103024	0,807
15/64	5,95	2-5/8	3-7/8	10	0103025	0,833
1/4	6,35	2-3/4	4"	10	0103026	0,940
17/64	6,75	2-7/8	4-1/8	10	0103027	1,164
9/32	7,14	2-15/16	4-1/4	5	0103028	1,294
19/64	7,54	3-1/16	4-3/8	5	0103029	1,378
5/16	7,94	3-3/16	4-1/2	5	0103030	1,698
21/64	8,33	3-5/16	4-5/8	5	0103031	1,805
11/32	8,73	3-7/16	4-3/4	5	0103032	2,042
23/64	9,13	3-1/2	4-7/8	5	0103033	2,148
3/8	9,52	3-5/8	5"	5	0103034	2,184
25/64	9,92	3-3/4	5-1/8	5	0103035	2,744
13/32	10,32	3-7/8	5-1/4	5	0103036	2,838
27/64	10,72	3-15/16	5-3/8	5	0103037	2,921
7/16	11,11	4-1/16	5-1/2	5	0103038	3,242
29/64	11,51	4-3/16	5-5/8	5	0103039	3,289
15/32	11,91	4-5/16	5-3/4	5	0103040	3,942
31/64	12,30	4-7/16	5-7/8	5	0103041	4,109
1/2	12,70	4-1/2	6"	5	0103042	4,275
33/64	13,00	4-13/16	6-5/8	5	0103043	5,046
17/32	13,50	4-13/16	6-5/8	3	0103044	5,189
35/64	14,00	4-13/16	6-5/8	3	0103045	5,725
9/16	14,30	4-13/16	6-5/8	3	0103046	6,281
37/64	14,70	4-13/16	6-5/8	3	0103047	7,445
19/32	15,00	5-3/16	7-1/8	3	0103048	8,573
39/64	15,50	5-3/16	7-1/8	3	0103049	9,498
5/8	16,00	5-3/16	7-1/8	3	0103050	10,390
11/16	17,50	5-3/16	7-1/8	1	0103054	13,002
3/4	19,00	5-5/16	7-3/8	1	0103058	14,854

Confezione / *Packaging*

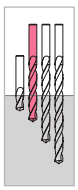


Applicazioni / *Applications*

R ≤ 650 N/mm²



< 5 d



- Per forare: tutti i metalli, ferro, acciaio etc...
- *For drilling in: iron, steel, metals...*
- *Pour percer: fer, acier, metaux...*
- *Para taladrar: hierro, acero...*
- *Einsatz: Stahl und Stahlguss, Zug-Festigkeit Ne-Metalle*

PUNTE HSS RULLATE IN POLLICI CON CODOLO RIDOTTO

Reduced shank HSS roll-forged straight shank twist drills-jobber's length / Forets cylindriques laminés en HSS en Pouce avec queue degageé
Broca helicoidale laminada HSS in pulgada con mango reducido / HSS rollgewalzt Spiralbohrer aus Zoll mit reduzierten Schaft

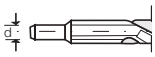
SILVER&DEMING HSS ANSI B94 Esecuzione fresata

Milled / Fraisé / fresada / Gefräst

01034

INCHES





Ø inch	Ø mm	d	/ inch	L inch	pcs	cod.	€ cad/each
17/32	13,50	1/2"	3-1/8	6"	1	0103402	11,978
9/16	14,30	1/2"	3-1/8	6"	1	0103404	12,142
19/32	15,00	1/2"	3-1/8	6"	1	0103406	13,737
5/8	16,00	1/2"	3-1/8	6"	1	0103408	13,923
21/32	16,70	1/2"	3-1/8	6"	1	0103410	15,006
11/16	17,50	1/2"	3-1/8	6"	1	0103412	16,378
23/32	18,25	1/2"	3-1/8	6"	1	0103414	17,462
3/4	19,00	1/2"	3-1/8	6"	1	0103416	18,999
25/32	20,00	1/2"	3-1/8	6"	1	0103418	20,175
13/16	20,50	1/2"	3-1/8	6"	1	0103420	22,199
27/32	21,50	1/2"	3-1/8	6"	1	0103422	23,771
7/8	22,25	1/2"	3-1/8	6"	1	0103424	26,519
29/32	23,00	1/2"	3-1/8	6"	1	0103426	29,546
15/16	24,00	1/2"	3-1/8	6"	1	0103428	31,698
31/32	24,50	1/2"	3-1/8	6"	1	0103430	34,947
1"	25,40	1/2"	3-1/8	6"	1	0103432	37,370
1.3/32	27,75	1/2"	3-1/8	6"	1	0103438	45,284
1.1/8	28,50	1/2"	3-1/8	6"	1	0103440	46,088
1.1/4	31,75	1/2"	3-1/8	6"	1	0103448	75,377
1.3/8	35,00	1/2"	3-1/8	6"	1	0103456	95,354
1.1/2	38,00	1/2"	3-1/8	6"	1	0103464	142,664

Confezione / *Packaging*

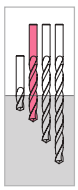


Applicazioni / *Applications*

R ≤ 650 N/mm²



< 5 d



- Per forare: tutti i metalli, ferro, acciaio etc...
- *For drilling in: iron, steel, metals...*
- *Pour percer: fer, acier, metaux...*
- *Para taladrar: hierro, acero...*
- *Einsatz: Stahl und Stahlguss, Zug-Festigkeit Ne-Metalle*

ASSORTIMENTI PUNTE HSS RULLATE IN POLLICI

HSS rolled twist drills sets in inches / Assortiments forets HSS laminés en pouce
Juego brocas HSS laminadas in pulgada / Rollgewaltze Spiralbohrersätze aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS

Abs



21 pcs
Ø 1/16÷3/8 x 1/64

01040401 € 22,852

Abs



29 pcs
Ø 1/16÷1/2 x 1/64

01040402 € 49,102

Plastic



21 pcs
Ø 1/16÷3/8 x 1/64

01040101 € 21,152



18 pcs
13 pcs Ø 1/16 - 5/64 - 3/32 - 7/64 - 1/8 - 5/32
11/64 - 3/16 - 7/32 - 1/4(2x) - 5/16 - 3/8
5 pcs Ø 1/8 - 3/16 - 1/4 - 5/16 - 3/8

09001106 € 15,413

Plastic



7 pcs
Ø 1/16 - 3/32 - 1/8 - 5/32 - 3/16
7/32 - 1/4

01040201 € 8,673



13 pcs
Ø 1/16 - 5/64 - 3/32 - 7/64 - 1/8
9/64 - 5/32 - 11/64 - 3/16 - 13/64
7/32 - 15/64 - 1/4

01040202 € 10,827



21 pcs
Ø 1/16 ÷ 3/8 x 1/64

01040203 € 22,119

ASSORTIMENTI PUNTE HSS RULLATE IN POLLICI IN VALIGETTA DI METALLO

HSS twist drills set in inches / Assortiments forets HSS en pouce
Expositor de brocas HSS laminada in pulgada / Spiralbohrersätze aus Zoll

INCHES

HSS



Metal 330x240x55

150 pcs
Ø 1/16÷3/8 x 1/64

Ø	pcs	Ø	pcs
1/16	10	15/64	5
5/64	10	1/4	5
3/32	10	17/64	5
7/64	10	9/32	5
1/8	10	19/64	5
9/64	10	5/16	5
5/32	10	21/64	5
11/64	10	11/32	5
3/16	10	23/64	5
13/64	5	3/8	5
7/32	5		

01040450 € 176,947

ASSORTIMENTI PUNTE HSS RULLATE IN POLLICI

HSS twist drills in inches in metal display / Assortiments forets HSS en Pouce
Expositor de brocas HSS laminada in pulgada / Verkaufsschränke für Spiralbohrer aus Zoll

HSS

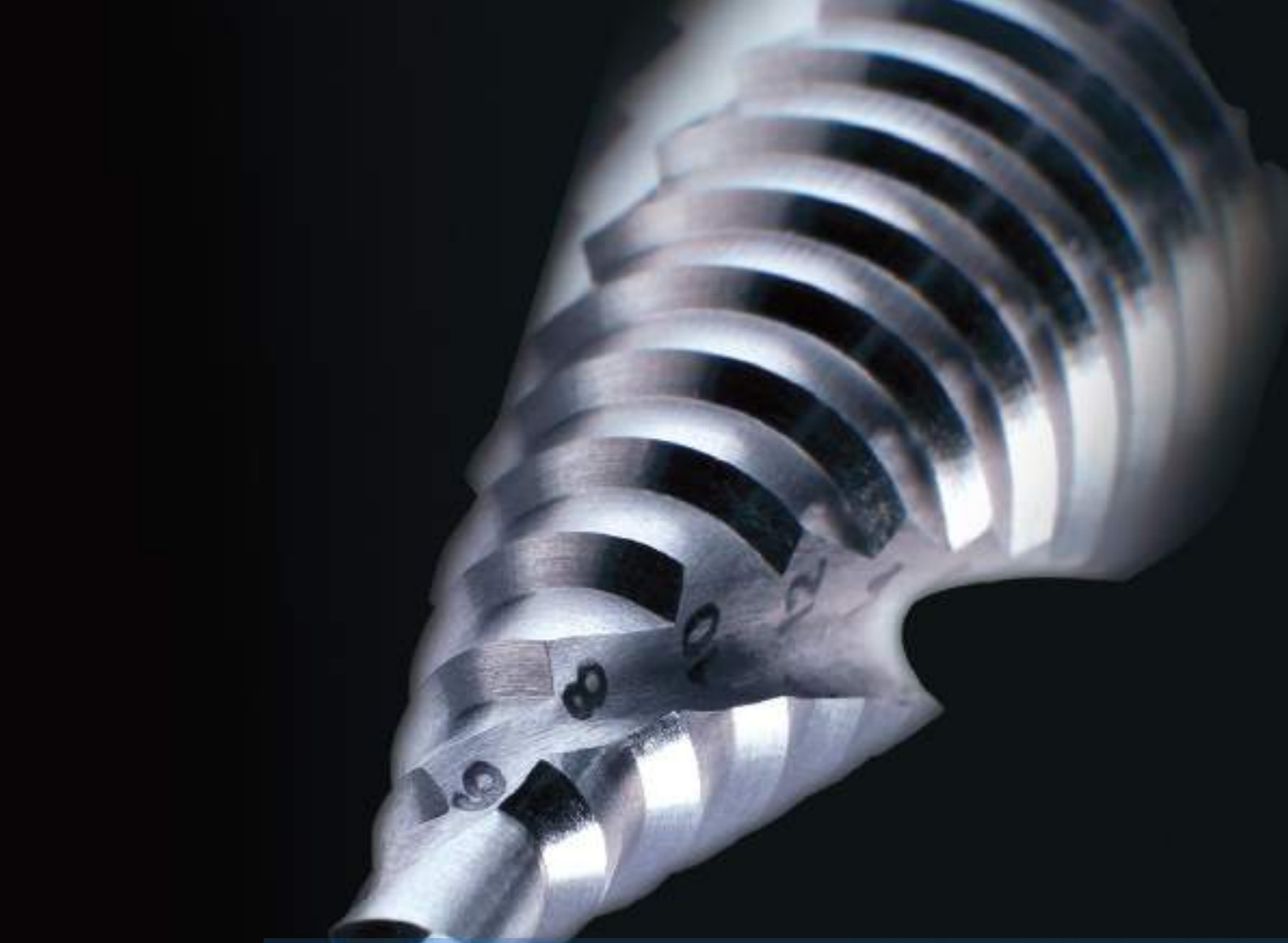


Metal 375x240x200

920 pcs
Ø 1/16÷1/2 x 1/64

Ø	pcs	Ø	pcs
1/16	50	19/64	5
5/64	50	5/16	10
3/32	50	21/64	5
7/64	100	11/32	5
1/8	150	23/64	5
9/64	100	3/8	10
5/32	150	25/64	5
11/64	30	13/32	5
3/16	50	27/64	5
13/64	20	7/16	5
7/32	30	29/64	5
15/64	10	15/32	5
1/4	30	31/64	5
17/64	10	1/2	5
9/32	10		

01040501 € 579,200



UTENSILI PER TAGLIO LAMIERE METALLICHE

Conical drill bits, hole cutters and hole saws
Forets coniques, fraises et scies trépans
Brocas conicas, fresas y coronas perforadoras
Blechschälbohrer und Lochsägen

HSS

METALLO DURO
CARBIDE

CUTTING TOOLS ENGINEERING

The processing of metal sheet and all thin materials is becoming increasingly important to industrial and professional users alike. Furthermore, stainless steel is now used for the vast majority of mechanical assemblies. As a result, Krino's range of tools for cutting sheet metal and all related processes has evolved in line with new cutting requirements, the use of highspeed cobalt steel and Titanium and Titanium-Alluminium new coatings suggested with high performances with very hard materials. Is now also available a new section of Spot drills with TiN coating too. We recommend to see the section technical Tables at the end of this catalogue.

Le travail de la tôle et de tous les matériaux de fin épaisseur en général prend de plus en plus d'importance dans toutes les activités professionnelles et dans l'industrie, l'acier inoxydable est désormais présent dans la plupart des constructions mécaniques. Par conséquent, la gamme de nos outils de coupe de la tôle et de tous les Travaux connexes a évolué au niveau de la géométrie de la coupe, de l'utilisation d'aciers super rapides au cobalt et des nouveaux revêtements au nitrure de Titane et au nitrure de Titane – Aluminium, indiqués pour le perçage des matériaux très durs avec des performances optimales. Une famille complète de fraises pour points de soudure est maintenant disponibles en version revêtue au Titan. Nous recommandons de consulter les tableaux techniques au fond de ce catalogue.

La elaboración de la chapa y en general de todos los materiales de espesor sutil va adquiriendo siempre más importancia en todas las actividades profesionales y en la industria; el acero inoxydable, ademàs, ya està presente en gran parte de la construcciones mecànicas. Por lo tanto, la gama de nuestras herramientas de corte de la chapa y de todas las elaboraciones conectadas se ha desarrollada en las nuevas geometrias de corte, en el uso de aceros superràpidos al cobalto y en los nuevos revestimientos al Titanio y al Titanio –Aluminio para el corte de materiales muy duros con optimo rendimiento. Ahora una famílla completa de fresas para puntos de solduras es disponibles con recubrimiento de Titanio también. Recomendamos la consultación de los prospectos tecnico al fondo de este catálogo.

La lavorazione della lamiera e di tutti i materiali in genere a spessore sottile assume sempre più importanza in tutte le attività professionali e nell'industria; l'acciaio inossidabile, inoltre, è presente in gran parte delle costruzioni meccaniche. Pertanto, la gamma dei nostri utensili per il taglio della lamiera e di tutte le lavorazioni connesse è evoluta nelle nuove geometrie di taglio, nell'impiego di acciai superrapidi al cobalto e nei rivestimenti al nitruro di titanio e al nitruro di titanio-alluminio, particolarmente adatti al taglio dei materiali molto duri, con ottimi rendimenti. Sono anche disponibili le famiglie complete delle punte-frese per rimuovere punti di saldatura, anche nelle esecuzioni con rivestimento al TiN. Si consiglia vivamente di seguire tutte le istruzioni indicate nel capitolo e nelle tabelle tecniche riportate in fondo al catalogo.

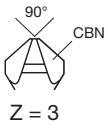
FRESE AD INCASSARE E SVASARE A 3 TAGLI

Deburring tools with 3 flutes / Fraise conique à ébavurer avec 3 coupes / Fresas de avellanar con 3 cortes / Kegelsenker mit 3 Schneiden

01185 01260



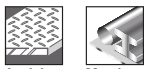


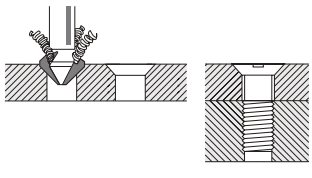


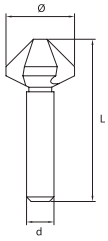


HSS **HSS+TiN**

Applicazioni / *Applications*







DIN 335/C-90°

Ø mm	d	L	Per viti / *For screws* DIN 74 AF	DIN 74 BF	01185 HSS cod.	€ cad/each	01260 HSS+TiN cod.	€ cad/each
4,3	4	40			011850430	11,968	012600430	17,529
5	4	40	M 2,5		011850500	11,968	012600500	17,529
5,3	4	40			011850530	11,968	012600530	17,529
5,8	5	45			011850580	12,340	012600580	17,770
6	5	45	M 3		011850600	12,340	012600600	17,770
6,3	5	45		M 3	011850630	12,340	012600630	18,146
7	6	50	M 3,5		011850700	13,677	012600700	19,457
7,3	6	50			011850730	13,677	012600730	19,457
8	6	50	M 4		011850800	13,993	012600800	19,833
8,3	6	50		M 4	011850830	13,993	012600830	19,833
9,4	6	50			011850940	15,344	012600940	21,269
10	6	50	M 5		011851000	16,857	012601000	25,051
10,4	6	50		M 5	011851040	16,857	012601040	25,051
11,5	8	56	M 6		011851150	18,195	012601150	26,560
12,4	8	56		M 6	011851240	18,195	012601240	26,560
13,4	8	56			011851340	21,327	012601340	28,991
15	10	60	M 8		011851500	21,327	012601500	31,010
16,5	10	60		M 8	011851650	22,281	012601650	34,683
19	10	63	M 10		011851900	30,663	012601900	43,773
20,5	10	63		M 10	011852050	30,663	012602050	45,377
23	10	67	M 12		011852300	47,089	012602300	71,391
25	10	67		M 12	011852500	47,089	012602500	69,129
26	12	67	M 14		011852600	61,081	012602600	82,728
28	12	71		M 14	011852800	61,081	012602800	86,122
30	12	71	M 16		011853000	64,843	012603000	88,395
31	12	71		M 16	011853100	64,843	012603100	90,659
40	15	80			011854000	73,345	012604000	130,725

Confezione / *Packaging*





6 pcs Ø 6,3-8,3-10,4-12,4-16,5-20,5

01270107 - HSS € 113,316



6 pcs Ø 6,3-8,3-10,4-12,4-16,5-20,5

01270109 - HSS+TiN € 169,986



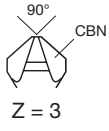
17 pcs Ø 4,3-5-6- 6,3-7-8-8,3-10-10,4 11,5-12,4-15-16,5-19-20,5-23-25

01270400 HSS € 325,956

01261 01262









HSS-CO **HSS-CO+TiAIN**

Applicazioni / *Applications*



DIN 335/C-90°

Ø mm	d	L	Per viti / *For screws* DIN 74 AF	DIN 74 BF	01261 HSS-CO cod.	€ cad/each	01262 HSS-CO+TiAIN cod.	€ cad/each
6,3	5	45		M 3	012610630	16,006	012620630	19,907
8,3	6	50		M 4	012610830	18,032	012620830	26,069
10,4	6	50		M 5	012611040	25,878	012621040	38,182
12,4	8	56		M 6	012611240	28,952	012621240	47,399
15	10	60	M 8		012611500	33,165	012621500	52,007
16,5	10	60		M 8	012611650	35,598	012621650	56,615
20,5	10	63		M 10	012612050	49,417	012622050	77,681
25	10	67		M 12	012612500	67,148	012622500	118,497
28	12	71		M 16	012612800	71,967	012622800	125,314
30	12	71			012613000	77,003	012623000	133,188
31	12	71			012613100	89,824	012623100	140,880
40	15	80			012614000	95,116	012624000	162,251



6 pcs
Ø 6,3-8,3-10,4-12,4-16,5-20,5

01270110 - HSS-CO
€ 151,337



6 pcs
Ø 6,3-8,3-10,4-12,4-16,5-20,5

01270111 - HSS-CO+TiAIN
€ 231,662

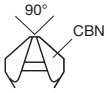
FRESE AD INCASSARE E SVASARE A 3 TAGLI IN METALLO DURO

Carbide deburring tools with 3 flutes / Fraise conique à ébavurer carbure avec 3 coupes
Fresas de avellanar metal duro con 3 cortes / Kegelsenker VHM mit 3 Schneiden

01263 01264









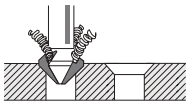
Metallo Duro / *Carbide*

Metallo Duro / *Carbide*
DIN 335/C-90°

Ø *h10*	d *h7*	L	Per viti *For screws* DIN 74 BF	**Art. 01263 MD** cod.	€ cad/each	**Art. 01264 MD+TiAlN** cod.	€ cad/each
6,3	6	50	M 3	012630630	91,785	012640630	105,128
8,3	6	50	M 4	012630830	100,385	012640830	114,009
10,4	6	50	M 5	012631040	103,254	012641040	122,436
12,4	8	50	M 6	012631240	114,725	012641240	134,281
16,5	10	60	M 8	012631650	166,347	012641650	191,470
20,5	10	63	M 10	012632050	263,871	012642050	299,427
25	10	67	M 12	012632500	372,857	012642500	427,073

Applicazioni / *Applications*



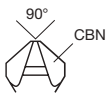


SVASATORI A 90° CON ATTACCO ESAGONALE 1/4”

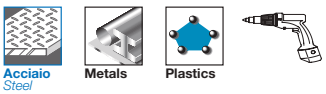
90° countersink with 1/4” hexagon shank / Fraise conique a 90° avec 6 pans de 1/4”
Avellanador a 90° con mango esagonal 1/4” / Kagelsenker-bits 90°, mit 1/4” sechskant-Aufnahme

19003



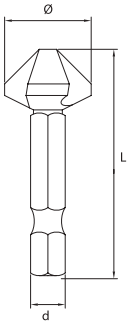


Applicazioni / *Applications*



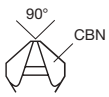
HSS DIN 335/C-90°

Ø	L	d ⬡	Per viti *For screws* DIN 74 BF	cod.	€ cad/each
6,3	40	1/4	M 3	190030630	9,776
8,3	45	1/4	M 4	190030830	11,202
10,4	47	1/4	M 5	190031040	13,327
12,4	49	1/4	M 6	190031240	16,312
16,5	52	1/4	M 8	190031650	20,791
20,5	55	1/4	M 10	190032050	28,754

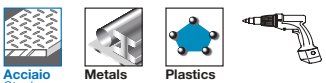


19001





Applicazioni / *Applications*



HSS DIN 335/C-90°

Ø	L	d ⬡	Per viti *For screws* DIN 74 BF	cod.	€ cad/each
6,3	31	1/4	M 3	19001063	15,006
8,3	31	1/4	M 4	19001083	15,006
10,4	34	1/4	M 5	19001104	16,077
12,4	35	1/4	M 6	19001124	17,159
16,5	40	1/4	M 8	19001165	19,290
20,5	41	1/4	M 10	19001205	25,029



6 pcs
Ø 6,3 - 8,3 - 10,4
12,4 - 16,5 - 20,5

19020214 - HSS-G
€ 136,681

Art. **19002** Self
Disponibile su richiesta / *On demand*



Magnetico
Magnetic

ØxL	cod.	€ cad/each
33x120	19001000	14,843



FRESE AD INCASSARE E SVASARE IN HSS

HSS deburring tools / Fraise conique à ébavurer en HSS
Fresas de avellanar HSS / Kegelsenker HSS

01193

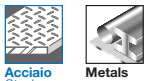


HSS



Z = 3

Applicazioni / *Applications*



HSS DIN 335/C-90° — **Serie lunga -** Long serie

Ø mm	d	L	cod.	€ cad/each
6,3	5	104	011930630	25,648
8,3	6	105	011930830	28,875
10,4	6	107	011931040	34,868
12,4	8	108	011931240	37,048
15	10	109	011931500	42,496
16,5	10	111	011931650	45,596
20,5	10	114	011932050	63,323
25	10	118	011932500	95,592

Lunghezza del codolo 100 mm
Shank lenght 100 mm



6 pcs
Ø 6,3 - 8,3 - 10,4
12,4 - 16,5 - 20,5
01270207 - HSS
€ 256,108

01196

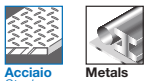


HSS



Z = 3

Applicazioni / *Applications*



HSS DIN 335/D 90°

Ø mm	MK	L	Per viti / *For screws* DIN 74 AF	DIN 74 BF	cod.	€ cad/each
15	1	85	M 8		011961500	38,523
16,5	1	85		M 8	011961650	45,377
19	2	100	M 10		011961900	53,318
20,5	2	100		M 10	011962050	54,681
23	2	106	M 12		011962300	57,405
25	2	106		M 12	011962500	75,739
26	2	106	M 14		011962600	75,739
28	2	112		M 14	011962800	92,974
30	2	112	M 16		011963000	100,350
31	2	112		M 16	011963100	109,465
34	2	118	M 18	M 18	011963400	123,799
37	2	118	M 20	M 20	011963700	139,440
40	3	140			011964000	194,174
50	3	150			011965000	314,073

01192

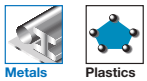


HSS



Z = 1

Applicazioni / *Applications*



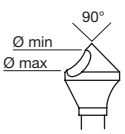
HSS DIN 335/C 90°

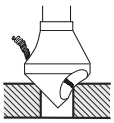
Ø mm	d	L	cod.	€ cad/each
6	5	45	011920600	20,231
8	6	50	011920800	22,452
10	6	50	011921000	23,815
12	8	56	011921200	30,300
16	10	60	011921600	36,786
20	10	63	011922000	54,377
25	10	67	011922500	89,747
30	12	71	011923000	116,946

01188



HSS





Applicazioni / *Applications*



HSS-90°

Gr.	Ø min-max	d	L	cod.	€ cad/each
1	2 ÷ 5	6	45	0118801	15,368
2	5 ÷ 10	8	48	0118802	19,397
3	10 ÷ 15	10	65	0118803	38,192
4	15 ÷ 20	12	85	0118804	67,677
5	20 ÷ 25	15	102	0118805	123,604
6	25 ÷ 30	15	115	0118806	182,219
7	30 ÷ 35	15	127	0118807	238,275
8	35 ÷ 40	15	136	0118808	335,124
9	40 ÷ 50	20	166	0118809	411,574



Abs

4 pcs
2-5 5-10 10-15 15-20
01270108 HSS
€ 152,349

Speciale per alluminio, metalli leggeri e plastica. Lavora senza vibrazioni, ottima finitura.
Pour aluminium, metaux légers et plastiques. Pour ébavurage et petits chanfreirie. Meilleur état de surface. Travaille sans vibrations.
For alluminium, metals and plastics. For deburring and small chamfers. Best surface finish. Works without vibrations.

FRESE AD INCASSARE E SVASARE IN HSS

HSS deburring tools / Fraise conique à ébavurer en HSS
Fresas de avellanar HSS / Kegelsenker HSS

01197



HSS



Z = 3

Applicazioni / *Applications*



Acciaio
Steel



Metals

HSS - 75°

Ø mm	d	L	cod.	€ cad/each
6,3	5	45	011970630	16,553
8,3	6	50	011970830	18,546
10,4	6	50	011971040	22,526
12,4	8	56	011971240	23,888
13,4	8	56	011971340	29,336
16,5	10	63	011971650	29,336
20,5	10	67	011972050	40,861
25	10	71	011972500	61,816

01186



HSS



Z = 3

Applicazioni / *Applications*



Acciaio
Steel



Metals

HSS DIN 334/C 60°

Ø mm	d	L	cod.	€ cad/each
6,3	5	45	011860630	14,790
8	6	50	011860800	18,207
10	6	53	011861000	20,135
12,5	8	56	011861250	26,775
16	10	63	011861600	26,775
20	10	67	011862000	36,532
25	10	71	011862500	55,167
31,5	12	76	011863150	76,223

SBAVATORI A MANO

Hand deburres / Fraises à ébavurer / Fresas de avellanar / Handentgrater

01187



HSS



Z = 3



Magnetico
Magnetic

HSS DIN 335/C-90°

Ø	L	cod.	€ cad/each
6,3	121	011870630	21,784
8,3	122	011870830	24,536
10,4	124	011871040	27,138
12,4	126	011871240	30,556
16,5	130	011871650	38,501
20,5	130	011872050	48,110



Manico
Handle

ØxL	cod.	€ cad/each
33x120	19001000	14,843

01190





Z = 6

Art. **01191** Self
Disponibile su richiesta
On demand

HSS - 40°

Gr.	Ø min-max	L	cod.	€ cad/each
1	10 ÷ 34	155	0119001	79,161

Speciale per sbavare condutture elettriche, tubi in rame o tubi in generale e grossi fori.
Quick and effective deburring of electrical conduit, copper pipe or any tubes or large holes.

SVASATORI CON PERNO GUIDA PER SEDE VITI A TESTA CILINDRICA

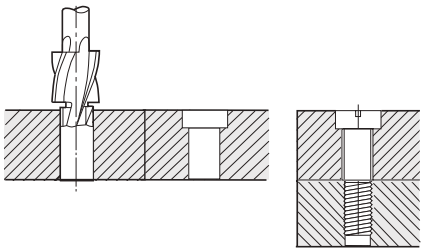
HSS deburring tools / Fraise conique à ébavurer en HSS
Fresas de avellanar HSS / Kegelsenker HSS

Per fori passanti - *For through holes - Pour trous débouchants - Para orificios pasantes - Für Durchgangslöcher*

01273 01274 01277



HSS DIN 373



Confezione / *Packaging*



Art. 01273 Grado fine - *Fine grade - Degré fin - Grado fino - Fein Grad*

vite *thread*	Ø	d_1	L	d	cod.	€ cad/each
M 3	6	3,2	71	5	0127303	19,077
4	8	4,3	71	5	0127304	19,077
5	10	5,3	80	8	0127305	19,077
6	11	6,4	80	8	0127306	19,797
8	15	8,4	100	12,5	0127308	31,817
10	18	10,5	100	12,5	0127310	38,189
12	20	13,0	100	12,5	0127312	41,715



6 pcs M 3÷10
01275100
€ 169,986

Grado medio
Medium grade - Degré Moyen
Grado Medio - Mittelgrad

vite *thread*	Ø	d_1	L	d	**Art. 01274 HSS** cod.	€ cad/each	**Art. 01277 HSS+TiAlN** cod.	€ cad/each
M 3	6	3,4	71	5	0127403	19,077	0127703	22,869
4	8	4,5	71	5	0127404	19,077	0127704	28,146
5	10	5,5	80	8	0127405	19,077	0127705	29,285
6	11	6,6	80	8	0127406	19,797	0127706	35,182
8	15	9,0	100	12,5	0127408	31,817	0127708	50,601
10	18	11,0	100	12,5	0127410	38,189	0127710	60,845
12	20	14,0	100	12,5	0127412	43,911	0127712	80,714



6 pcs M 3÷10
01275101 HSS
€ 169,986
01275120 HSS+TiAlN
€ 246,660

Grado fine per viteria/bulloneria di precisione.
Grado medio per meccanica standard.
Fine grade to fit precision screwing.
Medium grade to fit standard coupling.

Per prefori di filettature - *For thread core holes - Pour trous de taraudage - Para orificios de roscado - Für Gewindelöcher*

01272



HSS DIN 373

Applicazioni / *Applications*

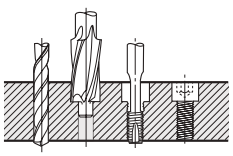
Acciaio *Steel* | Metals | Alu

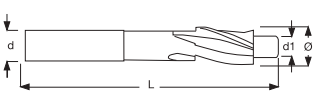
Art. 01272

vite *thread*	Ø	d_1	L	d	cod.	€ cad/each
M 3	6	2,5	71	5	0127203	19,077
4	8	3,3	71	5	0127204	19,077
5	10	4,2	80	8	0127205	19,077
6	11	5,0	80	8	0127206	19,797
8	15	6,8	100	12,5	0127208	31,817
10	18	8,5	100	12,5	0127210	38,189
12	20	10,2	100	12,5	0127212	41,715



6 pcs M 3÷10
01275105
€ 169,986





DIN 8376 01103 | DIN 8377 01104 | 64

UTENSILI CONICI INTEGRALI IN HSS-G CON SCALATURA ELICOIDALE E SPOGLIA MULTIPLA PER FORARE E ALLARGARE LAMIERE E TUBI

Conical drill bits with spiral flute and multiple clearance for metal sheets and tubes / Forets coniques et étages avec affutage à multiples facettes pour travaillé la tole et les tubes / Brocas conicas y escalonadas con afilatura multipla para trabajar las planchas de metal y los tubos Blechschalbohrer mit Spiralnute und Vielfaches Hinterarbeitung

01182





AISI M2
HV:820

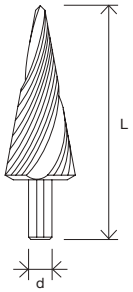
Gambo antisdrucciolo
Spoglia multipla
High grip shank
Multiple clearance

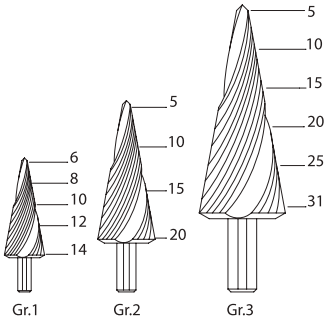
Confezione / *Packaging*

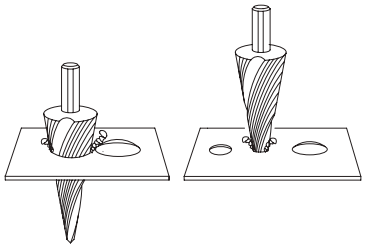


HSS-G Interamente rettificata - *Fully ground*

Gr.	Ø min-max	d	l	L	cod.	€ cad/each
1	3 ÷ 14	6	35	60	0118201	27,845
2	6 ÷ 20	8	45	70	0118202	41,862
3	5 ÷ 31	10	80	105	0118203	90,010







Grande capacità di taglio, grande rendimento grazie alla nuova scanalatura a spirale e alla spoglia multipla. Usare una leggera pressione durante il taglio: l'elicoide è autoalimentante.

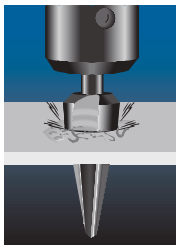
Better cutting performances due to the new spiral flute and multiple clearance. Please use a very soft press when drilling: the tool proceeds by itself.



01182100 HSS-G
€ 162,978

Gr.1 3÷14 mm
Gr.2 6÷20 mm
Gr.3 5÷31 mm

Applicazioni / *Applications*



R ≤ 800 N/mm²

Metals | Acciaio *Steel* | Alu | Plastics

- Per forare lamiere in acciaio, tubi, profilati in acciaio e leghe leggere, plexiglass, plastica sino a 5 mm di spessore
- For hole-making into metal sheets, pipes, structurals, light alloys sheets, plastics, plexiglass up to 5 mm thickness
- Pour le perçage des trous dans tous matèriaux de faible épaisseur (épaisseur max. 5 mm)
- Broca-avellanador para cortar tubo y chapa de hierro y acero, aleaciones ligeras, plexiglass (5 mm de profundidad)
- Zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

Pasta lubrificante per il taglio

Cutting paste / Lubrifiant de coupe
Pasta de corte / Bohrpaste



4100401
€ 11,583

Olio da taglio minerale intero 0,5 lt

Cutting oil 0,5 lt



28020004
€ 33,584

Olio da taglio emulsionabile in tanica 5 Kg (5lt)

Cutting oil tank 5 lt



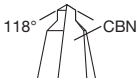
28020005
€ 108,031

UTENSILI CONICI INTEGRALI IN HSS-G PER FORARE ED ALLARGARE LAMIERE E TUBI

Conical drill bits for metal sheets and tubes / Forets coniques et étages pour la tôle
Brocas conicas para planchas / Blechschälbohrer

01180





AISI M2
HV:820

Gambo antisdrucciolo
High grip shank

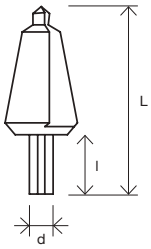
Confezione / *Packaging*

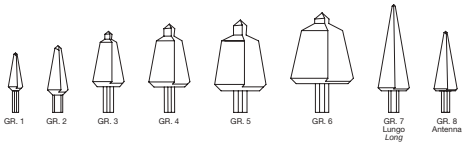


Art. **01181** Self
Disponibile su richiesta
On demand

HSS-G

Gr.	Ø min-max	d mm	l mm	L mm	cod.	€ cad/each
1	3 ÷ 14	6	21	58	0118001	20,373
2	6 ÷ 20	8	21	70	0118002	33,760
3	16 ÷ 30,5	10	25	79	0118003	57,974
4	26 ÷ 40	10	25	86	0118004	120,872
5	36 ÷ 50	13	25	90	0118005	186,353
6	40 ÷ 61	13	25	97	0118006	319,822
7	3 ÷ 31	10	21	109	0118007	86,879
8	3 ÷ 22,5	8	21	85	0118008	61,698







01195101
HSS-G
€ 139,695

Composizione
Description
Gr.1 3÷14 mm
Gr.2 6÷20 mm
Gr.3 16÷30,5 mm

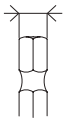
01215



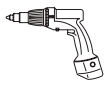


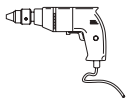
AISI M2
HV:820

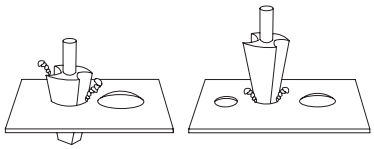
1/4 Q.C.



Gr.	Ø min-max	d ⬡	l mm	L mm	cod.	€ cad/each
2	8 ÷ 20	1/4	20	68	0121502	33,178





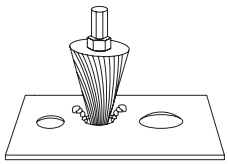


FRESA CONICA ALLARGAFORI PER LAMIERE, SPECIALE PER MECCANICI, ELETTRAUTO, CARROZZIERI

Conical drill bits for metal sheets / Forets coniques pour la tôle / Brocas conicas para planchas / Blechschälbohrer

01176





Art. **01177** Self
Disponibile su richiesta
On demand

HSS

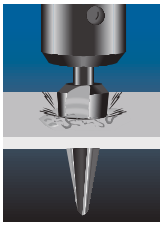
Ø x l	d	cod.	€ cad/each
25 x 40	8	0117601	25,495
32 x 50	10	0117603	47,846
45 x 60	10	0117604	78,695

CV

Ø x l	d	cod.	€ cad/each
25 x 40	8	0117602	21,537

La fresa allargafori va usata con velocità massima di 420 giri/min per allargare fori in lamiere di materiali dolci con spessore inferiore a 0,5 mm.
The conical drill bit shoud work at max 420 rpm to enlarge holes inside mild steel sheet 0,5 mm thick.

Applicazioni
Applications



R ≤ 800 N/mm²

Metals | **Acciaio** *Steel* | **Alu** | **Plastics**

- Per forare lamiere in acciaio, tubi, profilati in acciaio e leghe leggere, plexiglass, plastica sino a 5 mm di spessore
- For hole-making into metal sheets, pipes, structurals, light alloys sheets, plastics, plexiglass up to 5 mm thickness
- Pour le perçage des trous dans tous matèriaux de faible épaisseur (épaisseur max. 5 mm)
- Broca-avellanador para cortar tubo y chapa de hierro y acero, aleaciones ligeras, plexiglass (5 mm de profundidad)
- Zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

UTENSILI CONICI RIVESTITI AL TiN E AL TiAlN PER FORARE ED ALLARGARE LAMIERE E TUBI

TiN and TiAlN coated conical drill bits / Forets coniques et étages revêtus au TiN et TiAlN
Brocas conicas con recubrimiento de TiN y TiAlN para planchas / Blechschälbohrer TiN und TiAlN beschichtet

01200



CBN

HSS-G+TIN
HV 0,05 = 2300

Gambo antisdrucciolo
High grip shank

443

Confezione / *Packaging*



HSS-G + TiN

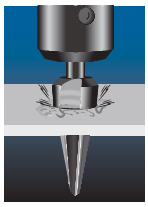
Gr.	Ø min-max	d mm	l mm	L mm	cod.	€ cad/each
1	3 ÷ 14	6	21	58	0120001	29,336
2	6 ÷ 20	8	21	70	0120002	49,830
3	16 ÷ 30,5	10	25	79	0120003	92,013
4	26 ÷ 40	10	25	86	0120004	196,085
5	36 ÷ 50	13	25	90	0120005	281,525
6	40 ÷ 61	13	25	97	0120006	457,892
7	3 ÷ 31	10	21	109	0120007	147,319
8	3 ÷ 22,5	8	21	85	0120008	79,322



01195110
HSS-G + TiN
€ 195,167

Composizione / *Description*
Gr.1 3÷14 mm
Gr.2 6÷20 mm
Gr.3 16÷30,5 mm

USO INTENSIVO
INTENSIVE USE
R≤1000 N/mm²



ACCIAIO LEGATO
ALLOY STEEL



01206



CBN

HSS-G+TiAlN
HV 0,05 = 3300

Gambo antisdrucciolo
High grip shank

443

Confezione / *Packaging*



HSS-G + TiAlN

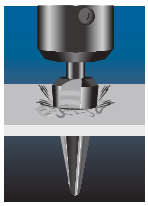
Gr.	Ø min-max	d mm	l mm	L mm	cod.	€ cad/each
1	3 ÷ 14	6	21	58	0120601	33,863
2	6 ÷ 20	8	21	70	0120602	57,540
3	16 ÷ 30,5	10	25	79	0120603	109,162
4	26 ÷ 40	10	25	86	0120604	222,611
5	36 ÷ 50	13	25	90	0120605	314,655
6	40 ÷ 61	13	25	97	0120606	505,164
7	3 ÷ 31	10	21	109	0120607	161,606
8	3 ÷ 22,5	8	21	85	0120608	89,527



01195111
HSS-G + TiAlN
€ 220,346

Composizione / *Description*
Gr.1 3÷14 mm
Gr.2 6÷20 mm
Gr.3 16÷30,5 mm

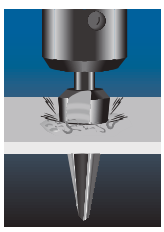
USO INTENSIVO
INTENSIVE USE
R≤1200 N/mm²



ACCIAIO INOX
ACCIAIO ALTO LEGATO
STAINLESS STEEL
HIGH ALLOY STEEL

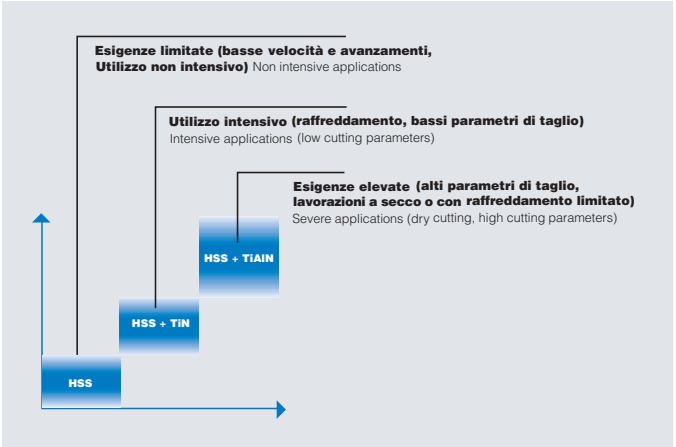


Applicazioni
Applications



- Per forare lamiere in acciaio, tubi, profilati in acciaio e leghe leggere, plexiglass, plastica sino a 5 mm di spessore
- For hole-making into metal sheets, pipes, structurals, light alloys sheets, plastics, plexiglass up to 5 mm thickness
- Pour le perçage des trous dans tous matèriaux de faible épaisseur (épaisseur max. 5 mm)
- Broca-avellanador para cortar tubo y chapa de hierro y acero, aleaciones ligeras, plexiglass (5 mm de profundidad)
- Zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

Campo di applicazione degli utensili conici rivestiti
Range of application for HSS conical drill-bits

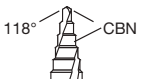


UTENSILI CONICI A GRADINO CON TAGLIENTI ELICOIDALI AD ALTO RENDIMENTO

Spiral step drill bits / Forets étages hélicoïdaux
Brocas escalonadas helicoidale / Stufenbohrer mit Spiralnute

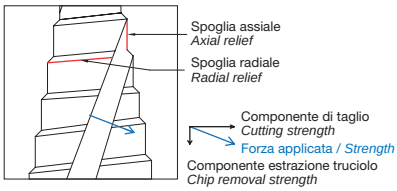
01240

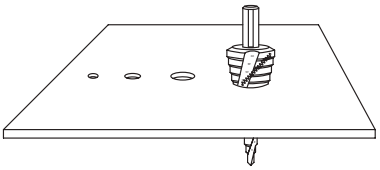




HSS-G
HV 820

Gambo antisdrucciolo
High grip shank

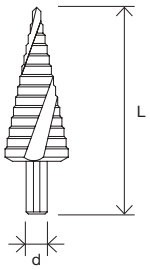


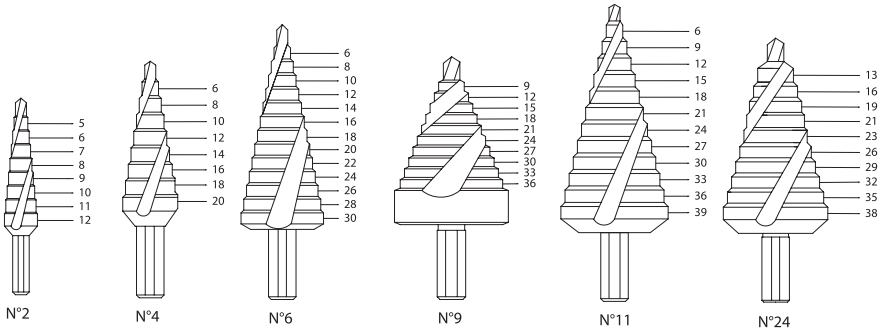


Esercitare solo una lieve pressione durante il taglio. L'elicoide è autoalimentante grazie alla componente assiale della forza di taglio.
Please use a very soft press while drilling. The tool proceeds by itself, due to the axial cutting strenght.

HSS-G

Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d mm	L mm	cod.	€ cad/each
2	4 ÷ 12	1	9	6	70	0124002	38,975
4	4 ÷ 20	2	9	10	85	0124004	48,719
6	4 ÷ 30	2	13	10	100	0124006	129,917
9	6 ÷ 36	3	10	10	80	0124009	158,065
11	4 ÷ 39	3	13	10	107	0124011	173,223
24	6 ÷ 38	-	11	10	96	0124024	175,387





R ≤ 800 N/mm²





HSS-G

01259107
HSS-G
€ 183,074

Composizione / *Description*
Gr.2 4÷12 mm
Gr.3 4÷20 mm
Gr.4 4÷30 mm

UTENSILI A GRADINO CON TAGLIENTI ELICOIDALI AD ALTO RENDIMENTO CON ATTACCO ¼" QC

Spiral step drill bits / Forets étages hélicoïdaux / Brocas escalonadas helicoidale / Stufenbohrer mit Spiralnute

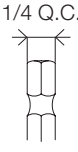
01241





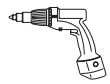
HSS-G
HV 820

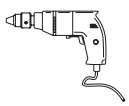
Gambo antisdrucciolo
High grip shank



HSS

Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d ⬡	ℓ	*L*	cod.	€ cad/each
4	4 ÷ 20	2	9	1/4	25	76	0124104	41,909
6	4 ÷ 30	2	13	1/4	25	100	0124106	113,153





UTENSILI CONICI A GRADINO RIVESTITI AL TiN E AL TiAlN CON TAGLIENTI ELICOIDALI AD ALTO RENDIMENTO

TiN and TiAlN spiral step drill bits / Forets étages hélicoïdaux au TiN et TiAlN

Brocas escalonadas helicoidale con recubrimiento de TiN y TiAlN / Stufenbohrer mit Spiralnute TiN und TiAlN

01244



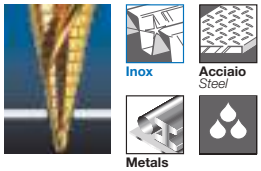
CBN

HSS-G+TIN
HV 0,05=2300

Gambo antisdrucciolo
High grip shank

443

R ≤ 1000 N/mm²



Inox

Acciaio
Steel

Metals

HSS-G + TiN

Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d mm	L mm	cod.	€ cad/each
2	4 ÷ 12	1	9	6	70	0124402	42,956
4	4 ÷ 20	2	9	10	85	0124404	69,149
6	4 ÷ 30	2	13	10	100	0124406	145,633
9	6 ÷ 36	3	10	10	80	0124409	220,020
11	4 ÷ 39	3	13	10	107	0124411	235,736
24	6 ÷ 38	-	11	10	96	0124424	243,070



HSS-G + TiN

01259108
HSS-G + TiN
€ 259,833

Composizione / *Description*
Gr.2 4÷12 mm
Gr.4 4÷20 mm
Gr.6 4÷30 mm

01248



CBN

HSS-G+TiAlN
HV 0,05=3300

Gambo antisdrucciolo
High grip shank

443

R ≤ 1400 N/mm²



Inox

Acciaio
Steel

Metals

HSS-G + TiAlN

Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d mm	L mm	cod.	€ cad/each
2	4 ÷ 12	1	9	6	70	0124802	47,147
4	4 ÷ 20	2	9	10	85	0124804	77,532
6	4 ÷ 30	2	13	10	100	0124806	159,252
9	6 ÷ 36	3	10	10	80	0124809	243,070
11	4 ÷ 39	3	13	10	107	0124811	277,644
24	6 ÷ 38	-	11	10	96	0124824	256,690



HSS-G + TiAlN

01259109
HSS-G + TiAlN
€ 276,072

Composizione / *Description*
Gr.2 4÷12 mm
Gr.4 4÷20 mm
Gr.6 4÷30 mm

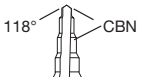
UTENSILI CONICI INTEGRALI A GRADINO IN HSS-G PER LA FORATURA ED ALLARGATURA DELLA LAMIERA

HSS step drill bits / Forets étages HSS-G

Brocas escalonadas HSS-G / HSS-G Stufenbohrer

01183





AISI M2
HV:820

Gambo antisdrucciolo
High grip shank

Art. **01184** Self
Disponibile su richiesta
On demand

HSS-G — Metric - per costruzione - *for construction*

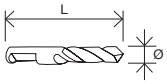
Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d mm	L mm	cod.	€ cad/each
1	4 ÷ 12	2	5	6	56	0118301	27,207
2	4 ÷ 12	1	9	6	70	0118302	29,592
3	12 ÷ 20	1	9	10	85	0118303	76,355
4	4 ÷ 20	2	9	10	85	0118304	39,837
5	20 ÷ 30	1	11	10	97	0118305	120,812
6	4 ÷ 30	2	13	10	97	0118306	88,473
7	30 ÷ 40	1	11	13	97	0118307	175,841
8	40 ÷ 50	1	11	13	100	0118308	254,780
9	6 ÷ 36	3	10	10	80	0118309	161,488
10	25 ÷ 58	3	12	13	90	0118310	409,085
11	4 ÷ 39	3	13	10	107	0118311	151,907
24	6 ÷ 38	-	11	10	96	0118324	139,951
					Pg		
21	6,3 ÷ 26,75	-	7	10	91	0118321	112,443
22	6 ÷ 30,5	-	7	10	80	0118322	100,476
23	6 ÷ 37	-	7	10	85	0118323	151,907



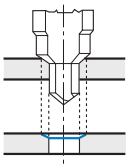
Confezione / *Packaging*

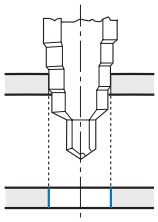


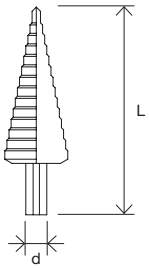
***Ricambio - Spare part**

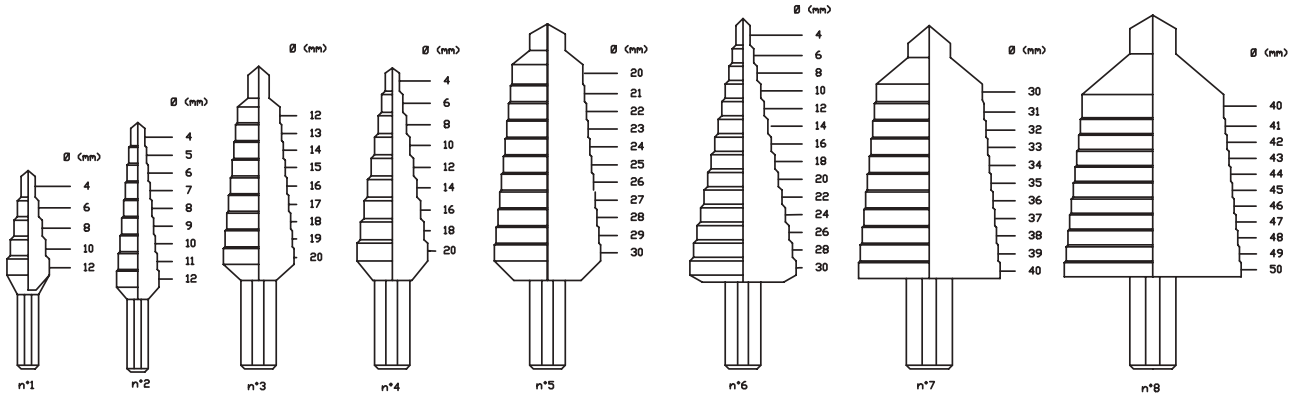


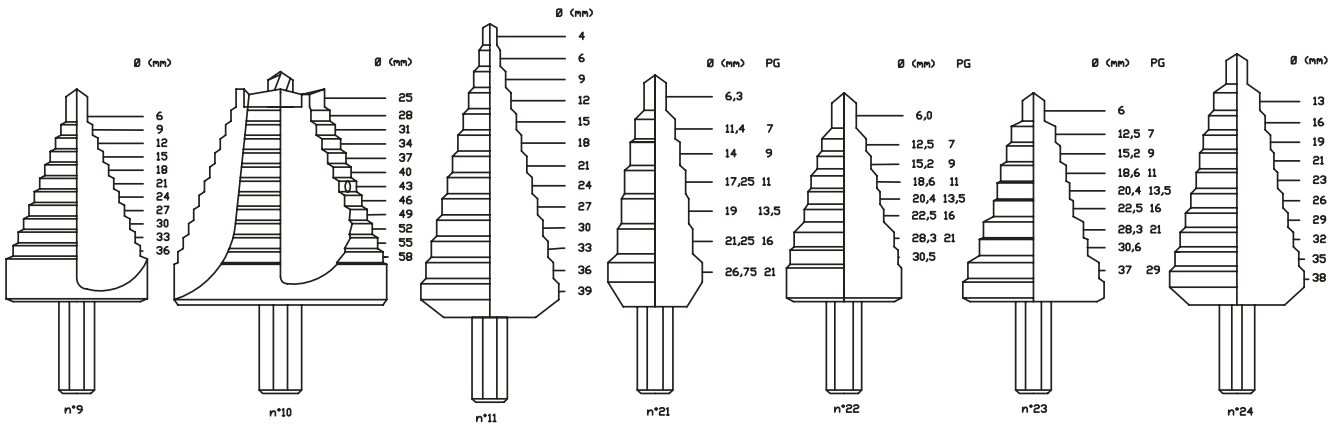
ØxL	cod.	€ cad/each
10x48	0118300	29,958











ASSORTIMENTI UTENSILI CONICI HSS-G

HSS-G conical drill bits sets / Assortiments de forets coniques et étages HSS-G
Surtidos de brocas conicas HSS-G para planchas / HSS-G Blechschälbohrer Sortimente

01259102 **01259105** **01259110**

Abs







01259102
HSS-G
€ 158,646

Composizione / *Description*
Gr.2 4÷12 mm
Gr.4 4÷20 mm
Gr.6 4÷30 mm

01259105
HSS-G
€ 163,443

Composizione / *Description*
Gr.2 4÷12 mm
Gr.3 12÷20 mm
Gr.5 20÷30 mm

01259110
HSS-G
€ 114,182

Composizione / *Description*
Gr.6 4÷30 mm



HSS 25÷40 mm



HSS 6x90 mm



194

01195860

UTENSILI CONICI A GRADINO IN HSS-G CON ATTACCO 1/4" Q.C. PER FORARE E ALLARGARE LAMIERE E TUBI

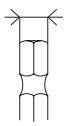
HSS-G step drill bits,1/4" shank / Forets étages HSS-G avec queue 1/4"
Brocas escalonadas HSS-G con mango 1/4" / HSS-G Stufenbohrer

01239



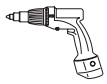


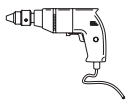
AISI M2
HV:820



HSS-G

Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d	L mm	cod.	€ cad/each
2	4 ÷ 12	1	9	1/4	68	0123902	26,619
4	4 ÷ 20	2	9	1/4	78	0123904	36,118
6	4 ÷ 30	2	13	1/4	101	0123906	80,150







Abs

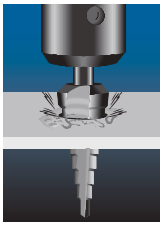
01259118
HSS-G
€ 154,977

Composizione / *Description*
Gr.2 4÷12 mm
Gr.4 4÷20 mm
Gr.6 4÷30 mm

Confezione / *Packaging*



Applicazioni
Applications



R ≤ 800 N/mm²



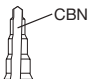
- Per fori cilindrici e precisi in lamiere di acciaio, tubi, profilati, leghe leggere, plastica, plexiglass sino a 5 mm spessore. Taglio veloce, alto rendimento.
- For parallel and precise holes in metal sheets, pipes, structurals, light alloys, plastics, plexiglass up to 5 mm thickness. Fast cutting, high performance.
- Perçage precise et haute rendement dans tous matèriaux de faible épaisseur (max 5 mm).
- Grande rendimiento y precision para cortar tubo y chapa de acero, aleaciones ligeras, plexiglass (5 mm profondidad).
- Große Präzision und Leistung zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

UTENSILI CONICI A GRADINO RIVESTITI AL TiN E TiAlN

TiN and TiAlN coated step drill bits / Forets étages revêtus au TiN et TiAlN
Brocas escalonadas con recubrimiento de TiN y TiAlN / Stufenbohrer TiN-TiAlN beschichtet

01230





HSS-G + TIN
HV 0,05 = 2300

Gambo antisdrucciolo
High grip shank

Confezione / *Packaging*





Gr. 2-4-6
01259103
HSS-G + TiN
€ 249,304

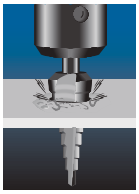
HSS-G + TiN

Metric - per costruzione - *for construction*

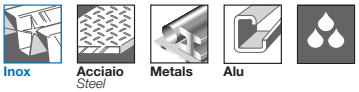
Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d mm	L mm	cod.	€ cad/each
1	4 ÷ 12	2	5	6	56	0123001	42,372
2	4 ÷ 12	1	9	6	70	0123002	43,687
3	12 ÷ 20	1	9	10	85	0123003	110,241
4	4 ÷ 20	2	9	10	85	0123004	70,642
5	20 ÷ 30	1	11	10	97	0123005	189,432
6	4 ÷ 30	2	13	10	97	0123006	141,272
7	30 ÷ 40	1	11	13	97	0123007	269,701
8	40 ÷ 50	1	11	13	100	0123008	372,451
9	6 ÷ 36	3	10	10	80	0123009	225,826
10	25 ÷ 58	3	12	13	90	0123010	504,085
11	4 ÷ 39	3	13	10	107	0123011	226,895
24	6 ÷ 38	-	11	10	96	0123024	225,826
					Pg		
21	6,3 ÷ 26,75	-	7	10	91	0123021	170,166
22	6 ÷ 30,5	-	7	10	80	0123022	131,644
23	6 ÷ 37	-	7	10	85	0123023	236,522



Applicazioni *Applications*



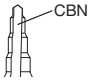
USO INTENSIVO
INTENSIVE USE
R ≤ 1000 N/mm²



- Per fori cilindrici e precisi in lamiere di acciaio, tubi, profilati, leghe leggere, plastica, plexiglass sino a 5 mm spessore.
- For parallel and precise holes in metal sheets, pipes, structurals, light alloys, plastics, plexiglass up to 5 mm thickness.
- Perçage precise et haute rendement dans tous matèriaux de faible épaisseur (max 5 mm).
- Grande rendimiento y precision para cortar tubo y chapa de acero, aleaciones ligeras, plexiglass (5 mm profondidad).
- Große Präzision und Leistung zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

01236





HSS-G + TiAlN
HV 0,05 = 3300

Gambo antisdrucciolo
High grip shank



Gr. 2-4-6
01259104
HSS-G + TiAlN
€ 272,406

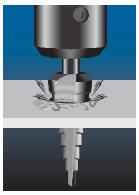
HSS-G + TiAlN

Metric - per costruzione - *for construction*

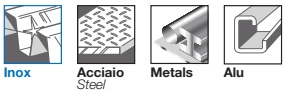
Gr.	Ø min-max	Progressione *Step* (mm)	N° Gradini *N° Steps*	d mm	L mm	cod.	€ cad/each
1	4 ÷ 12	2	5	6	56	0123601	46,636
2	4 ÷ 12	1	9	6	70	0123602	47,842
3	12 ÷ 20	1	9	10	85	0123603	119,869
4	4 ÷ 20	2	9	10	85	0123604	79,200
5	20 ÷ 30	1	11	10	97	0123605	206,559
6	4 ÷ 30	2	13	10	97	0123606	158,400
7	30 ÷ 40	1	11	13	97	0123607	296,456
8	40 ÷ 50	1	11	13	100	0123608	404,561
9	6 ÷ 36	3	10	10	80	0123609	248,298
10	25 ÷ 58	3	12	13	90	0123610	553,323
11	4 ÷ 39	3	13	10	107	0123611	259,002
24	6 ÷ 38	-	11	10	96	0123624	251,513
					Pg		
21	6,3 ÷ 26,75	-	7	10	91	0123621	191,578
22	6 ÷ 30,5	-	7	10	80	0123622	136,998
23	6 ÷ 37	-	7	10	85	0123623	263,278



Applicazioni *Applications*



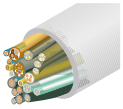
USO INTENSIVO
INTENSIVE USE
R ≤ 1200 N/mm²



- Per fori cilindrici e precisi in lamiere di acciaio, tubi, profilati, leghe leggere, plastica, plexiglass sino a 5 mm spessore.
- For parallel and precise holes in metal sheets, pipes, structurals, light alloys, plastics, plexiglass up to 5 mm thickness.
- Perçage precise et haute rendement dans tous matèriaux de faible épaisseur (max 5 mm).
- Grande rendimiento y precision para cortar tubo y chapa de acero, aleaciones ligeras, plexiglass (5 mm profondidad).
- Große Präzision und Leistung zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

UTENSILI CONICI UNIVERSALI PER PREFORI DI FILETTATURA DI TUBI PER CAVI DI CONDUZIONE ELETTRICA

Universal step drill bits for cables connections / Forets étages universelles pour tubes avec armature en acier
Brocas escalonadas universales para tubos de conducción eléctrica / Universal-Stufenbohrer für Kabelverschraubungen



0125405 0125406 0125407 — METRIC - DIN-EN 60423



HSS-G



HSS-G + TiN



HSS-G + TiAlN

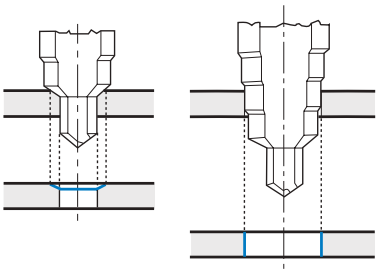
Metric Universal

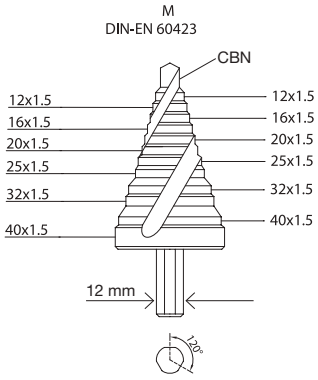
0125405
HSS-G
€ 168,100
Composizione / *Description*
Ø 7÷40,5 mm
M 12x1,5÷40x1,5

0125406
HSS-G + TiN
€ 259,892
Composizione / *Description*
Ø 7÷40,5 mm
M 12x1,5÷40x1,5

0125407
HSS-G + TiAlN
€ 291,963
Composizione / *Description*
Ø 7÷40,5 mm
M 12x1,5÷40x1,5

Combinato UNIVERSALE: per fori nocciolo e fori passanti DIN EN 60423





COMBINATO UNIVERSALE: per fori nocciolo (quando è prevista la successiva filettatura) e fori passanti (quando si inserisce un raccordo filettato serrato con un relativo dado).

UNIVERSAL COMBINED: for core holes (when the thread is needed) and through holes (when inserting a threaded connection with a relative nut).

UNIVERSAL COMBINED: pour les trous de noyau (lorsque le filetage suivant est fourni) et les trous de passage (lors de l'insertion d'une connexion filetée avec un écrou relatif).

UNIVERSAL COMBINADO: para orificios centrales (cuando se proporciona la siguiente rosca) y orificios pasantes (cuando se inserta una conexión roscada con una tuerca relativa).

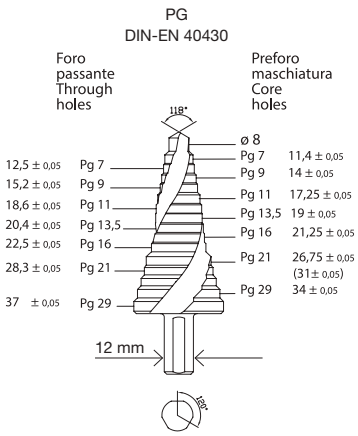
0125404 0125403 — PG - DIN-EN 40430



HSS-G + TiN



HSS-G



PG Drill Universal

0125404
HSS-G + TiN
€ 227,353
Composizione / *Description*
Ø 6÷30,5 mm
Pg 7÷29

0125403
HSS-G
€ 156,110
Composizione / *Description*
Ø 8÷37 mm
Pg 7÷29

Combinato UNIVERSALE: per fori nocciolo e fori passanti DIN EN 40430
COMBINED UNIVERSAL: for core holes and through holes DIN EN 40430

PUNTA FRESA IN HSS-CO PER RIMUOVERE PUNTI DI SALDATURA E PER FORARE LAMIERE IN GENERE

HSS-CO spot drills / Fraise pour points de soudure / Fresas para puntos de soldaduras / Schweisspunktbohrer

01171 01169



~DIN 1412/E

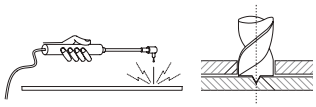
≃ DIN 1897

Confezione / *Packaging*



Art. 01171 HSS-CO

Ø	d	L	cod.	€ cad/each
6	6	66	011710600	13,073
7	7	74	011710700	14,697
8	8	79	011710800	15,549
10	10	89	011711000	19,797



Art. 01169 HSS-CO+TiN

Ø	d	L	cod.	€ cad/each
6	6	66	011690600	18,878
7	7	74	011690700	22,416
8	8	79	011690800	24,772
10	10	89	011691000	30,713



4 pcs TiN
01178200 € 59,819

4 pcs HSSCO
01178205 € 60,367

PUNTA FRESA IN HSS-CO PER RIMUOVERE PUNTI DI SALDATURA CON MACCHINE PNEUMATICHE

Milling drill for removing spot welds with pneumatic tools / Fraise pour enlever les points de soudure avec machines pneumatiques
Fresa para quitar los puntos de soldadura con las máquinas neumaticás / Schweißpunktfräser für pneumatische Maschinen

01172 01173



~DIN 1412/E

Velocità consigliata **3.000** giri/min
*Recommended speed **3.000** rpm*

Art. 01172 HSS-CO

Ø	d	L	cod.	€ cad/each
6,5	6,5	40	011720650	14,435
6,5 vario	8	44	011720650V	14,435
8	8	40	011720800	16,452
8 vario	8	44	011720800V	16,452

Art. 01173 HSS-CO+TiN

Ø	d	L	cod.	€ cad/each
6,5	6,5	40	011730650	17,807
6,5 vario	8	44	011730650V	17,807
8	8	40	011730800	20,824
8 vario	8	44	011730800V	20,824



2 pcs TiN
Ø 6,5 vario - 8 vario
01178210 € 40,564

2 pcs TiN
Ø 6,5 - 8
01178215 € 36,461

01179



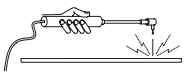
443

MD + TiAlN
Solid carbide + TiAlN

Velocità consigliata **10.000** giri/min
*Recommended speed **10.000** rpm*

Art. 01179 Metallo duro - Solid carbide - Carbure - Metal duro + TiAlN

Ø	d	L	cod.	€ cad/each
6,5	8	40	011790650	112,113
8	8	40	011790800	112,113
10	8	44	011791000	137,948





3 pcs
01178220 € 358,759

Speciale per taglio di acciai molto duri con carico di resistenza fino a 1500N/mm²; grande rendimento grazie all'accoppiamento metallo duro + rivestimento TiAlN multistrato.
Specially designed for cutting very hard metal sheets up to 1500N/mm² tensile strenght; great performances due to the combination of solid carbide and TiAlN multilayer coating.

FRESA PER RIMUOVERE I PUNTI DI SALDATURA SU LAMIERE METALLICHE

Milling cutter for removing spot welds from metal sheets / Fraise pour enlever les points de soudure de la tôle
Fresa para quitar los puntos de soldadura de las planchas metálicas / Schweißpunktfräser für Bleche



HSS

Ø	d	L	cod.	€ cad/each
10	7	72	01174100	12,561

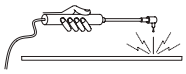
01174

Ricambi - *Spare parts*



01174101 € 6,426

01174102 € 0,757



PUNTA FRESA UNIVERSALE PER LA FORATURA E FRESATURA DI LAMIERE E MATERIALI SOTTILI IN LEGNO E PLASTICA

Universal milling drill for cutting and milling metal sheets and thin wooden or plastic materials / Fraise universel pour couper et fraiser la tôle et les matériaux fins en bois ou plastique / Fresa universal para cortar y fresar planchas y materiales finos de madera y plástico
Mehrzweckfräser für die Bohrung und das Fräser von Bleche und dunnen Holz-Kunststoffmaterialen

01175 **05432**



HSS



CV





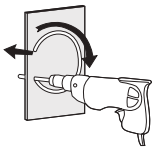


HSS

ØxL	cod.	€ cad/each
6x90	011750600	6,053

C.V.

ØxL	cod.	€ cad/each
6x90	05432120	4,028







01175
05432

5 pcs
01178100 € 62,795



Ø 8x40 2 pcs
Ø 8 2 pcs
Ø 6 1 pcs

5 pcs
01178101 € 67,333



Ø 8x44 2 pcs
Ø 8 2 pcs
Ø 6 1 pcs

PUNTE PER TRACCIARE CON RIPORTO IN METALLO DURO

Carbide scribers / Pointe carbure à tracer / Punta para trazar / Hartmetall Reißspitze

0314201



0314202





L	cod.	€ cad/each
200	0314201	5,977
150	0314202	5,199

03142

PUNTERUOLO

Punch



CV

L	cod.	€ cad/each
78	4100101	3,259

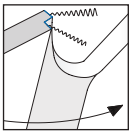
41001

FRESE PERFORATRICI A TAZZA IN HSS-G INTERAMENTE RETTIFICATE PER FORARE LAMIERE IN ACCIAIO, FERRO, LEGHE LEGGERE, TUTTI I MATERIALI METALLICI, PLASTICA DURA

HSSG fully ground hole cutters / Scies trépans HSSG rectifiées
Coronas perforadoras HSSG rectificadas - HSSG Lochsägen

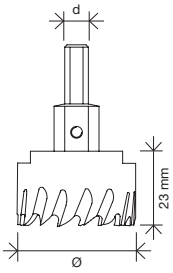
21001





Taglio laterale: miglior estrazione dei trucioli
Side cut: easy chips removal

HSS-G
HRC ≃ 64



- Innovativo disegno dei denti e taglio laterale: migliore scarico dei trucioli con grande rendimento del taglio.
- Upgrade teeth design and side cut: easy chips removal with high cutting performances
- Dessin innovateur de la denture et coup latéral: meilleur extraction des copeaux avec un élevé rendement du coupe
- Diseño innovador de los dientes y corte lateral: mejor extracción de las virutas con un alto rendimiento de corte
- Erneuerungszeichnung der Zahnung und Seitenschnitt: besser Abziehen der Späne mit Hochleistung des Schnitts.

Confezione *Packaging*



HSS-G

Ø	Z	cod.	€ cad/each
*10	5	2100101000	16,380
12	5	2100101200	15,751
13	5	2100101300	15,751
14	6	2100101400	16,088
15	6	2100101500	16,088
16	6	2100101600	16,088
17	6	2100101700	16,088
18	6	2100101800	16,088
19	8	2100101900	16,599
20	8	2100102000	17,591
21	8	2100102100	18,405
22	8	2100102200	19,255
23	8	2100102300	20,756
24	8	2100102400	21,093
25	8	2100102500	21,804
26	10	2100102600	23,259
27	10	2100102700	23,620
28	10	2100102800	24,586
29	10	2100102900	25,472
30	10	2100103000	25,914
31	12	2100103100	26,972
32	12	2100103200	27,787
33	12	2100103300	28,684
34	12	2100103400	29,673
35	12	2100103500	30,371
36	12	2100103600	31,838
37	12	2100103700	32,189
38	12	2100103800	33,050
39	12	2100103900	35,844
40	14	2100104000	35,844
41	14	2100104100	36,297

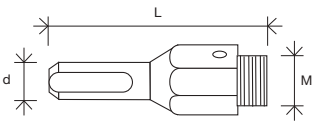
HSS-G

Ø	Z	cod.	€ cad/each
42	14	2100104200	37,055
43	14	2100104300	38,358
44	16	2100104400	39,056
45	16	2100104500	41,304
46	16	2100104600	41,304
47	16	2100104700	41,665
48	16	2100104800	44,097
49	16	2100104900	44,924
50	16	2100105000	44,924
51	18	2100105100	54,760
52	18	2100105200	55,902
53	18	2100105300	57,299
54	18	2100105400	59,522
55	18	2100105500	60,580
56	18	2100105600	60,989
57	18	2100105700	60,989
58	18	2100105800	63,363
59	18	2100105900	65,400
60	18	2100106000	65,400
65	20	2100106500	84,329
70	20	2100107000	90,453
75	22	2100107500	97,414
80	22	2100108000	108,881
85	24	2100108500	122,792
90	24	2100109000	135,981
95	24	2100109500	146,062
100	24	2100110000	157,390
120	30	2100112000	279,950

	pcs	cod.	€ cad/each
Ø ≥ 20mm	5	21005098	0,630

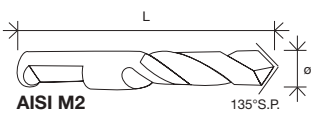
***Integrale:** One piece

Gambo - *Arbor*



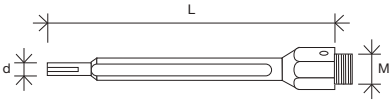
Per frese *Fit hole cutters*	L	d	M	cod.	€ cad/each
Ø 12 ÷ 14	56	8	10 x 1,25	21005099	5,215
Ø 15 ÷ 34	56	10	12 x 1,25	21005100	5,215
Ø 35 ÷ 50	56	10	14 x 1,5	21005102	7,812
Ø 51 ÷ 100	60	12	16 x 1,5	21005101	7,812

Punta pilota - *Pilot drill*



Per frese *Fit hole cutters*	ø x L	cod.	€ cad/each
Ø 10	4 x 50	21005109	1,876
Ø 12 ÷ 100	6 x 52	21005110	2,771

Prolunga 400 mm - *Extension*



Per frese *Fit hole cutters*	L	d	M	cod.	€ cad/each
Ø 15 ÷ 34	400	13	12 x 1,25	21005120	29,768
Ø 35 ÷ 50	400	13	14 x 1,5	21005122	29,768
Ø 51 ÷ 100	400	13	16 x 1,5	21005121	29,768

ASSORTIMENTI FRESE PERFORATRICI A TAZZA IN HSS-G

HSS-G hole-cutters sets / Assortiments de scies trépans HSS-G
Juegos de corona perforadoras HSS-G / HSS-G Lochsägensätze



39 pcs
Ø 12÷50x1mm
21010100 € 1.091,533

31 pcs
Ø 12÷40x1+45-50mm
21010101 € 768,777



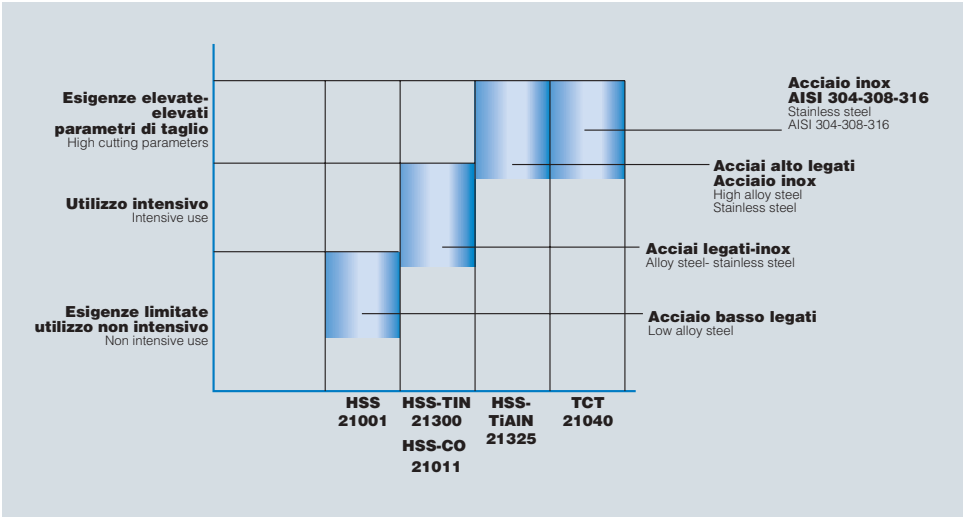
21 pcs
Ø 18÷35x1+36-38-40mm
21010102 € 518,662

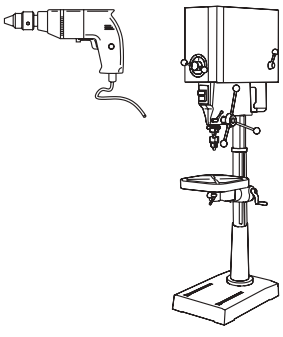
8 pcs
Ø 16-18-20-22-25-30-32-35
21010300 € 203,978

11 pcs
Ø 16-18-20-21-22-25
27-28-30-32-35mm
21010104 € 241,509

6 pcs
Ø 16-18-20-22-25-30
21010301 € 151,092

Guida alla scelta della tazza / *Choosing chart*











Applicazioni
Applications



R ≤ 800 N/mm²

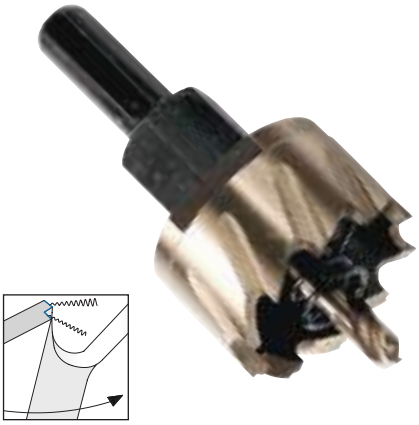
Acciaio *Steel* | Alu | Cu Zn Ni Ms | Plastics

- Dentatura ricavata interamente di rettifica, taglio laterale rompitruciolo, molla di espulsione del dischetto. **Profondità di foratura sino a 5 mm**. Grande rendimento, precisione di foratura nel taglio anche profondo di tutte le lamiere in acciaio, leghe leggere, materiali metallici in genere, utensile riaffilabile.
- Fully ground cutting teeth with chipbreaker, regrindable, **cutting depth up to 5 mm**. High performances and precision in hole-making into metal sheets, light alloys, all kind of metals.
- Trépan HSS rectifié avec coupe lateral pour perçage haute rendement en acier et métaux courants en construction mécanique, entretien, installations électriques et sanitaires. **Epaisseur de coupe: 5 mm**. Outil reaffilable.
- Corona perforadora rectificada con corte lateral para cortar planchas y tubos de hierro, acero, metales. **Profondidad de corte: 5 mm**. utensilio reafilable.
- HSS Lochsägen mit geschliffene Zähnen für die präzise Schneide und größe Leistung in Stahlblätter.

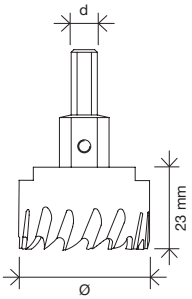
FRESE PERFORATRICI A TAZZA IN HSS-CO INTERAMENTE RETTIFICATE PER FORARE LAMIERE IN ACCIAIO INOX, ACCIAI ALTAMENTE LEGATI, FERRO, LEGHE LEGGERE E METALLI IN GENERE.

HSS-CO fully ground hole cutters / Scies trépans HSS-CO rectifiées
Coronas perforadoras HSS-CO rectificadas - HSS-CO Lochsägen

21011



HSS-CO AISI M35
HRC ≃ 64÷65



Confezione / *Packaging*



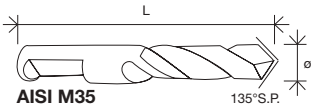
COBALT

Ø	Z	cod.	€ cad/each
12	4	2101101200	19,769
13	4	2101101300	19,769
14	4	2101101400	19,769
15	4	2101101500	19,769
16	4	2101101600	19,769
17	4	2101101700	22,600
18	4	2101101800	22,600
19	6	2101101900	24,946
20	6	2101102000	24,946
21	6	2101102100	27,754
22	6	2101102200	27,754
23	6	2101102300	31,328
24	6	2101102400	31,328
25	6	2101102500	34,427
26	8	2101102600	34,427
27	8	2101102700	37,162
28	8	2101102800	40,148
29	8	2101102900	40,148
30	8	2101103000	45,315
31	10	2101103100	45,315
32	10	2101103200	45,315
33	10	2101103300	49,264
34	10	2101103400	49,264
35	10	2101103500	53,307
36	10	2101103600	56,609
37	10	2101103700	63,743
38	10	2101103800	63,743

Ø	Z	cod.	€ cad/each
39	10	2101103900	63,743
40	12	2101104000	71,454
41	12	2101104100	71,454
42	12	2101104200	71,454
43	12	2101104300	71,454
44	14	2101104400	76,514
45	14	2101104500	85,913
46	14	2101104600	85,913
47	14	2101104700	89,674
48	14	2101104800	89,674
49	14	2101104900	94,368
50	14	2101105000	94,368
51	16	2101105100	112,200
52	16	2101105200	112,200
53	16	2101105300	112,200
54	16	2101105400	112,200
55	16	2101105500	112,200
56	16	2101105600	128,053
57	16	2101105700	128,053
58	16	2101105800	128,053
59	16	2101105900	128,053
60	16	2101106000	128,053
65	18	2101106500	150,714
70	18	2101107000	179,044
75	20	2101107500	207,615
80	20	2101108000	227,772

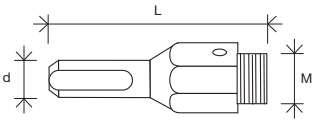
	pcs	cod.	€ cad/each
Ø ≥ 20mm	5	21005098	0,630

Punta pilota - *Pilot drill*



Per frese *Fit hole cutters*	ø x L	cod.	€ cad/each
Ø 12 ÷ 80	6 x 52	21005115	4,028

Gambo - *Arbor*



148

ASSORTIMENTI FRESE PERFORATRICI A TAZZA IN HSS-CO

HSS-CO hole-cutters sets / Assortiments de scies trépans HSS-CO
Juegos de corona perforadoras HSS-CO / HSS-CO Lochsägensätze



39 pcs
Ø 12÷50x1mm
21012100 € 1.936,270

31 pcs
Ø 12÷40x1+45-50mm
21012101 € 1.285,767

21 pcs
Ø 18÷35x1+36-38-40mm
21012102 € 856,552

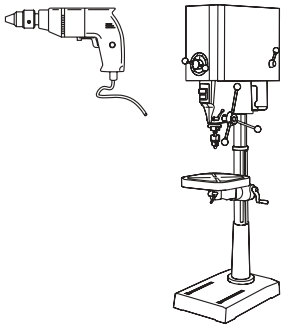


8 pcs
Ø 16-18-20-22-25-30-32-35
21012300 € 321,077

6 pcs
Ø 16-18-20-22-25-30
21012301 € 214,048







R ≤ 1000 N/mm²

Inox | Acciaio *Steel* | Alu | Cu Zn Ni Ms

Applicazioni *Applications*



- L'innovativo disegno dei taglienti, insieme all'elevata qualità dell'acciaio al cobalto AISI M35, la rendono particolarmente adatta al taglio **dell'acciaio inox**, degli acciai altolegati, leghe leggere e metalli in genere: grande rendimento e precisione di foratura nel taglio di spessori sino a 5 mm.
- The upgrade teeth design together with the high quality of the cobalt steel AISI M35 make it particularly suitable for cutting **stainless steel**, high-alloy steels, light alloys and metals: high performance and precision of the cut in sections up to 5 mm thick.
- Le dessin innovateur de la denture ainsi que l'éleveé qualité de l'acier au cobalt AISI M35 la rendent particulièrement indiquéè pour le coupe **de l'acier inoxydable**, des aciers alliés, alliages légers et métaux en général: élevé rendement et précisions du coupe de sections jusqu'à 5 mm d'épaisseur.
- El diseño innovador de los dientes junto a la elevada calidad del acero de cobalto AISI M35 la renden particularmente apta para el corte **del acero inoxidable**, de los aceros ligados, aleaciones ligeras y metales en general: elevado rendimiento y precision de corte de espesores hasta 5 mm.
- Die Erneuerungszeichnung der Zahnung und die hohe Qualität des Kobaltsthal AISI M35 machen sie sehr geeignet für den Schnitt **von rostfreiem** Stahl, hochlegierten Stähle, Leichtmetall-Legierungen und Metalle: Hochleistung und Genauigkeit des Schnitts von Dicke bis 5 mm.

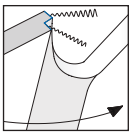
FRESE PERFORATRICI A TAZZA IN HSS-G RETTIFICATE RIVESTITE AL TiN PER FORARE LAMIERE IN ACCIAIO ALTOLEGATO, ACCIAIO INOX, FERRO, TUTTI I MATERIALI METALLICI, PLASTICA DURA

HSS-G+TiN fully ground hole cutters / Scies trépans HSS-G+TiN rectifiées
Coronas perforadoras HSS-G+TiN rectificadas - HSS-G+TiN Lochsägen

TiN

21300



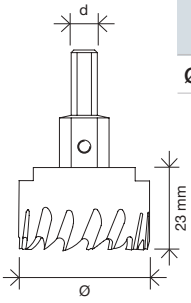


HSS-G+TiN
HV 0,05 ≃ 2300

443

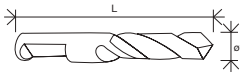
Ø	cod.	€ cad/each
12	2130001200	25,386
13	2130001300	25,386
14	2130001400	25,386
15	2130001500	25,386
16	2130001600	27,954
17	2130001700	27,954
18	2130001800	27,954
19	2130001900	27,954
20	2130002000	27,954
21	2130002100	30,572
22	2130002200	30,572
23	2130002300	33,076
24	2130002400	33,076
25	2130002500	33,076
26	2130002600	35,613
27	2130002700	35,613
28	2130002800	35,613
29	2130002900	35,613
30	2130003000	36,765
31	2130003100	36,765
32	2130003200	36,765
33	2130003300	36,765
34	2130003400	36,765
35	2130003500	36,765
36	2130003600	44,581
37	2130003700	44,581
38	2130003800	44,581
39	2130003900	49,725
40	2130004000	49,725

Ø	cod.	€ cad/each
41	2130004100	55,172
42	2130004200	55,172
43	2130004300	57,394
44	2130004400	57,394
45	2130004500	60,495
46	2130004600	60,495
47	2130004700	60,495
48	2130004800	65,125
49	2130004900	65,125
50	2130005000	65,125
51	2130005100	69,799
52	2130005200	69,799
53	2130005300	69,799
54	2130005400	69,799
55	2130005500	69,799
56	2130005600	70,952
57	2130005700	70,952
58	2130005800	70,952
59	2130005900	70,952
60	2130006000	70,952
65	2130006500	94,629
70	2130007000	100,005
75	2130007500	107,768
80	2130008000	117,857
85	2130008500	131,456
90	2130009000	142,783
95	2130009500	150,714
100	2130010000	162,050



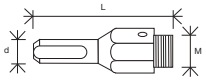
	pcs	cod.	€ cad/each
Ø ≥ 20mm	5	21005098	0,630

Punta pilota HSS-CO - *Pilot drill*



ø x L	cod.	€ cad/each
6 x 52	21005115	4,028

Gambo - *Arbor*



148



39 pcs
Ø 12÷50x1mm
21320100 € 1.511,196

31 pcs
Ø 12÷40x1+45-50mm
21320101 € 1.091,656

21 pcs
Ø 18÷35x1+36-38-40mm
21320102 € 770,578



8 pcs
Ø 16-18-20-22-25-30-32-35
21320300 € 262,210

6 pcs
Ø 16-18-20-22-25-30
21320301 € 198,002

Applicazioni / Applications



R ≤ 1000 N/mm²

Inox **Acciaio** *Steel* **Metals** **Plastics**







- Il Rivestimento in Nitruro di Titanio, elevando la durezza superficiale e riducendo notevolmente il coefficiente di attrito, permette il taglio negli acciai alto legati ed in particolare nell'acciaio inox. Le frese al TiN sono, inoltre molto adatte per il taglio dell'alluminio e di tutti i materiali abrasivi (plastica dura, vetroresina). Naturalmente, il rendimento nel taglio degli acciai dolci è elevatissimo.
- The Titanium Nitride Coating allows high performances in stainless steel cutting, low alloy steel cutting. Aluminium and abrasive materials such as fiberglass.
- Le revêtement ou Nitrure de titane, élève la dureté superficial et réduit le coefficient de friction, en permettent de percer dans des aciers haute alliés et particulièrement dans l'acier inoxydable. Les fraises au TiN sont aussi indiquées pour percer dans l'aluminium et tous les matériaux abrasifs (plastique dure; polyester renforcé de verre). Naturellement le coupe dans les acier doux est très élevé.
- El recubrimiento en Nitruro de Titanio, levatando la dureza superficial y reduciendo el coeficiente de fricción, permite el corte en los aceros altamente aliados y particularmente en el acero inoxidable. Les fresas al TiN son tanbien indicadas para el corte en el aluminio y en todos los materiales abrasivos (plasticos duros, vidrio-resina). Naturalmente, el rendimiento de los cortes en los aceros dulces es muy elevado.
- HSS Lochsägen mit geschliffene und TIN-beschichtete Zähnen für die präzise Schneide und größe Leistung in Edelstahl und Schleifmaterialien.

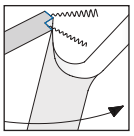
FRESE PERFORATRICI A TAZZA IN HSS-G RIVESTITE AL TiAlN PER FORARE LAMIERE IN ACCIAIO ALTOLEGATO, ACCIAIO INOX, FERRO, TUTTI I MATERIALI METALLICI, PLASTICA DURA

HSS-TiAlN fully ground hole cutters / Scies trépans HSS-TiAlN rectifiées
Coronas perforadoras HSS-TiAlN rectificadas - HSS-TiAlN Lochsägen

TiAlN

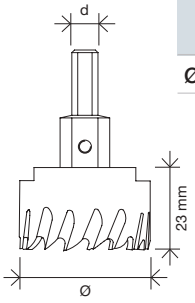
21325





HSS-G+TiAlN
HV 0,05 ≃ 3300

443

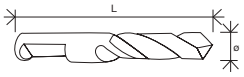


	pcs	cod.	€ cad/each
Ø ≥ 20mm	5	21005098	0,630

Ø	cod.	€ cad/each
12	2132501200	29,552
13	2132501300	29,552
14	2132501400	29,552
15	2132501500	29,552
16	2132501600	32,054
17	2132501700	32,054
18	2132501800	32,054
19	2132501900	33,462
20	2132502000	33,462
21	2132502100	34,749
22	2132502200	34,749
23	2132502300	37,239
24	2132502400	37,239
25	2132502500	37,239
26	2132502600	39,741
27	2132502700	39,741
28	2132502800	39,741
29	2132502900	39,741
30	2132503000	41,301
31	2132503100	41,301
32	2132503200	41,301
33	2132503300	41,301
34	2132503400	41,301
35	2132503500	41,301
36	2132503600	48,432
37	2132503700	48,432
38	2132503800	48,432
39	2132503900	53,415
40	2132504000	53,415

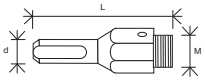
Ø	cod.	€ cad/each
41	2132504100	59,824
42	2132504200	59,824
43	2132504300	61,963
44	2132504400	61,963
45	2132504500	65,517
46	2132504600	65,517
47	2132504700	65,517
48	2132504800	70,511
49	2132504900	70,511
50	2132505000	70,511
51	2132505100	71,361
52	2132505200	71,361
53	2132505300	71,361
54	2132505400	71,361
55	2132505500	71,361
56	2132505600	73,428
57	2132505700	73,428
58	2132505800	73,428
59	2132505900	73,428
60	2132506000	73,428
65	2132506500	105,210
70	2132507000	111,731
75	2132507500	120,501
80	2132508000	131,450
85	2132508500	146,784
90	2132509000	158,836
95	2132509500	167,606
100	2132510000	179,649

Punta pilota HSS-CO - *Pilot drill*



ø x L	cod.	€ cad/each
6 x 52	21005115	4,028

Gambo - *Arbor*



148



39 pcs
Ø 12÷50x1mm
21335100 € 1.773,064

31 pcs
Ø 12÷40x1+45-50mm
21335101 € 1.257,436

21 pcs
Ø 18÷35x1+36-38-40mm
21335102 € 837,244



8 pcs
Ø 16-18-20-22-25-30-32-35
21335300 € 294,319

6 pcs
Ø 16-18-20-22-25-30
21335301 € 224,758







Applicazioni / *Applications*



R ≤ **1300** N/mm²

Inox | Acciaio *Steel* | Metals | Plastics

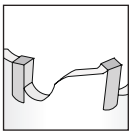
- **Frese a tazza HSS+TiAlN**: più si "scalda", più rende. È un esclusivo rivestimento PVD che permette il taglio a secco ad elevati parametri di taglio e con rendimenti eccezionali nell'acciaio inox e in tutti i materiali in genere.
- **HSS+TiAlN hole cutters**: The more it "heats" the more it performs. It is a special PVD Coating which allows the dry cut with high cutting parameters, and a great performance while drilling into the stainless steel and all kind of materials.
- **Scies trépan en acier rapid + TiAlN**: Plus "chaude" elle devient, plus c'est performante. C'est une exclusive revêtement PVD qui permet le coupe à froid avec des hautes paramètres de perforation avec des performances exceptionnelles en travaillant dans l'acier inoxydable et tous les matériaux.
- **Corona perforadora en acero rapido + TiAlN**: Lo mas se "calenta", lo mas es performante. Es un recubrimiento PVD esclusivo, permite el corte seco con elevados parametros de corte y con optimos rendimientos cortando en el acero inoxidable y todos los materiales.
- **HSS Lochsägen mit geschliffene und TiAlN-beschichtete** Zähnen für Hitzbeständige Stähle und für die präzise Schneide und größe Leistung in Edelstahl und Schleifmaterialien.

FRESE A TAZZA TCT AD ALBERO MOBILE PER FORARE LAMIERE IN ACCIAIO INOX, ACCIAI DURI TRATTATI

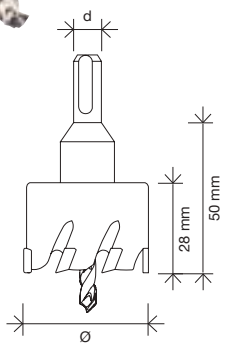
Tungsten carbide tipped hole saws for stainless and hard metal sheets / Scies trépans au carbure de tungstene pour la tôle en acier inox
Coronas con dientes de metal duro para planchas en acero inoxidable y duro / Hartmetallochsägen für nicht rostenden Stahl

21040





Inserti in metallo duro
Carbide tips



Confezione / *Packaging*



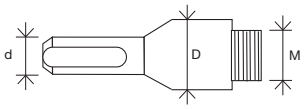
	pcs	cod.	€ cad/each
Ø ≥ 15mm	5	21045098	0,630

Ø	d	cod.	€ cad/each
15	10	2104001500	31,428
16	10	2104001600	31,428
17	10	2104001700	31,428
18	10	2104001800	31,428
19	10	2104001900	32,793
20	10	2104002000	32,793
21	10	2104002100	32,793
22	10	2104002200	32,793
23	10	2104002300	33,475
24	10	2104002400	33,475
25	10	2104002500	33,475
26	10	2104002600	39,492
27	10	2104002700	39,492
28	10	2104002800	39,492
29	10	2104002900	39,492
30	10	2104003000	39,492
31	10	2104003100	45,992
32	10	2104003200	45,992
33	10	2104003300	45,992
34	10	2104003400	45,992
35	10	2104003500	45,992
36	10	2104003600	53,295
37	10	2104003700	53,295
38	13	2104003800	53,295
39	13	2104003900	53,295
40	13	2104004000	53,295
41	13	2104004100	61,033
42	13	2104004200	61,033
43	13	2104004300	61,033
44	13	2104004400	61,033
45	13	2104004500	61,033
46	13	2104004600	70,798
47	13	2104004700	70,798

Ø	d	cod.	€ cad/each
48	13	2104004800	70,798
49	13	2104004900	70,798
50	13	2104005000	70,798
51	13	2104005100	79,704
52	13	2104005200	79,704
53	13	2104005300	79,704
54	13	2104005400	79,704
55	13	2104005500	79,704
56	13	2104005600	95,646
57	13	2104005700	95,646
58	13	2104005800	95,646
59	13	2104005900	95,646
60	13	2104006000	107,886
65	13	2104006500	107,886
70	13	2104007000	130,030
75	13	2104007500	139,669
76	13	2104007600	151,226
80	13	2104008000	151,226
85	13	2104008500	166,642
90	13	2104009000	180,120
95	13	2104009500	189,758
100	13	2104010000	205,165
***105**	13	2104010500	256,856
***110**	13	2104011000	263,278
***115**	13	2104011500	301,809
***120**	13	2104012000	324,291
***125**	13	2104012500	331,081
***130**	13	2104013000	344,340
***135**	13	2104013500	356,872
***140**	13	2104014000	379,106
***145**	13	2104014500	392,042
***150**	13	2104015000	401,259

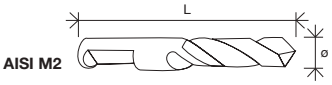
***105÷150 frese integrali One piece**

Gambo - *Arbor*



Per frese *Fit hole cutters*	d	D	M	cod.	€ cad/each
Ø 15 ÷ 21	10	15	12 x 1,5	21045120	8,044
Ø 22 ÷ 37	10	19	14 x 1,5	21045121	9,756
Ø 38 ÷ 100	13	22	14 x 1,5	21045122	12,061

Punta pilota - *Pilot drill*



Per frese *Fit hole cutters*	ø x L	cod.	€ cad/each
Ø 15 ÷ 100	6 x 62	21045100	8,044
Ø 105 ÷ 120	8 x 62	21045101	11,536



28 pcs
Ø 15÷40x1+45-50mm
21055130 € 1.183,030

21 pcs
Ø 18÷35x1+36-38-40mm
21055131 € 850,326

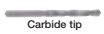


8 pcs
Ø 16-18-20-22-25-30-32-35
21055300 € 325,360

6 pcs
Ø 16-18-20-22-25-30
21055301 € 235,453

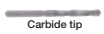


8 pcs

Ø 51÷54mm	
Ø 51÷54mm	
210705546B	
Ø 6÷8mm	 Carbide tip
HM4 Ø12	

21055302 € 281,400

8 pcs

Ø 54÷57mm	
Ø 54÷57mm	
210705546B	
Ø 6÷8mm	 Carbide tip
HM4 Ø12	

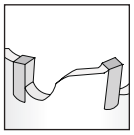
21055303 € 281,400

FRESE A TAZZA TCT AD ALBERO MOBILE PER FORARE LAMIERE, TUBI, PROFILATI IN ACCIAIO INOX E ACCIAI DURI TRATTATI

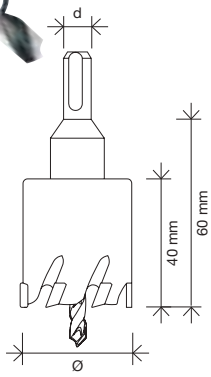
Tungsten carbide tipped hole saws for stainless and hard metal sheets / Scies trépans au carbure de tungstène pour la tôle en acier inox Coronas con dientes de metal duro para planchas en acero inoxidable y duro / Hartmetallochsägen für nicht rostenden Stahl

21042





Inserti in metallo duro
Carbide tips



Confezione / *Packaging*

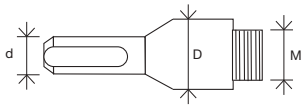


	pcs	cod.	€ cad/each
Ø ≥ 15mm	5	21045098	0,630

Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

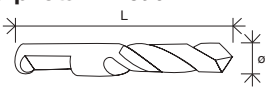
Ø	d	cod.	€ cad/each
20	10	2104202000	44,519
21	10	2104202100	44,519
22	10	2104202200	44,519
23	10	2104202300	44,519
24	10	2104202400	44,519
25	10	2104202500	44,519
26	10	2104202600	51,296
27	10	2104202700	51,296
28	10	2104202800	51,296
29	10	2104202900	51,296
30	10	2104203000	51,296
31	10	2104203100	60,083
32	10	2104203200	60,083
33	10	2104203300	60,083
34	10	2104203400	60,083
35	10	2104203500	60,083
36	10	2104203600	67,890
37	10	2104203700	67,890
38	10	2104203800	67,890
39	13	2104203900	67,890
40	13	2104204000	67,890
41	13	2104204100	80,635
42	13	2104204200	80,635
43	13	2104204300	80,635
44	13	2104204400	80,635
45	13	2104204500	80,635
46	13	2104204600	89,897
47	13	2104204700	89,897
48	13	2104204800	89,897
49	13	2104204900	89,897
50	13	2104205000	89,897
51	13	2104205100	103,602
52	13	2104205200	103,602
53	13	2104205300	103,602
54	13	2104205400	103,602
55	13	2104205500	103,602
56	13	2104205600	117,297
57	13	2104205700	117,297
58	13	2104205800	117,297
59	13	2104205900	117,297
60	13	2104206000	138,709
65	13	2104206500	138,709
70	13	2104207000	149,832
75	13	2104207500	160,963
80	13	2104208000	173,808
85	13	2104208500	195,211
90	13	2104209000	208,915
95	13	2104209500	220,046
100	13	2104210000	236,314

Gambo - *Arbor*



Per frese *Fit hole cutters*	d	D	M	cod.	€ cad/each
Ø 15 ÷ 21	10	15	12 x 1,5	21045120	8,044
Ø 22 ÷ 38	10	19	14 x 1,5	21045121	9,756
Ø 39 ÷ 100	13	22	14 x 1,5	21045122	12,061

Punta pilota - *Pilot drill*



AISI M2

ø x L	cod.	€ cad/each
6 x 78	21045102	12,468



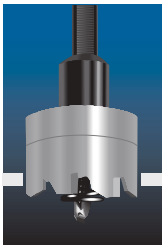
23 pcs
Ø 20÷40x1+45-50mm
21055135 € 1.333,988







Applicazioni / *Applications*



R ≤ **1300** N/mm²



- La speciale geometria variabile dei denti in metallo duro di altissima qualità consente il taglio altamente professionale e con grande rendimento in tubi, profilati e lamiere in acciaio inox, acciai alto-legati e materiali composti ad elevata resistenza. Spessore massimo di taglio; 5 mm
- The special variable geometry of the high-quality tungsten carbide teeth makes it possible to realise a very professional and efficient cut in pipes, structural sections and metal sheets in stainless steel, high-alloy steel and high-resistance materials. Maximum cutting thickness: 5mm
- La spéciale géométrie variable de la denture en métal dur de haute qualité permit de couper professionnellement et avec un rendement très élevé la tôle, les tubes et les profilés en acier inoxydable, acier allié et matériaux à résistance élevée. Epaisseur maximum de coupe: 5mm
- La especial geometría variable de los dientes de metal duro de elevada calidad permite de realizar un corte profesional y de grande rendimiento en tubos, perfilados y planchas en acero inoxidable, acero ligado y materiales de elevada resistencia. Espesor máximo de corte: 5mm
- Die veränderbare Sondergeometrie der Zahnung aus Hartmetall erlaubt einen beruflichen Schnitt von Röhren, Profile und Bleche aus rostfreierem Stahl, hochlegierterem Stahl und hochfesterem Stahl. Größte Schnitt-Dicke: 5 mm

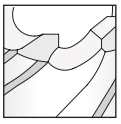
FRESE A CAROTARE IN HSS-G CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO E TRAPANI A COLONNA CON ATTACCO MORSE

Weldon shank HSS core drills for magnetic and pillar drilling machines / Fraises HSS à carotter avec Weldon queue pour machines à embase magnétique et perceuses fixes /Fresas HSS con mango Weldon para maquinas con base magnética y taladros estacionarios

HSS-G **WELDON**

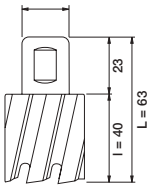
21200 **21202**

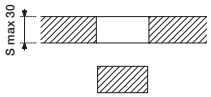




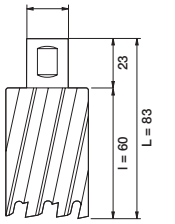


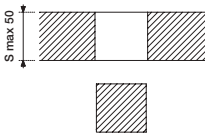
Weldon 19,05



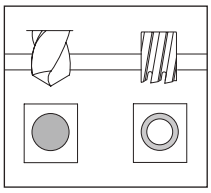


Weldon 19,05

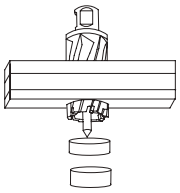




Vantaggi
Advantages



Acciaio accoppiato
Stacked steel



21200 L= 30 mm

Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø	l	L	cod.	€ cad/each
12	40	63	212001200	24,987
13	40	63	212001300	25,647
14	40	63	212001400	30,099
15	40	63	212001500	30,761
16	40	63	212001600	32,800
17	40	63	212001700	34,272
18	40	63	212001800	35,902
19	40	63	212001900	36,832
20	40	63	212002000	37,950
21	40	63	212002100	39,022
22	40	63	212002200	40,176
23	40	63	212002300	41,360
24	40	63	212002400	43,957
25	40	63	212002500	45,215
26	40	63	212002600	52,023
27	40	63	212002700	53,420
28	40	63	212002800	54,872
29	40	63	212002900	56,372
30	40	63	212003000	57,936
31	40	63	212003100	60,712
32	40	63	212003200	62,305
33	40	63	212003300	63,943
34	40	63	212003400	65,610
35	40	63	212003500	67,343
36	40	63	212003600	69,150
37	40	63	212003700	70,994
38	40	63	212003800	73,247
39	40	63	212003900	75,426
40	40	63	212004000	76,879
41	40	63	212004100	88,482
42	40	63	212004200	90,653
43	40	63	212004300	92,106
44	40	63	212004400	94,284
45	40	63	212004500	110,965
46	40	63	212004600	113,144
47	40	63	212004700	115,313
48	40	63	212004800	117,493
49	40	63	212004900	119,662
50	40	63	212005000	121,842
51	40	63	212005100	132,543
52	40	63	212005200	135,141
53	40	63	212005300	137,748
54	40	63	212005400	140,338
55	40	63	212005500	144,324
60	40	63	212006000	170,438

ø 6,35x77 163

21202 L= 50 mm

Serie lunga / Long serie / Sèrie longu
Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	60	83	212021200	34,719
13	60	83	212021300	35,426
14	60	83	212021400	41,629
15	60	83	212021500	42,300
16	60	83	212021600	44,936
17	60	83	212021700	46,761
18	60	83	212021800	48,753
19	60	83	212021900	49,731
20	60	83	212022000	50,932
21	60	83	212022100	52,088
22	60	83	212022200	53,317
23	60	83	212022300	54,583
24	60	83	212022400	57,890
25	60	83	212022500	59,212
26	60	83	212022600	68,981
27	60	83	212022700	70,267
28	60	83	212022800	72,204
29	60	83	212022900	73,490
30	60	83	212023000	78,007
31	60	83	212023100	78,648
32	60	83	212023200	80,585
33	60	83	212023300	81,871
34	60	83	212023400	83,809
35	60	83	212023500	85,745
36	60	83	212023600	87,673
37	60	83	212023700	89,610
38	60	83	212023800	91,547
39	60	83	212023900	93,474
40	60	83	212024000	95,411
41	60	83	212024100	110,881
42	60	83	212024200	112,818
43	60	83	212024300	115,397
44	60	83	212024400	117,325
45	60	83	212024500	139,892
46	60	83	212024600	142,470
47	60	83	212024700	144,407
48	60	83	212024800	146,987
49	60	83	212024900	149,567
50	60	83	212025000	158,647
51	60	83	212025100	184,500
52	60	83	212025200	189,482
53	60	83	212025300	194,475
54	60	83	212025400	199,457
55	60	83	212025500	199,457
60	60	83	212026000	213,455

ø 6,35x102 163



16 pcs
Ø 14-15-16-17-18-19-20-21
22-23-24-25-28-30-32-35

	21210300	€ 690,801
	21210302	€ 918,673



6 pcs
Ø 12-14-16-18-20-22
1 pcs

	21210400	€ 240,624
	21210402	€ 288,554

Applicazioni / *Applications*

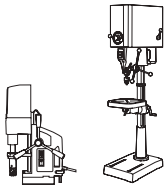


R ≤ 850 N/mm²

Acciaio *Steel* | Alu | Cu Zn Ni Ms









- Le frese a carotare permettono un taglio molto veloce ed economico nel ferro, acciaio da costruzione, ghisa, leghe leggere e metalli non ferrosi in genere. Speciale per piatti e lamiere di grande spessore, tubi, putrelle e profilati.
- The core drills allow a very fast and economical cut in, structural steel, iron, cast iron, light alloys and non-ferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Les fraises à carotter permettent une coupe rapide et économique, dans le fer, l'acier de construction, la fonte, les alliages légères et les métaux non ferreux. Spécial pour les plates en acier et la tôle, les tubes, les poutrelles et les profilés en acier.
- Las coronas permiten el corte rapido y economico en hierro, acero de construcción, fundición, aleaciones ligeras y materiales no ferricos. Especial para platos de metal y chapas de gran espesor, tubos, vigas y perfilados.

28012

FRESE A CAROTARE IN HSS-CO 5% CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO E TRAPANI A COLONNA CON ATTACCO MORSE

Weldon shank HSS-CO 5% core drills for magnetic and pillar drilling machines / Fraises HSS-CO 5% à carotter avec Weldon queue pour machines à embase magnétique et perceuses fixes / Fresas HSS-CO 5% con mango Weldon para maquinas con base magnética y taladros estacionarios

HSS-CO 5% **WELDON**

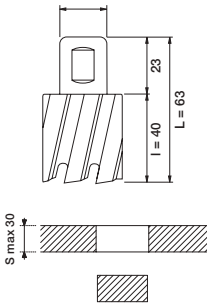
21206 **21207**



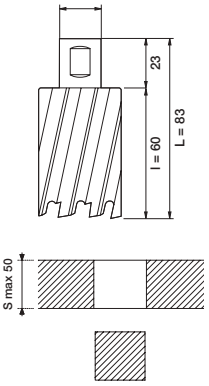




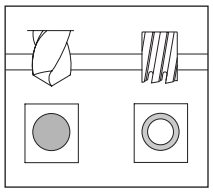
Weldon 19,05



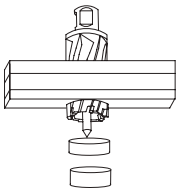
Weldon 19,05



Vantaggi
Advantages



Acciaio accoppiato
Stacked steel



21206 L= 30 mm

Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø	l	L	cod.	€ cad/each
12	40	63	212061200	39,108
13	40	63	212061300	41,592
14	40	63	212061400	46,594
15	40	63	212061500	49,919
16	40	63	212061600	52,420
17	40	63	212061700	52,420
18	40	63	212061800	52,527
19	40	63	212061900	53,666
20	40	63	212062000	55,226
21	40	63	212062100	56,822
22	40	63	212062200	58,498
23	40	63	212062300	60,245
24	40	63	212062400	64,037
25	40	63	212062500	65,856
26	40	63	212062600	75,744
27	40	63	212062700	78,335
28	40	63	212062800	80,665
29	40	63	212062900	82,216
30	40	63	212063000	84,546
31	40	63	212063100	88,418
32	40	63	212063200	91,520
33	40	63	212063300	98,181
34	40	63	212063400	103,173
35	40	63	212063500	107,324
36	40	63	212063600	111,483
37	40	63	212063700	116,484
38	40	63	212063800	120,644
39	40	63	212063900	125,637
40	40	63	212064000	129,787
41	40	63	212064100	134,789
42	40	63	212064200	140,614
43	40	63	212064300	144,775
44	40	63	212064400	151,426
45	40	63	212064500	161,329
46	40	63	212064600	164,431
47	40	63	212064700	167,534
48	40	63	212064800	170,634
49	40	63	212064900	174,515
50	40	63	212065000	177,617
55	40	63	212065500	210,191
60	40	63	212066000	323,405

ø 6,35x77 163

21207 L= 50 mm

Serie lunga / Long serie / Sèrie longu
Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	60	83	212071200	54,935
13	60	83	212071300	56,071
14	60	83	212071400	65,840
15	60	83	212071500	66,914
16	60	83	212071600	71,394
17	60	83	212071700	74,109
18	60	83	212071800	77,513
19	60	83	212071900	78,868
20	60	83	212072000	80,910
21	60	83	212072100	82,952
22	60	83	212072200	84,987
23	60	83	212072300	87,030
24	60	83	212072400	91,789
25	60	83	212072500	93,831
26	60	83	212072600	108,787
27	60	83	212072700	111,512
28	60	83	212072800	113,547
29	60	83	212072900	116,270
30	60	83	212073000	118,986
31	60	83	212073100	124,425
32	60	83	212073200	127,149
33	60	83	212073300	129,864
34	60	83	212073400	132,589
35	60	83	212073500	135,304
36	60	83	212073600	140,133
37	60	83	212073700	143,309
38	60	83	212073800	146,750
39	60	83	212073900	148,950
40	60	83	212074000	150,941
41	60	83	212074100	175,422
42	60	83	212074200	178,818
43	60	83	212074300	182,224
44	60	83	212074400	185,620
45	60	83	212074500	221,652
46	60	83	212074600	225,058
47	60	83	212074700	228,455
48	60	83	212074800	232,532
49	60	83	212074900	235,937
50	60	83	212075000	240,014
55	60	83	212075500	282,848
60	60	83	212076000	335,066

ø 6,35x102 163



16 pcs
Ø 14-15-16-17-18-19-20-21
22-23-24-25-28-30-32-35

	21210306	€ 1.032,284
	21210307	€ 1.451,123



6 pcs
Ø 12-14-16-18-20-22
1 pcs

	21210406	€ 343,650
	21210407	€ 462,713

Applicazioni / *Applications*

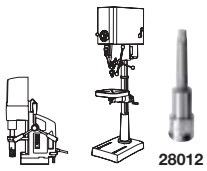


R ≤ 1200 N/mm²

Inox · Acciaio *Steel* · Alu · Cu Zn Ni Ms







- Le frese a carotare al cobalto 5% permettono un taglio molto veloce ed economico nell'acciaio inox, acciaio da costruzione, ferro, ghisa, leghe leggere e metalli non ferrosi in genere. Speciale per piatti e lamiere di grande spessore, tubi, putrelle e profilati.
- The 5% cobalt core drills allow a very fast and economical cut in, stainless steel, structural steel, iron, cast iron, light alloys and non-ferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Les fraises à carotter au 5% du cobalt permettent une coupe rapide et économique, dans l'acier inox, l'acier de construction, le fer, la fonte, les alliages légères et les métaux non ferreux. Spécial pour les plates en acier et la tôle, les tubes, les poutrelles et les profilés en acier.
- Las coronas de cobalto 5% permiten el corte rapido y economico en acero inoxidable, acero de construcción, fundición, aleaciones ligeras y materiales no ferricos. Especial para platos de metal y chapas de gran espesor, tubos, vigas y perfilados.
- Die Kernbohrer aus Kobalt 5% erlauben einen schnellen und sparsamen Schnitt in rostfreier Stahl, Flacheisen, Baustahl, Gusseisen, Leichtmetall-Legierungen und Nichteisenmaterialen. Geeignet für Flächen und Bleche aus Stahl von großer Stärke, Röhren, Eisenträger und Profilstähle.

Confezione / *Packaging*



FRESE A CAROTARE IN HSS + TiAlN CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO E TRAPANI A COLONNA CON ATTACCO MORSE

Weldon shank HSS + TiAlN core drills for magnetic and pillar drilling machines / Fraises HSS + TiAlN à carotter avec Weldon queue pour machines à embase magnétique et perceuses fixes / Fresas HSS + TiAlN con mango Weldon para maquinas con base magnética y taladros estacionarios

HSS + TiAlN **WELDON**

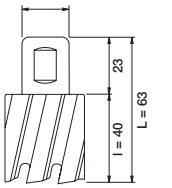
21204 **21205**

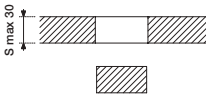




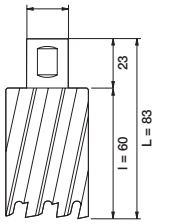


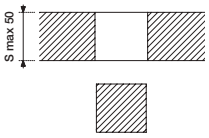
Weldon 19,05



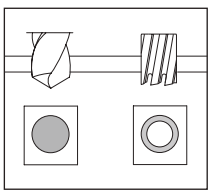


Weldon 19,05

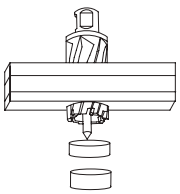




Vantaggi
Advantages



Acciaio accoppiato
Stacked steel



21204 L= 30 mm

Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø	l	L	cod.	€ cad/each
12	40	63	212041200	45,105
13	40	63	212041300	45,105
14	40	63	212041400	48,417
15	40	63	212041500	49,963
16	40	63	212041600	51,844
17	40	63	212041700	53,513
18	40	63	212041800	55,461
19	40	63	212041900	58,488
20	40	63	212042000	59,824
21	40	63	212042100	62,717
22	40	63	212042200	64,082
23	40	63	212042300	71,528
24	40	63	212042400	74,639
25	40	63	212042500	76,139
26	40	63	212042600	93,663
27	40	63	212042700	94,533
28	40	63	212042800	96,270
29	40	63	212042900	98,866
30	40	63	212043000	100,604
31	40	63	212043100	116,374
32	40	63	212043200	117,204
33	40	63	212043300	118,273
34	40	63	212043400	120,431
35	40	63	212043500	121,423
36	40	63	212043600	128,096
37	40	63	212043700	129,948
38	40	63	212043800	131,810
39	40	63	212043900	133,565
40	40	63	212044000	136,161
41	40	63	212044100	160,476
42	40	63	212044200	162,880
43	40	63	212044300	163,912
44	40	63	212044400	166,517
45	40	63	212044500	185,600
46	40	63	212044600	188,196
47	40	63	212044700	190,803
48	40	63	212044800	193,398
49	40	63	212044900	196,873
50	40	63	212045000	199,471
55	40	63	212045500	310,718
60	40	63	212046000	335,774

ø 6,35x77

21205 L= 50 mm

Serie lunga / Long serie / Sèrie longu
Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	60	83	212051200	61,571
13	60	83	212051300	61,571
14	60	83	212051400	62,859
15	60	83	212051500	65,294
16	60	83	212051600	68,672
17	60	83	212051700	72,319
18	60	83	212051800	74,868
19	60	83	212051900	77,780
20	60	83	212052000	79,325
21	60	83	212052100	82,370
22	60	83	212052200	84,251
23	60	83	212052300	91,688
24	60	83	212052400	95,811
25	60	83	212052500	97,463
26	60	83	212052600	118,121
27	60	83	212052700	119,771
28	60	83	212052800	122,244
29	60	83	212052900	123,896
30	60	83	212053000	129,680
31	60	83	212053100	139,589
32	60	83	212053200	142,071
33	60	83	212053300	144,544
34	60	83	212053400	146,205
35	60	83	212053500	148,676
36	60	83	212053600	154,461
37	60	83	212053700	156,934
38	60	83	212053800	159,416
39	60	83	212053900	161,897
40	60	83	212054000	165,200
41	60	83	212054100	194,105
42	60	83	212054200	196,587
43	60	83	212054300	199,890
44	60	83	212054400	202,362
45	60	83	212054500	231,276
46	60	83	212054600	234,579
47	60	83	212054700	237,061
48	60	83	212054800	240,365
49	60	83	212054900	243,667
50	60	83	212055000	246,140
55	60	83	212055500	367,706
60	60	83	212056000	382,435

ø 6,35x102



6 pcs
Ø 12-14-16-18-20-22

1 pcs

	21210404	€ 372,250
	21210405	€ 469,60











28012

Applicazioni / *Applications*



R ≤ 1200 N/mm²


Inox


Acciaio
Steel


Alu


Cu Zn Ni Ms

- Le frese a carotare, per le caratteristiche illustrate, permettono un taglio molto veloce ed economico nel ferro, acciaio da costruzione, ghisa, leghe leggere e materiali non ferrosi in genere. Speciale per piatti e lamiere in acciaio di grande spessore, tubi, putrelle, profilati etc.
- As shown, the core drills allow a very fast and economic cut in iron, structural steel, cast iron, light alloys and nonferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Comme illustré, les fraises à carotter permettent un coupe très vite et économique dans le fer, l'acier de construction, la fonte, les alliages légers et les matériaux qui ne son pas ferreux. Spécial pour les plates en acier et la tôle, les tubes, poutrelles et profilés en acier.
- Las fresas para sondear, cómo ilustrado, permiten de cortar muy rápidamente y económicamente hierro, acero de construcción, fundición, aleaciones ligeras y materiales no ferrosos en general. Especial para platos de metal y planchas muy gruesos, tubos, vigas y perfilados.
- Wie illustriert erlauben die Kernbohrer einen schnellen und sparsamen Schnitt in Flacheisen, Baustahl, Gusseisen, Leichtmetall-Legierungen und Nichteisenmaterialen. Geeignet für Flächen und Bleche aus Stahl, Röhren, Eisenträger und Profilstähle.

Confezione / *Packaging*



FRESE A CAROTARE CON TAGLIENTI IN METALLO DURO E CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO

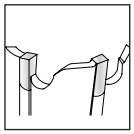
Weldon shank carbide tip core drill for magnetic drilling machines / Fraises à carotter au carbure de tungstène avec Weldon queue pour machines à embase magnétique / Fresas con dientes de metal duro y mango Weldon para maquinas con base magnética

Metallo duro
Carbide

WELDON

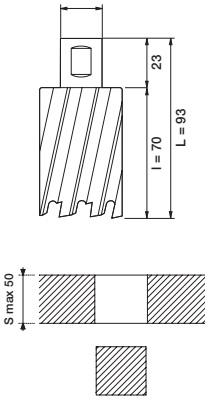
21216



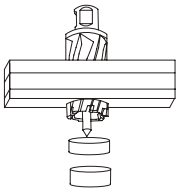


Inserti in metallo duro
Carbide tips

Weldon 19,05



Acciaio accoppiato
Stacked steel



Serie lunga / Long serie / Sèrie longu / Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	70	93	212161200	95,458
14	70	93	212161400	95,458
15	70	93	212161500	95,458
16	70	93	212161600	95,458
17	70	93	212161700	95,458
18	70	93	212161800	95,458
19	70	93	212161900	95,458
20	70	93	212162000	97,585
21	70	93	212162100	97,585
22	70	93	212162200	97,585
23	70	93	212162300	97,585
24	70	93	212162400	97,585
25	70	93	212162500	97,585
26	70	93	212162600	107,129
27	70	93	212162700	107,129
28	70	93	212162800	107,129
29	70	93	212162900	114,558
30	70	93	212163000	114,558
31	70	93	212163100	118,801
32	70	93	212163200	118,801
33	70	93	212163300	133,647
34	70	93	212163400	133,647
35	70	93	212163500	133,647
36	70	93	212163600	133,647
37	70	93	212163700	133,647
38	70	93	212163800	133,647

Ø	l	L	cod.	€ cad/each
39	70	93	212163900	133,647
40	70	93	212164000	133,647
41	70	93	212164100	152,736
42	70	93	212164200	152,736
43	70	93	212164300	152,736
44	70	93	212164400	152,736
45	70	93	212164500	152,736
46	70	93	212164600	171,825
47	70	93	212164700	171,825
48	70	93	212164800	171,825
49	70	93	212164900	171,825
50	70	93	212165000	171,825
51	70	93	212165100	211,072
52	70	93	212165200	211,072
53	70	93	212165300	211,072
54	70	93	212165400	211,072
55	70	93	212165500	211,072
56	70	93	212165600	233,347
57	70	93	212165700	233,347
58	70	93	212165800	233,347
59	70	93	212165900	233,347
60	70	93	212166000	233,347
65	70	93	212166500	254,563
70	70	93	212167000	317,144
75	70	93	212167500	339,418
80	70	93	212168000	359,576

	ø 6,35x112 mm per frese ø 12 mm	**21216000**	€ 23,050
	ø 7,1x112 mm per frese ø 14÷16 mm	**21216001**	€ 23,050
	ø 8,0x112 mm per frese ø 17÷80 mm	**21216002**	€ 23,050

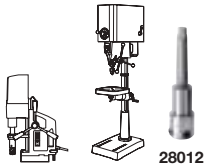


16 pcs
Ø 14-15-16-17-18-19-20-21
22-23-24-25-28-30-32-35

21210308 € 1.632,391







28012

Applicazioni / *Applications*



R ≤ 1200 N/mm²



- Consigliate per il taglio molto veloce, economico e con grande rendimento in acciaio inox, acciai refrattari, acciai resistenti agli acidi, HARDOX®, WELDOX®400, tutti gli acciai in genere, ghisa… Particolarmente adatto al taglio delle putrelle e delle rotaie. The core drills allow a very fast and economical cut in stainless steel, acid resistant steel, HARDOX®, WELDOX®400, steel and cast iron… Suitable for cut iron beam and rails. Recommandé pour la coupe très rapide, en l'acier inoxydable avec une grande efficacité, en acier réfractaire, inoxydable, résistant aux acides, HARDOX®, WELDOX®400, tous les aciers en fonte générale... Particulièrement adapté pour couper les poutres et les rails. Recomendado para el corte muy rápido y con gran eficiencia en l'acero inoxidable, acero refractario, acero resistente a los ácidos, HARDOX®, WELDOX®400, todos los aceros en hierro fundido en general, especialmente adecuados para el corte de las vigas.
- Nota: HARDOX® è un acciaio resistente all'abrasione; è identificato solitamente da un numero che ne indica la durezza (HBW). WELDOX® è un acciaio ad alta resistenza, identificato da un numero che ne fornisce la resistenza a snervamento (MPa).
Note: HARDOX® is an abrasion resistant steel; it's defined by a number which gives its hardness (HBW). WELDOX® is a structural-high strength steel; it's defined by a number which gives its yield strength (MPa).

Confezione / *Packaging*



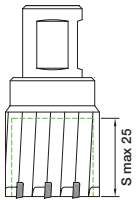
FRESE A CAROTARE SPECIALI PER ROTAIE, CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO

Weldon shank carbide tip core drill for magnetic drilling machines / Fraises à carotter au carbure de tungstène avec Weldon queue pour machines à embase magnétique / Fresas con dientes de metal duro y mango Weldon para maquinas con base magnética

Metallo duro
Carbide

21218





Ø	l	L	cod.	€ cad/each
19	37	60	212181900	86,429
20	37	60	212182000	86,429
21	37	60	212182100	87,176
22	37	60	212182200	87,176
23	37	60	212182300	88,347
24	37	60	212182400	88,347
25	37	60	212182500	89,628
26	37	60	212182600	90,279
26,5	37	60	212182650	90,279
27	37	60	212182700	90,532

Ø	l	L	cod.	€ cad/each
27,5	37	60	212182750	90,532
28	37	60	212182800	91,368
29	37	60	212182900	91,368
30	37	60	212183000	92,751
31	37	60	212183100	94,983
32	37	60	212183200	96,122
33	37	60	212183300	98,585
34	37	60	212183400	99,495
35	37	60	212183500	101,285
36	37	60	212183600	106,953

ø 8x90 **21218000** € 6,374

FRESE A CAROTARE HSS-CO CON ATTACCO QUICK-IN 18 MM PER MACCHINE A SUPPORTO MAGNETICO

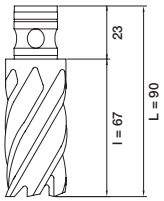
Quick-IN 18 mm shank HSS-CO core drill for magnetic drilling machines / HSS-CO fraises à carotter avec Quick-IN 18 mm queue pour machines à embase magnétique / Fresas HSS-CO con mango Quick-IN 18 mm para maquinas con base magnética

HSS-CO 5% **Quick-IN®**

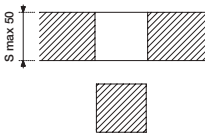
21211



Quick-IN 18







Serie lunga / Long serie / Sèrie longu / Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	67	90	2121101200	56,893
13	67	90	2121101300	58,974
14	67	90	2121101400	58,974
15	67	90	2121101500	61,854
16	67	90	2121101600	61,854
17	67	90	2121101700	68,882
18	67	90	2121101800	68,882
19	67	90	2121101900	71,765
20	67	90	2121102000	77,312
21	67	90	2121102100	82,763
22	67	90	2121102200	89,503
23	67	90	2121102300	89,503
24	67	90	2121102400	96,145
25	67	90	2121102500	103,581
26	67	90	2121102600	103,581
27	67	90	2121102700	109,033
28	67	90	2121102800	114,578
29	67	90	2121102900	114,578
30	67	90	2121103000	120,229
31	67	90	2121103100	128,850

Ø	l	L	cod.	€ cad/each
32	67	90	2121103200	130,339
33	67	90	2121103300	130,339
34	67	90	2121103400	135,990
35	67	90	2121103500	139,752
36	67	90	2121103600	149,077
37	67	90	2121103700	149,077
38	67	90	2121103800	155,616
39	67	90	2121103900	159,377
40	67	90	2121104000	162,059
41	67	90	2121104100	168,036
42	67	90	2121104200	171,801
43	67	90	2121104300	181,347
44	67	90	2121104400	187,337
45	67	90	2121104500	201,206
46	67	90	2121104600	210,629
47	67	90	2121104700	218,338
48	67	90	2121104800	231,068
49	67	90	2121104900	238,894
50	67	90	2121105000	248,693

ø 6,35x102 **28016002** € 13,143

Applicazioni / *Applications*



R ≤ 1200 N/mm²



- Consigliate per il taglio molto veloce, economico e con grande rendimento in acciaio inox, acciai da costruzione, ferro, ghisa, leghe leggere e metalli non ferrosi in genere. Particolarmente adatto al taglio di piatti e lamiere di grandi spessori,tubi, putrelle e profilati.
- The core drills allow a very fast and economical cut in stainless steel, structural steel, iron, cast iron, light alloys and non-ferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Les fraises à carotter permettent une coupe rapide et économique dans l'acier inox, l'acier de construction, le fer, la fonte, les alliages légères et les métaux non ferreux. Spécial pour les plates en acier et la tôle, les tubes, les poutrelles et les profilés en acier.
- Las coronas permiten el corte rapido y economico en acero inoxidable, acero de construcción, fundición, aleaciones ligeras y materiales no ferricos. Especial para platos de metal y chapas de gran espesor, tubos, vigas y perfilados.



16 pcs
Ø 14-15-16-17-18-19-20-21
22-23-24-25-28-3-32-35

21210309 € 1.435,918

FRESE A CAROTARE IN METALLO DURO CON ATTACCO QUICK-IN 18 MM PER MACCHINE A SUPPORTO MAGNETICO

Quick-IN 18 mm shank carbide tip core drill for magnetic drilling machines / Fraises à carotter au carbure de tungstène avec Quick-IN 18 mm queue pour machines à embase magnétique / Fresas con dientes de metal duro y mango Quick-IN 18 mm para maquinas con base magnética

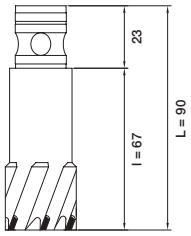
Metallo duro
Carbide

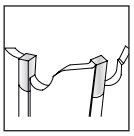
Quick-IN®

21212

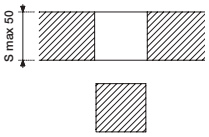


Quick-IN 18





Inserti in metallo duro
Carbide tips



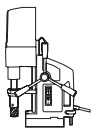
Serie lunga / Long serie / Sèrie longu / Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	65	88	212121200	67,799
13	65	88	212121300	67,799
14	65	88	212121400	67,799
15	65	88	212121500	67,799
16	65	88	212121600	67,799
17	65	88	212121700	67,799
18	65	88	212121800	67,799
19	65	88	212121900	67,799
20	65	88	212122000	67,799
21	65	88	212122100	67,799
22	65	88	212122200	67,799
23	65	88	212122300	67,799
24	65	88	212122400	67,799
25	65	88	212122500	67,799
26	65	88	212122600	73,903
27	65	88	212122700	73,903
28	65	88	212122800	73,903
29	65	88	212122900	73,903
30	65	88	212123000	73,903
31	65	88	212123100	88,815
32	65	88	212123200	88,815

Ø	l	L	cod.	€ cad/each
33	65	88	212123300	88,815
34	65	88	212123400	88,815
35	65	88	212123500	88,815
36	65	88	212123600	101,699
37	65	88	212123700	101,699
38	65	88	212123800	101,699
39	65	88	212123900	101,699
40	65	88	212124000	101,699
41	65	8	212124100	121,362
42	65	88	212124200	121,362
43	65	88	212124300	121,362
44	65	88	212124400	121,362
45	65	88	212124500	121,362
46	65	88	212124600	139,665
47	65	88	212124700	139,665
48	65	88	212124800	139,665
49	65	88	212124900	139,665
50	65	88	212125000	139,665
55	65	88	212125500	157,975
60	65	88	212126000	173,564

Confezione / *Packaging*





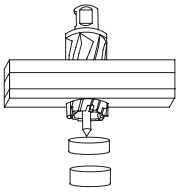
ø 6,35x102 **28016002** € 13,143



16 pcs
Ø 14-15-16-17-18-19-20-21
22-23-24-25-28-30-32-35

21210310 € 1.139,019

Acciaio accoppiato
Stacked steel







Applicazioni / *Applications*



R ≤ 1200 N/mm²



- Consigliate per il taglio molto veloce, economico e con grande rendimento in acciaio inox, acciai refrattari, acciai resistenti agli acidi, HARDOX®, WELDOX®400, tutti gli acciai in genere, ghisa… Particolarmente adatto al taglio delle putrelle e delle rotaie. The core drills allow a very fast and economical cut in stainless steel, acid resistant steel, HARDOX®, WELDOX®400, steel and cast iron… Suitable for cut iron beam and rails. Recommandé pour la coupe très rapide, en l'acier inoxydable avec une grande efficacité, en acier réfractaire, inoxydable, résistant aux acides, HARDOX®, WELDOX®400, tous les aciers en fonte générale… Particulièrement adapté pour couper les poutres et les rails. Recomendado para el corte muy rápido y con gran eficiencia en l'acero inoxidable, acero refractario, acero resistente a los ácidos, HARDOX®, WELDOX®400, todos los aceros en hierro fundido en general, especialmente adecuados para el corte de las vigas.
- Nota: HARDOX® è un acciaio resistente all'abrasione; è identificato solitamente da un numero che ne indica la durezza (HBW).
WELDOX® è un acciaio ad alta resistenza, identificato da un numero che ne fornisce la resistenza a snervamento (MPa).
Note: HARDOX® is an abrasion resistant steel; it's defined by a number which gives its hardness (HBW).
WELDOX® is a structural-high strength steel; it's defined by a number which gives its yield strength (MPa).

MACCHINE PERFORATRICI A SUPPORTO ELETTROMAGNETICO CON ATTACCO WELDON

Magnetic stand drilling machines / Perceuses à embase électromagnétique / Máquinas de cortar con base electromagnética / Magnetständerbohrmaschinen

28011100



14 Kg

La base magnetica deve lavorare su una superficie metallica pulita spessa almeno 15 mm.
The magnetic base must adhere to a clean metallic surface with at latest 15 mm. thickness.

Forza di coesione magnetica *Magnetic cohesion strength*	7.350	N
Potenza assorbita *Absorbed power*	1.100	W
Tensione in entrata *Input voltage*	230	V
N. giri motore *Speed*	780	min^{-1}
Corsa utile *Useful stroke*	100	mm
Rotazione *Rotation*	DX *Right*	

Dimensioni trapano / *Drilling machine dimensions*
270x390x100
Dimensioni confezione in plastica / *Plastic case dimensions*
550x400x160

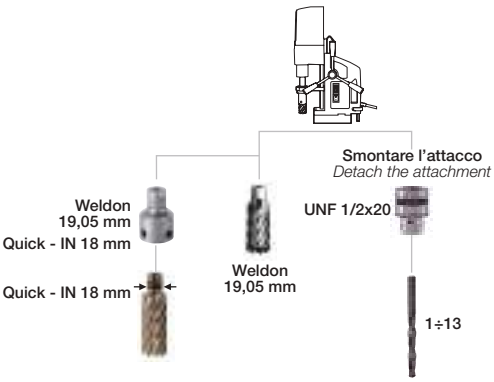
28011100 € 1.669,794

Raffredamento / *Cooling*: incorporato / *incorporated*

Capacità - *Working range*

Weldon 19,05 — *13÷35 mm*

DIN 338: 1÷13 mm



28011101



23 Kg

Forza di coesione magnetica *Magnetic cohesion strength*	22.540	N
Potenza assorbita *Absorbed power*	1.850	W
Tensione in entrata *Input voltage*	230	V
N. giri motore - 1ª velocità *Speed*	450 750	min^{-1} min^{-1}
Corsa utile *Useful stroke*	135	mm
Rotazione *Rotation*	DX *Right*	

Dimensioni trapano / *Drilling machine dimensions*
300x550x100
Dimensioni confezione in plastica / *Plastic case dimensions*
580x480x160

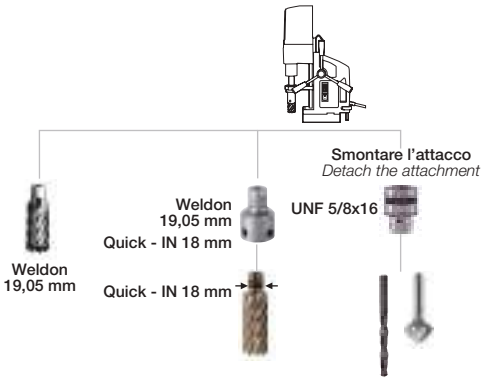
28011101 € 2.523,245

Raffredamento / *Cooling*: incorporato / *incorporated*

Capacità - *Working range*

Weldon 19,05 — *18÷60 mm*

DIN 338: 1÷16 mm



28011102



23 Kg

Forza di coesione magnetica *Magnetic cohesion strength*	22.540	N
Potenza assorbita *Absorbed power*	1.850	W
Tensione in entrata *Input voltage*	230	V
N. giri motore - 1ª velocità *Speed*	450 750	min^{-1} min^{-1}
Corsa utile *Useful stroke*	135	mm
Rotazione *Rotation*	DX *Right*	

Dimensioni trapano / *Drilling machine dimensions*
300x550x100
Dimensioni confezione in plastica / *Plastic case dimensions*
580x480x160

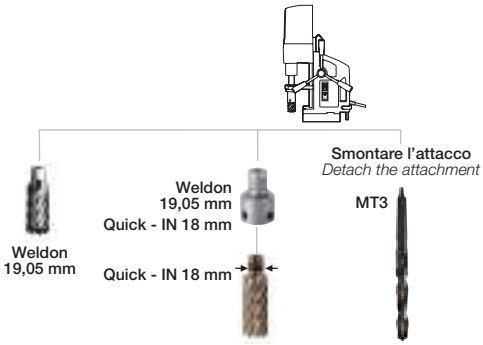
28011102 € 3.083,248

Raffredamento / *Cooling*: incorporato / *incorporated*

Capacità - *Working range*

Weldon 19,05 — *18÷60 mm*

DIN 338:1÷16 mm
DIN 345:1÷25 mm



ACCESSORI PER L'UTILIZZO DELLE FRESE A CAROTARE

Accessories for core drills / Accessoires pour fraises à carotter / Accesorios para coronas fresas / Zubehör für Kernbohrmaschinen

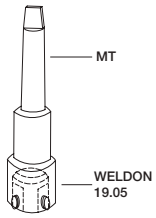
28012



001
002

Mandrino senza lubrificazione interna

Holder without lubrication / Mandrin sans lubrification
Portabroca sin lubrificación / Bohrfutter ohne Schmierung



MT	L	Weldon 19,05 mm		pcs	cod.	€ cad/each
2	160	12÷60	-	1	28012001	177,692
3	175	12÷60	28011102	1	28012002	177,692

28013



001
002
003
004

Mandrino con lubrificazione interna

Holder with lubrification / Mandrin avec lubrification
Portabroca con lubrificación / Bohrfutter mit Schmierung

MT	L	Weldon 19,05 mm		pcs	cod.	€ cad/each
2	160	12÷60	-	1	28013001	253,838
3	160	12÷60	28011102	1	28013002	253,838
2	160	12÷60	-	1	28013003	279,019
3	160	12÷60	28011102	1	28013004	279,019

28014



001
002
003
004

Mandrino a serraggio rapido con lubrificazione

Automatic quick-in arbor with interior lubrication / Mandrin à serrage automatique avec lubrification
Portabroca automático con lubrificación / Automatisches Spannfutter mit Schmierung

MT	L	Weldon 19,05 mm		pcs	cod.	€ cad/each
2	160	12÷60	-	1	28014001	451,500
3	160	12÷60	28011102	1	28014002	461,037
2	160	12÷60	-	1	28014003	461,037
3	160	12÷60	28011102	1	28014004	461,037

28015



Adattatori

Adaptors / Adaptateurs / Adaptadores / Adapter

	pcs	cod.	€ cad/each
WELDON - 18 Quick IN	1	28015001	58,428
18 Quick IN - WELDON	1	28015002	57,520
M14 -1/2 UNF	1	28015003	18,675
WELDON - 1/2 UNF	1	28015004	20,619

Non adatti all'uso con adattatori art. 28015
They cannot be used with adaptors item n. 28015



Espulsori

Ejector / Ejecteurs / Expulsores / Abzieher

	L	pcs	cod.	€ cad/each
Ø 6,35 x 77	L = 63 mm	1	28016001	11,327
Ø 6,35 x 102	L = 83 mm	1	28016002	13,143
Ø 6,35 x 123	L = 83 mm	1	28016003	15,053
Ø 6,35 x 112	L = 93 mm	1	21216000	23,050
Ø 7,1 x 112	L = 93 mm	1	21216001	23,050
Ø 8,0 x 112	L = 93 mm	1	21216002	23,050
Ø 8,0 x 90	L = 60 mm	1	21218000	6,374

FRESE ROTATIVE IN HSS

HSS rotary files / Fraises rotatives HSS / Fresas rotativas en HSS / HSS Fräserstifte

26001 26003

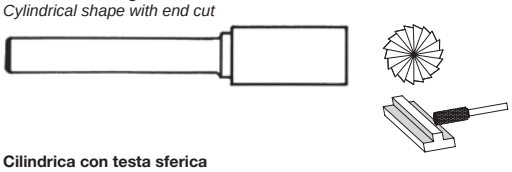
HSS



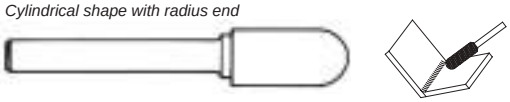
Confezione / *Packaging*

Art. **26004** Self
Disponibile su richiesta / *On demand*

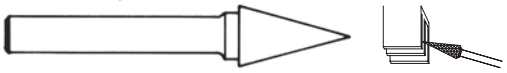
Cilindrica con taglio frontale
Cylindrical shape with end cut



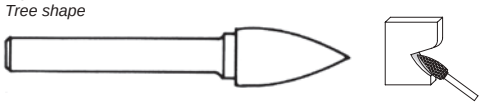
Cilindrica con testa sferica
Cylindrical shape with radius end



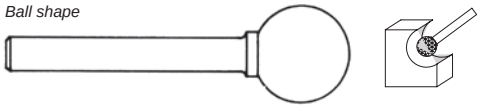
Conica a punta
Pointed tree shape



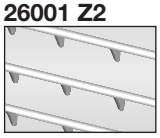
Ogiva a punta
Tree shape



Sferica
Ball shape

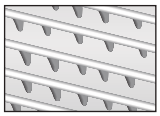


26001 Z2



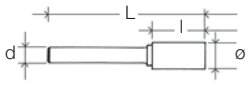
TAGLIO BASTARDO per leghe leggere, rame, ottone, bronzo, acciaio dolce.
Velocità consigliata: 220÷250 m/min.
For cutting light alloys, copper, brass, bronze, mild steel.
Cutting speed: 220÷250 m/min.

26003 Z3



Taglio mezzo dolce per acciai, ghisa. Vt 80÷220 m/min.
For cutting steel, cast iron. Cutting speed 80÷220 m/min.





HRC ≃ 63				26001 Z2		26003 Z3	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
6	20	60	6	2600100106	9,825	2600300106	11,502
8	30	70	6	2600100108	12,468	2600300108	13,737
10	30	70	6	2600100110	15,484	2600300110	17,847
12	30	70	6	2600100112	17,229	2600300112	18,904
15	30	70	6	2600100115	22,410	2600300115	23,736
6	20	60	6	2600100206	9,825	2600300206	11,502
8	30	70	6	2600100208	12,468	2600300208	13,737
10	30	70	6	2600100210	15,484	2600300210	17,847
12	30	70	6	2600100212	17,229	2600300212	18,904
15	30	70	6	2600100215	22,410	2600300215	23,736
6	20	60	6	2600100306	9,825	2600300306	11,502
8	30	70	6	2600100308	12,468	2600300308	13,737
10	30	70	6	2600100310	15,484	2600300310	17,847
12	30	70	6	2600100312	17,229	2600300312	18,904
15	30	70	6	2600100315	22,410	2600300315	23,736
6	20	60	6	2600100406	9,825	2600300406	11,502
8	30	70	6	2600100408	12,468	2600300408	13,737
10	30	70	6	2600100410	15,484	2600300410	17,847
12	30	70	6	2600100412	17,229	2600300412	18,904
15	30	70	6	2600100415	22,410	2600300415	23,736
6	5	50	6	2600100506	9,825	2600300506	11,502
8	7	52	6	2600100508	12,468	2600300508	13,737
10	9	54	6	2600100510	15,484	2600300510	17,847
12	10	55	6	2600100512	17,229	2600300512	18,904
15	14	59	6	2600100515	22,410	2600300515	23,736



5 pcs Ø10 Z2 **26008203** € 81,838
5 pcs Ø10 Z3 **26008201** € 94,434
5 pcs Ø12 Z2 **26008204** € 90,662
5 pcs Ø12 Z3 **26008200** € 98,217



Abs

10 pcs Ø10 Z2+Z3
Tutte le forme - *All the shapes*
26008401 € 169,986

10 pcs Ø12 Z2+Z3
Tutte le forme - *All the shapes*
26008402 € 182,570



Abs

5 pcs Ø10 Z3
Tutte le forme - *All the shapes*
26008404 € 99,278

5 pcs Ø12 Z3
Tutte le forme - *All the shapes*
26008405 € 103,176



50 pcs Z2+Z3: Ø 6-8-10-12-15
Tutte le forme - *All the shapes*
26008501 € 815,714

FRESE ROTATIVE HSS RIVESTITE AL TiAlN

HSS TiAlN rotary files / Fraises rotatives HSS revêtues au TiAlN

Fresas rotativas HSS con recrubimiento de TiAlN - HSS Fräserstifte TiAlN-beschichtet

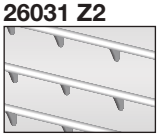
26031 26032

HSS + TiAlN



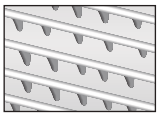
443

26031 Z2

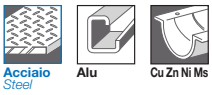


TAGLIO BASTARDO per leghe leggere, rame, ottone, bronzo, acciaio dolce.
Velocità consigliata: 220÷250 m/min.
For cutting light alloys, copper, brass, bronze, mild steel.
Cutting speed: 220÷250 m/min.

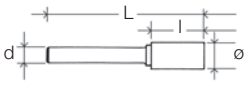
26032 Z3



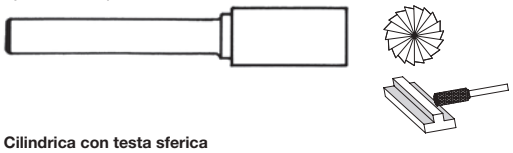
Taglio mezzo dolce per acciai, ghisa. Vt 80÷220 m/min.
For cutting steel, cast iron. Cutting speed 80÷220 m/min.



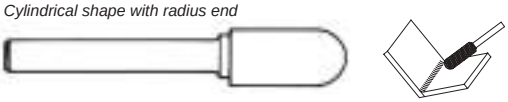
Acciaio *Steel* | Alu | Cu Zn Ni Ms



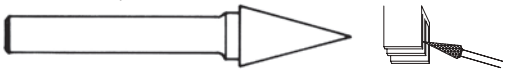
Cilindrica con taglio frontale
Cylindrical shape with end cut



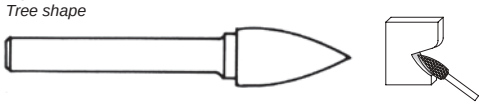
Cilindrica con testa sferica
Cylindrical shape with radius end



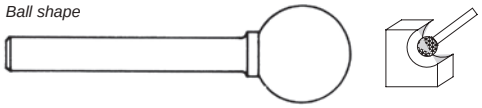
Conica a punta
Pointed tree shape



Ogiva a punta
Tree shape



Sferica
Ball shape



HV 0,05 ≃ 3300				26031 Z2		26032 Z3	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
6	20	60	6	2603100106	17,445	2603200106	19,680
8	30	70	6	2603100108	22,601	2603200108	24,530
10	30	70	6	2603100110	28,438	2603200110	31,634
12	30	70	6	2603100112	32,525	2603200112	34,128
15	30	70	6	2603100115	47,062	2603200115	47,823
6	20	60	6	2603100206	17,445	2603200206	19,680
8	30	70	6	2603100208	22,601	2603200208	24,530
10	30	70	6	2603100210	28,438	2603200210	31,634
12	30	70	6	2603100212	32,525	2603200212	34,128
15	30	70	6	2603100215	47,062	2603200215	47,823
6	20	60	6	2603100306	17,445	2603200306	19,680
8	30	70	6	2603100308	22,601	2603200308	24,530
10	30	70	6	2603100310	28,438	2603200310	31,634
12	30	70	6	2603100312	32,525	2603200312	34,128
15	30	70	6	2603100315	47,062	2603200315	47,823
6	20	60	6	2603100406	17,445	2603200406	19,680
8	30	70	6	2603100408	22,601	2603200408	24,530
10	30	70	6	2603100410	28,438	2603200410	31,634
12	30	70	6	2603100412	32,525	2603200412	34,128
15	30	70	6	2603100415	47,062	2603200415	47,823
6	5	50	6	2603100506	17,445	2603200506	19,680
8	7	52	6	2603100508	22,601	2603200508	24,530
10	9	54	6	2603100510	28,438	2603200510	31,634
12	10	55	6	2603100512	32,525	2603200512	34,128
15	14	59	6	2603100515	47,062	2603200515	47,823



5 pcs Ø10 Z2 **26035203** € 130,576

5 pcs Ø10 Z3 **26035201** € 144,487

5 pcs Ø12 Z2 **26035204** € 147,694

5 pcs Ø12 Z3 **26035200** € 155,185



Abs

10 pcs Ø10 Z2+Z3
Tutte le forme - *All the shapes*
26035401 € 272,916

10 pcs Ø12 Z2+Z3
Tutte le forme - *All the shapes*
26035402 € 286,829



Abs

5 pcs Ø10 Z3
Tutte le forme - *All the shapes*
26035404 € 147,061

5 pcs Ø12 Z3
Tutte le forme - *All the shapes*
26035405 € 149,178



50 pcs Z2+Z3: Ø 6-8-10-12-15
Tutte le forme - *All the shapes*
26035501 € 1.529,336

FRESE ROTATIVE IN METALLO DURO CON TAGLI HM3 E HM4

HM3 and HM4 cut carbide rotary files / Fraises rotatives carbure avec HM3 et HM4 coupants
Fresas rotativas de metal duro con HM3 y HM4 cortantes / Hartmetall Fräserstifte HM3 und HM4

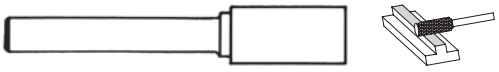
26015 26020

Metallo duro K20 / Solid carbide K20

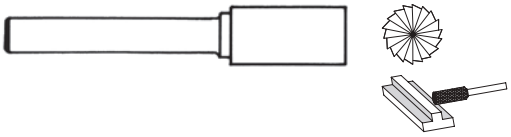
Grana fine / Fine grain
Utilizzo universale / Universal uses



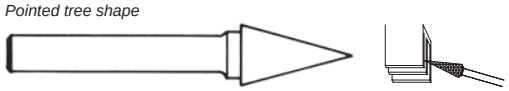
Cilindrica con fronte liscia
Cylindrical shape



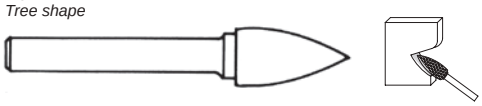
Cilindrica con taglio frontale
Cylindrical shape with end cut



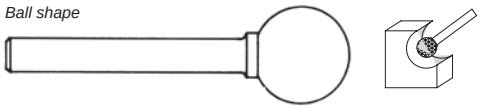
Conica a punta
Pointed tree shape



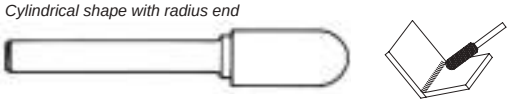
Ogiva a punta
Tree shape



Sferica
Ball shape



Cilindrica con testa sferica
Cylindrical shape with radius end



Confezione *Packaging*



Applicazioni *Applications*



26015 HM3



TAGLIO STANDARD per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti.
Velocità consigliata: 300÷400 m/min.
Standard cut in low and high tensile steel, welded points, metals.
Cutting speed: 300÷400 m/min.

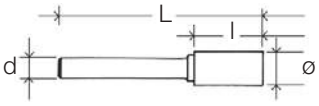
26020 HM4



TAGLIO INCROCIATO per acciaio trattato, acciaio inox, materiali metallici in genere. Vibrazioni ridotte, buona finitura superficiale, ottimi rendimenti.
Velocità consigliata: 300÷400 m/min.
Diamond cut: finish work in high alloy steel, stainless steel, metals, less vibrations, high performances. Cutting speed: 300÷400 m/min.

				26015 HM3		26020 HM4	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
*3	16	38	3	2601500103	9,312	2602000103	9,312
4	14	50	6	2601500104	26,320	2602000104	26,320
6	18	50	6	2601500106	26,320	2602000106	26,320
8	18	63	6	2601500108	26,320	2602000108	26,320
10	20	65	6	2601500110	32,550	2602000110	32,550
12	25	70	6	2601500112	41,186	2602000112	41,186
16	25	70	6	2601500116	61,105	2602000116	61,105
*3	16	38	3	2601500203	9,312	2602000203	9,312
4	14	50	6	2601500204	26,320	2602000204	26,320
6	18	50	6	2601500206	26,320	2602000206	26,320
8	18	63	6	2601500208	26,320	2602000208	26,320
10	20	65	6	2601500210	32,550	2602000210	32,550
12	25	70	6	2601500212	41,186	2602000212	41,186
16	25	70	6	2601500216	61,105	2602000216	61,105
*3	16	38	3	2601500303	9,312	2602000303	9,312
4	14	50	6	2601500304	26,320	2602000304	26,320
6	18	50	6	2601500306	26,320	2602000306	26,320
8	18	63	6	2601500308	26,320	2602000308	26,320
10	20	65	6	2601500310	32,550	2602000310	32,550
12	25	70	6	2601500312	41,186	2602000312	41,186
16	25	70	6	2601500316	61,105	2602000316	61,105
*3	16	38	3	2601500403	9,312	2602000403	9,312
4	14	50	6	2601500404	26,320	2602000404	26,320
6	18	50	6	2601500406	26,320	2602000406	26,320
8	18	63	6	2601500408	26,320	2602000408	26,320
10	20	65	6	2601500410	32,550	2602000410	32,550
12	25	70	6	2601500412	41,186	2602000412	41,186
16	25	70	6	2601500416	61,105	2602000416	61,105
*3	3	38	3	2601500503	9,312	2602000503	9,312
4	4	50	6	2601500504	26,320	2602000504	26,320
6	5	50	6	2601500506	26,320	2602000506	26,320
8	7	63	6	2601500508	26,320	2602000508	26,320
10	9	65	6	2601500510	32,550	2602000510	32,550
12	10	70	6	2601500512	41,186	2602000512	41,186
16	14	70	6	2601500516	61,105	2602000516	61,105
*3	16	38	3	2601500603	9,312	2602000603	9,312
4	14	50	6	2601500604	26,320	2602000604	26,320
6	18	50	6	2601500606	26,320	2602000606	26,320
8	18	63	6	2601500608	26,320	2602000608	26,320
10	20	65	6	2601500610	32,550	2602000610	32,550
12	25	70	6	2601500612	41,186	2602000612	41,186
16	25	70	6	2601500616	61,105	2602000616	61,105

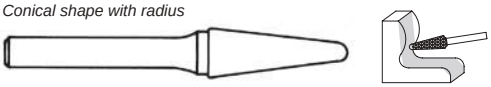
*** Microfrese /** Micro rotary files



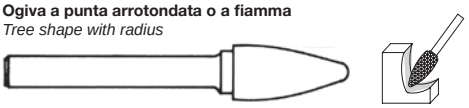
FRESE ROTATIVE IN METALLO DURO CON TAGLI HM3 E HM4

HM3 and HM4 cut carbide rotary files / Fraises rotatives carbure avec HM3 et HM4 coupants
Fresas rotativas de metal duro con HM3 y HM4 cortantes / Hartmetall Fräserstifte HM3 und HM4

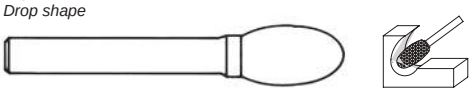
Conica a punta arrotondata
Conical shape with radius



Ogiva a punta arrotondata o a fiamma
Tree shape with radius



A goccia
Drop shape



Ø	/	L	d	26015 HM3 cod.	26015 HM3 € cad/each	26020 HM4 cod.	26020 HM4 € cad/each
*3	16	38	3	2601500703	9,312	2602000703	9,312
4	14	50	6	2601500704	26,320	2602000704	26,320
6	18	50	6	2601500706	26,320	2602000706	26,320
8	18	63	6	2601500708	26,320	2602000708	26,320
10	20	65	6	2601500710	32,550	2602000710	32,550
12	25	70	6	2601500712	41,186	2602000712	41,186
16	25	70	6	2601500716	61,105	2602000716	61,105
*3	16	38	3	2601500803	9,312	2602000803	9,312
4	14	50	6	2601500804	26,320	2602000804	26,320
6	18	50	6	2601500806	26,320	2602000806	26,320
8	18	63	6	2601500808	26,320	2602000808	26,320
10	20	65	6	2601500810	32,550	2602000810	32,550
12	25	70	6	2601500812	41,186	2602000812	41,186
16	25	70	6	2601500816	61,105	2602000816	61,105
*3	6	38	3	2601500903	9,312	2602000903	9,312
4	6	50	6	2601500904	26,320	2602000904	26,320
6	10	50	6	2601500906	26,320	2602000906	26,320
8	13	58	6	2601500908	26,320	2602000908	26,320
10	16	61	6	2601500910	32,550	2602000910	32,550
12	20	65	6	2601500912	41,186	2602000912	41,186
16	25	70	6	2601500916	61,105	2602000916	61,105



5 pcs Ø10 HM3 **26030206** € 139,088

5 pcs Ø10 HM4 **26030203** € 139,088

5 pcs Ø12 HM3 **26030207** € 175,692

5 pcs Ø12 HM4 **26030202** € 175,692



Abs

10 pcs Ø10 HM3+HM4
Tutte le forme - *All the shapes*
26030401 € 278,185

10 pcs Ø12 HM3+HM4
Tutte le forme - *All the shapes*
26030402 € 351,385

5 pcs Ø8 HM4
5 pcs Ø12 HM4
26030403 € 288,242



Abs

5 pcs Ø10 HM4



26030404 € 146,937

5 pcs Ø12 HM4



26030405 € 192,708



45 pcs
Ø 6-8-10-12-16 HM4
26030502 € 1.687,335

FRESE ROTATIVE IN METALLO DURO RIVESTITE AL TiAlN CON TAGLI HM3 E HM4

HM3 and HM4 cut carbide rotary files TiAlN coated / Fraises rotatives au carbure revêtues au TiAlN avec HM3 et HM4 coupants
Fresas rotativas de metal duro con recrubimiento de TiAlN con HM3 y HM4 cortantes / Hartmetall Fräserstifte TiAlN-beschichtet HM3 und HM4

26033 26034

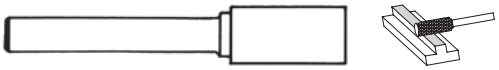
K20 + TiAlN / Carbide K20 + TiAlN

Grana fine / Fine grain
Utilizzo universale / Universal uses

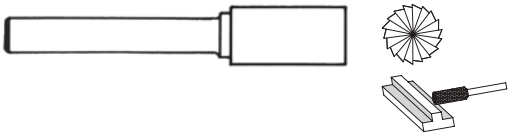


443

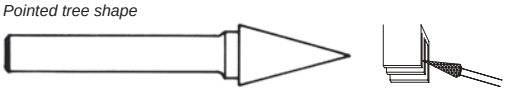
Cilindrica con fronte liscia
Cylindrical shape



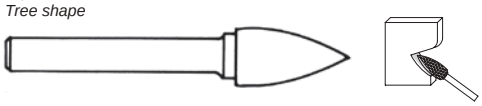
Cilindrica con taglio frontale
Cylindrical shape with end cut



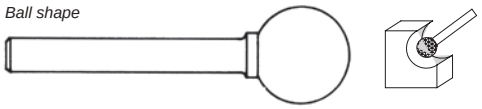
Conica a punta
Pointed tree shape



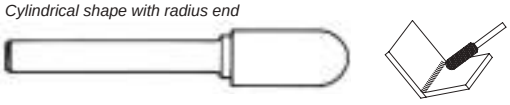
Ogiva a punta
Tree shape



Sferica
Ball shape



Cilindrica con testa sferica
Cylindrical shape with radius end



Confezione *Packaging*



Applicazioni *Applications*



26033 HM3



TAGLIO STANDARD per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti.
Velocità consigliata: 450÷600 m/min.
Standard cut in low and high tensile steel, welded points, metals.
Cutting speed: 450÷600 m/min.

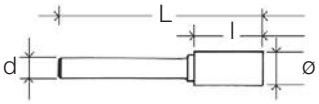
26034 HM4



TAGLIO INCROCIATO per acciaio trattato, acciaio inox, materiali metallici in genere. Vibrazioni ridotte, buona finitura superficiale, ottimi rendimenti.
Velocità consigliata: 450÷600 m/min.
Diamond cut: finish work in high alloy steel, stainless steel, metals, less vibrations, high performances. Cutting speed: 450÷600 m/min.

				26033 HM3		26034 HM4	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
*3	16	38	3	2603300103	20,885	2603400103	20,885
4	14	50	6	2603300104	36,957	2603400104	36,957
6	18	50	6	2603300106	36,957	2603400106	36,957
8	18	63	6	2603300108	37,457	2603400108	37,457
10	20	65	6	2603300110	45,729	2603400110	45,729
12	25	70	6	2603300112	56,043	2603400112	56,043
16	25	70	6	2603300116	86,942	2603400116	86,942
*3	16	38	3	2603300203	20,885	2603400203	20,885
4	14	50	6	2603300204	36,957	2603400204	36,957
6	18	50	6	2603300206	36,957	2603400206	36,957
8	18	63	6	2603300208	37,457	2603400208	37,457
10	20	65	6	2603300210	45,729	2603400210	45,729
12	25	70	6	2603300212	56,043	2603400212	56,043
16	25	70	6	2603300216	86,942	2603400216	86,942
*3	16	38	3	2603300303	20,885	2603400303	20,885
4	14	50	6	2603300304	36,957	2603400304	36,957
6	18	50	6	2603300306	36,957	2603400306	36,957
8	18	63	6	2603300308	37,457	2603400308	37,457
10	20	65	6	2603300310	45,729	2603400310	45,729
12	25	70	6	2603300312	56,043	2603400312	56,043
16	25	70	6	2603300316	86,942	2603400316	86,942
*3	16	38	3	2603300403	20,885	2603400403	20,885
4	14	50	6	2603300404	36,957	2603400404	36,957
6	18	50	6	2603300406	36,957	2603400406	36,957
8	18	63	6	2603300408	37,457	2603400408	37,457
10	20	65	6	2603300410	45,729	2603400410	45,729
12	25	70	6	2603300412	56,043	2603400412	56,043
16	25	70	6	2603300416	86,942	2603400416	86,942
*3	3	38	3	2603300503	20,885	2603400503	20,885
4	4	50	6	2603300504	36,957	2603400504	36,957
6	5	50	6	2603300506	36,957	2603400506	36,957
8	7	63	6	2603300508	37,457	2603400508	37,457
10	9	65	6	2603300510	45,729	2603400510	45,729
12	10	70	6	2603300512	56,043	2603400512	56,043
16	14	70	6	2603300516	86,942	2603400516	86,942
*3	16	38	3	2603300603	20,885	2603400603	20,885
4	14	50	6	2603300604	36,957	2603400604	36,957
6	18	50	6	2603300606	36,957	2603400606	36,957
8	18	63	6	2603300608	37,457	2603400608	37,457
10	20	65	6	2603300610	45,729	2603400610	45,729
12	25	70	6	2603300612	56,043	2603400612	56,043
16	25	70	6	2603300616	86,942	2603400616	86,942

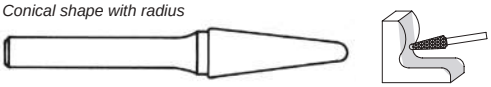
*** Microfrese /** Micro rotary files



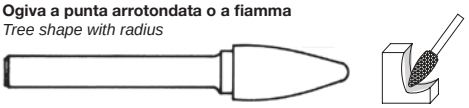
FRESE ROTATIVE IN METALLO DURO RIVESTITE AL TiAlN CON TAGLI HM3 E HM4

HM3 and HM4 cut carbide rotary files TiAlN coated / Fraises rotatives au carbure revêtues au TiAlN avec HM3 et HM4 coupants
Fresas rotativas de metal duro con recrubimiento de TiAlN con HM3 y HM4 cortantes / Hartmetall Fräserstifte TiAlN-beschichtet HM3 und HM4

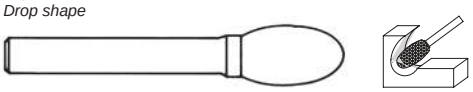
Conica a punta arrotondata
Conical shape with radius



Ogiva a punta arrotondata o a fiamma
Tree shape with radius



A goccia
Drop shape



				26033 HM3		26034 HM4	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
*3	16	38	3	2603300703	20,885	2603400703	20,885
4	16	50	6	2603300704	36,957	2603400704	36,957
6	18	50	6	2603300706	36,957	2603400706	36,957
8	18	63	6	2603300708	37,457	2603400708	37,457
10	20	65	6	2603300710	45,729	2603400710	45,729
12	25	70	6	2603300712	56,043	2603400712	56,043
16	25	70	6	2603300716	86,942	2603400716	86,942
*3	16	38	3	2603300803	20,885	2603400803	20,885
4	14	50	6	2603300804	36,957	2603400804	36,957
6	18	50	6	2603300806	36,957	2603400806	36,957
8	18	63	6	2603300808	37,457	2603400808	37,457
10	20	65	6	2603300810	45,729	2603400810	45,729
12	25	70	6	2603300812	56,043	2603400812	56,043
16	25	70	6	2603300816	86,942	2603400816	86,942
*3	6	38	3	2603300903	20,885	2603400903	20,885
4	6	50	6	2603300904	36,957	2603400904	36,957
6	10	50	6	2603300906	36,957	2603400906	36,957
8	13	58	6	2603300908	37,457	2603400908	37,457
10	16	61	6	2603300910	45,729	2603400910	45,729
12	20	65	6	2603300912	56,043	2603400912	56,043
16	25	70	6	2603300916	86,942	2603400916	86,942



5 pcs Ø10 HM3 **26030210** € 213,520
5 pcs Ø10 HM4 **26030211** € 213,520
5 pcs Ø12 HM3 **26030212** € 254,185
5 pcs Ø12 HM4 **26030213** € 254,185



Abs

10 pcs Ø10 HM3+HM4
Tutte le forme - *All the shapes*
26030410 € 406,694

10 pcs Ø12 HM3+HM4
Tutte le forme - *All the shapes*
26030411 € 498,198



Abs

5 pcs Ø10 HM4



26030412 € 205,763

5 pcs Ø12 HM4



26030413 € 253,950



45 pcs Ø 6-8-10-12-16 HM4
Tutte le forme - *All the shapes*
26030504 € 2.368,142

FRESE ROTATIVE IN METALLO DURO CON TAGLIO HM3 PLUS

HM3 PLUS cut carbide rotary files / Fraises rotatives carbure avec HM3 PLUS coupant
Fresas rotativas de metal duro con HM3 PLUS cortantes / Hartmetall Fräserstifte HM3 PLUS

26016

Metallo duro K20 / Solid carbide K20

Grana fine / Fine grain
Utilizzo universale / Universal uses

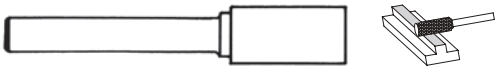


26016 HM3 PLUS

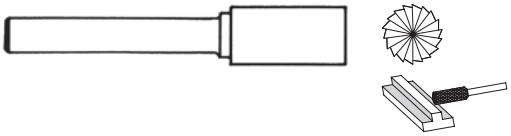


TAGLIO STANDARD CON ROMPITRUCIOLO per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti. Velocità consigliata: 450÷600 m/min.
Standard cut with chip breaker in low and high tensile steel, welded points, metals. Cutting speed: 450÷600 m/min.

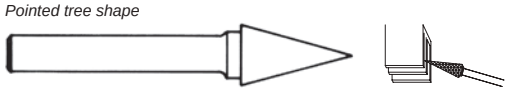
Cilindrica con fronte liscia
Cylindrical shape



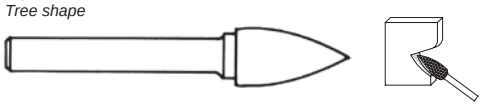
Cilindrica con taglio frontale
Cylindrical shape with end cut



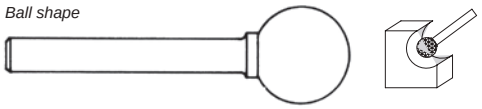
Conica a punta
Pointed tree shape



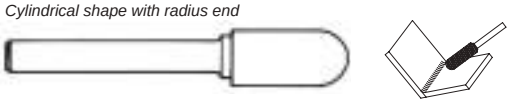
Ogiva a punta
Tree shape



Sferica
Ball shape



Cilindrica con testa sferica
Cylindrical shape with radius end



Ø	/	L	d	cod.	€ cad/each
*3	16	38	3	2601600103	11,579
4	14	50	6	2601600104	26,320
6	18	50	6	2601600106	26,320
8	18	63	6	2601600108	26,320
10	20	65	6	2601600110	32,550
12	25	70	6	2601600112	41,186
16	25	70	6	2601600116	61,105
*3	16	38	3	2601600203	11,579
4	14	50	6	2601600204	26,320
6	18	50	6	2601600206	26,320
8	18	63	6	2601600208	26,320
10	20	65	6	2601600210	32,550
12	25	70	6	2601600212	41,186
16	25	70	6	2601600216	61,105
*3	16	38	3	2601600303	11,579
4	14	50	6	2601600304	26,320
6	18	50	6	2601600306	26,320
8	18	63	6	2601600308	26,320
10	20	65	6	2601600310	32,550
12	25	70	6	2601600312	41,186
16	25	70	6	2601600316	61,105
*3	16	38	3	2601600403	11,579
4	14	50	6	2601600404	26,320
6	18	50	6	2601600406	26,320
8	18	63	6	2601600408	26,320
10	20	65	6	2601600410	32,550
12	25	70	6	2601600412	41,186
16	25	70	6	2601600416	61,105
*3	3	38	3	2601600503	11,579
4	4	50	6	2601600504	26,320
6	5	50	6	2601600506	26,320
8	7	63	6	2601600508	26,320
10	9	65	6	2601600510	32,550
12	10	70	6	2601600512	41,186
16	14	70	6	2601600516	61,105
*3	16	38	3	2601600603	11,579
4	14	50	6	2601600604	26,320
6	18	50	6	2601600606	26,320
8	18	63	6	2601600608	26,320
10	20	65	6	2601600610	32,550
12	25	70	6	2601600612	41,186
16	25	70	6	2601600616	61,105

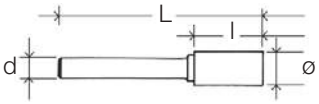
Confezione *Packaging*



Applicazioni *Applications*



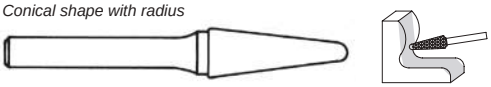
*** Microfrese /** Micro rotary files



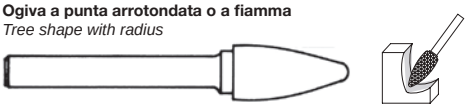
FRESE ROTATIVE IN METALLO DURO CON TAGLIO HM3 PLUS

HM3 PLUS cut carbide rotary files / Fraises rotatives carbure avec HM3 PLUS coupant
Fresas rotativas de metal duro con HM3 PLUS cortantes / Hartmetall Fräserstifte HM3 PLUS

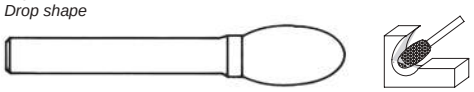
Conica a punta arrotondata
Conical shape with radius



Ogiva a punta arrotondata o a fiamma
Tree shape with radius



A goccia
Drop shape



Ø	/	L	d	cod.	€ cad/each
*3	16	38	3	2601600703	11,579
4	14	50	6	2601600704	26,320
6	18	50	6	2601600706	26,320
8	18	63	6	2601600708	26,320
10	20	65	6	2601600710	32,550
12	25	70	6	2601600712	41,186
16	25	70	6	2601600716	61,105
*3	16	38	3	2601600803	11,579
4	14	50	6	2601600804	26,320
6	18	50	6	2601600806	26,320
8	18	63	6	2601600808	26,320
10	20	65	6	2601600810	32,550
12	25	70	6	2601600812	41,186
16	25	70	6	2601600816	61,105
*3	6	38	3	2601600903	11,579
4	6	50	6	2601600904	26,320
6	10	50	6	2601600906	26,320
8	13	58	6	2601600908	26,320
10	16	61	6	2601600910	32,550
12	20	65	6	2601600912	41,186
16	25	70	6	2601600916	61,105



Abs

5 pcs Ø10



26030416 € 127,680

5 pcs Ø12 HM4



26030417 € 187,849

5 pcs Ø8
5 pcs Ø12



26030415 € 275,627

FRESE ROTATIVE IN METALLO DURO, SERIE LUNGA

Carbide rotary files, long series - Fraises rotatives carbure, série longue
Fresas rotativas de metal duro, serie larga - Hartmetall Fräserstifte, lange Ausführung

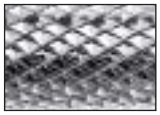
26028 26027

Metallo duro K20 / Solid carbide K20

Grana fine / Fine grain
Utilizzo universale / Universal uses

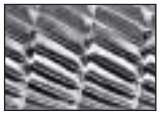


26028 HM4



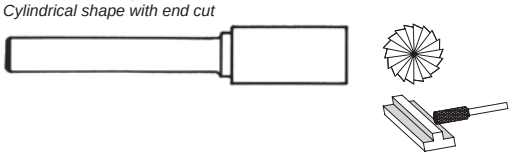
TAGLIO INCROCIATO per acciaio trattato, acciaio inox, materiali metallici in genere. Vibrazioni ridotte, buona finitura superficiale, ottimi rendimenti. Velocità consigliata: 300÷400 m/min.
Diamond cut: finish work in high alloy steel, stainless steel, metals, less vibrations, high performances. Cutting speed: 300÷400 m/min.

26027 HM3 PLUS

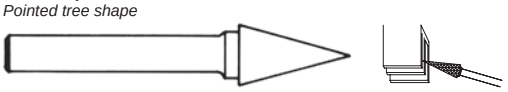


TAGLIO STANDARD CON ROMPITRUCIOLO per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti. Velocità consigliata: 450÷600 m/min.
Standard cut with chip breaker in low and high tensile steel, welded points, metals. Cutting speed: 450÷600 m/min.

Cilindrica con taglio frontale
Cylindrical shape with end cut



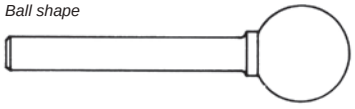
Conica a punta
Pointed tree shape



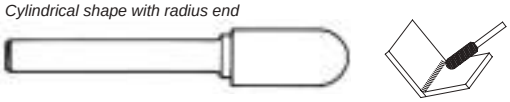
Ogiva a punta
Tree shape



Sferica
Ball shape



Cilindrica con testa sferica
Cylindrical shape with radius end



Ø	/	L	d	26028 HM4 cod.	26028 HM4 € cad/each	26027 HM3 PLUS cod.	26027 HM3 PLUS € cad/each
8	18	120	6	2602800208	29,801	2602700208	31,290
12	25	120	6	2602800212	44,702	2602700212	46,191
8	18	120	6	2602800308	29,801	2602700308	31,290
12	25	120	6	2602800312	44,702	2602700312	46,191
8	18	120	6	2602800408	29,801	2602700408	31,290
12	25	120	6	2602800412	44,702	2602700412	46,191
8	7	120	6	2602800508	29,801	2602700508	31,290
12	10	120	6	2602800512	44,702	2602700512	46,191
8	18	120	6	2602800608	29,801	2602700608	31,290
12	25	120	6	2602800612	44,702	2602700612	46,191

Confezione *Packaging*



Applicazioni *Applications*





FRESE ROTATIVE IN METALLO DURO, SPECIALE PER ALLUMINIO

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

26025

Metallo duro K20 / Solid carbide K20

Grana fine / Fine grain
Utilizzo universale / Universal uses



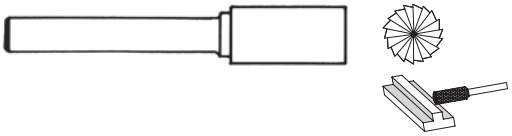
Alu

HM1

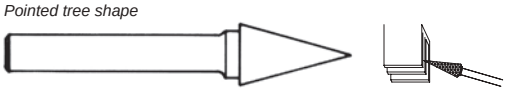


TAGLIO ALLUMINIO adatto a alluminio, magnesio, plastiche e gomma dura. Buon rendimento con un alto tasso di asportazione del materiale, che previene l'incollaggio dei trucioli.
ALUMINIUM CUT suitable for cutting into aluminium, magnesium, plastic and hard rubber. High efficiency with good removal rate, thus preventing the chips clogging the tool.

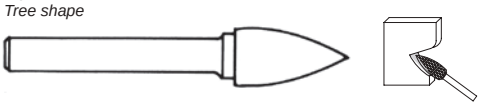
Cilindrica con taglio frontale
Cylindrical shape with end cut



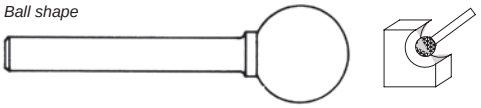
Conica a punta
Pointed tree shape



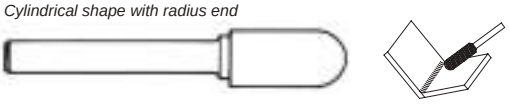
Ogiva a punta
Tree shape



Sferica
Ball shape



Cilindrica con testa sferica
Cylindrical shape with radius end

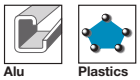


Ø	/	L	d	26025 Serie corta / Short serie cod.	€ cad/each	26026 L=120mm Serie lunga / Long serie cod.	€ cad/each
6	18	61	6	2602500206	22,161	-	-
8	18	65	6	2602500208	23,744	2602600208	31,290
10	20	65	6	2602500210	30,872	-	-
12	25	70	6	2602500212	39,576	2602600212	46,191
16	25	70	6	2602500216	56,998	-	-
6	18	63	6	2602500306	22,161	-	-
8	18	65	6	2602500308	23,744	2602600308	31,290
10	20	65	6	2602500310	30,872	-	-
12	25	70	6	2602500312	39,576	2602600312	46,191
16	25	70	6	2602500316	56,998	-	-
6	18	63	6	2602500406	22,161	-	-
8	18	65	6	2602500408	23,744	2602600408	31,290
10	20	65	6	2602500410	30,872	-	-
12	25	70	6	2602500412	39,576	2602600412	46,191
16	25	70	6	2602500416	56,998	-	-
6	5	50	6	2602500506	22,161	-	-
8	7	52	6	2602500508	23,744	2602600508	31,290
10	9	54	6	2602500510	30,872	-	-
12	10	56	6	2602500512	39,576	2602600512	46,191
16	14	60	6	2602500516	56,998	-	-
6	18	61	6	2602500606	22,161	-	-
8	18	65	6	2602500608	23,744	2602600608	31,290
10	20	65	6	2602500610	30,872	-	-
12	25	70	6	2602500612	39,576	2602600612	46,191
16	25	70	6	2602500616	56,998	-	-

Confezione *Packaging*



Applicazioni *Applications*



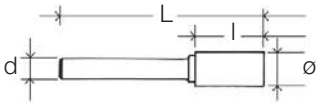


Abs

5 pcs Ø10



26030430 € 139,650



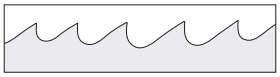
SEGHE A TAZZA BIMETALLICHE HSS A DENTATURA VARIABILE

HSS bimetal hole saws / Scies trépans bimetal HSS
Coronas perforadoras bimetalicas HSS / HSS-bimetall Lochsägen

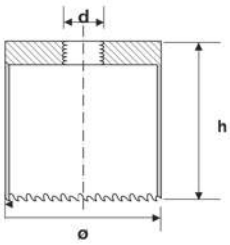
21060
21062



Variabile - *Variable Z 4-6*



BIM. - HSS M3/1



h	ø
57±1	14÷17
51±1	19÷37
44±1	38÷305

Art. **21068** Self
Disponibile su richiesta / *On demand*

HSS M3/1



21060



21062

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	21060 cod.	21060 € cad/each	21062 cod.	21062 € cad/each
14	9/16	UNF 1/2 x 20	2106001400	7,567	2106201400	9,080
16	5/8		2106001600	7,567	2106201600	9,080
17	11/16		2106001700	7,567	2106201700	9,080
19	3/4		2106001900	8,114	2106201900	9,738
20			2106002000	8,114	2106202000	9,738
21	13/16		2106002100	8,650	2106202100	10,380
22	7/8		2106002200	8,650	2106202200	10,380
24	15/16		2106002400	9,161	2106202400	10,994
25	1"		2106002500	9,161	2106202500	10,994
27	1,1/16		2106002700	9,965	2106202700	11,957
29	1,1/8		2106002900	9,965	2106202900	11,957
30	1,3/16		2106003000	10,570	2106203000	12,684
32	1,1/4	UNF 5/8 x 18	2106003200	10,570	2106203200	12,684
33	1,5/16		2106003300	10,932	2106203300	13,118
35	1,3/8		2106003500	12,096	2106203500	14,515
37	1,7/16		2106003700	12,096	2106203700	14,515
38	1,1/2		2106003800	12,096	2106203800	14,515
40	1,9/16		2106004000	12,409	2106204000	14,891
41	1,5/8		2106004100	12,678	2106204100	15,213
43	1,11/16		2106004300	12,678	2106204300	15,213
44	1,3/4		2106004400	13,772	2106204400	16,526
45	-		2106004500	13,772	2106204500	16,526
46	1,13/16		2106004600	13,772	2106204600	16,526
48	1,7/8		2106004800	14,074	2106204800	16,889
50	-		2106005000	14,574	2106205000	17,489
51	2"		2106005100	14,574	2106205100	17,489
52	2,1/16		2106005200	16,146	2106205200	19,375
54	2,1/8		2106005400	16,146	2106205400	19,375
55	-		2106005500	16,146	2106205500	19,375
56	-		2106005600	16,704	2106205600	20,046
57	2,1/4		2106005700	16,704	2106205700	20,046
59	2,5/16		2106005900	17,077	2106205900	20,493
60	2,3/8		2106006000	17,077	2106206000	20,493
62	-		2106006200	18,417	2106206200	22,100
64	2,1/2		2106006400	18,417	2106206400	22,100
65	2,9/16		2106006500	18,417	2106206500	22,100
67	2,5/8		2106006700	20,408	2106206700	24,489
68	-		2106006800	20,408	2106206800	24,489
70	2,3/4		2106007000	20,408	2106207000	24,489
73	2,7/8		2106007300	21,420	2106207300	25,704
75	-		2106007500	22,258	2106207500	26,710
76	3"		2106007600	22,258	2106207600	26,710
79	3,1/8		2106007900	22,852	2106207900	27,423
83	3,1/4		2106008300	23,807	2106208300	28,568
86	3,3/8		2106008600	24,237	2106208600	29,085
89	3,1/2		2106008900	26,472	2106208900	31,766
92	3,5/8		2106009200	27,718	2106209200	33,262
95	3,3/4		2106009500	27,718	2106209500	33,262
98	3,7/8		2106009800	28,405	2106209800	34,085
100	-		2106010000	28,405	2106210000	34,085
102	4"		2106010200	28,405	2106210200	34,085
105	4,1/8		2106010500	30,535	2106210500	36,642
108	4,1/4		2106010800	33,050	2106210800	38,007
111	4,3/8		2106011100	34,086	2106211100	39,199
114	4,1/2		2106011400	37,613	2106211400	43,255
121	4,3/4		2106012100	38,951	2106212100	44,793
127	5"		2106012700	41,828	2106212700	48,102
133	5,1/4		2106013300	43,317	2106213300	49,814
140	5,1/2		2106014000	45,879	2106214000	52,760
146	5,3/4"		2106014600	48,195	2106214600	55,424
152	6"		2106015200	52,757	2106215200	60,671
160	6,5/16		2106016000	53,306	-	
168	6,5/8		2106016800	56,192	-	
177	6,31/32		2106017700	59,662	-	
200	7,7/8		2106020000	64,469	-	
210	8,5/16		2106021000	65,354	-	
220	8",3/4		2106022000	67,673	-	
233	9",1/8		2106023300	88,930	-	
250	9",7/8		2106025000	94,185	-	
260	10",1/4		2106026000	109,725	-	
265	10",1/2		2106026500	120,645	-	
280	11"		2106028000	150,701	-	
305	12"		2106030500	341,250	-	

Confezione / *Packaging*



21060



21062

Applicazioni / *Applications*





- Seghe bimetalliche HSS a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm.
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc… Max. cutting depth: 13/64.
- Scies cloches bimetal-HSS à denture progressive pour l'emploi professionel. Pour percer les métaux, fer, fonte, acier inox, bois, plastique. Profondeur de coupe: 5 mm.
- Coronas perforadoras bimetalicas HSS con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

ALBERI PER SEGHE A TAZZA BIMETAL (INTERCAMBIABILI CON QUALSIASI ALTRA MARCA)

Arbors for bimetal hole saws / Arbres de montage pour scies trépans bimetal
Husillos para coronas bimetalicas / Aufnahmeschäfte

ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - *Fit hole saws Ø 14÷30*

210705514



210705515
Q.C.



210705519
210705519B



210705518

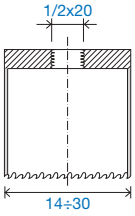


210705519 SDS
210705519 SDSB



SDS-PLUS

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514	8,941
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515	10,710
Ø 14 ÷ 17	HEX 8,5	210705519B	11,909
Ø 19 ÷ 30	HEX 8,5	210705519	10,710
Ø 14 ÷ 30	HEX 11	210705518	11,909
Ø 14 ÷ 17	SDS PLUS	210705519SDSB	15,484
Ø 19 ÷ 30	SDS PLUS	210705519SDS	15,484



ALBERI PER SEGHE BIMETAL Ø 32÷305 mm - *Fit hole saws Ø 32÷305*

210705520



210705521
Q.C.



210705546



210705547



210705548
Q.C.



210705546 SDS



SDS-PLUS

210705549 SDS



SDS-PLUS

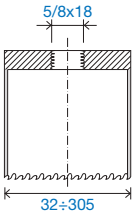
210705546



210705545



Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 305	HEX 11	210705520	12,340
Ø 32 ÷ 305	HEX 6,35 Q.C.	210705521	12,340
Ø 32 ÷ 305	HEX 8,5	210705546	18,859
Ø 32 ÷ 305	HEX 11	210705547	20,838
Ø 32 ÷ 305	HEX 8,5 Q.C.	210705548	20,838
Ø 32 ÷ 305	SDS PLUS	210705546SDS	27,088
Ø 32 ÷ 305	SDS PLUS	210705549SDS	27,088
Ø 32 ÷ 305	HEX 11	210705545	21,793
Ø 32 ÷ 305	HEX 16	210705573	23,923



Art. **21071** Self
Disponibile su richiesta / *On demand*

21070200



21070202



21070201



21070300



21070302



Confezione
Packaging



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 105	5514-5520 5545-5573-5518	21070200	4,691
Ø 6,35 x 90	5519B-5519SDSB	21070202	4,691
Ø 6,35 x 80	5515-5519-5519SDS 5521-5546-5546SDS 5547-5548-5549SDS	21070201	4,691
Adattatore - montato su alberi 5514-5519 permette di portare frese da Ø 32 a Ø 305 *Arbor adapter - Allows 5514-5519 to be used with 1.1/4" through 6" hole saws*		21070300	4,611
Prolunga - HEX 11 L = 300 mm *12" extension - to be used with arbors 5518-5520-5547-5545*		21070302	21,584

Professional

ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE HSS IN VALIGETTE DI PLASTICA

HSS Bi-metal hole saws kits in plastic cases / Assortiments de scies trépans HSS bimetal en coffret plastique
Juegos de coronas perforadoras bimetalica HSS en estuche de plastico / HSS Lochsägen Sortimente in Plastikköfferchen

Variabile - *Variable* Z 4-6

BIM. - HSS M3/1

Kit per elettricisti - *Electrician's kit*



Cod.	Composizione *Description*
21080201K Ø 22÷64 6 pcs € 103,247	Ø 22-29-35 44-51-64 5519 - 5546 1
21080202K Ø 16÷51 (METRIC) 6 pcs € 88,136	Ø 16-20-25 32-40-51 5519 - 5546 1



Cod.	Composizione *Description*
21080209K Ø 22÷68 7 pcs € 120,872	Ø 22-29-35 38-44-51 68 5519 - 5546 1
21080207K Ø 16÷60 (Pg 9÷48) 13 pcs € 166,202	Ø 16-19-20-21 22-25-29-32 38-48-51-54 60 5519 - 5546 1 1

Kit per idraulici - *Plumber's kit*



Cod.	Composizione *Description*
21080204K Ø 19÷57 6 pcs € 93,177	Ø 19-22-29 38-44-57 5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*
21080205K Ø 19÷64 9 pcs € 144,793	Ø 19-22-29-35 38-44-51-57 64 5519 - 5546 1 1



Cod.	Composizione *Description*
21080211K Ø 20÷64 11 pcs € 159,906	Ø 20-22-25-30 32-35-40-44 51-60-64 5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*
21080212K Ø 19÷83 11 pcs € 214,048	Ø 19-22-25-30 35-40-51-60 64-76-83 5519 - 5546 1

Kit industriale - *Industrial kit*



Cod.	Composizione *Description*
21080206K Ø 19÷114 15 pcs € 329,890	Ø 19-22-29-35 38-44-51-57 64-76-83-92 95-105-114 5519 - 5546 1

ESPOSITORE SEGHE A TAZZA BIMETALLICHE HSS

Bimetal hole saws display - Display de scies trépans bimetal
Expositor de coronas bimetalicas - Lochsägen Sortimente

21080504K



23x18x50 cm

Cod.	Composizione *Description*	
21080504K Ø 16÷102 49 pcs € 648,247	Ø Sega *Hole saw*	pcs
	16	2
	19	2
	20	2
	22	2
	25	2
	30	2
	32	2
	35	2
	38	2
	40	2
	48	2
	51	2
	57	2
	60	2
	70	2
	83	2
	102	2
	5519 14÷30	4
	5546 32÷210	6
	21070201	5

21080503K



Cod.	Composizione *Description*	
21080503K Ø 16÷83 24 pcs € 324,874	Ø Sega *Hole saw*	pcs
	16	1
	19	1
	20	1
	22	1
	25	1
	27	1
	29	1
	30	1
	32	1
	35	1
	38	1
	40	1
	44	1
	51	1
	54	1
	60	1
	64	1
	70	1
	76	1
	83	1
	5519 14÷30	2
	5546 32÷210	2

SEGHE A TAZZA BIMETALLICHE HSS A DENTATURA VARIABILE

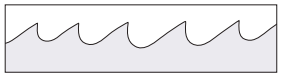
HSS bimetal hole saws / Scies trépans bimetal HSS
Coronas perforadoras bimetalicas HSS / HSS-bimetall Lochsägen

Finitura nera / *Black finish*

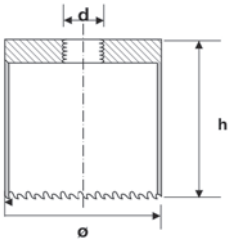
21066



Variabile - *Variable Z 4-6*



BIM. - HSS M3/1



h	ø
57±1	14÷17
51±1	19÷37
44±1	38÷210

Confezione / *Packaging*



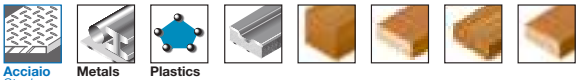
Esempio Krino
Krino example

Personalizza con il tuo logo
Put your private label

HSS M3/1

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	cod.	€ cad/each
14	9/16	UNF 1/2 x 20	2106601400	7,567
16	5/8		2106601600	7,567
17	11/16		2106601700	7,567
19	3/4		2106601900	8,114
20			2106602000	8,114
21	13/16		2106602100	8,650
22	7/8		2106602200	8,650
24	15/16		2106602400	9,161
25	1"		2106602500	9,161
27	1,1/16		2106602700	9,965
29	1,1/8		2106602900	9,965
30	1,3/16		2106603000	10,570
32	1,1/4	UNF 5/8 x 18	2106603200	10,570
33	1,5/16		2106603300	10,932
35	1,3/8		2106603500	12,096
37	1,7/16		2106603700	12,096
38	1,1/2		2106603800	12,096
40	1,9/16		2106604000	12,409
41	1,5/8		2106604100	12,678
43	1,11/16		2106604300	12,678
44	1,3/4		2106604400	13,772
45	-		2106604500	13,772
46	1,13/16		2106604600	13,772
48	1,7/8		2106604800	14,074
50	-		2106605000	14,574
51	2"		2106605100	14,574
52	2,1/16		2106605200	16,146
54	2,1/8		2106605400	16,146
55	-		2106605500	16,146
56	-		2106605600	16,704
57	2,1/4		2106605700	16,704
59	2,5/16		2106605900	17,077
60	2,3/8		2106606000	17,077
62	-		2106606200	18,417
64	2,1/2		2106606400	18,417
65	2,9/16		2106606500	18,417
67	2,5/8		2106606700	20,408
68	-		2106606800	20,408
70	2,3/4		2106607000	20,408
73	2,7/8		2106607300	21,420
75	-		2106607500	22,258
76	3"		2106607600	22,258
79	3,1/8		2106607900	22,852
83	3,1/4		2106608300	23,807
86	3,3/8		2106608600	24,237
89	3,1/2		2106608900	26,472
92	3,5/8		2106609200	27,718
95	3,3/4		2106609500	27,718
98	3,7/8		2106609800	28,405
100	-		2106610000	28,405
102	4"		2106610200	28,405
105	4,1/8		2106610500	30,535
108	4,1/4		2106610800	33,050
111	4,3/8		2106611100	34,086
114	4,1/2		2106611400	37,613
121	4,3/4		2106612100	38,951
127	5"		2106612700	41,828
133	5,1/4		2106613300	43,317
140	5,1/2		2106614000	45,879
146	5,3/4"		2106614600	48,195
152	6"		2106615200	52,757
160	6,5/16		2106616000	53,306
168	6,5/8		2106616800	56,192
177	6,31/32		2106617700	59,662
190	7,1/2		2106619000	61,142
200	7,7/8		2106620000	63,756
210	8,5/16		2106621000	65,354

Applicazioni / *Applications*





- Seghe bimetalliche HSS a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm.
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc… Max. cutting depth: 13/64
- Scies cloches bimetal-HSS à denture progressive pour l'emploi professionel. Pour percer les métaux, fer, fonte, acier inox, bois, plastique. Profondeur de coupe: 5 mm
- Coronas perforadoras bimetalicas HSS con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

ALBERI PER SEGHE A TAZZA BIMETAL (INTERCAMBIABILI CON QUALSIASI ALTRA MARCA)

Arbors for bimetal hole saws / Arbres de montage pour scies trépans bimetal
Husillos para coronas bimetalicas / Aufnahmeschäfte

ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - *Fit hole saws Ø 14÷30*

210705514



210705515
Q.C.



210705519
210705519B



210705518

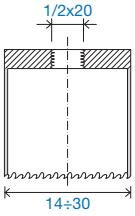


210705519 SDS
210705519 SDSB



SDS-PLUS

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514	8,941
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515	10,710
Ø 14 ÷ 17	HEX 8,5	210705519B	11,909
Ø 19 ÷ 30	HEX 8,5	210705519	10,710
Ø 14 ÷ 30	HEX 11	210705518	11,909
Ø 14 ÷ 17	SDS PLUS	210705519SDSB	15,484
Ø 19 ÷ 30	SDS PLUS	210705519SDS	15,484



ALBERI PER SEGHE BIMETAL Ø 32÷210 mm - *Fit hole saws Ø 32÷210*

210705520



210705521
Q.C.



210705546



210705547



210705548
Q.C.



210705546 SDS



SDS-PLUS

210705549 SDS



SDS-PLUS

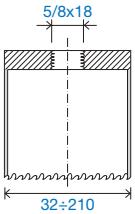
210705545



210705573



Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 210	HEX 11	210705520	12,340
Ø 32 ÷ 210	HEX 6,35 Q.C.	210705521	12,340
Ø 32 ÷ 210	HEX 8,5	210705546	18,859
Ø 32 ÷ 210	HEX 11	210705547	20,838
Ø 32 ÷ 210	HEX 8,5 Q.C.	210705548	20,838
Ø 32 ÷ 210	SDS PLUS	210705546SDS	27,088
Ø 32 ÷ 210	SDS PLUS	210705549SDS	27,088
Ø 32 ÷ 210	HEX 11	210705545	21,793
Ø 32 ÷ 210	HEX 16	210705573	23,923



21070200



21070202



21070201



21070300



21070302



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 105	5514-5520 5545-5573-5518	21070200	4,691
Ø 6,35 x 90	5519B-5519SDSB	21070202	4,691
Ø 6,35 x 80	5515-5519-5519SDS 5521-5546-5546SDS 5547-5548-5549SDS	21070201	4,691
Adattatore - montato su alberi 5514-5519 permette di portare frese da Ø 32 a Ø 210 *Arbor adapter - Allows 5514-5519 to be used with 1.1/4" through 6" hole saws*		21070300	4,611
Prolunga - HEX 11 L = 300 mm *12" extension - to be used with arbors 5518-5520-5547-5545*		21070302	21,584

Confezione
Packaging



Esempio Krino
Krino example

Professional

ASSORTIMENTI PERSONALIZZABILI SEGHE A TAZZA BIMETALLICHE HSS IN VALIGETTE DI PLASTICA

HSS Bi-metal hole saws kits in customizable plastic cases / Assortiments de scies trépans HSS bimetal en coffret plastique
Juegos de coronas perforadoras bimetalica HSS en estuche de plastico / HSS Lochsägen Sortimente in Plastikköfferchen

Variabile - *Variable* Z 4-6

BIM. - HSS M3/1

Esempi Krino - *Krino examples*

Kit per elettricisti - *Electrician's kit*



Cod.	Composizione *Description*
21080201N Ø 22÷64 6 pcs € 103,247	Ø 22-29-35 44-51-64 5519 - 5546 1
21080202N Ø 16÷51 (METRIC) 6 pcs € 88,136	Ø 16-20-25 32-40-51 5519 - 5546 1



Cod.	Composizione *Description*
21080209N Ø 22÷68 7 pcs € 120,872	Ø 22-29-35 38-44-51 68 5519 - 5546 1
21080207N Ø 16÷60 (Pg 9÷48) 13 pcs € 166,202	Ø 16-19-20-21 22-25-29-32 38-48-51-54 60 5519 - 5546 1 1

Kit per idraulici - *Plumber's kit*



Cod.	Composizione *Description*
21080204N Ø 19÷57 6 pcs € 93,177	Ø 19-22-29 38-44-57 5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*
21080205N Ø 19÷64 9 pcs € 144,793	Ø 19-22-29-35 38-44-51-57 64 5519 - 5546 1 1



Cod.	Composizione *Description*
21080211N Ø 20÷64 11 pcs € 159,906	Ø 20-22-25-30 32-35-40-44 51-60-64 5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*
21080212N Ø 19÷83 11 pcs € 214,048	Ø 19-22-25-30 35-40-51-60 64-76-83 5519 - 5546 1

Kit industriale - *Industrial kit*



Cod.	Composizione *Description*
21080206N Ø 19÷114 15 pcs € 329,890	Ø 19-22-29-35 38-44-51-57 64-76-83-92 95-105-114 5519 - 5546 1

ESPOSITORE PERSONALIZZABILE SEGHE A TAZZA BIMETALLICHE HSS

Bimetal hole saws customizable display - Display de scies trépans bimetal
Expositor de coronas bimetalicas - Lochsägen Sortimente

21080504N

Personalizza con il tuo logo
Put your private label



23x18x50 cm

Cod.	Composizione *Description*		
21080504N Ø 16÷102 49 pcs € 648,247	Ø Sega *Hole saw*		pcs
		16	2
		19	2
		20	2
		22	2
		25	2
		30	2
		32	2
		35	2
		38	2
		40	2
		48	2
		51	2
		57	2
		60	2
		70	2
		83	2
		102	2
	5519 14÷30		4
	5546 32÷210		6
	21070201		5

Esempi Krino - *Krino examples*

21080503N

Personalizza con il tuo logo
Put your private label



Cod.	Composizione *Description*		
21080503N Ø 16÷83 24 pcs € 324,874	Ø Sega *Hole saw*		pcs
		16	1
		19	1
		20	1
		22	1
		25	1
		27	1
		29	1
		30	1
		32	1
		35	1
		38	1
		40	1
		44	1
		51	1
		54	1
		60	1
		64	1
		70	1
		76	1
		83	1
	5519 14÷30		2
	5546 32÷210		2

Esempi Krino - *Krino examples*

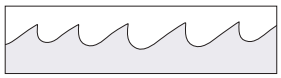
SEGHE A TAZZA BIMETALLICHE AL COBALTO 8% AISI M42 A DENTATURA VARIABILE

HSS-CO 8% AISI M42 bimetal hole saws with variable teeth / Scies trépans bimétalliques HSS-CO 8% AISI M42 avec denture variable
Coronas perforadoras bimetalicas HSS-CO 8% AISI M42 con dentadura variable / HSS-CO 8% AISI M42 Bimetall Lochsägen mit veränderbarer Zahnung

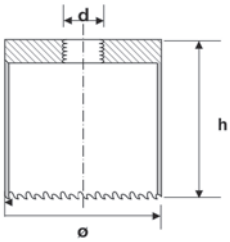
21090
21092



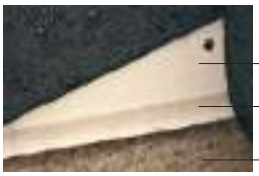
Variabile: nuovo disegno
dei denti più performanti Z 4-6
Variable: new upgrade teeth design Z 4-6



BIM. - HSS-CO 8% AISI M42



h	ø
67±1	14÷17
61±1	19÷37
54±1	38÷152
44±1	160÷305



Microdurezza verificata direttamente sul tagliente
Micro-hardness tested directly on the cutting tooth

Confezione / *Packaging*



21090 **21092**

HSS-CO8% M42



21090



21092

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	21090 cod.	21090 € cad/each	21092 cod.	21092 € cad/each
14	9/16	UNF 1/2 x 20	2109001400	9,312	2109201400	11,175
16	5/8		2109001600	9,312	2109201600	11,175
17	11/16		2109001700	9,312	2109201700	11,175
19	3/4		2109001900	9,988	2109201900	11,985
20	-		2109002000	9,988	2109202000	11,985
21	13/16		2109002100	10,651	2109202100	12,782
22	7/8		2109002200	10,651	2109202200	12,782
24	15/16		2109002400	11,280	2109202400	13,537
25	1"		2109002500	11,293	2109202500	13,551
27	1,1/16		2109002700	12,282	2109202700	14,738
29	1,1/8		2109002900	12,282	2109202900	14,738
30	1,3/16		2109003000	14,470	2109203000	17,364
32	1,1/4	UNF 5/8 x 18	2109003200	14,470	2109203200	17,364
33	1,5/16		2109003300	14,970	2109203300	17,963
35	1,3/8		2109003500	15,740	2109203500	18,887
37	1,7/16		2109003700	16,542	2109203700	19,850
38	1,1/2		2109003800	16,542	2109203800	19,850
40	1,9/16		2109004000	16,973	2109204000	20,368
41	1,5/8		2109004100	17,346	2109204100	20,815
43	1,11/16		2109004300	17,346	2109204300	20,815
44	1,3/4		2109004400	18,848	2109204400	22,617
45	-		2109004500	18,848	2109204500	22,617
46	1,13/16		2109004600	18,848	2109204600	22,617
48	1,7/8		2109004800	19,265	2109204800	23,119
50	-		2109005000	19,930	2109205000	23,916
51	2"		2109005100	19,930	2109205100	23,916
52	2,1/16		2109005200	22,095	2109205200	26,515
54	2,1/8		2109005400	22,095	2109205400	26,515
57	2,1/4		2109005700	22,095	2109205700	26,515
59	2,5/16		2109005900	22,852	2109205900	27,423
60	2,3/8		2109006000	22,852	2109206000	27,423
64	2,1/2		2109006400	24,541	2109206400	29,448
65	2,9/16		2109006500	24,541	2109206500	29,448
67	2,5/8		2109006700	26,450	2109206700	31,739
68	-		2109006800	26,450	2109206800	31,739
70	2,3/4		2109007000	26,450	2109207000	31,739
73	2,7/8		2109007300	29,312	2109207300	35,174
75	-		2109007500	29,312	2109207500	35,174
76	3"		2109007600	29,312	2109207600	35,174
79	3,1/8		2109007900	30,791	2109207900	36,950
83	3,1/4		2109008300	32,735	2109208300	39,282
86	3,3/8		2109008600	32,735	2109208600	39,282
89	3,1/2		2109008900	35,633	2109208900	42,759
92	3,5/8		2109009200	36,519	2109209200	43,823
95	3,3/4		2109009500	37,951	2109209500	45,542
98	3,7/8		2109009800	37,951	2109209800	45,542
100	-		2109010000	38,091	2109210000	45,709
102	4"		2109010200	38,091	2109210200	45,709
105	4,1/8		2109010500	39,034	2109210500	46,841
108	4,1/4		2109010800	40,163	2109210800	48,195
111	4,3/8		2109011100	41,304	2109211100	49,564
114	4,1/2		2109011400	43,445	2109211400	52,134
121	4,3/4		2109012100	45,227	2109212100	54,272
127	5"		2109012700	48,975	2109212700	58,771
140	5,1/2		2109014000	65,890	2109214000	79,067
146	5,3/4"		2109014600	71,820	-	
152	6"		2109015200	76,680	2109215200	92,017
160	6,5/16		2109016000	85,365	-	
168	6,5/8		2109016800	91,875	-	
177	6,31/32		2109017700	100,590	-	
200	7,7/8		2109020000	112,560	-	
210	8,5/16		2109021000	116,970	-	
220	8",3/4		2109022000	118,860	-	
233	9", 1/8		2109023300	126,945	-	
250	9",7/8		2109025000	135,345	-	
260	10",1/4		2109026000	167,475	-	
265	10",1/2		2109026500	170,520	-	
280	11"		2109028000	208,950	-	
305	12"		2109030500	523,950	-	

Applicazioni / *Applications*



Universale/*multipurpose*



21100



- Seghe a tazza di altissima qualità, con taglienti in acciaio al Cobalto 8% per i lavori più gravosi; taglio professionale e profondo nell'acciaio **inox**, acciai duri, ghisa, alluminio, bronzo, ottone, legno duro e derivati, resine sintetiche, laminati plastici, gomma dura, cartongesso, etc.
- High quality hole saws with HSS-CO 8% cutting edges for the toughest jobs; deep and professional cut in **stainless steel**, hard steel, cast iron, aluminium, bronze, brass, wood and its by-products, synthetic resins, laminated plastic, hard rubber, etc.
- Scies trépans de haute qualité avec tranchants au HSS-CO 8% pour les travails les plus durs; coupe professionnel et profond dans l'acier **inoxydable**, aciers durs, fonte, aluminium, bronze, laiton, bois dur et produits dérivés, résines synthétiques, laminés plastiques, caoutchouc dur, etc.
- Coronas perforadoras de calidad con cortes de HSS-CO 8% para los trabajos más gravosos; corte profesional y profundo en acero **inoxidable**, aceros duros, fundición, aluminio, bronces, latón, madera dura y productos derivados, resinas sintéticas, laminados plásticos, goma dura, etc.
- Qualitativen Lochsägen mit Schneiden aus HSS-CO 8% für die härtesten Berufe. Beruflich Tiefschnitt im **rostfreieren** Stahl, Hartstähle, Gusseisen, Aluminium, Bronze, Messing, Hartholz und Holzprodukte, Kunstharze, Kautschuk, etc.

ALBERI PER SEGHE A TAZZA BIMETAL HSS-CO 8%

Arbors for HSS-CO 8% bimetal hole saws / Arbres de montage pour scies trépans bimetal HSS-CO 8%
Husillos para coronas bimetalicas HSS-CO 8% / Aufnahmeschäfte für HSS-CO 8% Lochsägen

ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - *Fit hole saws Ø 14÷30*

210705514B



210705515B
Q.C.



210705519B



210705518B

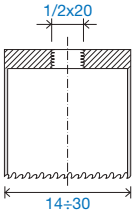


210705519 SDSB



SDS-PLUS

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514B	8,941
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515B	11,909
Ø 19 ÷ 30	HEX 8,5	210705519B	11,909
Ø 14 ÷ 30	HEX 11	210705518B	11,909
Ø 19 ÷ 30	SDS PLUS	210705519SDSB	15,484



ALBERI PER SEGHE BIMETAL Ø 32÷305 mm - *Fit hole saws Ø 32÷305*

210705520B



210705521B
Q.C.



210705546B



210705547B



210705548B
Q.C.



210705546 SDSB



SDS-PLUS

210705549 SDSB



SDS-PLUS

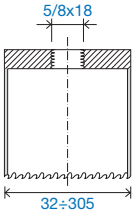
210705545B



210705573B



Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 305	HEX 11	210705520B	12,340
Ø 32 ÷ 305	HEX 6,35 Q.C.	210705521B	12,340
Ø 32 ÷ 305	HEX 8,5	210705546B	20,838
Ø 32 ÷ 305	HEX 11	210705547B	20,838
Ø 32 ÷ 305	HEX 8,5 Q.C.	210705548B	20,838
Ø 32 ÷ 305	SDS PLUS	210705546SDSB	27,088
Ø 32 ÷ 305	SDS PLUS	210705549SDSB	27,088
Ø 32 ÷ 305	HEX 11	210705545B	24,226
Ø 32 ÷ 305	HEX 16	210705573B	25,179
Ø 32 ÷ 305	HEX 8,5	210705546	18,859
Ø 32 ÷ 305	HEX 11	210705545	21,793



21070203



21070204



21070202



21070300



21070302



Confezione *Packaging*



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 115	5514B-5520B 5545B-5573B-5518B	21070203	4,691
Ø 6,35 x 100	5519L-5519SDSL	21070204	4,691
Ø 6,35 x 90	5515B-5519B-5519SDSB 5521B-5546B-5546SDSB 5547B-5548B-5549SDSB	21070202	4,691
Adattatore - montato su alberi 5514B-5519B permette di portare frese da Ø 32 a Ø 305 *Arbor adapter - Allows 5514B-5519B to be used with 1.1/4" through 6" hole saws*		21070300	4,611
Prolunga - HEX 11 L = 300 mm *12" extension - to be used with arbors 5518B-5520B-5547B-5545B*		21070302	21,584

Industrial

ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE HSS-CO 8%

HSS-CO 8% Bi-metal hole saws kits / Assortiments de scies trépans HSS-CO 8% bimetal
Juegos de coronas perforadoras bimetalica HSS-CO 8% / HSS-CO 8% Lochsägen Sortimente

Kit per elettricisti - *Electrician's kit*



Cod.	Composizione *Description*	
21013201K Ø 22÷64 6 pcs € 123,397	Ø 22-29-35 44-51-64	5519B - 5546B 1
21013202K Ø 16÷51 (METRIC) 6 pcs € 107,030	Ø 16-20-25 32-40-51	5519B - 5546B 1



Cod.	Composizione *Description*	
21013209K Ø 22÷68 7 pcs € 176,273	Ø 22-29-35 38-44-51 68	5519B - 5546B 1
21013207K Ø 16÷60 (Pg 9÷48) 13 pcs € 232,943	Ø 16-19-20-21 22-25-29-32 38-48-51-54 60	5519B - 5546B 1

Kit per idraulici - *Plumber's kit*



Cod.	Composizione *Description*	
21013204K Ø 19÷57 6 pcs € 113,316	Ø 19-22-29 38-44-57	5519B - 5546B 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*	
21013205K Ø 19÷64 9 pcs € 175,015	Ø 19-22-29-35 38-44-51-57 64	5519B - 5546B 1 1



Cod.	Composizione *Description*	
21013215K Ø 19÷76 11 pcs € 239,810	Ø 19-22-25-29 35-38-44-51 57-64-76	5519B - 5546B 1
21013216K Ø 16÷76 12 pcs € 242,138	Ø 16-19-22-25 29-32-35-38 44-51-64-76	5519B - 5546B 1
21013211K Ø 20÷64 11 pcs € 229,159	Ø 20-22-25-30 32-35-40-44 51-60-64	5519B - 5546B 1
21013212K Ø 19÷83 11 pcs € 258,123	Ø 19-22-25-30 35-40-51-60 64-76-83	5519B - 5546B 1

Kit industriale - *Industrial kit*



Cod.	Composizione *Description*	
21013206K Ø 19÷114 15 pcs € 434,393	Ø 19-22-29-35-38 44-51-57-64-76 83-92-95-105-114	5519B - 5546B 1

Espositori - *Display*



23x18x50 cm

Cod.	Composizione *Description*	
21013504K Ø 16÷102 49 pcs € 931,744	Ø 16-19-20-22-25-30 32-35-38-40-48-51 57-60-70-83-102	2x
	5519B 14÷30 5546B 32÷152	4x 6x
	21070202	5x



Cod.	Composizione *Description*	
21013503K Ø 16÷83 24 pcs € 472,170	Ø 16-19-20-22-25-27 29-30-32-35-38-40-44 51-54-60-64-70-76-83	1x
	5519B 14÷30 5546B 32÷152	2x 2x

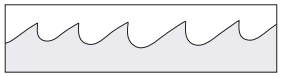
SEGHE A TAZZA BIMETALLICHE HSS A DENTATURA VARIABILE AD ALBERO FISSO

One piece HSS bimetal hole saws with fixed arbor / Scies trépans bimetal HSS avec arbres de montage fixé
Coronas perforadoras bimetalicas HSS con mango incorporado / HSS-bimetall lochsägen mit festeingebaut Aufnahmeschäfte

21061

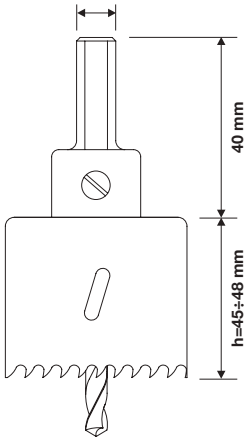


Variabile - *Variable* Z 4-6



BIM. - HSS M3/1

(1/2”-12,7 mm o 3/8”-9 mm a seconda del diametro) HEX



Integrale
one-piece

HSS M3/1

Ø mm	Ø Pollici *Inch*	cod.	€ cad/each
16	5/8	2106101600	11,735
19	3/4	2106101900	12,625
21	13/16	2106102100	13,254
22	7/8	2106102200	13,631
24	15/16	2106102400	14,009
25	1”	2106102500	14,511
27	1,1/16	2106102700	14,898
29	1,1/8	2106102900	16,041
30	1,3/16	2106103000	16,418
32	1,1/4	2106103200	16,921
33	1,5/16	2106103300	17,173
35	1,3/8	2106103500	17,549
38	1,1/2	2106103800	18,303
40	1,9/16	2106104000	18,565
41	1,5/8	2106104100	18,818
44	1,3/4	2106104400	19,445
48	1,7/8	2106104800	20,451
51	2”	2106105100	21,216
54	2,1/8	2106105400	22,108
57	2,1/4	2106105700	22,484
60	2,3/8	2106106000	23,616
64	2,1/2	2106106400	24,632
67	2,5/8	2106106700	26,015
70	2,3/4	2106107000	27,031
76	3”	2106107600	28,802
79	3,1/8	2106107900	29,555
83	3,1/4	2106108300	30,699
89	3,1/2	2106108900	33,098
92	3,5/8	2106109200	33,727
95	3,3/4	2106109500	34,743
102	4”	2106110200	36,513

Punta pilota *Pilot drill*		cod.	€ cad/each
	Ø 6,35 x 80	21070201	4,691

Confezione / *Packaging*



Applicazioni / *Applications*



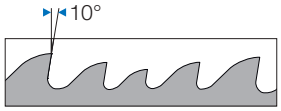
- Seghe bimetalliche HSS a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm. nel metallo e 30 mm nel legno.
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc… Max. cutting depth: 13/64.
- Scies cloches bimetal-HSS à denture progressive pour l’emploi professionel. Pour percer les métaux, fer, fonte, acier inox, bois, plastique. Profondeur de coupe: 5 mm.
- Coronas perforadoras bimetalicas HSS con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

SEGHE A TAZZA BIMETALLICHE HSS-CO 8% A DENTATURA VARIABILE ORIGINALI “BLU-MOL”

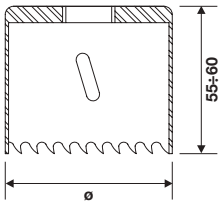
HSS-Co 8% bimetal hole saws / Scies trépans bimetal HSS-Co 8%
Coronas perforadoras bimetalicas HSS-Co 8% / HSS-Co 8% bimetall Lochsägen

21065





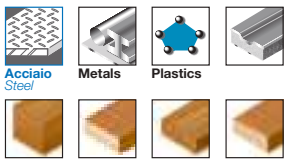
Z 4÷6 - BIM. AISI M42 - Co8%



Confezione / *Packaging*



Applicazioni / *Applications*



- Seghe bimetalliche HSS-Co 8% a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm nei metalli.
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc… Max. cutting depth: 13/64
- Scies cloches bimetal-HSS-Co 8% à denture progressive pour l’emploi professionel. Pour percer les metaux, fer, fonte, acier inox, bois, plastique. Profondité de coupe: 5 mm
- Coronas perforadoras bimetalicas HSS-Co 8% con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS-Co 8% Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

Ø Nom. mm	Ø Pollici *Inch*	pcs	cod.	€ cad/each
14	9/16	1	2106501400	12,741
16	5/8	1	2106501600	12,741
17	11/16	1	2106501700	13,139
19	3/4	1	2106501900	13,139
20	–	1	2106502000	13,139
21	13/16	1	2106502100	13,139
22	7/8	1	2106502200	13,638
24	15/16	1	2106502400	14,009
25	1”	1	2106502500	14,162
27	1,1/16	1	2106502700	14,587
29	1,1/8	1	2106502900	15,072
30	1,3/16	1	2106503000	15,431
32	1,1/4	1	2106503200	15,854
33	1,5/16	1	2106503300	16,620
35	1,3/8	1	2106503500	17,121
37	1,7/16	1	2106503700	17,121
38	1,1/2	1	2106503800	17,645
40	1,9/16	1	2106504000	18,542
41	1,5/8	1	2106504100	18,542
43	1,11/16	1	2106504300	19,489
44	1,3/4	1	2106504400	19,643
45	–	1	2106504500	19,643
46	1,13/16	1	2106504600	19,759
48	1,7/8	1	2106504800	20,335
50	–	1	2106505000	20,335
51	2”	1	2106505100	20,335
52	2,1/16	1	2106505200	21,462
54	2,1/8	1	2106505400	21,551
55	–	1	2106505500	21,551
57	2,1/4	1	2106505700	22,652
59	2,5/16	1	2106505900	23,562
60	2,3/8	1	2106506000	23,627
64	2,1/2	1	2106506400	23,767
65	2,9/16	1	2106506500	26,942
67	2,5/8	1	2106506700	26,942
68	–	1	2106506800	26,942
70	2,3/4	1	2106507000	28,172
73	2,7/8	1	2106507300	28,748
75	–	1	2106507500	28,748
76	3”	1	2106507600	29,387
79	3,1/8	1	2106507900	30,298
83	3,1/4	1	2106508300	30,298
86	3,3/8	1	2106508600	31,758
89	3,1/2	1	2106508900	32,257
92	3,5/8	1	2106509200	35,523
95	3,3/4	1	2106509500	36,252
98	3,7/8	1	2106509800	38,057
100	–	1	2106510000	39,031
102	4”	1	2106510200	39,031
105	4,1/8	1	2106510500	43,037
108	4,1/4	1	2106510800	49,314
111	4,3/8	1	2106511100	58,060
114	4,1/2	1	2106511400	54,641
121	4,3/4	1	2106512100	57,446
127	5”	1	2106512700	58,955
140	5,1/2	1	2106514000	63,285
146	5,3/4	1	2106514600	67,663
152	6”	1	2106515200	68,137

ALBERI PER SEGHE A TAZZA BIMETAL (INTERCAMBIABILI CON QUALSIASI ALTRA MARCA)

Arbors for bimetal hole saws / Arbres de montage pour scies trépans bimetal
Husillos para coronas bimetalicas / Aufnahmeschäfte

ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - *Fit hole saws Ø 14÷30*

210705514B



210705515B
Q.C.



210705519B



210705518B

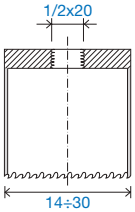


210705519 SDSB



SDS-PLUS

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514B	8,941
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515B	11,909
Ø 14 ÷ 30	HEX 8,5	210705519B	11,909
Ø 14 ÷ 30	HEX 11	210705518B	11,909
Ø 14 ÷ 30	SDS PLUS	210705519SDSB	15,484



ALBERI PER SEGHE BIMETAL Ø 32÷152 mm - *Fit hole saws Ø 32÷152*

210705520B



210705521B
Q.C.



210705546B



210705547B



210705548B
Q.C.



210705546 SDSB



SDS-PLUS

210705549 SDSB



SDS-PLUS

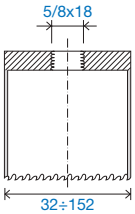
210705545B



210705573B



Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 152	HEX 11	210705520B	12,340
Ø 32 ÷ 152	HEX 6,35 Q.C.	210705521B	12,340
Ø 32 ÷ 152	HEX 8,5	210705546B	20,838
Ø 32 ÷ 152	HEX 11	210705547B	20,838
Ø 32 ÷ 152	HEX 8,5 Q.C.	210705548B	20,838
Ø 32 ÷ 152	SDS PLUS	210705546SDSB	27,088
Ø 32 ÷ 152	SDS PLUS	210705549SDSB	27,088
Ø 32 ÷ 152	HEX 11	210705545B	24,226
Ø 32 ÷ 152	HEX 16	210705573B	25,179



21070203



21070202



21070300



21070302



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 115	5514B-5520B 5545B-5573B-5518B	21070203	4,691
Ø 6,35 x 90	5515B-5519B-5519SDSB 5521B-5546B-5546SDSB 5547B-5548B-5549SDSB	21070202	4,691
Adattatore - montato su alberi 5514B-5519B permette di portare frese da Ø 32 a Ø 152 *Arbor adapter - Allows 5514B-5519B to be used with 1.1/4" through 6" hole saws*		21070300	4,611
Prolunga - HEX 11 L = 300 mm *12" extension - to be used with arbors 5518B-5520B-5547B-5545B*		21070302	21,584

Confezione *Packaging*



ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE “BLU-MOL” IN VALIGETTE DI PLASTICA

Bi-metal hole saws kits in plastic cases / Assortiments de scies trépans bimetal en coffret plastique
Juegos de coronas perforadoras en estucho plastico / Lochsägen Sortimente

21080200



KIT per lavori domestici
Handyman's Kit

21080200			€
Kit per lavori domestici *Handyman's Kit*	Ø 22-25-29 32-38	5514B 1	111,407

21080201



KIT per elettricisti
Electrician's Kit

21080201			€
Kit per elettricisti *Electrician's Kit*	Ø 22-29-35 44-51-64	5514B-5545B 1	174,512

21080202



KIT metrico per elettricisti
Metric electrician's Kit

21080202			€
Kit metrico per elettricisti *Metric electrician's Kit*	Ø 16-20-25 32-40-51	5514B-5545B 1	159,965

21080203



KIT per fabbri
Locksmith's Kit

21080203			€
Kit per fabbri *Locksmith's Kit*	Ø 22-25-32 38-44-54	5514B-5545B 1	174,512

ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE “BLU-MOL” IN VALIGETTE DI PLASTICA

Bi-metal hole saws kits in plastic cases / Assortiments de scies trépans bimetal en coffret plastique
Juegos de coronas perforadoras en estucho plastico / Lochsägen Sortimente

21080204



KIT per idraulici
Plumber's Kit

21080204			€
KIT per idraulici *Plumber's Kit*	Ø 19-22-29 38-44-57	5514B-5545B 1	174,512

21080205



KIT per installatori
Journeyman's Kit

21080205			€
KIT per installatori *Journeyman's Kit*	Ø 19-22-29 35-38-44 51-57-64	5514B-5545B 1 21070203	232,687

21080206



KIT uso industriale in valigetta di metallo
Industrial kit in metal case

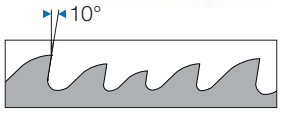
21080206			€
Kit uso industriale in valigetta di metallo *Industrial kit* *in metal case*	Ø 19-22-29 35-38-44-51 57-64-76-83 92-95-105 114	5514B-5546B 1 21070203 21070203	552,631

SEGHE A TAZZA BIMETALLICHE HSSCO8% DI NUOVA GENERAZIONE “XTREME”

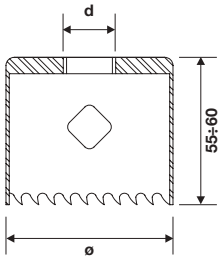
Ultimate bimetal hole saws / Scies cloches bimétal de nouvelle génération
Coronas bimetalicas de nuova generacion

21073





Z 4÷6 - BIM. AISI M42 - Co8%





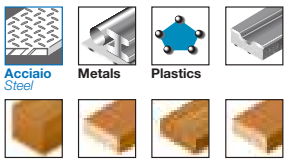
Fondo rinforzato
Solid steel plated

Larghe aperture per un’agevole rimozione del disco
Large openings provide for easy plug ejection

Confezione *Packaging*



Applicazioni *Applications*





21080215

			€
Kit per installatori *Journeyman’s Kit*	Ø 19-22-29 35-38-44 51-57-64	5515B 5548B 1	226,644
	21070202	1	



21080216

			€
Kit per lavori domestici *Handyman’s Kit*	Ø 22-25-29 32-38	5515B 1	98,217

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	pcs	cod.	€ cad/each
14	9/16	UNF 1/2 x 20	1	2107301400	12,077
16	5/8		1	2107301600	12,077
17	11/16		1	2107301700	12,443
19	3/4		1	2107301900	12,443
20	-		1	2107302000	12,443
21	13/16		1	2107302100	12,443
22	7/8		1	2107302200	12,920
24	15/16		1	2107302400	13,275
25	1”		1	2107302500	13,422
27	1,1/16		1	2107302700	13,813
29	1,1/8		1	2107302900	14,278
30	1,3/16		1	2107303000	14,619
32	1,1/4	UNF 5/8 x 18	1	2107303200	15,022
33	1,5/16		1	2107303300	15,744
35	1,3/8		1	2107303500	16,208
37	1,7/16		1	2107303700	16,208
38	1,1/2		1	2107303800	16,709
40	1,9/16		1	2107304000	17,554
41	1,5/8		1	2107304100	17,554
43	1,11/16		1	2107304300	18,458
44	1,3/4		1	2107304400	18,617
45	-		1	2107304500	18,617
46	1,13/16		1	2107304600	18,739
48	1,7/8		1	2107304800	19,264
50	-		1	2107305000	19,264
51	2”		1	2107305100	19,264
52	2,1/16		1	2107305200	20,339
54	2,1/8		1	2107305400	20,413
55	-		1	2107305500	20,413
57	2,1/4		1	2107305700	21,476
59	2,5/16		1	2107305900	22,331
60	2,3/8		1	2107306000	22,393
64	2,1/2		1	2107306400	22,516
65	2,9/16		1	2107306500	25,535
67	2,5/8		1	2107306700	25,535
68	-		1	2107306800	25,535
70	2,3/4		1	2107307000	26,695
73	2,7/8		1	2107307300	27,233
75	-		1	2107307500	27,233
76	3”		1	2107307600	27,858
79	3,1/8		1	2107307900	28,688
83	3,1/4		1	2107308300	28,688
86	3,3/8		1	2107308600	30,094
89	3,1/2		1	2107308900	30,558
92	3,5/8		1	2107309200	33,663
95	3,3/4		1	2107309500	34,348
98	3,7/8		1	2107309800	36,059
100	-		1	2107310000	36,976
102	4”		1	2107310200	36,976
105	4,1/8		1	2107310500	40,777
108	4,1/4		1	2107310800	42,978
111	4,3/8		1	2107311100	46,766
114	4,1/2		1	2107311400	47,170
121	4,3/4		1	2107312100	49,590
127	5”		1	2107312700	50,898
140	5,1/2		1	2107314000	54,639
146	-		1	2107314600	58,428
152	6”		1	2107315200	58,819



ø	d mm	cod.	€
Ø 14 ÷ 30	HEX 6,35Q.C.	210705515B	11,909
Ø 32 ÷ 152	HEX 8,5Q.C.	210705548B	20,838
	6,35x90	21070202	4,691

SEGHE A TAZZA BIMETAL AISI M42-CO8% A PASSO FISSO PER LAMIERE SOTTILI

AISI M42-Co8% constant pitch Bimetal hole saws for metal sheets

Scies cloches bimétal AISI M42-Co8% a denture fixe pour tôles fines / Coronas bimetalicas AISI M42-Co8% a paso fixo para chapas finas

21069



Ø mm	Ø Pollici *Inch*	Attacco *Shank*	pcs	cod.	€ cad/each
16	5/8	1/4"	1	210691600	41,693
19	3/4	1/4"	1	210691900	41,826
20	-	1/4"	1	210692000	41,937
22	7/8	1/4"	1	210692200	42,114
25	1"	1/4"	1	210692500	40,764
27	1,1/16	1/4"	1	210692700	42,358
29	1,1/8	1/4"	1	210692900	42,953
30	1,3/16	1/4"	1	210693000	42,474
32	1,1/4	1/4"	1	210693200	43,852
35	1,3/8	1/4"	1	210693500	46,670
38	1,1/2	1/4"	1	210693800	48,008

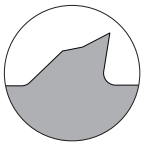


Speciali per trapani a batteria e avvitatori a impulsi
Special for cordless power drills and impact power tools

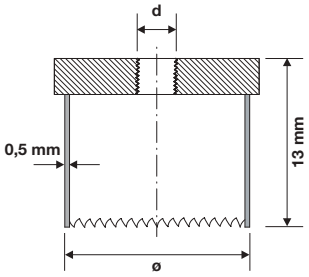
Z = 8



BIM. AISI M42 - Co8%



Speciale disegno del dente: taglio veloce e pulito
Advanced tooth design: smooth and fast cutting



Confezione / *Packaging*





Il potere della lama fine:
Minimizza il consumo delle batterie e produce meno trucioli per un taglio più veloce e sicuro

The power of the thin blade: Lightweight blades maximize the use of chargeable impact drivers and drills by using a reduced motor and operation load. Sheet Metal Hole Saws produce fewer chips for easier and safer drilling

Fermo di sicurezza
Safety collar stop





Applicazioni / *Applications*



- Il sottile spessore della lama e la dentatura costante in AISI M42 le rendono particolarmente adatte al taglio di lamiere sottili di acciaio inox, acciai legati e non, alluminio, metalli non ferrosi, plastica.
- The thin blade thickness and the AISI M42 constant pitch make these saws special for cutting into thin stainless steel sheet, alloyed steel and non-alloyed steel, non-ferrous metals and plastic.
- Le bas épaisseur de la lame en AISI M42 et le pas fixe des dents, rendent ces cloches parfait puor le parçage dans la tôle de acier inox trés fines, les aciers alliés et non-alliés, les métaux non-ferreux et la plastique.
- El espesor de la lama en AISI M42 y el paso fixo de los dientes, hacen esta corona adapta por el corte de las chapas finas en acero inoxidable, aceros aleados y en non aleados, metales no-ferricos, plastico.

PUNZONI STANDARD CON CUSCINETTO

Standard ball bearing punches / Emporte pieces standard
Punzonador standard / Schraub-locher

26070



Ø mm	Pg/M	S	cod.	€ cad/each
10		1,5	2607001000	73,188
11		1,5	2607001100	73,188
12		1,5	2607001200	73,188
12,5	Pg 7/M 12x1,5	1,5	2607001250	73,188
13		1,5	2607001300	73,188
14		1,5	2607001400	81,989
15		1,5	2607001500	81,989
15,2	Pg 9	1,5	2607001520	81,989
16		2	2607001600	60,255
16,5	M 16x1,5	2	2607001650	60,255
17		2	2607001700	60,255
18		2	2607001800	60,255
18,6	Pg 11	2	2607001860	64,086
19		2	2607001900	64,086
20		2	2607002000	64,086
20,5	Pg 13,5/M 20x1,5	2	2607002050	64,086
21		2	2607002100	64,086
22		2	2607002200	67,870
22,5	Pg 16	2	2607002250	67,870
23		2	2607002300	67,870
24		2	2607002400	67,870
25		2	2607002500	75,389
25,5	M 25x1,5	2	2607002550	75,389
26		2	2607002600	75,389
27		2	2607002700	75,389
28		2	2607002800	79,254
28,3	Pg 21	2	2607002830	79,254
29		2	2607002900	79,254
30		2	2607003000	79,254
30,5		2	2607003050	81,210
32		2	2607003200	81,210
32,5	M 32x1,5	2	2607003250	88,497
33		2	2607003300	88,497
34		2	2607003400	88,497
35		2	2607003500	88,497
36		2	2607003600	96,168
37	Pg 29	2	2607003700	96,168

Ø mm	Pg/M	S	cod.	€ cad/each
38		2	2607003800	96,168
39		2	2607003900	116,482
40		2	2607004000	116,482
40,5	M 40x1,5	2	2607004050	116,482
41		2	2607004100	116,482
42		2	2607004200	127,170
43		2	2607004300	127,170
44		2	2607004400	127,170
45		2	2607004500	135,981
46		2	2607004600	135,981
47	Pg 36	2	2607004700	135,981
48		2	2607004800	147,320
50		2	2607005000	147,320
50,5	M 50x1,5	3	2607005050	161,174
51		3	2607005100	161,174
52		3	2607005200	161,174
52,5		3	2607005250	237,971
54	Pg 42	3	2607005400	172,500
55		3	2607005500	172,500
57		3	2607005700	183,827
58		3	2607005800	183,827
59		3	2607005900	183,827
60	Pg 48	3	2607006000	200,195
60,5		3	2607006050	295,897
61		3	2607006100	200,195
62		3	2607006200	200,195
63		3	2607006300	244,269
63,5	M 63x1,5	3	2607006350	244,269
64		3	2607006400	244,269
65		3	2607006500	244,269
70		3,5	2607007000	307,225
73		3,5	2607007300	360,111
75		3,5	2607007500	360,111
80		3,5	2607008000	429,365
85		3,5	2607008500	615,706
89		3,5	2607008900	625,788
102		3,5	2607010200	876,344

Art. 26071

Tiranti con cuscinetti
Draw stud

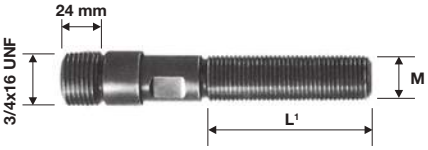


M	a	per punzoni *for punches*	cod.	€ cad/each
6x1	5	Ø 10÷13	2607106X1	31,829
8x1	13	Ø 14÷15.2	2607108X1	38,901
10x1	17	Ø 16÷38	2607110X1	18,926
12x1,5	19	Ø 39÷50	2607112X15	24,117
16x1,5	24	Ø 51÷62	2607116X15	28,011
20x1,5	30	Ø 66÷85	2607120X15	35,550
24x1,5	36	Ø 86÷102	2607124X15	55,560

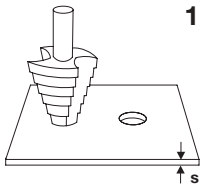
a = Dimensione della chiave per la testa del tirante

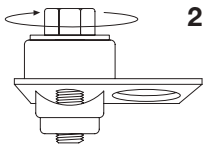
Art. 26084

Tiranti per pompa idraulica 2607514-2607515
Draw stud for hydraulic pump 2607514-2607515



M	L¹	per punzoni *for punches*	cod.	€ cad/each
8 x 1	38	Ø14÷15,2	2608408x1	54,144
10 x 1	40	Ø16÷38	2608410x1	54,144
12 x 1,5	50	Ø39÷50	2608412x15	54,144
16 x1,5	60	Ø51÷62	2608416x15	54,144
20 x 1,5	73	Ø63÷85	2608420x15	67,996
24 x 1,5	81	Ø89÷102	2608424x15	74,283





Applicazioni *Applications*

Inox | Acciaio *Steel* | Metals

- Adatti per fori precisi in lamiere di acciaio, acciaio inox, tutti i metalli, plastica
- For precise holes in steel and stainless steel metal sheets, metals, plastics
- Pour trous précis dans le tole en acier, acie inoxydable, tous le métaux, plastique
- Para agujeros precisos en chapa de acero inoxidable, todos los metales, plastico

Assortimenti punzoni - *Set of ball bearing punches*

Utilizzo con chiave
To be used with wrench

Utilizzo con pompa idraulica
To be used with hydraulic pump



26085100 € 362,868

Pg 7 - Pg 29

Ø 12,5-15,2-18,6-20,5
22,5-28,3-37



26085110 € 1.076,549

Pg 7 - Pg 48

Ø 12,5-15,2-18,6-20,5
22,5-28,3-37-47-54-60

Ø 7÷21 mm

26085111 € 917,484

M 12x1,5 - M 63x1,5

Ø 12,5-16,5-20,5-25,5
32,5-40,5-50,5-63,5

26085112 € 1.573,950

Pg 9 - Pg 48

Ø 15,2-18,6-20,5-22,5
28,3-37-47-54-60

26085113 € 1.317,750

M 16x1,5 - M 63x1,5

Ø 16,5-20,5-25,5-32,5
40,5-50,5-63,5

Assortimenti punzoni con pompa idraulica - *Set of ball bearing punches with hydraulic pump*



26085120 € 1.677,900

Pg 9 - Pg 29

Ø 15,2-18,6-20,5
22,5-28,3-37

Pompa/*Pump* Art. 2607514

26085121 € 1.677,900

M 16x1,5 - M 40x1,5

Ø 16,5-20,5-25,5
32,5-40,5

Pompa/*Pump* Art. 2607514

Pompa idraulica - *Hydraulic pump*

Pompa idraulica manuale a testa orientabile (600 bar)
Utilizzo con punzoni fino a 63,5 mm.
Contirne 4 tiranti e 4 spessori.
Hydraulic pump with revolving head.
With 4 drawstud and 4 shims.



2607514 € 1.427,071

* Pompa idraulica manuale (700 bar)
Utilizzo con punzoni fino a 150 mm. Lunghezza tubo: 0,9 m.
Hand hydraulic pump

* In esaurimento
To be discontinued



2607515 € 2.581,194

ESPOSITORI UTENSILI DA TAGLIO

Cutting tools display / Display outils coupant
Expositor utensilios de corte / Schneidwerkzeuge Aussteller



60x44x190 cm

La vetrina è in omaggio per ordini di 6 ripiani di utensili a scelta
The display is free of charge in case of an order with 6 shelves with tools at your choice / La vitrine est gratuite en cas de commande de 6 plateaux avec outils à votre choix / La vitrina es gratuita en caso de pedido con 6 rellanos con utensilios a Vuestra preferencia / Der Schaukasten ist unentgeltlich für Ordnungen von Werkzeugen mit 6 Flächen, nach freier Wahl



Cod.	Composizione *Description*	
01195861 82 pcs HSS-G € 2.435,026	**21001**	Ø12÷50+55-60 (2x)
01195876 82 pcs HSS-Co € 4.353,046	**21011**	Ø12÷50+55-60 (2x)
01195871 41 pcs HSS-G € 1.217,513	**21001**	Ø12÷50+55-60 (1x)
01195869 41 pcs HSS+TiN € 1.740,661	**21300**	Ø12÷50+55-60 (1x)



Cod.	Composizione *Description*	
01195862 82 pcs HSS-G HSS+TiN € 2.958,173	**21001**	Ø12÷50+55-60 (2x)
	21300	Ø12÷50+55-60 (1x)



Cod.	Composizione *Description*			
01195860 53 pcs € 3.258,605	**01180**	Gr. 1-2-3-4-5-7-8 1 pc	**01200**	Gr. 1-2-3-4 1 pc
	01183	Gr. 2-3-4-5-6-9-24 1 pc	**01230**	Gr. 2-3-4-5-6-9-24 1 pc
	01185	Ø 4.3-5.3-6.3-7.3-8.3 9.4-10.4-12.4-15-16.5 20.5-25-28-31 1 pc	**01188**	Gr 1-2-3-4 1 pc
	0117601	5 pcs	**011750600**	5 pcs



Cod.	Composizione *Description*			
01195859 53 pcs € 2.773,903	**01180**	Gr. 1-2-3-4 2 pc Gr. 5-7-8 1 pc	**0117601**	5 pcs
	01183	Gr. 2-3-4-5-6-9-24 2 pc	**01188**	Gr. 1-2-3-4 1 pc
	01185	Ø 4.3-5.3-6.3-7.3-8.3 9.4-10.4-12.4-15-16.5 20.5-25-28-31 1 pc	**011750600**	5 pcs



Cod.	Composizione *Description*	
01195865 72 pcs HSS M3/1 € 966,068	**21060** Ø 16-17-19-20-21-22-24-25 27-29-30-32-33-35-37-38 40-41-44-46-48-51-54 (2x) Ø 57-60-64-70-76-79-83 89-92-102 (1x)	**210705519** 8 pcs **210705546** 8 pcs
01195877 72 pcs € 966,068	**21066** Ø 16-17-19-20-21-22-24-25 27-29-30-32-33-35-37-38 40-41-44-46-48-51-54 (2x) Ø 57-60-64-70-76-79-83 89-92-102 (1x)	**210705519** 8 pcs **210705546** 8 pcs



Cod.	Composizione *Description*	
01195879 72 pcs M42 CO 8% € 1.227,151	**21090** Ø 16-17-19-20-21-22-24-25 27-29-30-32-33-35-37-38 40-41-44-46-48-51-54 (2x) Ø 57-60-64-70-76-79-83 89-92-102 (1x)	**210705519B** 8 pcs **210705546B** 8 pcs



Cod.	Composizione *Description*
01195880 28 pcs HSS € 1.476,449	**21200** **Weldon** Ø12÷35x1 +38-40-45-50



Cod.	Composizione *Description*
01195864 32 pcs T.C.T. € 1.502,452	**21040** Ø15÷40x1+42-45-48 50-55-60



Cod.	Composizione *Description*
01195866 32 pcs € 1.709,836	**21015** Ø 16-22-25-27-30-35-38-40 45-50-55-60-65-70-80 (2x) Ø 85-100 (1x)



Cod.	Composizione *Description*
26008501 50 pcs HSS Z2+Z3 € 856,203	**26001-26003** Ø6-8-10-12-15 (5x)



Cod.	Composizione *Description*
26030502 45 pcs HM4 € 1.687,335	**26020** Ø 6-8-10-12-16 (9x)
26030504 45 pcs HM4+TiALN € 2.368,142	**26034** Ø 6-8-10-12-16 (9x)



Cod.	Composizione *Description*	
21116112 24 pcs € 641,097	**21110** Ø 30-35-40 **21111** 50-65-80-90-100	**HEX 12** 4 pcs **SDS** 4 pcs 8 pcs

Cod.	Composizione *Description*			
21116117 29 pcs € 1.351,132	**21122** Ø 40-50-60-66-80-90-100	**21130316** 10 pcs	**21130110** 6 pcs	**21130300** 3 pcs **21130305** 3 pcs

ESPOSITORI UTENSILI DA TAGLIO

Cutting tools display / Display outils coupant
Expositor utensilios de corte / Schneidwerkzeuge Aussteller



44x31x52 cm

La vetrina è in omaggio per ordini di 2 ripiani di utensili a scelta
The display is free of charge in case of an order with 2 shelves with tools at your choice / La vitrine est gratuite en cas de commande de 2 plateaux avec outils à votre choix / La vitrina es gratuita en caso de pedido con 2 rellanos con utensilios a Vuestra preferencia / Der Schaukasten ist unentgeltlich für Ordnungen von Werkzeugen mit 2 Flächen, nach freier Wahl



Cod.	Composizione *Description*	
01195761 59 pcs HSS-G € 1.574,164	**21001**	HSS-G Ø15÷37x2 + 38÷50x1



Cod.	Composizione *Description*			
01195760 45 pcs € 2.655,934	**01180**	Gr. 1-2-3-4-5-7-8 1 pc	**01200**	Gr. 1-2-3-4 1 pc
	01183	Gr. 2-4-6-9-24 1 pc	**01230**	Gr. 2-4-6-9-24 1 pc
	01185	Ø 5.3-6.3-8.3-10.4 12.4-15-16.5-20.5 25-28 1 pc	**01188**	Gr 1-2-3-4 1 pc
	0117601	5 pcs	**011750600**	5 pcs



Cod.	Composizione *Description*
01195786 38 pcs HSS+TiN € 1.664,503	**21300** Ø15÷50+55-60x1



Cod.	Composizione *Description*
01195764 38 pcs HSS-G+TiALN € 1.829,196	**21325** Ø15÷50x1 + 55-60



Cod.	Composizione *Description*
01195762 38 pcs T.C.T. € 1.897,947	**21040** Ø15÷50x1+55-60



Cod.	Composizione *Description*
01195778 23 pcs HSS € 1.053,377	**21200** **Weldon** Ø12÷30x1 +32-35-38-40



Cod.	Composizione *Description*		
01195773 47 pcs HSS M3/1 € 582,625	**21060** Ø 16-19-20-21-22-24-25 27-29-30 (2x) Ø 32-35-37-38-40-41-44 48-51-54-57-60-64-70-76 (1x)		
	210705519 6 pcs	**210705546** 6 pcs	



Cod.	Composizione *Description*	
01195780 47 pcs M42 CO 8% € 723,877	**21090** Ø 16-19-20-21-22-24-25 27-29-30 (2x) Ø 32-35-37-38-40-41-44 48-51-54-57-60-64-70-76 (1x)	
	210705519B 6 pcs	**210705546B** 6 pcs



Cod.	Composizione *Description*				
01195774 31 pcs € 844,458	**21110** Ø 25-30-35-40 (2x)	**21111** 50-65 (2x) 80-90-100 (1x)			
	21115501 2 pcs	**21115521** 2 pcs	**21115504** 2 pcs	**21115524** 2 pcs	**21115506** 8 pcs

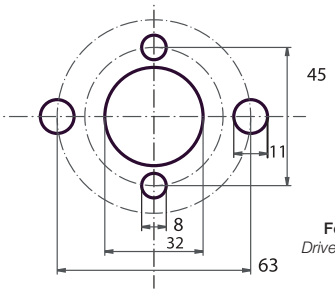
Professional

SEGHE CIRCOLARI IN HSS E HSS-CO PER IL TAGLIO DI ACCIAI E MATERIALI METALLICI

HSS and HSS-CO circular saw blades for cutting steel and metals / Scies circulaires HSS et HSS-CO pour couper l'acier et les métaux
Hojas HSS y HSS-CO para sierras circulares y tronzadoras para cortar acero y metales / HSS und HSS-CO Sägeblatter für den Schnitt von Stahl und Metalle

~UNI 4012





N°2 Ø 11x63 mm
N°2 Ø 8x45 mm
Fori di trascinamento
Drive holes - Trouse guide
Orificios de arrastre

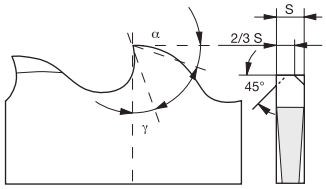
Troncatrici lente - *Slow cutting-off machines*

HSS
R≤900 N/mm²
Acciaio *Steel* · Inox · Metals

HSS-CO
R≤1200 N/mm²
Inox · Acciaio *Steel* · Metals

Profilati
Structurals

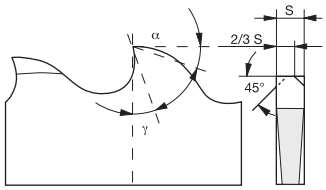
BW DIN 1838 t4



Ø mm	s spessore *thickness*	d foro *hole*	z n. denti *teeth*	Art. 27001 HSS Vapo cod.	€ cad/each	Art. 27011 HSS-CO Vapo cod.	€ cad/each
200	1,8	32	160	27001200	103,874	27011200	129,185
225	1,9	32	180	27001225	117,729	27011225	146,188
250	2	32	200	27001250	132,210	27011250	164,312
275	2,5	32	220	27001275	197,679	27011275	244,777
300	2,5	32	220	27001300	246,539	27011300	275,370
315	2,5	32	240	27001315	281,160	27011315	299,164
350	2,5	32	280	27001350	342,102	27011350	384,155

Pieni-profilati
Full section-structurals

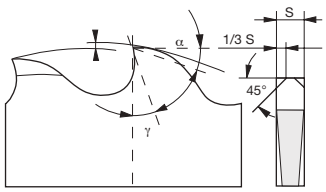
BW DIN 1838 t5



Ø mm	s spessore *thickness*	d foro *hole*	z n. denti *teeth*	Art. 27002 HSS Vapo cod.	€ cad/each	Art. 27012 HSS-CO Vapo cod.	€ cad/each
200	1,8	32	128	27002200	103,874	27012200	129,185
225	1,9	32	140	27002225	117,729	27012225	146,188
250	2	32	160	27002250	132,210	27012250	164,312
275	2,5	32	180	27002275	197,679	27012275	244,777
300	2,5	32	180	27002300	246,539	27012300	275,370
315	2,5	32	200	27002315	281,160	27012315	299,164
350	2,5	32	220	27002350	342,102	27012350	384,155

Pieni
Full section

C (HZ) t6



Ø mm	s spessore *thickness*	d foro *hole*	z n. denti *teeth*	Art. 27003 HSS Vapo cod.	€ cad/each	Art. 27013 HSS-CO Vapo cod.	€ cad/each
200	1,8	32	100	27003200	103,874	27013200	129,185
225	1,9	32	120	27003225	117,729	27013225	146,188
250	2	32	128	27003250	132,210	27013250	164,312
275	2,5	32	140	27003275	197,679	27013275	244,777
300	2,5	32	160	27003300	246,539	27013300	275,370
315	2,5	32	160	27003315	281,160	27013315	299,164
350	2,5	32	180	27003350	342,102	27013350	384,155

Confezione
Packaging



t = è il passo tra due denti consecutivi espresso in mm.

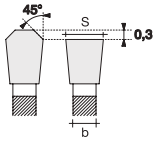
SEGHE CIRCOLARI CON DENTI IN METALLO DURO PER ALLUMINIO

Carbide tipped circular blades for Aluminium / Lames de scies circulaires carbure pour Aluminium
Sierras circulares con dientes de metal duro para Aluminium / Kreissägeblätter für Ne-Metall



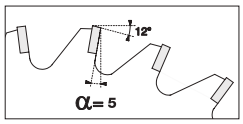
27050

Ø mm	s spessore *thickness*	b	d foro *hole*	z n. denti *teeth*	α spoglia *hook angle*	cod.	€ cad/each
250	3,2	2,2	32	60	5	270502503260	123,690
250	3,2	2,2	32	80	5	270502503280	134,715
300	3,2	2,4	32	72	5	270503003272	139,388
300	3,2	2,4	32	84	5	270503003284	149,730
300	3,2	2,4	32	96	5	270503003296	163,183
350	3,4	2,8	32	84	5	270503503284	177,188
350	3,4	2,8	32	96	5	270503503296	193,725
350*	3,6	2,8	32	108	5	2705035032108	204,173
400	3,6	2,8	32	96	5	270504003296	224,438
400*	3,6	2,8	32	120	5	2705040032120	262,238
420	3,8	3,0	32	108	5	2705042032108	302,400
450*	3,8	3,0	32	96	5	270504503296	283,500
450*	3,8	3,0	32	108	5	2705045032108	307,125
500*	4,0	3,2	32	120	5	2705050032120	378,000



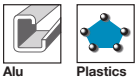
Dentatura sbozzatore-finitore
Rough and finishing teeth

N°2 Ø 11x63 mm
Fori di trascinamento
Drive holes - Trouse guide
Orificios de arrastre



* Incisioni anti rumore - ***Anti noise notches***

Applicazioni / Applications



Velocità di taglio ***Cutting speed*** 452

- Seghe adatte per il taglio di profilati e pieni in Alluminio, leghe non ferrose, resine e plastica dura. Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- For cutting structurals and solids of Aluminium and light alloys. The circular blade can't go out the work-piece material further than 10÷15 mm.
- Indiquée pour la coupe de profiles et solides en Aluminium et alliages légeres. La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Para el corte de perfiles y piezos macizos de Aluminio y aleaciones ligeras. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Zum sägen von profilen und voll Materialien aus Aluminium und Ne-Metall.

SEGA CIRCOLARE UNIVERSALE CON DENTI IN METALLO DURO

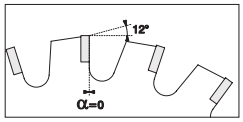
Universal carbide tipped circular sawblade / Lame de scie circulaire carbure universelle
Sierra circular universal con dientes de metal duro / Mehrzweck-Sägeblatt

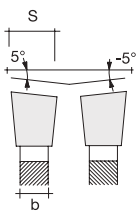
Multiuso / multi-purpose



27055

Ø mm	s spessore *thickness*	b	d foro *hole*	z n. denti *teeth*	α spoglia *hook angle*	cod.	€ cad/each
160	2,2	1,6	20	28	0°	270551602028	93,515
160	2,2	1,6	30	28	0°	270551603028	93,515
180	2,2	1,6	30	32	0°	270551803032	107,401
190	2,2	1,6	30	32	0°	270551903032	107,401
230	2,2	1,6	30	40	0°	270552303040	125,580
240	2,2	1,6	30	42	0°	270552403042	129,360
250	2,4	2,0	**20**	48	0°	270552502048	142,223
250	2,4	1,8	30	48	0°	270552503048	142,223
300	2,4	1,8	30	60	0°	270553003060	161,070
300	2,4	1,8	30	80	0°	270553003080	182,858
305	2,4	1,8	**25,4**	80	0°	270553052580	192,381
350	2,5	2,0	30	70	0°	270553503070	225,015
350	2,5	2,0	30	90	0°	270553503090	256,410





Applicazioni / Applications



Velocità di taglio ***Cutting speed*** 452

- Lama circolare con denti in metallo duro per il taglio a secco di ferro, acciaio dolce, alluminio, leghe leggere, materiali composti (pannelli isolanti, laminati), plastica dura, legno e truciolati. Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- Ideal for cutting in iron, soft steel, Aluminium, brass, copper, plastics, plexiglass, chipboards, composites. Applications on portable or bench sawing machines. The circular blade can't go out the work-piece material further than 10÷15 mm.
- Indiquée pour la coupe de fer, acier, Aluminium et alliages légeres, plastique, plexiglass, agglomeré, composites. Utilisation pour machines electroportatives et stationaires. La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Para el corte de hierro, acero dulce, Aluminio y aleaciones ligeras, aglomerado, plastica, paneles. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Ideal für licht Stahl, Aluminium, Messing, Kupfer, Kunststoffe, Plexiglass, Spanplatten, Mineralstoffplatten.

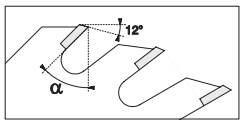
Professional

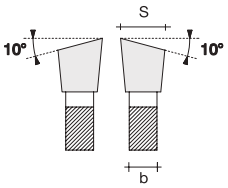
SEGHE CIRCOLARI PER LEGNO CON DENTI IN METALLO DURO PER SEGATRICI PORTATILI

Carbide tipped circular sawblades for wood for portable machines / Lames de scies avec dente carbure pour bois avec machines electroportatives
Sierras para madera para maquinas portatiles / Kreissägeblätter für Holz mit handkreissägen Maschinen

27060

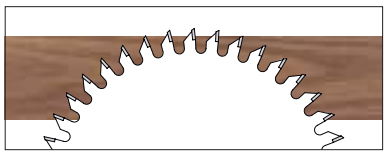






Dentatura alternata
Alternated teeth

Ø mm	s spessore *thickness*	b	d foro *hole*	z n. denti *teeth*	α spoglia *hook angle*	cod.	€ cad/each
130	2,5	1,6	20	20	15°	270601302020	49,665
140	2,5	1,6	20	20	15°	270601402020	55,367
150	2,5	1,6	16	24	15°	270601501624	57,540
150	2,5	1,6	20	24	15°	270601502024	66,885
150	2,5	1,6	16	40	15°	270601501640	57,540
150	2,5	1,6	20	40	12°	270601502040	66,885
160	2,5	1,6	20	24	15°	270601602024	57,540
160	2,5	1,6	30	24	15°	270601603024	68,985
160	2,5	1,6	20	40	12°	270601602040	57,540
160	2,5	1,6	30	40	12°	270601603040	68,985
170	2,5	1,6	30	24	15°	270601703024	60,197
170	2,5	1,6	30	40	12°	270601703040	72,083
180	2,5	1,6	20	24	15°	270601802024	60,197
180	2,5	1,6	30	24	15°	270601803024	72,083
180	2,5	1,6	20	40	12°	270601802040	60,197
180	2,5	1,6	30	40	12°	270601803040	72,083
190	2,5	1,6	20	24	15°	270601902024	59,672
190	2,5	1,6	30	24	15°	270601903024	59,672
200	2,8	1,8	30	24	15°	270602003024	65,520
200	2,8	1,8	30	48	12°	270602003048	79,055
210	2,8	1,8	30	24	15°	270602103024	65,520
210	2,8	1,8	30	48	12°	270602103048	81,207
230	2,8	1,8	30	24	15°	270602303024	71,610
230	2,8	1,8	30	48	12°	270602303048	86,940
235	2,8	1,8	30	24	15°	270602353024	71,610
235	2,8	1,8	30	48	12°	270602353048	86,940
240	2,8	1,8	30	24	15°	270602403024	71,610
240	2,8	1,8	30	48	12°	270602403048	86,940



La sega circolare deve fuoriuscire dal materiale lavorato di una quantità pari all'altezza dei denti. Il numero di denti impegnati nel taglio deve essere di 2÷3 alla volta.
The overlap of the circular saw blade teeth over the cutting material must be equal to the height of the carbide tip. The number of teeth cutting simulteneously must be 2÷3.

Per avere indicazioni circa il numero di denti adatto alla lavorazione, conoscendo il diametro della sega circolare ø e lo spessore del materiale da lavorare L, è possibile utilizzare la seguente formula Z = ø x β / L, dove β è:
7=nel taglio di legno naturale in direzione parallela alle nervature
9=nel taglio di legno naturale in direzione trasversale alle nervature
11=nel taglio di legno duro in direzione trasversale alle nervature e pannelli compositi.
To choose the teeth suitable for processing, if you know the diameter ø of the circular saw blade and the thickness L of the material to be processed it is possible to use the following formula Z = ø x β / L, where β is:
7 = natural wood cutting, parallel to the ribs
9 = natural wood cutting, transverse to the ribs
11 = hard wood and composite panels, transverse to the ribs



Velocità di taglio
Cutting speed
452

Confezione / *Packaging*



Applicazioni / *Applications*



- Raccomandate per il taglio su macchine portatili di legno, truciolari, laminati, etc… Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- Universal use in wood and chipboard materials with portable machines.The circular blade can't go out the work-piece material further than 10÷15 mm.
- Coupe en bois et derivés (agglomerés, contreplaqués), stratifié ou lamifiés et plastiques avec machines electroportatives.La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Para cortar madera y sus derivaciones con machina portatile. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Ideal für Holz mit Handkreissägen Maschinen.

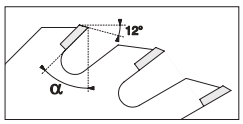
LAME PROFESSIONALI CON DENTI IN METALLO DURO PER LEGNO

Carbide tipped circular sawblades for wood / Lames de scies circulaires carbure pour bois
Sierras circulaires de metal duro para madera / Kreissägeblätter für Holz

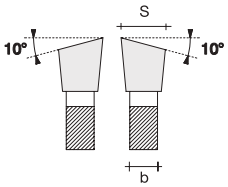
27070



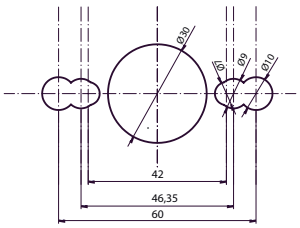
Ø mm	s spessore *thickness*	b	d foro *hole*	z n. denti *teeth*	α spoglia *hook angle*	cod.	€ cad/each
200	3,2	2,2	30	64	10°	270702003064	110,502
250	3,2	2,2	30	40	10°	270702503040	110,502
250	3,2	2,2	30	60	10°	270702503060	116,078
250	3,2	2,2	30	80	10°	270702503080	122,535
280	3,2	2,2	30	64	10°	270702803064	125,580
280	3,2	2,2	30	80	10°	270702803080	147,000
300	3,2	2,2	30	48	12°	270703003048	121,023
300	3,2	2,2	30	60	12°	270703003060	124,026
300	3,2	2,2	30	72	10°	270703003072	130,200
300	3,2	2,2	30	96	10°	270703003096	148,754
305	3,2	2,2	30	72	10°	270703053072	144,323
305	3,2	2,2	30	96	10°	270703053096	154,665
350	3,5	2,5	30	54	12°	270703503054	134,285
350	3,5	2,5	30	72	12°	270703503072	151,064
350	3,5	2,5	30	84	10°	270703503084	162,498
400	3,8	2,8	30	64	12°	270704003064	188,265
400	3,8	2,8	30	80	12°	270704003080	198,450
400	3,8	2,8	30	96	10°	270704003096	208,950
450	4,0	2,8	30	72	12°	270704503072	215,670



Dentatura alternata
Alternated teeth

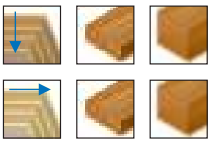


N°2 Ø 7x42 mm
N°2 Ø 9x46,35 mm
N°2 Ø 10x60 mm
Fori di trascinamento
Drive holes - Trouse guide
Orificios de arrastre



Velocità di taglio
Cutting speed
452

Applicazioni / *Applications*

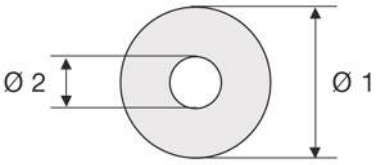


- Indicate per il taglio sia longitudinale che trasversale nel legno e derivati (agglomerati, stratificati) con seghe circolari a banco e troncatrici. Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- Crosswise and lengthwise cutting in woods and chipboards for any professional use. The circular blade can't go out the work-piece material further than 10÷15 mm.
- Coupe en long et traverse des bois et derivés (agglomerés, contreplaqués). La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Indicados para el corte longitudinal y trasversal de maderas in general. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Blätter für längs- und querschnitte bei allen Holztypen.

ANELLI DI RIDUZIONE PER TUTTI I TIPI DI LAME CIRCOLARI

Reduction ring for every kind of circular blades / Bagues de réduction pour toutes les scies circulaires
Anillos para reduccion / Reduzierringe

27072



Rame
Copper

Ø 1 / Ø 2	pcs	cod.	€ cad/each
35 / 30	3	270723530	5,644
35 / 25	3	270723525	5,644
35 / 20	3	270723520	5,644
32 / 30	3	270723230	5,644
32 / 25	3	270723225	5,644
32 / 20	3	270723220	5,644
30 / 25	3	270723025	5,644
30 / 20	3	270723020	5,644
30 / 18	3	270723018	5,644
30 / 16	3	270723016	5,644
25 / 20	3	270722520	5,644
20 / 16	3	270722016	5,644

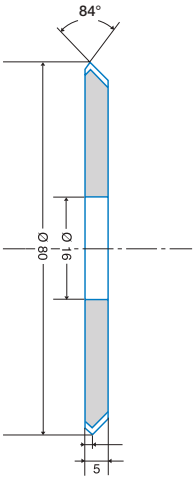
FRESE A DISCO PER CHIAVI

Milling cutters for keys / Fraises pour clefs
Fresas para llaves / Fräser für Schlüssel

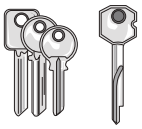
26125

Frese biconiche
Prismatic milling cutters





PER MACCHINE DUPLICATRICI DI CHIAVI:
for key cutting machines:

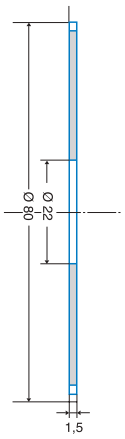


Rekord – Rekord plus, Rekord 2000,
Special Super, Special Master,
Bravo Super, Bravo Master,
Bravo Europa, Poker-s, Poker Plus, etc.

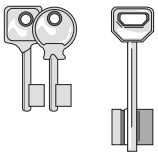
Dimensioni *Sizes*	z Denti / *Teeth*	cod.	€ cad/each
Ø 80x5x16 HSS-CO	110	26125001	135,981
Ø 80x5x16 HSS-CO	120	26125002	154,875
Ø 80x5x16 ASP 30 - CO8%	110	26125003	186,353
Ø 80x5x16 Metallo duro/*Carbide*	80	26125005	745,041

Frese a disco a 3 tagli
Three cutting milling cutters





PER MACCHINE DUPLICATRICI DI CHIAVI:
for key cutting machines:

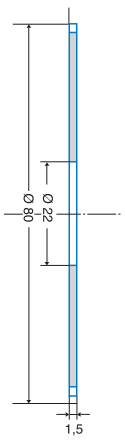


Targa –Targa 2000 –Targa 2000 P
Tech 3, Modular IV, Serenissima,
Opera IV, X80, GT 40B, GT 40C,
GT 40D, Super Dar, Mini Jolly, etc.

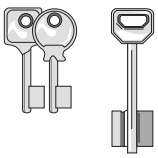
Dimensioni *Sizes*	z Denti / *Teeth*	cod.	€ cad/each
Ø 80x1,5x22 HSS-CO8%	100	26125010	135,981
Ø 80x1,5x22 ASP 30 - CO8%	100	26125012	186,353
Ø 80x1,5x22 Metallo duro/*Carbide*	100	26125015	564,602

Frese a disco a taglio periferico
Peripherical milling cutters





PER MACCHINE DUPLICATRICI DI CHIAVI:
for key cutting machines:



Targa –Targa 2000 –Targa 2000 P
Tech 3, Modular IV, Serenissima,
Opera IV, X80, GT 40B, GT 40C,
GT 40D, Super Dar, Mini Jolly, etc.

Dimensioni *Sizes*	z Denti / *Teeth*	cod.	€ cad/each
Ø 80x1,5x22 HSS-CO8%	100	26125020	66,739
Ø 80x1,5x22 ASP 30* - CO8%	100	26125022	109,545
Ø 80x1,5x22 Metallo duro/*Carbide*	100	26125025	358,853

** ASP 30 Acciaio superrapido sinterizzato (Metallurgia delle polveri) - Sinterized steel C 1,28% - Cr 4,2% - Mo 5% - W 6,4% - Co 8,5% - V 3,1% -*

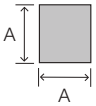
BARRETTE TRATTATE E RETTIFICATE IN HSS-CO 10%

HSS-CO 10% tool bits / Tiges traitées en HSS-CO 10%
Cuchillas HSS de Cobalto 10% para tornio - HSS-CO 10% Stabstahl

HSS-CO 10%



Art. 26150 DIN 4964/B

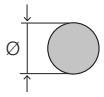


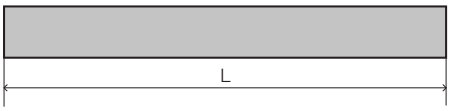


AxA h14	L mm	cod.	€ cad/each
6 x 6	160	261500606160	16,357
6 x 6	200	261500606200	20,336
8 x 8	160	261500808160	23,202
8 x 8	200	261500808200	29,581
10 x 10	160	261501010160	40,268
10 x 10	200	261501010200	51,653
12 x 12	160	261501212160	52,339
12 x 12	200	261501212200	67,148
14 x 14	160	261501414160	62,130

AxA h14	L mm	cod.	€ cad/each
14 x 14	200	261501414200	74,888
16 x 16	160	261501616160	84,445
16 x 16	200	261501616200	109,696
18 x 18	160	261501818160	103,107
18 x 18	200	261501818200	129,276
20 x 20	160	261502020160	131,116
20 x 20	200	261502020200	166,587
30 x 30	200	261503030200	376,793

Art. 26152 DIN 4964/A

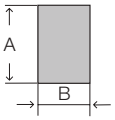




Ø h14	L mm	cod.	€ cad/each
4,0	100	2615204100	7,638
5,0	100	2615205100	8,173
6,0	100	2615206100	8,847
6,0	160	2615206160	12,829
6,0	200	2615206200	15,471
8,0	100	2615208100	12,503
8,0	160	2615208160	20,047
8,0	200	2615208200	22,747
10,0	100	2615210100	19,103
10,0	160	2615210160	35,727
10,0	200	2615210200	44,156

Ø h14	L mm	cod.	€ cad/each
12	160	2615212160	45,971
12	200	2615212200	57,112
14	160	2615214160	55,319
14	200	2615214200	79,637
15	200	2615215200	79,637
16	160	2615216160	55,319
16	200	2615216200	79,637
18	200	2615218200	145,516
20	160	2615220160	123,817
20	200	2615220200	156,004

Art. 26154 DIN 4964/D





AxB h14	L mm	cod.	€ cad/each
10 x 4	160	261541004160	26,798
10 x 5	200	261541005200	30,955
12 x 6	200	261541206200	39,139
12 x 8	200	261541208200	48,300
15 x 4	200	261541504200	40,058
16 x 4	160	261541604160	33,446
16 x 4	200	261541604200	40,663

AxB h14	L mm	cod.	€ cad/each
16 x 10	200	261541610200	75,797
20 x 4	200	261542004200	56,658
20 x 5	200	261542005200	56,658
20 x 6	200	261542006200	63,235
20 x 8	200	261542008200	74,039
20 x 10	200	261542010200	84,888
20 x 12	200	261542012200	93,759

Confezione / *Packaging*



Professional

LAMA A MANO PER IL TAGLIO DI TUTTI I METALLI

Hack saw blades for metal cutting / Lames de scies à main pour métaux
Hojas de sierra a mano / Sägeblätter



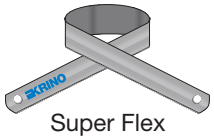
~UNI 4000

BIMETAL HSS-CO8% SUPERFLEX

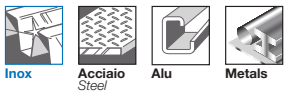




HRC 66÷67
HRC 40÷42



Super Flex



Caratteristiche:
Lama di grandissima qualità con una durezza sui denti di circa 67 gradi Rockwell C, notevolmente superiore ad una lama tradizionale.
Il corpo, più dolce, garantisce una perfetta flessibilità, pur mantenendo una buona rigidità torsionale, per un lavoro preciso e sicuro.
Queste caratteristiche permettono un taglio ineguagliabile per dolcezza, rendimento, precisione e durata negli acciai inox, acciai duri legati, acciai da costruzione, leghe leggere, tutti i metalli, etc.

cod.	Dimensioni *Sizes*	z N. denti / *T.p.i.*	€ cad/each
23001101	300x13x0,65 12"x1/2x0,025	18	2,377
23001100	300x13x0,65 12"x1/2x0,025	24	2,377
23001102	300x13x0,65 12"x1/2x0,025	32	2,377

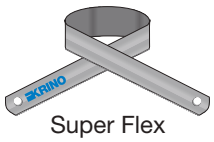
Features:
- *High performances, safe and smooth cut in stainless steel, high alloy steel, structural steel, light alloys, metals.*
- *Pour des travaux dans des aciers très durs, aciers inoxydables, aciers réfractaires pour une précision et sécurité garantis.*
- *Para cortar materiales muy duros, acero inox, acero tratado, aleaciones ligeras, metales. Corte seguro y preciso.*
- *Einsatz: Stahl und Stahlguss, V2A - V4A etc.*

HSS-BIMETAL





HRC 64
HRC 38÷40



Super Flex

cod.	Dimensioni *Sizes*	z N. denti / *T.p.i.*	€ cad/each
23001110	300x13x0,65 12"x1/2x0,025	18	2,046
23001120	300x13x0,65 12"x1/2x0,025	24	2,046
23001130	300x13x0,65 12"x1/2x0,025	32	2,046

- Lama superflessibile professionale per il taglio degli acciai duri, dolci, tutti i metalli.
- Shatterproof blades for cutting iron, alloy steel, light alloys, any kind of metal.
- Lames de scies professionnel pour acier dur, alliages légers, métaux.
- Hoja de sierra professional para cortar acero duro, acero aleado, aleaciones ligeras, metales.
- Einsatz: Stahl und Stahlguss, Ne-Metall.

HSS





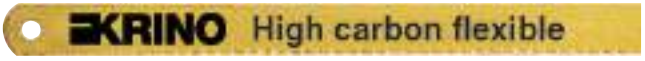
HRC 64

Art. **21141** Self
Disponibile su richiesta / *On demand*

cod.	Dimensioni *Sizes*	z N. denti / *T.p.i.*	€ cad/each
23001150	300x13x0,65 12"x1/2x0,025	24	1,980

- Lama professionale HSS a tempra integrale per un taglio preciso ad alto rendimento in tutti gli acciai duri, acciai in genere, leghe leggere, metalli.
- All hard HSS hack saw blades.
- Lame HSS professionnelle pour un découpage précis en tous les aciers durs et les métaux.
- Hoja de sierra profesional HSS a temple integral para el corte preciso de alto rendimiento en todos los aceros duros, aceros, aleaciones ligeras, metales.
- Berufliches HSS Lama für einen genaue Schnitt.

High carbon flexible





HRC 60

cod.	Dimensioni *Sizes*	z N. denti / *T.p.i.*	€ cad/each
23001160	300x13x0,65 12"x1/2x0,025	24	0,465

- Lama in acciaio da utensile per il taglio occasionale e non professionale di materiali dolci.
- Carbon flexible hack saw blades for occasional usage.
- Lame en acier pour outils destinés aux découpages pas professionnels et occasionnels des métaux doux.
- Hoja de sierra en acero al carbono flexible para el corte ocasional y no profesional en materiales dulces.
- Lama aus Stahl für nicht beruflichen und gelegentlichen Schnitte.

Confezione / *Packaging*  100 pcs

LAMA A MANO RIVESTITA IN GRANI DI CARBURO DI TUNGSTENO PER IL TAGLIO DEI MATERIALI PIÙ DURI ED ABRASIVI

Carbide grit-edge hack saw blades / Lame de scies au carbure de tungstène
Hojas de sierra de metal duro / Diamant Sägeblätter



cod.	Dimensioni *Sizes*	€ cad/each
23010060	300x13x0,65 12"x1/2x0,025	6,706





- Le particelle di carburo di tungsteno sono metallurgicamente e permanentemente legate al corpo in acciaio e permettono il taglio di materiali duri che una normale lama non può neanche scalfire. **Taglio piano e dolce**, in entrambe le direzioni in: bulloni, catene, acciai duri trattati in barre o tubi, ceramica, marmo, granito, gres, fibra di cemento, fibra di vetro, cristallo.
- *Carbide grit particles permanently bounded to alloy steel, designed to cut materials that a standard won't even scratch. Straight cuts in hardened steel, such as chain and bolts, as well as ceramic tile, stranded cable, hydraulic hose and glass.*
- *Perçage droit des matériaux très durs et abrasifs.*
- *Corte plano de materiales muy duros y abrasivos.*
- *Einsatz: Schneiden der ganzen harten und schleifen Materialien.*

Packaging 10 pcs

Art. **23011** Self
Disponibile su richiesta / *On demand*

LAME IN FILO TONDO IN CARBURO DI TUNGSTENO PER TAGLI IN QUALSIASI DIREZIONE DI TUTTI I MATERIALI DIFFICILI DA LAVORARE

Carbide grit-edge rod saws / Lame-fil de carbure de tungstène
Cordones de metal duro / Diamant Sägeblätter



cod.	Dimensioni *Sizes*	€ cad/each
23005050	300 12"	6,263




Packaging 10 pcs

Art. **23006** Self
Disponibile su richiesta / *On demand*

Le particelle di carburo di tungsteno sono permanentemente legate al corpo di acciaio e permettono un **taglio piano o curvo in tutte le direzioni**, anche nelle posizioni inaccessibili ad altri utensili.
Taglia in modo dolce e progressivo:
- Acciaio inox e acciai duri trattati, tutti gli acciai in genere.
- Bulloni, catene temperate, cavi di trazione
- Ceramica, marmo, granito, gres, fibra di cemento
- Vetro e cristallo

- *Coupe en façon progressive: acier inox, aciers durs, tous les aciers, boulons, câbles, céramique, marbre, granit, grès, ciment, verre, cristal.*
- *Corte en manera dulce y progresiva: acero inox y aceros duros tratados, todos los aceros, pernos, cadenas templadas, cables de tracción, cerámica, mármol, granito, gres, fibra de cemento, vidrio y cristal.*
- *Schneidet in einer Progressivweise: rostfreier Stahl, hart Stahl, Bolzen, Ketten, Keramik, emailliert Steingut, Glass und Kristall.*

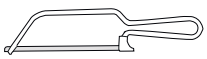
Sostituisce il tagliabulloni, le mole abrasive ed il taglio all'acetilene per molte operazioni!

Carbide grit particles permanently bounded to alloy steel rod can be substituted for bolt cutters, acetylene torches and abrasive wheel, cuts "unsawble materials" like glass, ceramic tile and hardened tool steel. Cuts in any direction and works in tight spaces.

Lama a mano per seghetti tipo "PUK®"
Hack saw blades type "PUK®"
Lame de scie à main type "PUK®"
Hoja de sierra de cinta tipo "PUK®"
Händliches Sägeblatter für Metallsäge "PUK®"

HCS





cod.	Dimensioni *Sizes*	z *tpi*	€ cad/each
23012100	150 mm 6"	24	0,840

Packaging 10 pcs

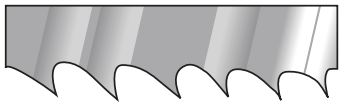
Art. **23012** Self
Disponibile su richiesta / *On demand*

LAME A NASTRO BIMETALLICHE MULTIUSO - HSS AISI M42

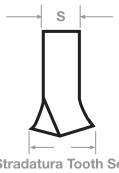
Bimetal band saw blades - HSS AISI M42 / Lames de scie à ruban bimetalliques - HSS AISI M42
Hojas de sierra de cinta bimetálicas - HSS AISI M42 / Bandsägeblätter HSS AISI M42

LAMA MULTIUSO - *Multipurpose blade*

25010

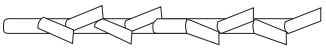


Dentatura / *Teeth*
AISI M42 - 8%Co
HRC: 67/69
Strip di supporto / *Body*
HRC: 44/46



Stradatura Tooth Set

Normale dritta - *Straight raker set*



la più utilizzata
most used



Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

Variabile - *Variable*



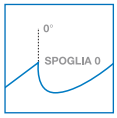
Moduli dentature a passo costante
Constant pitch modules
Modules de dentures à pas constante
Módulos de dentaduras a paso constante

Fissa - *Regular*





SPOGLIA POSITIVA 8° - *Positive rake 8°*
- **Dentatura variabile** - *variable tooth*
(z - tpi 1,4/2÷5/8)
- **Dentatura costante** - *regular tooth*
(z - tpi 2÷6)



SPOGLIA NEUTRA - *Standard straight rake*
- **Dentatura variabile** - *variable tooth*
(z - tpi 6/10÷14/18)
- **Dentatura costante** - *regular tooth*
(z - tpi 8÷18)

- Utilizzare su segatrici a ciclo di taglio (manuale o automatico), in tutti i generi di lavorazioni artigianali ed industriali, per il taglio di sezioni piene ed interrotte, singole o disposte a fascio, di acciai fino a 1200 N/mm², acciai strutturali, acciai automatici, acciai al carbonio, ghise lamellari e sferoidali, metalli non ferrosi (alluminio, rame,...) materie plastiche, materiali non metallici in genere.
- Use on cutting-cycle saws (manual or automatic), in all kinds of artisanal and industrial processes, for cutting solid and interrupted sections, single or arranged in bundles, of steels up to 1200 N/mm², structural steels, automatic steels, carbon steels, lamellar and spheroidal cast irons, non-ferrous metals (aluminum, copper,...) plastics, non-metallic materials in general.
- Utilisation sur scies à découper (manuelles ou automatiques), dans tous types de procédés artisanaux et industriels, pour la découpe de profilés pleins et discontinus, simples ou disposés en faisceaux, en aciers jusqu'à 1200 N/mm², aciers de construction, aciers automatiques, aciers au carbone, fontes lamellaires et sphéroïdales, métaux non ferreux (aluminium, cuivre,...), matières plastiques non métalliques en général.
- Uso en sierras de corte (manuales o automáticas), en todo tipo de procesos artesanales e industriales, para cortar secciones sólidas e interrumpidas, simples o dispuestas en haces, de aceros de hasta 1200 N/mm², aceros estructurales, aceros automáticos, aceros al carbono, fundición esferoidal y esferoidal, metales no ferrosos (aluminio, cobre,...) plásticos, materiales no metálicos en general.





Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*																	**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	2	3	4	6	8	10	14	18	1,4/2	2/3	3/4	4/6	5/8	6/10	8/12	10/14	14/18	€
13 x 0,65		X	X	X		X	X	X					X	X	X	X	X	13,715
13 x 0,90		X	X	X		X	X						X	X	X	X		13,715
20 x 0,90		X	X	X		X	X					X	X	X	X	X		15,418
27 x 0,90	X	X	X	X	X		X			X	X	X	X	X	X	X		16,583
34 x 1,10										X	X	X	X	X	X			20,617
41 x 1,30									X	X	X	X	X					29,939

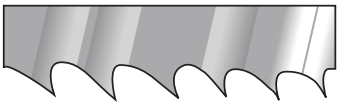
Dentatura a passo costante su richiesta / *Constant pitch modules on demand*

LAME A NASTRO BIMETALLICHE PER CARPENTERIA - HSS AISI M42

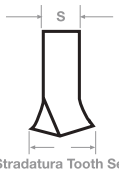
Bimetal band saw blades - HSS AISI M42 / Lames de scie à ruban bimetalliques - HSS AISI M42
Hojas de sierra de cinta bimetálicas - HSS AISI M42 / Bandsägeblätter HSS AISI M42

Dente rinforzato - *Reinforced tooth*
SPECIALE CARPENTERIA - *Carpentry special blade*

25016

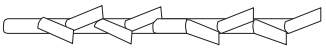


Dentatura / *Teeth*
AISI M42 - 8%Co
HRC: 67/69
Strip di supporto / *Body*
HRC: 44/46



Stradatura Tooth Set

Stradatura maggiorata - *Extra set*

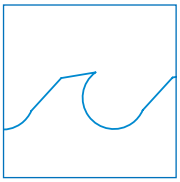


Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

Variabile - *Variable*



Profilo a dente rinforzato / *Reinforced tooth*



Dente a profilo rinforzato, per una netta riduzione dei fenomeni di rottura dei denti ed una eccezionale resistenza agli impatti e alle vibrazioni.
Tooth with reinforced profile, for a clear reduction of the breaking phenomena of the teeth and an exceptional resistance to impacts and vibrations.
Dent à profil renforcé, pour une réduction nette des phénomènes de rupture des dents et une résistance exceptionnelle aux chocs et aux vibrations.
Diente con perfil reforzado, para una clara reducción de los fenómenos de rotura de los dientes y una excepcional resistencia a los impactos y vibraciones.



SPOGLIA POSITIVA 8° - *Positive rake 8°*
- **Dentatura variabile** - *variable tooth*
  (z - tpi 1,4/2÷5/8)
- **Dentatura costante** - *regular tooth*
  (z - tpi 2÷6)

- Utilizzare su segatrici a ciclo di taglio (manuale o automatico), nelle lavorazioni di carpenteria dove necessiti una lama estremamente resistente e versatile, atta a tagliare le più diverse forme e spessori di materiali. Dedicata prevalentemente al taglio di sezioni interrotte (tubi, profilati, ecc.) ma anche di sezioni piene, singole o disposte a fascio di acciai fino a 1200 N/mm², acciai strutturali, acciai automatici, acciai al carbonio.
- Use on cutting machines (manual or automatic), in carpentry work where you need an extremely resistant and versatile blade, able to cut the most different shapes and thicknesses of materials. Dedicated mainly to cutting interrupted sections (pipes, profiles, etc.) but also of solid, single or beam sections of steels up to 1200 N/mm², structural steels, automatic steels, carbon steels.
- Utiliser sur des machines à découper (manuelles ou automatiques), dans des travaux de menuiserie où vous avez besoin d'une lame extrêmement résistante et polyvalente, capable de couper les formes et les épaisseurs les plus différentes des matériaux. Dédiés principalement à la découpe de sections interrompues (tubes, profilés, etc.) mais aussi de sections pleines, simples ou en poutres d'aciers jusqu'à 1200 N/mm², d'aciers de construction, d'aciers automatiques, d'aciers au carbone.
- Se usa en máquinas de corte (manuales o automáticas), en trabajos de carpintería donde se necesita una cuchilla extremadamente resistente y versátil, capaz de cortar las formas y grosores de materiales más diferentes. Dedicado principalmente al corte de secciones interrumpidas (tuberías, perfiles, etc.) pero también de secciones sólidas, simples o de viga de aceros de hasta 1200 N/mm², aceros estructurales, aceros automáticos, aceros al carbono.





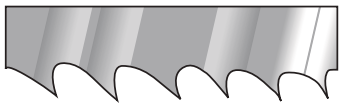
Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*					**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	2/3	3/4	4/6	5/7	8/11	€
13 x 0,65					X	13,965
13 x 0,90					X	13,965
20 x 0,90				X	X	15,418
27 x 0,90	X	X	X	X	X	17,48
34 x 1,10	X	X	X	X		23,487
41 x 1,30	X	X	X			37,648

LAME A NASTRO BIMETALLICHE AD ALTE PRESTAZIONI - HSS AISI M42

Bimetal band saw blades - HSS AISI M42 / Lames de scie à ruban bimetalliques - HSS AISI M42
Hojas de sierra de cinta bimetálicas - HSS AISI M42 / Bandsägeblätter HSS AISI M42

ALTE PRESTAZIONI - *High performance special blade*

25011



Dentatura / *Teeth*
AISI M42 - 8%Co
HRC: 68/69
Strip di supporto / *Body*
HRC: 48/50
(Alto contenuto di cromo / *High chrome*)



Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

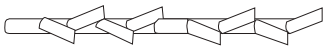
Variabile - *Variable*





Stradatura Tooth Set

Normale dritta - *Straight raker set*



la più utilizzata
most used

Moduli dentature a passo costante
Constant pitch modules
Modules de dentures à pas constante
Módulos de dentaduras a paso constante

Fissa - *Regular*



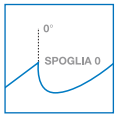
Profilo a dente curvilineo / *Curvilinear tooth*



Dente curvilineo che garantisce una esecuzione di taglio efficace e lineare, a beneficio di un migliore avanzamento.
Curvilinear tooth that guarantees an effective and linear cutting execution to fit a better feed.
Dent curviligne qui garantit une coupe efficace et linéaire pour une meilleure alimentation.
Diente curvilíneo que garantiza una ejecución de corte eficaz y lineal para adaptarse a una mejor alimentación.



SPOGLIA ESTREMAMENTE POSITIVA 12° - *EXTREMELY Positive rake 12°*
- **Dentatura variabile** - *variable tooth*
  (z - tpi 0,75/1,25÷5/8)
- **Dentatura costante** - *regular tooth*
  (z - tpi 2÷6)



SPOGLIA NEUTRA - *Standard straight rake*
- **Dentatura variabile** - *variable tooth*
  (z - tpi 6/10÷10/14)
- **Dentatura costante** - *regular tooth*
  (z - tpi 10÷18)

- Utilizzare su segatrici a ciclo di taglio (manuale o automatico), in tutti i generi di lavorazioni artigianali ed industriali dove necessiti una elevata resa prestazionale e vita operativa dell'utensile, per il taglio di sezioni piene ed interrotte, singole o disposte a fascio, in acciai fino a 1300 N/mm², acciai strutturali, acciai automatici, acciai al carbonio, acciai da bonifica, acciai per cuscinetti, acciai per stampi, acciai inossidabili, ghise lamellari e sferoidali, metalli non ferrosi come alluminio e rame, materie plastiche, materiali non metallici in genere.
- Use on cutting-cycle saws (manual or automatic), in all kinds of artisan and industrial processes where a high performance yield and working life of the tool is required, for cutting full and interrupted sections, single or bundled, in steels up to 1300 N/mm², structural steels, automatic steels, carbon steels, tempered steels, bearing steels, steels for molds, stainless steels, lamellar and spheroidal cast irons, non-ferrous metals such as aluminum and copper, plastics, non-metallic materials in general.
- Utilisation des commandes de sauvegarde des commandes manuelles ou automatiques, en règle générale, pour les fabricants et les fabricants, pour les besoins de l'industrie, pour la qualité de la vie, des conditions de vie, des déchets pour les personnes handicapées, pour les personnes ayant une déficience intellectuelle in acciai fino a 1300 N/mm², acciai strutturali, acciai automaticii, accioi al carbonio, acciai da bonifica, acciai pour cuscinetti, acciai pour stampi, acciai in carbonidabili, ghise lamellari e sferoidali, métalli non ferrosi come allame e rame, matricia materiali non metallici in genere.
- Se utiliza en sierras de ciclo de corte (manuales o automáticas), en todo tipo de procesos artesanales e industriales donde se requiere un alto rendimiento de rendimiento y vida útil de la herramienta, para cortar secciones completas e interrumpidas, simples o agrupadas, en aceros hasta 1300 N/mm², aceros estructurales, aceros automáticos, aceros al carbono, aceros templados, aceros para cojinetes, aceros para moldes, aceros inoxidables, hierros laminados y esferoidales, metales no ferrosos como aluminio y cobre, plásticos, Materiales no metálicos en general.





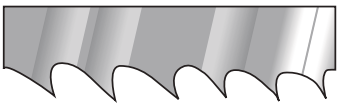
Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*																**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	2	3	4	6	10	14	18	0,75/1,25	1/1,4	1,4/2	2/3	3/4	4/6	5/8	6/10	8/12	10/14	€
6 x 0,65				X													X	18,57
6 x 0,90			X	X	X	X											X	18,57
10 x 0,65			X	X													X	19,719
10 x 0,90			X	X	X	X											X	19,719
13 x 0,65		X	X	X	X	X	X							X	X	X	X	20,418
13 x 0,90		X	X	X	X	X								X	X	X	X	20,418
20 x 0,90		X	X	X	X	X							X	X	X	X	X	21,308
27 x 0,90						X					X	X	X	X	X	X	X	26,047
34 x 1,10										X	X	X	X	X	X	X		30,155
41 x 1,30										X	X	X	X	X	X			43,078
54 x 1,30										X	X	X	X					51,346
54 x 1,60								X	X	X	X	X	X					59,465

LAME A NASTRO BIMETALLICHE AD ALTE PRESTAZIONI - METALLURGIA DELLE POLVERI

Bimetal band saw blades - HSS POWDER METAL / Lames de scie à ruban bimetalliques - HSS POWDER METAL
Hojas de sierra de cinta bimetálicas - Bandsägeblätter HSS POWDER METAL

ALTE PRESTAZIONI - *High performance special blade*

25018



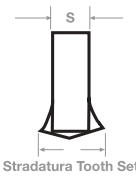
Dentatura / *Teeth*
ASP Metallurgia delle polveri
HRC: 70/71
Strip di supporto / *Body*
HRC: 48/50
(Alto contenuto di cromo / *High chrome*)



Immagine al microscopio
Microscope picture

227

Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

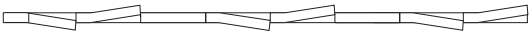


Stradatura Tooth Set

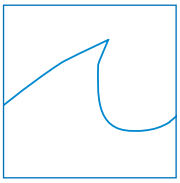
Variabile - *Variable*



Triplo truciolo - *Triple chip*



Profilo a dente di produzione / *Production tooth*



Speciale geometria del dente realizzato con acciaio superrapido e metallurgia delle polveri. Ha profilo PRODUCTION TOOTH e un'ampia gola di scarico XL.
Special tooth geometry made of high speed steel and powder metallurgy. It has PRODUCTION TOOTH profile and a wide XL discharge groove.
Géométrie spéciale des dents en acier ultrarapide et en métallurgie des poudres. Il a un profil PRODUCTION TOOTH et une large rainure de refoulement XL.
Geometría especial del diente hecha de acero súper rápido y metalurgia de polvos. Tiene un perfil de PRODUCCIÓN DENTAL y una ranura de descarga XL ancha.



SPOGLIA ESTREMAMENTE POSITIVA 12° - *EXTREMELY Positive rake 12°*
- **Dentatura variabile** - *variable tooth*
  (z - tpi 0,75/1,25÷5/8)

- Utilizzare su segatrici prevalentemente a ciclo di taglio automatico, in tutte le lavorazioni particolarmente gravose dove necessiti una lama che garantisca una elevata, costante e duratura resa prestazionale. Dedicata al taglio di sezioni piene ma anche interrotte (di medio o forte spessore), singole o eventualmente disposte affiancate in acciai con R < 1400 N/mm², acciai da bonifica, acciai per cuscinetti, acciai per stampi, acciai per lavorazioni a freddo e a caldo, acciai inossidabili, acciai inox resistenti al calore (Duplex®, Super Duplex®), titanio, leghe speciali.
- Use on sawing machines mainly with automatic cutting cycle, in all particularly demanding processes where you need a blade that guarantees a high, constant and long-lasting performance. Dedicated to the cutting of solid or interrupted sections (of medium or strong thickness), single or possibly placed side by side in steels with R < 1400 N/mm², tempered steels, bearing steels, steels for molds, steels for cold working and hot, stainless steels, heat resistant stainless steels (Duplex®, Super Duplex®), titanium, special alloys.
- Utilisez sur les scies principalement avec le cycle de coupe automatique, dans tous les processus particulièrement exigeants où vous avez besoin d'une lame garantissant des performances élevées, constantes et durables. Dédié à la coupe de sections pleines ou interrompues (d'épaisseur moyenne ou forte), simples ou éventuellement juxtaposées dans des aciers de R < 1400 N/mm², aciers trempés, aciers pour roulements, aciers de moules, aciers de travail à froid et aciers chauds et inoxydables, aciers inoxydables résistants à la chaleur (Duplex®, Super Duplex®), titane, alliages spéciaux.
- Se utiliza en máquinas de corte principalmente con ciclos de corte automático, en todos los procesos especialmente exigentes en los que necesita una cuchilla que garantice un rendimiento alto, constante y duradero. Dedicados al corte de secciones sólidas o interrumpidas (de espesor medio o fuerte), individuales o posiblemente colocadas lado a lado en aceros con R < 1400 N/mm², aceros templados, aceros para rodamientos, aceros para moldes, aceros para el trabajo en frío y Hot, aceros inoxidables, aceros inoxidables resistentes al calor (Duplex®, Super Duplex®), titanio, aleaciones especiales.

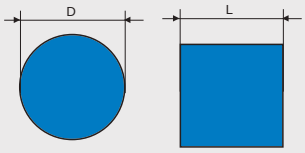




Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*							**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	0,75/1,25	1/1,4	1,4/2	2/3	3/4	4/6	5/8	€
27 x 0,90				X	X	X	X	26,571
34 x 1,10			X	X	X	X	X	33,076
41 x 1,30			X	X	X	X		46,046
54 x 1,60		X	X	X	X	X		62,589

Tabella per la scelta della dentatura (per ogni tipo di lama)

Tooth selection / comment pour choisir la denture / tabla para la elecciòn del paso del diente



Dentatura variabile - Variable tooth

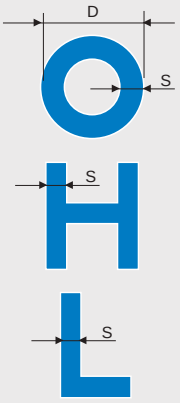
Sezioni piene - Solid cross section

D-L (mm)	20	30	50	80	100	200	300	500	800
Z-tpi	10/14	8/12	6/10	5/8	4/6	4/6	3/4	2/3	1,4/2	0,75/1,25

Dentatura costante - Regular tooth

Sezioni piene - Solid cross section

D-L (mm)	8	10	20	30	50	80	100	120	200	300	400	500	800
Z-tpi	24	18	14	10	8	6	4	3	2	1,25	0,75



	D (mm)										
	20	40	60	80	100	120	150	200	300	400	500
S (mm)	**Z-tpi**										
< 2	14	14	10/14	10/14	10/14	10/14	10/14	8/12	8/12	8/12	6/10
3	10/14	10/14	10/14	10/14	8/12	8/12	8/12	6/10	6/10	6/10	5/8
4	8/12	8/12	8/12	8/12	8/12	6/10	6/10	6/10	5/8	5/8	4/6
5	8/12	8/12	8/12	6/10	6/10	6/10	6/10	5/8	5/8	5/8	4/6
6	6/10	6/10	6/10	6/10	6/10	6/10	5/8	5/8	5/8	4/6	4/6
8	6/10	6/10	6/10	6/10	5/8	5/8	5/8	4/6	4/6	4/6	4/6
10		5/8	5/8	5/8	5/8	5/8	4/6	4/6	4/6	4/6	3/4
12		5/8	5/8	5/8	4/6	4/6	4/6	4/6	4/6	3/4	3/4
15		4/6	4/6	4/6	4/6	4/6	3/4	3/4	3/4	3/4	3/4
20			4/6	4/6	3/4	3/4	3/4	3/4	3/4	3/4	2/3
30				3/4	3/4	3/4	2/3	2/3	2/3	2/3	2/3
50						2/3	2/3	2/3	2/3	2/3	2/3

Parametri di taglio

Cutting parameters

Materiale da tagliare *Material to cut*	**Velocità di rotazione lama** *Band saw blade rotation speed m/min.*
Ferro comune, Acciai strutturali / *Iron, Structural steels*	**70 ÷ 90**
Acciai automatici, Acciai al carbonio / *Free-machining steels, Carbon steels*	**70 ÷ 80**
Acciai da bonifica / *Heat-treatable steels*	**60 ÷ 70**
Acciai per cuscinetti / *Ball bearing steels*	**55 ÷ 65**
Acciai per molle / *Spring steel*	**45 ÷ 60**
Acciai per stampi / *Mould steels*	**25 ÷ 40**
Acciai per lavorazioni a freddo / *Cold-working steels*	**25 ÷ 40**
Acciai per lavorazioni a caldo / *Hot-working steels*	**25 ÷ 40**
Acciai inossidabili e resistenti agli acidi / *Stainless and acid-resistant steels*	**30 ÷ 40**
Acciai inossidabili resistenti al calore / *Heat-resistant stainless steels (DUPLEX, SUPER DUPLEX…)*	**25 ÷ 35**
Leghe speciali a base di Nichel / *Nickel-base alloys (HASTELLOY, INCONEL…)*	**15 ÷ 25**
Titanio e leghe derivate / *Titanium and derivated alloys*	**25 ÷ 45**
Ghise lamellari e sferoidali / *Cast irons lamellar and spheroidal*	**35 ÷ 55**
Metalli non ferrosi quali Alluminio, Rame… / *Non ferrous metals as Aluminium, Copper…*	**60 ÷ 200**
Materie plastiche / *Plastics*	**80 ÷ 400**

LISTINO ANELLI SALDATI PER LE SEGATRICI PIÙ COMUNI

Price list for the most common welded bandsaw blades / List de prix des rubans soudes plus vendues
Tariffa de precios de sierra cinta soldadas a medida / Preis für geschweibt Metallbandsägen

Art. 25010 - AISI M42

Dimensioni *Size*	€	Dimensioni *Size*	€	Dimensioni *Size*	€	Dimensioni *Size*	€
1138 x **13 x 0,65**	15,608	2525 x 20 x 0,90	38,931	2850 x 27 x 0,90	47,261	4100 x 34 x 1,10	84,529
1140 x 13 x 0,65	15,636	2530 x 20 x 0,90	39,009	2880 x 27 x 0,90	47,758	4115 x 34 x 1,10	84,838
1295 x 13 x 0,65	17,761	2625 x 20 x 0,90	40,473	2925 x 27 x 0,90	48,505	4120 x 34 x 1,10	84,941
1300 x 13 x 0,65	17,83	2650 x 20 x 0,90	40,859	2940 x 27 x 0,90	48,753	4250 x 34 x 1,10	87,621
1325 x 13 x 0,65	18,172	2450 x **27 x 0,90**	40,628	2945 x 27 x 0,90	48,836	4460 x 34 x 1,10	91,951
1330 x 13 x 0,65	18,241	2500 x 27 x 0,90	41,457	2950 x 27 x 0,90	48,918	4500 x 34 x 1,10	92,776
1335 x 13 x 0,65	18,31	2520 x 27 x 0,90	41,788	3000 x 27 x 0,90	49,748	4570 x 34 x 1,10	94,219
1440 x 13 x 0,65	19,749	2550 x 27 x 0,90	42,286	3010 x 27 x 0,90	49,914	4600 x 34 x 1,10	94,837
1470 x 13 x 0,65	20,161	2560 x 27 x 0,90	42,452	3025 x 27 x 0,90	50,163	4860 x 34 x 1,10	100,197
1638 x 13 x 0,65	22,466	2580 x 27 x 0,90	42,783	3100 x 27 x 0,90	51,406	4970 x 34 x 1,10	102,465
1640 x 13 x 0,65	22,493	2590 x 27 x 0,90	42,949	3120 x 27 x 0,90	51,738	5300 x 34 x 1,10	109,269
1735 x 13 x 0,65	23,796	2600 x 27 x 0,90	43,115	3150 x 27 x 0,90	52,235	5400 x 34 x 1,10	111,33
1735 x **13 x 0,90**	23,796	2650 x 27 x 0,90	43,944	3180 x 27 x 0,90	52,733	5600 x 34 x 1,10	115,454
1740 x 13 x 0,90	23,864	2700 x 27 x 0,90	44,773	3200 x 27 x 0,90	53,065	6150 x 34 x 1,10	126,793
1745 x 13 x 0,90	23,933	2710 x 27 x 0,90	44,939	3225 x 27 x 0,90	53,479	4550 x **41 x 1,30**	136,221
1750 x 13 x 0,90	24,002	2720 x 27 x 0,90	45,105	3320 x 27 x 0,90	55,055	4870 x 41 x 1,30	145,801
1900 x **20 x 0,90**	29,295	2750 x 27 x 0,90	45,603	3370 x 27 x 0,90	55,883	5100 x 41 x 1,30	152,687
2000 x 20 x 0,90	30,836	2755 x 27 x 0,90	45,686	3435 x 27 x 0,90	56,961	5250 x 41 x 1,30	157,178
2060 x 20 x 0,90	31,761	2760 x 27 x 0,90	45,768	3505 x 27 x 0,90	58,122	5300 x 41 x 1,30	158,675
2080 x 20 x 0,90	32,07	2765 x 27 x 0,90	45,851	3580 x 27 x 0,90	59,366	5400 x 41 x 1,30	161,669
2140 x 20 x 0,90	32,995	2770 x 27 x 0,90	45,934	3660 x 27 x 0,90	60,692	5450 x 41 x 1,30	163,166
2160 x 20 x 0,90	33,303	2800 x 27 x 0,90	46,431	3810 x 27 x 0,90	63,18	5550 x 41 x 1,30	166,159
2190 x 20 x 0,90	33,766	2825 x 27 x 0,90	46,846	3850 x 27 x 0,90	63,843	5620 x 41 x 1,30	168,255
2360 x 20 x 0,90	36,387	2830 x 27 x 0,90	46,929	3900 x 27 x 0,90	64,673	5800 x 41 x 1,30	173,644
2375 x 20 x 0,90	36,619	2835 x 27 x 0,90	47,012	3505 x **34 x 1,10**	72,262	6150 x 41 x 1,30	184,123
2465 x 20 x 0,90	38,006	2840 x 27 x 0,90	47,095	3634 x 34 x 1,10	74,922	6380 x 41 x 1,30	191,009
2500 x 20 x 0,90	38,546	2845 x 27 x 0,90	47,178	3660 x 34 x 1,10	75,457	7400 x 41 x 1,30	221,546

INFORMAZIONE IMPORTANTE / *Main tip*

All'atto dell'ordine verificare il corretto senso di rotazione desiderato (Standard e/o inverso) in funzione del modello di segatrice

When ordering please verify the sense of rotation you need (STANDARD and/or REVERSE) depending on the machine type

28020005 € 108,031

Olio da taglio emulsionabile in tanica 5 Kg (5lt)

Cutting oil tank 5 lt



28020004 € 33,584

Olio da taglio minerale intero 0,5 lt

Cutting oil 0,5 lt



GUIDA ALLA RISOLUZIONE DEI PROBLEMI DI LAVORAZIONE DEI METALLI

Metalworking troubleshooting guide

Immagine del difetto / *Photo of the defect*



Sega bimetallica
Bimetal hole saw

Descrizione del difetto
Description of the defect

Arrotondamento dei denti della sega bimetallica. *Rounding of the teeth of a bimetal saw.*

Possibili soluzioni del problema
Possible solutions to the problem

L'usura prematura delle creste dei enti è giustificata dall'utilizzo della sega bimetallica nella lavorazione di materiali abrasivi per cui non è idonea. Preferire altre tipologie di utensili più adatti all'applicazione specifica. *Premature wear and tear of the points of the teeth are due to the saw being used on inappropriate, abrasive materials. Use a more suitable tool for the job in question.*

Immagine del difetto / *Photo of the defect*



Utensile a gradino
Step drill

Descrizione del difetto
Description of the defect

Incollaggio dei trucioli sui taglienti di un utensile a gradino. *Swarf sticks to the cutting edge of a graduated drill bit.*

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione. *Check the cutting parameters are set to the correct tool diameter for the material being worked.*

Immagine del difetto / *Photo of the defect*



Utensile conico
Conical drill bit

Descrizione del difetto
Description of the defect

Incollaggio dei trucioli sui taglienti di un utensile conico. *Swarf sticks to the cutting edge of a conical drill bit.*

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione. *Check the cutting parameters are set to the correct tool diameter for the material being worked.*

Immagine del difetto / *Photo of the defect*



Punta a centrare
Pilot drill

Descrizione del difetto
Description of the defect

Incollaggio dei trucioli sui taglienti di una punta a centrare per frese a tazza. *Swarf sticks to the cutting edge of the centring bit for a hole saw.*

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione. *Check the cutting parameters are set to the correct tool diameter for the material being worked.*

Immagine del difetto / *Photo of the defect*



Sega bimetallica
Bimetal hole saw

Descrizione del difetto
Description of the defect

Usura dei denti della sega bimetallica. *Wear-and-tear of the bimetal saw.*

Possibili soluzioni del problema
Possible solutions to the problem

La velocità di rotazione del prodotto è eccessiva. Attenersi scrupolosamente alle indicazioni fornite dalle tabelle tecniche. *Decrease the threading and/or advancement speed. The rotation speed of the product is too fast. Always refer to the instructions provided in the technical tables.*

Immagine del difetto / *Photo of the defect*



Sega bimetallica
Bimetal hole saw

Descrizione del difetto
Description of the defect

Striscimento dell'albero all'interno dell'attacco filettato della sega bimetallica. *Slipping of the shaft inside the threaded connector of the bimetal saw.*

Possibili soluzioni del problema
Possible solutions to the problem

Assicurarsi del corretto inserimento dei perni di fissaggio dell'albero nelle sedi apposite sul fondo della tazza bimetallica. *Make sure the fastening pins of the shaft are inserted into the bottom of the bimetal cutting disc correctly.*

Immagine del difetto / *Photo of the defect*



Albero
Arbor

Descrizione del difetto
Description of the defect

Strisciamento del codolo di un albero per frese nel mandrino. *Slipping of the shaft of the drill bit in the chuck.*

Possibili soluzioni del problema
Possible solutions to the problem

Possibile problema di serraggio delle griffe del mandrino. Verificare inoltre lo stato di affilatura dell'utensile: nel caso di usura e conseguente scarsa capacità tagliente, l'utensile tende a bloccarsi nel pezzo in lavorazione e il codolo tende a strisciare nel madrino. In questo caso non insistere nel taglio ma passare alla riaffilatura dell'utensile. *The problem could be caused by clamping of the chuck jaws. Check the sharpness of the tools. In case they are worn and cut less efficiently, the tool can get stuck in the workpiece and the cutting tool may slip in the chuck. In this case do not proceed with cutting any further and sharpen the tool.*

Immagine del difetto / *Photo of the defect*



Fresa a carotare
Core bit

Descrizione del difetto
Description of the defect

Usura / bruciatura della parte esterna del tagliente di una fresa a carotare. *Wearing / burning of the external part of the cutting edge of a hollow hole cutter.*

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione. Si tenga conto che la parte esterna dei taglienti è soggetta a usura precoce rispetto alla parte centrale. *Check the cutting parameters are set to the correct tool diameter for the material being worked. Bear in mind that the external part of the cutter wears out more quickly that the central part.*

Immagine del difetto / *Photo of the defect*



Tazza TCT
TCT hole saw

Descrizione del difetto
Description of the defect

Rottura di un dente in metallo duro saldabrasato al corpo dell'utensile. *Breakage of a hard metal tooth that has fused to the body of the tool.*

Possibili soluzioni del problema
Possible solutions to the problem

Il dente in metallo duro è estremamente sensibile agli urti: evitare qualsiasi colpo accidentale durante la foratura ed eviatre tagli discontinui. Eventualemnte preferire altre tipologie di utensili con denti in acciaio superrapido. *The hard metal tooth is extremely sensitive to sudden shocks. Avoid accidental shocks during drilling and discontinuous cuts. If necessary, use another type of tool with super-rapid steel teeth.*

GUIDE DÉPANNAGE POUR LE TRAVAIL DES MÉTAUX

Guía de solución de problemas de procesamiento de metales

Image du dèfaut / *Foto del defecto*



Scie trépan bimetal
Corona perforadora bimetalica

Description du dèfaut
Descripción del defecto

Arrondissement des dents de la scie bi-métal.
Redondeo de los dientes de la sierra bimetálica.

Solutions possibles au problème
Posibles soluciones del problema

L'usure prématurée des crêtes des dents se produit suite à l'utilisation de la scie bi-métal dans l'usinage de matériaux abrasifs pour lesquels elle n'est pas adaptée. *El desgaste precoz de las crestas de los dientes se justifica por el empleo de la sierra bimetálica en el tratamiento de materiales abrasivos para los que no es idónea. Preferir otros tipos de utensilios más aptos a la aplicación específica.*

Image du dèfaut / *Foto del defecto*



Foret étage
Broca escalonada

Description du dèfaut
Descripción del defecto

Collage des copeaux sur les arêtes d'un outil étagé.
Adhesión de las virutas en los bordes afilados de un utensilio escalonado.

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar.*

Image du dèfaut / *Foto del defecto*



Foret conique
Broca conica

Description du dèfaut
Descripción del defecto

Collage des copeaux sur les arêtes d'un outil conique.
Adhesión de las virutas en los bordes afilados de un utensilio cónico.

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar.*

Image du dèfaut / *Foto del defecto*



Foret de centrage
Punta para centrar

Description du dèfaut
Descripción del defecto

Collage des copeaux sur les arêtes de coupe d'un foret de centrage d'une fraise cloche.
Adhesión de las virutas en los bordes afilados de una punta para centrar para fresas a taza.

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar.*

Image du dèfaut / *Foto del defecto*



Scie trépan bimetal
Corona perforadora bimetalica

Description du dèfaut
Descripción del defecto

Usure des dents de la scie bi-métal.
Desgaste de los dientes de la sierra bimetálica.

Solutions possibles au problème
Posibles soluciones del problema

La vitesse de rotation du produit est trop élevée. Respecter scrupuleusement les instructions données dans les tableaux techniques. Decrease the threading and/or advancement speed.
La velocidad de rotación del producto es excesiva. Atenerse escrupulosamente a las indicaciones suministradas en las tablas técnicas.

Image du dèfaut / *Foto del defecto*



Scie trépan bimetal
Corona perforadora bimetalica

Description du dèfaut
Descripción del defecto

Frottement de l'arbre à l'intérieur du raccord fileté de la scie bi-métal. *Roce del eje dentro del empalme fileteado de la sierra bimetálica.*

Solutions possibles au problème
Posibles soluciones del problema

S'assurer que les goupilles de fixation de l'arbre sont insérées correctement dans les sièges appropriés au fond de la cloche bi-métal. *Asegurarse de que los pernos de fijación del eje estén bien introducidos en los adecuados alojamientos en el fondo de la taza bimetálica.*

Image du dèfaut / *Foto del defecto*



Arbre
Husillo

Description du dèfaut
Descripción del defecto

Frottement de la tige d'un arbre de fraisage dans le mandrin. *Roce de la extremidad de un eje para fresas en el mandril.*

Solutions possibles au problème
Posibles soluciones del problema

Problème possible avec le serrage des mâchoires du mandrin.Vérifier également l'état d'affûtage de l'outil : en cas d'usure et donc de faible capacité de coupe, l'outil a tendance à se bloquer dans la pièce à usiner et la tige a tendance à frotter dans le mandrin. Dans ce cas, ne pas insister avec la coupe mais affûter l'outil. *Posible problema de apriete de las mordazas del mandril. Controlar también el estado de afilado del utensilio: en el caso de desgaste y de escasa capacidad cortante, el utensilio tiende a bloquearse en la pieza que hay que tratar y la extremidad tiende a rozar contra el mandril. En este caso no insistir con el corte y afilar el utensilio.*

Image du dèfaut / *Foto del defecto*



Fraise à carotter
Fresa a taza

Description du dèfaut
Descripción del defecto

Usure/brûlure de l'extérieur de l'arête d'une fraise à carotter. *Desgaste / abrasión de la parte externa del borde cortante de una fresa a taza.*

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. Tenir compte du fait que l'extérieur des arêtes est soumise à l'usure précoce par rapport à la partie centrale. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar. Hay que tener en cuenta que la parte externa de los bordes cortantes está sometida a un desgaste precoz con respecto a la parte central.*

Image du dèfaut / *Foto del defecto*



Scie TCT
Fresa TCT

Description du dèfaut
Descripción del defecto

Rupture d'une dent en métal dur soudée au corps de l'outil. *Rotura de un diente de metal duro soldado al cuerpo del utensilio.*

Solutions possibles au problème
Posibles soluciones del problema

La dent en métal dur est extrêmement sensible aux chocs: éviter tout choc accidentel pendant le forage et éviter les coupes discontinues. Choisir plutôt d'autres types d'outils avec des dents en acier super rapide. *El diente de metal duro es muy sensible a los golpes: evitar cualquier golpe accidental durante la perforación y evitar cortes discontinuos. Eventualmente preferir otros tipos de utensilios con dientes de acero súper rápido.*



UTENSILI PER FILETTARE

Threading tools
Outils a fileter
Utensilios a roscar
Gewindebohrer und Schneideisen

HSS-G HSS-CO THREADING

CUTTING TOOLS ENGINEERING

Tapping and threading operations play an important role in industrial works and all types of professional applications.The same general conditions as those for drilling holes in high-speed steel also apply to threading tools; due to the complex nature of threading, it is clear why the range of tappers and dies has been greatly expanded (the chapter has been implemented even further). Therefore, threading tools in HSS-G and HSS-CO are available in a much wider range of pitches for each article and with coatings in TiN and TiAlN for more complex processes. A wide range of special tappers with coloured ring guides the industrial user in the choice of the best use. An entire offer of non-metric threaded fittings was also developed, in particular American and English threaded fittings, while the chapter on metric threaded fittings is certainly all-encompassing. At the end of the chapter is an extensive range of products for repairing damaged or stripped threads. Useful sets are also available complete with all the threading systems in practical wooden or metal boxes for a safe use and easy replacement after use.

Les opérations de filetage et de taraudage ont une importance particulière dans les travaux industriels et dans toutes les applications professionnelles. On peut appliquer les mêmes considérations générales sur les outils de forage en acier super rapide aux outils à fileter ; car les travaux de filetage sont encore plus problématiques, c'est pour cela que l'offre de tarauds et de matrices a été bien élargie (le chapitre a été ultérieurement amélioré). Les outils à fileter en HSS-G et HSS-CO sont dès lors disponibles, avec une gamme de pas fortement élargie pour chaque article, et avec revêtements en TiN et TiAlN pour les travaux les plus difficiles. Une vaste gamme de tarauds spéciaux avec bague colorée qui guide l'utilisateur industriel à un choix d'utilisation correct. De plus, toute l'offre des filetages non métriques a été développée, en particulier les filetages américains et anglais, tandis que le chapitre des métriques est certainement plus que complet. Le chapitre se termine avec un programme détaillé de produits pour le rétablissement des filetages endommagés. Il y a également de précieux ensembles avec tous les systèmes de filetages dans des coffrets pratiques en bois ou en métal, pour une utilisation sure et un rangement facile après utilisation.

Las operaciones de aterrajadura y de roscado asumen una importancia relevante en los trabajos industriales y en todas las aplicaciones profesionales. Para los utensilios que hay que roscar valen las mismas consideraciones generales de los utensilios para perforar de acero super rápido; como las operaciones de roscado son aún más problemáticas, existe una gran motivación para ampliar la oferta de machos y terrajas (el capítulo se ha ampliado ulteriormente). Por lo tanto, se hallan disponibles utensilios para roscar de HSS-G y HSS-CO, con una gama de distancias muy ampliada para cada artículo y con revestimientos de TiN y TiAlN para operaciones más difíciles. Una vasta gama de machos especiales con un anillo pintado sirve de guía para que el usuario industrial los use correctamente. También se ha ampliado la oferta de los roscados no métricos, especialmente de los roscados americanos e ingleses, mientras que se halla completo el capítulo sobre las métricas. El capítulo se cierra con un programa detallado de productos para restaurar las roscas dañadas. También hay utilísimos juegos con todos los sistemas de roscado en cómodas cajas de madera o de metal, para usarlas con seguridad y guardarlas con facilidad después del uso.

Le operazioni di maschiatura e filettatura assumono un'importanza rilevante nelle lavorazioni industriali e in tutte le applicazioni professionali. Valgono, per gli utensili a filettare, le stesse considerazioni generali sugli utensili per forare in acciaio superrapido; poiché le lavorazioni di filettatura sono ancora più problematiche, è così chiara la motivazione del grande sviluppo nell'offerta dei maschi e filiere (il capitolo è stato ulteriormente implementato). Pertanto, sono disponibili utensili a filettare in HSS-G e HSS-CO, con una gamma di passi notevolmente ampliata per ciascun articolo e con rivestimenti al TiN e TiAlN per le lavorazioni più difficili. Una vasta gamma di maschi speciali con anello colorato guida l'utente industriale ad una corretta scelta di utilizzo. È stata inoltre sviluppata tutta l'offerta delle filettature non metriche, in modo particolare le filettature americane ed inglesi, mentre è sicuramente esauriente il capitolo delle metriche. Il capitolo si chiude con un programma dettagliato di prodotti per il ripristino delle filettature danneggiate. Sono presenti anche utilissimi set completi di tutti i sistemi di filettatura in comode cassette di legno o metallo, per un sicuro utilizzo ed un facile ricollocamento dopo l'uso.

MASCHI A MACCHINA, SCANALATURE DIRITTE, IMB. CORRETTO, FIL. METRICA ISO PASSO GROSSO

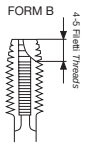
Machine taps, spiral point, metric thread / Tarauds machine, entrée gun, fil. métrique

Machos de maquina, entrada corregida, rosca metrica / Maschinen-Gewindebohrer für metrisches ISO-Regelgewinde

DIN 371/B ISO 2/6H

Gambo rinforzato / Reinforced shank / Queue renforcée / Mango reforzado / Verstärkten Schaft





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

Art. **10163** Self
Disponibile su richiesta
On demand

MICRO MACHINE TAPS HSS-CO

	Ø	/	L	d	pcs	Art. 10162 HSS-G cod.	€ cad/each	Art. 10250 HSS-CO cod.	€ cad/each
M	**1** x 0,25	5	40	2,5	1	-		1025001x025	56,461
	1,1 x 0,25	5	40	2,5	1	-		10250011x025	56,461
	1,2 x 0,25	5	40	2,5	1	-		10250012x025	56,461
	1,4 x 0,3	7	40	2,5	1	-		10250014x030	50,814
	1,6 x 0,35	8	40	2,5	1	-		10250016x035	50,814
	1,7 x 0,35	8	40	2,5	1	-		10250017x035	50,814
	1,8 x 0,35	8	40	2,5	1	-		10250018x035	50,814
	2 x 0,4	8	45	2,8	1	1016202x04	15,110	1025002x04	24,842
	2,5 x 0,45	9	50	2,8	1	10162025x045	15,110	10250025x045	24,842
	3 x 0,5	11	56	3,5	1	1016203x05	10,963	1025003x05	14,172
	3,5 x 0,6	13	56	4	1	10162035x06	18,128	10250035x06	20,460
	4 x 0,7	13	63	4,5	1	1016204x07	11,065	1025004x07	14,172
	5 x 0,8	16	70	6	1	1016205x08	11,310	1025005x08	14,499
	6 x 1	19	80	6	1	1016206x1	11,600	1025006x1	15,324
	7 x 1	19	80	7	1	1016207x1	16,260	1025007x1	20,518
	8 x 1,25	22	90	8	1	1016208x125	14,025	1025008x125	17,831
	9 x 1,25	22	90	9	1	-	-	1025009x125	20,766
	10 x 1,5	24	100	10	1	1016210x15	16,260	1025010x15	20,766

Applicazioni / *Applications*

HSS-G
***R ≤ 700** N/mm²


Acciaio
Steel


Metals

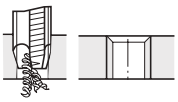


HSS-CO
***R ≤ 850** N/mm²


Inox


Acciaio
Steel




≤ 3 Ø

- Per fori passanti in acciai con R≤*N/mm², ghisa, metalli non ferrosi a truciolo lungo.
- For through holes in steel with R≤*N/mm², cast iron, non ferrous metals with long chip
- Pour trous débouchants en acier avec R≤*N/mm², fonte, alliages légers.
- Para orificios pasantes en materiales de hasta R≤*N/mm².
- Für durchgangsloch in Stahl mit R≤*N/mm², Stahlguss, alu langspanend.



M 3÷12 7 pcs

10240300 HSS-G
€ 88,768

10345300 HSS-CO
€ 118,356

Abs



M 3÷12 14 pcs
2,5-3,3-4,2-5
6,8-8,5-10,2

10240306 HSS-G
€ 108,891

10345306 HSS-CO
€ 139,695

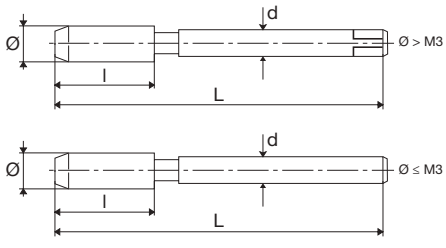
DIN 376/B ISO 2/6H



Confezione / *Packaging*



Art. **10166** Self
Disponibile su richiesta
On demand



	Ø	/	L	d	pcs	Art. 10165 HSS-G cod.	€ cad/each	Art. 10253 HSS-CO cod.	€ cad/each
M	**3** x 0,5	11	56	2,2	1	1016503X05	12,159	1025303X05	18,701
	4 x 0,7	13	63	2,8	1	1016504X07	12,483	1025304X07	19,004
	5 x 0,8	16	70	3,5	1	1016505X08	12,830	1025305X08	19,716
	6 x 1	19	80	4,5	1	1016506X1	13,076	1025306X1	19,874
	8 x 1,25	22	90	6	1	1016508X125	14,058	1025308X125	21,456
	10 x 1,5	24	100	7	1	1016510X15	16,496	1025310X15	25,011
	12 x 1,75	29	110	9	1	1016512X175	19,278	1025312X175	26,942
	14 x 2	30	110	11	1	1016514X2	24,230	1025314X2	37,489
	16 x 2	30	110	12	1	1016516X2	29,514	1025316X2	44,118
	18 x 2,5	34	125	14	1	1016518X25	40,500	1025318X25	55,331
	20 x 2,5	34	140	16	1	1016520X25	42,601	1025320X25	69,727
	22 x 2,5	34	140	18	1	1016522X25	51,531	1025322X25	84,138
	24 x 3	38	160	18	1	1016524X3	61,510	1025324X3	94,752
	27 x 3	38	160	20	1	1016527X3	105,164	1025327X3	127,024
	30 x 3,5	45	180	22	1	1016530X35	126,921	1025330X35	155,108
	33 x 3,5	50	180	25	1	1016533X35	157,140	1025333X35	196,639
	36 x 4	56	200	28	1	1016536X4	187,360	1025336X4	219,844
	39 x 4	60	200	32	1	1016539X4	239,337	1025339X4	296,788
	42 x 4,5	60	200	32	1	1016542X45	269,556	1025342X45	316,324
	45 x 4,5	65	220	36	1	1016545X45	314,282	1025345X45	366,404
	48 x 5	70	250	36	1	1016548X5	381,971	1025348X5	438,458
	52 x 5	70	250	40	1	1016552X5	426,696	1025352X5	510,524
	56 x 5,5	70	250	40	1	- - -	-	1025356X55	1.130,964
	60 x 5,5	75	280	45	1	- - -	-	1025360X55	1.301,960
	64 x 6	80	315	50	1	- - -	-	1025364X6	1.597,517
	68 x 6	80	315	50	1	- - -	-	1025368X6	1.729,430

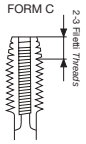
MASCHI A MACCHINA,SCANALATURE DIRITTE,IMB. “C”, FIL. ISO PASSO GROSSO

Machine taps, “C” chamfer form, metric thread / Tarauds machine, entrée “C”, filetage metrique

Machos de maquina, entrada “C”, rosca metrica /Maschinengewindebohrer für metrisches ISO-Regelgewinde

DIN 371/C ISO 2/6H





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

	Ø	/	L	d	pcs	Art. 10168 HSS-G cod.	€ cad/each	Art. 10251 HSS-CO cod.	€ cad/each
M	**2** x 0,4	8	45	2,8	1	1016802X04	15,891	1025102X04	18,789
	2,3 x 0,4	9	45	2,8	1	10168023X04	15,891	10251023X04	18,789
	2,5 x 0,45	9	50	2,8	1	10168025X045	15,891	10251025X045	18,789
	2,6 x 0,45	9	50	2,8	1	10168026X045	15,891	10251026X045	18,789
	3 x 0,5	11	56	3,5	1	1016803X05	10,209	1025103X05	13,656
	3,5 x 0,6	13	56	4	1	10168035X06	16,111	10251035X06	14,610
	4 x 0,7	13	63	4,5	1	1016804X07	10,209	1025104X07	13,656
	5 x 0,8	16	70	6	1	1016805X08	10,442	1025105X08	13,656
	6 x 1	19	80	6	1	1016806X1	11,095	1025106X1	14,553
	7 x 1	19	80	7	1	1016807X1	13,667	1025107X1	18,148
	8 x 1,25	22	90	8	1	1016808X125	12,468	1025108X125	16,519
	10 x 1,5	24	100	10	1	1016810X15	14,982	1025110X15	19,419

Applicazioni / Applications

HSS-G
***R ≤ 700** N/mm²



Acciaio
Steel



Metals

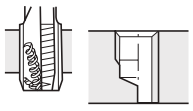
HSS-CO
***R ≤ 850** N/mm²



Inox



Acciaio
Steel



≤ **1,5 Ø**

- Per fori ciechi e passanti in acciai e ghisa con R≤*N/mm²
- For blind and trough holes in steel with R≤*N/mm²
- Pour trous débouchants et borgnes en acier avec R≤*N/mm²
- Para orificios pasantes y ciegos in acero de hasta R≤*N/mm²
- Für grund und durchgangsloch in Stahl, Stahlguss mit R≤*N/mm²

DIN 376/C ISO 2/6 H



Gambo cilindrico Ø ≤ M3
Round shank

	Ø	/	L	d	pcs	Art. 10171 HSS-G cod.	€ cad/each	Art. 10254 HSS-CO cod.	€ cad/each
M	**3** x 0,5	11	56	2,2	1	1017103X05	11,502	1025403X05	15,348
	4 x 0,7	13	63	2,8	1	1017104X07	11,711	1025404X07	15,604
	5 x 0,8	16	70	3,5	1	1017105X08	12,130	1025405X08	16,162
	6 x 1	19	80	4,5	1	1017106X1	12,305	1025406X1	16,321
	8 x 1,25	22	90	6	1	1017108X125	13,225	1025408X125	18,529
	10 x 1,5	24	100	7	1	1017110X15	15,518	1025410X15	21,612
	12 x 1,75	29	110	9	1	1017112X175	18,603	1025412X175	25,981
	14 x 2	30	110	11	1	1017114X2	22,969	1025414X2	32,387
	16 x 2	32	110	12	1	1017116X2	27,031	1025416X2	38,096
	18 x 2,5	34	125	14	1	1017118X25	37,590	1025418X25	47,446
	20 x 2,5	34	140	16	1	1017120X25	39,977	1025420X25	60,116
	22 x 2,5	34	140	18	1	1017122X25	48,230	1025422X25	72,603
	24 x 3	38	160	18	1	1017124X3	52,747	1025424X3	82,028
	27 x 3	38	160	20	1	1017127X3	90,662	1025427X3	108,449
	30 x 3,5	45	180	22	1	1017130X35	110,801	1025430X35	132,055
	33 x 3,5	50	180	25	1	1017133X35	142,280	1025433X35	170,288
	36 x 4	56	200	28	1	1017136X4	158,648	1025436X4	189,973
	39 x 4	60	200	32	1	1017139X4	206,493	1025439X4	246,735
	42 x 4,5	60	200	32	1	1017142X45	230,416	1025442X45	275,696
	45 x 4,5	65	220	36	1	1017145X45	264,420	1025445X45	316,244
	48 x 5	70	250	36	1	1017148X5	317,295	1025448X5	379,957
	52 x 5	70	250	40	1	1017152X5	375,221	1025452X5	449,455

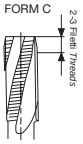
MASCHI A MACCHINA, SCANALATURE DESTRE 15°, IMB. “C”, FIL.METRICA ISO PASSO GROSSO

Machine taps, 15° spiral flute, metric thread / Tarauds machine, goujures 15°, filetage métrique

Machos de maquina, canal helicoidal a 15°, rosca metrica / Maschinen-gewindebohrer, 15° rechtsspirale, für metrisches ISO-Regelgewinde

DIN 371/C-15° ISO 2/6H





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

	Ø	/	L	d	pcs	Art. 10174 HSS-G cod.	€ cad/each	Art. 10256 HSS-CO cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1017403X05	13,143	1025603X05	17,974
	4 x 0,7	13	63	4,5	1	1017404X07	13,411	1025604X07	17,974
	5 x 0,8	16	70	6	1	1017405X08	13,539	1025605X08	17,974
	6 x 1	19	80	6	1	1017406X1	13,993	1025606X1	18,918
	8 x 1,25	22	90	8	1	1017408X125	15,436	1025608X125	20,676
	10 x 1,5	24	100	10	1	1017410X15	18,405	1025610X15	24,342



M 3÷12 7 pcs

10240311 HSS-G
€ 89,949

10345311 HSS-CO
€ 134,724

Abs



M 3÷12 14 pcs
2,5-3,3-4,2-5
6,8-8,5-10,2

10240312 HSS-G
€ 111,255

10345312 HSS-CO
€ 169,986

Applicazioni / *Applications*

HSS-G ***R ≤ 700** N/mm²



Acciaio *Steel*



Metals



HSS-CO ***R ≤ 850** N/mm²

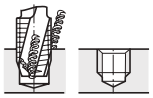


Inox



Acciaio *Steel*





≤ **1,5 Ø**

- Per fori ciechi in acciai con R≤*N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo.
- For blind holes in steel with R≤*N/mm², malleable cast iron, non ferrous metals with long chip.
- Pour trous borgnes en acier avec R≤*N/mm², fonte, alliages légers.
- Para orificios ciegos en acero de hasta R≤*N/mm², aleaciones ligeras, fundiciones.
- Für Sackloch in Stahl mit R≤*N/mm², Stahlguss, alu langspanend.

DIN 376/C-15° ISO 2/6H





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

Gambo cilindrico Ø ≤ M3
Round shank

	Ø	/	L	d	pcs	Art. 10177 HSS-G cod.	€ cad/each	Art. 10258 HSS-CO cod.	€ cad/each
M	**3** x 0,5	11	56	2,2	1	1017703X05	14,226	1025803X05	18,859
	4 x 0,7	13	63	2,8	1	1017704X07	14,959	1025804X07	19,766
	5 x 0,8	16	70	3,5	1	1017705X08	15,110	1025805X08	19,766
	6 x 1	19	80	4,5	1	1017706X1	15,355	1025806X1	20,676
	8 x 1,25	22	90	6	1	1017708X125	16,438	1025808X125	22,119
	10 x 1,5	24	100	7	1	1017710X15	21,059	1025810X15	27,706
	12 x 1,75	29	110	9	1	1017712X175	23,900	1025812X175	31,513
	14 x 2	30	110	11	1	1017714X2	29,267	1025814X2	39,860
	16 x 2	30	110	12	1	1017716X2	34,155	1025816X2	46,484
	18 x 2,5	34	125	14	1	1017718X25	45,948	1025818X25	61,653
	20 x 2,5	34	140	16	1	1017720X25	48,917	1025820X25	65,576
	22 x 2,5	34	140	18	1	1017722X25	59,207	1025822X25	79,731
	24 x 3	38	160	18	1	1017724X3	64,051	1025824X3	85,389

Applicazioni / *Applications*

HSS-G ***R ≤ 700** N/mm²



Acciaio *Steel*



Metals



HSS-CO ***R ≤ 850** N/mm²



Inox



Acciaio *Steel*



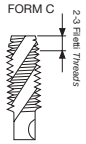
MASCHI A MACCHINA, SCANALATURE DESTRE 35°, IMB. “C”, FIL. METRICA ISO

Machine taps, 35° spiral flute, metric coarse thread / Tarauds machine, goujures 35°, filetage métrique gros

Machos de maquina, canal helicoidal 35°, rosca metrica vasta / Maschinen-Gewindebohrer, 35° rechtsspirale, für metrisches ISO-Regelgewinde

DIN 371/C-35° ISO 2/6H





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

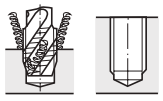
MICRO MACHINE TAPS HSS-CO

Gambo cilindrico Ø ≤ M3
Round shank

	Ø	/	L	d	pcs	Art. 10183 HSS-G cod.	€ cad/each	Art. 10255 HSS-CO cod.	€ cad/each
M	**1** x 0,25	4	40	2,5	1	- - -		1025501x025	72,176
	1,1 x 0,25	4	40	2,5	1	- - -		10255011x025	72,176
	1,2 x 0,25	4	40	2,5	1	- - -		10255012x025	72,176
	1,4 x 0,30	5	40	2,5	1	- - -		10255014x030	65,190
	1,6 x 0,35	6	40	2,5	1	- - -		10255016x035	65,190
	1,7 x 0,35	6	40	2,5	1	- - -		10255017x035	65,190
	1,8 x 0,35	6	40	2,5	1	- - -		10255018x035	65,190
	2 x 0,4	6	45	2,8	1	1018302X04	25,739	1025502X04	30,267
	2,5 x 0,45	6	50	2,8	1	10183025X045	25,739	10255025X045	30,267
	3 x 0,5	6	56	3,5	1	1018303X05	14,830	1025503X05	21,210
	3,5 x 0,6	13	56	4	1	10183035X06	21,187	10255035X06	28,009
	4 x 0,7	7	63	4,5	1	1018304X07	14,830	1025504X07	21,210
	5 x 0,8	8	70	6	1	1018305X08	14,982	1025505X08	21,374
	6 x 1	10	80	6	1	1018306X1	15,681	1025506X1	22,351
	7 x 1	19	80	7	1	1018307X1	22,119	1025507X1	32,595
	8 x 1,25	14	90	8	1	1018308X125	17,194	1025508X125	24,482
	9 x 1,25	14	90	9	1	- - -	-	1025509X125	29,312
	10 x 1,5	16	100	10	1	1018310X15	20,571	1025510X15	29,312

DIN 376/C-35° ISO 2/6H





≤ 3 Ø

- Per fori ciechi in acciai con R≤*N/mm² ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For blind holes in steel with R≤*N/mm² malleable cast iron, non ferrous metal with long chips, stainless steel, heat resistant steel.
- Pour trous borgnes en acier avec R≤*N/mm² fonte, alliages légers, acier inoxidable.
- Para orificios ciegos in acero de hasta R≤*N/mm² aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grundloch in Stahl mit R≤*N/mm², Stahlguss, alu langspanend, korrosions-beständige Stähle (V2A-V4A) etc.

Applicazioni / Applications

HSS-G
***R ≤ 700** N/mm²



Acciaio *Steel* — Metals

HSS-CO
***R ≤ 850** N/mm²



Inox — Acciaio *Steel*

	Ø	/	L	d	pcs	Art. 10180 HSS-G cod.	€ cad/each	Art. 10257 HSS-CO cod.	€ cad/each
M	**3** x 0,5	5	56	2,2	1	1018003X05	16,484	1025703X05	22,222
	4 x 0,7	7	63	2,8	1	1018004X07	16,484	1025704X07	23,329
	5 x 0,8	8	70	3,5	1	1018005X08	16,704	1025705X08	23,329
	6 x 1	10	80	4,5	1	1018006X1	16,995	1025706X1	23,329
	8 x 1,25	13	90	6	1	1018008X125	18,009	1025708X125	25,389
	10 x 1,5	15	100	7	1	1018010X15	22,503	1025710X15	31,723
	12 x 1,75	18	110	9	1	1018012X175	26,205	1025712X175	37,461
	14 x 2	20	110	11	1	1018014X2	33,189	1025714X2	47,357
	16 x 2	22	110	12	1	1018016X2	40,383	1025716X2	57,637
	18 x 2,5	25	125	14	1	1018018X25	53,130	1025718X25	75,797
	20 x 2,5	25	140	16	1	1018020X25	58,673	1025720X25	79,929
	22 x 2,5	25	140	18	1	1018022X25	72,013	1025722X25	98,171
	24 x 3	30	160	18	1	1018024X3	78,358	1025724X3	106,821
	27 x 3	30	160	20	1	1018027X3	117,099	1025727X3	157,390
	30 x 3,5	35	180	22	1	1018030X35	142,280	1025730X35	192,651
	33 x 3,5	35	180	25	1	1018033X35	172,500	1025733X35	232,943
	36 x 4	40	200	28	1	1018036X4	236,250	1025736X4	274,490
	39 x 4	40	200	32	1	1018039X4	304,500	1025739X4	358,853
	42 x 4,5	45	200	32	1	1018042X45	357,000	1025742X45	409,213
	45 x 4,5	45	220	36	1	1018045X45	399,000	1025745X45	457,059
	48 x 5	50	250	36	1	1018048X5	441,000	1025748X5	518,759
	52 x 5	50	250	40	1	1018052X5	525,000	1025752X5	615,706
	56 x 5,5	70	250	40	1	- - -	-	1025756X55	1.344,740
	60 x 5,5	70	280	45	1	- - -	-	1025760X55	1.542,422
	64 x 6	75	315	50	1	- - -	-	1025764X6	1.897,492
	68 x 6	75	315	50	1	- - -	-	1025768X6	2.054,882



M 3÷12 7 pcs

10240305 HSS-G
€ 106,517

10345305 HSS-CO
€ 146,062

Abs



M 3÷12 14 pcs
2,5-3,3-4,2-5
6,8-8,5-10,2

10240307 HSS-G
€ 120,72

10345307 HSS-CO
€ 176,273



M 3÷12 14 pcs
DIN 371/B+371/C 35°

10240310 HSS-G
€ 187,001

10345310 HSS-CO
€ 254,338

MASCHI A MACCHINA PER DADI, FILETTATURA METRICA ISO A PASSO GROSSO

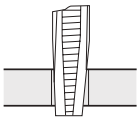
Machine nut taps, metric coarse thread / Tarauds machine à l'enfilade, filetage métrique
Machos de maquina, tipo tuercas, rosca metrica /Maschinen-muttergewindebohrer, metrisches Regel-Gewinde

10273





HSS-CO AISI M35
HV 820÷850



DIN 357
ISO 2/6H

Gambo cilindrico Ø ≤ M3
Round shank

Art. 10273
HSS-CO **M**

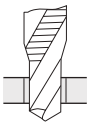
	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	22	70	2,2	1	1027303X05	19,696
	4 x 0,7	25	90	2,8	1	1027304X07	19,696
	5 x 0,8	28	100	3,5	1	1027305X08	21,036
	6 x 1	32	110	4,5	1	1027306X1	22,002
	8 x 1,25	40	125	6	1	1027308X125	28,672
	10 x 1,5	45	140	7	1	1027310X15	32,933
	12 x 1,75	50	180	9	1	1027312X175	42,363
	14 x 2	56	200	11	1	1027314X2	55,634
	16 x 2	63	200	12	1	1027316X2	67,614
	18 x 2,5	63	220	14	1	1027318X25	78,730
	20 x 2,5	70	250	16	1	1027320X25	89,394
	22 x 2,5	80	280	18	1	1027322X25	105,761
	24 x 3	80	280	18	1	1027324X3	124,655

PUNTA-MASCHIO A MACCHINA PER FORATURE E FILETTATURE IN UNA SOLA OPERAZIONE

Combined machine drill-tap for drilling and threading in one operation / Foret taraudeur à machine, filetage métrique
Brocas-macho, rosca metrica normal / Maschinen-kombi-Gewindebohrer für metrisches ISO Regel-Gewinde

10290

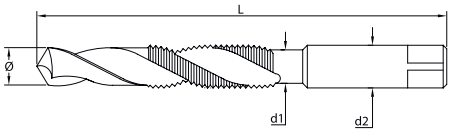




DIN 357
ISO 2/6H

Art. 10290
HSS-CO **M**

	Ø	L	d1	d2	pcs	cod.	€ cad/each
M	**3** x 0,5	56	2,5	3	1	1029003X05	54,401
	4 x 0,7	63	3,3	4	1	1029004X07	54,401
	5 x 0,8	71	4,2	5	1	1029005X08	54,401
	6 x 1	80	5	6	1	1029006X1	60,325
	8 x 1,25	95	6,8	8	1	1029008X125	66,182
	10 x 1,5	106	8,5	10	1	1029010X15	74,283
	12 x 1,75	115	10,2	12	1	1029012X175	88,765

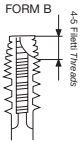


MASCHI A MACCHINA, CAVE DIRITTE E FILETTI ALTERNATI, IMB. CORRETTO, FIL.METRICA ISO

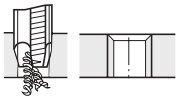
Machine taps, straight flutes, interrupted threads, spiral point / Tarauds machine, goujures droites, entrée B-gun, filets alternés
Machos de maquina, entrada tipo "B" y dientes alternados / Maschinen-gewindebohrer, schälanschnitt form "B", ausgesetzen Zahnen

10261





HSS-CO AISI M35
HV 820÷850



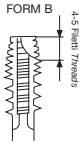
DIN 371/B
ISO 2/6H

Art. 10261
HSS-CO **M**

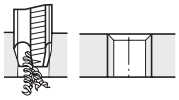
	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1026103X05	20,244
	4 x 0,7	13	63	4,5	1	1026104X07	20,244
	5 x 0,8	16	70	6	1	1026105X08	21,667
	6 x 1	19	80	6	1	1026106X1	21,667
	8 x 1,25	22	90	8	1	1026108X125	26,591
	10 x 1,5	24	100	10	1	1026110X15	31,734

10262





HSS-CO AISI M35
HV 820÷850



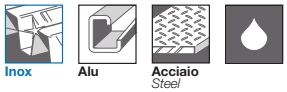
DIN 376/B
ISO 2/6H

Art. 10262
HSS-CO **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	2,2	1	1026203X05	21,788
	4 x 0,7	13	63	2,8	1	1026204X07	21,788
	5 x 0,8	16	70	3,5	1	1026205X08	22,892
	6 x 1	19	80	4,5	1	1026206X1	22,892
	8 x 1,25	22	90	6	1	1026208X125	27,576
	10 x 1,5	24	100	7	1	1026210X15	33,091
	12 x 1,75	29	110	9	1	1026212X175	38,332
	14 x 2	30	110	11	1	1026214X2	49,638
	16 x 2	30	110	12	1	1026216X2	55,152
	18 x 2,5	34	125	14	1	1026218X25	78,864
	20 x 2,5	34	140	16	1	1026220X25	106,714
	22 x 2,5	34	140	18	1	1026222X25	122,712
	24 x 3	38	160	18	1	1026224X3	130,985

Gambo cilindrico Ø ≤ M3
Round shank

Applicazioni / *Applications*



- Per filettature in fori passanti in acciai con R≥900 N/mm², acciai da bonifica e cementazione, acciai inox, materiali di difficile truciolabilità, acciai da utensile, bronzi e leghe di rame, alluminio e leghe, materiali sintetici duri.
- For through holes in steel with R≥900 N/mm², high alloy steel, tool steel, stainless steel, bronze, hard sinterized materials.
- Pour trous debouchants en acier avec R≥900 N/mm², acier allié et acier construction, fonte, bronze, matériel synthétique.
- Para orificios pasantes en aceros con R≥900 N/mm², acero aleado, acero inox, bronze, aluminio y aleaciones ligeras.
- Für durchgangsloch in Stahl mit R≥900 N/mm2 ,werkzeuge Stähle, Bronze, rostfreie Stähle, alu langspanend und kurzpanend.

MASCHI A MACCHINA "CORTI" ISO 529

Short machine taps ISO 529 / Tarauds machine courte ISO 529
Machos de maquina cortos ISO 529 / Kurzmaschinen-Gewindebohrer

10172



ISO 529/B



Art. 10172
HSS-G

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**2** x 0,4	8	41	2,5	1	1017202X04	17,193
	2,5 x 0,45	9,5	44,5	2,8	1	10172025X045	17,193
	2,6 x 0,45	9,5	44,5	2,9	1	10172026X045	17,193
	3 x 0,5	11	48	3,15	1	1017203X05	10,164
	3,5 x 0,6	13	50	3,55	1	10172035X06	10,843
	4 x 0,7	13	53	4	1	1017204X07	10,164
	5 x 0,8	16	58	5	1	1017205X08	12,028
	6 x 1	19	66	6,3	1	1017206X1	12,028
	8 x 1,25	22	72	8	1	1017208X125	13,883
	10 x 1,5	24	80	10	1	1017210X15	17,592
	12 x 1,75	29	89	9	1	1017212X175	24,045



M 3÷12 7 pcs

10240313 HSS
€ 96,845

10173



ISO 529/C 35°



Art. 10173
HSS-G

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**2,5** x 0,45	9,5	44,5	2,8	1	10173025X045	22,600
	2,6 x 0,45	9,5	44,5	2,9	1	10173026X045	22,600
	3 x 0,5	11	48	3,15	1	1017303X05	14,302
	4 x 0,7	13	53	4	1	1017304X07	14,302
	5 x 0,8	16	58	5	1	1017305X08	14,847
	6 x 1	19	66	6,3	1	1017306X1	14,847
	8 x 1,25	22	72	8	1	1017308X125	16,701
	10 x 1,5	24	80	10	1	1017310X15	21,793
	12 x 1,75	29	89	9	1	1017312X175	29,609



M 3÷12 7 pcs

10240314 HSS
€ 111,453

Applicazioni / *Applications*



MASCHI A MACCHINA "SOVRADIMENSIONATI", FIL. DIN 13 A PASSO GROSSO

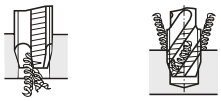
Machine taps oversize / Tarauds machine surdimensionné

Machos de maquina sobredimensionados / Gewindebohrer übergroβ

HSS-CO ISO 3



DIN 371/B **DIN 371/C-35°**
DIN 376/B **DIN 376/C-35°**



Applicazioni / *Applications*



- Per filettature in acciai con R≤850 N/mm², ghisa, metalli non errosi a truciolo lungo.
- For threading in steel with R≤850 N/mm², cast iron, non ferrous metals with long chip
- Pour taraudage en acier avec R≤850 N/mm², fonte, alliages légers.
- Para roscados en materiales de hasta R≤850 N/mm².
- Für Gewinde Stahl mit R≤850 N/mm², Stahlguss, alu Langspanend.

6G

Art. 10310

	Ø	/	L	pcs	cod.	€ cad/each
					DIN 371/B	
M	**3** x 0,5	11	56	1	1031003X05	19,006
	4 x 0,7	13	63	1	1031004X07	19,006
	5 x 0,8	16	70	1	1031005X08	19,802
	6 x 1	19	80	1	1031006X1	19,802
	8 x 1,25	22	90	1	1031008X125	24,287
	10 x 1,5	24	100	1	1031010X15	27,722
					DIN 376/B	
M	**12** x 1,75	29	110	1	1031012X175	33,264

Art. 10313

/	L	pcs	cod.	€ cad/each
			DIN 371/C-35°	
6	56	1	1031303X05	22,704
7	63	1	1031304X07	22,704
8	70	1	1031305X08	23,763
10	80	1	1031306X1	23,763
14	90	1	1031308X125	29,043
16	100	1	1031310X15	33,527

7G

Art. 10311

	Ø	/	L	pcs	cod.	€ cad/each
					DIN 371/B	
M	**3** x 0,5	11	56	1	1031103X05	19,278
	4 x 0,7	13	63	1	1031104X07	19,278
	5 x 0,8	16	70	1	1031105X08	20,325
	6 x 1	19	80	1	1031106X1	20,325
	8 x 1,25	22	90	1	1031108X125	25,605
	10 x 1,5	24	100	1	1031110X15	30,624
					DIN 376/B	
M	**12** x 1,75	29	110	1	1031112X175	35,382

Art. 10314

/	L	pcs	cod.	€ cad/each
			DIN 371/C-35°	
6	56	1	1031403X05	23,238
7	63	1	1031404X07	23,238
8	70	1	1031405X08	25,082
10	80	1	1031406X1	25,082
14	90	1	1031408X125	31,945
16	100	1	1031410X15	37,759
			DIN 376/C-35°	
18	110	1	1031412X175	40,661

+ 0,1 mm

Art. 10312

	Ø	/	L	pcs	cod.	€ cad/each
					DIN 371/B	
M	**3** x 0,5	11	56	1	1031203X05	19,278
	4 x 0,7	13	63	1	1031204X07	19,278
	5 x 0,8	16	70	1	1031205X08	20,325
	6 x 1	19	80	1	1031206X1	20,325
	8 x 1,25	22	90	1	1031208X125	25,605
	10 x 1,5	24	100	1	1031210X15	30,624
					DIN 376/B	
M	**12** x 1,75	29	110	1	1031212X175	35,382

Art. 10315

/	L	pcs	cod.	€ cad/each
			DIN 371/C-35°	
6	56	1	1031503X05	23,238
7	63	1	1031504X07	23,238
8	70	1	1031505X08	25,082
10	80	1	1031506X1	25,082
14	90	1	1031508X125	31,945
16	100	1	1031510X15	37,759
			DIN 376/C-35°	
18	110	1	1031512X175	40,924

6G: filetto con tolleranza lasca / *thread with large clearance.*
7G: tolleranza necessaria per tenere conto delle distorsioni da trattamento termico / *allowance for distorsion caused by heat treatment.*
+0,1 mm: tolleranza che tiene conto di un eventuale spessore di rivestimento elettrodeposto (0,25 µm) / *electroplating allowance thickness.*

Tech 442

MASCHI A MACCHINA "LUNGHI", FILETTATURA METRICA ISO A PASSO GROSSO

Long machine taps, ISO metric coarse threads / Tarauds machine long filetage metric ISO

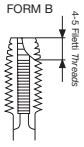
Machos de máquina largos, rosca metrica larga / Lange maschinen-gewindebohrer, metrisches-Regelgewinde

10291

Art. 10291
HSS-CO **M**

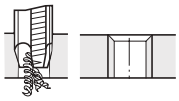


FORM B



HSS-CO AISI M35
HV 820÷850

≃ DIN 371/B
ISO 2/6H



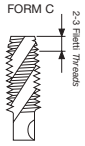
Ø	L	/	d	pcs	cod.	€ cad/each
M **3** x 0,5	**100**	11	3,5	1	1029103100	24,272
4 x 0,7	**100**	13	4,5	1	1029104100	24,272
4 x 0,7	**120**	13	4,5	1	1029104120	25,785
5 x 0,8	**100**	16	6	1	1029105100	25,785
5 x 0,8	**120**	16	6	1	1029105120	27,764
5 x 0,8	**150**	16	6	1	1029105150	29,649
6 x 1	**100**	19	6	1	1029106100	25,785
6 x 1	**120**	19	6	1	1029106120	27,764
6 x 1	**150**	19	6	1	1029106150	29,649
8 x 1,25	**120**	22	8	1	1029108120	31,641
8 x 1,25	**150**	22	8	1	1029108150	36,647
10 x 1,5	**120**	24	10	1	1029110120	36,647
10 x 1,5	**150**	24	10	1	1029110150	44,574
12 x 1,75	**120**	29	12	1	1029112120	42,491
12 x 1,75	**150**	29	12	1	1029112150	51,106

10292

Art. 10292
HSS-CO **M**

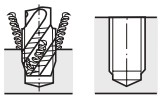


FORM C



HSS-CO AISI M35
HV 820÷850

≃ DIN 371/C-35°
ISO 2/6H



Ø	L	/	d	pcs	cod.	€ cad/each
M **3** x 0,5	**100**	6	3,5	1	1029203100	28,707
4 x 0,7	**100**	7	4,5	1	1029204100	28,707
4 x 0,7	**120**	7	4,5	1	1029204120	29,649
5 x 0,8	**100**	8	6	1	1029205100	30,699
5 x 0,8	**120**	8	6	1	1029205120	32,676
5 x 0,8	**150**	8	6	1	1029205150	35,611
6 x 1	**100**	10	6	1	1029206100	30,699
6 x 1	**120**	10	6	1	1029206120	32,676
6 x 1	**150**	10	6	1	1029206150	35,611
8 x 1,25	**120**	14	8	1	1029208120	37,590
8 x 1,25	**150**	14	8	1	1029208150	41,549
10 x 1,5	**120**	16	10	1	1029210120	43,538
10 x 1,5	**150**	16	10	1	1029210150	50,523
12 x 1,75	**120**	18	12	1	1029212120	45,401
12 x 1,75	**150**	18	12	1	1029212150	54,133

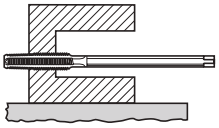
Applicazioni / Applications

R ≤ 850 N/mm²

Inox

Acciaio
Steel

- Per maschiature in acciai con R≤850 N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai refrattari, acciai inox.
- For threading steel with R≤850 N/mm²,malleable cast iron, nonferrous metal with long chips, heat-resistant and refractory steel, stainless steel.
- Pour tarauder acier avec R≤850 N/mm², fonte malléable, alliages lègers, acier réfractaire et acier inoxydable.
- Para aterrajar acero con R≤850 N/mm², fundición, aleaciones ligeras, acero aleado y refractario, acero inoxidable.
- Um in Stahl mit R≤850 N/mm², Temperguss, Nichteisenmetalle, hitzbeständigem Stahl und rostfreierem Stahl Gewinde zu bohren.



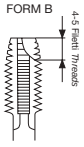
MASCHI A MACCHINA CON TRATTAMENTO DI RIVESTIMENTO SUPERFICIALE

Machine taps with coating treatment / Tarauds machine avec traitement de revetement superficiel
Machos de maquina con tratamiento de recubrimiento superficial / Maschinengewindebohrer mit Beschichtung

10297 10298

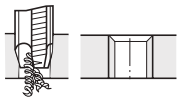






HSS-CO
HV 820÷850

DIN 371/B **DIN 376/B**
HSS-CO VAPO



Art. 10297
HSS-CO VAPO

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1029703X05	17,593
	4 x 0,7	13	63	4,5	1	1029704X07	17,593
	5 x 0,8	16	70	6	1	1029705X08	18,576
	6 x 1	19	80	6	1	1029706X1	18,576
	8 x 1,25	22	90	8	1	1029708X125	21,963
	10 x 1,5	24	100	10	1	1029710X15	26,275

Art. 10298
HSS-CO VAPO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1029812X175	32,894
	14 x 2	30	110	11	1	1029814X2	44,626
	16 x 2	30	110	12	1	1029816X2	51,728
	18 x 2,5	34	125	14	1	1029818X25	71,444
	20 x 2,5	34	140	16	1	1029820X25	98,929

Finitura: Ossidazione in vapore di Fe_3O_4 che aumenta la durezza superficiale e la resistenza a usura riducendo la tendenza all'incollamento dei trucioli.
Finish: Steam Tempered of Fe_3O_4, increasing surface hardness and wear resistance.



M 3÷12 7 pcs

10345315
HSS-CO VAPO
€ 166,202

10299 10300

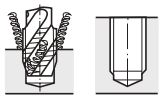






HSS-CO
HV 820÷850

DIN 371/C - 35° **DIN 376/C - 35°**
HSS-CO VAPO



Art. 10299
HSS-CO VAPO

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1029903X05	25,092
	4 x 0,7	7	63	4,5	1	1029904X07	25,092
	5 x 0,8	8	70	6	1	1029905X08	26,074
	6 x 1	10	80	6	1	1029906X1	26,074
	8 x 1,25	14	90	8	1	1029908X125	31,313
	10 x 1,5	16	100	10	1	1029910X15	36,542

Art. 10300
HSS-CO VAPO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1030012X175	44,932
	14 x 2	20	110	11	1	1030014X2	57,477
	16 x 2	22	110	12	1	1030016X2	61,633
	18 x 2,5	25	125	14	1	1030018X25	87,705
	20 x 2,5	25	140	16	1	1030020X25	114,805



M 3÷12 7 pcs

10345316
HSS-CO VAPO
€ 203,978

Applicazioni / *Applications*

R ≤ 900 N/mm²

Acciaio
Steel

Metals

- Per acciai con R ≤ 900 N/mm², materiali mediamente abrasivi, ghisa e metalli in genere.
- Suitable for steel with R≤ 900 N/mm², quite abrasive materials, cast iron, metals.
- Para los aceros con R ≤ 900 N/mm², materiales medianamente abrasivos, fundición y todos los metales.
- Pour les aciers avec R ≤ 900 N/mm², matériaux modérément abrasifs, de la fonte et tous les métaux.

MASCHI A MACCHINA IN HSS-CO RIVESTITI AL TiN, FIL. METRICA ISO A PASSO GROSSO

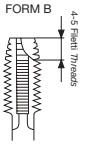
HSS-CO TiN coated machine taps, metric thread /Tarauds machine HSS-CO avec revêtement TiN, fil. métrique / Machos de maquina HSS-CO con recubrimiento de titanio, rosca metrica / Maschinengewindebohrer mit TiN beschichtung für metrisches ISO Regelgewinde

10350 10351



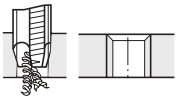


DIN 371/B DIN 376/B



HSS-CO+TiN
HV 0,05=2500





Art. 10350
HSS-CO+TiN

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1035003X05	26,437
	4 x 0,7	13	63	4,5	1	1035004X07	23,668
	5 x 0,8	16	70	6	1	1035005X08	26,251
	6 x 1	19	80	6	1	1035006X1	27,286
	8 x 1,25	22	90	8	1	1035008X125	34,924
	10 x 1,5	24	100	10	1	1035010X15	37,836

Art. 10351
HSS-CO+TiN

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1035112X175	45,262
	14 x 2	30	110	11	1	1035114X2	57,555
	16 x 2	30	110	12	1	1035116X2	65,319
	18 x 2,5	34	125	14	1	1035118X25	79,801
	20 x 2,5	34	140	16	1	1035120X25	95,459
	22 x 2,5	34	140	18	1	1035122X25	104,503
	23 x 3	38	160	18	1	1035124X3	125,913



M 3÷12 7 pcs

10390300
HSS-CO+TiN
€ 195,167

10354 10355



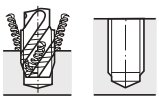


DIN 371/C-35° DIN 376/C-35°



HSS-CO+TiN





Art. 10354
HSS-CO+TiN

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1035403X05	31,292
	4 x 0,7	7	63	4,5	1	1035404X07	31,292
	5 x 0,8	8	70	6	1	1035405X08	29,802
	6 x 1	10	80	6	1	1035406X1	30,814
	8 x 1,25	14	90	8	1	1035408X125	40,116
	10 x 1,5	16	100	10	1	1035410X15	44,644

Art. 10355
HSS-CO+TiN

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1035512X175	54,667
	14 x 2	20	110	11	1	1035514X2	67,951
	16 x 2	22	110	12	1	1035516X2	77,030
	18 x 2,5	25	125	14	1	1035518X25	93,537
	20 x 2,5	25	140	16	1	1035520X25	111,059
	22 x 2,5	25	140	18	1	1035522X25	128,426
	24 x 3	30	160	18	1	1035524X3	143,538



M 3÷12 7 pcs

10390305
HSS-CO+TiN
€ 226,644

Applicazioni / Applications

R ≤ 1200 N/mm²



Inox



Acciaio
Steel



- Alto rendimiento nella filettatura in acciai ad elevata resistenza sino a R≤1200 N/mm², quali acciai da bonifica alto legati, acciai inox, acciai resistenti agli acidi, acciai refrattari. Temperatura max. di lavoro 550°.
- High performances in high strength steel R≤1200 N/mm², stainless steel, acid resistant steel, high alloy construction steel.
- Haute rendement en taraudage des aciers alliés traités, acier inox, acier refractaire avec R≤1200 N/mm².
- Alto rendimiento en taladro de acero de alta resistencia de hasta R≤1200 N/mm², acero inox, acero tratado, etc.
- Breites anwendungsspektrum u.a. für gut Spanbare Stähle, rostfrei Stähle, Säurebeständigestähle und Vergütungsstähle bis 1200 N/mm².

MASCHI A MACCHINA UNIVERSALI, FILETTATURA METRICA ISO A PASSO GROSSO

Universal machine taps, metric thread / Tarauds machine, fil. Metrique
Machos de maquina, rosca metrica / Maschinen-Gewindebohrer für metrisches ISO-Regelgewinde

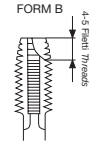
SUPER POWER TAPS
METALLURGIA DELLE POLVERI
POWDER METALLURGY

10362

HSS-CO (PM)+TiN DIN 371/B ISO 2/6H
Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft* **M**



DIN 371/B DIN 376/B



HSS-CO+TiN
HV 0,05=2500

443

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**2** x 0,4	8	45	2,8	1	1036202X04	26,895
	3 x 0,5	11	56	3,5	1	1036203X05	33,486
	4 x 0,7	13	63	4,5	1	1036204X07	33,486
	5 x 0,8	16	70	6	1	1036205X08	34,287
	6 x 1	19	80	6	1	1036206X1	40,921
	8 x 1,25	22	90	8	1	1036208X125	45,819
	10 x 1,5	24	100	10	1	1036210X15	60,380



M 3÷12 7 pcs

10390320
HSS-CO+TiN
€ 356,108

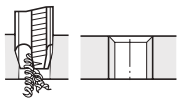
HSS-CO (PM)+TiN DIN 376/B ISO 2/6H

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1036212X175	72,046
	14 x 2	20	110	11	1	1036214X2	109,095
	16 x 2	22	110	12	1	1036216X2	109,095
	18 x 2,5	25	125	14	1	1036218X25	177,310
	20 x 2,5	25	140	16	1	1036220X25	183,099



M 3÷12 14 pcs
2,5-3,3-4,2-5
6,8-8,5-10,2

10390321
HSS-CO+TiN
€ 365,925



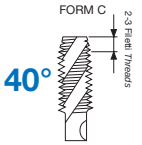
≤ 3 Ø

10363

HSS-CO+TiN DIN 371/C-40° ISO 2/6H
Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft* **M**

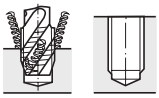


DIN 371/C-40°



HSS-CO+TiN

443



≤ 3 Ø

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**2** x 0,4	6	45	2,8	1	1036302X04	24,935
	3 x 0,5	6	56	3,5	1	1036303X05	28,854
	4 x 0,7	7	63	4,5	1	1036304X07	30,768
	5 x 0,8	8	70	6	1	1036305X08	31,169
	6 x 1	10	80	6	1	1036306X1	38,961
	8 x 1,25	14	90	8	1	1036308X125	41,945
	10 x 1,5	16	100	10	1	1036310X15	53,612

Metallurgia delle polveri / Powder metallurgy

L'acciaio superrapido, derivato dal processo di metallurgia delle polveri, offre prestazioni eccezionali: presenta una elevata durezza a caldo e una elevata tenacità, garantita dall'alto contenuto di elementi di lega e dalla microstruttura fortemente omogenea. Gli utensili prodotti con la metallurgia delle polveri (Powder Metallurgy) hanno una durata più elevata ed un rendimento più alto, oltre che una finitura superficiale ottima, che agevola lo scorrimento dei trucioli di lavorazione lontano dalla zona di taglio.
HSS made by powder metallurgy has excellent performances: its homogeneous structure assures high toughness and high resistance. The finishing of the tools are really smooth, so the chip can easily be evacuated far from the cutting zone, thus avoiding built-up edge growth. L'acier super rapide, issu du procédé de métallurgie des poudres, offre des performances exceptionnelles : il présente une dureté à chaud élevée et une haute ténacité, garantie par la forte teneur en éléments d'alliage et par la microstructure très homogène. Les outils fabriqués avec la métallurgie des poudres (Powder Metallurgy) ont une durée et un rendement plus élevés ainsi qu'une excellente finition de surface, ce qui facilite le glissement des copeaux d'usinage hors de la zone de découpe. El acero super-rápido derivado del proceso de metalurgia de los polvos ofrece unas prestaciones excepcionales; presenta una elevada dureza en caliente y una elevada tenacidad, garantizada por el alto contenido de elementos de aleación y por la micro-estructura altamente homogénea. Los utensilios producidos con la metalurgia de los polvos (Powder Metallurgy) tienen una duración más extensa y un rendimiento más elevado, además de un óptimo acabado superficial, que facilita el deslizamiento de las rebabas del trabajo lejos de la zona de corte. Der Hochleistungs-Schnellstahl aus dem Verfahren der Pulvermetallurgie bietet außergewöhnliche Leistungen: er verfügt über eine hohe Hitzebeständigkeit und eine hohe Zähigkeit, die durch den hohen Gehalt an Legierungselementen und die äußerst homogene Mikrostruktur garantiert ist. Die mit der Pulvermetallurgie (Powder Metallurgy) hergestellten Werkzeuge besitzen eine höhere Haltbarkeit und eine höhere Arbeitsleistung. Zudem bieten sie eine hervorragende Oberflächengüte, die das Gleiten der Späne aus dem Schneidbereich erleichtert.

MASCHI A MACCHINA UNIVERSALI, FILETTATURA METRICA ISO A PASSO GROSSO

Universal machine taps, metric thread / Tarauds machine, fil. Metrique

Machos de maquina, rosca metrica / Maschinen-Gewindebohrer für metrisches ISO-Regelgewinde

SUPER POWER TAPS

10515



DIN 371/B DIN 376/B

HSS-CO DIN 371/B ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*

Ø	/	L	d	pcs	cod.	€ cad/each
M **3** x 0,5	11	56	3,5	1	1051503X05	20,270
4 x 0,7	13	63	4,5	1	1051504X07	20,607
5 x 0,8	16	70	6,0	1	1051505X08	20,607
6 x 1	19	80	6,0	1	1051506X1	20,985
8 x 1,25	22	90	8,0	1	1051508X125	24,308
10 x 1,5	24	100	10,0	1	1051510X15	29,059

HSS-CO DIN 376/B ISO 2/6H

Ø	/	L	d	pcs	cod.	€ cad/each
M **12** x 1,75	29	110	9,0	1	1051512X175	36,797
14 x 2	30	110	11,0	1	1051514X2	54,291
16 x 2	30	110	12,0	1	1051516X2	54,291
20 x 2,5	34	140	16,0	1	1051520X25	86,463

VAPO



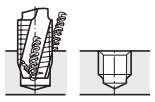
M 3÷12 7 pcs

10520307
HSS-CO VAPO
€ 205,520

10516



DIN 371/C-40° DIN 376/C-40°



≤ 3 Ø

HSS-CO DIN 371/C-40° ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*

Ø	/	L	d	pcs	cod.	€ cad/each
M **3** x 0,5	6	56	3,5	1	1051603X05	21,363
4 x 0,7	7	63	4,5	1	1051604X07	21,363
5 x 0,8	8	70	6,0	1	1051605X08	22,457
6 x 1	10	80	6,0	1	1051606X1	23,172
8 x 1,25	14	90	8,0	1	1051608X125	27,251
10 x 1,5	16	100	10,0	1	1051610X15	31,288

HSS-CO DIN 376/B ISO 2/6H

Ø	/	L	d	pcs	cod.	€ cad/each
M **12** x 1,75	18,5	110	9,0	1	1051612X175	35,703
16 x 2	20	110	12,0	1	1051616X2	52,483
20 x 2,5	25	140	16,0	1	1051620X25	79,147

VAPO

Applicazioni / *Applications*
R ≤ 900 N/mm²



Inox **Acciaio** *Steel*

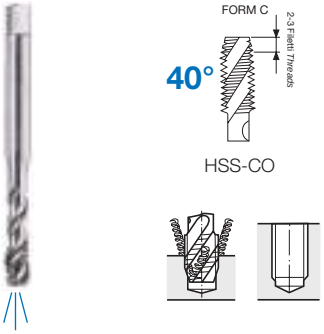
- I maschi con anello verde hanno un alto rendimento nella filettatura di acciai con resistenza R<900 N/mm², materiali mediamente abrasivi, alluminio e sue leghe, acciai in genere e ghise. Il trattamento superficiale di vaporizzazione aumenta la durezza superficiale e la resistenza a usura del maschio.
- Green ring machine taps are useful when threading steel with R<900 N/mm², light abrasive materials, aluminium and its alloys, general steels and cast iron. The steam tempering of the tap increases hardness and wear resistance.

MASCHI A MACCHINA CON CANALINA DI REFRIGERAZIONE INTERNA, FILETTATURA METRICA ISO A PASSO GROSSO

Machine taps with internal cooling system, ISO metric thread / Tarauds machine avec trous réfrigérants, filetage metric ISO

Machos de màquina con sistema de refrigeración interno, rosca metrica larga / Maschinen-gewindebohrer mit Schmierloch, metrisches-Regelgewinde

10330



HSS-CO DIN 371/C-40° ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*

Ø	/	L	d	pcs	cod.	€ cad/each
M **5** x 0,8	8,5	70	6	1	1033005X08	89,056
6 x 1	11	80	6	1	1033006X1	89,056
8 x 1,25	14	90	8	1	1033008X125	89,056
10 x 1,5	16	100	10	1	1033010X15	126,656

MASCHI A MACCHINA IN HSS-CO RIVESTITI AL TiAlN, FIL. METRICA ISO A PASSO GROSSO

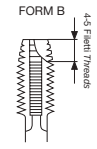
HSS-CO TiAlN coated machine taps / Tarauds machine HSS-CO avec revêtement TiAlN, fil. métrique / Machos de maquina HSS-CO con recubrimiento TiAlN, rosca metrica / Maschinengewindebohrer mit TiAlN beschichtung für metrisches ISO Regelgewinde

10400 10401



DIN 371/B DIN 376/B





HSS-CO+TiAlN
HV 0,05=3000
T° Max.: 800°C



Art. 10400
HSS-CO+TiAlN

M

Ø	/	L	d	pcs	cod.	€ cad/each
M **3** x 0,5	11	56	3,5	1	1040003X05	28,963
4 x 0,7	13	63	4,5	1	1040004X07	28,963
5 x 0,8	16	70	6	1	1040005X08	28,963
6 x 1	19	80	6	1	1040006X1	30,850
8 x 1,25	22	90	8	1	1040008X125	36,519
10 x 1,5	24	100	10	1	1040010X15	39,569

Art. 10401 - HSS-CO+TiAlN

Ø	/	L	d	pcs	cod.	€ cad/each
M **12** x 1,75	29	110	9	1	1040112X175	52,095
14 x 2	30	110	11	1	1040114X2	66,542
16 x 2	30	110	12	1	1040116X2	74,935
18 x 2,5	34	125	14	1	1040118X25	89,405
20 x 2,5	34	140	16	1	1040120X25	109,545
22 x 2,5	34	140	18	1	1040122X25	123,397
24 x 3	38	160	18	1	1040124X3	143,538



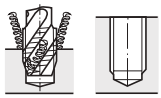
M 3÷12 7 pcs

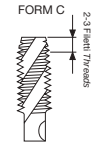
10450300
HSS-CO+TiAlN
€ 224,130

10404 10405



DIN 371/C-35° DIN 376/C-35°





HSS-CO+TiAlN
HV 0,05=3300
T° Max.: 800°C



Art. 10404
HSS-CO+TiAlN

M

Ø	/	L	d	pcs	cod.	€ cad/each
M **3** x 0,5	6	56	3,5	1	1040403X05	34,621
4 x 0,7	7	63	4,5	1	1040404X07	34,621
5 x 0,8	8	70	6	1	1040405X08	36,008
6 x 1	10	80	6	1	1040406X1	36,647
8 x 1,25	14	90	8	1	1040408X125	45,331
10 x 1,5	16	100	10	1	1040410X15	49,673

Art. 10405 - HSS-CO+TiAlN

Ø	/	L	d	pcs	cod.	€ cad/each
M **12** x 1,75	18	110	9	1	1040512X175	62,421
14 x 2	20	110	11	1	1040514X2	78,183
16 x 2	22	110	12	1	1040516X2	88,090
18 x 2,5	25	125	14	1	1040518X25	104,702
20 x 2,5	25	140	16	1	1040520X25	127,170
22 x 2,5	25	140	18	1	1040522X25	143,538
24 x 3	30	160	18	1	1040524X3	164,945



M 3÷12 7 pcs

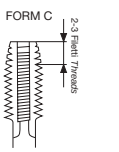
10450305
HSS-CO+TiAlN
€ 250,567

MASCHI A MACCHINA CON CANALINA DI REFRIGERAZIONE INTERNA, FILETTATURA METRICA ISO A PASSO GROSSO

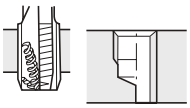
Machine taps with internal cooling system, ISO metric thread / Tarauds machine avec trous réfrigérants, filetage metric ISO / Machos de màquina con sistema de refrigeración interno, rosca metrica larga / Maschinen-gewindebohrer mit Schmierloch, metrisches-Regelgewinde

10340





HM
SOLID CARBIDE



HM DIN 371/C ISO 6HX **TOP PERFORMANCE**

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*

Ø	/	L	d	pcs	cod.	€ cad/each
M **3** x 0,5	8	56	3,5	1	1034003X05	142,489
4 x 0,7	10	63	4,5	1	1034004X07	142,489
5 x 0,8	10	70	6	1	1034005X08	168,216
6 x 1	12	80	6	1	1034006X1	168,216
8 x 1,25	16	90	8	1	1034008X125	255,293
10 x 1,5	18	100	10	1	1034010X15	255,293

Applicazioni / *Applications*
R ≤ 1300 N/mm²



Inox Acciaio *Steel*

- Altissimo rendimento nella maschiatura di acciai ad alta resistenza sino R≤1300 N/mm², quali acciai inox, acciai resistenti alla corrosione, acciai refrattari, acciai da bonifica alto legati trattati. Temperatura operativa sino a 800°
- High performances in high strength steel with R≤1300 N/mm², stainless steel, heat resistant steel, high alloy steel.

MASCHI A MACCHINA, SCAN. DIRITTE, IMB. CORRETTO, FILETTATURA METRICA ISO A PASSO FINE

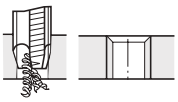
Machine taps, metric ISO fine thread /Tarauds machine, filetage métrique pas fin

Machos de maquina, rosca metrica fina / Maschinengewindebohrer für metrisches ISO fein-Gewinde

10259

HSS-CO DIN 374/B ISO 2/6H — MF





Gambo cilindrico
Ø ≤ M3
Round shank

Applicazioni / *Applications*

R ≤ 850 N/mm²



Inox



Acciaio
Steel



Metals



Alu



- Per fori passanti in acciai con R≤850 N/mm², ghisa, metalli non ferrosi a truciolo lungo.
- For through holes in steel with R≤850 N/mm², cast iron, non ferrous metals with long chip.
- Pour trous débouchants en acier avec R≤850 N/mm², fonte, alliages légers.
- Para orificios pasantes en materiales de hasta R≤850 N/mm².
- Für durchgangsloch in Stahl mit R≤850 N/mm², Stahlguss, alu langspanend.

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,35	9	56	2,2	1	1025903X035	32,712
	4 x 0,35	10	63	2,8	1	1025904X035	32,712
	4 x 0,5	10	63	2,8	1	1025904X05	28,533
	5 x 0,5	12	70	3,5	1	1025905X05	28,533
	5 x 0,75	12	70	3,5	1	1025905X075	32,712
	6 x 0,5	14	80	4,5	1	1025906X05	29,336
	6 x 0,75	14	80	4,5	1	1025906X075	29,336
	7 x 0,75	14	80	5,5	1	1025907X075	40,360
	8 x 0,5	19	80	6	1	1025908X05	46,565
	8 x 0,75	19	80	6	1	1025908X075	37,836
	8 x 1	22	90	6	1	1025908X1	33,120
	9 x 0,75	19	80	7	1	1025909X075	44,178
	9 x 1	22	90	7	1	1025909X1	40,360
	10 x 0,75	20	90	7	1	1025910X075	38,579
	10 x 1	20	90	7	1	1025910X1	38,579
	10 x 1,25	24	100	7	1	1025910X125	38,579
	11 x 1	20	90	8	1	1025911X1	54,656
	11 x 1,25	22	90	8	1	1025911X125	54,656
	12 x 0,75	22	100	9	1	1025912X075	54,656
	12 x 1	22	100	9	1	1025912X1	45,017
	12 x 1,25	22	100	9	1	1025912X125	45,017
	12 x 1,5	22	100	9	1	1025912X15	45,017
	13 x 1	22	100	11	1	1025913X1	64,003
	13 x 1,5	22	100	11	1	1025913X15	64,003
	14 x 0,75	22	100	11	1	1025914X075	64,003
	14 x 1	22	100	11	1	1025914X1	64,003
	14 x 1,25	22	100	11	1	1025914X125	64,003
	14 x 1,5	22	100	11	1	1025914X15	64,003
	15 x 1	22	100	12	1	1025915X1	64,003
	15 x 1,5	22	100	12	1	1025915X15	64,003
	16 x 1	22	100	12	1	1025916X1	64,003
	16 x 1,25	22	100	12	1	1025916X125	64,003
	16 x 1,5	22	100	12	1	1025916X15	64,003
	18 x 1	25	110	14	1	1025918X1	77,019
	18 x 1,25	25	110	14	1	1025918X125	77,019
	18 x 1,5	25	110	14	1	1025918X15	77,019
	18 x 2	34	125	14	1	1025918X2	77,019
	20 x 1	25	125	16	1	1025920X1	82,153
	20 x 1,25	25	125	16	1	1025920X125	82,153
	20 x 1,5	25	125	16	1	1025920X15	82,153
	20 x 2	34	140	16	1	1025920X2	82,153
	21 x 1,5	25	125	16	1	1025921X15	111,256
	22 x 1	25	125	18	1	1025922X1	111,256
	22 x 1,25	25	125	18	1	1025922X125	111,256
	22 x 1,5	25	125	18	1	1025922X15	111,256
	22 x 2	34	140	18	1	1025922X2	111,256
	23 x 1,5	25	125	18	1	1025923X15	148,577
	24 x 1	28	140	18	1	1025924X1	128,426
	24 x 1,25	28	140	18	1	1025924X125	128,426
	24 x 1,5	28	140	18	1	1025924X15	128,426
	24 x 2	28	140	18	1	1025924X2	128,426
	25 x 1	28	140	18	1	1025925X1	148,577

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**25** x 1,5	28	140	18	1	1025925X15	148,577
	25 x 2	28	140	18	1	1025925X2	148,577
	26 x 1	28	140	18	1	1025926X1	147,320
	26 x 1,5	28	140	18	1	1025926X15	147,320
	26 x 2	28	140	18	1	1025926X2	147,320
	27 x 1	28	140	20	1	1025927X1	158,648
	27 x 1,5	28	140	20	1	1025927X15	158,648
	27 x 2	28	140	20	1	1025927X2	158,648
	28 x 1	28	140	20	1	1025928X1	158,648
	28 x 1,5	28	140	20	1	1025928X15	158,648
	28 x 2	28	140	20	1	1025928X2	158,648
	29 x 1,5	28	150	22	1	1025929X15	214,048
	30 x 1	28	150	22	1	1025930X1	183,827
	30 x 1,5	28	150	22	1	1025930X15	183,827
	30 x 2	28	150	22	1	1025930X2	183,827
	30 x 2,5	45	180	22	1	1025930X25	205,236
	30 x 3	45	180	22	1	1025930X3	205,236
	32 x 1,5	28	150	22	1	1025932X15	230,416
	32 x 2	28	150	22	1	1025932X2	230,416
	32 x 3	50	180	22	1	1025932X3	230,416
	33 x 1,5	30	160	25	1	1025933X15	256,865
	33 x 2	30	160	25	1	1025933X2	256,865
	33 x 3	50	180	25	1	1025933X3	256,865
	34 x 1,5	30	170	28	1	1025934X15	261,894
	34 x 2	30	170	28	1	1025934X2	261,894
	35 x 1,5	30	170	28	1	1025935X15	273,232
	36 x 1,5	30	170	28	1	1025936X15	273,232
	36 x 2	30	170	28	1	1025936X2	273,232
	36 x 3	56	200	28	1	1025936X3	273,232
	38 x 1,5	30	170	28	1	1025938X15	292,115
	39 x 1,5	30	170	32	1	1025939X15	292,115
	39 x 2	30	170	32	1	1025939X2	292,115
	39 x 3	60	200	32	1	1025939X3	292,115
	40 x 1,5	30	170	32	1	1025940X15	316,037
	40 x 2	30	170	32	1	1025940X2	316,037
	40 x 3	60	200	32	1	1025940X3	316,037
	42 x 1,5	30	170	32	1	1025942X15	353,890
	42 x 2	30	170	32	1	1025942X2	353,890
	42 x 3	60	200	32	1	1025942X3	353,890
	45 x 1,5	32	180	36	1	1025945X15	394,127
	45 x 2	32	180	36	1	1025945X2	394,127
	45 x 3	50	200	36	1	1025945X3	394,127
	48 x 1,5	32	190	36	1	1025948X15	469,883
	48 x 2	32	190	36	1	1025948X2	469,883
	48 x 3	50	225	36	1	1025948X3	469,883
	50 x 1,5	32	190	36	1	1025950X15	553,913
	50 x 2	32	190	36	1	1025950X2	553,913
	50 x 3	50	225	36	1	1025950X3	553,913
	52 x 1,5	32	190	40	1	1025952X15	603,626
	52 x 2	32	190	40	1	1025952X2	603,626
	52 x 3	50	225	40	1	1025952X3	603,626
	63 x 1,5	50	275	50	1	1025963X15	1.041,394

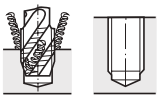
MASCHI A MACCHINA, SCAN. ELICOIDALI 35°, FIL. METRICA ISO A PASSO FINE

Machine taps, 35° spiral flute, metric fine thread - Tarauds machine, goujoures 35°, filetage métrique fin

Machos de maquina , canal helicoidal 35°, rosca metrica fina / Maschinen-gewindebohrer, 35° rechtsspirale, für metrisches ISO Feingewinde

10260





Gambo cilindrico
Ø ≤ M3
Round shank

Applicazioni / *Applications*

R ≤ 850 N/mm²



Inox



Acciaio
Steel



Metals



Alu



- Per fori ciechi in acciai con R≤850 N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For blind holes in steel with R≤850 N/mm², malleable cast iron, non ferrous metals with long chips, stainless steel, heat resistant steel.
- Pour trous borgnes en acier avec R≤850 N/mm², fonte, alliages légers, acier inoxidable.
- Para orificios ciegos en acero de hasta R≤850 N/mm², aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grundloch in Stähl mit R≤850 N/mm², Stahlguss, alu langspanend, korrosions beständige Stahle (V2A – V4A) etc.

HSS-CO DIN 374/C-35° ISO 2/6H

MF

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,35	9	56	2,2	1	1026003X035	34,924
	4 x 0,35	10	63	2,8	1	1026004X035	37,252
	4 x 0,5	10	63	2,8	1	1026004X05	33,760
	5 x 0,5	12	70	3,5	1	1026005X05	37,252
	5 x 0,75	12	70	3,5	1	1026005X075	37,252
	6 x 0,5	14	80	4,5	1	1026006X05	37,252
	6 x 0,75	14	80	4,5	1	1026006X075	37,252
	7 x 0,75	14	80	5,5	1	1026007X075	37,252
	8 x 0,5	19	80	6	1	1026008X05	45,401
	8 x 0,75	19	80	6	1	1026008X075	33,760
	8 x 1	22	90	6	1	1026008X1	39,581
	9 x 0,75	19	80	7	1	1026009X075	57,706
	9 x 1	22	90	7	1	1026009X1	44,237
	10 x 0,75	20	90	7	1	1026010X075	52,386
	10 x 1	20	90	7	1	1026010X1	44,237
	10 x 1,25	24	100	7	1	1026010X125	45,984
	11 x 1	20	90	8	1	1026011X1	51,106
	11 x 1,25	22	90	8	1	1026011X125	51,106
	12 x 0,75	22	100	9	1	1026012X075	51,106
	12 x 1	22	100	9	1	1026012X1	51,106
	12 x 1,25	22	100	9	1	1026012X125	51,106
	12 x 1,5	22	100	9	1	1026012X15	51,106
	13 x 1	22	100	11	1	1026013X1	62,455
	13 x 1,5	22	100	11	1	1026013X15	62,455
	14 x 0,75	22	100	11	1	1026014X075	62,455
	14 x 1	22	100	11	1	1026014X1	62,455
	14 x 1,25	22	100	11	1	1026014X125	62,455
	14 x 1,5	22	100	11	1	1026014X15	62,455
	15 x 1	22	100	12	1	1026015X1	72,572
	15 x 1,5	22	100	12	1	1026015X15	72,572
	16 x 1	22	100	12	1	1026016X1	72,572
	16 x 1,25	22	100	12	1	1026016X125	72,572
	16 x 1,5	22	100	12	1	1026016X15	72,572
	18 x 1	25	110	14	1	1026018X1	89,079
	18 x 1,25	25	110	14	1	1026018X125	89,079
	18 x 1,5	25	110	14	1	1026018X15	89,079
	18 x 2	34	125	14	1	1026018X2	89,079
	20 x 1	25	125	16	1	1026020X1	99,068
	20 x 1,25	25	125	16	1	1026020X125	99,068
	20 x 1,5	25	125	16	1	1026020X15	99,068
	20 x 2	34	140	16	1	1026020X2	99,068
	21 x 1,5	25	125	16	1	1026021X15	99,068
	22 x 1	25	125	18	1	1026022X1	125,726
	22 x 1,25	25	125	18	1	1026022X125	125,726
	22 x 1,5	25	125	18	1	1026022X15	119,835
	22 x 2	34	140	18	1	1026022X2	119,835
	23 x 1,5	25	125	18	1	1026023X15	145,178
	24 x 1	28	140	18	1	1026024X1	145,178
	24 x 1,25	28	140	18	1	1026024X125	145,178
	24 x 1,5	28	140	18	1	1026024X15	145,178
	24 x 2	28	140	18	1	1026024X2	145,178
	25 x 1	28	140	18	1	1026025X1	145,178

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**25** x 1,5	28	140	18	1	1026025X15	145,178
	25 x 2	28	140	18	1	1026025X2	145,178
	26 x 1	28	140	18	1	1026026X1	153,665
	26 x 1,5	28	140	18	1	1026026X15	153,665
	26 x 2	28	140	18	1	1026026X2	160,649
	27 x 1	28	140	20	1	1026027X1	175,015
	27 x 1,5	28	140	20	1	1026027X15	175,015
	27 x 2	28	140	20	1	1026027X2	175,015
	28 x 1	28	140	20	1	1026028X1	175,015
	28 x 1,5	28	140	20	1	1026028X15	175,015
	28 x 2	28	140	20	1	1026028X2	175,015
	29 x 1,5	28	150	22	1	1026029X15	198,937
	30 x 1	28	150	22	1	1026030X1	198,937
	30 x 1,5	28	150	22	1	1026030X15	198,937
	30 x 2	28	150	22	1	1026030X2	198,937
	30 x 2,5	45	180	22	1	1026030X25	198,937
	30 x 3	45	180	22	1	1026030X3	198,937
	32 x 1,5	28	150	22	1	1026032X15	248,053
	32 x 2	28	150	22	1	1026032X2	248,053
	32 x 3	50	180	22	1	1026032X3	248,053
	33 x 1,5	30	160	25	1	1026033X15	248,053
	33 x 2	30	160	25	1	1026033X2	248,053
	33 x 3	50	180	25	1	1026033X3	248,053
	34 x 1,5	30	170	28	1	1026034X15	248,053
	34 x 2	30	170	28	1	1026034X2	248,053
	35 x 1,5	30	170	28	1	1026035X15	248,053
	36 x 1,5	30	170	28	1	1026036X15	311,008
	36 x 2	30	170	28	1	1026036X2	311,008
	36 x 3	56	200	28	1	1026036X3	311,008
	38 x 1,5	30	170	28	1	1026038X15	327,376
	39 x 1,5	30	170	32	1	1026039X15	327,376
	39 x 2	30	170	32	1	1026039X2	327,376
	39 x 3	60	200	32	1	1026039X3	327,376
	40 x 1,5	30	170	32	1	1026040X15	334,947
	40 x 2	30	170	32	1	1026040X2	334,947
	40 x 3	60	200	32	1	1026040X3	334,947
	42 x 1,5	30	170	32	1	1026042X15	378,741
	42 x 2	30	170	32	1	1026042X2	378,741
	42 x 3	60	200	32	1	1026042X3	378,741
	45 x 1,5	32	180	36	1	1026045X15	443,840
	45 x 2	32	180	36	1	1026045X2	443,840
	45 x 3	50	200	36	1	1026045X3	443,840
	48 x 1,5	32	190	36	1	1026048X15	526,687
	48 x 2	32	190	36	1	1026048X2	526,687
	48 x 3	50	225	36	1	1026048X3	526,687
	50 x 1,5	32	190	36	1	1026050X15	615,455
	50 x 2	32	190	36	1	1026050X2	615,455
	50 x 3	50	225	36	1	1026050X3	615,455
	52 x 1,5	32	190	40	1	1026052X15	675,816
	52 x 2	32	190	40	1	1026052X2	675,816
	52 x 3	50	225	40	1	1026052X3	675,816
	63 x 1,5	40	275	50	1	1026063X15	1.143,331

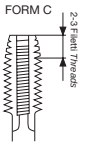
MASCHI A MACCHINA, SCANALATURE DIRITTE, IMBOCCO “C”, FIL. METRICA ISO A PASSO FINE

Machine taps, “C” chamfer form, metric fine thread /Tarauds machine, entrée “C”, filetage métrique fin

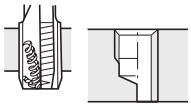
Machos de maquina, entrada “C”, rosca metrica fina /Maschinengewindebohrer für metrisches ISO-fein-Gewinde

10252





HSS-CO AISI M35
HV 820÷850



HSS-CO DIN 374/C ISO 2/6H — MF

	Ø	/	L	d	pcs	cod.	€ cad/each
M	4 x 0,35	10	63	2,8	1	1025204X035	23,749
	5 x 0,5	12	70	3,5	1	1025205X05	23,749
	6 x 0,75	14	80	4,5	1	1025206X075	23,749
	8 x 0,75	19	80	6,0	1	1025208X075	27,484
	8 x 1	22	90	6,0	1	1025208X1	27,484
	10 x 1	20	90	7,0	1	1025210X1	31,595
	10 x 1,25	24	100	7,0	1	1025210X125	31,595
	12 x 1	22	100	9,0	1	1025212X1	32,956
	12 x 1,25	22	100	9,0	1	1025212X125	32,956
	12 x 1,5	22	100	9,0	1	1025212X15	32,956
	14 x 1	22	100	11,0	1	1025214X1	37,776
	14 x 1,25	22	100	11,0	1	1025214X125	37,776
	14 x 1,5	22	100	11,0	1	1025214X15	37,776
	16 x 1	22	100	12,0	1	1025216X1	43,806
	16 x 1,5	22	100	12,0	1	1025216X15	43,806
	18 x 1	25	110	14,0	1	1025218X1	54,015
	18 x 1,5	25	110	14,0	1	1025218X15	54,015
	18 x 2	34	125	14,0	1	1025218X2	54,015
	20 x 1	25	125	16,0	1	1025220X1	60,127
	20 x 1,25	25	125	16,0	1	1025220X125	60,127
	20 x 1,5	25	125	16,0	1	1025220X15	60,127
	20 x 2	34	140	16,0	1	1025220X2	60,127
	22 x 1	25	125	18,0	1	1025222X1	69,916
	22 x 1,5	25	125	18,0	1	1025222X15	69,916
	22 x 2	34	140	18,0	1	1025222X2	69,916
	24 x 1	28	140	18,0	1	1025224X1	79,580
	24 x 1,5	28	140	18,0	1	1025224X15	79,580
	24 x 2	28	140	18,0	1	1025224X2	79,580
	25 x 1	28	140	18,0	1	1025225X1	107,030
	26 x 1,5	28	140	18,0	1	1025226X15	96,436
	27 x 1,5	28	140	20,0	1	1025227X15	107,705
	27 x 2	28	140	20,0	1	1025227X2	107,705
	28 x 1,5	28	140	20,0	1	1025228X15	107,705
	30 x 1,5	28	150	22,0	1	1025230X15	120,161
	30 x 2	28	150	22,0	1	1025230X2	120,161
	32 x 1,5	28	150	22,0	1	1025232X15	135,981
	32 x 2	28	150	22,0	1	1025232X2	135,981
	33 x 2	30	160	25,0	1	1025233X2	152,349
	35 x 1,5	30	170	28,0	1	1025235X15	163,688
	36 x 1,5	30	170	28,0	1	1025236X15	176,273
	36 x 2	30	170	28,0	1	1025236X2	176,273
	38 x 1,5	30	170	28,0	1	1025238X15	188,868
	40 x 1,5	30	170	32,0	1	1025240X15	220,346
	42 x 1,5	30	170	32,0	1	1025242X15	220,346
	45 x 1,5	32	180	36,0	1	1025245X15	260,636
	48 x 1,5	32	190	36,0	1	1025248X15	297,155
	50 x 1,5	32	190	36,0	1	1025250X15	392,846
	52 x 1,5	32	190	40,0	1	1025252X15	392,846

Applicazioni / *Applications*

R ≤ 850 N/mm²



Inox



Acciaio
Steel



Metals



Alu



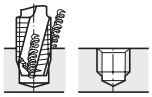
- Per fori ciechi e passanti in acciai e ghisa con R≤850 N/mm²
- For blind and through holes in steel with R≤850 N/mm²
- Pour trous débouchants et borgnes en acier avec R≤850 N/mm²
- Para orificios pasantes y ciegos en acero de hasta R≤850 N/mm²
- Für grund- und durchgangsloch in Stahl, Stahlguss mit R≤850 N/mm²

10198





HSS-G AISI M2
HV 750



≤ 1,5 Ø

HSS-G DIN 374/C-15° ISO 2/6H

	Ø	/	L	d	pcs	cod.	€ cad/each
M	4 x 0,5	10	63	2,8	1	1019804X05	15,766
	5 x 0,5	12	70	3,5	1	1019805X05	15,960
	6 x 0,75	14	80	4,5	1	1019806X075	16,008
	8 x 1	22	90	6,0	1	1019808X1	16,130
	10 x 1	20	90	7,0	1	1019810X1	16,563
	10 x 1,25	24	100	7,0	1	1019810X125	22,525
	12 x 1	22	100	9,0	1	1019812X1	19,656
	12 x 1,25	22	100	9,0	1	1019812X125	24,673
	14 x 1,25	22	100	11,0	1	1019814X125	27,745
	14 x 1,5	22	100	11,0	1	1019814X15	25,130
	16 x 1,5	22	100	12,0	1	1019816X15	29,251
	20 x 1,5	25	125	16,0	1	1019820X15	37,454
	22 x 1,5	25	125	18,0	1	1019822X15	46,185
	24 x 1,5	28	140	18,0	1	1019824X15	46,185
	24 x 2	28	140	18,0	1	1019824X2	49,427

HSS-G
***R ≤ 700** N/mm²



Acciaio
Steel



Metals



Applicazioni / *Applications*

- Per fori ciechi in acciai con R≤*N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo.
- For blind holes in steel with R≤*N/mm², malleable cast iron, non ferrous metals with long chip.

MASCHI A MACCHINA A RULLARE, FIL. METRICA ISO A PASSO GROSSO

Cold forming machine taps, ISO thread / Tarauds à refouler
Machos de maquina laminacion / Maschinengewindefurcher

Speciali per lamiere / Special for metal sheets / Spécial pour tôles / Especial para chapas

10280 10360



HSS-CO AISI M35
HV 820÷850

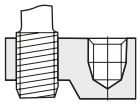


HSS-CO+TiN
HV 0,05=2500





ISO 2X/6HX



Art. 10280
HSS-CO ~ DIN 2174

M

	Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	2,80	1	1028003X05	24,753
	4 x 0,7	13	63	4,5	3,70	1	1028004X07	27,892
	5 x 0,8	16	70	6,0	4,65	1	1028005X08	30,161
	6 x 1	19	80	6,0	5,55	1	1028006X1	30,161
	8 x 1,25	22	90	8,0	7,45	1	1028008X125	36,440
	10 x 1,5	24	100	10	9,30	1	1028010X15	43,652
	DIN 376							
M	**12** x 1,75	29	110	9,0	11,20	1	1028012X175	54,113
	14 x 2	30	110	11	13,00	1	1028014X2	76,111
	16 x 2	32	110	12	15,01	1	1028016X2	95,850

Art. 10360
HSS-CO+TiN ~ DIN 2174

	Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	2,80	1	1036003X05	42,933
	4 x 0,7	13	63	4,5	3,70	1	1036004X07	47,148
	5 x 0,8	16	70	6,0	4,65	1	1036005X08	55,319
	6 x 1	19	80	6,0	5,55	1	1036006X1	55,319
	8 x 1,25	22	90	8,0	7,45	1	1036008X125	66,029
	10 x 1,5	24	100	10	9,30	1	1036010X15	77,566
	DIN 376							
M	**12** x 1,75	29	110	9,0	11,20	1	1036012X175	113,572
	14 x 2	30	110	11	13,00	1	1036014X2	153,734
	16 x 2	32	110	12	15,01	1	1036016X2	170,358

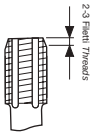
10281 10361



HSS-CO AISI M35
HV 820÷850

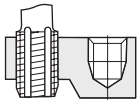


HSS-CO+TiN
HV 0,05=2500





ISO 2X/6HX



Con canalini di lubrificazione
With oil grooves

Lubrorefrigerazione con olio
o grafite raccomandata
Recommended oil or graphite cooling

Art. 10281
HSS-CO ~ DIN 2174

	Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	2,80	1	1028103X05	29,948
	4 x 0,7	13	63	4,5	3,70	1	1028104X07	33,706
	5 x 0,8	16	70	6,0	4,65	1	1028105X08	37,452
	6 x 1	19	80	6,0	5,55	1	1028106X1	37,452
	8 x 1,25	22	90	8,0	7,45	1	1028108X125	44,512
	10 x 1,5	24	100	10	9,30	1	1028110X15	51,490
	DIN 376							
M	**12** x 1,75	29	110	9,0	11,20	1	1028112X175	64,626
	14 x 2	30	110	11	13,00	1	1028114X2	95,963
	16 x 2	32	110	12	15,01	1	1028116X2	115,681

Art. 10361
HSS-CO+TiN ~ DIN 2174

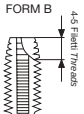
	Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	2,80	1	1036103X05	45,214
	4 x 0,7	13	63	4,5	3,70	1	1036104X07	49,348
	5 x 0,8	16	70	6,0	4,65	1	1036105X08	53,130
	6 x 1	19	80	6,0	5,55	1	1036106X1	55,027
	8 x 1,25	22	90	8,0	7,45	1	1036108X125	66,717
	10 x 1,5	24	100	10	9,30	1	1036110X15	80,279
	DIN 376							
M	**12** x 1,75	29	110	9,0	11,20	1	1036112X175	107,426
	14 x 2	30	110	11	13,00	1	1036114X2	146,750
	16 x 2	32	110	12	15,01	1	1036116X2	173,187

MASCHI A MACCHINA, FILETTATURA GAS CILINDRICA BSP

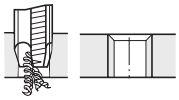
Machine taps, BSP pipe-thread / Tarauds machine, filetage gaz BSP
Machos de maquina, rosca gas BSP / Maschinengewindebohrer für Rohrgewinder

10268





HSS-CO AISI M35
HV 820÷850

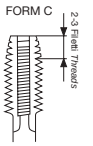


HSS-CO DIN 5156/B — BSP

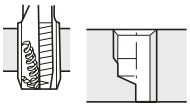
	Ø	/	L	d	pcs	cod.	€ cad/each
G	**1/8** x 28	20	90	7	1	102681/8	32,991
	1/4 x 19	22	100	11	1	102681/4	43,061
	3/8 x 19	22	100	12	1	102683/8	50,500
	1/2 x 14	25	125	16	1	102681/2	75,075
	5/8 x 14	25	125	18	1	102685/8	82,048
	3/4 x 14	28	140	20	1	102683/4	114,085
	7/8 x 14	28	150	22	1	102687/8	123,397
	1" x 11	30	160	25	1	102681"	165,260
	1.1/8 x 11	30	170	28	1	102681.1/8	278,262
	1.1/4 x 11	30	170	32	1	102681.1/4	358,853
	1.3/8 x 11	32	180	36	1	102681.3/8	484,766
	1.1/2 x 11	32	190	36	1	102681.1/2	547,722
	1.3/4 x 11	32	190	40	1	102681.3/4	650,967
	2" x 11	40	220	45	1	102682"	697,556

10276





HSS-CO AISI M35
HV 820÷850



HSS-CO DIN 5156/C

	Ø	/	L	d	pcs	cod.	€ cad/each
G	**1/8** x 28	20	90	7	1	102761/8	35,797
	1/4 x 19	22	100	11	1	102761/4	44,959
	3/8 x 19	22	100	12	1	102763/8	56,204
	1/2 x 14	25	125	16	1	102761/2	79,277
	5/8 x 14	25	125	18	1	102765/8	90,221
	3/4 x 14	28	140	20	1	102763/4	116,843
	7/8 x 14	28	150	22	1	102767/8	137,554
	1" x 11	30	160	25	1	102761"	170,091
	1.1/8 x 11	30	170	28	1	102761.1/8	236,842
	1.1/4 x 11	30	170	32	1	102761.1/4	315,793
	1.3/8 x 11	32	180	36	1	102761.3/8	434,894
	1.1/2 x 11	32	190	36	1	102761.1/2	462,601
	1.3/4 x 11	32	190	40	1	102761.3/4	563,705
	2" x 11	40	220	45	1	102762"	610,794

10204*



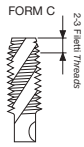
*In esaurimento
To be discontinued

HSS-G DIN 374/C-15°

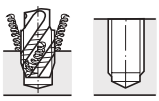
	Ø	/	L	d	pcs	cod.	€ cad/each
G	**1/8** x 28	20	90	7	1	102041/8	12,332
	1/4 x 19	22	100	11	1	102041/4	20,280
	3/8 x 19	22	100	12	1	102043/8	21,319
	3/4 x 14	28	140	20	1	102043/4	46,409
	1" x 11	30	160	25	1	102041"	67,955

10267





HSS-CO AISI M35
HV 820÷850

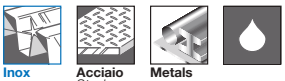


HSS-CO DIN 5156/C-35°

	Ø	/	L	d	pcs	cod.	€ cad/each
G	**1/8** x 28	20	90	7	1	102671/8	36,741
	1/4 x 19	22	100	11	1	102671/4	56,507
	3/8 x 19	22	100	12	1	102673/8	72,582
	1/2 x 14	25	125	16	1	102671/2	119,044
	5/8 x 14	25	125	18	1	102675/8	136,564
	3/4 x 14	28	140	20	1	102673/4	179,404
	7/8 x 14	28	150	22	1	102677/8	216,539
	1" x 11	30	160	25	1	102671"	242,673
	1.1/8 x 11	30	170	28	1	102671.1/8	369,226
	1.1/4 x 11	30	170	32	1	102671.1/4	447,060
	1.3/8 x 11	32	180	36	1	102671.3/8	649,712
	1.1/2 x 11	32	190	36	1	102671.1/2	687,475
	1.3/4 x 11	32	190	40	1	102671.3/4	989,007
	2" x 11	40	220	45	1	102672"	1.083,464

Applicazioni *Applications*

R ≤ 850 N/mm²



BSPT 10293 — NPT 10294

259

MASCHI A MACCHINA, FILETTATURA INGLESE WHITWORTH A PASSO GROSSO

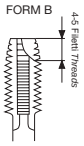
Machine taps, british standard thread / Tarauds machine, filetage BSW

Machos de maquina, rosca inglesa BSW / Maschinengewindebohrer, Whitworth-gewinde BS 84

10265 10266

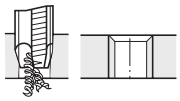






HSS-CO AISI M35
HV 820÷850

≃ DIN 371/B **≃ DIN 376/B**



Art. 10265
HSS-CO ISO 2/6 H

BSW

	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**1/8** x 40	5	56	3,5	1	102651/8	22,302
	5/32 x 32	6	63	4,5	1	102655/32	22,302
	3/16 x 24	9	70	5,5	1	102653/16	22,887
	1/4 x 20	10	90	7	1	102651/4	22,887
	5/16 x 18	12	90	8	1	102655/16	28,191
	3/8 x 16	14	100	10	1	102653/8	31,656

Art. 10266
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**7/16** x 14	20	100	8	1	102667/16	34,103
	1/2 x 12	25	110	9	1	102661/2	34,428
	9/16 x 12	25	110	11	1	102669/16	50,884
	5/8 x 11	28	110	12	1	102665/8	50,884
	3/4 x 10	32	125	14	1	102663/4	105,439
	7/8 x 9	32	140	18	1	102667/8	119,090
	1" x 8	36	160	20	1	102661"	135,330
	1.1/4 x 7	40	180	22	1	102661.1/4	200,937
	1.1/2 x 6	50	200	32	1	102661.1/2	430,219

10274 10275

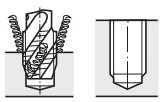






HSS-CO AISI M35
HV 820÷850

≃ DIN 371/C-35° **≃ DIN 376/C-35°**



Art. 10274
HSS-CO

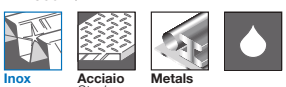
	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**1/8** x 40	5	56	3,5	1	102741/8	27,691
	5/32 x 32	6	63	4,5	1	102745/32	27,691
	3/16 x 24	9	70	5,5	1	102743/16	28,959
	1/4 x 20	10	90	7	1	102741/4	28,959
	5/16 x 18	12	90	8	1	102745/16	35,046
	3/8 x 16	14	100	10	1	102743/8	40,589

Art. 10275
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**7/16** x 14	20	100	8	1	102757/16	46,812
	1/2 x 12	25	110	9	1	102751/2	46,812
	9/16 x 12	25	110	11	1	102759/16	67,389
	5/8 x 11	28	110	12	1	102755/8	67,389
	3/4 x 10	32	125	14	1	102753/4	134,621
	7/8 x 9	32	140	18	1	102757/8	178,259
	1" x 8	36	160	20	1	102751"	183,234
	1.1/4 x 7	40	180	22	1	102751.1/4	269,253
	1.1/2 x 6	50	200	32	1	102751.1/2	592,106

Applicazioni *Applications*

R ≤ 850 N/mm²



MASCHI A MACCHINA, FILETTATURA AMERICANA UNC A PASSO GROSSO

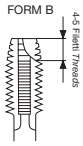
Machine taps, UNC american coarse thread / Tarauds machine, filetage americain UNC

Machos de maquina, rosca americana vasta UNC /Maschinengewindebohrer, amerikanisches großgewind

10269 10270

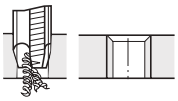






HSS-CO AISI M35
HV 820÷850

≃ DIN 371/B ≃ DIN 376/B



Art. 10269
HSS-CO **ANSI B1.1** **UNC**

	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**6** x 32	12	56	4	1	10269NR06	22,983
	8 x 32	13	63	4,5	1	10269NR08	22,983
	10 x 24	15	70	6	1	10269NR10	22,983
	12 x 24	16	70	6	1	10269NR12	22,983
	1/4 x 20	17	80	7	1	102691/4	22,983
	5/16 x 18	20	90	8	1	102695/16	28,703
	3/8 x 16	22	100	9	1	102693/8	32,569

Art. 10270
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**7/16** x 14	22	100	8	1	102707/16	38,278
	1/2 x 13	25	110	9	1	102701/2	38,278
	9/16 x 12	26	110	11	1	102709/16	57,406
	5/8 x 11	27	110	12	1	102705/8	57,406
	3/4 x 10	30	125	14	1	102703/4	110,987
	7/8 x 9	32	140	18	1	102707/8	133,789
	1" x 8	36	160	20	1	102701"	152,906
	1.1/4 x 7	40	180	22	1	102701.1/4	224,266
	1.1/2 x 6	50	200	32	1	102701.1/2	519,883

10271 10272

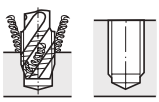






HSS-CO AISI M35
HV 820÷850

≃ DIN 371/C-35° ≃ DIN 376/C-35°



Art. 10271
HSS-CO **ANSI B1.1**

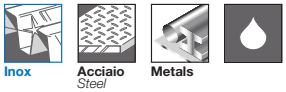
	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**6** x 32	7	56	4	1	10271NR06	28,703
	8 x 32	8	63	4,5	1	10271NR08	28,703
	10 x 24	10	70	6	1	10271NR10	28,703
	12 x 24	10	70	6	1	10271NR12	28,703
	1/4 x 20	13	80	7	1	102711/4	28,703
	5/16 x 18	14	90	8	1	102715/16	38,278
	3/8 x 16	16	100	9	1	102713/8	39,455

Art. 10272
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**7/16** x 14	17	100	8	1	102727/16	47,853
	1/2 x 13	20	110	9	1	102721/2	47,853
	9/16 x 12	20	110	11	1	102729/16	68,886
	5/8 x 11	22	110	12	1	102725/8	68,886
	3/4 x 10	25	125	14	1	102723/4	137,612
	7/8 x 9	27	140	18	1	102727/8	182,219
	1" x 8	30	160	20	1	102721"	187,306
	1.1/4 x 7	35	180	22	1	102721.1/4	275,235
	1.1/2 x 6	40	200	32	1	102721.1/2	605,264

Applicazioni *Applications*

R ≤ 850 N/mm²



Inox | **Acciaio** *Steel* | **Metals**

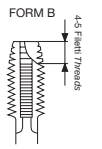
MASCHI A MACCHINA, FILETTATURA AMERICANA UNF A PASSO FINE

Machine taps, american UNF thread / Tarauds machine, filetage americain UNF

Machos de maquina, rosca americana fina UNF / Maschinengewindebohrer, amerikanisches feingewinde UNF

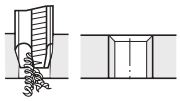
10282 10283





HSS-CO AISI M35
HV 820÷850

≃ DIN 371/B ≃ DIN 376/B



Art. 10282
HSS-CO **ANSI B1.1** **UNF**

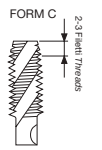
	Ø	/	L	d	pcs	cod.	€ cad/each
UNF	**6** x 40	12	56	4	1	10282NR06	23,038
	8 x 36	13	63	4,5	1	10282NR08	23,038
	10 x 32	15	70	6	1	10282NR10	23,038
	12 x 28	16	70	6	1	10282NR12	23,038
	1/4 x 28	17	80	7	1	102821/4	23,038
	5/16 x 24	17	90	8	1	102825/16	29,163
	3/8 x 24	18	100	9	1	102823/8	32,139

Art. 10283
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
UNF	**7/16** x 20	22	100	8	1	102837/16	37,046
	1/2 x 20	22	100	9	1	102831/2	37,046
	9/16 x 18	22	100	11	1	102839/16	56,721
	5/8 x 18	22	100	12	1	102835/8	56,721
	3/4 x 16	25	110	14	1	102833/4	111,063
	7/8 x 14	26	140	18	1	102837/8	133,447
	1" x 14	28	150	20	1	102831"	148,741
	1.1/4 x 12	30	150	22	1	102831.1/4	209,145
	1.1/2 x 12	33	170	32	1	102831.1/2	483,566

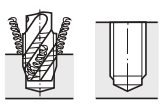
10284 10285





HSS-CO AISI M35
HV 820÷850

≃ DIN 371/C-35° ≃ DIN 376/C-35°



Art. 10284
HSS-CO **ANSI B1.1**

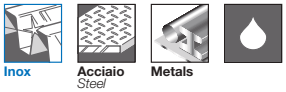
	Ø	/	L	d	pcs	cod.	€ cad/each
UNF	**6** x 40	7	56	4	1	10284NR06	29,934
	8 x 36	8	63	4,5	1	10284NR08	29,934
	10 x 32	10	70	6	1	10284NR10	29,934
	12 x 28	10	70	6	1	10284NR12	29,934
	1/4 x 28	10	80	7	1	102841/4	29,934
	5/16 x 24	10	90	8	1	102845/16	36,146
	3/8 x 24	10	100	9	1	102843/8	41,255

Art. 10285
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
UNF	**7/16** x 20	13	100	8	1	102857/16	45,775
	1/2 x 20	13	100	9	1	102851/2	45,775
	9/16 x 18	15	100	11	1	102859/16	68,657
	5/8 x 18	15	100	12	1	102855/8	68,657
	3/4 x 16	17	110	14	1	102853/4	152,987
	7/8 x 14	17	140	18	1	102857/8	168,285
	1" x 14	20	150	20	1	102851"	185,111
	1.1/4 x 12	22	150	22	1	102851.1/4	240,178
	1.1/2 x 12	25	170	32	1	102851.1/2	598,161

Applicazioni *Applications*

R ≤ 850 N/mm²



Inox **Acciaio** *Steel* **Metals**

MASCHI A MACCHINA CORTI ISO 529 FILETTATURA AMERICANA UN

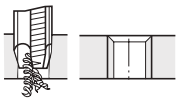
Short machine taps, American UN thread / Tarauds machine courte
Machos de maquina cortos / Kurzmaschinen-Gewindebohrer

ISO 529-2B HSS-CO **8-UN**

10301



FORM B



	Ø	/	L	d	pcs	cod.	€ cad/each
UN	**1.1/8** x 8	48	138	20,0	1	103011.1/8	154,151
	1.1/4 x 8	51	151	22,4	1	103011.1/4	180,060
	1.1/2 x 8	60	170	28,0	1	103011.1/2	294,648
	2” x 8	70	200	35,5	1	103012"	616,580
	2.1/4 x 8	76	221	40,0	1	103012.1/4	1.219,529
	2.1/2 x 8	79	224	40,0	1	103012.1/2	1.773,361

MASCHI A MACCHINA CORTI ISO 529 FILETTATURA AMERICANA UNEF

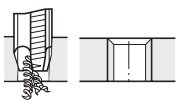
Short machine taps, American UNEF thread / Tarauds machine courte
Machos de maquina cortos / Kurzmaschinen-Gewindebohrer

ISO 529-2B HSS-CO **UNEF**

10305



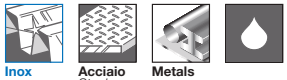
FORM B



	Ø	/	L	d	pcs	cod.	€ cad/each
UNEF	**1/4** x 32	19	66	6,3	1	103051/4	19,643
	5/16 x 32	23	75	10,0	1	103055/16	27,828
	3/8 x 32	24	80	10,0	1	103053/8	27,828
	1/2 x 28	29	89	9,0	1	103051/2	32,741
	9/16 x 24	30	95	11,2	1	103059/16	49,379
	5/8 x 24	32	102	12,5	1	103055/8	50,468
	3/4 x 20	37	112	14,0	1	103053/4	93,309
	7/8 x 20	38	118	16,0	1	103057/8	114,589
	1” x 20	45	130	18,0	1	103051"	130,954
	1.1/16 x 18	48	138	20,0	1	103051.1/16	154,151
	1.1/8 x 18	48	138	20,0	1	103051.1/8	154,151
	1.1/4 x 18	51	151	22,4	1	103051.1/4	180,060
	1.1/2 x 18	60	170	28,0	1	103051.1/2	294,648
	1.3/4 x 18	67	187	31,5	1	103051.3/4	398,320
	2” x 18	70	200	35,5	1	103052”	616,580

Applicazioni *Applications*

R ≤ 850 N/mm²



Inox **Acciaio** *Steel* **Metals**

MASCHI A MACCHINA CORTI PER TUBI, FILETTATURA CONICA AMERICANA NPTF

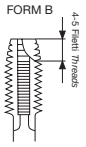
Short machine taps for pipes / Tarauds machine courte

Machos de maquina cortos para tubos / Kurzmaschinen-Gewindebohrer

HSS-CO **NPTF**

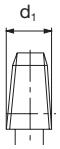
10306





HSS-CO AISI M35
HV 820÷850

FORM B



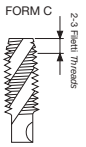
CONICITÀ 1:16
TAPER 1:16

	Ø	/	L	pcs	cod.	€ cad/each
NPTF	**1/16** x 27	19	55	1	103061/16	31,500
	1/8 x 27	19	55	1	103061/8	33,600
	1/4 x 18	28	62	1	103061/4	35,700
	3/8 x 18	28	65	1	103063/8	42,000
	1/2 x 14	35	80	1	103061/2	66,144
	3/4 x 14	35	85	1	103063/4	87,887
	1” x 11,5	45	95	1	103061"	125,671

HSS-CO **NPTF**

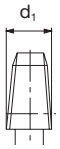
10307





HSS-CO AISI M35
HV 820÷850

FORM C 35°



CONICITÀ 1:16
TAPER 1:16

	Ø	/	L	pcs	cod.	€ cad/each
NPTF	**1/8** x 27	19	55	1	103071/8	35,700
	1/4 x 18	28	62	1	103071/4	39,900
	3/8 x 18	28	65	1	103073/8	47,250
	1/2 x 14	35	80	1	103071/2	72,757
	3/4 x 14	35	85	1	103073/4	96,676
	1” x 11,5	45	95	1	103071"	138,239

Applicazioni *Applications*

R ≤ 850 N/mm²

Inox **Acciaio** *Steel* **Metals**

HSS
NPT BSPT
259

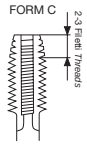
MASCHI A MACCHINA CORTI PER TUBI, FILETTATURA CILINDRICA AMERICANA NPS

Short machine taps for pipes / Tarauds machine courte
Machos de maquina cortos para tubos / Kurzmaschinen-Gewindebohrer

HSS-CO **NPS**

10308





HSS-CO AISI M35
HV 820÷850

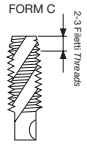
FORM C

	Ø	/	L	pcs	cod.	€ cad/each
NPS	**1/16** x 27	17,5	54	1	103081/16	28,229
	1/8 x 27	19	55	1	103081/8	31,887
	1/4 x 18	28	62	1	103081/4	38,100
	3/8 x 18	28	65	1	103083/8	46,064
	1/2 x 14	35	80	1	103081/2	66,144
	3/4 x 14	35	85	1	103083/4	87,887
	1" x 11,5	45	95	1	103081"	125,665

HSS-CO **NPS**

10309





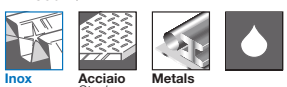
HSS-CO AISI M35
HV 820÷850

FORM C 35°

	Ø	/	L	pcs	cod.	€ cad/each
NPS	**1/16** x 27	17,5	54	1	103091/16	27,947
	1/8 x 27	19	55	1	103091/8	35,075
	1/4 x 18	28	62	1	103091/4	41,911
	3/8 x 18	28	65	1	103093/8	50,669
	1/2 x 14	35	80	1	103091/2	72,757
	3/4 x 14	35	85	1	103093/4	96,676
	1" x 11,5	45	95	1	103091"	138,230

Applicazioni Applications

R ≤ 850 N/mm²



Inox **Acciaio** *Steel* **Metals**

MASCHI A MACCHINA "SINISTRI", FILETTATURA METRICA ISO A PASSO GROSSO

Machine taps, "left hand", metric coarse thread / Tarauds machine, "gauche ", filetage métrique

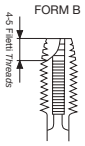
Machos de maquina, "izquierda", rosca metrica normal / Maschinengewindebohrer, "linksgewinde", für metrisches ISO Regelgewinde

Sinistri - Left hand - Gauche - Izquierda - Links

10277 10278

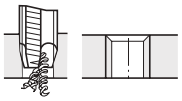






HSS-CO AISI M35
HV 820÷850

DIN 371/B **DIN 376/B**



Art. 10277
HSS-CO **DIN 371/B** **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1027703X05	29,117
	4 x 0,7	13	63	4,5	1	1027704X07	29,117
	5 x 0,8	16	70	6,0	1	1027705X08	29,903
	6 x 1	19	80	6,0	1	1027706X1	29,903
	8 x 1,25	22	90	8,0	1	1027708X125	36,566
	10 x 1,5	24	100	10,0	1	1027710X15	41,562

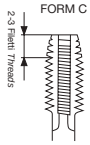
Art. 10278
HSS-CO **DIN 376/B**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9,0	1	1027812X175	49,892
	14 x 2	30	110	11,0	1	1027814X2	62,350
	16 x 2	32	110	12,0	1	1027816X2	69,809
	18 x 2,5	34	125	14,0	1	1027818X25	95,583
	20 x 2,5	34	140	16,0	1	1027820X25	138,299
	22 x 2,5	34	140	18,0	1	1027822X25	172,496
	24 x 3	38	160	18,0	1	1027824X3	184,817
	27 x 3	38	160	20,0	1	1027827X3	306,488
	30 x 3,5	45	180	22,0	1	1027830X35	320,350

10263 10264

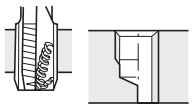






HSS-CO AISI M35
HV 820÷850

DIN 371/C **DIN 376/C**



Art. 10263
HSS-CO **DIN 371/C**

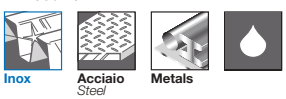
	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1026303X05	26,374
	4 x 0,7	13	63	4,5	1	1026304X07	26,374
	5 x 0,8	16	70	6,0	1	1026305X08	27,304
	6 x 1	19	80	6,0	1	1026306X1	27,304
	8 x 1,25	22	90	8,0	1	1026308X125	33,138
	10 x 1,5	24	100	10,0	1	1026310X15	37,676

Art. 10264
HSS-CO **DIN 376/C**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9,0	1	1026412X175	44,812
	14 x 2	30	110	11,0	1	1026414X2	63,194
	16 x 2	30	110	12,0	1	1026416X2	71,476
	18 x 2,5	34	125	14,0	1	1026418X25	98,424
	20 x 2,5	34	140	16,0	1	1026420X25	136,542
	22 x 2,5	34	140	18,0	1	1026422X25	144,263
	24 x 3	38	160	18,0	1	1026424X3	154,568

Applicazioni *Applications*

R ≤ 850 N/mm²



Inox **Acciaio** *Steel* **Metals**

MASCHI A MACCHINA "SINISTRI", SCAN. DESTRE 35°, IMB. "C", FIL. METRICA ISO

Machine taps "left hand", 35° spiral flute, metric coarse thread / Tarauds machine "gauche", goujures 35°, filetage métrique gros
Machos de maquina "izquierda", canal helicoidal 35°, rosca metrica vasta
Maschinen-Gewindebohrer "Linksgewinde", 35° rechtsspirale, für metrisches ISO-Regelgewinde

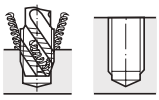
Sinistri - Left hand - Gauche - Izquierda - Links

DIN 371/C-35° - ISO 2/6H — **Art. 10279** — **HSS-CO** — **M**





HSS-CO AISI M35
HV 820÷850



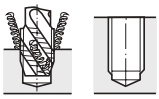
	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1027903X05	34,617
	4 x 0,7	7	63	4,5	1	1027904X07	34,617
	5 x 0,8	8	70	6,0	1	1027905X08	34,617
	6 x 1	10	80	6,0	1	1027906X1	37,120
	8 x 1,25	14	90	8,0	1	1027908X125	44,685
	10 x 1,5	16	100	10,0	1	1027910X15	50,610

DIN 376/C-35° - ISO 2/6H — **Art. 10288** — **HSS-CO** — **M**





HSS-CO AISI M35
HV 820÷850



	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9,0	1	1028812X175	54,941
	14 x 2	20	110	11,0	1	1028814X2	71,811
	16 x 2	22	110	12,0	1	1028816X2	80,549
	18 x 2,5	25	125	14,0	1	1028818X25	108,427
	20 x 2,5	25	140	16,0	1	1028820X25	154,894
	22 x 2,5	27	140	18,0	1	1028822X25	171,794
	24 x 3	30	160	18,0	1	1028824X3	177,420
	27 x 3	30	160	20,0	1	1028827X3	304,151
	30 x 3,5	35	180	22,0	1	1028830X35	315,425

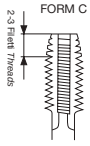
MASCHI A MACCHINA "SINISTRI", FILETTATURA GAS CILINDRICA BSP

Machine taps, "left hand", BSP pipe-thread / Tarauds machine, "gauche ", filetage gas BSP
Machos de maquina, "izquierda", rosca gas BSP / Maschinengewindebohrer, "linksgewinde", für Rohrgewinde

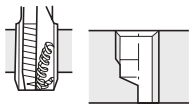
Sinistri - Left hand - Gauche - Izquierda - Links

DIN 5156/C — **Art. 10289** — **HSS-CO** — **BSP**





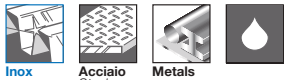
HSS-CO AISI M35
HV 820÷850



	Ø	/	L	d	pcs	cod.	€ cad/each
G	**1/8** x 28	20	90	7,0	1	102891/8	52,061
	1/4 x 19	22	100	11,0	1	102891/4	65,210
	3/8 x 19	22	100	12,0	1	102893/8	81,522
	1/2 x 14	25	125	16,0	1	102891/2	113,835
	5/8 x 14	25	125	18,0	1	102895/8	130,995
	3/4 x 14	28	140	20,0	1	102893/4	168,754
	1" x 11	30	160	25,0	1	102891"	245,982

Applicazioni *Applications*

R ≤ 850 N/mm²



Inox — **Acciaio** *Steel* — **Metals**

- Per fori ciechi e passanti in acciai con R≤850 N/mm² ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For blind and through holes in steel with R≤850 N/mm² malleable cast iron, non ferrous metal with long chips, stainless steel, heat resistant steel.
- Pour trous débouchants et borgnes en acier avec R≤850 N/mm² fonte, alliages légers, acier inoxidable.
- Para orificios pasantes y ciegos in acero de hasta R≤850 N/mm² aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grund- und durchgangsloch in Stahl mit R≤850 N/mm², Stahlguss, alu langspanend, korrosions-beständige Stähle (V2A-V4A) etc.

MASCHI A MACCHINA "SINISTRI", FILETTATURA METRICA ISO A PASSO FINE

Machine taps, "left hand", metric thread / Tarauds machine, "gauche ", filetage métrique

Machos de maquina, "izquierda", rosca metrica / Maschinengewindebohrer, "linksgewinde", für metrisches ISO

Sinistri - Left hand - Gauche - Izquierda - Links

10286

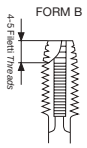


DIN 374/B

10287



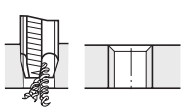
DIN 374/C-35°

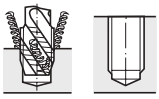


HSS-CO AISI M35
HV 820÷850



HSS-CO AISI M35
HV 820÷850





HSS-CO ISO 2/6H						Art. 10286 DIN 374/B		Art. 10287 DIN 374/C-35° MF	
	Ø	/	L	d	pcs	cod.	€ cad/each	cod.	€ cad/each
M	**4** x 0,35	10	63	2,8	1	1028604X035	73,309	1028704x035	81,627
	5 x 0,5	12	70	3,5	1	1028605X05	73,309	1028705x05	81,627
	6 x 0,75	14	80	4,5	1	1028606X075	73,309	1028706x075	81,627
	8 x 0,75	19	80	6,0	1	1028608X075	73,309	1028708x075	81,627
	8 x 1	22	90	6,0	1	1028608X1	73,309	1028708x1	81,627
	10 x 1	20	90	7,0	1	1028610X1	81,627	1028710x1	98,569
	10 x 1,25	24	100	7,0	1	1028610X125	81,627	1028710x125	98,569
	12 x 1	22	100	9,0	1	1028612X1	113,970	1028712x1	126,291
	12 x 1,25	22	100	9,0	1	1028612X125	113,970	1028712x125	126,291
	12 x 1,5	22	100	9,0	1	1028612X15	113,970	1028712x15	126,291
	14 x 1	22	100	11,0	1	1028614X1	138,613	1028714x1	154,014
	14 x 1,25	22	100	11,0	1	1028614X125	138,613	1028714x125	154,014
	14 x 1,5	22	100	11,0	1	1028614X15	138,613	1028714x15	154,014
	16 x 1	22	100	12,0	1	1028616X1	160,793	1028716x1	177,117
	16 x 1,5	22	100	12,0	1	1028616X15	160,793	1028716x15	177,117
	18 x 1	25	110	14,0	1	1028618X1	192,518	1028718x1	218,700
	18 x 1,5	25	110	14,0	1	1028618X15	192,518	1028718x15	218,700
	18 x 2	34	125	14,0	1	1028618X2	192,518	1028718x2	218,700
	20 x 1	25	125	16,0	1	1028620X1	211,000	1028720x1	244,883
	20 x 1,25	25	125	16,0	1	1028620X125	211,000	1028720x125	244,883
	20 x 1,5	25	125	16,0	1	1028620X15	211,000	1028720x15	244,883
	20 x 2	34	140	16,0	1	1028620X2	211,000	1028720x2	244,883
	22 x 1	25	125	18,0	1	1028622X1	264,905	1028722x1	295,706
	22 x 1,5	25	125	18,0	1	1028622X15	264,905	1028722x15	295,706
	22 x 2	34	140	18,0	1	1028622X2	264,905	1028722x2	295,706
	24 x 1	28	140	18,0	1	1028624X1	309,567	1028724x1	354,232
	24 x 1,5	28	140	18,0	1	1028624X15	309,567	1028724x15	354,232
	24 x 2	28	140	18,0	1	1028624X2	309,567	1028724x2	354,232
	25 x 1	28	140	18,0	1	1028625X1	309,567	1028725x1	354,232
	26 x 1,5	28	140	18,0	1	1028626X15	309,567	1028726x15	354,232
	27 x 1,5	28	140	20,0	1	1028627X15	388,115	1028727x15	428,159
	27 x 2	28	140	20,0	1	1028627X2	388,115	1028727x2	428,159
	28 x 1,5	28	140	20,0	1	1028628X15	388,115	1028728x15	428,159
	30 x 1,5	28	150	22,0	1	1028630X15	443,560	1028730x15	486,683
	30 x 2	28	150	22,0	1	1028630X2	443,560	1028730x2	486,683
	32 x 1,5	28	150	22,0	1	1028632X15	548,289	1028732x15	606,815
	32 x 2	28	150	22,0	1	1028632X2	548,289	1028732x2	606,815
	33 x 2	30	160	25,0	1	1028633X2	548,289	1028733x2	606,815
	35 x 1,5	30	170	28,0	1	1028635X15	548,289	1028735x15	606,815
	36 x 1,5	30	170	28,0	1	1028636X15	686,903	1028736x15	763,910
	36 x 2	30	170	28,0	1	1028636X2	686,903	1028736x2	763,910
	38 x 1,5	30	170	28,0	1	1028638X15	726,945	1028738x15	800,873
	40 x 1,5	30	170	32,0	1	1028640X15	791,632	1028740x15	871,721
	42 x 1,5	30	170	32,0	1	1028642X15	884,039	1028742x15	985,689
	45 x 1,5	32	180	36,0	1	1028645X15	1.047,294	1028745x15	1.158,185
	48 x 1,5	32	190	36,0	1	1028648X15	1.262,915	1028748x15	1.379,965
	50 x 1,5	32	190	36,0	1	1028650X15	1.463,133	1028750x15	1.607,906
	52 x 1,5	32	190	40,0	1	1028652X15	1.617,147	1028752x15	1.765,001

Applicazioni *Applications*

R ≤ 850 N/mm²

Inox | **Acciaio** *Steel* | **Metals**

- Per fori in acciai con R≤850 N/mm² ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For holes in steel with R≤850 N/mm² malleable cast iron, non ferrous metal with long chips, stainless steel, heat resistant steel.
- Pour trous en acier avec R≤850 N/mm² fonte, alliages légers, acier inoxidable.
- Para orificios in acero de hasta R≤850 N/mm² aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grundloch in Stahl mit R≤850 N/mm², Stahlguss, alu langspanend, korrosions-beständige Stähle (V2A-V4A) etc.

MASCHI A MACCHINA CON ANELLO BIANCO PER UTILIZZI SPECIALI

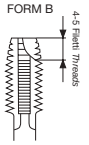
White ring machine taps / Tarauds machine avec anneau blanc
Machos de maquina con anillo blanco / Weissring-Maschinengewindebohrer

Speciale per acciaio INOX - Special for stainless steel - Pour acier inoxydable - Para acero inoxidable - Für rostfreieren Stahl

10504 **10505**



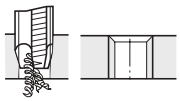
FORM B



HSS-CO AISI M35
HV 820÷850

Vaporizzati *Steam treated*

DIN 371/B **DIN 376/B**



Art. 10504
HSS-CO **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1050403X05	22,961
	4 x 0,7	13	63	4,5	1	1050404X07	22,961
	5 x 0,8	16	70	6,0	1	1050405X08	24,698
	6 x 1	19	80	6,0	1	1050406X1	24,698
	8 x 1,25	22	90	8,0	1	1050408X125	28,456
	10 x 1,5	24	100	10,0	1	1050410X15	34,444

Art. 10505
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9,0	1	1050512X175	41,426
	14 x 2	30	110	11,0	1	1050514X2	53,154
	16 x 2	30	110	12,0	1	1050516X2	60,382
	18 x 2,5	34	125	14,0	1	1050518X25	82,852
	20 x 2,5	34	140	16,0	1	1050520X25	115,795



M 3÷12 7 pcs

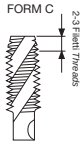
10520300
HSS-CO
€ 181,317

Finitura: Ossidazione in vapore di Fe_3O_4 che aumenta la durezza superficiale e la resistenza a usura riducendo la tendenza all'incollamento dei trucioli.
Finish: Steam Tempered of Fe_3O_4, increasing surface hardness and wear resistance.

10506 **10507**

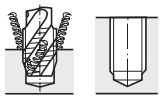


FORM C



HSS-CO AISI M35
HV 820÷850

DIN 371/C-40° **DIN 376/C-40°**



Art. 10506
HSS-CO **40°** **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1050603X05	29,271
	4 x 0,7	7	63	4,5	1	1050604X07	29,271
	5 x 0,8	8	70	6,0	1	1050605X08	31,348
	6 x 1	10	80	6,0	1	1050606X1	31,038
	8 x 1,25	14	90	8,0	1	1050608X125	36,317
	10 x 1,5	16	100	10,0	1	1050610X15	43,322



M 3÷12 7 pcs

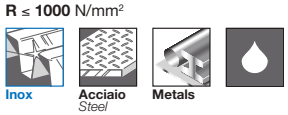
10520301
HSS-CO
€ 224,379

Art. 10507
HSS-CO **40°**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9,0	1	1050712X175	53,678
	14 x 2	20	110	11,0	1	1050714X2	68,019
	16 x 2	22	110	12,0	1	1050716X2	82,767
	18 x 2,5	25	125	14,0	1	1050718X25	108,781
	20 x 2,5	25	140	16,0	1	1050720X25	150,357

Applicazioni Applications

R ≤ 1000 N/mm²



Inox **Acciaio** *Steel* **Metals**

- Per filettature in acciaio inox, acciai per utensili, acciai resistenti al calore, acciai legati in genere, bronzo a truciolo lungo, rame con R≤1000 N/mm²
- For making threads in stainless steel, heat resistant steel, structural steel, long chipping bronze, copper with R≤1000 N/mm²
- Pour taraudage en acier inoxidable, acier pour traitement thermique, acier allié avec R≤1000 N/mm²
- Para roscar acero inoxidable, acero aleado, bronze
- Für VA-Werkstoffe, hitzbeständige Stähle, Messing, Alu.

MASCHI A MACCHINA CON ANELLO BLU, FILETTATURA METRICA ISO

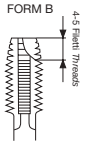
Blue ring machine taps / Tarauds machine avec anneau blue
Machos de maquina con anillo azul / Blauring-Maschinen-Gewindebohrer

Speciali per acciai refrattari, acciai da tempra e cementazione - Special for wear and heat resistant steel

10500 **10501**

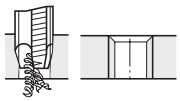


FORM B



HSS-CO AISI M35
HV 850÷880

DIN 371/B **DIN 376/B**



Art. 10500
HSS-CO **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1050003X05	21,500
	4 x 0,7	13	63	4,5	1	1050004X07	21,500
	5 x 0,8	16	70	6,0	1	1050005X08	23,449
	6 x 1	19	80	6,0	1	1050006X1	23,449
	8 x 1,25	22	90	8,0	1	1050008X125	27,335
	10 x 1,5	24	100	10,0	1	1050010X15	32,228



M 3÷12 7 pcs

10520302
HSS-CO
€ 175,472

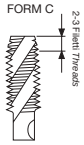
Art. 10501
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1050112X175	37,424
	14 x 2	30	110	11	1	1050114X2	48,206
	16 x 2	30	110	12	1	1050116X2	54,282
	18 x 2,5	34	125	14	1	1050118X25	74,670
	20 x 2,5	34	140	16	1	1050120X25	104,258

10502 **10503**

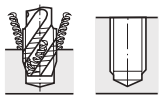


FORM C



HSS-CO AISI M35
HV 850÷880

DIN 371/C-40° **DIN 376/C-40°**



Art. 10502
HSS-CO **40°** **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1050203X05	27,304
	4 x 0,7	7	63	4,5	1	1050204X07	27,304
	5 x 0,8	8	70	6,0	1	1050205X08	30,311
	6 x 1	10	80	6,0	1	1050206X1	31,558
	8 x 1,25	14	90	8,0	1	1050208X125	34,469
	10 x 1,5	16	100	10,0	1	1050210X15	40,222



M 3÷12 7 pcs

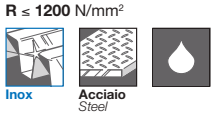
10520303
HSS-CO
€ 218,594

Art. 10503
HSS-CO **40°**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1050312X175	48,174
	14 x 2	20	110	11	1	1050314X2	61,019
	16 x 2	22	110	12	1	1050316X2	74,241
	18 x 2,5	25	125	14	1	1050318X25	97,689
	20 x 2,5	25	140	16	1	1050320X25	139,609

Applicazioni
Applications

R ≤ 1200 N/mm²



Inox
Acciaio
Steel

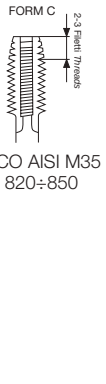
- Per filettatura in acciai resistenti all'usura quali gli acciai refrattari, acciai legati da tempra e cementazione, acciai per utensili con R≤1200 N/mm².
- For use in wear resistant steel, heat resistant steel, tool steel with R≤1200 N/mm².
- Pour taraudage en aciers refractaires, acier de outil, acier pour traitement thermique avec R≤1200 N/mm².
- Para rosca en acero resistente al calor, acero para trattamento termico, acero para utensilios hasta R≤1200 N/mm².
- Für Gewindebohrer in hochlegierte Stähle, zähe kurzspanende Werkstoffe, legierte Werkzeugstähle.

MASCHI A MACCHINA CON ANELLO NERO, FILETTATURA METRICA ISO

Black ring machine taps / Tarauds machine avec anneau noir
Machos de maquina con anillo negro / Schwarzring-Maschinengewindebohrer

10508 **10509**

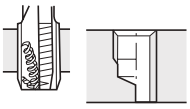




HSS-CO AISI M35
HV 820÷850

Nitrurato *Nitrited*
L'arricchimento della superficie con nitrato e carbonio diminuisce la tendenza all'incollamento dei trucioli e aumenta la durezza superficiale e la resistenza ad usura.
The surface enrichment with nitrate and carbon is aimed to avoiding chips sticking on the tool and to increasing surface hardness and wear resistance.

DIN 371/C **DIN 376/C**



Art. 10508
HSS-CO **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1050803X05	22,463
	4 x 0,7	13	63	4,5	1	1050804X07	22,463
	5 x 0,8	16	70	6	1	1050805X08	24,161
	6 x 1	19	80	6	1	1050806X1	24,161
	8 x 1,25	22	90	8	1	1050808X125	27,838
	10 x 1,5	24	100	10	1	1050810X15	34,271



M 3÷12 7 pcs

10520304
HSS-CO
€ 188,892

Art. 10509
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1050912X175	40,526
	14 x 2	30	110	11	1	1050914X2	51,999
	16 x 2	30	110	12	1	1050916X2	59,070
	18 x 2,5	34	125	14	1	1050918X25	81,052
	20 x 2,5	34	140	16	1	1050920X25	113,278

Applicazioni *Applications*

G — **Ghisa** *Cast Iron*
Bronze Mg Alloys
Alu
Plastica Dura Hard Plastics

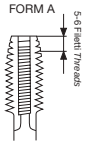
- Per filettatura in fori ciechi e passanti in ghisa grigia e sferoidale, leghe di magnesio, bronzo e alluminio a truciolo corto, plastica dura.
- For making threads into through and blind holes, cast iron, magnesium alloys, bronze and short chip aluminium, hard plastics.
- Pour taraudage en fontes à haute résistance, alliages de magnésium, bronze, plastique très dur.
- Para roscar fundiciones, aleaciones de magnesio, bronze, plastico duro.
- Für Grauguss und Sphäroguss, Magnesiumlegierungen, Bronze und Alu-Kurzspanend.

MASCHI A MACCHINA CON ANELLO ROSSO, FILETTATURA METRICA ISO

Red ring machine taps / Tarauds machine avec anneau rouge
Machos de maquina con anillo rojo / Rotring-Maschinengewindebohrer

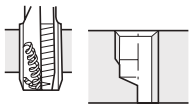
10510





HSS-CO AISI M35
HV 820÷850

DIN 371/A



Art. 10510
HSS-CO **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**4** x 0,7	9	63	4,5	1	1051004X07	26,371
	5 x 0,8	11	70	6	1	1051005X08	29,295
	6 x 1	12	80	6	1	1051006X1	29,295
	8 x 1,25	15	90	8	1	1051008X125	32,228
	10 x 1,5	16	100	10	1	1051010X15	38,085



M 4÷10 5 pcs

10520310
HSS-CO
€ 146,868

Applicazioni *Applications*

R ≤ 1200 N/mm²
Inox
Acciaio *Steel*

- Per filettatura in acciai resistenti all'usura quali gli acciai refrattari, acciai legati da tempra e cementazione, acciai per utensili con R≥1200 N/mm².
- For use in wear resistant steel, heat resistant steel, tool steel with R≥1200 N/mm².
- Pour taraudage en aciers refractaires, acier de outil, acier pour traitement thermique avec R≥1200 N/mm².
- Para rosca en acero resistente al calore, acero para trattamento termico, acero para utensilios hasta R≥1200 N/mm².
- Für Gewindebohrer in hochlegierte Stähle, zähe kurzspanende Werkstoffe, legierte Werkzeugstähle.

MASCHI A MACCHINA CON ANELLO GIALLO, FILETTATURA METRICA ISO

Yellow ring machine taps, ISO metric thread / Tarauds machine avec anneau jaune, filetage métrique ISO
Machos de máquina con anillo amarillo, rosca métrica ISO / Gelbring-Maschinengewindebohrer, metrisches ISO-Gewinde

Speciale per alluminio - Special for aluminium - Spécial pour aluminium - Especial para aluminio - Speziell für Aluminium

10511 **10512**



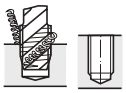




2 SPIRALI
2 FLUTES

HSS-CO AISI M35
HV 820÷850

DIN 371/C-40° **DIN 376/C-40°**



Art. 10511
HSS-CO 40°

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1051103x05	35,276
	4 x 0,7	7	63	4,5	1	1051104x07	35,276
	5 x 0,8	8	70	6	1	1051105x08	38,168
	6 x 1	10	80	6	1	1051106x1	38,168
	8 x 1,25	14	90	8	1	1051108x125	43,857
	10 x 1,5	16	100	10	1	1051110x15	53,130



M 3÷12 7 pcs

10520305
HSS-CO
€ 240,242

Art. 10512
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1051212X175	71,303
	14 x 2	20	110	11	1	1051214X2	93,399
	16 x 2	22	110	12	1	1051216X2	106,053

Applicazioni Applications

R ≤ 850 N/mm²



MASCHI A MACCHINA CON ANELLO ARANCIO, FILETTATURA METRICA ISO

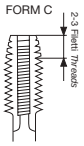
Orange ring machine taps, ISO metric thread / Tarauds machine avec anneau orangé, filetage métrique ISO
Machos de máquina con anillo anaranjado, rosca métrica ISO / Orangering-Maschinengewindebohrer, metrisches ISO-Gewinde

Speciale per ottone - Special for brass - Spécial pour laiton - Especial para laton - Speziell für Messing

10513 **10514**

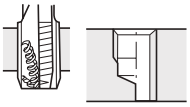






HSS-CO AISI M35
HV 820÷850

DIN 371/C **DIN 376/C**



Art. 10513
HSS-CO

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1051303x05	30,259
	4 x 0,7	13	63	4,5	1	1051304x07	30,259
	5 x 0,8	16	70	6	1	1051305x08	32,804
	6 x 1	19	80	6	1	1051306x1	32,804
	8 x 1,25	22	90	8	1	1051308x125	37,394
	10 x 1,5	24	100	10	1	1051310x15	45,220



M 3÷12 7 pcs

10520306
HSS-CO
€ 207,375

Art. 10514
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1051412X175	61,000
	14 x 2	30	110	11	1	1051414X2	78,008
	16 x 2	30	110	12	1	1051416X2	89,394

Applicazioni Applications

R ≤ 850 N/mm²



MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

Hand taps, 3 pcs set, metric coarse ISO thread / Jeux de 3 tarauds à main, filetage metrique ISO

Juegos de machos a mano, rosca metrica ISO / Handgewindebohrer, dreiteiliger Satz für metrisches ISO-Gewinde DIN 13

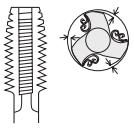
HSS-G DIN 352 ISO 2/6H Rettificati

Ground from the solid / Rectifiés / Rectificado / Geschliffen

M

10100





HRC ≃ 63÷63,5
AISI M2

Art. **10101** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²



Acciaio
Steel



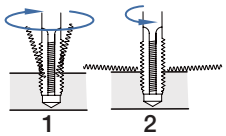
Metals



Alu



- Per filettature in fori ciechi e passanti in acciaio da costruzione, acciai da bonifica, materiali metallici in genere sino a R≤800 N/mm².
- For making threads in blind and through holes in structural steel, malleable cast iron, heat-treatable steel R≤800 N/mm².
- Taraudage pour trous borgnes et dèbouchant des acier de construction et aciers traitès R≤800 N/mm².
- Para orificios ciegos y pasantes en materiales de hasta 800 N/mm².
- Für allgemeinen Einsatz in Baustähle, Automatenstähle und Vergütungsstähle R≤ 800 N/mm².



1 2

É buona norma, ad ogni rotazione del maschio (1), effettuare mezzo giro indietro (2) per rompere il truciolo

Please rotate clockwise the tap (1) then rotate anticlockwise (2) to break the chip.

	Ø	/	L	pcs	cod.	€ cad/each
M	**1** x 0,25	8	32	1	1010001X025	118,356
	1,1 x 0,25	8	32	1	10100011X025	118,356
	1,2 x 0,25	8	32	1	10100012X025	118,356
	1,4 x 0,3	10	32	1	10100014X03	118,356
	1,6 x 0,35	10	32	1	10100016X035	118,356
	1,7 x 0,35	10	32	1	10100017X035	118,356
	1,8 x 0,35	10	32	1	10100018X035	118,356
	2 x 0,4	10	36	1	1010002X04	20,827
	2,2 x 0,45	11	36	1	10100022X045	27,998
	2,3 x 0,4	11	36	1	10100023X04	27,998
	2,5 x 0,45	12	40	1	10100025X045	23,248
	2,6 x 0,45	12	40	1	10100026X045	24,680
	3 x 0,5	11	40	1	1010003X05	14,808
	3,5 x 0,6	14	45	1	10100035X06	21,455
	4 x 0,7	13	45	1	1010004X07	15,541
	4,5 x 0,75	16	50	1	10100045X075	27,358
	5 x 0,8	16	50	1	1010005X08	16,158
	5 x 1	16	56	1	1010005X1	30,000
	5,5 x 0,9	18	50	1	10100055x09	43,364
	6 x 1	19	56	1	1010006X1	16,531
	7 x 1	19	56	1	1010007X1	22,410
	8 x 1,25	22	63	1	1010008X125	17,974
	9 x 1,25	22	63	1	1010009X125	29,022
	10 x 1,5	24	70	1	1010010X15	23,259
	11 x 1,5	24	70	1	1010011X15	41,013
	12 x 1,75	28	75	1	1010012X175	29,592
	13 x 1,75	28	75	1	1010013X175	76,787
	14 x 2	30	80	1	1010014X2	37,461
	15 x 2	32	80	1	1010015x2	76,810
	16 x 2	32	80	1	1010016X2	44,366
	18 x 2,5	34	95	1	1010018X25	74,505
	20 x 2,5	34	95	1	1010020X25	80,442
	22 x 2,5	34	100	1	1010022X25	93,479
	24 x 3	38	110	1	1010024X3	107,683
	27 x 3	38	110	1	1010027X3	138,532
	28 x 3	38	110	1	1010028X3	159,716
	30 x 3,5	45	125	1	1010030X35	174,526
	33 x 3,5	50	132	1	1010033X35	215,770
	36 x 4	56	150	1	1010036X4	252,615
	39 x 4	56	150	1	1010039X4	401,659
	42 x 4,5	63	160	1	1010042X45	438,178
	45 x 4,5	63	160	1	1010045X45	557,792
	48 x 5	68	180	1	1010048X5	780,652
	52 x 5	68	180	1	1010052X5	803,316
	56 x 5,5	85	200	1	1010056X55	997,225
	60 x 5,5	85	200	1	1010060X55	1.264,161
	64 x 6	90	220	1	1010064X6	1.338,442
	68 x 6	90	220	1	1010068X6	1.488,278
	72 x 6	90	240	1	1010072X6	3.608,792

*** ≃ DIN 352**



Maschio a mano finitore
Bottoming hand tap
Taraud à main finisseur
Macho a mano acabado
Handgewindebohrer

HSS-G
DIN 352 III



	Ø	/	L	pcs	cod.	€ cad/each
M	**3** x 0,5	12	40	1	1010003X053	4,948
	4 x 0,7	14	45	1	1010004X073	5,181
	5 x 0,8	14	50	1	1010005X083	5,378
	6 x 1	16	56	1	1010006X13	5,507
	8 x 1,25	18	63	1	1010008X1253	5,994
	10 x 1,5	25	70	1	1010010X153	7,753
	12 x 1,75	30	75	1	1010012X1753	9,861
	14 x 2	32	80	1	1010014X23	12,492
	16 x 2	32	80	1	1010016X23	14,785
	18 x 2,5	40	95	1	1010018X253	23,713
	20 x 2,5	40	95	1	1010020X253	26,775

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

Hand taps, 3 pcs set, metric coarse ISO thread / Jeux de 3 tarauds à main, filetage metrique ISO

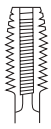
Juegos de machos a mano, rosca metrica ISO / Handgewindebohrer, dreiteiliger Satz für metrisches ISO – Gewinde DIN 13

COBALT HSS-CO DIN 352 ISO 2/6H

M

10144



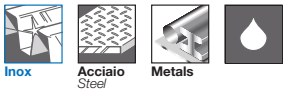


HRC ≃ 64÷65
AISI M35

	Ø	/	L	pcs	cod.	€ cad/each
M	**3** x 0,5	11	40	1	1014403X05	23,445
	4 x 0,7	13	45	1	1014404X07	23,445
	5 x 0,8	14	50	1	1014405X08	24,260
	6 x 1	16	56	1	1014406X1	25,448
	8 x 1,25	18	63	1	1014408X125	28,019
	10 x 1,5	24	70	1	1014410X15	35,611
	12 x 1,75	29	75	1	1014412X175	45,575
	14 x 2	30	80	1	1014414X2	61,967
	16 x 2	32	80	1	1014416X2	74,796
	18 x 2,5	40	95	1	1014418X25	127,170
	20 x 2,5	40	95	1	1014420X25	135,981
	22 x 2,5	40	100	1	1014422X25	161,174
	24 x 3	50	110	1	1014424X3	181,312
	27 x 3	50	110	1	1014427X3	239,229
	30 x 3,5	56	125	1	1014430X35	304,709

Applicazioni / *Applications*

R ≤ 1200 N/mm²



Inox | **Acciaio** *Steel* | **Metals**

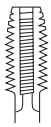
- Per filettature in acciai molto duri ed abrasivi, acciai inox, acciai resistenti al calore con R≤1200 N/mm².
- For thread in stainless steel, heat-resistant steel, high alloy steel R≤1200 N/mm².
- Taraudage en acier inox et acier allié avec R≤1200 N/mm².
- Para acero inox y acero aleado R≤1200 N/mm².
- Einsatz in legierte Stähle, korrosionebeständige Stähle, Grauguss und Stahlguss bis R≤1200 N/mm².

COBALT HSS-CO DIN 352 ISO 2/6H

M

10147



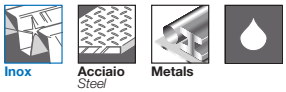


HRC ≃ 64÷65
AISI M35
R≤1400

	Ø	/	L	pcs	cod.	€ cad/each
M	**3** x 0,5	11	40	1	1014703X05	64,088
	4 x 0,7	13	45	1	1014704X07	64,088
	5 x 0,8	16	50	1	1014705X08	68,105
	6 x 1	19	56	1	1014706X1	68,105
	8 x 1,25	22	63	1	1014708X125	76,138
	10 x 1,5	24	70	1	1014710X15	102,194
	12 x 1,75	29	75	1	1014712X175	137,612

Applicazioni / *Applications*

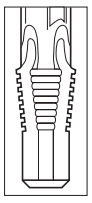
R ≤ 1400 N/mm²

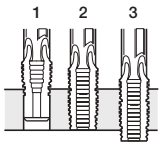


Inox | **Acciaio** *Steel* | **Metals**

Finitura: Ossidazione in vapore di Fe_3O_4 che aumenta la durezza superficiale e la resistenza a usura riducendo la tendenza all'incollamento dei trucioli.
Finish: Steam Tempered of Fe_3O_4, increasing surface hardness and wear resistance.

1





Sbozzatore con guida
Taper with guide

MASCHI A MANO AL TITANIO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

Titan coated hand taps, metric coarse ISO thread / Tarauds Titan à main, filetage metrique ISO

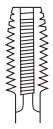
Juegos de machos a mano de Titanio, rosca metrica ISO / Handgewindebohrer mit TiN beschichtung für metrisches ISO Regelgewinde

HSS-TiN DIN 352 ISO 2/6H

M

10155

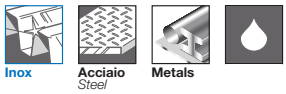




HV 0,05 ≃ 2500
AISI M2

	Ø	/	L	pcs	cod.	€ cad/each
M	**3** x 0,5	12	40	1	1015503X05	32,859
	4 x 0,7	14	45	1	1015504X07	26,668
	4,5 x 0,75	16	50	1	10155045X075	26,668
	5 x 0,8	16	50	1	1015505X08	27,203
	6 x 1	18	56	1	1015506X1	27,760
	8 x 1,25	22	63	1	1015508X125	43,258
	10 x 1,5	25	70	1	1015510X15	47,649
	12 x 1,75	30	75	1	1015512X175	62,374
	14 x 2	32	80	1	1015514X2	78,494
	16 x 2	32	80	1	1015516X2	85,508
	18 x 2,5	40	95	1	1015518X25	121,055
	20 x 2,5	40	95	1	1015520X25	159,278

Applicazioni / *Applications*



Inox | **Acciaio** *Steel* | **Metals**

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO SINISTRA A PASSO GROSSO

Hand taps, 3 pcs set left hand / Jeux de 3 tarauds à main gauche

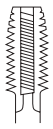
Juegos de machos a mano izquierda / Handgewindebohrer, linksgewinde dreitelliger Satz

HSS-G DIN 352 ISO 2/6H Sinistra - *Left hand - Gauche - Izquierda - Links*

M

10102





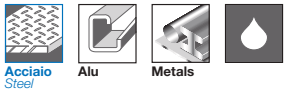
HRC ≃ 63÷63,5
AISI M2



LH

	Ø	/	L	pcs	cod.	€ cad/each
M	**3** x 0,5	11	40	1	1010203x05	23,434
	4 x 0,7	13	45	1	1010204x07	23,434
	5 x 0,8	14	50	1	1010205x08	24,377
	6 x 1	19	56	1	1010206x1	25,716
	7 x 1	19	56	1	1010207x1	34,399
	8 x 1,25	22	63	1	1010208x125	27,742
	10 x 1,5	24	70	1	1010210x15	35,633
	12 x 1,75	28	75	1	1010212x175	45,703
	14 x 2	30	80	1	1010214x2	57,834
	16 x 2	32	80	1	1010216x2	69,929
	18 x 2,5	34	95	1	1010218x25	120,138
	20 x 2,5	34	95	1	1010220x25	128,916
	22 x 2,5	34	100	1	1010222x25	152,489
	24 x 3	38	110	1	1010224x3	175,317
	27 x 3	38	110	1	1010227x3	225,211
	30 x 3,5	45	125	1	1010230x35	312,836
	33 x 3,5	56	125	1	1010233x35	713,656
	36 x 4	63	150	1	1010236x4	831,781
	39 x 4	63	150	1	1010239x4	1.073,884
	42 x 4,5	63	150	1	1010242x45	1.198,818
	45 x 4,5	70	160	1	1010245x45	1.385,741
	48 x 5	75	180	1	1010248x5	1.981,508
	52 x 5	75	180	1	1010252x5	2.095,987

Applicazioni / *Applications*



Acciaio *Steel* | **Alu** | **Metals**

MASCHI A MANO SERIE DI 2 PEZZI PER TUBI DI CONDUZIONE ELETTRICA

2 pcs hand taps for cable connection / Tarauds à main pour tubes avec armature en acier

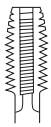
Juegos de machos a mano para tubos de conducción eléctrica / Handgewindebohrer, zweitelliger Satz Stahlpanzer für Kabelverschraumbungen

HSS-G DIN 2181 ISO 2/6H

MF

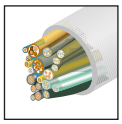
10105





HRC ≃ 63÷63,5
AISI M2

	Ø	/	L	pcs	cod.	€ cad/each
M	**12** x 1,5	22	70	1	1010512x15	25,809
	16 x 1,5	22	70	1	1010516x15	32,735
	20 x 1,5	22	80	1	1010520x15	53,514
	25 x 1,5	22	90	1	1010525x15	114,899
	32 x 1,5	32	90	1	1010532x15	169,986
	40 x 1,5	25	110	1	1010540x15	342,225
	50 x 1,5	40	140	1	1010550x15	519,006
	63 x 1,5	32	160	1	1010563x15	1.613,007



Applicazioni / *Applications*



Acciaio
Steel



Metals

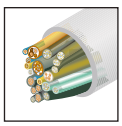
HSS-G DIN 40432

Pg

10136



	Ø	/	L	pcs	cod.	€ cad/each
Pg	**7** x 20	22	70	1	1013607	61,269
	9 x 18	22	70	1	1013609	79,918
	11 x 18	22	80	1	1013611	133,468
	13,5 x 18	22	80	1	10136135	151,092
	16 x 18	22	80	1	1013616	186,261
	21 x 16	22	90	1	1013621	274,490
	29 x 16	25	100	1	1013629	412,997
	36 x 16	40	140	1	1013636	640,270
	42 x 16	40	140	1	1013642	977,866
	48 x 16	40	160	1	1013648	1.126,909



Applicazioni / *Applications*



Acciaio
Steel



Metals

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA METRICA ISO A PASSO FINE

Hand taps, 2 pcs set, metric fine ISO thread / Jeux de 2 tarauds à main, filetage metrique ISO à pas fin

Juegos de machos a mano, rosca metrica fina ISO / Handgewindebohrer, zweiteiliger Satz für metrisches ISO-Feingewinde

HSS-G DIN 2181 ISO 2/6H **MF**

10105





HV 0,05 ≃ 2500
AISI M2

Ø	/	L	pcs	cod.	€ cad/each
M 2 x 0,25	8	36	1	1010502x025	37,962
2,2 x 0,25	9	36	1	10105022x025	37,962
2,5 x 0,35	9	40	1	10105025x035	36,519
2,6 x 0,35	9	40	1	10105026x035	36,519
3 x 0,35	9	40	1	1010503X035	21,465
3,5 x 0,35	10	45	1	10105035X035	21,465
4 x 0,35	10	45	1	1010504X035	24,551
4 x 0,5	10	45	1	1010504X05	17,636
4,5 x 0,5	12	50	1	10105045x05	36,519
5 x 0,5	12	50	1	1010505X05	18,766
5 x 0,75	12	50	1	1010505X075	40,198
5,5 x 0,5	12	50	1	10105055x05	36,519
6 x 0,5	14	50	1	1010506X05	36,519
6 x 0,75	14	50	1	1010506X075	19,638
7 x 0,5	14	50	1	1010507x05	36,519
7 x 0,75	14	50	1	1010507X075	23,317
8 x 0,5	19	50	1	1010508X05	46,892
8 x 0,75	19	50	1	1010508X075	23,865
8 x 1	22	56	1	1010508X1	20,523
9 x 0,5	19	56	1	1010509x05	40,291
9 x 0,75	19	56	1	1010509X075	33,899
9 x 1	20	63	1	1010509X1	31,351
10 x 0,5	20	63	1	1010510x05	40,919
10 x 0,75	20	63	1	1010510X075	31,664
10 x 1	20	63	1	1010510X1	27,194
10 x 1,25	24	70	1	1010510X125	22,410
11 x 0,75	20	63	1	1010511x075	52,630
11 x 1	20	63	1	1010511X1	31,885
11 x 1,25	22	63	1	1010511X125	34,621
12 x 0,5	22	70	1	1010512x05	52,630
12 x 0,75	22	70	1	1010512X075	32,304
12 x 1	22	70	1	1010512X1	32,234
12 x 1,25	22	70	1	1010512X125	25,809
12 x 1,5	22	70	1	1010512X15	25,809
13 x 0,5	22	70	1	1010513x05	81,210
13 x 0,75	22	70	1	1010513x075	81,210
13 x 1	22	70	1	1010513X1	55,809
13 x 1,5	22	70	1	1010513X15	55,809
14 x 0,5	22	70	1	1010514x05	81,210
14 x 0,75	22	70	1	1010514X075	39,302
14 x 1	22	70	1	1010514X1	36,134
14 x 1,25	22	70	1	1010514X125	36,134
14 x 1,5	22	70	1	1010514X15	30,722
15 x 0,75	22	70	1	1010515x075	90,150
15 x 1	22	70	1	1010515X1	60,441
15 x 1,5	22	70	1	1010515X15	60,441
16 x 0,5	22	70	1	1010516X05	90,150
16 x 0,75	22	70	1	1010516X075	90,150
16 x 1	22	70	1	1010516X1	40,291
16 x 1,25	22	70	1	1010516X125	37,892
16 x 1,5	22	70	1	1010516X15	32,735
17 x 1	22	70	1	1010517x1	97,578
17 x 1,5	22	70	1	1010517x15	97,578
18 x 0,5	22	80	1	1010518x05	97,578
18 x 0,75	22	80	1	1010518x075	97,578
18 x 1	22	80	1	1010518X1	59,172
18 x 1,25	22	80	1	1010518X125	59,172
18 x 1,5	22	80	1	1010518X15	48,474
18 x 2	22	80	1	1010518X2	61,512
19 x 1	22	80	1	1010519x1	122,687
19 x 1,5	22	80	1	1010519x15	122,687
20 x 0,5	22	80	1	1010520x05	122,687
20 x 0,75	22	80	1	1010520x075	122,687
20 x 1	22	80	1	1010520X1	81,838
20 x 1,25	22	80	1	1010520X125	74,946
20 x 1,5	22	80	1	1010520X15	53,514
20 x 2	22	80	1	1010520X2	65,890
21 x 1	22	80	1	1010521X1	125,854
21 x 1,5	22	80	1	1010521X15	125,854
22 x 0,5	22	80	1	1010522x05	145,516
22 x 0,75	22	80	1	1010522x075	125,854

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²



Acciaio
Steel



Metals



Alu



- Per filettature in fori ciechi e passanti in acciaio da costruzione, acciai da bonifica, materiali metallici in genere sino a R≤800 N/mm².
- For making threads in blind and through holes in structural steel, malleable cast iron, heat-treatable steel R≤800 N/mm².
- Taraudage pour trous borgnes et débouchant des acier de construction et aciers traités R≤800 N/mm².
- Para orificios ciegos y pasantes en materiales de hasta R≤800 N/mm².
- Für allgemeinen Einsatz in Baustähle, Automatenstähle und Vergütungsstähle R≤800 N/mm².

MF

Ø		/	L	pcs	cod.	€ cad/each
M 22	x 1	22	80	1	1010522x1	77,903
22	x 1,25	22	80	1	1010522x125	77,903
22	x 1,5	22	80	1	1010522X15	77,903
22	x 2	22	80	1	1010522X2	77,903
23	x 1	22	80	1	1010523x1	169,986
23	x 1,5	22	80	1	1010523X15	103,247
24	x 0,5	22	90	1	1010524x05	169,986
24	x 0,75	22	90	1	1010524x075	169,986
24	x 1	22	90	1	1010524X1	82,094
24	x 1,25	22	90	1	1010524X125	73,538
24	x 1,5	22	90	1	1010524X15	69,882
24	x 2	22	90	1	1010524X2	73,177
25	x 1	22	90	1	1010525X1	114,899
25	x 1,5	22	90	1	1010525X15	114,899
26	x 1	22	90	1	1010526X1	107,915
26	x 1,5	22	90	1	1010526X15	107,915
26	x 2	22	90	1	1010526X2	107,915
27	x 1	22	90	1	1010527X1	149,835
27	x 1,5	22	90	1	1010527X15	103,631
27	x 2	22	90	1	1010527X2	103,631
28	x 1	22	90	1	1010528X1	153,618
28	x 1,5	22	90	1	1010528X15	122,268
28	x 2	22	90	1	1010528X2	122,268
29	x 1,5	22	90	1	1010529X15	249,310
30	x 1	22	90	1	1010530X1	157,157
30	x 1,5	22	90	1	1010530X15	157,157
30	x 2	22	90	1	1010530X2	157,157
30	x 2,5	56	125	1	1010530X25	157,157
30	x 3	56	125	1	1010530X3	157,157
32	x 1	22	90	1	1010532x1	331,148
32	x 1,5	22	90	1	1010532X15	169,986
32	x 2	22	90	1	1010532x2	331,148
32	x 3	56	125	1	1010532X3	168,717
33	x 1,5	25	100	1	1010533X15	237,971
33	x 2	25	100	1	1010533X2	260,636
33	x 3	56	125	1	1010533X3	289,599
34	x 1	25	100	1	1010534x1	404,173
34	x 1,5	25	100	1	1010534X15	268,191
34	x 2	40	125	1	1010534X2	268,191
35	x 1	25	100	1	1010535x1	404,173
35	x 1,5	25	100	1	1010535X15	268,191
35	x 2	40	125	1	1010535x2	402,917
36	x 1	25	100	1	1010536x1	424,324
36	x 1,5	25	100	1	1010536X15	283,303
36	x 2	40	125	1	1010536X2	283,303
36	x 3	40	125	1	1010536X3	283,303
37	x 1,5	25	100	1	1010537x15	470,277
38	x 1	25	100	1	1010538x1	470,277
38	x 1,5	25	100	1	1010538X15	334,293
38	x 2	40	125	1	1010538X2	413,616
38	x 3	40	125	1	1010538x3	413,616
39	x 1,5	25	110	1	1010539X15	334,293
39	x 2	40	125	1	1010539X2	334,293
39	x 3	40	125	1	1010539X3	334,293
40	x 1	25	110	1	1010540x1	413,616
40	x 1,5	25	110	1	1010540X15	342,225
40	x 2	40	125	1	1010540X2	342,225
40	x 3	40	125	1	1010540X3	342,225
42	x 1	25	110	1	1010542x1	413,616
42	x 1,5	25	110	1	1010542X15	349,025
42	x 2	40	125	1	1010542X2	349,025
42	x 3	40	125	1	1010542X3	349,025
44	x 1,5	25	110	1	1010544x15	504,275
44	x 2	40	125	1	1010544x2	504,275
45	x 1	25	110	1	1010545x1	504,275
45	x 1,5	25	110	1	1010545X15	461,214
45	x 2	40	125	1	1010545X2	461,214
45	x 3	40	125	1	1010545X3	461,214
46	x 1,5	40	140	1	1010546x15	504,275
48	x 1	40	140	1	1010548x1	598,339
48	x 1,5	25	140	1	1010548X15	447,614
48	x 2	40	140	1	1010548X2	516,743
48	x 3	40	140	1	1010548X3	516,743
50	x 1,5	40	140	1	1010550X15	519,006
50	x 2	40	140	1	1010550X2	568,867
50	x 3	40	140	1	1010550X3	635,732

MF

Ø		/	L	pcs	cod.	€ cad/each
52	x 1,5	40	140	1	1010552X15	657,262
52	x 2	40	140	1	1010552X2	657,262
52	x 3	40	140	1	1010552X3	657,262
54	x 1,5	32	140	1	1010554X15	1.104,427
54	x 2	36	140	1	1010554X2	1.104,427
54	x 3	40	140	1	1010554X3	1.104,427
54	x 4	50	180	1	1010554X4	1.104,427
55	x 1,5	32	140	1	1010555X15	1.273,948
55	x 2	36	140	1	1010555X2	1.273,948
55	x 3	40	140	1	1010555X3	1.273,948
55	x 4	50	180	1	1010555X4	1.273,948
56	x 1,5	32	140	1	1010556X15	1.358,717
56	x 2	36	140	1	1010556X2	1.358,717
56	x 3	40	140	1	1010556X3	1.358,717
56	x 4	50	180	1	1010556X4	1.358,717
58	x 1,5	32	160	1	1010558X15	1.392,370
58	x 2	36	160	1	1010558X2	1.392,370
58	x 3	40	160	1	1010558X3	1.392,370
58	x 4	55	200	1	1010558X4	1.392,370
60	x 1,5	34	160	1	1010560X15	1.460,932
60	x 2	36	160	1	1010560X2	1.460,932
60	x 3	40	160	1	1010560X3	1.460,932
60	x 4	55	200	1	1010560X4	1.460,932
62	x 1,5	34	160	1	1010562X15	1.579,355
62	x 2	36	160	1	1010562X2	1.579,355
62	x 3	45	180	1	1010562X3	1.579,355
62	x 4	55	220	1	1010562X4	1.579,355
63	x 1,5	32	160	1	1010563X15	1.613,007
64	x 1,5	34	160	1	1010564X15	1.613,007
64	x 2	36	160	1	1010564X2	1.613,007
64	x 3	45	180	1	1010564X3	1.613,007
64	x 4	60	220	1	1010564X4	1.613,007
65	x 1,5	34	160	1	1010565X15	1.715,223
65	x 2	36	160	1	1010565X2	1.715,223
65	x 3	45	180	1	1010565X3	1.715,223
65	x 4	60	220	1	1010565X4	1.715,223
68	x 1,5	36	160	1	1010568X15	1.783,786
68	x 2	40	160	1	1010568X2	1.783,786
68	x 3	50	180	1	1010568X3	1.783,786
68	x 4	60	220	1	1010568X4	1.783,786
70	x 1,5	36	160	1	1010570X15	2.886,955
70	x 2	40	160	1	1010570X2	2.886,955
70	x 3	50	200	1	1010570X3	3.312,022
70	x 4	60	240	1	1010570X4	3.312,022
72	x 1,5	36	160	1	1010572X15	2.886,955
72	x 2	40	160	1	1010572X2	2.886,955
72	x 3	50	200	1	1010572X3	3.312,022
72	x 4	60	240	1	1010572X4	3.312,022
74	x 1,5	36	160	1	1010574X15	3.141,256
74	x 2	40	160	1	1010574X2	3.141,256
74	x 3	50	200	1	1010574X3	3.735,844
74	x 4	60	240	1	1010574X4	3.735,844
75	x 1,5	36	160	1	1010575X15	3.227,263
75	x 2	40	160	1	1010575X2	3.227,263
75	x 3	50	200	1	1010575X3	3.820,604
75	x 4	60	240	1	1010575X4	3.820,604
76	x 1,5	36	160	1	1010576X15	3.312,022
76	x 2	40	160	1	1010576X2	3.312,022
76	x 3	50	220	1	1010576X3	3.991,382
76	x 4	60	260	1	1010576X4	3.991,382
78	x 1,5	36	160	1	1010578X15	3.312,022
78	x 2	40	160	1	1010578X2	3.312,022
78	x 3	55	220	1	1010578X3	3.991,382
78	x 4	65	260	1	1010578X4	3.991,382
80	x 1,5	36	160	1	1010580X15	3.566,313
80	x 2	40	160	1	1010580X2	3.566,313
80	x 3	55	220	1	1010580X3	4.415,204
80	x 4	65	260	1	1010580X4	4.415,204
82	x 1,5	36	160	1	1010582X15	3.566,313
82	x 2	40	160	1	1010582X2	3.566,313
82	x 3	55	220	1	1010582X3	4.415,204
82	x 4	65	260	1	1010582X4	4.415,204

Ø M84x1,5÷110x4: a richiesta
on demand

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA METRICA ISO A PASSO FINE

Hand taps, 2 pcs set, metric fine ISO thread / Jeux de 2 tarauds à main, filetage metrique ISO à pas fin

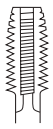
Juego de machos a mano, rosca metrica fina ISO / Handgewindebohrer, zweiteiliger Satz für metrisches ISO-Feingewinde

HSS-CO DIN 2181 ISO 2/6H COBALT

MF

10146

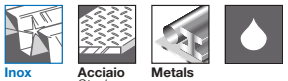




HRC ≃ 64÷65
AISI M35

Applicazioni / *Applications*

R ≤ 1200 N/mm²



Inox | **Acciaio** *Steel* | **Metals**

- Per filettature in acciai molto duri ed abrasivi, acciai inox, acciai resistenti al calore con R≤1200 N/mm².
- For thread in stainless steel, heat-resistant steel, high alloy steel R≤1200 N/mm².
- Taraudage en acier inox et acier allié avec R≤1200 N/mm².
- Para acero inox y acero aleado R≤1200 N/mm².
- Einsatz in legierte Stähle, korrosionebeständige Stähle, Grauguss und Stahlguss bis R≤1200 N/mm².

	Ø	/	L	pcs	cod.	€ cad/each
M	**6** x 0,75	14	50	1	1014606x075	33,969
	8 x 0,75	19	50	1	1014608x075	39,941
	8 x 1	22	56	1	1014608x1	33,969
	10 x 1	20	63	1	1014610x1	36,263
	10 x 1,25	24	70	1	1014610x125	45,040
	12 x 1	22	70	1	1014612x1	42,572
	12 x 1,25	22	70	1	1014612x125	54,039
	12 x 1,5	22	70	1	1014612x15	41,140
	14 x 1,25	22	70	1	1014614x125	59,347
	14 x 1,5	22	70	1	1014614x15	51,396
	16 x 1,5	22	70	1	1014616x15	54,971
	18 x 1,5	22	80	1	1014618x15	71,710
	18 x 2	22	80	1	1014618x2	91,896
	20 x 1,5	22	80	1	1014620x15	78,870
	20 x 2	22	80	1	1014620x2	98,217
	22 x 1,5	22	80	1	1014622x15	100,732
	22 x 2	22	80	1	1014622x2	115,842
	24 x 1,5	22	90	1	1014624x15	115,842

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA METRICA SINISTRA A PASSO FINE

Hand taps, metric fine ISO thread, left hand / Tarauds à main, filetage metrique ISO, gauche

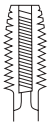
Juego de machos a mano, rosca fina izquierda / Handgewindebohrer, linksgewinde, metrisches ISO-Feingewinde

HSS-G DIN 2181 ISO 2/6H Sinistra - *Left hand - Gauche - Izquierda - Links*

MF

10107





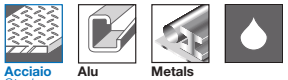
HRC ≃ 63÷63,5
AISI M2



LH

Applicazioni / *Applications*

R ≤ 900 N/mm²



Acciaio *Steel* | **Alu** | **Metals**

- Per filettature in fori ciechi e passanti in acciaio da costruzione, acciai da bonifica, materiali metallici in genere sino a R≤800 N/mm².
- For making threads in blind and through holes in structural steel, malleable cast iron, heat-treatable steel R≤800 N/mm².

	Ø	/	L	pcs	cod.	€ cad/each
M	**6** x 0,75	14	50	1	1010706x075	28,125
	8 x 0,75	19	50	1	1010708x075	32,421
	8 x 1	22	56	1	1010708x1	28,125
	10 x 1	20	63	1	1010710x1	30,080
	10 x 1,25	24	70	1	1010710x125	36,717
	12 x 1	22	70	1	1010712x1	35,565
	12 x 1,25	22	70	1	1010712x125	45,320
	12 x 1,5	22	70	1	1010712x15	34,378
	14 x 1,25	22	70	1	1010714x125	49,231
	14 x 1,5	22	70	1	1010714x15	42,992
	16 x 1	22	70	1	1010716x1	55,401
	16 x 1,5	22	70	1	1010716x15	55,401
	18 x 1,5	22	80	1	1010718x15	67,870
	20 x 1,5	22	80	1	1010720x15	75,005
	22 x 1,5	22	80	1	1010722x15	96,448
	24 x 1,5	22	90	1	1010724x15	130,953
	24 x 2	22	90	1	1010724x2	204,164
	30 x 1,5	22	90	1	1010730x15	437,291
	30 x 2	22	90	1	1010730x2	437,291
	38 x 1,5	25	100	1	1010738x15	697,351

MASCHI A MANO SERIE DI 2 PEZZI, FIL. GAS CILINDRICA ISO 228 PER TUBI

Hand taps, 2 pcs set, Wh pipe thread ISO 228 / Jeux de 2 tarauds à main, filetages gaz de tuyauterie ISO 228

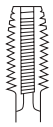
Juegos de utensilios a roscar, rosca gas cilindrica ISO 228 / Handgewindebohrer, zweiteiliger Satz für Rohrgewinde DIN ISO 228

HSS-G DIN 5157

BSP (GAS)

10115





HRC ≃ 63÷63,5
AISI M2

Applicazioni *Applications*

R ≤ 800 N/mm²

Acciaio *Steel* | **Alu** | **Metals**

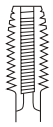
	Ø	/	L	pcs	cod.	€ cad/each
G	**1/8** x 28	20	63	1	101151/8	33,294
	1/4 x 19	22	70	1	101151/4	43,875
	3/8 x 19	22	70	1	101153/8	55,098
	1/2 x 14	22	80	1	101151/2	79,161
	5/8 x 14	22	80	1	101155/8	95,459
	3/4 x 14	22	90	1	101153/4	117,135
	7/8 x 14	22	90	1	101157/8	152,349
	1” x 11	25	100	1	101151"	185,096
	1.1/8 x 11	40	125	1	101151.1/8	303,453
	1.1/4 x 11	40	125	1	101151.1/4	303,453
	1.3/8 x 11	40	140	1	101151.3/8	406,701
	1.1/2 x 11	40	140	1	101151.1/2	406,701
	1.5/8 x 11	40	140	1	101151.5/8	706,369
	1.3/4 x 11	40	140	1	101151.3/4	593,041
	2” x 11	40	160	1	101152"	593,041
	2.1/4 x 11	40	160	1	101152.1/4	1.376,219
	2.1/2 x 11	40	160	1	101152.1/2	1.450,502
	2.3/4 x 11	40	160	1	101152.3/4	1.934,010
	3” x 11	40	160	1	101153"	2.208,500
	3.1/2 x 11	45	180	1	101153.1/2	3.125,134
	4” x 11	45	180	1	101154"	3.572,123

HSS-CO DIN 5157 COBALT

BSP (GAS)

10148





HRC ≃ 64÷65
AISI M35

Applicazioni *Applications*

R ≤ 1200 N/mm²

Inox | **Acciaio** *Steel* | **Metals**

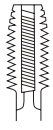
	Ø	/	L	pcs	cod.	€ cad/each
G	**1/8** x 28	20	63	1	101481/8	40,259
	1/4 x 19	22	70	1	101481/4	53,208
	3/8 x 19	22	70	1	101483/8	72,764
	1/2 x 14	22	80	1	101481/2	107,036
	3/4 x 14	22	90	1	101483/4	155,690
	1” x 11	25	100	1	101481"	246,908

HSS-G DIN 5157 Sinistra - *Left hand - Gauche - Izquierda - Links*

BSP (GAS)

10117





HRC ≃ 63÷63,5
AISI M2



LH

Applicazioni *Applications*

R ≤ 800 N/mm²

Acciaio *Steel* | **Alu** | **Metals**

	Ø	/	L	pcs	cod.	€ cad/each
G	**1/8** x 28	20	63	1	101171/8	55,541
	1/4 x 19	22	70	1	101171/4	66,739
	3/8 x 19	22	70	1	101173/8	83,911
	1/2 x 14	22	80	1	101171/2	137,239
	5/8 x 14	22	80	1	101175/8	202,908
	3/4 x 14	22	90	1	101173/4	215,305
	1” x 11	25	100	1	101171"	421,810
	1.1/8 x 11	40	125	1	101171.1/8	560,376
	1.1/4 x 11	40	125	1	101171.1/4	560,376
	1.3/8 x 11	40	140	1	101171.3/8	751,001
	1.1/2 x 11	40	140	1	101171.1/2	751,001
	1.3/4 x 11	40	140	1	101171.3/4	1.548,940
	2” x 11	40	160	1	101172"	1.548,940

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA WHITWORTH A PASSO GROSSO BS 84

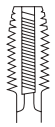
Hand taps, 3 pcs sets, Whitworth BSW thread / Jeux de tarauds à main, filetage Whitworth
Juegos de machos a mano, rosca Whitworth / Handgewindebohrer, dreiteiliger Satz, Whitworth-Gewinde

HSS-G ≃ DIN 352

BSW

10110

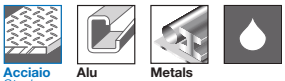




HRC ≃ 63÷63,5
AISI M2

Applicazioni / *Applications*

R ≤ 800 N/mm²



Acciaio / *Steel* — **Alu** — **Metals**

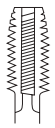
	Ø	/	L	pcs	cod.	€ cad/each
BSW	**1/16** x 60	10	36	1	101101/16	56,471
	3/32 x 48	10	36	1	101103/32	56,471
	1/8 x 40	12	40	1	101101/8	26,496
	5/32 x 32	14	45	1	101105/32	26,496
	3/16 x 24	18	50	1	101103/16	29,336
	7/32 x 24	18	50	1	101107/32	31,571
	1/4 x 20	19	50	1	101101/4	31,571
	5/16 x 18	22	63	1	101105/16	33,365
	3/8 x 16	24	70	1	101103/8	38,673
	7/16 x 14	24	70	1	101107/16	47,660
	1/2 x 12	29	75	1	101101/2	49,627
	9/16 x 12	30	80	1	101109/16	63,212
	5/8 x 11	32	80	1	101105/8	75,553
	11/16 x 11	32	80	1	1011011/16	127,170
	3/4 x 10	40	95	1	101103/4	127,170
	7/8 x 9	40	100	1	101107/8	153,618
	1” x 8	50	110	1	101101"	172,500
	1.1/8 x 7	56	132	1	101101.1/8	317,295
	1.1/4 x 7	56	132	1	101101.1/4	317,295
	1.3/8 x 6	63	150	1	101101.3/8	468,399
	1.1/2 x 6	63	150	1	101101.1/2	530,084
	1.5/8 x 5	70	160	1	101101.5/8	901,534
	1.3/4 x 5	70	160	1	101101.3/4	1.036,260
	1.7/8 x 4.1/2	80	190	1	101101.7/8	1.432,877
	2” x 4.1/2	80	190	1	101102"	1.432,877

HSS-G ≃ DIN 352 Sinistra - *Left hand - Gauche - Izquierda - Links*

BSW

10111





HRC ≃ 63÷63,5
AISI M2



LH

	Ø	/	L	pcs	cod.	€ cad/each
BSW	**1/8** x 40	12	40	1	101111/8	62,304
	5/32 x 32	14	45	1	101115/32	62,304
	3/16 x 24	18	50	1	101113/16	62,304
	1/4 x 20	22	56	1	101111/4	62,304
	5/16 x 18	25	63	1	101115/16	65,098
	3/8 x 16	28	70	1	101113/8	73,643
	7/16 x 14	30	75	1	101117/16	90,569
	1/2 x 12	32	80	1	101111/2	106,645
	9/16 x 12	32	80	1	101119/16	141,279
	5/8 x 11	36	90	1	101115/8	157,891
	3/4 x 10	40	105	1	101113/4	211,906
	7/8 x 9	45	110	1	101117/8	260,392
	1” x 8	50	110	1	101111”	314,407

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA WHITWORTH A PASSO FINE BS 84

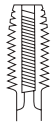
Hand taps, 2 pcs set, british standard fine thread - Jeux de 2 tarauds à main, filetage Whitworth pas fin
Juego de machos a mano, rosca fina Whitworth - Handgewindebohrer, zweiteiliger Satz, britisch-standard Feingewinde

HSS-G ≃ DIN 2181

BSF

10112





HRC ≃ 63÷63,5
AISI M2

	Ø	/	L	pcs	cod.	€ cad/each
BSF	**3/16** x 32	14	50	1	101123/16	20,628
	1/4 x 26	18	50	1	101121/4	22,665
	5/16 x 22	22	56	1	101125/16	24,738
	3/8 x 20	22	63	1	101123/8	28,835
	7/16 x 18	22	63	1	101127/16	32,967
	1/2 x 16	24	75	1	101121/2	39,185
	9/16 x 16	28	80	1	101129/16	53,573
	5/8 x 14	28	80	1	101125/8	53,573
	3/4 x 12	32	95	1	101123/4	72,106
	7/8 x 11	36	100	1	101127/8	93,177
	1” x 10	40	110	1	101121”	119,614

MASCHI A MANO SERIE DI 3 PEZZI, FIL. AMERICANA UNC A PASSO GROSSO

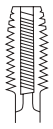
Hand taps, 3 pcs set, Unified Coarse Thread (UNC) / Jeux de 3 tarauds à main, filetage americain à pas gros UNC
Juegos de machos a mano, rosca unificada vasta UNC / Handgewindebohrer, dreiteiliger Satz, amerikanisches gewinde UNC

HSS-G DIN 352

UNC

10120

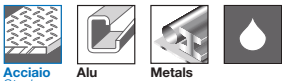




HRC ≃ 63÷63,5
AISI M2

Applicazioni *Applications*

R ≤ 800 N/mm²



Acciaio *Steel* | **Alu** | **Metals**

	Ø	/	L	pcs	cod.	€ cad/each
N°	**1** x 64	10	32	1	10120N01	40,629
	2 x 56	11	36	1	10120N02	40,629
	3 x 48	11	36	1	10120N03	34,354
	4 x 40	12	40	1	10120N04	31,257
	5 x 40	12	40	1	10120N05	31,257
	6 x 32	14	45	1	10120N06	30,139
	8 x 32	14	45	1	10120N08	30,139
	10 x 24	16	50	1	10120N10	30,139
	12 x 24	18	50	1	10120N12	30,139
UNC	**1/4** x 20	19	50	1	101201/4	32,339
	5/16 x 18	22	63	1	101205/16	32,339
	3/8 x 16	24	70	1	101203/8	39,581
	7/16 x 14	24	70	1	101207/16	44,237
	1/2 x 13	29	75	1	101201/2	60,535
	9/16 x 12	30	80	1	101209/16	70,512
	5/8 x 11	32	80	1	101205/8	75,843
	3/4 x 10	40	95	1	101203/4	118,985
	7/8 x 12	40	100	1	101207/8	150,719
	1” x 8	50	110	1	101201”	197,902
	1.1/8 x 7	56	132	1	101201.1/8	312,265
	1.1/4 x 7	56	132	1	101201.1/4	429,365
	1.3/8 x 6	63	150	1	101201.3/8	707,625
	1.1/2 x 6	63	150	1	101201.1/2	707,625
	1.5/8 x 5	70	160	1	101201.5/8	1.072,766
	1.3/4 x 5	70	160	1	101201.3/4	1.072,766
	1.7/8 x 4,5	80	190	1	101201.7/8	1.498,348
	2” x 4,5	80	190	1	101202”	1.498,348

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA AMERICANA UNC SINISTRA

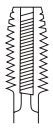
Hand taps, 3 pcs set left hand / Jeux de 3 tarauds à main gauche
Juegos de machos a mano izquierda / Handgewindebohrer, linksgewinde dreitelliger Satz

HSS-G DIN 352 Sinistra - *Left hand - Gauche - Izquierda - Links*

UNC

10122





HRC ≃ 63÷63,5
AISI M2



LH

	Ø	/	L	pcs	cod.	€ cad/each
N°	**6** x 32	14	45	1	10122NR06	95,073
	8 x 32	14	45	1	10122NR08	95,073
	10 x 24	16	50	1	10122NR10	95,073
	12 x 24	18	50	1	10122NR12	95,073
UNC	**1/4** x 20	19	50	1	101221/4	60,221
	5/16 x 18	22	63	1	101225/16	63,410
	3/8 x 16	24	70	1	101223/8	73,910
	7/16 x 14	24	70	1	101227/16	89,777
	1/2 x 13	29	75	1	101221/2	107,741
	9/16 x 12	30	80	1	101229/16	140,498
	5/8 x 11	32	80	1	101225/8	158,391
	3/4 x 10	40	95	1	101223/4	211,219
	7/8 x 9	40	100	1	101227/8	264,035
	1” x 8	50	110	1	101221”	316,865

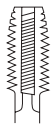
MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA AMERICANA UNF A PASSO FINE

Hand taps, 2 pcs set, unified fine thread UNF / Jeux de 2 tarauds à main, filetage americain à pas fin UNF
Juego de 2 machos a mano, rosca unificada fina UNF / Handgewindebohrer, zweiteiliger Satz, amerikanisches Feingewinde

HSS-G ≃ DIN 2181 **UNF**

10125

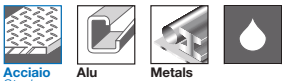




HRC ≃ 63÷63,5
AISI M2

Applicazioni *Applications*

R ≤ 800 N/mm²



Acciaio *Steel* **Alu** **Metals**

	Ø	/	L	pcs	cod.	€ cad/each
N°	**0** x 80	9	32	1	10125N00	44,953
	1 x 72	9	32	1	10125N01	41,710
	2 x 64	10	32	1	10125N02	41,710
	3 x 56	10	32	1	10125N03	36,473
	4 x 48	11	36	1	10125N04	35,180
	5 x 44	11	36	1	10125N05	33,888
	6 x 40	12	40	1	10125N06	27,125
	8 x 36	12	40	1	10125N08	27,125
	10 x 32	14	45	1	10125N10	27,125
UNF	**12** x 28	14	50	1	10125N12	27,125
	1/4 x 28	18	50	1	101251/4	29,185
	5/16 x 24	22	56	1	101255/16	29,185
	3/8 x 24	22	63	1	101253/8	31,629
	7/16 x 20	22	63	1	101257/16	37,508
	1/2 x 20	24	75	1	101251/2	44,366
	9/16 x 18	28	80	1	101259/16	61,688
	5/8 x 18	28	80	1	101255/8	68,171
	3/4 x 16	32	95	1	101253/4	85,179
	7/8 x 14	36	100	1	101257/8	108,288
	1” x 12	40	110	1	101251”12	137,239
*	**1”** x 14	40	110	1	101251”14	227,901
	1.1/8 x 12	50	110	1	101251.1/8	309,738
	1.1/4 x 12	56	132	1	101251.1/4	386,549
	1.3/8 x 12	56	132	1	101251.3/8	635,857
	1.1/2 x 12	63	150	1	101251.1/2	635,857

*** Filettatura UNS**
UNS thread

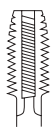
MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA AMERICANA UNF SINISTRA

Hand taps, 2 pcs set left hand / Jeux de 2 tarauds à main gauche
Juegos de machos a mano izquierda / Handgewindebohrer, linksgewinde zweitelliger Satz

HSS-G ≃ DIN 2181 **Sinistra - *Left hand - Gauche - Izquierda - Links*** **UNF**

10127





HRC ≃ 63÷63,5
AISI M2



LH

	Ø	/	L	pcs	cod.	€ cad/each
N°	**10** x 32	14	45	1	10127NR10	60,651
UNC	**1/4** x 28	18	50	1	101271/4	38,392
	5/16 x 24	22	56	1	101275/16	40,407
	3/8 x 24	22	63	1	101273/8	47,159
	7/16 x 20	22	63	1	101277/16	57,275
	1/2 x 20	24	75	1	101271/2	68,684
	9/16 x 18	28	80	1	101279/16	89,568
	5/8 x 18	28	80	1	101275/8	101,047
	3/4 x 16	32	95	1	101273/4	134,724
	7/8 x 14	36	100	1	101277/8	168,379
	1” x 12	40	110	1	101271”	202,034

MASCHI A MANO / MACCHINA CONICI PER TUBI, FILETTATURA AMERICANA NPT - BSPT

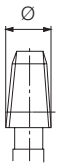
NPT taper thread taps / Tarauds conique NPT / Machos rosca conica americana NPT
Gewindebohrer, amerikanisches kegeliges Rohrgewinde

HSS-G ANSI B 2.1 — **NPT**

10134



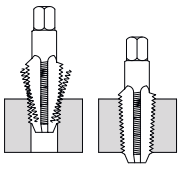
FORM C



CONICITÀ 1:16
TAPER 1:16



	Ø	/	L	pcs	cod.	€ cad/each
NPT	**1/16** x 27	19	54	1	101341/16	36,622
	1/8 x 27	19	54	1	101341/8	41,549
	1/4 x 18	27	62	1	101341/4	48,136
	3/8 x 18	27	65	1	101343/8	59,522
	1/2 x 14	35	79	1	101341/2	90,127
	3/4 x 14	35	83	1	101343/4	148,577
	1” x 11,5	44	95	1	101341”	232,943
	1.1/4 x 11,5	44	102	1	101341.1/4	371,436
	1.1/2 x 11,5	44	108	1	101341.1/2	483,498
	2” x 11,5	44	114	1	101342”	867,531



CONICITÀ 1:16
TAPER 1:16

MASCHI A MANO / MACCHINA CONICI PER TUBI, FILETTATURA GAS CONICA BSPT

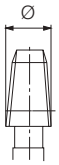
BSPT taped thread taps / Tarauds filetage gaz conique BSPT / Machos rosca conica BSPT

HSS-G — **BSPT**

10139

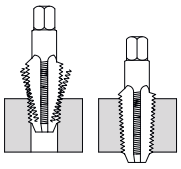


FORM C



CONICITÀ 1:16
TAPER 1:16

	Ø	/	L	pcs	cod.	€ cad/each
Rc	**1/8** x 28	15	59	1	101391/8	41,549
	1/4 x 19	19	67	1	101391/4	48,136
	3/8 x 19	21	75	1	101393/8	59,522
	1/2 x 14	26	87	1	101391/2	79,313
	3/4 x 14	28	96	1	101393/4	124,026
	1” x 11	33	109	1	101391”	177,541
	1.1/4 x 11	36	119	1	101391.1/4	305,967
	1.1/2 x 11	37	125	1	101391.1/2	397,887
	2” x 11	41	140	1	101392”	707,625



CONICITÀ 1:16
TAPER 1:16

MASCHI A MACCHINA CONICI PER TUBI, FILETTATURA AMERICANA NPT

NPT machine taps / Tarauds machine NPT / Machos de maquina NPT / Machinengewindebohrer NPT

HSS-CO — **NPT**

10293



FORM C



CONICITÀ 1:16
TAPER 1:16



	Ø	/	L	d	pcs	cod.	€ cad/each
NPT	**1/8** x 27	20	90	7	1	102931/8	53,336
	1/4 x 18	22	100	11	1	102931/4	66,829
	3/8 x 18	22	100	12	1	102933/8	83,302
	1/2 x 14	28	125	16	1	102931/2	117,038
	3/4 x 14	28	140	20	1	102933/4	173,748
	1” x 11,5	38	160	25	1	102931”	249,649

MASCHI A MACCHINA CONICI PER TUBI, FILETTATURA GAS CONICA BSPT

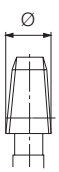
BSPT machine taps / Tarauds machine BSPT / Machos de maquina BSPT / Machinengewindebohrer BSPT

HSS-CO — **BSPT**

10294



FORM C



CONICITÀ 1:16
TAPER 1:16

	Ø	/	L	d	pcs	cod.	€ cad/each
Rc	**1/8** x 28	20	90	7	1	102941/8	53,336
	1/4 x 19	22	100	11	1	102941/4	66,829
	3/8 x 19	22	100	12	1	102943/8	83,302
	1/2 x 14	28	125	16	1	102941/2	117,038
	3/4 x 14	28	140	20	1	102943/4	173,748
	1” x 11	38	160	25	1	102941”	249,649

FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA ISO A PASSO GROSSO

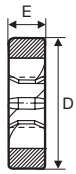
Spiral point round dies, metric coarse thread / Filières rondes entrée gun, filetage métrique à pas gros

Cojinetes redondos entrada corregida, rosca metrica vasta / Runde Schneideisen mit schälanschnitt metrisches ISO-Gewinde

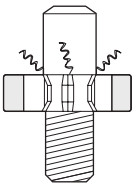
HSS DIN 223 - EN 22568 6g **M**

12060

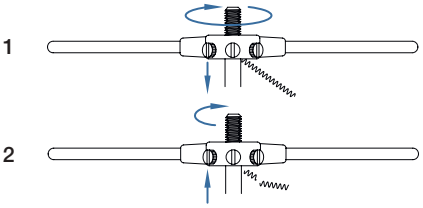




HRC ≃ 62÷63
AISI M2
FORM B



Imbocco corretto
Spiral Point



É buona norma, ad ogni rotazione della filiera(1), effettuare mezzo giro indietro per rompere il truciolo(2)
Please rotate clockwise the round die(1) then anticlockwise to break the chip(2)



Risultato: Ottima finitura del filetto
Result: good thread finishing

Art. **12068** Self
Disponibile su richiesta / *On demand*

	Ø	DxE	pcs	cod.	€ cad/each
M	**1** x 0,25	16 x 5	1	1206001X025	41,082
	1,1 x 0,25	16 x 5	1	12060011X025	41,082
	1,2 x 0,25	16 x 5	1	12060012X025	41,082
	1,4 x 0,3	16 x 5	1	12060014X03	41,082
	1,6 x 0,35	16 x 5	1	12060016X035	41,082
	1,7 x 0,35	16 x 5	1	12060017X035	41,082
	1,8 x 0,35	16 x 5	1	12060018X035	41,082
	2 x 0,4	16 x 5	1	1206002X04	19,766
	2,2 x 0,45	16 x 5	1	12060022X045	25,239
	2,3 x 0,4	16 x 5	1	12060023X04	25,239
	2,5 x 0,45	16 x 5	1	12060025X045	19,919
	2,6 x 0,45	16 x 5	1	12060026X045	25,239
	3 x 0,5	20 x 5	1	1206003X05	16,670
	3,5 x 0,6	20 x 5	1	12060035X06	25,239
	4 x 0,7	20 x 5	1	1206004X07	16,670
	4,5 x 0,75	20 x 7	1	12060045X075	19,919
	5 x 0,8	20 x 7	1	1206005X08	17,240
	5 x 1	20 x 7	1	1206005X1	75,668
	5,5 x 0,9	20 x 7	1	12060055x09	25,367
	6 x 1	20 x 7	1	1206006X1	18,090
	7 x 1	25 x 9	1	1206007X1	20,373
	8 x 1,25	25 x 9	1	1206008X125	19,173
	9 x 1,25	25 x 9	1	1206009X125	24,423
	10 x 1,5	30 x 11	1	1206010X15	21,664
	11 x 1,5	30 x 11	1	1206011X15	34,062
	12 x 1,75	38 x 14	1	1206012X175	31,734
	14 x 2	38 x 14	1	1206014X2	33,365
	15 x 2	38 x 14	1	1206015X2	52,386
	16 x 2	45 x 18	1	1206016X2	40,791
	18 x 2,5	45 x 18	1	1206018X25	44,784
	19 x 2,5	45 x 18	1	1206019X25	54,600
	20 x 2,5	45 x 18	1	1206020X25	46,332
	22 x 2,5	55 x 22	1	1206022X25	76,810
	24 x 3	55 x 22	1	1206024X3	90,498
	27 x 3	65 x 25	1	1206027X3	112,041
	30 x 3,5	65 x 25	1	1206030X35	121,202
	33 x 3,5	65 x 25	1	1206033X35	132,677
	36 x 4	65 x 25	1	1206036X4	136,542
	39 x 4	75 x 30	1	1206039X4	199,649
	42 x 4,5	75 x 30	1	1206042X45	212,533
	45 x 4,5	90 x 36	1	1206045X45	315,579
	48 x 5	90 x 36	1	1206048X5	286,888
	52 x 5	90 x 36	1	1206052X5	329,512
	56 x 5,5	105 x 36	1	1206056X55	388,538
	60 x 5,5	105 x 36	1	1206060X55	388,538
	64 x 6	120 x 36	1	1206064X6	445,094
	68 x 6	120 x 36	1	1206068X6	445,094
	72 x 6	130 x 36	1	1206072X6	1.508,114

Confezione / *Packaging*



1 pc

Applicazioni / *Applications*



Acciaio *Steel*
Metals
Alu

15035 15037 311

FILIERE TONDE NON A NORMA DIN, FILETTATURA METRICA ISO A PASSO GROSSO

Round dies with special outside diameter / Filières rondes avec diamètre exterieur spécial
Cojinetes redondos con diametro exterior special / Runde Schneideisen mit sonderen ausserendurchmesser

HSS 6g

12066 **12067**





Filiere con Ø esterno speciale
Round dies with special outside diameter

Ø	DxE	pcs	Art. 12066 HSS cod.	€ cad/each	Art. 12067 HSS+TiN cod.	€ cad/each
M 2 x 0,4	25 x 9	1	12066202X04	27,706	-	-
3 x 0,5	25 x 9	1	12066203X05	12,212	12067203X05	15,435
4 x 0,7	25 x 9	1	12066204X07	12,212	12067204X07	15,435
5 x 0,8	25 x 9	1	12066205X08	12,212	12067205X08	15,435
6 x 1	25 x 9	1	12066206X1	12,212	12067206X1	15,435
7 x 1	25 x 9	1	12066207X1	12,212	-	-
8 x 1,25	25 x 9	1	12066208X125	12,212	12067208X125	15,847
10 x 1,5	25 x 9	1	12066210X15	12,212	12067210X15	15,847
12 x 1,75	25 x 9	1	12066212X175	14,482	12067212X175	16,412
10 x 1,5	38 x 14	1	12066310X15	20,711		
12 x 1,75	38 x 14	1	12066312X175	24,959		
14 x 2	38 x 14	1	12066314X2	24,959		
16 x 2	38 x 14	1	12066316X2	24,959		
18 x 2,5	38 x 14	1	12066318X25	28,707		
20 x 2,5	38 x 14	1	12066320X25	28,707		

12066
12067

FILIERE TONDE NON A NORMA DIN, FILETTATURA METRICA ISO A PASSO FINE

NPRound dies with special outside diameter / Filières rondes avec diamètre exterieur spécial
Cojinetes redondos con diametro exterior special / Runde Schneideisen für nicht DIN Norme, mit sonderen äusseren durchmesser

HSS 6g **MF**



Filiere con Ø esterno speciale
Round dies with special outside diameter

Ø	DxE	pcs	cod.	€ cad/each
M 8 x 1	25 x 9	1	12066208X1	11,909
10 x 1	38 x 14	1	12066310X1	20,732
10 x 1,25	38 x 14	1	12066310X125	20,732
12 x 1,25	38 x 14	1	12066312X125	24,959
12 x 1,5	38 x 14	1	12066312X15	24,959
14 x 1,25	38 x 14	1	12066314X125	24,959
14 x 1,5	38 x 14	1	12066314X15	24,959
16 x 1,5	38 x 14	1	12066316X15	24,959
18 x 1,5	38 x 14	1	12066318X15	28,707

12066

Confezione / *Packaging*



1 pc

Applicazioni / *Applications*



FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA ISO A PASSO GROSSO

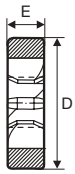
Round dies, spiral point, metric coarse thread / Filieres rondes, entrée gun, filetage métrique à pas gros
Cojinetes redondos, entrada corregida, rosca metrica vasta / Runde Schneideisen mit schälanschnitt

HSS-CO DIN 223 EN 22568 6g COBALT

M

12144



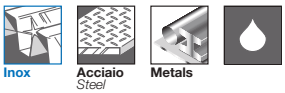


HRC ≃ 63÷64
AISI M35
FORM B

Imbocco corretto
Spiral Point

	Ø	DxE	pcs	cod.	€ cad/each
M	3 x 0,5	20 x 5	1	1214403X05	19,942
	4 x 0,7	20 x 5	1	1214404X07	19,942
	5 x 0,8	20 x 7	1	1214405X08	20,466
	6 x 1	20 x 7	1	1214406X1	20,466
	8 x 1,25	25 x 9	1	1214408X125	21,280
	10 x 1,5	30 x 11	1	1214410X15	25,308
	12 x 1,75	38 x 14	1	1214412X175	39,441
	14 x 2	38 x 14	1	1214414X2	45,320
	16 x 2	45 x 18	1	1214416X2	60,941
	18 x 2,5	45 x 18	1	1214418X25	72,048
	20 x 2,5	45 x 18	1	1214420X25	72,048
	22 x 2,5	55 x 22	1	1214422X25	120,872
	24 x 3	55 x 22	1	1214424X3	120,872
	27 x 3	65 x 25	1	1214427X3	168,798
	30 x 3,5	65 x 25	1	1214430X35	168,798

Applicazioni / *Applications*



FILIERE TONDE SINISTRE, FILETTATURA METRICA A PASSO GROSSO

Round dies, metric coarse thread, left hand / Filières rondes, filetage métrique à pas gros, gauche
Cojinetes redondos, rosca metrica vasta izquierda /Runde Schneideisen, metrisches ISO-Gewinde, linksgewinde

HSS DIN 223 - EN 22568 6g Sinistra - *Left hand - Gauche - Izquierda - Links*

M

12062





	Ø	DxE	pcs	cod.	€ cad/each
M	2 x 0,4	16 x 5	1	1206202X04	33,600
	3 x 0,5	20 x 5	1	1206203X05	20,073
	4 x 0,7	20 x 5	1	1206204X07	20,073
	5 x 0,8	20 x 7	1	1206205X08	20,765
	6 x 1	20 x 7	1	1206206X1	20,765
	7 x 1	25 x 9	1	1206207X1	25,246
	8 x 1,25	25 x 9	1	1206208X125	21,999
	10 x 1,5	30 x 11	1	1206210X15	26,439
	12 x 1,75	38 x 14	1	1206212X175	40,524
	14 x 2	38 x 14	1	1206214X2	40,524
	16 x 2	45 x 18	1	1206216X2	54,468
	18 x 2,5	45 x 18	1	1206218X25	65,890
	20 x 2,5	45 x 18	1	1206220X25	65,890
	22 x 2,5	55 x 22	1	1206222X25	125,846
	24 x 3	55 x 22	1	1206224X3	125,846
	27 x 3	65 x 25	1	1206227X3	176,231
	30 x 3,5	65 x 25	1	1206230X35	176,231
	33 x 3,5	65 x 25	1	1206233X35	197,203
	36 x 4	65 x 25	1	1206236X4	216,637
	39 x 4	75 x 30	1	1206239X4	361,828
	42 x 4,5	75 x 30	1	1206242X45	361,828
	45 x 4,5	90 x 36	1	1206245X45	569,099
	48 x 5	90 x 36	1	1206248X5	569,099
	52 x 5	90 x 36	1	1206252X5	569,099

Confezione / *Packaging*



1 pc

Applicazioni / *Applications*



FILIERE TONDE AD IMBOCCO CORRETTO RIV. AL TiN, FIL. METRICA ISO A PASSO GROSSO

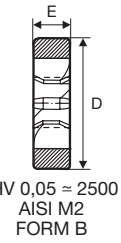
TiN round dies, metric coarse thread / Filières rondes revetue au titan, filetage métrique à pas gros
Cojinetes redondos con recubrimiento de titanio / Runde Schneideisen TiN beschichtet

HSS+TiN DIN 223 - EN 22568 6g

M

12165





HV 0,05 ≃ 2500
AISI M2
FORM B



Imbocco corretto
Spiral Point

	Ø	DxE	pcs	cod.	€ cad/each
M	**3** x 0,5	20 x 5	1	1216503X05	19,685
	4 x 0,7	20 x 5	1	1216504X07	19,685
	5 x 0,8	20 x 7	1	1216505X08	20,105
	6 x 1	20 x 7	1	1216506X1	20,105
	8 x 1,25	25 x 9	1	1216508X125	22,738
	10 x 1,5	30 x 11	1	1216510X15	27,404
	12 x 1,75	38 x 14	1	1216512X175	39,681
	14 x 2	38 x 14	1	1216514X2	39,681
	16 x 2	45 x 18	1	1216516X2	51,801
	18 x 2,5	45 x 18	1	1216518X25	60,162
	20 x 2,5	45 x 18	1	1216520X25	60,162

MF

MF	**14** x 1,5	38 x 14	1	1216514x15	39,681
	16 x 1,5	45 x 18	1	1216516x15	51,801
	18 x 1,5	45 x 18	1	1216518x15	60,162
	22 x 1,5	45 x 18	1	1216522x15	113,800

Applicazioni *Applications*


Inox


Acciaio *Steel*


Metals



FILIERE TONDE, FILETTATURA METRICA A PASSO FINE PER TUBI DI CONDUZIONE ELETTRICA

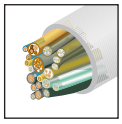
Round dies, metric fine thread for cables connections/ Filières rondes métrique à pas fin pour tubes avec armature en acier / Cojinetes redondos rosca metrica fina para tubos de conducción eléctrica/ Runde Schneideisen, Stahlpanzer ISO-Feingewinde für Kabelverschraubungen

HSS DIN 223 - EN 22568 6g

MF

12069





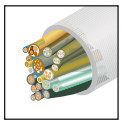
	Ø	DxE	pcs	cod.	€ cad/each
MF	**12** x 1,5	38 x 10	1	1206912X15	29,438
	16 x 1,5	45 x 14	1	1206916X15	41,833
	20 x 1,5	45 x 14	1	1206920X15	53,925
	25 x 1,5	55 x 16	1	1206925X15	119,435
	32 x 1,5	65 x 18	1	1206932X15	167,267
	40 x 1,5	75 x 20	1	1206940X15	297,195
	50 x 1,5	90 x 22	1	1206950X15	476,903
	63 x 1,5	105 x 22	1	1206963X15	922,732

HSS DIN 40434*

Pg

12093





	Ø	DxE	pcs	cod.	€ cad/each
Pg	**13,5** x 18	45 x 14	1	12093135	113,258
	21 x 16	65 x 18	1	1209321	207,750
	29 x 16	65 x 18	1	1209329	207,750
	36 x 16	90 x 22	1	1209336	454,289
	42 x 16	105 x 22	1	1209342	574,787
	48 x 16	105 x 22	1	1209348	574,787

*In esaurimento
To be discontinued

FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA A PASSO FINE

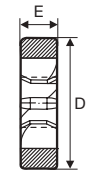
Round dies, spiral point, metric fine thread / Filieres rondes, entrée gun, filetage métrique à pas fin

Cojinetes redondos, entrada corregida, rosca metrica fina / Runde Schneideisen mit schälanschnitt, metrisches ISO-Feingewinde

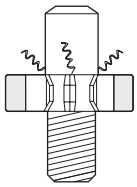
HSS DIN 223 - EN 22568 - 6g **MF**

12065

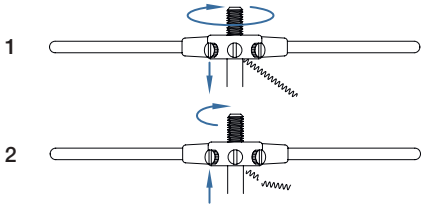




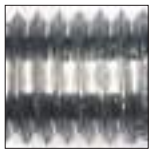
HRC ≃ 62÷63
AISI M2
FORM B



Imbocco corretto
Spiral Point



É buona norma, ad ogni rotazione della filiera(1), effettuare mezzo giro indietro per rompere il truciolo(2)
Please rotate clockwise the round die(1) then anticlockwise to break the chip(2)



Risultato: Ottima finitura del filetto
Result: good thread finishing

	Ø	DxE	pcs	cod.	€ cad/each
M	2,5 x 0,35	16 x 5	1	12065025X035	39,569
	2,6 x 0,35	16 x 5	1	12065026X035	39,569
	3 x 0,35	20 x 5	1	1206503X035	20,780
	3,5 x 0,35	20 x 5	1	12065035X035	24,936
	4 x 0,35	20 x 5	1	1206504X035	32,676
	4 x 0,5	20 x 5	1	1206504X05	20,780
	4,5 x 0,5	20 x 5	1	12065045X05	37,020
	5 x 0,5	20 x 5	1	1206505X05	20,780
	5 x 0,75	20 x 7	1	1206505X075	28,394
	5,5 x 0,5	20 x 5	1	12065055X05	37,020
	6 x 0,5	20 x 5	1	1206506X05	28,394
	6 x 0,75	20 x 7	1	1206506X075	28,394
	7 x 0,5	25 x 9	1	1206507X05	37,020
	7 x 0,75	25 x 9	1	1206507X075	28,394
	8 x 0,5	25 x 9	1	1206508X05	28,394
	8 x 0,75	25 x 9	1	1206508X075	22,631
	8 x 1	25 x 9	1	1206508X1	22,631
	9 x 0,5	25 x 9	1	1206509X05	49,859
	9 x 0,75	25 x 9	1	1206509X075	49,859
	9 x 1	25 x 9	1	1206509X1	30,791
	10 x 0,5	30 x 11	1	1206510X05	49,859
	10 x 0,75	30 x 11	1	1206510X075	27,088
	10 x 1	30 x 11	1	1206510X1	25,437
	10 x 1,25	30 x 11	1	1206510X125	25,437
	11 x 1	30 x 11	1	1206511X1	37,276
	11 x 1,25	30 x 11	1	1206511X125	37,276
	12 x 0,5	38 x 10	1	1206512X05	48,975
	12 x 0,75	38 x 10	1	1206512X075	48,975
	12 x 1	38 x 10	1	1206512X1	32,864
	12 x 1,25	38 x 10	1	1206512X125	32,864
	12 x 1,5	38 x 10	1	1206512X15	31,653
	13 x 0,5	38 x 10	1	1206513X05	63,212
	13 x 0,75	38 x 10	1	1206513X075	63,212
	13 x 1	38 x 10	1	1206513X1	51,572
	13 x 1,5	38 x 10	1	1206513X15	51,572
	14 x 0,5	38 x 10	1	1206514X05	63,305
	14 x 0,75	38 x 10	1	1206514X075	63,305
	14 x 1	38 x 10	1	1206514X1	35,029
	14 x 1,25	38 x 10	1	1206514X125	35,029
	14 x 1,5	38 x 10	1	1206514X15	35,029
	15 x 0,75	38 x 10	1	1206515X075	94,702
	15 x 1	38 x 10	1	1206515X1	82,350
	15 x 1,5	38 x 10	1	1206515X15	59,627
	16 x 0,5	45 x 14	1	1206516X05	102,000
	16 x 0,75	45 x 14	1	1206516X075	102,000
	16 x 1	45 x 14	1	1206516X1	44,982
	16 x 1,25	45 x 14	1	1206516X125	67,519
	16 x 1,5	45 x 14	1	1206516X15	44,982
	17 x 1	45 x 14	1	1206517X1	82,350
	17 x 1,5	45 x 14	1	1206517X15	101,863
	18 x 0,5	45 x 14	1	1206518X05	101,863
	18 x 0,75	45 x 14	1	1206518X075	101,863
	18 x 1	45 x 14	1	1206518X1	54,667
	18 x 1,25	45 x 14	1	1206518X125	82,350
	18 x 1,5	45 x 14	1	1206518X15	54,667
	18 x 2	45 x 14	1	1206518X2	54,667
	19 x 1	45 x 14	1	1206519X1	111,756
	19 x 1,5	45 x 14	1	1206519X15	82,350
	20 x 0,5	45 x 14	1	1206520X05	111,756
	20 x 0,75	45 x 14	1	1206520X075	111,756
	20 x 1	45 x 14	1	1206520X1	57,984
	20 x 1,25	45 x 14	1	1206520X125	57,984
	20 x 1,5	45 x 14	1	1206520X15	57,984
	20 x 2	45 x 14	1	1206520X2	57,984
	21 x 1	45 x 14	1	1206521X1	110,592
	21 x 1,5	45 x 14	1	1206521X15	98,217
	22 x 0,5	55 x 16	1	1206522X05	156,378
	22 x 0,75	55 x 16	1	1206522X075	156,378
	22 x 1	55 x 16	1	1206522X1	90,918
	22 x 1,25	55 x 16	1	1206522X125	90,918
	22 x 1,5	55 x 16	1	1206522X15	84,981
	22 x 2	55 x 16	1	1206522X2	84,981

Confezione / *Packaging*



1 pc

Applicazioni / *Applications*



Acciaio
Steel



Metals



Alu



	Ø	DxE	pcs	cod.	€ cad/each
M	23 x 1	55 x 16	1	1206523X1	176,784
	23 x 1,5	55 x 16	1	1206523X15	176,784
	24 x 0,5	55 x 16	1	1206524X05	176,784
	24 x 0,75	55 x 16	1	1206524X075	176,784
	24 x 1	55 x 16	1	1206524X1	92,548
	24 x 1,25	55 x 16	1	1206524X125	92,548
	24 x 1,5	55 x 16	1	1206524X15	92,548
	24 x 2	55 x 16	1	1206524X2	92,548
	25 x 1	55 x 16	1	1206525X1	128,426
	25 x 1,5	55 x 16	1	1206525X15	128,426
	25 x 2	55 x 16	1	1206525X2	118,764
	26 x 1	55 x 16	1	1206526X1	160,463
	26 x 1,5	55 x 16	1	1206526X15	160,463
	26 x 2	55 x 16	1	1206526X2	160,463
	27 x 1	65 x 18	1	1206527X1	181,604
	27 x 1,5	65 x 18	1	1206527X15	181,604
	27 x 2	65 x 18	1	1206527X2	181,604
	28 x 1	65 x 18	1	1206528X1	181,604
	28 x 1,5	65 x 18	1	1206528X15	181,604
	28 x 2	65 x 18	1	1206528X2	181,604
	29 x 1,5	65 x 18	1	1206529X15	181,604
	30 x 1	65 x 18	1	1206530X1	181,604
	30 x 1,5	65 x 18	1	1206530X15	181,604
	30 x 2	65 x 18	1	1206530X2	181,604
	30 x 2,5	65 x 18	1	1206530X25	181,604
	30 x 3	65 x 25	1	1206530X3	181,604
	32 x 1	65 x 18	1	1206532X1	241,754
	32 x 1,5	65 x 18	1	1206532X15	179,858
	32 x 2	65 x 18	1	1206532X2	179,858
	32 x 3	65 x 25	1	1206532X3	179,858
	33 x 1,5	65 x 18	1	1206533X15	205,236
	33 x 2	65 x 18	1	1206533X2	205,236
	33 x 3	65 x 25	1	1206533X3	205,236
	34 x 1	65 x 18	1	1206534X1	241,754
	34 x 1,5	65 x 18	1	1206534X15	205,236
	34 x 2	65 x 18	1	1206534X2	205,236
	35 x 1	65 x 18	1	1206535X1	241,754
	35 x 1,5	65 x 18	1	1206535X15	215,305
	35 x 2	65 x 18	1	1206535X2	241,754
	36 x 1	65 x 18	1	1206536X1	241,754
	36 x 1,5	65 x 18	1	1206536X15	215,305
	36 x 2	65 x 18	1	1206536X2	215,305
	36 x 3	65 x 25	1	1206536X3	215,305
	37 x 1,5	65 x 18	1	1206537X15	420,063
	38 x 1	75 x 20	1	1206538X1	420,063
	38 x 1,5	75 x 20	1	1206538X15	298,364
	38 x 2	75 x 20	1	1206538X2	298,364
	38 x 3	75 x 30	1	1206538X3	400,868
	39 x 1,5	75 x 20	1	1206539X15	297,195
	39 x 2	75 x 20	1	1206539X2	297,195
	39 x 3	75 x 30	1	1206539X3	297,195
	40 x 1	75 x 20	1	1206540X1	400,868
	40 x 1,5	75 x 20	1	1206540X15	297,195
	40 x 2	75 x 20	1	1206540X2	297,195
	40 x 3	75 x 30	1	1206540X3	297,195
	42 x 1	75 x 20	1	1206542X1	400,868
	42 x 1,5	75 x 20	1	1206542X15	297,195
	42 x 2	75 x 20	1	1206542X2	297,195
	42 x 3	75 x 30	1	1206542X3	297,195
	44 x 1,5	90 x 22	1	1206544X15	649,691
	44 x 2	90 x 22	1	1206544X2	649,691
	45 x 1	90 x 22	1	1206545X1	649,691
	45 x 1,5	90 x 22	1	1206545X15	476,903
	45 x 2	90 x 22	1	1206545X2	476,903
	45 x 3	90 x 36	1	1206545X3	476,903
	46 x 1,5	90 x 22	1	1206546X15	649,691
	48 x 1	90 x 22	1	1206548X1	649,691
	48 x 1,5	90 x 22	1	1206548X15	476,903
	48 x 2	90 x 22	1	1206548X2	476,903
	48 x 3	90 x 36	1	1206548X3	476,903
	50 x 1,5	90 x 22	1	1206550X15	476,903
	50 x 2	90 x 22	1	1206550X2	476,903
	50 x 3	90 x 36	1	1206550X3	476,903
	52 x 1,5	90 x 22	1	1206552X15	476,903
	52 x 2	90 x 22	1	1206552X2	476,903
	52 x 3	90 x 36	1	1206552X3	476,903

MF

Ø	DxE	pcs	cod.	€ cad/each
54 x 1	105 x 22	1	1206554X1	877,770
54 x 1,5	105 x 22		1206554X15	922,732
54 x 2	105 x 22	1	1206554X2	922,732
54 x 3	105 x 36	1	1206554X3	922,732
54 x 4	105 x 36	1	1206554X4	922,732
55 x 1,5	105 x 22	1	1206555X15	922,732
55 x 2	105 x 22	1	1206555X2	922,732
55 x 3	105 x 36	1	1206555X3	922,732
55 x 4	105 x 36	1	1206555X4	922,732
56 x 1	105 x 22	1	1206556X1	922,732
56 x 1,5	105 x 22	1	1206556X15	922,732
56 x 2	105 x 22	1	1206556X2	922,732
56 x 3	105 x 36	1	1206556X3	922,732
56 x 4	105 x 36	1	1206556X4	922,732
58 x 1	105 x 22	1	1206558X1	922,732
58 x 1,5	105 x 22	1	1206558X15	922,732
58 x 2	105 x 22	1	1206558X2	922,732
58 x 3	105 x 36	1	1206558X3	922,732
58 x 4	105 x 36	1	1206558X4	922,732
60 x 1,5	105 x 22	1	1206560X15	922,732
60 x 2	105 x 22	1	1206560X2	922,732
60 x 3	105 x 36	1	1206560X3	922,732
60 x 4	105 x 36	1	1206560X4	922,732
62 x 1,5	105 x 22	1	1206562X15	922,732
62 x 2	105 x 22	1	1206562X2	922,732
62 x 3	105 x 36	1	1206562X3	922,732
62 x 4	105 x 36	1	1206562X4	922,732
63 x 1,5	105 x 22	1	1206563X15	922,732
64 x 1,5	120 x 22	1	1206564X15	1.057,401
64 x 2	120 x 22	1	1206564X2	1.057,401
64 x 3	120 x 36	1	1206564X3	1.057,401
64 x 4	120 x 36	1	1206564X4	1.057,401
65 x 1,5	120 x 22	1	1206565X15	1.057,401
65 x 2	120 x 22	1	1206565X2	1.057,401
65 x 3	120 x 36	1	1206565X3	1.057,401
65 x 4	120 x 36	1	1206565X4	1.057,401
68 x 1,5	120 x 22	1	1206568X15	1.057,401
68 x 2	120 x 22	1	1206568X2	1.057,401
68 x 3	120 x 36	1	1206568X3	1.057,401
68 x 4	120 x 36	1	1206568X4	1.057,401
70 x 1,5	120 x 22	1	1206570X15	1.057,401
70 x 2	120 x 22	1	1206570X2	1.057,401
70 x 3	120 x 36	1	1206570X3	1.057,401
70 x 4	120 x 36	1	1206570X4	1.057,401
72 x 1,5	120 x 22	1	1206572X15	1.057,401
72 x 2	120 x 22	1	1206572X2	1.057,401
72 x 3	120 x 36	1	1206572X3	1.057,401
72 x 4	120 x 36	1	1206572X4	1.057,401
74 x 1,5	120 x 22	1	1206574X15	1.057,401
74 x 2	120 x 22	1	1206574X2	1.057,401
74 x 3	120 x 36	1	1206574X3	1.057,401
74 x 4	120 x 36	1	1206574X4	1.057,401
75 x 1,5	120 x 22	1	1206575X15	1.057,401
75 x 2	120 x 22	1	1206575X2	1.057,401
75 x 3	120 x 36	1	1206575X3	1.057,401
75 x 4	120 x 36	1	1206575X4	1.057,401
76 x 1,5	120 x 22	1	1206576X15	1.057,401
76 x 2	120 x 22	1	1206576X2	1.057,401
76 x 3	120 x 36	1	1206576X3	1.057,401
76 x 4	120 x 36	1	1206576X4	1.057,401
78 x 1,5	120 x 22	1	1206578X15	1.057,401
78 x 2	120 x 22	1	1206578X2	1.057,401
78 x 3	120 x 36	1	1206578X3	1.057,401
78 x 4	120 x 36	1	1206578X4	1.057,401
80 x 1,5	120 x 22	1	1206580X15	1.057,401
80 x 2	120 x 22	1	1206580X2	1.057,401
80 x 3	120 x 36	1	1206580X3	1.057,401
80 x 4	120 x 36	1	1206580X4	1.057,401
82 x 1,5	130 x 25	1	1206582X15	1.325,549
82 x 2	130 x 25	1	1206582X2	1.325,549
82 x 3	130 x 36	1	1206582X3	1.325,549
82 x 4	130 x 36	1	1206582X4	1.325,549

Ø M84x1,5÷105x4: a richiesta
on demand

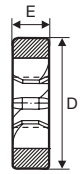
FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA ISO A PASSO FINE

Spiral point round dies, metric fine thread / Filières rondes, entrée gun, filetage métrique à pas fin
Cojinetes redondos, entrada corregida, rosca metrica fina /Runde Schneideisen mit schälanschnitt, metrisches DIN-ISO-Feingewinde

HSS-CO DIN 223 - EN 22568 6g COBALT — MF

12146

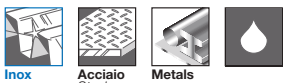




HRC ≃ 63÷64
AISI M35
FORM B

Imbocco corretto
Spiral Point

Applicazioni *Applications*



	Ø	DxE	pcs	cod.	€ cad/each
M	6 x 0,75	20 x 7	1	1214606X075	29,481
	8 x 0,75	25 x 9	1	1214608X075	31,282
	8 x 1	25 x 9	1	1214608X1	31,282
	10 x 1	30 x 11	1	1214610X1	36,723
	10 x 1,25	30 x 11	1	1214610X125	41,115
	12 x 1	38 x 10	1	1214612X1	51,450
	12 x 1,25	38 x 10	1	1214612X125	46,301
	12 x 1,5	38 x 10	1	1214612X15	44,412
	14 x 1,25	38 x 10	1	1214614X125	48,983
	14 x 1,5	38 x 10	1	1214614X15	45,383
	16 x 1,5	45 x 14	1	1214616X15	69,769
	18 x 1,5	45 x 14	1	1214618X15	80,732
	18 x 2	45 x 14	1	1214618X2	83,883
	20 x 1,5	45 x 14	1	1214620X15	80,732
	20 x 2	45 x 14	1	1214620X2	83,883
	22 x 1,5	55 x 16	1	1214622X15	138,231
	24 x 1,5	55 x 16	1	1214624X15	138,231

HSS DIN 223 - EN 22568 6g Sinistra - *Left hand - Gauche - Izquierda - Links* — MF

12072





LH

Applicazioni *Applications*



	Ø	DxE	pcs	cod.	€ cad/each	Ø	DxE	pcs	cod.	€ cad/each
M	3 x 0,35	20 x 5	1	1207203X035	38,878	22 x 1,25	55 x 16	1	1207222X125	158,087
	4 x 0,5	20 x 5	1	1207204X05	38,878	22 x 1,5	55 x 16	1	1207222X15	158,087
	4,5 x 0,5	20 x 5	1	12072045X05	38,878	22 x 2	55 x 16	1	1207222X2	158,087
	5 x 0,75	20 x 7	1	1207205X075	38,878	23 x 1,5	55 x 16	1	1207223X15	158,087
	5,5 x 0,5	20 x 5	1	12072055X05	38,878	24 x 1,25	55 x 16	1	1207224X125	158,087
	6 x 0,5	20 x 5	1	1207206X05	38,878	24 x 1,5	55 x 16	1	1207224X15	158,087
	6 x 0,75	20 x 7	1	1207206X075	38,878	24 x 2	55 x 16	1	1207224X2	158,087
	7 x 0,5	25 x 9	1	1207207X05	41,270	25 x 1,5	55 x 16	1	1207225X15	158,087
	7 x 0,75	25 x 9	1	1207207X075	41,270	25 x 2	55 x 16	1	1207225X2	158,087
	8 x 0,75	25 x 9	1	1207208X075	41,270	26 x 1,5	55 x 16	1	1207226X15	197,257
	8 x 1	25 x 9	1	1207208X1	41,270	26 x 2	55 x 16	1	1207226X2	197,257
	9 x 0,5	25 x 9	1	1207209X05	48,459	27 x 1,5	65 x 18	1	1207227X15	197,257
	10 x 1	30 x 11	1	1207210X1	48,459	27 x 2	65 x 18	1	1207227X2	197,257
	10 x 1,25	30 x 11	1	1207210X125	48,459	28 x 1,5	65 x 18	1	1207228X15	197,257
	12 x 1	38 x 10	1	1207212X1	52,541	28 x 2	65 x 18	1	1207228X2	197,257
	12 x 1,25	38 x 10	1	1207212X125	63,757	30 x 1,5	65 x 18	1	1207230X15	281,486
	12 x 1,5	38 x 10	1	1207212X15	61,289	30 x 2	65 x 18	1	1207230X2	281,486
	13 x 1,5	38 x 10	1	1207213X15	67,579	30 x 2,5	65 x 18	1	1207230X25	281,486
	14 x 1	38 x 10	1	1207214X1	67,579	30 x 3	65 x 25	1	1207230X3	281,486
	14 x 1,25	38 x 10	1	1207214X125	67,579	32 x 1,5	65 x 18	1	1207232X15	281,486
	14 x 1,5	38 x 10	1	1207214X15	62,469	32 x 2	65 x 18	1	1207232X2	281,486
	15 x 1,5	38 x 10	1	1207215X15	96,301	32 x 3	65 x 25	1	1207232X3	281,486
	16 x 1	45 x 14	1	1207216X1	96,301	33 x 1,5	65 x 18	1	1207233X15	295,560
	16 x 1,25	45 x 14	1	1207216X125	96,301	33 x 2	65 x 18	1	1207233X2	295,560
	16 x 1,5	45 x 14	1	1207216X15	96,301	33 x 3	65 x 18	1	1207233X3	295,560
	18 x 1	45 x 14	1	1207218X1	104,691	34 x 1,5	65 x 18	1	1207234X15	303,139
	18 x 1,25	45 x 14	1	1207218X125	104,691	34 x 2	65 x 18	1	1207234X2	303,139
	18 x 1,5	45 x 14	1	1207218X15	104,691	35 x 1,5	65 x 25	1	1207235X15	303,139
	18 x 2	45 x 14	1	1207218X2	104,691	35 x 2	65 x 18	1	1207235X2	303,139
	20 x 1,25	45 x 14	1	1207220X125	104,691	36 x 1,5	65 x 18	1	1207236X15	303,139
	20 x 1,5	45 x 14	1	1207220X15	104,691	36 x 2	65 x 18	1	1207236X2	303,139
	20 x 2	45 x 14	1	1207220X2	104,691	36 x 3	65 x 18	1	1207236X3	303,139

Ø M37x1,5÷48x3: a richiesta
on demand

FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA GAS CILINDRICA ISO 228

Spiral point round dies, spiral point, Whitworth pipe thread ISO 228 / Filières rondes, entrée gun, pour filetage gaz de tuyauterie ISO 228
Cojinetes redondos, entrada corregida, rosca gas cilindrica ISO 228 / Runde Schneideisen mit schälanschnitt für Rohrgewinde DIN-ISO 228

HSS DIN 5158 - EN 24231

BSP (GAS)

12075



Applicazioni *Applications*

Acciaio *Steel* | Metals | Alu

	Ø	DxE	pcs	cod.	€ cad/each
G	1/8 x 28	30 x 11	1	120751/8	36,042
	1/4 x 19	38 x 10	1	120751/4	39,591
	3/8 x 19	45 x 14	1	120753/8	56,880
	1/2 x 14	45 x 14	1	120751/2	58,230
	5/8 x 14	55 x 16	1	120755/8	86,750
	3/4 x 14	55 x 16	1	120753/4	127,170
	7/8 x 14	65 x 18	1	120757/8	134,724
	1" x 11	65 x 18	1	120751"	139,764
	1.1/8 x 11	75 x 20	1	120751.1/8	196,424
	1.1/4 x 11	75 x 20	1	120751.1/4	196,424
	1.3/8 x 11	90 x 22	1	120751.3/8	260,636
	1.1/2 x 11	90 x 22	1	120751.1/2	260,636
	1.5/8 x 11	90 x 22	1	120751.5/8	270,706
	1.3/4 x 11	90 x 22	1	120751.3/4	270,706
	1.3/4 x 11	105 x 22	1	120751.3/4105	270,706
	2" x 11	90 x 22	1	1207592"	418,026
	2" x 11	105 x 22	1	1207512"	418,026
	2.1/4 x 11	105 x 22	1	120752.1/4	484,766
	2.1/2 x 11	120 x 22	1	120752.1/2	781,909
	2.3/4 x 11	120 x 22	1	120752.3/4	1.303,822
	3" x 11	130 x 25	1	120753"	1.455,158
	3.1/2 x 11	150 x 25	1	120753.1/2	2.374,702
	4" x 11	160 x 25	1	120754"	2.968,523

HSS-CO DIN 5158 - EN 24231 COBALT

BSP (GAS)

12148



Applicazioni *Applications*

Inox | Acciaio *Steel* | Metals

	Ø	DxE	pcs	cod.	€ cad/each
G	1/8 x 28	30 x 11	1	121481/8	45,608
	1/4 x 19	38 x 10	1	121481/4	51,151
	3/8 x 19	45 x 14	1	121483/8	73,815
	1/2 x 14	45 x 14	1	121481/2	73,815
	3/4 x 14	55 x 16	1	121483/4	98,803
	1" x 11	65 x 18	1	121481"	159,554

HSS DIN 5158 - EN 24231 Sinistra - *Left hand - Gauche - Izquierda - Links*

BSP (GAS)

12077



LH

Applicazioni *Applications*

Acciaio *Steel* | Metals | Alu

	Ø	DxE	pcs	cod.	€ cad/each
G	1/8 x 28	30 x 11	1	120771/8	82,293
	1/4 x 19	38 x 10	1	120771/4	94,388
	3/8 x 19	45 x 14	1	120773/8	136,658
	1/2 x 14	45 x 14	1	120771/2	136,658
	5/8 x 14	55 x 16	1	120775/8	185,096
	3/4 x 14	55 x 16	1	120773/4	231,999
	7/8 x 14	65 x 18	1	120777/8	256,865
	1" x 11	65 x 18	1	120771"	256,865
	1.1/8 x 11	75 x 20	1	120771.1/8	308,483
	1.1/4 x 11	75 x 20	1	120771.1/4	308,483
	1.1/2 x 11	90 x 22	1	120771.1/2	503,647
	1.3/4 x 11	105 x 22	1	120771.3/4	873,828
	2" x 11	105 x 22	1	120772"	873,828

FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA WHITWORTH BS-84

Round dies, spiral point, Whitworth BSW thread BS-84 / Filières rondes, entrée gun, filetage Whitworth
Cojinetes redondos, entrada corregida, rosca Whitworth / Runde Schneideisen mit schälanschnitt, Whitworth –Gewinde BS-84

HSS DIN 223 - EN 22568 — BSW

12070



Applicazioni *Applications*



	Ø		DxE	pcs	cod.	€ cad/each
BSW	1/16	x 60	16 x 5	1	120701/16	39,289
	3/32	x 48	16 x 5	1	120703/32	39,289
	1/8	x 40	20 x 5	1	120701/8	28,668
	5/32	x 32	20 x 5	1	120705/32	26,959
	3/16	x 24	20 x 7	1	120703/16	26,959
	7/32	x 24	20 x 7	1	120707/32	26,959
	1/4	x 20	25 x 9	1	120701/4	26,959
	5/16	x 18	25 x 9	1	120705/16	29,653
	3/8	x 16	30 x 11	1	120703/8	37,275
	7/16	x 14	30 x 11	1	120707/16	37,275
	1/2	x 12	38 x 14	1	120701/2	41,151
	9/16	x 12	38 x 14	1	120709/16	60,141
	5/8	x 11	45 x 18	1	120705/8	60,141
	3/4	x 10	45 x 18	1	120703/4	66,962
	7/8	x 9	55 x 22	1	120707/8	92,002
	1”	x 9	55 x 22	1	120701"	96,831
	1.1/8	x 7	65 x 25	1	120701.1/8	128,812
	1.1/4	x 7	65 x 25	1	120701.1/4	128,812
	1.3/8	x 6	65 x 25	1	120701.3/8	185,012
	1.1/2	x 6	65 x 22	1	1207061.1/2	229,509
	1.1/2	x 6	75 x 30	1	1207071.1/2	401,052
	1.5/8	x 5	75 x 30	1	120701.5/8	270,498
	1.3/4	x 5	90 x 36	1	120701.3/4	372,253
	1.7/8	x 4,5	90 x 36	1	120701.7/8	372,253
	2”	x 4,5	90 x 36	1	120702"	372,253

HSS DIN 223 - EN 22568 Sinistra - *Left hand - Gauche - Izquierda - Links* — BSW

12088





	Ø		DxE	pcs	cod.	€ cad/each
BSW	1/8	x 40	20 x 5	1	120881/8	48,774
	5/32	x 32	20 x 5	1	120885/32	48,774
	3/16	x 24	20 x 7	1	120883/16	48,774
	1/4	x 20	20 x 7	1	120881/4	48,774
	5/16	x 18	25 x 9	1	120885/16	54,533
	3/8	x 16	30 x 11	1	120883/8	63,670
	7/16	x 14	30 x 11	1	120887/16	69,873
	1/2	x 12	38 x 14	1	120881/2	105,038
	9/16	x 12	38 x 14	1	120889/16	105,038
	5/8	x 11	45 x 18	1	120885/8	133,684
	3/4	x 10	45 x 18	1	120883/4	133,684
	7/8	x 9	55 x 22	1	120887/8	194,161
	1”	x 8	55 x 22	1	120881"	194,161

HSS DIN 223 - EN 22568 — BSF

12087



	Ø		DxE	pcs	cod.	€ cad/each
BSF	3/16	x 32	20 x 7	1	120873/16	35,191
	1/4	x 26	25 x 9	1	120871/4	39,338
	5/16	x 22	25 x 9	1	120875/16	39,338
	3/8	x 20	30 x 11	1	120873/8	48,030
	7/16	x 18	30 x 11	1	120877/16	48,030
	1/2	x 16	38 x 10	1	120871/2	55,970
	9/16	x 16	38 x 10	1	120879/16	60,802
	5/8	x 14	45 x 14	1	120875/8	76,761
	3/4	x 12	45 x 14	1	120873/4	80,411
	7/8	x 11	55 x 22	1	120877/8	127,989
	1”	x 10	55 x 22	1	120871"	127,989

FILIERE TONDE AD IMBOCCO CORRETTO, FIL. AMERICANA UNC PASSO GROSSO ANSI B1.1

Round dies, spiral point, unified coarse thread UNC / Filières rondes, filetage americain à pas gros UNC
Cojinetes redondos, rosca unificada vasta UNC /Runde Schneideisen, amerikanisches grossgewinde UNC

HSS DIN 223 - EN 22568 **UNC**

12080



	Ø	DxE	pcs	cod.	€ cad/each
N°	**4** x 40	20 x 5	1	12080N04	38,451
	5 x 40	20 x 5	1	12080N05	33,294
	6 x 32	20 x 7	1	12080N06	33,294
	8 x 32	20 x 7	1	12080N08	33,294
	10 x 24	20 x 7	1	12080N10	33,294
	12 x 24	20 x 7	1	12080N12	33,294
UNC	**1/4** x 20	20 x 7	1	120801/4	30,476
	5/16 x 18	25 x 9	1	120805/16	33,958
	3/8 x 16	30 x 11	1	120803/8	41,850
	7/16 x 14	30 x 11	1	120807/16	41,850
	1/2 x 13	38 x 14	1	120801/2	48,601
	9/16 x 12	38 x 14	1	120809/16	53,026
	5/8 x 11	45 x 18	1	120805/8	66,693
	3/4 x 10	45 x 18	1	120803/4	70,011
	7/8 x 9	55 x 22	1	120807/8	98,229
	1” x 8	55 x 22	1	120801"	101,558
	1.1/8 x 7	65 x 25	1	120801.1/8	147,320
	1.1/4 x 7	65 x 25	1	120801.1/4	147,320
	1.3/8 x 6	65 x 25	1	120801.3/8	147,320
	1.1/2 x 6	65 x 25	1	1208061.1/2	313,523
	1.1/2 x 6	75 x 30	1	1208071.1/2	313,523
	1.5/8 x 5	75 x 30	1	120801.5/8	313,523
	1.3/4 x 5	90 x 36	1	120801.3/4	420,542
	1.7/8 x 4,5	90 x 36	1	120801.7/8	420,542
	2” x 4,5	90 x 36	1	120802"	521,529

Applicazioni *Applications*



FILIERE TONDE A IMBOCCO CORRETTO, FILETTATURA AMERICANA UNC **SINISTRA**

Round dies, spiral point, left hand / Filières rondes, entrée gun, gauche
Cojinetes ridondo, entrada corregida, izquierda / Runde Schneideisen, linksgewinde

HSS DIN 223 – EN 22568 **Sinistra - *Left hand - Gauche - Izquierda - Links*** **UNC**

12082





	Ø	DxE	pcs	cod.	€ cad/each
N°	**6** x 32	20 x 7	1	12082NR06	52,312
	8 x 32	20 x 7	1	12082NR08	52,312
	10 x 24	20 x 7	1	12082NR10	52,312
UNC	**1/4** x 20	20 x 7	1	120821/4	42,789
	5/16 x 18	25 x 9	1	120825/16	50,719
	3/8 x 16	30 x 11	1	120823/8	60,171
	7/16 x 14	38 x 14	1	120827/16	60,171
	1/2 x 13	38 x 14	1	120821/2	95,080
	9/16 x 12	38 x 14	1	120829/16	95,080
	5/8 x 11	45 x 18	1	120825/8	120,404
	3/4 x 10	45 x 18	1	120823/4	120,404
	7/8 x 9	55 x 22	1	120827/8	174,298
	1” x 8	55 x 22	1	120821”	174,298

FILIERE TONDE, FILETTATURA AMERICANA UNF A PASSO FINE ANSI B1.1

Round dies, unified fine thread UNF / Filières rondes, filetage americain à pas fin
Cojinetes redondos, rosca unificada fina UNF / Runde Schneideisen, amerikanisches fein-Gewinde

HSS DIN 223 - EN 22568 **UNF**

12085



Applicazioni *Applications*



	Ø	DxE	pcs	cod.	€ cad/each
N°	2 x 64	16 x 5	1	12085N02	44,889
	3 x 56	16 x 5	1	12085N03	41,048
	4 x 48	20 x 5	1	12085N04	38,474
	5 x 44	20 x 5	1	12085N05	35,913
	6 x 40	20 x 5	1	12085N06	33,294
	8 x 36	20 x 7	1	12085N08	33,294
	10 x 32	20 x 7	1	12085N10	33,294
	12 x 28	20 x 7	1	12085N12	33,294
UNF	1/4 x 28	20 x 7	1	120851/4	30,476
	5/16 x 24	25 x 9	1	120855/16	33,958
	3/8 x 24	30 x 11	1	120853/8	41,850
	7/16 x 20	30 x 11	1	120857/16	41,850
	1/2 x 20	38 x 10	1	120851/2	48,601
	9/16 x 18	38 x 10	1	120859/16	53,026
	5/8 x 18	45 x 14	1	120855/8	69,871
	3/4 x 16	45 x 14	1	120853/4	73,339
	7/8 x 14	55 x 16	1	120857/8	98,229
	1" x 12	55 x 16	1	120851"X12	101,558
	*1" x 14	55 x 16	1	120851"X14	121,477
	1.1/8 x 12	65 x 18	1	120851.1/8	153,618
	1.1/4 x 12	65 x 18	1	120851.1/4	153,618
	1.3/8 x 12	65 x 18	1	120851.3/8	153,618
	1.1/2 x 12	65 x 18	1	1208561.1/2	345,001
	1.1/2 x 12	75 x 20	1	1208571.1/2	345,001

* **Filettartura UNS /** *UNS Thread*

HSS DIN 223 - EN 22568 **Sinistra - *Left hand - Gauche - Izquierda - Links*** **UNF**

12086





	Ø	DxE	pcs	cod.	€ cad/each
N°	10 x 32	20 x 7	1	12086NR10	57,012
UNF	1/4 x 28	20 x 7	1	120861/4	46,627
	5/16 x 24	25 x 9	1	120865/16	55,283
	3/8 x 24	30 x 11	1	120863/8	65,580
	7/16 x 20	30 x 11	1	120867/16	65,580
	1/2 x 20	38 x 10	1	120861/2	103,629
	9/16 x 18	38 x 10	1	120869/16	103,629
	5/8 x 18	45 x 14	1	120865/8	131,214
	3/4 x 16	45 x 14	1	120863/4	131,214
	7/8 x 14	55 x 16	1	120867/8	189,967
	1" x 12	55 x 16	1	120861"	189,967

FILIERE TONDE, FILETTATURA AMERICANA UNEF A PASSO EXTRAFINE ANSI B1.1

Round dies, unified extrafine thread UNEF / Filières rondes, filetage americain à pas extrafin
Cojinetes redondos, rosca unificada extrafina UNEF / Runde Schneideisen, amerikanisches fein-Gewinde

HSS DIN 223 - EN 22568 **UNEF**

12079



	Ø	DxE	pcs	cod.	€ cad/each
UNEF	1/4 x 32	20 x 7	1	120791/4	48,988
	3/8 x 32	30 x 11	1	120793/8	71,253
	1/2 x 28	38 x 10	1	120791/2	106,874
	9/16 x 24	38 x 10	1	120799/16	106,874
	5/8 x 24	45 x 14	1	120795/8	170,033
	3/4 x 20	45 x 14	1	120793/4	170,033
	7/8 x 20	55 x 16	1	120797/8	200,394
	1" x 20	55 x 16	1	120791"	217,819
	1.1/8 x 18	65 x 18	1	120791.1/8	320,634

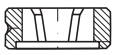
FILIERE TONDE, FILETTATURA CONICA AMERICANA PER TUBI 1:16 NPT

Round dies, taper pipe thread NPT / Filieres rondes, filetage conique pour tubes NPT
Cojinetes redondos, rosca conica americana NPT / Runde Schneideisen, amerikanisches kegeliges Rohrgewinde NPT

HSS **NPT**

12091





Conicità **1:16**
Taper *1:16*

Ø	DxE	pcs	cod.	€ cad/each
1/16 x 27	25 x 9	1	120911/16	47,611
1/8 x 27	30 x 11	1	120911/8	58,472
1/4 x 18	38 x 14	1	120911/4	64,435
3/8 x 18	45 x 18	1	120913/8	83,397
1/2 x 14	45 x 18	1	120911/2	128,053
3/4 x 14	55 x 22	1	120913/4	140,519
1” x 11,5	65 x 25	1	120911"	200,574
1.1/4 x 11,5	75 x 26	1	120911.1/4	390,954
1.1/2 x 11,5	90 x 27	1	120911.1/2	668,589
2” x 11,5	105 x 28	1	120912"	1.008,550

Applicazioni *Applications*



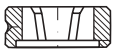
FILIERE TONDE, FILETTATURA CONICA PER TUBI 1:16 BSPT

Round dies, Whitworth taper thread 1:16 BSPT / Filières rondes, filetage gaz de tuyauterie BSPT
Cojinetes redondos, rosca gas conica BSPT / Runde Schneideisen, britisches kegeliges Rohrgewinde BSPT

HSS **BSPT**

12089





Conicità **1:16**
Taper *1:16*

	Ø	DxE	pcs	cod.	€ cad/each
Rc	**1/8** x 28	30 x 11	1	120891/8	58,472
	1/4 x 19	38 x 14	1	120891/4	64,435
	3/8 x 19	45 x 18	1	120893/8	83,397
	1/2 x 14	45 x 18	1	120891/2	128,053
	3/4 x 14	55 x 22	1	120893/4	140,519
	1” x 11	65 x 25	1	120891"	200,574
	1.1/4 x 11	75 x 26	1	120891.1/4	390,954
	1.1/2 x 11	90 x 27	1	120891.1/2	668,589
	2” x 11	105 x 28	1	120892"	1.008,550

Applicazioni *Applications*



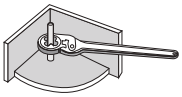
FILIERE ESAGONALI

Exagonal round dies / Filières hexagonales
Cojinetes hexagonales / Sechseckschneideisen

HSS DIN 382 6g **M**

12094





Applicazioni *Applications*



- Per generare nuovi filetti e ripassare filettature danneggiate in punti di difficile accesso.
- To generate new threads and overhaul the damaged ones.

	Ø	DxE	pcs	cod.	€ cad/each
M	**3** x 0,5	19 x 5	1	1209403x05	25,581
	4 x 0,7	19 x 5	1	1209404x07	25,581
	5 x 0,8	19 x 7	1	1209405x08	25,581
	6 x 1	19 x 7	1	1209406x1	25,581
	7 x 1	22 x 9	1	1209407x1	27,250
	8 x 1,25	22 x 9	1	1209408x125	27,150
	9 x 1,25	22 x 9	1	1209409x125	27,250
	10 x 1,5	27 x 11	1	1209410x15	34,085
	11 x 1,5	27 x 11	1	1209411x15	34,085
	12 x 1,75	36 x 14	1	1209412x175	45,233
	14 x 2	36 x 14	1	1209414x2	45,233
	16 x 2	41 x 18	1	1209416x2	63,932
	18 x 2,5	41 x 18	1	1209418x25	63,932
	20 x 2,5	41 x 18	1	1209420x25	63,932
	22 x 2,5	50 x 22	1	1209422x25	119,599
	24 x 3	50 x 22	1	1209424x3	142,937
	27 x 3	60 x 25	1	1209427x3	214,174
	30 x 3,5	60 x 25	1	1209430x35	214,174
	33 x 3,5	60 x 25	1	1209433x35	214,174
	36 x 4	60 x 25	1	1209436x4	214,174
	39 x 4	70 x 30	1	1209439x4	354,101
	42 x 4,5	70 x 30	1	1209442x45	354,101
	45 x 4,5	85 x 36	1	1209445x45	491,172
	48 x 5	85 x 36	1	1209448x5	491,172
	52 x 5	85 x 36	1	1209452x5	491,172
	56 x 5,5	100 x 36	1	1209456x55	850,985
	60 x 5,5	100 x 36	1	1209460x55	850,985
	64 x 6	100 x 36	1	1209464x6	850,985
	68 x 6	115 x 36	1	1209468x6	1.113,706

FILIERE ESAGONALI

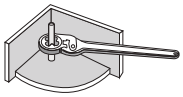
Exagonal round dies / Filières hexagonales
Cojinetes hexagonales / Sechseckschneideisen

HSS DIN 382 6g

MF

12096





	Ø	DxE	pcs	cod.	€ cad/each
M	3 x 0,35	19 x 5	1	1209603x035	53,254
	4 x 0,35	19 x 5	1	1209604x035	53,254
	4 x 0,5	19 x 5	1	1209604x05	53,254
	5 x 0,5	19 x 5	1	1209605x05	53,254
	5 x 0,75	19 x 7	1	1209605x075	53,254
	6 x 0,5	19 x 5	1	1209606x05	53,254
	6 x 0,75	19 x 7	1	1209606x075	53,254
	7 x 0,75	22 x 9	1	1209607x075	56,936
	8 x 0,5	22 x 9	1	1209608x05	56,936
	8 x 0,75	22 x 9	1	1209608x075	56,936
	8 x 1	22 x 9	1	1209608x1	56,936
	9 x 0,75	22 x 9	1	1209609x075	56,936
	9 x 1	22 x 9	1	1209609x1	56,936
	10 x 0,75	27 x 11	1	1209610x075	56,936
	10 x 1	27 x 11	1	1209610x1	56,936
	10 x 1,25	27 x 11	1	1209610x125	56,936
	11 x 1	27 x 11	1	1209611x1	78,048
	11 x 1,25	27 x 11	1	1209611x125	78,048
	12 x 0,75	36 x 10	1	1209612x075	78,048
	12 x 1	36 x 10	1	1209612x1	78,048
	12 x 1,25	36 x 10	1	1209612x125	78,048
	12 x 1,5	36 x 10	1	1209612x15	75,102
	13 x 1	36 x 10	1	1209613x1	85,138
	13 x 1,5	36 x 10	1	1209613x15	85,138
	14 x 0,75	36 x 10	1	1209614x075	85,138
	14 x 1	36 x 10	1	1209614x1	85,138
	14 x 1,25	36 x 10	1	1209614x125	85,138
	14 x 1,5	36 x 10	1	1209614x15	85,138
	15 x 1	36 x 10	1	1209615x1	110,180
	15 x 1,5	36 x 10	1	1209615x15	110,180
	16 x 1	41 x 14	1	1209616x1	110,180
	16 x 1,25	41 x 14	1	1209616x125	110,180
	16 x 1,5	41 x 14	1	1209616x15	110,180
	18 x 1	41 x 14	1	1209618x1	110,180
	18 x 1,25	41 x 14	1	1209618x125	110,180
	18 x 1,5	41 x 14	1	1209618x15	110,180
	18 x 2	41 x 14	1	1209618x2	110,180
	20 x 1	41 x 14	1	1209620x1	110,180
	20 x 1,25	41 x 14	1	1209620x125	110,180
	20 x 1,5	41 x 14	1	1209620x15	110,180
	20 x 2	41 x 14	1	1209620x2	110,180

Applicazioni *Applications*



HSS DIN 382

BSP

12098



	Ø	DxE	pcs	cod.	€ cad/each
G	1/8 x 28	27 x 11	1	120981/8	53,828
	1/4 x 19	36 x 10	1	120981/4	64,621
	3/8 x 19	41 x 14	1	120983/8	95,982
	1/2 x 14	41 x 14	1	120981/2	95,982
	5/8 x 14	50 x 16	1	120985/8	184,339
	3/4 x 14	50 x 16	1	120983/4	184,339
	7/8 x 14	60 x 18	1	120987/8	226,644
	1" x 11	60 x 18	1	120981"	226,644
	1.1/8 x 11	70 x 20	1	120981.1/8	323,336
	1,1/2 x 11	85 x 22	1	120981.1/2	516,744
	2" x 11	100 x 22	1	120982"	798,672



Kit per idraulici e installatori
For plumbers and journeymen
Pour plombiers et installateurs
Para fontaneros e instaladores
Für Rohrleger und installateurs

- Per generare nuovi filetti e ripassare filettature danneggiate in punti di difficile accesso.
- To generate new threads and overhaul the damaged ones.

*In esaurimento
To be discontinued

cod.	€ cad/each	1 pc
* 12100500 BSP 1/8÷1"	831,024	G 1/8-1/4-3/8 1/2-3/4-1"

UTENSILE COMBINATO CON ATTACCO ESAGONALE 1/4" PER AVVITATORI E TRAPANI REVERSIBILI

Combined bits for drilling-threading-deburring in one operation with 1/4" hexagon drive / Outil combiné pour percage-taraudage-ebavurage en unique operation / Utensilio combinado para taladrar – roscar y avellanar en una sola operacion / Kombi-bits zum kerlochbohren, gewindeschneiden und entgraten in einen Arbeitsgang

10212 **10230**



HSS-G



HSS-G+TiN



Art. **10213** Self
Disponibile su richiesta / *On demand*

Applicazioni *Applications*



- Per forare, filettare e svasare in acciaio, alluminio, metalli non ferrosi in genere, plastica sino a R≤600 N/mm² e profondità 1xD.
- Drilling, threading and deburring in steel, aluminium, plastics with R≤600 N/mm² and depth 1xD.
- Percage – taraudage, ebavurage en unique operation en acier, aluminium, plastic avec R≤ 600N/mm² et spesseur de travaille1xD.
- Para taladrar, roscar y avellanar acero, aluminio, plastico con R≤600 N/mm² y profundidad de corte 1xD.
- Kernochbohren, gewindeschneiden und entgraten in einem arbeitsgang in Stahl-ne-Metalle-Kunstoffe-bis 600 N/mm² zugfestigkeit bis 1xD Materialstärke.

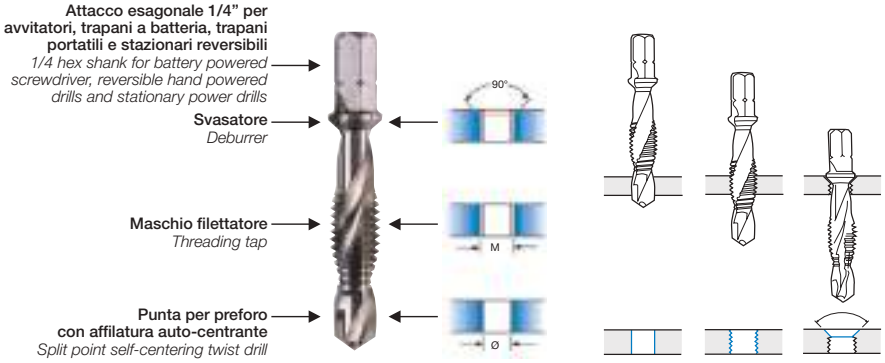
10212

	Ø	/	L	⬡	pcs	cod.	€ cad/each
M	3 x 0,5	2,5	36	1/4	1	1021203x05	9,848
	4 x 0,7	3,3	39	1/4	1	1021204x07	9,848
	5 x 0,8	4,2	41	1/4	1	1021205x08	9,848
	6 x 1	5	44	1/4	1	1021206x1	9,848
	8 x 1,25	6,8	50	1/4	1	1021208x125	11,235
	10 x 1,5	8,5	59	1/4	1	1021210x15	11,235

10230

	Ø	/	L	⬡	pcs	cod.	€ cad/each
M	3 x 0,5	2,5	36	1/4	1	1023003x05	14,343
	4 x 0,7	3,3	39	1/4	1	1023004x07	14,343
	5 x 0,8	4,2	41	1/4	1	1023005x08	14,343
	6 x 1	5	44	1/4	1	1023006x1	14,343
	8 x 1,25	6,8	50	1/4	1	1023008x125	18,796
	10 x 1,5	8,5	59	1/4	1	1023010x15	18,796





MASCHI CON ATTACCO ESAGONALE 1/4" PER FILETTARE CON AVVITATORI E TRAPANI REVERSIBILI

Threading bits with 1/4" hex drive /Tarauds avec 6 pans de 1/4"
Machos a roscar con mango esagonal 1/4" / Einschnittgewindebohrer-bits

HSS-G

10210



	Ø	/	L	⬡	pcs	cod.	€ cad/each
M	3 x 0,5	11	33	1/4	1	1021003x05	8,336
	4 x 0,7	12	35	1/4	1	1021004x07	8,336
	5 x 0,8	15	36	1/4	1	1021005x08	9,105
	6 x 1	18	39	1/4	1	1021006x1	9,105
	8 x 1,25	19	40	1/4	1	1021008x125	9,875
	10 x 1,5	21	41	1/4	1	1021010x15	10,215



PUNTA CON ATTACCO ESAGONALE 1/4" PER AVVITATORI E TRAPANI REVERSIBILI

Drill bits with 1/4 hexagon drive for power screwdrivers and cordless drills / Foret à queue 6 pans (1/4") adaptable sur perceuse-visseuse Broca con mango esagonal 1/4" para taladros y atornilladores portatiles / Spiralbohrer-Bits mit 1/4" sechskant-Aufnahme für akku-Bohrmaschinen und Handbohrermaschinen

HSS-G

10211



Ø	L	/	⬡	pcs	cod.	€ cad/each
1	32	7	1/4	1	102110100	6,423
1,5	32	10	1/4	1	102110150	6,423
2	34	12	1/4	1	102110200	6,423
2,5 (M3)	36	14	1/4	1	102110250	6,423
3	38	16	1/4	1	102110300	6,423
3,3 (M4)	40	18	1/4	1	102110330	6,423
3,5	40	18	1/4	1	102110350	6,423
4	44	20	1/4	1	102110400	6,423
4,2 (M5)	45	20	1/4	1	102110420	6,423
4,5	46	24	1/4	1	102110450	6,423
5 (M6)	50	26	1/4	1	102110500	6,423
5,5	50	26	1/4	1	102110550	6,675
6	50	26	1/4	1	102110600	6,675
6,5	50	30	1/4	1	102110650	6,675
6,8 (M8)	50	30	1/4	1	102110680	6,675
7	50	30	1/4	1	102110700	6,675
7,5	51	32	1/4	1	102110750	7,858
8	51	32	1/4	1	102110800	7,858
8,5 (M10)	53	33	1/4	1	102110850	8,980
9	53	33	1/4	1	102110900	8,980
9,5	54	38	1/4	1	102110950	10,099
10	54	38	1/4	1	102111000	10,099
10,2 (M12)	54	38	1/4	1	102111020	10,099

SVASATORI A 90° CON ATTACCO ESAGONALE 1/4"

90° countersink with 1/4" hexagon shank / Fraise conique a 90° avec 6 pans de 1/4"
Avellanador a 90° con mango esagonal 1/4" / Kegelsenker-bits 90°, mit 1/4" sechskant-Aufnahme

HSS-G 90°

19001



Ø	L	⬡	pcs	cod.	€ cad/each
6,3	31	1/4	1	19001063	15,006
8,3	31	1/4	1	19001083	15,006
10,4	34	1/4	1	19001104	16,077
12,4	35	1/4	1	19001124	17,159
16,5	40	1/4	1	19001165	19,290
20,5	41	1/4	1	19001205	25,029

Art. **19002** Self
Disponibile su richiesta / *On demand*

Applicazioni *Applications*

- Per forare e svasare acciaio R≤600 N/mm² leghe leggere, plastica.
- For cutting and countersink steel R≤600 N/mm², light alloys, plastics.
- Pour percer et évaser acier R≤600 N/mm² alliage léger, plastique.
- Para cortar y limpiar acero R≤600 N/mm², aleaciones ligeras, plastico
- Für Stahl mit R≤600 N/mm², Ne-Metalle, Kunststoffe

	ØxL	cod.	€ cad/each
 **Magnetico** ***Magnetic***	33x120	19001000	14,843

19003 1/4" HEX — 133

Industrial

SET DI UTENSILI CON ATTACCO ESAGONALE PER AVVITATORI E TRAPANI REVERSIBILI

1/4 hex bits sets for power screwdrivers and cordless drills / Outils coupants à queue 6 pans pour perceuse-visseuse
Juegos de utensilios de corte con mango esagonal para taladros y atornilladores portatiles / Birs mit 1/4" sechs kant
Aufnahme Satz für akku-Bohrmaschinen

19020213



Cod.	Composizione *Description*
19020213 HSS-G € 64,260	M 3-4-5-6-8-10 10212 1 pc Magnetic 1/4 41245100N

Disponibile anche la versione con utensile rivestito **TiN cod. 19020209** 101,507 €
On demand TiN coated tools cod. 19020209 *101,507 €*

19020210



Cod.	Composizione *Description*
19020210 HSS-G € 64,871	M 3-4-5-6-8-10 10210

19020212



Cod.	Composizione *Description*
19020212 HSS-G € 96,143	Ø 2,5-3,3-4,2 5-6,8-8,5 10211 M 3-4-5-6-8-10 10210

19020211



Cod.	Composizione *Description*
19020211 HSS-G € 123,946	Ø 1÷10x0,5 10211 19 pcs

19020214



Cod.	Composizione *Description*
19020214 HSS-G 90° € 136,681	Ø 6,3-8,3-10,4 12,4-16,5-20,5 19001

SET DI UTENSILI CON ATTACCO ESAGONALE PER AVVITATORI E TRAPANI REVERSIBILI

1/4 hex bits sets for power screwdrivers and cordless drills / Outils coupants à queue 6 pans pour perceuse-visseuse
Juegos de utensilios de corte con mango esagonal para taladros y atornilladores portatiles / Birs mit 1/4" sechs kant
Aufnahme Satz für akku-Bohrmaschinen

*19020218

*In esaurimento
To be discontinued



Cod.	Composizione *Description*			
19020218 HSS-G Ø 3÷10 19 pcs € 91,517	3-4-5 6-8-10	6 Bits: 2xPH1 3xPH2 1xPH3	6 Torx Bits: T10 - T15 T20 - T25 T30 - T40	Non Magnetic Quick change 1/4

Metals Plastics

*19020219



Cod.	Composizione *Description*			
19020219 HSS-G Ø 3÷10 19 pcs € 91,517	3-4-5 6-8-10	6 Bits: 2xPZ1 3xPZ2 1xPZ3	6 Torx Bits: T10 - T15 T20 - T25 T30 - T40	Non Magnetic Quick change 1/4

Plastics

*19020216



Cod.	Composizione *Description*		
19020216 HSS-G M 3÷10 8 pcs € 114,682	M 3-4-5 6-8-10	Non Magnetic Quick change 1/4	Non Magnetic Quick change 1/4

ASSORTIMENTI A FILETTARE IN HSS-G IN ASTUCCI DI METALLO E ABS

HSS-G threading sets in metal and plastics cases / Assortiments à fileter HSS-G en coffret métallique et plastique
Juegos de utensilios de roscar HSS-G en caja metalica y plastico / Gewindebohrersätze HSS-G in Metallkassette

HSS-G

M

17020401



Abs

17020402



Metal

17020404



Abs

Cod.	Composizione *Description*	
17020401 HSS-G € 117,227	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	
17020402 HSS-G € 149,520	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	1.1/2 HSS-G 2,5-3,3-4,2-5-6,8 8,5-10,25
17020404 HSS-G € 79,938	DIN 352 - 1 pc M 3-4-5-6-8-10-12	1.1/2 HSS-G 2,5-3,3-4,2-5-6,8 8,5-10,25

COBALT

17020408



Abs

17020407



Metal

Cod.	Composizione *Description*	
17020408 HSS-CO € 177,035	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	
17020407 HSS-CO € 223,684	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	1.1/2 HSS-CO 2,5-3,3-4,2-5-6,8 8,5-10,25

HSS-G+TiN

17020414



Abs

17020415



Metal

443

Cod.	Composizione *Description*	
17020414 HSS-G+TiN € 251,200	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	
17020415 HSS-G+TiN € 287,074	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	1.1/2 HSS-G+Tin 2,5-3,3-4,2-5-6,8 8,5-10,25

ASSORTIMENTI A FILETTARE IN HSS-G IN ASTUCCI DI PLASTICA RIGIDA

HSS-G threading sets / Assortiments à fileter HSS-G

Juegos de utensilios de roscar HSS-G / Gewindebohrersätze HSS-G

HSS-G Sinistri - *Left hand - Gauche - Izquierda - Links*

17020409



Abs

17020410



Metal

Cod.	Composizione *Description*	
17020409 HSS-G € 173,441	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	
17020410 HSS-G € 215,311	DIN 352 - 3 pcs M 3-4-5-6-8-10-12	1.1/2 HSS-G 2,5-3,3-4,2-5-6,8 8,5-10,25

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA IN CASSETTA METALLICA

HSS-G threading sets in metal case / Assortiments à fileter HSS-G en coffret métallique
Juegos de utensilios a roscar HSS-G en caja metalica / Gewindebohrersätze HSS-G in Metalkassette

M

17020501 HSS-G



17020513 HSS-G+TiN



443

Cod.	Composizione *Description*	
17020501 M 3÷12 HSS-G *30 pcs* € 191,391	DIN 352 3 pcs Ø 25 M 3-4-5-6-8-10-12	N° 1.1/2 25x9
17020513 M 3÷12 HSS-G+TiN *30 pcs* € 346,883		

17020500 HSS-G



17020514 HSS-G+TiN



443

Cod.	Composizione *Description*	
17020500 M 3÷12 HSS-G *43 pcs* € 328,945	DIN 352 3 pcs DIN 223 M 3-4-5-6-8-10-12	N° 1-2 20x5-20x7-25x9 30x11-38x14 Ø 2,5-3,3-4,2-5 6,8-8,5-10,25 N° 1
17020514 M 3÷12 HSS-G+TiN *43 pcs* € 538,273		

17020506 HSS-CO



17020507 HSS-G

Sinistri - *Left hand*
Gauche - Izquierda - Links



Cod.	Composizione *Description*	
17020506 M 3÷12 HSS-CO *43 pcs* € 400,720	DIN 352 3 pcs DIN 223 M 3-4-5-6-8-10-12	N° 1-2 20x5-20x7-25x9 30x11-38x14 Ø 2,5-3,3-4,2-5 6,8-8,5-10,25 N° 1
17020507 SIN. M 3÷12 HSS-G *43 pcs* € 436,595		

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G

Juegos de utensilios a roscar HSS-G / Gewindebohrersätze HSS-G



Sinistri - *Left hand Gauche - Izquierda Links*

Cod.	Composizione *Description*	
17020503 M 3÷20 HSS-G € 711,715	DIN 352 3 pcs DIN 223 M 3-4-5-6-8 10-12-14-16-18-20	N° 1-3 20x5-20x7-25x9 30x11-38x14-45x18 N° 1 - N° 2
17020508 M 3÷20 HSS-CO € 944,964		
17020509 SIN. M 3÷20 HSS-G € 980,852		



443

Cod.	Composizione *Description*	
17020518 M 3÷20 HSS-G-TIN € 1.172,243	DIN 352 3 pcs DIN 223 M 3-4-5-6-8 10-12-14-16-18-20	N° 1-3 20x5-20x7-25x9 30x11-38x14-45x18 N° 1 - N° 2



Cod.	Composizione *Description*	
17020504 M 3÷24 HSS-G € 1.429,413	DIN 352 3 pcs DIN 223 M 3-4-5-6-8-10-12 14-16-18-20-22-24	N° 1-4 20x5-20x7-25x9 30x11-38x14 45x18-55x22
17020544 M 3÷24 HSS-CO € 1.724,870		
17020505 M 5÷30 HSS-G € 2.918,636	DIN 352 3 pcs DIN 223 M 5-6-8-10-12-14 16-18-20-22-24 27-30	N° 1-3-5 20x7-25x9 30x11-38x14 45x18-55x22-65x25

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G
Juegos de utensilios de roscar HSS-G / Gewindebohrersätze HSS-G

M+MF



Legno / *Wood*

Cod.	Composizione *Description*	
17025513 M + MF 4÷14 HSS-G € 711,399	M 3 pcs MF 2 pcs M 4x0,7-5x0,8-6x1 8x1-8x1,25-10x1,25 10x1,5-12x1,25-12x1,5 12x1,75-14x1,5 14x2	N° 1-3 25x9-38x14 N° 1
17025512 M + MF 3÷16 HSS-G € 1.126,909	M 3 pcs MF 2 pcs M 3x0,5-4x0,7-5x0,8-6x1 7x1-8x1-8x1,25-10x1,25 10x1,5-12x1,25-12x1,5 12x1,75-14x1,25-14x1,5 14x2-16x1,5-16x2	N° 1-3 20x5-20x7-25x9- 30x1-38x10-38x14- 45x14-45x18 N° 1
17025511 M + MF 2÷18 HSS-G € 1.183,567 FIAT HSS-G *special for automotive* 20 passi *Thread*	M 3 pcs MF 2 pcs M 2x0,4-3x0,5-4x0,7 5x0,8-6x1-7x1-8x1 8x1,25-10x1-10x1,25 10x1,5-12x1,25-12x1,5 12x1,75-14x1,25 14x1,5-14x2-16x1,5 16x2-18x1,5	N° 1-3 25x9-38x14 N° 1
 17012600	FIAT HSS 35 passi *Thread*	319

MF



Metallo / *Metal*

Cod.	Composizione *Description*	
17020524 MF 3÷20 HSS-G € 735,635	2 pcs MF 3x0,35-4x0,5-5x0,75 6x0,75-8x1-10x1,25 12x1,5-14x1,5-16x1,5 18x1,5-20x1,5	N° 1-3 20x5-20x7 25x9-30x11 38x10-45x14
17020510 MF 6÷20 HSS-G € 1.315,780	2 pcs MF 6x0,75-8x0,75-8x1 10x1-12x1-12x1,5 14x1,25-14x1,5-16x1,5 18x1,5-20x1,5	N° 1-3 20x7-25x9 30x11-38x10-45x14
17020511 MF 6÷24 HSS-G € 1.770,324	2 pcs MF 6x0,75-8x0,75-8x1 10x1-12x1-12x1,5 14x1,25-14x1,5-16x1,5 18x1,5-20x1,5-22x1,5 24x1,5	N° 1-4 20x7-25x9 30x11-38x10-45x14 55x16

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G

Juegos de utensilios a roscar HSS-G / Gewindebohrersätze HSS-G

BSP



Legno / *Wood*

*Metallo / *Metal*

Cod.	Composizione *Description*	
17025615 G 1/8÷1" HSS-G € 1.447,987	2 pcs 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18
***17025614** G 1/8÷1" HSS-G € 1.630,557	2 pcs 1/8-1/4-3/8 1/2-5/8-3/4-7/8-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18
17025616 G 1/4÷1.1/2 HSS-G € 3.084,842	2 pcs 1/4-3/8-1/2 3/4-1"-1.1/4-1.1/2	N° 2-4-7 38x10-45x14-55x16 65x18-75x20-90x22
17025617 G 1/8÷1" HSS-CO € 1.662,036	2 pcs 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18
17025618 SIN. G 1/8÷1" HSS-G € 2.140,503	2 pcs 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18

Sinistri - *Left hand*
Gauche - Izquierda
Links

BSPT



Legno / *Wood*

Cod.	Composizione *Description*	
17025628 Rc 1/8÷1" HSS-G € 1.662,036	1 pc 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x14-45x18 55x22-65x25
17025629 Rc 1/4÷1.1/2 HSS-G € 4.029,181	1 pc 1/4-3/8-1/2 3/4-1"-1.1/4-1.1/2	N° 2-4-7 38x14-45x18-55x22 65x25-75x30-90x36

NPT



Legno / *Wood*

Cod.	Composizione *Description*	
17025635 NPT 1/8÷1" HSS-G € 1.662,036	1 pc 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x14-45x18 55x22-65x25
17020636 NPT 1/8÷2" HSS-G € 6.080,101	1 pc 1/8-1/4-3/8-1/2 3/4-1"-1.1/4-1.1/2-2"	N° 2-4-7 30x11-38x14-45x14 45x18-55x22-65x25 75x30-90x36-105x36

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G

Juegos de utensilios de roscar HSS-G / Gewindebohrersätze HSS-G

M+MF



Legno / *Wood*

*Metallo / *Metal*

Cod.	Composizione *Description*	
***17025619** BSW 1/8÷1/2 HSS-G € 856,203	3 pcs 1/8-3/16-1/4-5/16 3/8-7/16-1/2	N° 1-2 20x5-20x7-25x9 30x11-38x14 N° 1
17025620 BSW 1/4÷3/4 HSS-G € 969,520	3 pcs 1/4-5/16-3/8-7/16-1/2 9/16-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x14-45x18
17025621 BSW 1/4÷1" HSS-G € 1.447,987	3 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x14-45x18-55x22
17025622 BSW 1/4÷1.1/2 HSS-G € 3.985,108	3 pcs 1/4-5/16-3/8-7/16-1/2 5/8-3/4-7/8-1"-1.1/8 1.1/4-1.3/8-1.1/2	N° 1-3-6 20x7-25x9-30x11 38x14-45x18 55x22-65x25

BSF



Legno / *Wood*

Cod.	Composizione *Description*	
17025630 BSF 1/4÷3/4 HSS-G € 919,160	2 pcs 1/4-5/16-3/8 7/16-1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x10-45x14
17025631 BSF 1/4÷1" HSS-G € 1.510,943	2 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x10-45x14-55x22

COMBI BSW+BSF

*Metallo / *Metal

Cod.	Composizione *Description*	
***17020523** BSW+BSF 1/4÷3/4 HSS-G € 1.979,652	BSW 3 pcs BSF 2 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x14-45x18

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G

Juegos de utensilios de roscar HSS-G / Gewindebohrersätze HSS-G

UNC



Legno / *Wood*

*Metallo / *Metal*

Cod.	Composizione *Description*	
***17020528** UNC 1/4÷1/2 HSS-G € 693,777	3 pcs 1/4-5/16-3/8-7/16-1/2	N° 1-2 20x7-25x9 30x11-38x14
17020525 UNC 1/4÷3/4 HSS-G € 956,932	3 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4	N° 1-3 20x7-25x9 30x11-38x14-45x18
17020526 UNC 1/4÷1" HSS-G € 1.650,707	3 pcs 1/4-5/16-3/8-7/16- 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x14-45x18-55x22
17020527 UNC 1/4÷1.1/2 HSS-G € 4.665,037	3 pcs 1/4-5/16-3/8-7/16-1/2 5/8-3/4-7/8-1"-1.1/8 1.1/4-1.3/8-1.1/2	N° 1-3-6 20x7-25x9-30x11 38x14-45x18 55x22-65x25

UNF



Cod.	Composizione *Description*	
17020530 UNF 1/4÷3/4 HSS-G € 933,010	2 pcs 1/4-5/16-3/8 7/16-1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x10-45x14
17020531 UNF 1/4÷1" HSS-G € 1.602,854	2 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x10-45x14-55x16
17020532 UNF 1/4÷1.1/2 HSS-G € 4.306,189	2 pcs 1/4-5/16-3/8-7/16-1/2 5/8-3/4-7/8-1"-1.1/8 1.1/4-1.3/8-1.1/2	N° 1-3-6 20x7-25x9-30x11 38x14-45x14 55x16-65x18

COMBI UNC+UNF

Cod.	Composizione *Description*	
17020533 UNC+UNF 1/4÷3/4 HSS-G € 1.979,652	UNC 3 pcs UNF 2 pcs 1/4-5/16-3/8 7/16-1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x14-45x18

KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

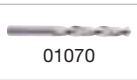
Thread repair kit - Trousse pour rétablir taraudages endommagées
Juego para reparar rosca dañada - Gewinde-reparatur-Sätze

10600



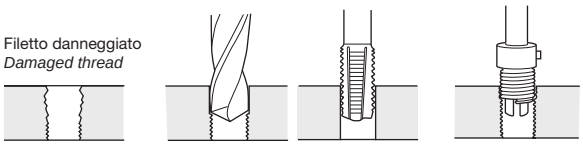
Metric **M**

	Ø				1,5 d pcs	cod.	€ cad/each
M	**2** x 0,4	2,1 mm	N° 2	N° 2	20	10600098	36,733
	2,5 x 0,45	2,6 mm	3	3	20	10600099	36,733
	3 x 0,5	3,2 mm	4	4	20	10600100	36,733
	3,5 x 0,6	3,7 mm	5	5	20	10600101	36,733
	4 x 0,7	4,2 mm	6	6	20	10600102	36,733
	5 x 0,8	5,2 mm	8	8	20	10600103	36,177
	6 x 1	6,3 mm	9	9	20	10600104	38,931
	7 x 1	7,3 mm	10	11	20	10600105	43,965
	8 x 1,25	8,3 mm	11	11	20	10600106	43,965
	8 x 1	8,3 mm	11	11	20	10600107	43,965
	9 x 1,25	9,3 mm	12	12	15	10600108	54,954
	10 x 1,5	10,4 mm	13	13	15	10600109	53,110
	10 x 1,25	10,3 mm	13	13	15	10600110	53,110
	10 x 1	10,3 mm	13	13	15	10600111	53,110
	11 x 1,5	11,4 mm	14	14	10	10600112	59,513
	12 x 1,75	12,4 mm	15	15	10	10600113	59,513
	12 x 1,5	12,4 mm	15	15	10	10600114	59,513
	12 x 1,25	12,3 mm	15	15	10	10600115	59,513
	12 x 1	12,3 mm	15	15	10	10600116	59,513
	14 x 2		16		10	10600117	62,712
	14 x 1,5		16		10	10600118	62,712
	14 x 1,25		17		10	10600119	62,712
	14 x 1		17		10	10600120	62,712
	16 x 2		18		10	10600121	75,980
	16 x 1,5		18		10	10600122	75,980
	18 x 2,5		20		5	10600123	90,879
	18 x 2		20		5	10600124	90,879
	18 x 1,5		20		5	10600125	90,879
	20 x 2,5		21		5	10600126	97,582
	20 x 2		21		5	10600127	97,582
	20 x 1,5		21		5	10600128	97,582
	22 x 2,5		22		5	10600129	119,094
	22 x 2		22		5	10600130	119,094
	22 x 1,5		22		5	10600131	119,094
	24 x 3		23		5	10600132	137,234
	24 x 2		23		5	10600133	137,234
	24 x 1,5		23		5	10600134	137,234





		pcs	1,5 d pcs	cod.	€ cad/each
M	**26** x 1,5	1	10	10600135	413,553
	27 x 3	1	10	10600136	413,553
	27 x 2	1	10	10600137	413,553
	27 x 1,5	1	10	10600138	413,553
	28 x 1,5	1	10	10600139	480,062
	30 x 3,5	1	10	10600140	505,129
	30 x 2	1	10	10600141	505,129
	30 x 1,5	1	10	10600142	505,129
	33 x 3,5	1	10	10600143	527,297
	33 x 2	1	10	10600144	527,297
	36 x 4	1	10	10600145	573,574
	36 x 3	1	10	10600146	573,574
	36 x 2	1	10	10600147	573,574
	36 x 1,5	1	10	10600148	573,574



KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE, SPECIALE PER CANDELE

Thread repair kit, special for spark plugs - Trousse pour rétablir les taraudages endommagées, spécial pour bougies
Juego para reparar roscas dañadas, especial para las roscas de las bujías - Gewindereparatur-Sätz für Kerzen



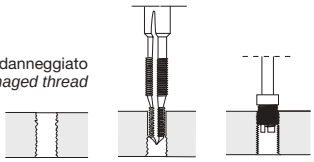
Metric

10631



Cod.	Composizione *Description*				
	 STI		 8,40 pcs	 12,40 pcs	 16,40 pcs
10631100 € 83,612	M 14 x 1,25	N° 17	5	5	5

Filetto danneggiato
Damaged thread



Ricambi - *Spare parts*

Filetto *Thread*	 L	pcs	cod.	€ cad/each
M 14 x 1,25	8,4	50	1060614x12508	1,373
14 x 1,25	12,4	50	1060614x12512	1,373
14 x 1,25	16,4	50	1060614x12516	1,373





Cod.	Composizione *Description*		
	 STI		 1,5 d pcs
10631115 € 109,909	M 12 x 1,25	N° 15	10
10631114 € 83,612	10 x 1,5	N° 13	10
10631113 € 83,612	10 x 1,25	N° 13	10
10631112 € 83,612	10 x 1	N° 13	10
10631111 € 81,848	8 x 1,25	N° 11	10
10631110 € 67,870	6 x 1	N° 9	10


10606

292

KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Thread repair kit - Trousse pour rétablir taraudages endommagées
Juego para reparar rosca dañada - Gewinde-reparatur-Sätze

10600



BSW

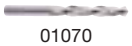
Ø				pcs 1,5 d	cod.	€ cad/each
1/8 x 40	3,4 mm	N° 4	N° 4	20	10600168	49,551
3/16 x 24	5,0 mm	8	8	20	10600169	49,551
1/4 x 20	6,7 mm	9	9	20	10600170	44,622
5/16 x 18	8,3 mm	10	11	20	10600171	54,676
3/8 x 16	9,9 mm	12	12	15	10600172	58,329
7/16 x 14	11,5 mm	14	14	10	10600173	65,466
1/2 x 12	13,0 mm	15	15	10	10600174	71,868
9/16 x 12		16		10	10600175	96,503
5/8 x 11		18		10	10600176	96,503
3/4 x 10		20		5	10600177	122,631
7/8 x 9		22		5	10600178	149,474
1” x 8		23		4	10600179	142,225

BSF

Ø				pcs 1,5 d	cod.	€ cad/each
3/16 x 32	5,0 mm	N° 7	N° 6	20	10600185	49,551
1/4 x 26	6,6 mm	9	9	20	10600180	44,622
5/16 x 22	8,3 mm	11	11	20	10600181	54,676
3/8 x 20	9,9 mm	13	13	15	10600182	58,329
7/16 x 18	11,5 mm	14	14	10	10600183	65,466
1/2 x 16	13,0 mm	15	15	10	10600184	71,868
9/16 x 16		16		10	10600186	96,503
5/8 x 14		18		10	10600187	96,503
3/4 x 12		20		5	10600188	122,631
7/8 x 11		22		5	10600189	149,474
1” x 10		23		4	10600190	142,225

BSP

Ø	pcs	pcs 1,5 d	cod.	€ cad/each
G **1/8** x 28	1	10	10600191	109,544
1/4 x 19	1	10	10600192	119,186
3/8 x 19	1	10	10600193	127,946
1/2 x 14	1	10	10600194	162,750
5/8 x 14	1	10	10600195	364,564
3/4 x 14	1	10	10600196	364,564
7/8 x 14	1	10	10600197	501,271
1” x 11	1	10	10600198	501,271


01070

82

10605



Assortimenti - *Sets* — BSW-BSF

BSW 1/4-1/2

1/4 x 20	6,7 mm	N° 9	9	25	**10605105**	€ 280,227
5/16 x 18	8,3 mm	10	11	25		
3/8 x 16	9,9 mm	12	12	25		
7/16 x 14	11,5 mm	14	14	10		
1/2 x 12	13,0 mm	15	15	10		

BSF 1/4-1/2

1/4 x 26	6,6 mm	N° 9	9	25	**10605106**	€ 280,227
5/16 x 22	8,3 mm	11	11	25		
3/8 x 20	9,9 mm	12	12	25		
7/16 x 18	11,5 mm	14	14	10		
1/2 x 16	13,0 mm	15	15	10		

KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Thread repair kit - Trousse pour rétablir taraudages endommagées
Juego para reparar rosca dañada - Gewinde-reparatur-Sätze

10600



UNC

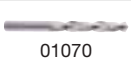
	Ø					pcs 1,5 d	cod.	€ cad/each
No.	**6** x 32	3,8 mm	N° 5	N° 5		20	106001481	55,058
	8 x 32	4,4 mm	6	6		20	10600149	55,058
	10 x 24	5,2 mm	7	6		20	106001490	55,058
	12 x 24	5,8 mm	8	8		20	106001491	55,058
UNC	**1/4** x 20	6,7 mm	9	9		20	10600150	49,579
	5/16 x 18	8,3 mm	10	10		20	10600151	60,751
	3/8 x 16	9,9 mm	12	12		15	10600152	64,813
	7/16 x 14	11,6 mm	14	14		10	10600153	72,743
	1/2 x 13	13,0 mm	15	15		10	10600154	79,853
	9/16 x 12		16			10	10600155	107,227
	5/8 x 11		18			10	10600156	107,227
	3/4 x 10		20			5	10600157	136,252
	7/8 x 9		22			5	10600158	166,088
	1” x 8		23			4	10600159	158,027

		pcs	pcs 1,5 d	cod.	€ cad/each
UNC	**1.1/8** x 7	1	10	106001590	447,248
	1.1/4 x 7	1	10	106001591	493,091
	1.1/2 x 6	1	10	106001592	660,744

UNF

	Ø					pcs 1,5 d	cod.	€ cad/each
No.	**6** x 40	3,8 mm	N° 5	N° 5		20	106001597	55,058
	8 x 36	4,4 mm	6	6		20	106001598	55,058
	10 x 32	5,1 mm	8	8		20	106001599	55,058
UNF	**1/4** x 28	6,7 mm	9	9		20	10600160	49,579
	5/16 x 24	8,3 mm	11	11		20	10600161	60,751
	3/8 x 24	9,8 mm	13	13		15	10600162	64,813
	7/16 x 20	11,5 mm	14	14		10	10600163	72,743
	1/2 x 20	13,0 mm	15	15		10	10600164	79,853
	9/16 x 18		16			10	10600165	107,227
	5/8 x 18		18			10	10600166	107,227
	3/4 x 16		21			5	10600167	136,252
	7/8 x 14		22			5	106001670	166,088
	1” x 12		23			4	106001671	158,027

		pcs	pcs 1,5 d	cod.	€ cad/each
UNF	**1.1/8** x 12	1	10	106001672	447,070
	1.1/4 x 12	1	10	106001673	493,091
	1.1/2 x 12	1	10	106001674	660,744


01070

82

10605



Assortimenti - *Sets* **UNC-UNF**

UNC 1/4-1/2

1/4 x 20	6,7 mm	N° 9	9	25	**10605103**	€ 280,227
5/16 x 18	8,3 mm	10	11	25		
3/8 x 16	9,9 mm	12	12	25		
7/16 x 14	11,5 mm	14	14	10		
1/2 x 13	13,0 mm	15	15	10		

UNF 1/4-1/2

1/4 x 28	6,7 mm	N° 9	9	25	**10605104**	€ 280,227
5/16 x 24	8,3 mm	11	11	25		
3/8 x 24	9,8 mm	13	13	25		
7/16 x 20	11,5 mm	14	14	10		
1/2 x 20	13,0 mm	15	15	10		

ASSORTIMENTO PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Thread repair workshops kit - Trousse pour rétablir taraudages endommagée

Juego para reparar rosca dañada - Gewinde-reparatur-Sortimente

Metric

10605



Ø				1,5 d pcs	cod.	€ cad/each
M5-M12						
5 x 0,8	5,2 mm	N° 8	N° 8	25	**10605100**	221,496
6 x 1	6,3 mm	9	9	25		
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		
12 x 1,75	12,4 mm	15	15	10		
M6-M14x1,25						
6 x 1	6,3 mm	9	9	25	**10605101**	249,092
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		
12 x 1,75	12,4 mm	15	15	10		
14 x 1,25		17		10		
M6-M14x1,25						
6 x 1	6,3 mm	9	9	25	**10605102**	256,874
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		
12 x 1,75	12,4 mm	15	15	10		
***14** x 1,25		17		10		







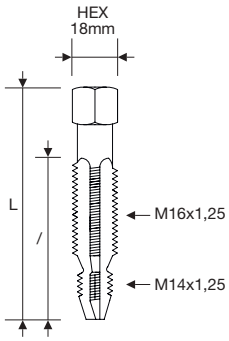
Ø				1,5 d pcs	cod.	€ cad/each
M6-M10						
6 x 1	6,3 mm	9	9	25	**10605099**	137,280
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		

KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE, SPECIALE PER CANDELE E CANDELETTE

Thread repair kit, special for spark plugs and glow plugs - Trousse pour rétablir les taraudages endommagées, spécial pour bougies
Juego para reparar roscas dañadas, especial para las roscas de las bujías - Gewindereparatur-Sätz für Kerzen

10631130

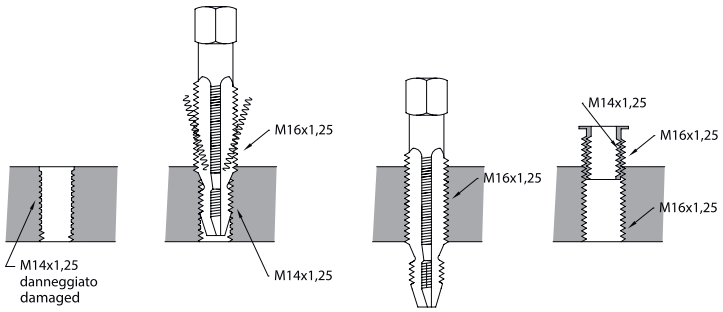




Inserto solido
Solid thread insert

Speciale per candele M14X1,25 - *Special for spark plugs M14x1,25*

Ø	9,5 mm pcs	11,2 mm pcs	12,7 mm pcs	17,5 mm pcs	cod.	€ cad/each
M 16x1,25	4	4	4	4	**10631130**	97,243



Ricambi - *Spare parts*

Maschio combinato - *Combined tap*

Ø	L	/	pcs	cod.	€ cad/each
M 16x1,25	70	41	1	1062616x125	79,335

Inserto solido - *Solid insert*

Ø	mm	pcs	cod.	€ cad/each
M 14x1,25	9,5	50	1062714x12509	6,300
M 14x1,25	11,2	50	1062714x12511	6,510
M 14x1,25	12,7	50	1062714x12512	6,510
M 14x1,25	17,5	50	1062714x12517	6,825

10631205



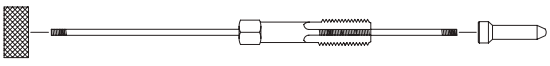
Abs

Inserto solido
Solid thread insert

Speciale per candelette 8-10-12 mm - *Special for glow plugs 8-10-12 mm* **Metric**

	12 mm pcs	cod.	€ cad/each
M 8x1 - M 10x1 - M 10x1,25 M 12x1 - M 12x1,25 - M 14x1,25	M 8x1 - M 10x1 M 10x1,25 - M 12x1	**10631205**	303,139

Il set contiene un'asta di montaggio, con relativa impugnatura, 3 tappi e 2 utensili inseritori.
This set contains 1 insert fitting rod, its grip handle, 3 plug end blanks and 2 insert fitting tools.



INSERTI FILETTATI IN ACCIAIO INOX PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Wire-thread insert in stainless steel / Ressorts filetées en acier inoxidable pour le retablissement des filets endommages
Inserto roscado para sustituir rosca danãda / Gewinde Einsätze aus rostfreiem Stahl



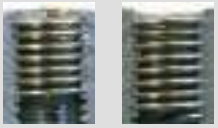
K-COIL
DIN 8140 - ISO 2/6H
Acciaio inox austenitico 18/8 (A2 - AISI304)- *Austenitic stainless steel*

M

10606

	Filetto *Thread*	pcs	1xd cod.	€ cad/each	1,5xd cod.	€ cad/each	2xd cod.	€ cad/each	2,5xd cod.	€ cad/each	3xd cod.	€ cad/each
M	2 x 0,4	100	10606102x04	1,153	1060602x04	1,373	10606202x04	1,746	106062502X04	1,863	10606302x04	2,468
	2,2 x 0,45	100	106061022x045	1,153	10606022x045	1,373	106062022x045	1,746	1060625022X04	1,863	106063022x045	2,468
	2,5 x 0,45	100	106061025x045	1,153	10606025x045	0,466	106062025x045	0,788	1060625025X04	0,816	106063025x045	1,048
	3 x 0,5	100	10606103x05	0,441	1060603x05	0,483	10606203x05	0,504	106062503X05	0,652	10606303x05	0,675
	3,5 x 0,6	100	106061035x06	0,441	10606035x06	1,373	106062035x06	0,504	1060625035X06	0,816	106063035x06	0,931
	4 x 0,7	100	10606104x07	0,368	1060604x07	0,446	10606204x07	0,399	106062504X07	0,593	10606304x07	0,710
	5 x 0,8	100	10606105x08	0,350	1060605x08	0,315	10606205x08	0,442	106062505X08	0,511	10606305x08	0,606
	6 x 1	100	10606106x1	0,350	1060606x1	0,315	10606206x1	0,511	106062506X1	0,525	10606306x1	0,664
	7 x 1	100	10606107x1	0,372	1060607x1	0,501	10606207x1	0,617	106062507X1	0,757	10606307x1	1,084
	8 x 1,25	100	10606108x125	0,406	1060608x125	0,372	10606208x125	0,664	106062508X125	0,710	10606308x125	0,989
	8 x 1	100	10606108x1	0,406	1060608x1	0,399	10606208x1	0,617	106062508X1	0,710	10606308x1	0,838
	9 x 1,25	100	10606109x125	0,583	1060609x125	0,399	10606209x125	0,838	106062509X125	1,339	10606309x125	1,595
	10 x 1,5	100	10606110x15	0,536	1060610x15	0,560	10606210x15	0,710	106062510X15	0,838	10606310x15	1,084
	10 x 1,25	100	10606110x125	0,536	1060610x125	0,560	10606210x125	0,710	106062510X125	0,838	10606310x125	1,084
	10 x 1	100	10606110x1	0,536	1060610x1	0,560	10606210x1	0,710	106062510X1	0,838	10606310x1	1,084
	11 x 1,5	100	10606111x15	0,885	1060611x15	0,943	10606211x15	1,129	-	-	-	-
	12 x 1,75	100	10606112x175	0,757	1060612x175	0,768	10606212x175	0,966	106062512X175	1,024	10606312x175	1,537
	12 x 1,5	100	10606112x15	0,757	1060612x15	0,768	10606212x15	0,966	106062512X15	1,024	10606312x15	1,537
	12 x 1,25	100	10606112x125	0,757	1060612x125	0,768	10606212x125	0,966	106062512X125	1,024	10606312x125	1,537
	12 x 1	100	10606112x1	0,757	1060612x1	0,768	10606212x1	0,966	106062512X1	1,024	10606312x1	1,537
	14 x 2	50	10606114x2	1,118	1060614x2	0,966	10606214x2	1,258	106062514X2	1,398	10606314x2	2,224
	14 x 1,5	50	10606114x15	1,118	1060614x15	0,966	10606214x15	1,258	106062514X15	1,398	10606314x15	2,036
	14 x 1,25	50	10606114x125	1,118	1060614x125	0,966	10606214x125	1,258	106062514X125	1,398	10606314x125	2,036
	14 x 1	50	10606114x1	1,118	1060614x1	0,966	10606214x1	1,258	106062514X1	1,398	10606314x1	2,036
	16 x 2	50	10606116x2	1,282	1060616x2	1,094	10606216x2	1,654	106062516X2	2,036	10606316x2	2,445
	16 x 1,5	50	10606116x15	1,282	1060616x15	1,094	10606216x15	1,654	106062516X15	2,036	10606316x15	2,445
	18 x 2,5	25	10606118x25	1,863	1060618x25	1,746	10606218x25	2,946	106062518X25	3,259	10606318x25	3,946
	18 x 2	25	10606118x2	1,863	1060618x2	1,746	10606218x2	2,946	106062518X2	3,259	10606318x2	3,946
	18 x 1,5	25	10606118x15	1,863	1060618x15	1,746	10606218x15	2,946	106062518X15	3,259	10606318x15	3,946
	20 x 2,5	25	10606120x25	2,445	1060620x25	2,212	10606220x25	3,749	106062520X25	4,481	10606320x25	5,017
	20 x 2	25	10606120x2	2,445	1060620x2	2,212	10606220x2	3,749	106062520X2	4,481	10606320x2	5,017
	20 x 1,5	25	10606120x15	2,445	1060620x15	2,212	10606220x15	3,749	106062520X15	4,481	10606320x15	5,017
	22 x 2,5	10	10606122x25	2,793	1060622x25	2,912	10606222x25	4,202	106062522X25	5,041	10606322x25	5,378
	22 x 2	10	10606122x2	2,793	1060622x2	2,912	10606222x2	4,202	106062522X2	5,041	10606322x2	5,378
	22 x 1,5	10	10606122x15	2,793	1060622x15	2,912	10606222x15	4,202	106062522X15	5,041	10606322x15	5,378
	24 x 3	10	10606124x3	3,259	1060624x3	3,259	10606224x3	4,900	106062524X3	5,879	10606324x3	6,053
	24 x 2	10	10606124x2	3,259	1060624x2	3,259	10606224x2	4,900	106062524X2	5,879	10606324x2	6,053
	24 x 1,5	10	10606124x15	3,259	1060624x15	3,259	10606224x15	4,900	106062524X15	5,879	10606324x15	6,053
	26 x 1,5	5	-		1060626x15	5,414	-					
	27 x 3	5	-		1060627x3	5,414	-					
	27 x 2	5	-		1060627x2	5,414	-					
	27 x 1,5	5	-		1060627x15	5,414	-					
	28 x 1,5	5	-		1060628x15	6,112	-					
	30 x 3,5	5	-		1060630x35	7,124	-					
	30 x 2	5	-		1060630x2	7,124	-					
	30 x 1,5	5	-		1060630x15	7,124	-					
	33 x 3,5	5	-		1060633x35	8,521	-					
	33 x 2	5	-		1060633x2	8,521	-					
	36 x 4	5	-		1060636x4	7,823	-					
	36 x 3	5	-		1060636x3	7,823	-					
	36 x 2	5	-		1060636x2	7,823	-					
	36 x 1,5	5	-		1060636x15	7,823	-					

Nota: la misura è riferita all'inserto posizionato nella sua sede
Note: *the coil length refers to the tool mounted inside its site*



1xd 1,5xd

10606 287

INSERTI FILETTATI AUTOBLOCCANTI IN ACCIAIO INOX PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Stainless steel wire thread inserts, screw self-locking to renew damaged threads / Ressorts filetées en acier inoxidable autobloquants pour le retablir filets endommages / Inserto roscado, autoblocante in acero inoxidable para sustituir rosca danãda / Selbstsperrend Gewinde Einsätze aus rostfreiem Stahl

DIN 8140 - ISO 2/6H

Acciaio inox austenitico 18/8 (A2 - AISI304)- *Austenitic stainless steel*

M

10625



	Filetto *Thread*	pcs	1xd cod.	1xd € cad/each	1,5xd cod.	1,5xd € cad/each	2xd cod.	2xd € cad/each
M	**3** x 0,5	100	10625103x05	0,501	1062503x05	0,525	10625203x05	0,560
	4 x 0,7	100	10625104x07	0,501	1062504x07	0,525	10625204x07	0,560
	5 x 0,8	100	10625105x08	0,560	1062505x08	0,583	10625205x08	0,641
	6 x 1	100	10625106x1	0,617	1062506x1	0,675	10625206x1	0,733
	8 x 1,25	100	10625108x125	0,641	1062508x125	0,733	10625208x125	0,885
	10 x 1,5	100	10625110x15	0,826	1062510x15	0,885	10625210x15	1,024
	12 x 1,75	100	10625112x175	1,199	1062512x175	1,373	10625212x175	1,559
	14 x 2	50	10625114x2	1,699	1062514x2	1,933	10625214x2	2,025
	16 x 2	50	10625116x2	2,294	1062516x2	2,410	10625216x2	2,968

Consigli d'uso / *Use tips*

Si consiglia l'utilizzo di inserti autobloccanti nel caso di sollecitazioni cicliche del filetto o della necessità di una particolare resistenza agli impatti. Si consiglia inoltre l'uso con viti nichelate o ben lubrificate. L'inserto autobloccante è dotato di alcune spire poligonali inserite tra le spire circolari per tutta la sua lunghezza: tali spire poligonali esercitano una pressione radiale maggiore sulla vite inserita nell'inserto funzionando da bloccaggio. Rimuovendo la vite, le spire poligonali tornano nella loro forma originale garantendo un ottimo livello di pressione radiale per una serie di avvitature/ svitature successive.

Screw locking inserts are of particular value in applications subject to the effects of cyclic vibration or impact. The prevailing locking torque they assure is achieved by the action of one or more polygonal grip coils positioned within the insert's length, which exert radial pressure on the male thread. As the male thread passes through these grip coils, the locking flats are displaced thus exerting radial pressure or prevailing torque on the male thread. When removing the male thread, the locking coils relax to their original form permitting repeated assembly while retaining a measurable level of prevailing torque. Please use only close fit plated or lubricated bolts or screws with the screw locking inserts.

Les filets rapportés à frein de vis sont extrêmement utiles pour les applications sujettes aux effets provoqués par les vibrations cycliques ou les chocs. Ils offrent une sécurité supplémentaire avec le couple de freinage permanent. Ceci est accompli par la pression radiale exercée sur le filetage extérieur par une ou plusieurs spires à déformation polygonale positionnées sur la longueur du filet rapporté. Tandis que le filetage extérieur passe à travers ces spires déformées, les vis à tête plate sont déplacées, exerçant ainsi une pression radiale ou couple permanent sur le filetage extérieur. Lorsque le filetage extérieur est retiré, les spires de freinage débandent pour atteindre leur forme originale, permettant des assemblages répétés tout en conservant un niveau mesurable de couple permanent. Il est recommandé que seuls des boulons ou vis lubrifiés ou à tête plate à ajustement serré soient utilisés avec les filets rapportés à frein de vis.

El inserto autoblocante está especialmente indicado en aplicationes sujetas a vibración cíclica o impactos. Los insertos autoblocantes ofrecen una seguridad adicional por su auto freno interno que lo hace más efectivo. Esto se consigue gracias a la acción de uno a varios hilos poligonales de la rosca del inserto posicionados a lo largo mismo, que ejercen presión radial o freno efectivo en la rosca del tornillo. En la medida en que la rosca pasa a través de estos hilos de seguridad, los dispositivos se expanden aplicando gradualmente presión radial o freno efectivo en la rosca del tornillo. Al retirar el tornillo roscado, los hilos de seguridad ralajan su expansión a su forma original permitiendo repetir el roscado del tornillo y manteniendo su nivel de presión radial de seguridad. Se recomienda que solamente se utilicen tornillos niquelados o bien lubricados, con los insertos de seguridad.

INSERTI FILETTATI IN ACCIAIO INOX PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Wire-thread insert in stainless steel / Ressorts filetées en acier inoxidable pour le retablissement des filets endommages
Inserto roscado para sustituir rosca danãda / Gewinde Einsätze aus rostfreiem Stahl



K-COIL
Acciaio inox austenitico 18/8
Austenitic stainless steel 18/8

DIN 8140 - ISO 2/6H

10607 UNC

	Ø	pcs	cod. 1,5 d	€ cad/each
No.	8 x 32	100	10607N08	0,536
	10 x 24	100	10607N10	0,536
	12 x 24	100	10607N12	0,536
UNC	1/4 x 20	100	106071/4	0,768
	5/16 x 18	100	106075/16	0,768
	3/8 x 16	100	106073/8	0,989
	7/16 x 14	100	106077/16	1,317
	1/2 x 13	100	106071/2	1,317
	9/16 x 12	50	106079/16	4,621
	5/8 x 11	50	106075/8	4,621
	3/4 x 10	25	106073/4	5,459
	7/8 x 9	10	106077/8	7,997
	1" x 8	10	106071"	7,997
	1.1/8 x 7	5	106071.1/8	12,944
	1.1/4 x 7	5	106071.1/4	14,213
	1.1/2 x 6	5	106071.1/2	18,277

10608 UNF

	Ø	pcs	cod. 1,5 d	€ cad/each
No.	8 x 36	100	10608N08	1,222
	10 x 32	100	10608N10	0,768
UNF	1/4 x 28	100	106081/4	0,768
	5/16 x 24	100	106085/16	0,768
	3/8 x 24	100	106083/8	0,989
	7/16 x 20	100	106087/16	1,317
	1/2 x 20	100	106081/2	1,317
	9/16 x 18	50	106089/16	4,621
	5/8 x 18	50	106085/8	4,621
	3/4 x 16	25	106083/4	5,459
	7/8 x 14	10	106087/8	7,997
	1" x 12	10	106081"	7,997
	1.1/8 x 12	5	106081.1/8	12,944
	1.1/4 x 12	5	106081.1/4	14,213
	1.1/2 x 12	5	106081.1/2	18,277

10609 BSW

Ø	pcs	cod. 1,5 d	€ cad/each
1/8 x 40	100	106091/8	1,619
3/16 x 24	100	106093/16	1,619
1/4 x 20	100	106091/4	0,664
5/16 x 18	100	106095/16	0,816
3/8 x 16	100	106093/8	1,350
7/16 x 14	100	106097/16	1,677
1/2 x 12	100	106091/2	1,677
9/16 x 12	50	106099/16	4,796
5/8 x 11	50	106095/8	4,796
3/4 x 10	25	106093/4	5,716
7/8 x 9	10	106097/8	7,997
1" x 8	10	106091"	9,139

10610 BSF

Ø	pcs	cod. 1,5 d	€ cad/each
3/16 x 32	100	106103/16	1,619
1/4 x 26	100	106101/4	1,619
5/16 x 22	100	106105/16	1,619
3/8 x 20	100	106103/8	1,619
7/16 x 18	100	106107/16	1,677
1/2 x 16	100	106101/2	1,677
9/16 x 16	50	106109/16	4,796
5/8 x 14	50	106105/8	4,796
3/4 x 12	25	106103/4	5,716
7/8 x 11	10	106107/8	7,997
1" x 10	10	106101"	9,139

10604 BSP

Ø	pcs	cod. 1,5 d	€ cad/each
G 1/8 x 28	50	106041/8	1,115
1/4 x 19	50	106041/4	1,667
3/8 x 19	50	106043/8	1,959
1/2 x 14	50	106041/2	2,512
5/8 x 14	5	106045/8	6,270
3/4 x 14	5	106043/4	6,270
7/8 x 14	5	106047/8	19,239
1" x 11	5	106041"	19,239

MASCHI STI PER L'INSERIMENTO DI INSERTI FILETTATI K-COIL ISO 2

STI taps for wire thread inserts ISO 2 / Tarauds STI pour l'insertion des ressorts filetées ISO 2
Machos STI para la inserciòn de filetes ISO 2 / Gewindebohrer STI für gewinde Einsätze ISO 2

10612
HSS-G **M**



FORM D ISO 1/4H

Ø	cod.	€ cad/each
M 2 x 0,4	1061202X04	16,753
2,5 x 0,45	10612025X045	16,753
3 x 0,5	1061203X05	12,875
3,5 x 0,6	10612035X06	12,875
4 x 0,7	1061204X07	12,875
5 x 0,8	1061205X08	12,875
6 x 1	1061206X1	12,875
7 x 1	1061207X1	15,925
8 x 1,25	1061208X125	15,925
8 x 1	1061208X1	15,925
9 x 1,25	1061209X125	19,627
10 x 1,5	1061210X15	19,627
10 x 1,25	1061210X125	19,627
10 x 1	1061210X1	19,627
11 x 1,5	1061211X15	22,049
12 x 1,75	1061212X175	26,962
12 x 1,5	1061212X15	26,962
12 x 1,25	1061212X125	26,962
12 x 1	1061212X1	26,962
14 x 2	1061214X2	30,629
14 x 1,5	1061214X15	30,629
14 x 1,25	1061214X125	30,629
14 x 1	1061214X1	30,629
16 x 2	1061216X2	36,751
16 x 1,5	1061216X15	36,751
18 x 2,5	1061218X25	46,565
18 x 2	1061218X2	46,565
18 x 1,5	1061218X15	46,565
20 x 2,5	1061220X25	51,478
20 x 2	1061220X2	51,478
20 x 1,5	1061220X15	51,478
22 x 2,5	1061222X25	58,835
22 x 2	1061222X2	58,835
22 x 1,5	1061222X15	58,835
24 x 3	1061224X3	74,747
24 x 2	1061224X2	74,747
24 x 1,5	1061224X15	74,747

10612
HSS-G **M**

2 pcs set



ISO 1/4H

Ø	cod.	€ cad/each
M 26 x 1,5	1061226X15	296,143
27 x 3	1061227X3	296,143
27 x 2	1061227X2	296,143
27 x 1,5	1061227X15	296,143
28 x 1,5	1061228X15	334,419
30 x 3,5	1061230X35	334,419
30 x 2	1061230X2	334,419
30 x 1,5	1061230X15	334,419
33 x 3,5	1061233X35	334,419
33 x 2	1061233X2	334,419
36 x 4	1061236X4	370,682
36 x 3	1061236X3	370,682
36 x 2	1061236X2	370,682
36 x 1,5	1061236X15	370,682

MASCHIO COMBI PER L'INSERIMENTO DI INSERTI FILETTATI ISO 2 - SPECIALE PER CANDELE

Spark plug taps with pilot nose for wire thread insert ISO 2 / Tarauds indique pour bugies ISO 2
Machos indicado para bujias ISO 2 / Kombi-gewindebohrer für gewinde Einsätze ISO 2

10620
HSS-G **M**



ISO 1/4H

Ø	cod.	€ cad/each
M 6 x 1	1062006X1	25,599
8 x 1,25	1062008X125	25,599
10 x 1,5	1062010X15	32,339
10 x 1,25	1062010X125	44,237
10 x 1	1062010X1	44,237
12 x 1,25	1062012X125	46,541
14 x 1,25	1062014X125	53,981
18 x 1,5	1062018X15	77,252

MASCHI STI PER L'INSERIMENTO DI INSERTI FILETTATI K-COIL ISO 2

STI taps for wire thread inserts ISO 2 / Tarauds STI pour l'insertion des ressorts filetées ISO 2
Machos STI para la inserciòn de filetes ISO 2 / Gewindebohrer STI für gewinde Einsätze ISO 2

10613 HSS-G UNC



FORM D

	Ø	cod.	€ cad/each
No.	8 x 32	10613NR08	22,340
	10 x 24	10613NR10	22,340
	12 x 24	10613NR12	22,340
UNC	1/4 x 20	106131/4	14,727
	5/16 x 18	106135/16	15,996
	3/8 x 16	106133/8	16,753
	7/16 x 14	106137/16	22,340
	1/2 x 13	106131/2	25,389
	9/16 x 12	106139/16	42,130
	5/8 x 11	106135/8	52,037
	3/4 x 10	106133/4	63,212
	7/8 x 9	106137/8	73,608
	1" x 8	106131"	96,285

10614 HSS-G UNF



FORM D

	Ø	cod.	€ cad/each
No.	8 x 36	10614NR08	22,340
	10 x 32	10614NR10	22,340
UNF	1/4 x 28	106141/4	14,727
	5/16 x 24	106145/16	15,996
	3/8 x 24	106143/8	16,753
	7/16 x 20	106147/16	22,340
	1/2 x 20	106141/2	26,402
	9/16 x 18	106149/16	42,130
	5/8 x 18	106145/8	52,037
	3/4 x 16	106143/4	63,212
	7/8 x 14	106147/8	73,608
	1" x 12	106141"12	92,327
	1" x 14	106141"14	92,327

10615 HSS-G BSW



FORM D

	Ø	cod.	€ cad/each
BSW	1/8 x 40	106151/8	14,727
	3/16 x 24	106153/16	14,727
	1/4 x 20	106151/4	14,727
	5/16 x 18	106155/16	15,996
	3/8 x 16	106153/8	16,753
	7/16 x 14	106157/16	22,340
	1/2 x 12	106151/2	25,389
	9/16 x 12	106159/16	42,130
	5/8 x 11	106155/8	52,037
	3/4 x 10	106153/4	63,212
	7/8 x 9	106157/8	73,608
	1" x 8	106151"	96,285

10616 HSS-G BSF



FORM D

	Ø	cod.	€ cad/each
BSF	3/16 x 32	106163/16	15,436
	1/4 x 26	106161/4	14,727
	5/16 x 22	106165/16	15,996
	3/8 x 20	106163/8	16,753
	7/16 x 18	106167/16	22,340
	1/2 x 16	106161/2	25,389
	9/16 x 16	106169/16	44,167
	5/8 x 14	106165/8	54,528
	3/4 x 12	106163/4	66,251
	7/8 x 11	106167/8	77,135
	1" x 10	106161"	96,285

10617 HSS-G BSP

2 pcs set



	Ø	cod.	€ cad/each
BSP	1/8 x 28	106171/8	48,893
	1/4 x 19	106171/4	65,190
	3/8 x 19	106173/8	81,326
	1/2 x 14	106171/2	94,446
	5/8 x 14	106175/8	130,383
	3/4 x 14	106173/4	195,573
	7/8 x 14	106177/8	246,423
	1" x 11	106171"	304,198

ACCESSORI PER L'UTILIZZO DEGLI INSERTI FILETTATI K-COIL

Inserting tools for K-coil / Outils pour l'utilisation des K-coil
Herramientas para insertar K-coil - Werkzeuge für K-coil

10618



Punta elicoidale per prefori fil. danneggiate

Twist drill for damaged threads
Foret hélicoïdal pour taraudages endommagées
Broca helicoidal para roscas dañadas

Ø	l	L	Per filetto *For thread*	cod.	€ cad/each
2,1	24	49	**M 2** x 0,4	106180210	1,094
2,6	30	57	**2,5** x 0,45	106180260	1,258
3,2	36	65	**3** x 0,5	106180320	1,350
3,7	39	70	**3,5** x 0,6	106180370	1,478
4,2	43	75	**4** x 0,7	106180420	1,828
5,2	52	86	**5** x 0,8	106180520	2,398
6,3	63	101	**6** x 1	106180630	3,329
7,3	69	109	**7** x 1	106180730	4,261
8,3	75	117	**8** x 1,25 - 8x1	106180830	5,879
9,3	81	125	**9** x 1,25	106180930	6,905
10,3	87	133	**10** x 1,25 - 10x1	106181030	9,347
10,4	87	133	**10** x 1,5	106181040	21,054
11,4	94	133	**11** x 1,5	106181140	22,907
12,3	101	133	**12** x 1,25 - 12x1	106181230	22,907
12,4	101	133	**12** x 1,75 - 12x1,5	106181240	31,431
14,3	115	165	**14** x 1	106181430	25,635
14,4	115	165	**14** x 1,5 - 1,4x1,25	106181440	25,635
16,4	115	170	**16** x 1,5	106181640	25,635

10611



Utensile per la rottura del perno di trascinamento K-coil

Tang break tool / Outil pour rompre le goujion
Herramienta rompe arrastre / Werkzeug für den bruch des Bolzen

	N°	cod.	€ cad/each
M 2 x 0,4	2	1061102	3,959
2,5 x 0,45	3	1061103	3,959
3 x 0,5	4	1061104	3,959
3,5 x 0,6	5	1061105	3,959
4 x 0,7	6	1061106	3,959
5 x 0,8	8	1061108	3,959
6 x 1	9	1061109	3,959
7 x 1 - 8x1,25 - 8x1	11	1061111	4,447
9 x 1,25	12	1061112	4,447
10 x 1,5 - 10x1,25 - 10x1	13	1061113	4,447
11 x 1,5	14	1061114	5,367
12 x 1,75 - 12x1,5 - 12x1,25 - 12x1	15	1061115	5,367

10622



Estrattore K-coil

Extracting tool / Outil pour enlever le K-coil
Herramienta extractora / K-coil Auszieher

N°		cod.	€ cad/each
2	**M 3÷10** 3/16÷3/8	1062202	36,554
3	**M 11÷24** 3/8÷1"	1062203	44,470

ACCESSORI PER L'UTILIZZO DEGLI INSERTI FILETTATI K-COIL

Inserting tools for K-coil / Outils pour l'utilisation des K-coil
Herramientas para insertar K-coil - Werkzeuge für K-coil

10621



Utensile manuale per inserire i K-coil

Inserting tool for K-coil
Outil pour l'insertion des K-coil
Utensilio para insertar K-coil
Werkzeug für K-coil

	N°	cod.	€ cad/each
M 2 x 0,4	2	1062102	12,118
2,5 x 0,45	3	1062103	12,118
3 x 0,5	4	1062104	11,572
3,5 x 0,6	5	1062105	11,572
4 x 0,7	6	1062106	11,572
5 x 0,8	8	1062108	13,015
6 x 1	9	1062109	13,015
7 x 1	10	1062110	14,854
8 x 1,25 - 8x1	11	1062111	14,854
9 x 1,25	12	1062112	15,996
10 x 1,5 - 10x1,25 - 10x1	13	1062113	15,996
11 x 1,5	14	1062114	18,731
12 x 1,75 - 12x1,5 - 12x1,25 - 12x1	15	1062115	18,731
14 x 2 - 14x1,5	16	1062116	22,386
14 x 1,25 - 14x1	17	1062117	22,386
16 x 2 - 16x1,5	18	1062118	27,414
18 x 2,5 - 18x2 - 18x1,5	20	1062120	27,414
20 x 2,5 - 20x2 - 20x1,5	21	1062121	27,414
22 x 2,5 - 22x2 - 22x1,5	22	1062122	34,517
24 x 2,5 - 24x2 - 24x1,5	23	1062123	34,517

10628



Inseritore con attacco ¼" QC

Inserting tool with ¼" QC hex shank
Outil pour l'insertion avec attelage hex ¼" QC
Herramienta para insertar con ataque hex ¼" QC

Per coil *For coil*	cod.	€ cad/each
M3	1062803X05	21,537
M4	1062804X07	21,537
M5	1062805X08	21,537
M6	1062806X1	21,537
M8	1062808X125	26,660
M10	1062810X15	29,336
M12	1062812X175	34,691

10623



Inseritore con attacco esagonale da 1/2"

Inserting tool with 1/2" hexagonal drive
Outil pour l'insertion avec attelage hexagonal 1/2"
Herramienta para insertar con ataque hexagonal 1/2"
Werkzeug für K-coil Eisezten mit hexagonalem Ansatz 1/2"

	cod.	€ cad/each
M 26 x 1,5	1062326X15	43,282
27 x 3	1062327X3	43,282
27 x 2	1062327X2	43,282
27 x 1,5	1062327X15	43,282
28 x 1,5	1062328X15	43,282
30 x 3,5	1062330X35	51,932
30 x 2	1062330X2	51,932
30 x 1,5	1062330X15	51,932
33 x 3,5	1062333X35	60,313
33 x 2	1062333X2	60,313
36 x 4	1062336X4	60,313
36 x 3	1062336X3	60,313
36 x 2	1062336X2	60,313
36 x 1,5	1062336X15	60,313

N°	cod.	€ cad/each
G *1/8 x 28	10623G1/8	25,972
***1/4** x 19	10623G1/4	25,972
***3/8** x 19	10623G3/8	30,163
***1/2** x 14	10623G1/2	34,621
5/8 x 14	10623G5/8	43,282
3/4 x 14	10623G3/4	43,282
7/8 x 14	10623G7/8	60,313
1" x 11	10623G1"	60,313

*** Attacco da 1/4"** / 1/4" hexagonal drive
Queue 1/4" / Mango hexagonal 1/4"



CV

CUTTING TOOLS **ENGINEERING**

In questa sezione, abbiamo dedicato un vasto capitolo ai maschi e filiere in acciaio rapido ed in acciaio da utensile, particolarmente adatti e convenienti nella filettatura manuale su ferro, leghe leggere, acciai non trattati e trattati termicamente a bassa durezza. Sono largamente utilizzati nella pulizia e ripristino di filettature danneggiate, sia nel campo automotive, che in tutti i lavori professionali.

This section contains a large chapter on HSS threading taps and dies, which are particularly suitable and practical for manually creating threads in iron, light alloys, untreated and heat-treated steel with low hardness. They are also widely used toclean and repair damaged threads in the automotive industry and other professional applications.

Dans cette section, nous avons consacré un vaste chapitre aux tarauds et filières en acier rapide et en acier pour outil, particulièrement appropriés et intéressants dans le filetage manuel sur fer, sur alliages légers, sur aciers non traités et traités thermiquement à basse dureté. De plus, ils sont largement utilisés dans le nettoyage et le rétablissement des filetages endommagés, tant dans le secteur de l'automobile que dans tous les secteurs professionnels.

En esta sección hemos dedicado un vasto apartado a las terrajas y a los machos de acero rápido y de acero para utensilios, especialmente aptos y convenientes en el roscado manual sobre hierro, aleaciones ligeras, aceros no tratados y tratados térmicamente de baja dureza. También se utilizan mucho en la limpieza y en la recuperación de roscas dañadas,ya sea en el campo de la automoción, que en todos los trabajos profesionales.

UTENSILI A FILETTARE PER USI PROFESSIONALI

Tool steel taps and dies
for professional use

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

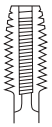
Standard 3 pcs hand taps, metric coarse pitch / Tarauds à main, jeux de 3 pieces, métrique, pas gros

Juego de machos a mano, rosca metrica normal / Dreiteiliger Handgewindebohrer für metrisches ISO-Gewinde

C.V. UNI 4535 ≃ DIN 352 **M**

10001





HRC ≃ 62÷63

Art. **10002** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 600 N/mm²



Metals



Alu



Cu Zn Ni Ms



	Ø		l	L	pcs	cod.	€ cad/each
M	2	x 0,4	11	36	1	1000102X04	7,166
	2,5	x 0,45	12	40	1	10001025X045	8,520
	3	x 0,5	12	40	1	1000103X05	4,809
	3	x 0,6	12	43	1	1000103X06	6,653
	3,5	x 0,6	14	45	1	10001035X06	6,653
	4	x 0,7	14	45	1	1000104X07	4,809
	4	x 0,75	14	48	1	1000104X075	7,125
	4,5	x 0,75	16	48	1	10001045X075	7,125
	5	x 0,8	16	48	1	1000105X08	5,070
	5	x 0,9	16	50	1	1000105X09	5,699
	6	x 1	18	50	1	1000106X1	5,070
	7	x 1	18	50	1	1000107X1	6,675
	8	x 1,25	22	56	1	1000108X125	6,412
	9	x 1,25	22	63	1	1000109X125	8,989
	10	x 1,5	25	70	1	1000110X15	8,550
	11	x 1,5	25	70	1	1000111X15	11,346
	12	x 1,75	30	75	1	1000112X175	10,759
	14	x 2	32	80	1	1000114X2	13,936
	16	x 2	32	80	1	1000116X2	17,046
	18	x 2,5	40	95	1	1000118X25	21,876
	20	x 2,5	40	95	1	1000120X25	26,968
	22	x 2,5	40	100	1	1000122X25	32,731
	24	x 3	50	110	1	1000124X3	38,871
	27	x 3	50	110	1	1000127X3	87,598
	30	x 3,5	56	132	1	1000130X35	116,725
	33	x 3,5	60	132	1	1000133X35	138,257
	36	x 4	60	132	1	1000136X4	152,987

Filettatura Speciale / Special thread / Filetage spécial / Rosca especial / Sonderegewinde

M	3	x 0,6	12	40	1	1000103X06	6,653
	4	x 0,75	14	45	1	1000104X075	7,125
	5	x 0,9	16	48	1	1000105X09	5,699



Maschio a mano finitore
Hand bottoming tap
Tarauds à main finisseur
Macho a mano acabado
Fertig Schneider Hand-gewindebohrer

	Ø		l	L	pcs	cod.	€ cad/each
M	2	x 0,4	11	36	1	1000102X043	3,214
	3	x 0,5	12	40	1	1000103X053	2,164
	4	x 0,7	14	45	1	1000104X073	2,164
	5	x 0,8	16	48	1	1000105X083	2,266
	6	x 1	18	50	1	1000106X13	2,266
	8	x 1,25	22	56	1	1000108X1253	2,868
	10	x 1,5	25	70	1	1000110X153	3,842
	12	x 1,75	30	75	1	1000112X1753	4,815
	14	x 2	32	80	1	1000114X23	6,250
	16	x 2	32	80	1	1000116X23	7,645

- Per filettare fori passanti e ciechi in ferro, acciaio dolce ed a bassa resistenza sino R≤600 N/mm²
- *For making thread in iron, steel up to R≤600 N/mm²*
- *Taraudage courant des aciers R≤600 N/mm²*
- *Para orificios ciegos y pasantes en materiales de hasta 600 N/mm²*
- *Für allgemeinen Einsatz in unlegierter und niederlegierter Stahl R≤600 N/mm²*



15001 15003

309

MASCHI A MANO IN SERIE DI 2 PEZZI, FILETTATURA METRICA PASSO GROSSO E FINE

Two pieces hand taps, coarse and fine pitch / Tarauds à main, jeux de 2 pieces métrique, pas gros et fin

Juego machos a mano de dos piezos, rosca metrica fina y normal / Zweiteiliger Handgewindebohrer für ISO Regel und Feingewinde

10003

C.V. UNI 4535 ≈ DIN 2181

M-MF



	Ø		l	L	pcs	cod.	€ cad/each
M	2	x 0,4	11	36	1	1000302X04	5,573
	3	x 0,5	12	40	1	1000303X05	3,845
	4	x 0,7	14	45	1	1000304X07	3,845
	5	x 0,8	16	48	1	1000305X08	4,013
	6	x 0,75	18	50	1	1000306X075	4,013
	6	x 1	18	50	1	1000306X1	4,013
	7	x 0,75	18	50	1	1000307X075	5,145
	7	x 1	18	50	1	1000307X1	5,145
	8	x 0,75	22	56	1	1000308X075	5,716
	8	x 1	22	56	1	1000308X1	5,145
	8	x 1,25	22	56	1	1000308X125	5,145
	9	x 0,75	22	63	1	1000309X075	6,789
	9	x 1	22	63	1	1000309X1	6,789
	9	x 1,25	22	63	1	1000309X125	6,789
	10	x 0,75	25	70	1	1000310X075	6,789
	10	x 1	25	70	1	1000310X1	6,789
	10	x 1,25	25	70	1	1000310X125	6,789
	10	x 1,5	25	70	1	1000310X15	6,789
	11	x 0,75	25	70	1	1000311X075	9,094
	11	x 1	25	70	1	1000311X1	9,094
	11	x 1,25	25	70	1	1000311X125	9,094
	11	x 1,5	25	70	1	1000311X15	9,094
	12	x 0,75	30	75	1	1000312X075	8,801
	12	x 1	30	75	1	1000312X1	8,801
	12	x 1,25	30	75	1	1000312X125	8,801
	12	x 1,5	30	75	1	1000312X15	8,801
	12	x 1,75	30	75	1	1000312X175	8,801
	14	x 1	32	80	1	1000314X1	10,938
	14	x 1,25	32	80	1	1000314X125	10,938
	14	x 1,5	32	80	1	1000314X15	10,938
	14	x 2	32	80	1	1000314X2	10,938
	16	x 1	32	80	1	1000316X1	13,098
	16	x 1,5	32	80	1	1000316X15	13,098
	16	x 2	32	80	1	1000316X2	13,098
	18	x 1,5	40	95	1	1000318X15	15,832
	18	x 2	40	95	1	1000318X2	20,807
	18	x 2,5	40	95	1	1000318X25	20,807
	20	x 1,5	40	95	1	1000320X15	23,931
	20	x 2	40	95	1	1000320X2	28,614
	20	x 2,5	40	95	1	1000320X25	28,614
	22	x 1,5	40	100	1	1000322X15	28,614
	22	x 2	40	100	1	1000322X2	34,250
	22	x 2,5	40	100	1	1000322X25	34,250
	24	x 1,5	50	110	1	1000324X15	34,250
	24	x 2	50	110	1	1000324X2	34,250
	24	x 3	50	110	1	1000324X3	34,250
	27	x 1,5	50	110	1	1000327X15	66,174
	27	x 2	50	110	1	1000327X2	66,174
	27	x 3	50	110	1	1000327X3	66,174
	30	x 1,5	56	132	1	1000330X15	94,767
	30	x 2	56	132	1	1000330X2	94,767



Maschio a mano finitore passo fine
Bottoming tap, fine thread
Taraud finisseur, pas fin
Macho acabado, rosca fina
Fertig Schneider Hand-gewindebohrer, Feingewinde

MF

	Ø		l	L	pcs	cod.	€ cad/each
M	6	x 0,75	18	50	1	1000306X0753	2,678
	7	x 0,75	18	50	1	1000307X0753	3,356
	8	x 0,75	22	56	1	1000308X0753	3,356
	8	x 1	22	56	1	1000308X13	3,356
	9	x 0,75	22	63	1	1000309X0753	4,418
	9	x 1	22	63	1	1000309X13	4,418
	10	x 0,75	25	70	1	1000310X0753	4,418
	10	x 1	25	70	1	1000310X13	4,418
	10	x 1,25	25	70	1	1000310X1253	4,418
	11	x 0,75	25	70	1	1000311X0753	5,801
	11	x 1	25	70	1	1000311X13	5,801
	11	x 1,25	25	70	1	1000311X1253	5,801
	12	x 0,75	30	75	1	1000312X0753	5,788
	12	x 1	30	75	1	1000312X13	5,788
	12	x 1,25	30	75	1	1000312X1253	5,788
	12	x 1,5	30	75	1	1000312X153	5,788
	14	x 1	32	80	1	1000314X13	7,248
	14	x 1,25	32	80	1	1000314X1253	7,248
	14	x 1,5	32	80	1	1000314X153	7,248
	16	x 1	32	80	1	1000316X13	8,670
	16	x 1,5	32	80	1	1000316X153	8,670
	18	x 1,5	40	95	1	1000318X153	10,641

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA GAS CILINDRICA PER TUBI

Two pieces hand taps for cylindrical pipe-threads / Tarauds à main, filetage gaz cylindrique
Juegos de machos a mano, rosca gas cilindrica / Satzgewindebohrer für Rohrgewinde

C.V. UNI 338 ≃ DIN 5157 — **GAS (BSP)**

10015



	Ø	l	L	pcs	cod.	€ cad/each
G	1/8 x 28	18	65	1	100151/8	7,579
	1/4 x 19	24	70	1	100151/4	10,012
	3/8 x 19	25	75	1	100153/8	12,503
	1/2 x 14	31	80	1	100151/2	19,045
	3/4 x 14	33	90	1	100153/4	32,817
	1" x 11	39	100	1	100151"	54,887
	1.1/4 x 11	32	125	1	100151.1/4	107,683
	1.1/2 x 11	32	140	1	100151.1/2	182,570
	2" x 11	32	140	1	100152"	386,549

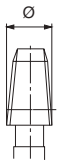
MASCHI CONICI PER TUBI, FILETTATURA GAS CONICA BSPT (CON. 1:16)

BSPT taper thread (1:16 taper) / Tarauds filetage gaz conique (1:16) / Machos rosca conica BSPT (1:16)

C.V. UNI 6125 — **BSPT**

10017





BSPT
Conicità 1:16
Taper 1:16

	Ø	l	L	pcs	cod.	€ cad/each
Rc	1/8 x 28	15	59	1	100171/8	10,173
	1/4 x 19	19	67	1	100171/4	15,286
	3/8 x 19	21	75	1	100173/8	18,083
	1/2 x 14	26	87	1	100171/2	21,992
	3/4 x 14	28	96	1	100173/4	63,910
	1" x 11	33	109	1	100171"	92,533
	1.1/4 x 11	36	119	1	100171.1/4	142,783
	1.1/2 x 11	37	125	1	100171.1/2	208,505
	2" x 11	41	140	1	100172"	312,764

MASCHI A MACCHINA E A MANO PER FORI PASSANTI, SPECIALI PER DADI, FIL. METRICA

Hand and machine nut taps, metric coarse / Taraud à main et machine pour ecrous / Machos de mano y maquina tipo tuercas

C.V. ≃ DIN 357 — **M**

10030



	Ø	l	L	pcs	cod.	€ cad/each
M	3 x 0,5	18	75	10	1003003X05	4,481
	4 x 0,7	23	90	10	1003004X07	4,540
	5 x 0,8	32	100	10	1003005X08	5,251
	6 x 1	40	110	10	1003006X1	5,588
	8 x 1,25	45	132	5	1003008X125	6,915
	10 x 1,5	55	150	5	1003010X15	10,151
	12 x 1,75	55	180	5	1003012X175	14,830

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA WHITWORTH PASSO GROSSO

3 pcs hand taps, Whitworth coarse thread / Tarauds à main, jeux de 3 pieces , filetage Whitworth
Juegos machos de mano, rosca inglesa Whitworth / Dreiteiliger Handgewindebohrer für Whitworth Gewinde

C.V. UNI 2709 ≃ DIN 352 **BSW**

10010



Applicazioni *Applications*

R ≤ 600 N/mm²



	Ø	l	L	pcs	cod.	€ cad/each
BSW	1/8 x 40	12	40	1	100101/8	6,367
	5/32 x 32	12	45	1	100105/32	6,367
	3/16 x 24	16	48	1	100103/16	6,367
	1/4 x 20	18	50	1	100101/4	7,195
	5/16 x 18	22	56	1	100105/16	7,532
	3/8 x 16	25	70	1	100103/8	9,105
	7/16 x 14	25	70	1	100107/16	10,710
	1/2 x 12	30	75	1	100101/2	13,213
	9/16 x 12	32	80	1	100109/16	14,843
	5/8 x 11	32	80	1	100105/8	17,310
	3/4 x 10	40	95	1	100103/4	23,609
	7/8 x 9	40	100	1	100107/8	32,305
	1" x 8	50	110	1	100101"	46,386
	1.1/8 x 7	56	125	1	100101.1/8	101,582
	1.1/4 x 7	56	125	1	100101.1/4	107,833
	1.3/8 x 6	63	150	1	100101.3/8	147,320
	1.1/2 x 6	63	150	1	100101.1/2	249,310
	1.3/4 x 5	70	160	1	100101.3/4	334,931
	2" x 4.5	80	190	1	100102"	499,876

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA WHITWORTH A PASSO FINE

2 pcs hand taps, british standard fine / Tarauds à main, jeux de 2 pcs, filetage Whitworth fin
Juegos machos de mano, rosca inglesa Whitworth fina / Zweiteiliger Handgewindebohrer für britisch Standard Feingewinde

C.V. UNI 2709 ≃ DIN 2181 **BSF**

10012



	Ø	l	L	pcs	cod.	€ cad/each
BSF	3/16 x 32	16	48	1	100123/16	5,087
	1/4 x 26	18	50	1	100121/4	5,483
	5/16 x 22	22	56	1	100125/16	5,855
	3/8 x 20	25	70	1	100123/8	6,647
	7/16 x 18	25	70	1	100127/16	7,812
	1/2 x 16	30	75	1	100121/2	9,685
	9/16 x 16	32	80	1	100129/16	10,943
	5/8 x 14	32	80	1	100125/8	12,747
	3/4 x 12	40	95	1	100123/4	17,346
	7/8 x 11	40	100	1	100127/8	21,372
	1" x 10	50	110	1	100121"	33,959

MASCHI A MANO SERIE 3 PEZZI, FILETTATURA AMERICANA A PASSO GROSSO UNC

3 pcs hand taps, UNC coarse pitch /Tarauds à main, jeux de 3 pieces, filetage UNC

Juego machos de mano, rosca americana UNC / Handgewindebohrer, amerikanisches Grossgewinde

C.V. ANSI B1.1 **UNC**

10020



	Ø		l	L	pcs	cod.	€ cad/each
N°	5	x 40	18	50	1	10020N05	10,791
	6	x 32	18	50	1	10020N06	10,791
	8	x 32	18	50	1	10020N08	10,791
	10	x 24	30	70	1	10020N10	10,791
	12	x 24	30	70	1	10020N12	10,791
UNC	1/4	x 20	30	70	1	100201/4	10,791
	5/16	x 18	30	70	1	100205/16	12,224
	3/8	x 16	35	75	1	100203/8	13,435
	7/16	x 14	40	80	1	100207/16	17,392
	1/2	x 13	45	85	1	100201/2	22,631
	9/16	x 12	45	90	1	100209/16	27,463
	5/8	x 11	47	100	1	100205/8	31,874
	3/4	x 10	50	110	1	100203/4	43,364
	7/8	x 9	60	120	1	100207/8	52,110
	1”	x 8	60	130	1	100201"	70,398
	1.1/8	x 7	60	130	1	100201.1/8	121,115
	1.1/4	x 7	60	130	1	100201.1/4	149,835
	1.3/8	x 6	65	150	1	100201.3/8	210,276
	1.1/2	x 6	65	150	1	100201.1/2	299,670

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA AMERICANA A PASSO FINE UNF

2 pcs hand taps, UNF fine pitch / Tarauds à main, jeux de 2 pieces UNF

Juego machos de mano, rosca americana UNF / Handgewindebohrer, amerikanisches Feingewinde

C.V. ANSI B1.1 **UNF**

10025



	Ø		l	L	pcs	cod.	€ cad/each
N°	5	x 44	11	36	1	10025N05	6,905
	6	x 40	12	40	1	10025N06	6,905
	8	x 36	12	40	1	10025N08	6,905
	10	x 32	14	45	1	10025N10	6,905
	12	x 28	14	50	1	10025N12	6,905
UNF	1/4	x 28	30	70	1	100251/4	6,905
	5/16	x 24	30	70	1	100255/16	8,194
	3/8	x 24	35	75	1	100253/8	8,906
	7/16	x 20	40	80	1	100257/16	11,676
	1/2	x 20	45	85	1	100251/2	15,122
	9/16	x 18	45	90	1	100259/16	18,300
	5/8	x 18	47	100	1	100255/8	21,257
	3/4	x 16	50	110	1	100253/4	28,952
	7/8	x 14	60	120	1	100257/8	40,091
	1”	x 12	60	130	1	100251"	55,171
	1.1/8	x 12	60	130	1	100251.1/8	93,770
	1.1/4	x 12	60	130	1	100251.1/4	105,494
	1.3/8	x 12	65	150	1	100251.3/8	138,508
	1.1/2	x 12	65	150	1	100251.1/2	201,464

MASCHI CONICI PER TUBI, FILETTATURA CONICA AMERICANA NPT

NPT taper thread /Tarauds conique NPT / Tarauds conique NPT

Macho rosca conica americana NPT / Einschnittgewindebohrer, amerikanisches kegeliges Rohrgewinde

C.V. ANSI B2.1 **NPT**

10032





Conicità 1:16
Taper 1:16

	Ø		l	L	pcs	cod.	€ cad/each
NPT	1/8	x 27	19	54	1	100321/8	10,173
	1/4	x 18	27	62	1	100321/4	15,286
	3/8	x 18	27	65	1	100323/8	18,083
	1/2	x 14	35	79	1	100321/2	21,992
	3/4	x 14	35	83	1	100323/4	63,910
	1”	x 11,5	44	95	1	100321"	92,533
	1.1/4	x 11,5	44	102	1	100321.1/4	142,783
	1.1/2	x 11,5	44	108	1	100321.1/2	208,505
	2”	x 11,5	44	114	1	100322"	312,764

FILIERE TONDE AL CROMO, FILETTATURA METRICA ISO

C.V. round dies, metric thread / Filière ronde, filetage metrique
Cojinetes redondos C.V., rosca metrica / Runde Schneideisen C.V., metrisches ISO Gewinde

C.V. UNI 4535 ≃ DIN 223

Metrica passo grosso - *Metric coarse pitch*
Pas gros metrique - Rosca metrica larga - Metrisches grossgewinde

M

12001



HRC ≃ 60÷61

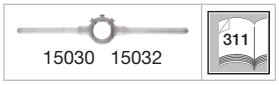
	Ø	DxS	pcs	cod.	€ cad/each
M	**2** x 0,4	25,4 x 9	5	12001202X04	8,466
	3 x 0,5	25,4 x 9	5	12001203X05	6,025
	4 x 0,7	25,4 x 9	5	12001204X07	6,025
	5 x 0,8	25,4 x 9	5	12001205X08	5,102
	6 x 1	25,4 x 9	5	12001206X1	5,102
	6 x 1	**38,1** x 14	5	12001306X1	5,229
	7 x 1	25,4 x 9	5	12001207X1	5,102
	8 x 1,25	25,4 x 9	5	12001208X125	5,259
	8 x 1,25	**38,1** x 14	5	12001308X125	5,102
	9 x 1,25	25,4 x 9	5	12001209X125	5,102
	10 x 1,5	25,4 x 9	5	12001210X15	5,102
	10 x 1,5	**38,1** x 14	5	12001310X15	7,303
	11 x 1,5	**38,1** x 14	5	12001311X15	7,303
	12 x 1,75	25,4 x 9	5	12001212X175	5,102
	12 x 1,75	**38,1** x 14	5	12001312X175	7,303
	14 x 2	**38,1** x 14	5	12001314X2	7,303
	16 x 2	**38,1** x 14	5	12001316X2	7,303
	16 x 2	50,8 x 16	3	12001516X2	8,444
	18 x 2,5	38,1 x 14	5	12001318X25	9,639
	18 x 2,5	50,8 x 16	3	12001518X25	13,830
	20 x 2,5	**38,1** x 14	5	12001320X25	9,639
	20 x 2,5	50,8 x 16	3	12001520X25	14,271
	22 x 2,5	50,8 x 16	3	12001522X25	15,412
	24 x 3	50,8 x 16	3	12001524X3	15,684
	27 x 3	63,5 x 19	1	12001627X3	44,382
	30 x 3,5	63,5 x 19	1	12001630X35	44,382
	33 x 3,5	63,5 x 19	1	12001633X35	53,265
	36 x 4	63,5 x 19	1	12001636X4	53,265

Art. **12002** Self
Disponibile su richiesta / *On demand*

Applicazioni / *Applications*

R ≤ 600 N/mm²





C.V. UNI 4535 ≃ DIN 223

Metrica passo fine - *Metric fine*
Metrique fin - Metrica fina - ISO Feingewinde

MF

12005



	Ø	DxS	pcs	cod.	€ cad/each
M	**6** x 0,75	**25,4** x 9	5	12005206X075	6,160
	7 x 0,75	25,4 x 9	5	12005207X075	6,160
	8 x 0,75	25,4 x 9	5	12005208X075	6,160
	8 x 1	25,4 x 9	5	12005208X1	6,160
	9 x 0,75	25,4 x 9	5	12005209X075	6,160
	9 x 1	25,4 x 9	5	12005209X1	6,160
	10 x 1,25	25,4 x 9	5	12005210X125	6,160
	12 x 1,5	25,4 x 9	5	12005212X15	6,160
	10 x 0,75	**38,1** x 14	5	12005310X075	9,210
	10 x 1	38,1 x 14	5	12005310X1	9,210
	10 x 1,25	38,1 x 14	5	12005310X125	9,210
	11 x 0,75	38,1 x 14	5	12005311X075	9,210
	11 x 1	38,1 x 14	5	12005311X1	9,210
	11 x 1,25	38,1 x 14	5	12005311X125	9,210
	12 x 0,75	38,1 x 14	5	12005312X075	9,210
	12 x 1	38,1 x 14	5	12005312X1	9,210
	12 x 1,25	38,1 x 14	5	12005312X125	9,210
	12 x 1,5	38,1 x 14	5	12005312X15	9,210
	14 x 1	38,1 x 14	5	12005314X1	9,210
	14 x 1,25	38,1 x 14	5	12005314X125	9,210
	14 x 1,5	38,1 x 14	5	12005314X15	9,210
	16 x 1	38,1 x 14	5	12005316X1	9,210
	16 x 1,5	38,1 x 14	5	12005316X15	9,210
	18 x 1,5	38,1 x 14	5	12005318X15	9,210
	18 x 2	38,1 x 14	5	12005318X2	9,210
	18 x 1,5	**50,8** x 16	3	12005518X15	18,074
	18 x 2	50,8 x 16	3	12005518X2	18,074
	20 x 1,5	50,8 x 16	3	12005520X15	18,586
	20 x 2	50,8 x 16	3	12005520X2	18,586
	22 x 1,5	50,8 x 16	3	12005522X15	19,101
	22 x 2	50,8 x 16	3	12005522X2	19,101
	24 x 1,5	50,8 x 16	3	12005524X15	19,371
	24 x 2	50,8 x 16	3	12005524X2	19,371
	27 x 1,5	**63,5** x 19	1	12005627X15	43,544
	27 x 2	63,5 x 19	1	12005627X2	43,544
	30 x 1,5	63,5 x 19	1	12005630X15	43,544
	30 x 2	63,5 x 19	1	12005630X2	43,544
	30 x 3	63,5 x 19	1	12005630X3	43,544

Confezione / *Packaging*



Professional

FILIERE TONDE, FILETTATURA GAS CILINDRICA PER TUBI BSP

Round dies, cylindrical BSP thread / Filières rondes, filetage gaz cylindrique
Cojinetes redondos, rosca gas BSP / Runde handschneideisen für zylindrisches Rohrgewinde

C.V. ≃ DIN 223 (EN 24231) **GAS (BSP)**

12015



Applicazioni *Applications*

R ≤ 600 N/mm²



	Ø	DxS	pcs	cod.	€ cad/each
G	**1/8** x 28	38,1 x 14	5	1201531/8	7,806
	1/4 x 19	38,1 x 14	5	1201531/4	7,806
	3/8 x 19	38,1 x 14	5	1201533/8	7,806
	3/8 x 19	50,8 x 16	3	1201553/8	16,470
	1/2 x 14	50,8 x 16	3	1201551/2	16,470
	3/4 x 14	50,8 x 16	3	1201553/4	16,470
	1” x 11	63,5 x 19	1	1201561”	35,711
	1.1/4 x 11	75 x 20	1	1201571.1/4	67,998
	1.1/2 x 11	75 x 20	1	1201571.1/2	67,998
	2” x 11	90 x 36	1	1201592”	207,375

FILIERE TONDE, FILETTATURA GAS CONICA PER TUBI BSPT (CON 1:16)

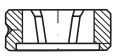
Round dies, BSPT taper thread (taper 1:16) /Filières rondes, filetage gaz conique BSPT (cône 1:16)
Cojinetes redondos, rosca conica gas BSPT / Runde Hand-und Maschinen-Schneideisen für Kegeliges Rohrgewinde; Reihe R

C.V. ≃ DIN 223 (EN 24230) **BSPT**

12017



BSPT
Conicità 1:16
Taper 1:16



	Ø	DxS	pcs	cod.	€ cad/each
Rc	**1/8** x 28	30 x 11	1	1201731/8	32,657
	1/4 x 19	38 x 14	1	1201731/4	32,657
	3/8 x 19	45 x 18	1	1201743/8	32,657
	1/2 x 14	45 x 18	1	1201741/2	58,841
	3/4 x 14	55 x 22	1	1201753/4	58,841
	1” x 11	65 x 25	1	1201761”	72,009
	1.1/4 x 11	75 x 30	1	1201771.1/4	174,518
	1.1/2 x 11	90 x 27	1	1201791.1/2	174,518
	2” x 11	105 x 28	1	1201712”	361,493

FILIERE TONDE, FILETTATURA INGLESE WHITWORTH BSW

Round dies, Whitworth thread / Filières rondes, filetage Whitworth
Cojinetes redondos, rosca Whitworth / Runde Schneideisen für britisch standard Whitworth B.1

C.V. ≃ DIN 223 (EN 22568) **BSW**

12010



Applicazioni *Applications*

R ≤ 600 N/mm²



	Ø	DxS	pcs	cod.	€ cad/each
BSW	**1/8** x 40	25,4 x 9	5	1201021/8	7,366
	5/32 x 32	25,4 x 9	5	1201025/32	7,031
	3/16 x 24	25,4 x 9	5	1201023/16	7,031
	1/4 x 20	25,4 x 9	5	1201021/4	7,366
	5/16 x 18	25,4 x 9	5	1201025/16	7,366
	3/8 x 16	38,1 x 14	5	1201033/8	8,466
	7/16 x 14	38,1 x 14	5	1201037/16	8,466
	1/2 x 12	38,1 x 14	5	1201031/2	8,466
	9/16 x 12	38,1 x 14	5	1201039/16	8,466
	5/8 x 11	50,8 x 16	3	1201055/8	15,538
	3/4 x 10	50,8 x 16	3	1201053/4	15,538
	7/8 x 9	50,8 x 16	3	1201057/8	19,022
	1” x 8	50,8 x 16	3	1201051"	19,022
	1.1/8 x 7	63,5 x 19	1	1201061.1/8	45,545
	1.1/4 x 7	63,5 x 19	1	1201061.1/4	45,545
	1.3/8 x 6	63,5 x 19	1	1201061.3/8	45,545
	1.1/2 x 6	63,5 x 19	1	1201061.1/2	45,545
	1.3/4 x 5	90 x 36	1	1201091.3/4	197,180
	2” x 4,5	90 x 36	1	1201092"	197,180

FILIERE TONDE, FILETTATURA INGLESE WHITWORTH A PASSO FINE BSF

2 pcs hand taps, british standard fine / Tarauds à main, jeux de 2 pcs, filetage Whitworth fin
Juegos machos de mano, rosca inglesa Whitworth fina / Zweiteiliger Handgewindebohrer für britisch Standard Feingewinde

C.V. ≃ DIN 223 (EN 22568) **BSF**

12012



	Ø	DxS	pcs	cod.	€ cad/each
BSW	**3/16** x 32	25,4 x 9	5	1201223/16	7,366
	1/4 x 26	25,4 x 9	5	1201221/4	7,366
	5/16 x 22	25,4 x 9	5	1201225/16	7,366
	3/8 x 20	38,1 x 14	5	1201233/8	8,466
	7/16 x 18	38,1 x 14	5	1201237/16	8,466
	1/2 x 16	38,1 x 14	5	1201231/2	8,466
	9/16 x 16	38,1 x 14	5	1201239/16	8,466
	5/8 x 14	50,8 x 16	3	1201255/8	15,538
	3/4 x 12	50,8 x 16	3	1201253/4	15,538
	7/8 x 11	50,8 x 16	3	1201257/8	19,022
	1” x 10	50,8 x 16	3	1201251"	19,022

FILIERE TONDE, FILETTATURA AMERICANA A PASSO GROSSO UNC

Round dies, UNC coarse thread / Filières rondes, filetage UNC
Cojinetes redondos, rosca UNC / Runde Schneideisen, amerikanisches grosse Gewinde

C.V. ≃ DIN 223 (EN 22568) **UNC**

12020



Applicazioni / *Applications*

R ≤ 600 N/mm²



	Ø	DxS	pcs	cod.	€ cad/each
N°	5 x 40	25,4 x 9	5	12020N05	6,893
	6 x 32	25,4 x 9	5	12020N06	6,893
	8 x 32	25,4 x 9	5	12020N08	6,893
	10 x 24	25,4 x 9	5	12020N10	6,893
	12 x 24	25,4 x 9	5	12020N12	6,893
UNC	1/4 x 20	25,4 x 9	5	1202021/4	6,893
	5/16 x 18	25,4 x 9	5	1202025/16	6,893
	3/8 x 16	38,1 x 14	5	1202033/8	9,567
	7/16 x 14	38,1 x 14	5	1202037/16	9,567
	1/2 x 13	38,1 x 14	5	1202031/2	9,567
	9/16 x 12	38,1 x 14	5	1202039/16	9,567
	5/8 x 11	50,8 x 16	3	1202055/8	20,955
	3/4 x 10	50,8 x 16	3	1202053/4	20,955
	7/8 x 9	50,8 x 16	3	1202057/8	22,118
	1" x 8	50,8 x 16	3	1202051"	22,118
	1.1/8 x 7	63,5 x 19	1	1202061.1/8	59,772
	1.1/4 x 7	63,5 x 19	1	1202061.1/4	59,772
	1.3/8 x 6	63,5 x 19	1	1202061.3/8	59,772
	1.1/2 x 6	63,5 x 19	1	1202061.1/2	59,772

FILIERE TONDE, FILETTATURA AMERICANA A PASSO FINE UNF

Round dies, UNF fine thread / Filières rondes, filetage UNF
Cojinetes redondos, rosca UNF / Runde Schneideisen, americanisches Feingewinde

C.V. ≃ DIN 223 (EN 22568) **UNF**

12025



	Ø	DxS	pcs	cod.	€ cad/each
N°	5 x 44	25,4 x 9	5	12025N05	7,240
	6 x 40	25,4 x 9	5	12025N06	7,240
	8 x 36	25,4 x 9	5	12025N08	7,240
	10 x 32	25,4 x 9	5	12025N10	7,240
	12 x 28	25,4 x 9	5	12025N12	7,240
UNF	1/4 x 28	25,4 x 9	5	1202521/4	7,240
	5/16 x 24	25,4 x 9	5	1202525/16	7,240
	3/8 x 24	38,1 x 14	5	1202533/8	10,268
	7/16 x 20	38,1 x 14	5	1202537/16	10,268
	1/2 x 20	38,1 x 14	5	1202531/2	10,268
	9/16 x 18	38,1 x 14	5	1202539/16	10,268
	5/8 x 18	50,8 x 16	3	1202555/8	22,222
	3/4 x 16	50,8 x 16	3	1202553/4	22,222
	7/8 x 14	50,8 x 16	3	1202557/8	23,456
	1" x 12	50,8 x 16	3	1202551"	23,456
	1.1/8 x 12	63,5 x 19	1	1202561.1/8	61,900
	1.1/4 x 12	63,5 x 19	1	1202561.1/4	61,900
	1.3/8 x 12	63,5 x 19	1	1202561.3/8	61,900
	1.1/2 x 12	63,5 x 19	1	1202561.1/2	61,900

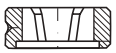
FILIERE TONDE, FILETTATURA CONICA AMERICANA PER TUBI NPT ANSI B 2.1

Round dies, NPT taper thread / Filières rondes, filetage conique NPT
Cojinetes redondos, rosca conica NPT / Runde handschneideisen, amerikanisches kegeliges Rohrgewinde NPT

C.V. ≃ DIN 223 (EN 22568) **NPT**

12032





NPT
Conicità 1:16
Taper 1:16

	Ø	DxS	pcs	cod.	€ cad/each
	1/8 x 27	30 x 11	1	1203231/8	32,657
	1/4 x 18	38 x 14	1	1203231/4	32,657
	3/8 x 18	45 x 18	1	1203243/8	32,657
	1/2 x 14	45 x 18	1	1203241/2	58,841
	3/4 x 14	55 x 22	1	1203253/4	58,841
	1" x 11-1/2	65 x 25	1	1203261"	71,937
	1.1/4 x 11-1/2	75 x 26	1	1203271.1/4	122,383
	1.1/2 x 11-1/2	90 x 27	1	1203291.1/2	122,383
	2" x 11-1/2	105 x 28	1	1203212"	432,884

GIRAMASCHI ESTENSIBILI, MODELLO AMERICANO

Adjustable tap wrenches / Tourne à gauche extensible
Giramachos ayustables /Verstellbare Windeisen

DIN 1814 Lega Leggera / *Zinc die-cast / Alliage de zinc / Aleacione ligera / Körper aus Zinkdruckguss*

15001



Gr. N.	M	Per maschi *For taps* BSW-UNC-UNF	BSP-NPT	L	cod.	€ cad/each
0	1 ÷ 8	1/16 ÷ 1/4		130	1500100	10,791
1	1 ÷ 10	1/16 ÷ 3/8	1/8	180	1500101	11,583
1.1/2	1 ÷ 12	1/16 ÷ 1/2	1/8	180	1500101.1/2	13,352
2	4 ÷ 12	5/32 ÷ 1/2	1/8	280	1500102	18,638
3	5 ÷ 20	7/32 ÷ 3/4	1/8 ÷ 1/2	380	1500103	28,707
4	11 ÷ 27	7/16 ÷ 1"	1/4 ÷ 3/4	500	1500104	45,331
5	13 ÷ 32	1/2 ÷ 1.1/4	1/4 ÷ 1"	700	1500105	93,177
***6**	18 ÷ 42	3/4 ÷ 1.1/2	1/2 ÷ 1.1/4	780	1500106	203,722
***7**	25 ÷ 52	1" ÷ 2.1/8	3/4 ÷ 2.1/4	800	1500107	221,604
***8**	25 ÷ 64	1" ÷ 2:1/2	3/4 ÷ 3"	1200	1500108	497,349

* corpo in acciaio / *steel*

Art. **15002** Self
Disponibile su richiesta / *On demand*

DIN 1814 Acciaio / *Steel / Acier / Acero / Stahl-Ausführung*

15003



Gr. N.	M	Per maschi *For taps* BSW-UNC-UNF	BSP-NPT	L	cod.	€ cad/each
0	1 ÷ 8	1/16 ÷ 1/4		170	1500300	17,625
1	1 ÷ 10	1/16 ÷ 3/8	1/8	200	1500301	18,883
1.1/2	1 ÷ 12	1/16 ÷ 1/2	1/8	200	1500301.1/2	21,408
2	4 ÷ 12	5/32 ÷ 1/2	1/8	260	1500302	27,706
3	5 ÷ 20	7/32 ÷ 3/4	1/8 ÷ 1/2	345	1500303	45,331
4	11 ÷ 27	7/16 ÷ 1"	1/4 ÷ 3/4	430	1500304	73,026
5	13 ÷ 32	1/2 ÷ 1.1/4	1/4 ÷ 1"	770	1500305	115,842
6	18 ÷ 42	3/4 ÷ 1.1/2	1/2 ÷ 1.1/4	870	1500306	215,363
7	25 ÷ 52	1" ÷ 2.1/8	3/4 ÷ 2.1/4	1000	1500307	230,497
8	25 ÷ 64	1" ÷ 2:1/2	3/4 ÷ 3"	1200	1500308	497,349

GIRAMASCHI FISSI A SFERA

Ball tap wrenches / Porte-tarauds / Giramacho fixo / Kugelwindeisen



15013

Gr. N.	Per maschi *For taps* M	L	cod.	€ cad/each
0	1 ÷ 4	200	1501300	13,585
1	3,5 ÷ 8	200	1501301	13,585
3	5 ÷ 12	200	1501303	25,179
4	10 ÷ 16	200	1501304	33,236
5	12 ÷ 20	200	1501305	39,441
6	18 ÷ 27	200	1501306	77,844

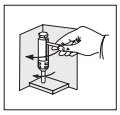
GIRAMASCHI A CRICCHETTO REVERSIBILE

Tap holder with ratchet / Porte-tarauds à cliquet / Giramachos de carraca / Werkzeugehalter mit knarre

15010
15011



Acciaio / *Steel*



Art. **15002** Self
Disponibile su richiesta
On demand

Art. 15010 Serie corta - *Short serie*

Gr. N.	Per maschi *For taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 10	1/8 ÷ 3/8	85	1	1501001	16,903
2	5 ÷ 12	7/32 ÷ 1/2	100	1	1501002	20,361

Art. 15011 Serie lunga - *Long serie*

Gr. N.	Per maschi *For taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 10	1/8 ÷ 3/8	250	1	1501101	24,226
2	5 ÷ 12	7/32 ÷ 1/2	300	1	1501102	30,489

		cod.	€ cad/each
	Griffe per / *Jaws for* 1501001 - 1501101	1501110	1,759
	Griffe per / *Jaws for* 1501002 - 1501102	1501112	2,200

GIRAMASCHI A MANDRINO TIPO GOODEL

Goodel tap holder without ratchet / Porte-tarauds goodel sans cliquet / Giramachos goodel sin carraca / Werkzeughalter ohne knarre

15005
15006



Art. **15007** Self
Disponibile su richiesta
On demand

Art. 15005 Serie corta - *Short serie*

Gr. N.	Per maschi *For taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 5	1/8 ÷ 3/16	62	1	1500501	7,380
2	6 ÷ 8	1/4 ÷ 3/8	78	1	1500502	9,383
3	9 ÷ 10	3/8	102	1	1500503	12,503
4	10 ÷ 12	3/8 ÷ 1/2	102	1	1500504	18,382

Art. 15006 Serie lunga - *Long serie*

Gr. N.	Per maschi *For taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 5	1/8 ÷ 3/16	150	1	1500601	12,899
2	6 ÷ 8	1/4 ÷ 3/8	150	1	1500602	15,366
3	9 ÷ 10	3/8	150	1	1500603	21,093
4	10 ÷ 12	3/8 ÷ 1/2	150	1	1500604	30,221

PROLUNGA PER MASCHI

Tap extension / Rallong pour tarauds / Prolungador para machos / Verlängerung für Gewindebohrer

DIN 377

10098



Quadro *Square* (mm)	L	Per maschi *For taps* DIN 352	cod.	€ cad/each	Quadro *Square* (mm)	L	Per maschi *For taps* DIN 352	cod.	€ cad/each
2.1	60	M 1-2.6	10098021	6,926	10.0	140		10098100	21,629
2.4	70		10098024	6,926	11.0	150	M 18	10098110	26,345
2.7	80	M 3	10098027	6,926	12.0	155	M 20	10098120	34,378
3.0	90	M 3.5	10098030	6,926	13.0	165		10098130	38,788
3.4	95	M 4	10098034	6,926	14.5	175	M 22-24	10098145	47,111
3.8	100		10098038	8,300	16.0	180	M 27	10098160	49,871
4.3	105		10098043	9,977	18.0	200	M 30	10098180	58,195
4.9	110	M 4.5-8	10098049	7,764	20.0	220	M 33	10098200	74,830
5.5	115	M 9-10	10098055	8,870	22.0	220	M 36	10098220	105,761
6.2	120	M 11	10098062	9,708	24.0	235	M39-42	10098240	135,981
7.0	125	M 12	10098070	11,921	26.0	250		10098260	173,757
8.0	125		10098080	14,970	29.0	265	M45-48	10098290	205,236
9.0	130	M 14-16	10098090	16,343	32.0	285	M52	10098320	288,342

PORTAFILIERE PER FILIERE TONDE

Round-die stock / Porte filières à main / Manerales para cojinetes / Schneideisenhalter

DIN 225 (EN 22568) Lega Leggera / *Zinc die-cast / Alliage de zinc / Aleacione ligera / Körper aus Zinkdruckguss*

15030
15035



Art. **15031** Inches Self
Art. **15036** Metric Self
Disponibile su richiesta
On demand

Art. 15030 In pollici - *Inch*

Gr. N.	Ø mm	Ø pollici/inch	L mm	pcs	cod.	€ cad/each
0	20,6 x 6,35	13/16 x 1/4	185	1	1503000	8,440
1	25,4 x 9,5	1" x 3/8	215	1	1503001	8,812
2/A	33,4 x 11,1	1.5/16 x 7/16	265	1	1503002/A	15,366
2	38,1 x 12,7	1.1/2 x 1/2	310	1	1503002	15,366
3	50,8 x 15,9	2" x 5/8	485	1	1503003	32,107
4	63,5 x 19	2.1/2 x 3/4	630	1	1503004	49,732
***5**	76,2 x 22	3" x 7/8	700	1	1503005	120,872
***6**	88,9 x 25,4	3.1/2 x 1"	940	1	1503006	220,976
***7**	101,6 x 25,4	4" x 1"	980	1	1503007	692,656

* acciaio / *steel*

Art. 15035 Per filiere DIN 223 - *For dies DIN 223*

Gr.	M	BSW-BSP	L	pcs	cod.	€ cad/each
16 x 5	M 1 ÷ 2,6	W 1/16 ÷ 3/32	160	1	1503516X5	7,427
20 x 5	M 3 ÷ 4	W 1/8 ÷ 5/32	185	1	1503520X5	7,812
20 x 7	M 4,5 ÷ 6	W 3/16 ÷ 1/4	185	1	1503520X7	7,812
25 x 9	M 7 ÷ 9	W 5/16 ÷	215	1	1503525X9	8,440
30 x 11	M 10 ÷ 11	W 3/8 ÷ 7/16	265	1	1503530X11	13,097
38 x 10	MF 12 ÷ 14	G 1/8 ÷ 1/4	315	1	1503538X10	14,482
38 x 14	M 12 ÷ 14	W 1/2 ÷ 9/16	315	1	1503538X14	14,482
45 x 14	MF 16 ÷ 20	G 3/8 ÷ 1/2	450	1	1503545X14	22,922
45 x 18	M 16 ÷ 20	W 5/8 ÷ 13/16	450	1	1503545X18	22,922
55 x 16	MF 22 ÷ 26	G 5/8 ÷ 3/4	560	1	1503555X16	35,261
55 x 22	M 22 ÷ 24	W 7/8 ÷ 1"	560	1	1503555X22	35,261
65 x 18	MF 27 ÷ 35	G 7/8 ÷ 1"	630	1	1503565X18	50,616
65 x 25	M 27 ÷ 36	W 1"1/8 ÷ 1"3/8	630	1	1503565X25	50,616
***75 x 20**	MF 38 ÷ 42	G 1"1/8 ÷ 1"1/4	710	1	1503575X20	120,872
***75 x 30**	M 39 ÷ 42	W 1"1/2 ÷ 1"5/8	710	1	1503575X30	129,578
***90 x 22**	MF 45 ÷ 52	G 1"3/8 ÷ 1"3/4	920	1	1503590X22	241,067
***90 x 36**	M 45 ÷ 52	W 1"3/4 ÷ 2"	920	1	1503590X36	241,067

* acciaio / *steel*

DIN 225 (EN 22568) Acciaio / *Steel / Acier / Acero / Stahl-Ausführung*

15032
15037



Art. 15032 In pollici - *Inch*

Gr. N.	Ø mm	Ø pollici/inch	L mm	pcs	cod.	€ cad/each
1	25,4 x 9,5	1" x 3/8	210	1	1503201	22,037
2	38,1 x 12,7	1"1/2 x 1/2	300	1	1503202	26,751
3	50,8 x 15,9	2" x 5/8	490	1	1503203	40,919
4	63,5 x 19	2.1/2 x 3/4	520	1	1503204	69,848
5	76,2 x 22	3" x 7/8	700	1	1503205	133,875
6	88,9 x 25,4	3.1/2 x 1"	950	1	1503206	252,615
7	101,6 x 25,4	4" x 1"	890	1	1503207	761,339

Art. 15037 Per filiere DIN 223 - *For dies DIN 223*

Gr.	M	BSW-BSP	L	pcs	cod.	€ cad/each
16 x 5	M 1 ÷ 2,6	W 1/16 ÷ 3/32	160	1	1503716X5	15,110
20 x 5	M 3 ÷ 4	W 1/8 ÷ 5/32	190	1	1503720X5	18,137
20 x 7	M 4,5 ÷ 6	W 3/16 ÷ 1/4	190	1	1503720X7	18,137
25 x 9	M 7 ÷ 9	W 5/16 ÷	215	1	1503725X9	21,152
30 x 11	M 10 ÷ 11	W 3/8 ÷ 7/16	250	1	1503730X11	21,152
38 x 10	MF 12 ÷ 14	G 1/8 ÷ 1/4	310	1	1503738X10	24,179
38 x 14	M 12 ÷ 14	W 1/2 ÷ 9/16	310	1	1503738X14	24,179
45 x 14	MF 16 ÷ 20	G 3/8 ÷ 1/2	445	1	1503745X14	31,734
45 x 18	M 16 ÷ 20	W 5/8 ÷ 13/16	445	1	1503745X18	31,734
55 x 16	MF 22 ÷ 26	G 5/8 ÷ 3/4	495	1	1503755X16	39,289
55 x 22	M 22 ÷ 24	W 7/8 ÷ 1"	495	1	1503755X22	39,289
65 x 18	MF 27 ÷ 35	G 7/8 ÷ 1"	550	1	1503765X18	71,012
65 x 25	M 27 ÷ 36	W 1.1/8 ÷ 1"3/8	550	1	1503765X25	71,012
75 x 20	MF 38 ÷ 42	G 1.1/8 ÷ 1"1/4	735	1	1503775X20	134,352
75 x 30	M 39 ÷ 42	W 1.1/2 ÷ 1"5/8	735	1	1503775X30	134,352
90 x 22	MF 45 ÷ 52	G 1.3/8 ÷ 1"3/4	900	1	1503790X22	250,823
90 x 36	M 45 ÷ 52	W 1.3/4 ÷ 2"	900	1	1503790X36	250,823
105 x 22	MF 54 ÷ 65	G 2" ÷ 2"1/4	980	1	15037105X22	382,835
105 x 36	M 56 ÷ 64	W 2" ÷ 2"1/4	980	1	15037105X36	382,835
120 x 22	MF 64 ÷ 71	G 2.1/4 ÷ 2.3/4	960	1	15037120X22	990,090
120 x 36	M 64 ÷ 71	BSW 2.1/2 ÷ 2.3/4	960	1	15037120X36	990,090
130 x 25		G 3"	960	1	15037130X25	1.377,325
130 x 36			960	1	15037130X36	1.377,325
140 x 22			980	1	15037140X22	1.729,356
150 x 25		G 3.1/2	1000	1	15037150X25	1.966,979
160 x 25		G 4"	1000	1	15037160X25	2.697,445

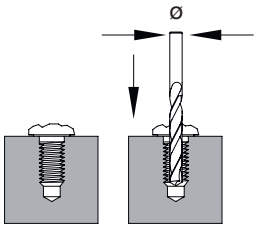
ESTRATTORI DI VITI E PRIGIONIERI IN ACCIAIO LEGATO

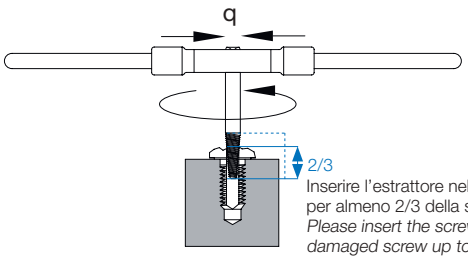
Screw extractors / Extracteur de vis
Extractores de tornillos / Schraubenausdreher

10065

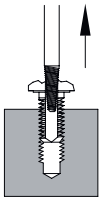


Gr N.	Viti *Screws*	ø	q	Giramaschi n. *Tap wrench n.*	pcs	cod.	€ cad/each
1	M 3 ÷ 6	3 ÷ 4	3	0-1-1.1/2	1	1006501	1,539
2	M 6 ÷ 8	4 ÷ 4,5	3,6	0-1-1.1/2	1	1006502	1,539
3	M 8 ÷ 11	5,5 ÷ 6	5,5	1-1.1/2	1	1006503	1,813
4	M 11 ÷ 14	6 ÷ 6,5	6,3	2-3-4	1	1006504	2,201
5	M 14 ÷ 18	9 ÷ 10	8,6	3-4-5	1	1006505	2,913
6	M 18 ÷ 24	12 ÷ 13	12	3-4-5-6	1	1006506	4,054
7	M 24 ÷ 33	14 ÷ 16	15	4-5-6	1	1006507	8,100
8	M 33 ÷ 50	20 ÷ 22	19	4-5-6	1	1006508	11,147





Inserire l'estrattore nella vite danneggiata per almeno 2/3 della sua parte utile
Please insert the screw extractor inside the damaged screw up to 2/3 of the working part



SERIE DI ESTRATTORI IN ASTUCCIO DI PLASTICA

Screw extractors sets in plastic cases / Jeux de extracteurs de vis
Juego de extractores de tornillos en estucho plastico / Schraubenausdreher – sätze in Kunststoffkassette

10067



cod.	Composizione Description	pcs	€ cad/each
10067101	5 pcs Ø 1÷5	1	9,860
10067102	6 pcs Ø 1÷6	1	14,166
10067103	8 pcs Ø 1÷8	1	32,867

CONTAFILETTI PER FILETTI METRICI ISO 60°-WH 55°

Screw pitch gauge ISO 60°-Wh 55° /Jeux de filetage - ISO 60°-Wh 55°
Cuentahilos - ISO 60°-Wh 55° / Gewindeschablonen ISO 60°-Wh 55°

41003



cod.	Composizione Description	pcs	€ cad/each
410031251	52 pcs M 0,25 ÷ 6 Wh 62 ÷ 4	1	16,995
410031261	12 pcs M 0,5 ÷ 1,75	1	8,831

ESPOSITORE MAGAZZENO GIRAUTENSILI

Tool holders display / Assortiment de porte outils
Expositor de giramachos y manerales / Haltewerkzeuge Satz



DIN 1814
DIN 225

Lega leggera
zinc die-cast

17001100 40 pcs € 617,951

15001		15005		15006		15010		15030	
GR. 1	6 pcs	GR. 1	3 pcs	GR. 1	2 pcs	GR. 1	2 pcs	Ø 25,4	6 pcs
GR. 2	6 pcs	GR. 2	2 pcs	GR. 2	2 pcs	GR. 2	2 pcs	Ø 38,1	4 pcs
GR. 3	3 pcs							Ø 50,8	2 pcs



DIN 1814
DIN 225

Lega leggera
zinc die-cast

17001104 51 pcs € 887,683

15001		15010		15011		15035			
GR. 1	6 pcs	GR. 1	2 pcs	GR. 1	2 pcs	16 x 5	2 pcs	38 x 14	4 pcs
GR. 2	5 pcs	GR. 2	2 pcs	GR. 2	2 pcs	20 x 5	2 pcs	45 x 14	2 pcs
GR. 3	2 pcs					20 x 7	2 pcs	45 x 18	1 pc
GR. 4	1 pc					25 x 9	6 pcs	55 x 16	1 pc
						30 x 11	6 pcs	55 x 22	1 pc
						38 x 10	2 pcs		



DIN 1814
DIN 225

In acciaio
forged steel

17001108 51 pcs € 1.347,256

15003		15010		15011		15037			
GR. 1	6 pcs	GR. 1	2 pcs	GR. 1	2 pcs	16 x 5	2 pcs	38 x 14	4 pcs
GR. 2	5 pcs	GR. 2	2 pcs	GR. 2	2 pcs	20 x 5	2 pcs	45 x 14	2 pcs
GR. 3	2 pcs					20 x 7	2 pcs	45 x 18	1 pc
GR. 4	1 pc					25 x 9	6 pcs	55 x 16	1 pc
						30 x 11	6 pcs	55 x 22	1 pc
						38 x 10	2 pcs		

ASSORTIMENTI A FILETTARE IN VALIGETTA DI PLASTICA RIGIDA

C.V. threading sets in blow-mould cases / Assortiments à fileter en acier au chrome en coffret plastique
Juego de utensilios a roscar en caja de plastico / Gewindeschneidwerkzeugesätze in Kunststoffkassette

C.V.

Coperchio trasparente
Transparent lid



17008203

Cod.	€ cad/each	1 pc	25.4	N°1.1/2
17008203 M+MF 3÷12 30 pcs 11 passi *threads*	96,319	M 3x0,5-4x0,7 5x0,8-6x1-7x1 8x1-8x1,25 10x1,25-10x1,5 12x1,5-12x1,75		25,4 1 contafiletti *pitch gauge* 2,5-3,3-4,2-5-6,8

Astucci metallo / *metal case*



17005401



17005402

Cod.	€ cad/each	3 pcs
17005401 M 3÷12 21 pcs	50,988	M 3-4-5-6 8-10-12

Cod.	€ cad/each	3 pcs	N°1.1/2
17005402 M 3÷12 29 pcs	79,323	M 3-4-5-6 8-10-12	2,5-3,3-4,2-5 6,8-8,5-10,25

Abs



17005404

Cod.	€ cad/each	1 pc	N°1.1/2
17005404 M 3÷12	45,581	M3-4-5-6-8 10-12	

ASSORTIMENTI A FILETTARE IN CASSETTE DI LEGNO

C.V. threading sets in wooden cases / Assortiments à fileter en acier au chrome en coffrets de bois
Juegos de utensilios a roscar en caja de madera / Gewindeschneideisenwerkzeugesätze in Holzkassette

C.V.

METRIC



Cod.	€ cad/each	3 pcs	25.4	N°1
17012530 M3÷10 6 passi *threads*	156,698	M 3-4-5 6-8-10		25,4

Cod.	€ cad/each	3 pcs	25.4	N°1
17012531 M3÷10 8 passi *threads*	185,408	M 3-4-5-6 7-8-9-10		25,4



Cod.	€ cad/each	3 pcs	25.4	N°1.1/2
17012532 M3÷12 7 passi *threads*	188,991	M 3-4-5 6-8-10-12		25,4

Cod.	€ cad/each	3 pcs	25,4(7) 38,1(3)	N°1-2
17012533 M3÷12 10 passi *threads*	275,120	M 3-4-5-6 7-8-9-10 11-12		25,4 - 38,1

Cod.	€ cad/each	2 pcs	25,4(7) 38,1(3)	N°0-2
17012543 M+MF 3÷12 12 passi *threads*	305,024	3x0.5-4x0,7-5x0,8 6x1-7x1-8x1 8x1,25-10x1,25 10x1,5-12x1,25 12x1,5-12x1,75		25,4 - 38,1 N°1



Cod.	€ cad/each	3 pcs	25,4(5) 38,1(5)	N°1-3
17012534 M3÷18 10 passi *threads*	356,459	M 3-4-5 6-8-10-12 14-16-18		25,4 - 38,1

Cod.	€ cad/each	3 pcs	25,4(5) 38,1(6)	N°1-3
17012535 M3÷20 11 passi *threads*	417,464	M 3-4-5 6-8-10-12 14-16-18-20		25,4 - 38,1

ASSORTIMENTI A FILETTARE IN CASSETTE DI LEGNO

C.V. threading sets in wooden cases / Assortiments à fileter en acier au chrome en coffrets de bois
Juegos de utensilios a roscar en caja de madera / Gewindeschneideisenwerkzeugesätze in Holzkassette

C.V.

METRIC



Cod.	€ cad/each	3 pcs	38,1(5) 50,8(5)	N°2-4
17012536 M6÷24 10 passi *threads*	508,370	M 6-8-10-12 14-16-18 20-22-24		38,1-50,8

Cod.	€ cad/each	3 pcs	25,4(5) 38,1(4) 50,8(4)	N°1-2-4
17012537 M3÷24 13 passi *threads*	544,257	M 3-4-5-6-8 10-12-14 16-18-20 22-24		25,4-38,1-50,8



Cod.	€ cad/each	3 pcs	25,4(5) 38,1(4) 50,8(4) 63,5(2)	N°1-3-5
17012538 M3÷30 15 passi *threads*	1.513,142	M 3-4-5-6 8-10-12-14 16-18-20-22 24-27-30		25,4-38,1 50,8-63,5

Cod.	€ cad/each	3 pcs	25,4(7) 38,1(4) 50,8(5) 63,5(4)	N°1-3-6
17012539 M3÷33 19 passi *threads*	2.181,803	M 3-4-5-6-7-8 9-10-11-12-14 16-18-20-22 24-27-30-33		25,4-38,1 50,8-63,5



Cod.	€ cad/each	3 pcs	COMBI M+BSW M+UNC
17012541 M+BSW M3÷24 + BSW **1/8÷1”**	1.441,379	M 3-4-5-6-8 10-12-14-16 18-20-22-24 BSW 1/8-5/32-3/16-1/4-5/16 3/8-7/16-1/2 9/16-5/8-3/4-7/8-1”	N°1-2-4 25,4-38,1-50,8
17012542 M+UNC M3÷24 + UNC **1/4÷1”**	1.453,333	M 3-4-5-6-8 10-12-14-16 18-20-22-24 UNC 1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1”	N°1-2-4 25,4-38,1-50,8

ASSORTIMENTI A FILETTARE PER GARAGE TIPO “FIAT RIDOTTO” IN CASSETTA DI LEGNO

Threading set in wooden case for automotive / Assortiment à fileter pour garage en coffret de bois
Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage

C.V.

Speciale per garage
Special for automotive

METRIC



M+MF 2÷18 65 pcs
635x335x48mm
Kg 5,8

Cod.	€ cad/each	2 pcs — 25,4(8) 38,1(12)	N°1-3
17012510 M+MF 2÷18 65 pcs 20 passi *threads*	400,720	M 2x0,4-3x0,5 4x0,7-5x0,8-6x1 7x1-8x1-8x1,25 10x1-10x1,25-10x1,5 12x1,25-12x1,5 12x1,75-14x1,25 14x1,5-14x2-16x1,5 16x2-18x1,5	25,4-38,1 N. 1

ASSORTIMENTI A FILETTARE PER GARAGE TIPO “FIAT GRANDE” IN CASSETTA DI LEGNO

Threading set in wooden case for trucks / Assortiment à fileter pour garage en coffret de bois
Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage

C.V.

Speciale per camion
Special for trucks

METRIC



M+MF 3÷24
600x430x65mm
Kg 13,8

Cod.	€ cad/each	3 pcs		N°1-2-3-4
17012512 M+MF 3÷24 111 pcs 26 passi *pitch*	973,674	3 x 0,5 4 x 0,7 5 x 0,8 6 x 1 7 x 1 8 x 0,75 8 x 1 8 x 1,25 10 x 1 10 x 1,5 11 x 0,75 12 x 1 12 x 1,5 12 x 1,75	14 x 1 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5 20 x 1,5 20 x 2,5 22 x 1,5 24 x 1,5 24 x 2	25,4-38,1-50,8

Cod.	€ cad/each	3 pcs		N°1-3-4
17012513 M+MF 3÷24 108 pcs 30 passi *pitch*	1.070,564	3 x 0,5 4 x 0,7 5 x 0,8 6 x 1 7 x 1 8 x 1 8 x 1,25 9 x 1 9 x 1,25 10 x 1 10 x 1,25 10 x 1,5 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75	14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5 20 x 1,5 20 x 2,5 22 x 1,5 22 x 2 24 x 1,5 24 x 2	25,4-38,1-50,8

ASSORTIMENTI A FILETTARE PER GARAGE TIPO FIAT IN CASSETTA DI LEGNO

Threading set in wooden case for automotive / Assortiment à fileter pour garages en coffret de bois
Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage in Holzkassette

C.V.

Speciale per garage
Special for automotive

CLASSIC



FIAT

M+MF 2÷18 110 pcs
500x340x60mm
Kg 7,9

M-MF

Cod.	€ cad/each	2 pcs	25,4(14) 38,1(21)	N°1-3
17012500 M+MF 2÷18 110 pcs 35 passi *pitch*	519,129	2 x 0,4 3 x 0,5 4 x 0,7 5 x 0,8 6 x 0,75 6 x 1 7 x 0,75 7 x 1 8 x 0,75 8 x 1 8 x 1,25 9 x 0,75 9 x 1 9 x 1,25 10 x 0,75 10 x 1 10 x 1,25 10 x 1,5	11 x 0,75 11 x 1 11 x 1,25 11 x 1,5 12 x 0,75 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75 14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5	25,4-38,1 N. 1

Per ravvivare i filetti di:
to renew threads of:
FIAT, ALFA ROMEO, LANCIA, VOLKSWAGEN, BMW, MERCEDES, FORD, OPEL G.M., PEUGEOT, RENAULT, VOLVO, CITROEN, TOYOTA, NISSAN, HONDA, ETC.

PLUS



FIAT

M+MF 2÷18 111 pcs
500x340x60mm
Kg 8,0

M-MF

Cod.	€ cad/each	2 pcs	25,4(14) 38,1(21)	N°1-3
17012505 M+MF 2÷18 111 pcs 35 passi *pitch*	574,161	2 x 0,4 3 x 0,5 4 x 0,7 5 x 0,8 6 x 0,75 6 x 1 7 x 0,75 7 x 1 8 x 0,75 8 x 1 8 x 1,25 9 x 0,75 9 x 1 9 x 1,25 10 x 0,75 10 x 1 10 x 1,25 10 x 1,5	11 x 0,75 11 x 1 11 x 1,25 11 x 1,5 12 x 0,75 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75 14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5	25,4-38,1 N. 1 0÷150 mm 0,01 *Digital*



ASSORTIMENTI A FILETTARE PER GARAGE TIPO FIAT IN CASSETTA DI LEGNO

Threading set in wooden case for automotive / Assortiment à fileter pour garages en coffret de bois

Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage in Holzkassette

Per tutti gli utilizzi professionali ed industriali
For professional and industrial use

HSS

Speciale per garage
Special for automotive



FIAT HSS

M+MF 2÷18 110 pcs
500x340x60mm
Kg 7,9

M-MF

Cod.	€ cad/each	2 pcs	25,4(14) 38,1(21)	N°1-3
17012600 M+MF 2÷18 110 pcs 35 passi *pitch*	970,358	2 x 0,4 3 x 0,5 4 x 0,7 5 x 0,8 6 x 0,75 6 x 1 7 x 0,75 7 x 1 8 x 0,75 8 x 1 8 x 1,25 9 x 0,75 9 x 1 9 x 1,25 10 x 0,75 10 x 1 10 x 1,25 10 x 1,5	11 x 0,75 11 x 1 11 x 1,25 11 x 1,5 12 x 0,75 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75 14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5	25,4-38,1 N. 1

Per generare e ravvivare i filetti di:
To make and renew threads of:
FIAT, ALFA ROMEO, LANCIA, VOLKSWAGEN,BMW, MERCEDES, FORD, OPEL G.M., PEUGEOT, RENAULT, VOLVO, CITROEN, TOYOTA, NISSAN, HONDA, ETC.



Ricambi / *Spare parts*

10097	(2 pcs) HSS	
	Cod.	€ cad/each 2 pcs set
M 2 x 0,4	1009702X04	5,739
3 x 0,5	1009703X05	5,133
4 x 0,7	1009704X07	5,133
5 x 0,8	1009705X08	5,133
6 x 0,75	1009706X075	5,133
6 x 1	1009706X1	5,133
7 x 0,75	1009707X075	6,181
7 x 1	1009707X1	6,181
8 x 0,75	1009708X075	7,579
8 x 1	1009708X1	7,579
8 x 1,25	1009708X125	7,579
9 x 0,75	1009709X075	8,440
9 x 1	1009709X1	8,440
9 x 1,25	1009709X125	8,440
10 x 0,75	1009710X075	9,243
10 x 1	1009710X1	9,243
10 x 1,25	1009710X125	9,243
10 x 1,5	1009710X15	9,243
11 x 0,75	1009711X075	12,957
11 x 1	1009711X1	12,957
11 x 1,25	1009711X125	12,957
11 x 1,5	1009711X15	12,957
12 x 0,75	1009712X075	13,656
12 x 1	1009712X1	13,656
12 x 1,25	1009712X125	13,656
12 x 1,5	1009712X15	13,656
12 x 1,75	1009712X175	13,656
14 x 1	1009714X1	17,834
14 x 1,25	1009714X125	17,834
14 x 1,5	1009714X15	17,834
14 x 2	1009714X2	17,834
16 x 1	1009716X1	18,870
16 x 1,5	1009716X15	18,870
16 x 2	1009716X2	18,870
18 x 1,5	1009718X15	26,577

12057		HSS	
		Cod.	€ cad/each
M 2 x 0,4	25,4x9	1205702X04	6,726
3 x 0,5		1205703X05	6,726
4 x 0,7		1205704X07	6,726
5 x 0,8		1205705X08	6,726
6 x 0,75		1205706X075	6,726
6 x 1		1205706X1	6,726
7 x 0,75		1205707X075	6,726
7 x 1		1205707X1	6,726
8 x 0,75		1205708X075	6,726
8 x 1		1205708X1	6,726
8 x 1,25		1205708X125	6,726
9 x 0,75		1205709X075	6,726
9 x 1		1205709X1	6,726
9 x 1,25		1205709X125	6,726
10 x 0,75	38,1x14	1205710X075	12,247
10 x 1		1205710X1	12,247
10 x 1,25		1205710X125	12,247
10 x 1,5		1205710X15	12,247
11 x 0,75		1205711X075	12,247
11 x 1		1205711X1	12,247
11 x 1,25		1205711X125	12,247
11 x 1,5		1205711X15	12,247
12 x 0,75		1205712X075	12,247
12 x 1		1205712X1	12,247
12 x 1,25		1205712X125	12,247
12 x 1,5		1205712X15	12,247
12 x 1,75		1205712X175	12,247
14 x 1		1205714X1	12,247
14 x 1,25		1205714X125	12,247
14 x 1,5		1205714X15	12,247
14 x 2		1205714X2	12,247
16 x 1		1205716X1	12,247
16 x 1,5		1205716X15	12,247
16 x 2		1205716X2	12,247
18 x 1,5		1205718X15	12,247

ASSORTIMENTI A FILETTARE WHITWORTH PER GARAGE ED INDUSTRIA

BSW-BSF threading set for garages and industries in wooden case / Assortiments à fileter pour usines et garages, filetage Whitworth
Juego de utensilios a roscar para garages y industria, rosca Whitworth / Gewindeschneidewerkzeugesätze für Garage und Industrie in Holzkassette

C.V.



BSW

Cod.	€ cad/each	3 pcs	N°1-2
17012520 BSW 1/8÷1/2	316,979	1/8-5/32-3/16 1/4-5/16-3/8 7/16-1/2	25,4-38,1

Cod.	€ cad/each	3 pcs	N°1-2-4
17012521 BSW 1/8÷1”	632,775	1/8-5/32-3/16 1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1”	25,4-38,1-50,8

Cod.	€ cad/each	3 pcs	N°1-3-6
17012522 BSW 1/8÷1.1/2	1.928,217	1/8-5/32-3/16-1/4 5/16-3/8-7/16-1/2 9/16-5/8-3/4 7/8-1”-1.1/8 1.1/4-1.3/8-1.1/2	25,4-38,1 50,8-63,5

BSF

Cod.	€ cad/each	2 pcs	N°1-4
17012525 BSF 1/4÷1”	624,402	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1”	25,4-38,1-50,8



BSW+BSF

Cod.	€ cad/each	BSW 3 pcs BSF 2 pcs	N°1-3
17012528 BSW+BSF 1/4÷3/4	727,265	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8

Cod.	€ cad/each	BSW 3 pcs BSF 2 pcs	N°1-4
17012529 BSW+BSF 1/4÷1”	988,030	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1”	25,4-38,1-50,8

ASSORTIMENTI A FILETTARE, FILETTATURA GAS CILINDRICA PER TUBI, IN CASSETTA DI LEGNO

BSP threading set in wooden case / Assortiments à fileter, filetage gaz cylindrique

Juego de utensilios a roscar en caja de madera, rosca BSP/ Gewindeschneidwerkzeugesätze, Rohrgewinde BSP

C.V.



BSP

Cod.	€ cad/each	2 pcs	N°3-5
17012515 BSP 1/8÷1"	765,540	1/8-1/4-3/8 1/2-3/4-1"	38,1-50,8-63,5

Cod.	€ cad/each	2 pcs	N°4-7
17012516 BSP 1/4÷1.1/2	1.728,453	1/4-3/8-1/2 3/4-1"-1.1/4 1.1/2	38,1-50,8 63,5-76,2

ASSORTIMENTI A FILETTARE, FILETTATURA GAS CONICA PER TUBI

Taper threading set in wooden case / Assortiments à fileter pour usines, filetage gaz conique

Juego de utensilios a roscar en caja de madera, rosca conica gas / Gewindeschneidwerkzeugesätze, kegeliges Rohrgewinde



BSPT

Cod.	€ cad/each	1 pc	N°1-3-5
17012540 BSPT 1/8÷1"	1.026,305	1/8-1/4-3/8 1/2-3/4-1"	30x11-38x14 45x18-55x22-65x25



NPT

Cod.	€ cad/each	1 pc	N°1-3-5
17012545 NPT 1/8÷1"	1.026,305	1/8-1/4-3/8 1/2-3/4-1"	30x11-38x14-45x18 55x22-65x25

ASSORTIMENTI A FILETTARE UNC E UNF PER GARAGES ED INDUSTRIA

UNC threading set for garages and industries / Assortiments à fileter pour usines et garages, filetage Americain UNC-UNF

Juego de utensilios a roscar para garages y industria, rosca Americana UNC-UNF / Gewindeschneidewerkzeugesätze, amerikanischer gewinde UNC-UNF

C.V.



UNC

Cod.	€ cad/each	3 pcs	N°1-3
17012560 UNC 1/4÷3/4	566,983	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8

Cod.	€ cad/each	3 pcs	N°1-4
17012561 UNF 1/4÷1"	724,876	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8

Cod.	€ cad/each	3 pcs	N°1-3-6
17012562 UNC 1/4÷1.1/2	2.271,516	1/4-5/16-3/8-7/16 1/2-9/16-5/8-3/4 7/8-1"-1.1/8-1.1/4 1.3/8-1.1/2	25,4-38,1 50,8-63,5



UNF

Cod.	€ cad/each	2 pcs	N°1-3
17012565 UNF 1/4÷3/4	535,885	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8

Cod.	€ cad/each	2 pcs	N°1-4
17012566 UNF 1/4÷1"	660,278	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8

Cod.	€ cad/each	2 pcs	N°1-3-6
17012567 UNF 1/4÷1.1/2	2.187,787	1/4-5/16-3/8-7/16 1/2-9/16-5/8-3/4 7/8-1"-1.1/8-1.1/4 1.3/8-1.1/2	25,4-38,1 50,8-63,5



UNC+UNF

Cod.	€ cad/each	UNC 3 pcs UNF 2 pcs	N°1-3
17012570 UNC+UNF 1/4÷3/4	1.106,452	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8

Cod.	€ cad/each	UNC 3 pcs UNF 2 pcs	N°1-4
17012571 UNC+UNF 1/4÷1"	1.374,393	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8

GUIDA ALLA RISOLUZIONE DEI PROBLEMI DI FILETTATURA

Threading troubleshooting guide

Immagine del difetto / *Photo of the defect*



Maschio
Tap

Descrizione del difetto
Description of the defect

Intasamento dei residui di lavorazione di maschiatura nelle scanalature.
Clogging of grooves with residues from the tapping process.

Possibili soluzioni del problema
Possible solutions to the problem

Utilizzare un lubrorefrigerante più fluido (meno viscoso) oppure aumentarne il flusso.
Use more fluid coolant (less viscous) or increase the flow.

Immagine del difetto / *Photo of the defect*



Maschio
Tap

Descrizione del difetto
Description of the defect

Craterizzazione del maschio (distacco di una porzione di tagliente).
Pitting of the tap (detachment of a portion of the cutting edge).

Possibili soluzioni del problema
Possible solutions to the problem

Diminuire la velocità di maschiatura.
Reduce the tapping speed.

Immagine del difetto / *Photo of the defect*



Particolare filettato
Threaded part

Descrizione del difetto
Description of the defect

Difficoltà di inserimento di coil o di vite nell'area filettata (filetto sovra o sotto dimensionato).
Difficulty in inserting coils or screws in the threaded area (thread too small or too big).

Possibili soluzioni del problema
Possible solutions to the problem

Sostituire il maschio usurato e/o controllare la dimensione effettiva del preforo.
Replace the worn tap and/or check the actual size of the pilot-hole.

Immagine del difetto / *Photo of the defect*



Maschio
Tap

Descrizione del difetto
Description of the defect

Rottura del maschio in prossimità della punta.
Breaking of the tap near the tip.

Possibili soluzioni del problema
Possible solutions to the problem

Praticare un preforo di diametro idoneo o leggermente sovradimensionato nel caso di filettature di materiali con elevata componente elastica (es. inox).
Drill a pilot-hole with a suitable diameter or slightly larger if threading materials with high elastic component (e.g. stainless steel).

Immagine del difetto / *Photo of the defect*



Filiera
Round die

Descrizione del difetto
Description of the defect

Craterizzazione della filiera (distacco di una porzione di tagliente.
Pitting of threading die (detachment of a portion of the cutting edge).

Possibili soluzioni del problema
Possible solutions to the problem

Controllare la dimensione nominale della barra in filettatura. Utilizzare un girafiliere manuale.
Check the nominal size of the thread in the bar. Use a manual die stock.

Immagine del difetto / *Photo of the defect*



Maschio a macchina
Machine tap

Descrizione del difetto
Description of the defect

Imbocco del maschio scheggiato.
Entrance of the tap is chipped.

Possibili soluzioni del problema
Possible solutions to the problem

Controllare la dimensione del preforo e/o diminuire la velocità di filettatura e/o avanzamento.
Check the size of the pilot hole and/or decrease the threading and/or advancement speed.

Immagine del difetto / *Photo of the defect*



Maschio a macchina
Machine tap

Descrizione del difetto
Description of the defect

Rottura multipla del maschio.
Multiple breaks in the tap.

Possibili soluzioni del problema
Possible solutions to the problem

Diminuire la velocità di filettatura e/o avanzamento. Filettare spessori non superiori a 1.5 volte il diametro nominale del maschio. Utilizzare teste a maschiare con frizione (specialmente nella maschiatura di fori ciechi). Mantenere pulito il fondo del foro cieco per evitare intasamento dei trucioli e conseguente danneggiamento del maschio. Verificare il corretto allineamento assiale maschio-preforo.
Decrease the threading and/or advancement speed. Thread thicknesses should not exceed 1.5 times the nominal diameter of the tap. Use tapping heads with friction (especially when tapping blind holes). Keep the bottom of the blind hole clean in order to prevent clogging with chips and consequent damage to the tap. Check the correct alignment of the tap-pilot hole axis.

Immagine del difetto / *Photo of the defect*



Maschio a macchina
Machine tap

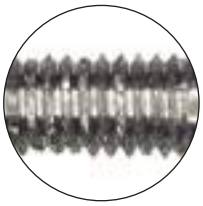
Descrizione del difetto
Description of the defect

Rottura del maschio in prossimità del termine dell'area filettata.
Breaking of the tap near the end of the threaded area.

Possibili soluzioni del problema
Possible solutions to the problem

Filettare spessori non superiori a 1.5 volte il diametro nominale del maschio. Utilizzare teste a maschiare con frizione (specialmente nella maschiatura di fori ciechi). Mantenere pulito il fondo del foro cieco per evitare intasamento dei trucioli e conseguente danneggiamento del maschio.
Thread thicknesses should not exceed 1.5 times the nominal diameter of the tap. Use tapping heads with friction (especially when tapping blind holes). Keep the bottom of the blind hole clean in order to prevent clogging with chips and consequent damage to the tap.

Immagine del difetto / *Photo of the defect*



Particolare filettato
Threaded part

Descrizione del difetto
Description of the defect

Filettatura realizzata con finitura scadente.
Threading made with poor finishing.

Possibili soluzioni del problema
Possible solutions to the problem

Sostituire la filiera con una non usurata. Verificare la corretta ortogonalità filiera-barra in filettatura. Effettuare mezzo giro in senso anti-orario ad ogni rotazione oraria della filiera, per rompere il truciolo prodotto.
Replace the threading die with a new one. Check the correct orthogonality of the threading die-bar. At every clockwise rotation of the die, make a half-turn in a counter-clockwise direction to break the chip produced.

GUIDE DÉPANNAGE POUR LES PROBLÈMES DE FILETAGE

Guía para la resolución de problemas de roscado

Image du dèfaut / *Foto del defecto*



Taraud
Macho

Description du dèfaut
Descripción del defecto

Obstruction suite aux résidus de taraudage dans les rainures.
Atasco de restos de material trabajado procedente del roscado en las acanaladuras.

Solutions possibles au problème
Posibles soluciones del problema

Utiliser un liquide de refroidissement plus fluide (moins visqueux) ou augmenter le débit.
Usar un lubricante-refrigerante más fluido (de menor viscosidad) o aumentar el flujo.

Image du dèfaut / *Foto del defecto*



Taraud
Macho

Description du dèfaut
Descripción del defecto

Cratérisation de l'élément mâle (détachement d'une partie de l'arête de coupe).
Formación de cráteres en el machuelo (separación de una parte del borde cortante).

Solutions possibles au problème
Posibles soluciones del problema

Diminuire la velocità di maschiatura.
Disminuir la velocidad de roscado.

Image du dèfaut / *Foto del defecto*



Détail fileté
Detalle roscado

Description du dèfaut
Descripción del defecto

Difficultés d'insertion de la bobine ou des vis dans le filetage (filet sur ou sous dimensionné).
Dificultad a introducir el inserto o el tornillo en la zona roscada (rosca demasiado grande o demasiado pequeña).

Solutions possibles au problème
Posibles soluciones del problema

Remplacer l'élément mâle usé et/ou contrôler la taille réelle du pré-percement.
Sustituir el machuelo gastado y/o controlar el tamaño real del orificio piloto.

Image du dèfaut / *Foto del defecto*



Taraud
Macho

Description du dèfaut
Descripción del defecto

Rupture de l'élément mâle près de la pointe.
Ruptura del machuelo cerca de la punta.

Solutions possibles au problème
Posibles soluciones del problema

Effectuer le pré-percement au diamètre approprié ou légèrement surdimensionné dans le cas de filetage des matériaux avec un composant élastique élevé (par exemple en acier inoxydable).
Realizar un orificio piloto de diámetro idóneo o ligeramente mayor en el caso de roscados sobre materiales con características elásticas (por ejemplo el acero).

Image du dèfaut / *Foto del defecto*



Filiere ronde
Cojinete redondo

Description du dèfaut
Descripción del defecto

Cratérisation de la filière (détachement d'une partie de l'arête de coupe).
Formación de cráteres en la terraja de roscar (separación de una parte del borde cortante).

Solutions possibles au problème
Posibles soluciones del problema

Contrôler la taille nominale de la barre en filetage. Utiliser un porte-filière manuel.
Controlar el tamaño nominal de la barra de roscado. Usar una terraja para roscar manual.

Image du dèfaut / *Foto del defecto*



Taraud machine
Macho de maquina

Description du dèfaut
Descripción del defecto

Bouche de de l'élément mâle ébréché.
Entrada del machuelo desportillada.

Solutions possibles au problème
Posibles soluciones del problema

Contrôler la taille du pré-percement et/ou diminuer la vitesse du filetage et/ou de l'avancement.
Controlar el tamaño del orificio piloto y/o disminuir la velocidad de roscado y/ avance.

Image du dèfaut / *Foto del defecto*



Taraud machine
Macho de maquina

Description du dèfaut
Descripción del defecto

Rupture multiple de l'élément mâle.
Ruptura múltiple del machuelo.

Solutions possibles au problème
Posibles soluciones del problema

Diminuer la vitesse de filetage et/ou d'avancement. Fileter des épaisseurs ne dépassant pas 1,5 fois le diamètre nominal de l'élément mâle. Utiliser des têtes de taraudage avec embrayage (spécialement dans le taraudage des trous borgnes). Conserver le fond du trou borgne propre pour éviter l'obstruction par le biais de copeaux et dommages consécutifs de l'élément mâle. Vérifier l'alignement correct axial élément mâle-pré-percement.
Disminuir la velocidad de roscado y/o de avance. Roscar espesores que no sean superiores a 1,5 veces el diámetro nominal del machuelo. Usar cabezas para el roscado con embrague (especialmente en los roscados de orificios ciegos). Mantener limpio el fondo del orificio ciego para evitar el atasco de las virutas y el consiguiente deterioro del machuelo. Controlar la correcta alineación axial machuelo-orificio piloto.

Image du dèfaut / *Foto del defecto*



Taraud machine
Macho de maquina

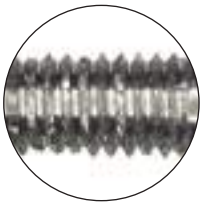
Description du dèfaut
Descripción del defecto

Rupture de l'élément mâle près de l'extrémité du filetage.
Ruptura del machuelo casi al final del área roscada.

Solutions possibles au problème
Posibles soluciones del problema

Fileter des épaisseurs ne dépassant pas 1,5 fois le diamètre nominal de l'élément mâle. Utiliser des têtes de taraudage avec embrayage (spécialement dans le taraudage des trous borgnes). Conserver le fond du trou borgne propre pour éviter 'obstruction par le biais de copeaux et dommages consécutifs de l'élément mâle.
Roscar espesores que no sean superiores a 1,5 veces el diámetro nominal del machuelo. Usar siempre cabezas para roscar con embrague (especialmente en los roscados de orificios ciegos). Mantener limpio el fondo del orificio ciego para evitar el atasco de virutas y el consiguiente deterioro del machuelo.

Image du dèfaut / *Foto del defecto*



Détail fileté
Detalle roscado

Description du dèfaut
Descripción del defecto

Filetage réalisé avec une finition médiocre.
Roscado realizado con acabado de baja calidad.

Solutions possibles au problème
Posibles soluciones del problema

Remplacer la filière avec une filière non usée. Vérifier l'orthogonalité correcte filière-barre en filetage. Effectuer un demi-tour vers la gauche à chaque rotation vers la droite de la filière, pour briser le copeau du produit.
Sustituir la terraja para roscar con una que no esté gastada. Controlar la correcta ortogonalidad terraja-barra de roscado. Dar media vuelta en el sentido contrario a las agujas del reloj por cada rotación en sentido horario de la terraja, para romper la viruta que se haya producido.

CUTTING TOOLS **ENGINEERING**

Con questo capitolo di utensili per alesare e fresare è compiuta la gamma più importante degli utensili da taglio per asportazione di truciolo. Una particolare attenzione è stata dedicata alle frese frontali, nelle versioni in acciaio superrapido HSS-CO8% ed in metallo duro integrale di grande qualità, con e senza rivestimento, per operazioni di sgrossatura, finitura e superfinitura.

This chapter of boring and milling tools completes the wide range of chip removal tools presented in this new catalogue. Special attention was given to the section relating to frontal burrs in HSS-CO8% steel, also with TiAlN surface coating, and in high-quality carbide for the roughing, finishing and super-finishing operations.

Ce chapitre, qui comprend les outils pour aléser et fraiser différentes classes d'acier, nous permet de compléter l'importante gamme d'outils de découpe pour l'enlèvement des copeaux présentée dans ce nouveau catalogue. Une attention particulière a été dédiée à la section des fraises frontales dans les versions en acier super rapide HSS-CO8%, présentées aussi avec le revêtement de surface TiAlN, et en métal dur intégral de grande qualité pour les opérations de dégrossissage, finition et superfinition.

Con este apartado, que incluye los utensilios para escariar y fresar en diferentes tipos de acero, completamos ulteriormente la importante gama de utensilios de corte para eliminar virutas, ilustrada en este nuevo catálogo. Se ha dedicado una atención especial a la sección de fresas frontales, en las versiones de acero super rápido HSS-CO8%, presentadas también con revestimiento superficial TiAlN, y de metal duro integral de gran calidad para operaciones de desbaste, acabado y superacabado.

ALESATORI E FRESE FRONTALI

Hand reamers & end mills
Alésoirs et fraises à rainurer
Escariadores y fresas frontales
Reibahlen und langlochfräser

ALESATORI A MACCHINA HSS-CO A CODOLO CILINDRICO

HSS-CO machine reamers / Alésoirs machine HSS-CO
Escariadores a maquina HSS-CO / Maschinenreibahlen HSS-CO

HSS-CO

29020 **29021**





10°



DIN 212/2B

45°



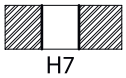
DIN 212/2C
Per centri a controllo numerico CNC

Confezione / *Packaging*



Applicazioni / *Applications*





- Per operazioni di finitura di fori passanti in tolleranza H7 di materiali ferrosi e non ferrosi.
- *Suitable for finishing operations, inside through holes with H7 tolerance.*

					Art. 29020			Art. 29021		
Ø g6	d h9	l mm	L mm	pcs	z	cod.	€ cad/each	z	cod.	€ cad/each
3	3,0	15	61	1	6	290200300	26,543	3	290210300	31,291
4	4,0	19	75	1	6	290200400	26,465	3	290210400	42,841
5	5,0	23	86	1	6	290200500	28,289	3	290210500	44,300
6	6,0	26	93	1	6	290200600	28,791	3	290210600	46,365
7	7,0	30	109	1	6	290200700	34,071	3	290210700	51,773
8	8,0	32	117	1	6	290200800	35,203	3	290210800	55,237
9	9,0	36	125	1	6	290200900	44,507	3	290210900	57,132
10	10,0	38	133	1	6	290201000	41,553	3	290211000	66,359
10,5	10,0	38	133	1	6	290201050	59,531	3	-	-
11	10,0	41	142	1	8	290201100	59,531	3	290211100	87,809
12	10,0	44	151	1	8	290201200	63,617	3	290211200	98,990
13	10,0	44	151	1	8	290201300	70,972	3	290211300	87,707
14	12,5	47	160	1	8	290201400	73,298	3	290211400	109,520
15	12,5	50	162	1	8	290201500	75,687	3	-	-
16	12,5	52	170	1	8	290201600	79,333	3	290211600	129,069
17	14,0	54	175	1	8	290201700	100,203	3	-	-
18	14,0	56	182	1	8	290201800	102,528	3	290211800	178,109
19	16,0	58	189	1	10	290201900	120,759	3	-	-
20	16,0	60	195	1	10	290202000	115,668	3	290212000	184,975

Art. 29020: decimali e centesimali su richiesta
Decimal reamers and centesimal ones on demand

Art. 29021: Il numero dispari di taglienti genera fori con minori errori di circolarità ed evita imperfezioni dovute a vibrazioni.
The odd number of cutting edges generates holes with less circular errors and prevents imperfections due to vibrations.

Consigli d'uso / *Use tips*

Per evitare un'usura precoce dell'utensile, è buona norma fare ruotare l'alesatore sempre e solo nel verso corretto di rotazione e lavorare con uno spessore corretto di sovrametallo da asportare.
Di seguito si riporta lo spessore di sovrametallo consigliato:
Please always rotate the reamer according to the correct sense of rotation to prevent early tool wear.
Please refer to the previous table to learn the right removable stock thickness to be used.

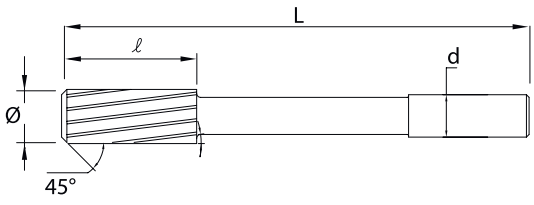
Diametro foro (mm) *Hole diameter*	Spessore consigliato di sovrametallo (mm) *Removable stock thichness*
ø≤4	0,1
4<ø≤11	0,2
11<ø≤38	0,3
40<ø≤50	0,4

Lo spessore di sovrametallo non deve essere troppo limitato, perché in tal modo l'alesatore comprime il materiale invece di tagliarlo. D'altro canto lo spessore non deve essere troppo elevato, perché l'utensile rischia di incollarsi e/o il foro generato risulta sottodimensionato.

Fori sottodimensionati si ottengono anche con velocità e avanzamenti troppo bassi o con apporti troppo limitati di lubrorefrigerante, mentre fori sovradimensionati si ottengono con parametri di taglio troppo elevati. Parametri di lavoro scorretti generano tra l'altro anche fori con una cattiva finitura.

If the removable stock thickness is too little, the reamer compresses the work-piece material instead of cutting it; on the other hand, if the removable stock thickness is too high, the tool tries to stick and/or the hole you produce is too little.

You'll produce little holes also with low cutting parameters (low cutting speed, low feed, low lubricant content), whereas you'll drill bigger holes than expected if you use high cutting parameters. Please use the recommended cutting parameters to avoid any bad finishing.



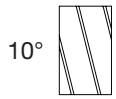
ALESATORI A MACCHINA A CODOLO CONICO MORSE

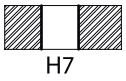
Morse taper shank machine reamers / Alésoirs machine queue conique
Escariadores a maquina mango conico Morse / Morsekegelmaschinenreibahlen

HSS-CO DIN 208 B

29026



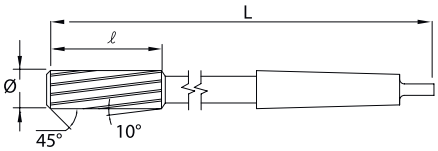




- Per operazioni di finitura di fori passanti in tolleranza H7 di materiali ferrosi e non ferrosi.
- *Suitable for finishing operations, inside through holes with H7 tolerance.*

Ø g6	M.K.	l mm	L mm	z	pcs	cod.	€ cad/each
5	1	23	133	6	1	290260500	42,730
6	1	26	138	6	1	290260600	41,491
7	1	31	150	6	1	290260700	42,116
8	1	33	156	6	1	290260800	42,730
9	1	36	162	6	1	290260900	43,355
10	1	38	168	6	1	290261000	43,969
11	1	41	175	8	1	290261100	47,063
12	1	44	182	8	1	290261200	48,927
13	1	44	182	8	1	290261300	50,781
14	1	47	189	8	1	290261400	56,969
15	2	50	204	8	1	290261500	64,406
16	2	52	210	8	1	290261600	69,979
17	2	54	214	8	1	290261700	71,218
18	2	56	219	8	1	290261800	76,792
19	2	58	223	10	1	290261900	81,124
20	2	60	228	10	1	290262000	90,417
21	2	62	232	10	1	290262100	92,271

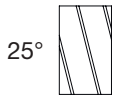
Ø g6	M.K.	l mm	L mm	z	pcs	cod.	€ cad/each
22	2	64	237	10	1	290262200	98,468
23	2	66	241	10	1	290262300	105,281
24	3	68	268	10	1	290262400	127,573
25	3	68	268	10	1	290262500	127,573
26	3	70	273	10	1	290262600	143,666
27	3	71	277	10	1	290262700	144,906
28	3	71	277	10	1	290262800	158,531
30	3	73	281	10	1	290263000	175,248
31	3	75	285	12	1	290263100	187,636
32	4	77	317	12	1	290263200	219,218
34	4	78	321	12	1	290263400	244,613
35	4	78	321	12	1	290263500	253,280
36	4	79	325	12	1	290263600	268,144
38	4	81	329	12	1	290263800	292,291
40	4	81	329	12	1	290264000	322,635
45	4	83	336	12	1	290264500	392,358
50	4	86	344	12	1	290265000	444,604



HSS DIN 311

29039







- Per alesare fori disallineati che devono essere rivettati o imbullonati insieme
- *Suitable for finishing operations, throught misaligned holes*

Ø g6	M.K.	l mm	L mm	z	pcs	cod.	€ cad/each
10	1	95	171	4	1	290391000	56,089
11	1	100	176	4	1	290391100	61,022
12	2	105	199	5	1	290391200	71,497
13	2	105	199	5	1	290391300	75,212
14	2	115	209	5	1	290391400	82,580
15	2	125	209	5	1	290391500	91,837
16	2	135	219	5	1	290391600	96,709
17	3	135	229	5	1	290391700	109,072
18	3	145	251	5	1	290391800	119,669
19	3	145	261	5	1	290391900	135,015
20	3	155	261	5	1	290392000	146,769
21	3	155	271	5	1	290392100	151,519
22	3	165	271	5	1	290392200	166,257
23	3	165	281	5	1	290392300	173,321
24	3	180	281	5	1	290392400	192,749
25	3	180	296	5	1	290392500	203,711
26	3	180	296	5	1	290392600	205,964
27	3	195	311	5	1	290392700	230,689
28	3	195	311	5	1	290392800	241,956
30	3	195	311	5	1	290393000	267,290
31	3	210	326	5	1	290393100	297,679
32	4	210	354	5	1	290393200	324,658
34	4	220	364	5	1	290393400	368,019
36	4	220	364	5	1	290393600	410,527

ALESATORI A MANICOTTO IN HSS CON TAGLIENTI ELICOIDALI E FORO CONICO 1:30

HSS shell reamers with taper bore 1:30 / Alésoirs creux à alesage conique 1:30
Escariadores huecos a maquina HSS conicidad 1:30 / Aufsteckreibahlen mit kegeliger Borhung 1:30

HSS DIN 219 B

29040





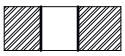
Ø g6	Ø foro/*hole* mm	*l* mm	L mm	z	pcs	cod.	€ cad/each
30	13,0	32	45	10	1	290403000	106,510
32	16,0	36	50	12	1	290403200	119,519
34	16,0	36	50	12	1	290403400	132,521
35	16,0	36	50	12	1	290403500	133,145
36	19,0	40	56	12	1	290403600	151,718
38	19,0	40	56	12	1	290403800	161,625
40	19,0	40	56	12	1	290404000	169,677
42	19,0	40	56	12	1	290404200	183,926
45	22,0	45	63	12	1	290404500	216,125
46	22,0	45	63	12	1	290404600	229,134
48	22,0	45	63	12	1	290404800	242,750
50	22,0	45	63	12	1	290405000	260,814
52	27,0	50	71	12	1	290405200	291,420
55	27,0	50	71	12	1	290405500	323,262
58	27,0	50	71	12	1	290405800	341,017
60	27,0	50	71	12	1	290406000	358,152

Confezione / *Packaging*



Applicazioni / *Applications*





- Per operazioni di finitura di fori passanti in tolleranza H7 di materiali ferrosi e non ferrosi. Da utilizzare con apposito mandrino porta alesatore.
- *Suitable for finishing operations, inside through holes with H7 tolerance. Use with proper drill chuck.*

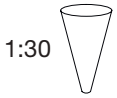
MANDRINO PORTA ALESATORE A MANICOTTO CON ESTRATTORE

Drill chuck for shell reamers with ejecting tool / Mandrin porte-alésoir creux avec extracteur
Mandrino para corona de escariador a maquina / Bohrfutter für Aufsteckreibahlen mit Abzieher

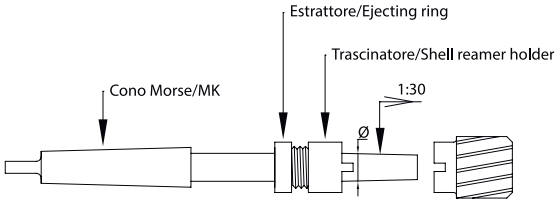
DIN 217

29041





M.K.	Ø foro/*hole* mm	L mm	cod.	€ cad/each
3	13	250	290410313	255,654
3	16	261	290410316	275,307
4	19	298	290410419	335,376
4	22	312	290410422	378,244
5	27	359	290410527	545,806



ALESATORI A MANO IN HSS A CODOLO CILINDRICO

HSS hand reamers / Alésoirs à main HSS

Escariadores a mano HSS / Handreibahlen HSS

HSS DIN 206 B

29001





Confezione / *Packaging*



Applicazioni / *Applications*

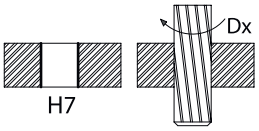


Ø g6	d e9	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
4	4	3,0	38	76	6	1	290010400	23,878
5	5	3,8	44	87	6	1	290010500	27,361
6	6	4,9	47	93	6	1	290010600	29,517
7	7	5,5	54	107	6	1	290010700	33,122
8	8	6,2	58	115	6	1	290010800	35,998
9	9	7,0	62	124	6	1	290010900	39,603
10	10	8,0	66	133	6	1	290011000	43,916
11	11	9,0	71	142	8	1	290011100	59,034
12	12	9,0	76	152	8	1	290011200	64,797
13	13	10,0	76	152	8	1	290011300	70,557
14	14	11,0	81	163	8	1	290011400	79,194
15	15	12,0	81	163	8	1	290011500	86,394
16	16	12,0	87	175	8	1	290011600	97,200
17	17	13,0	87	175	8	1	290011700	98,637
18	18	14,5	93	188	8	1	290011800	100,074
19	19	14,5	93	188	10	1	290011900	105,118
20	20	16,0	100	201	10	1	290012000	123,831
21	21	16,0	100	201	10	1	290012100	124,549
22	22	18,0	107	215	10	1	290012200	138,229
23	23	18,0	107	215	10	1	290012300	146,146
24	24	18,0	115	231	10	1	290012400	170,632
25	25	20,0	115	231	10	1	290012500	171,352
26	26	20,0	115	231	10	1	290012600	190,792
27	27	22,0	124	247	10	1	290012700	205,192
28	28	22,0	124	247	10	1	290012800	227,510
30	30	24,0	124	247	10	1	290013000	249,828
32	32	24,0	133	265	12	1	290013200	293,025
34	34	26,0	142	284	12	1	290013400	339,098
35	35	29,0	142	284	12	1	290013500	357,820
36	36	29,0	142	284	12	1	290013600	371,501
38	38	29,0	152	305	12	1	290013800	431,972
40	40	32,0	152	305	12	1	290014000	469,408

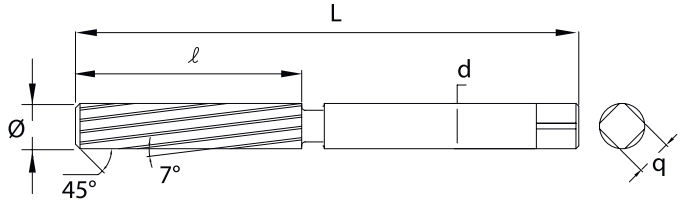
Sovrametallo consigliato

Recommended removable stock

Diametro foro (mm) *Hole diameter*	Spessore consigliato di sovrametallo (mm) *Removable stock thichness*
ø≤11	0,2
11<ø≤38	0,3
ø=40	0,4



- Per operazioni di calibratura, lavori di manutenzione o riparazione di fori passanti in tolleranza H7.
- *Suitable for gauging operations, maintenance and recovery of through holes with H7 tolerance.*



ALESATORI REGOLABILI A MANO A ESPANSIONE IN HSS A CODOLO CILINDRICO

HSS adjustable hand reamers / Alésoirs à main réglables HSS

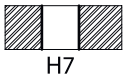
Escariadores extensibles en HSS con guia / Handreibahlen mit verschiebbaren Messen

HSS DIN 859/B

29006

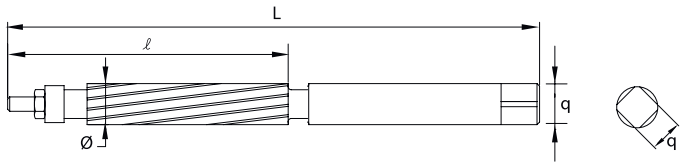






Piccola espansione 1/100 del diametro nominale
Adjustable hand reamer 1/100 nominal diameter

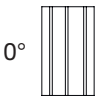
Ø mm	d e9	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
4	4	3,0	24	76	6	1	29006001	124,775
5	5	3,8	30	87	6	1	29006002	126,182
6	6	4,9	33	93	6	1	29006003	127,319
7	7	5,5	38	107	9	1	29006004	155,251
8	8	6,2	42	115	9	1	29006005	153,735
9	9	7,0	46	124	9	1	29006006	164,616
10	10	8,0	50	133	9	1	29006007	170,083
11	11	9,0	51	142	9	1	29006008	202,725
12	12	9,0	56	152	9	1	29006009	192,005
13	13	10,0	56	152	9	1	29006010	221,563
14	14	11,0	61	163	9	1	29006011	227,732
15	15	12,0	61	163	9	1	29006012	239,264
16	16	12,0	67	175	9	1	29006013	297,509
19	19	14,5	68	188	9	1	29006014	315,374
20	20	16,0	75	201	9	1	29006015	324,737
22	22	18,0	82	215	12	1	29006016	387,638
24	24	18,0	85	231	12	1	29006017	426,559
25	25	20,0	85	231	12	1	29006018	426,885
30	30	24,0	94	247	12	1	29006019	552,038
33	33	26,0	99	265	12	1	29006020	872,078
38	38	29,0	111	305	12	1	29006021	1.075,926

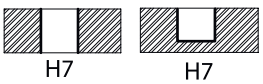


HSS

29005



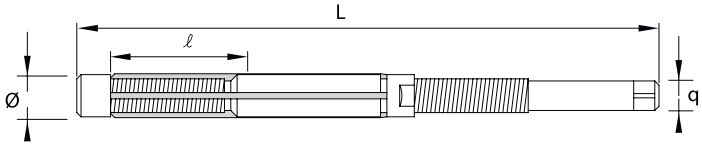




- Per eseguire riparazioni e lavorazioni leggere in fori ciechi e/o passanti in tolleranza H7.
- *Suitable for recovery and light works inside blind and/or through holes with H7 tolerance.*

Grande espansione, lame corte
Expanding hand reamer short type

Ø capacità *range*	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
6,4-7,2	3,0	32	110	4	1	29005001	177,666
7,2-8	3,4	32	110	4	1	29005002	179,657
8-9	3,8	34	115	5	1	29005003	181,648
9-10	4,3	34	115	5	1	29005004	191,379
10-11	4,9	34	115	5	1	29005005	199,011
11-12	4,9	35	125	5	1	29005006	196,854
12-13,5	6,2	41	135	5	1	29005007	222,345
13,5-15,5	7,0	50	146	5	1	29005008	242,860
15,5-18	8,0	60	166	5	1	29005009	244,906
18-21	9,0	65	178	5	1	29005010	268,682
21-24	11,0	76	195	5	1	29005011	331,445
24-27,5	12,0	82	218	5	1	29005012	353,784
27,5-31,5	14,5	86	245	5	1	29005013	424,507
31,5-37	18,0	98	280	6	1	29005014	580,165
37-45	20,0	108	325	6	1	29005015	749,704
45-55	26,0	118	370	6	1	29005016	1.013,135
55-65	32,0	125	400	6	1	29005017	1.319,627
67-80	39,0	140	435	8	1	29005018	1.856,799



ALESATORI A MANO IN HSS A CODOLO CILINDRICO, CONICITÀ 1:50, PER FORI DI SPINE CONICHE

Taper pin hand reamers, taper 1:50 / Alésoirs à main pour trous de goupilles coniques, conicité 1:50 / Escariadores a mano HSS, conicidad 1:50 / Handreibahlen für Kegelstiftbohrungen, Kegel 1:50

HSS DIN 9 B

29010



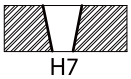
Ø mm	Ø min mm	Ø max mm	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
4	3,90	5,25	4,00	68	93	5	1	290100400	42,966
5	4,90	6,36	5,00	73	100	5	1	290100500	43,647
6	5,90	8,00	6,30	105	135	6	1	290100600	53,202
8	7,90	10,80	8,00	145	180	7	1	290100800	81,848
10	9,90	13,40	10,00	175	215	7	1	290101000	100,947
12	11,80	16,00	11,20	210	255	7	1	290101200	137,775
16	15,80	20,40	14,00	230	280	9	1	290101600	210,759
20	19,80	24,80	18,00	250	310	9	1	290102000	293,287

Confezione / *Packaging*

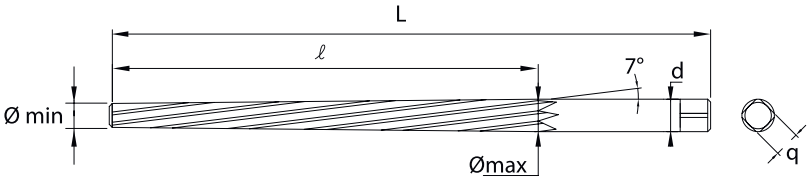


Applicazioni / *Applications*





- Per operazioni di alesatura in fori di spine coniche con tolleranza H7. Scaricare ripetutamente i trucioli durante la lavorazione.
- *Suitable for reaming in taper pin holes with H7 tolerance. Please remove the chips while reaming.*



FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI IN HSS-CO8% CON ATTACCO WELDON

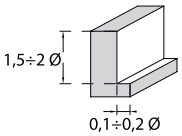
HSS-CO8% four flutes end mills, Weldon shank / Fraises à rainurer HSS-CO8%, quatre dents, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon /Vierschneider Langlochfräser

Universal

DIN 844 K

24013 24015





Finitura
Finishing

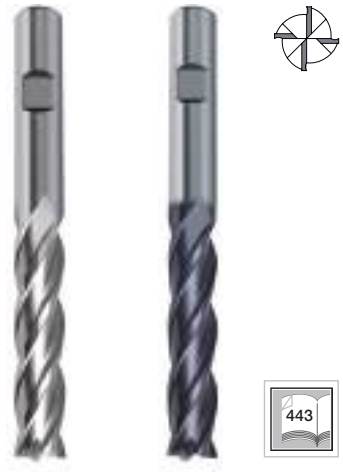
Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

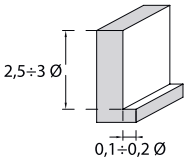
Ø k10	d mm	L mm	l mm	z	pcs	Art. 24013 HSS-Co8% cod.	€ cad/each	Art. 24015 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	52	8	4	1	240130300	15,770	240150300	24,341
4	6	55	11	4	1	240130400	15,770	240150400	23,162
5	6	57	13	4	1	240130500	15,770	240150500	23,162
6	6	57	13	4	1	240130600	15,770	240150600	22,989
7	10	66	16	4	1	240130700	23,011	240150700	31,614
8	10	69	19	4	1	240130800	21,390	240150800	30,200
9	10	69	19	4	1	240130900	23,011	240150900	31,388
10	10	72	22	4	1	240131000	21,390	240151000	30,262
12	12	83	26	4	1	240131200	29,857	240151200	40,066
14	12	83	26	4	1	240131400	37,776	240151400	48,692
16	16	92	32	4	1	240131600	40,680	240151600	59,448
18	16	92	32	4	1	240131800	53,179	240151800	71,506
20	20	104	38	4	1	240132000	61,427	240152000	80,970
22	20	104	38	6	1	240132200	74,612	240152200	99,584

Universal

DIN 844 L

24014 24016





Finitura
Finishing

Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

Ø k10	d mm	L mm	l mm	z	pcs	Art. 24014 HSS-Co8% cod.	€ cad/each	Art. 24016 HSS-Co8%+TiAlN cod.	€ cad/each
4	6	63	19	4	1	240140400	21,912	240160400	31,777
5	6	68	24	4	1	240140500	21,912	240160500	31,242
6	6	68	24	4	1	240140600	21,912	240160600	29,972
8	10	88	38	4	1	240140800	30,844	240160800	40,565
10	10	95	45	4	1	240141000	30,844	240161000	41,890
12	12	110	53	4	1	240141200	43,056	240161200	54,052
14	12	110	53	4	1	240141400	51,896	240161400	68,322
16	16	123	63	4	1	240141600	63,374	240161600	85,710
18	16	123	63	4	1	240141800	78,433	240161800	102,011
20	20	141	75	4	1	240142000	88,786	240162000	110,453

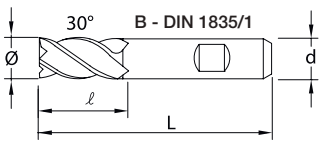
Confezione / *Packaging*



Applicazioni / *Applications*



- Acciai e metalli con R<850 N/mm², alluminio con Si 3÷12%, ghisa con durezza HB30<200
- *Steel and metals with R<850 N/mm², aluminium with Si 3÷12%, cast iron with HB30<200.*



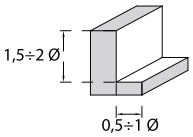
FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI A SGROSSARE IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% four flutes end mills, Weldon shank for roughing purpose / Fraises à rainurer HSS-CO8% pour dégrossissage, quatre dents, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon / Vierischneider Langlochfräser

DIN 844 K

24017 24019





Sgrossatura
Roughing

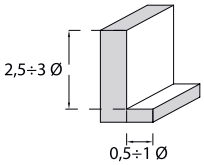
Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø k12	d mm	L mm	l mm	z	pcs	Art. 24017 HSS-Co8% cod.	€ cad/each	Art. 24019 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	57	13	4	1	240170600	30,926	240190600	38,519
8	10	69	19	4	1	240170800	35,011	240190800	44,358
10	10	72	22	4	1	240171000	35,011	240191000	50,378
12	12	79	22	4	1	240171200	43,026	240191200	53,737
14	12	83	26	4	1	240171400	49,652	240191400	61,419
16	16	92	32	4	1	240171600	56,183	240191600	73,512
18	16	92	32	4	1	240171800	63,056	240191800	80,414
20	20	104	38	4	1	240172000	79,766	240192000	99,095

DIN 844 L

24018 24020





Sgrossatura
Roughing

Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

Ø k12	d mm	L mm	l mm	z	pcs	Art. 24018 HSS-Co8% cod.	€ cad/each	Art. 24020 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	68	24	4	1	240180600	43,449	240200600	49,492
8	10	88	38	4	1	240180800	44,660	240200800	54,888
10	10	95	45	4	1	240181000	45,810	240201000	55,039
12	12	110	53	4	1	240181200	61,039	240201200	76,007
14	12	110	53	4	1	240181400	61,178	240201400	73,671
16	16	123	63	4	1	240181600	76,928	240201600	96,640
18	16	123	63	4	1	240181800	93,064	240201800	113,963
20	20	141	75	4	1	240182000	102,318	240202000	137,928
22	20	141	75	4	1	240182200	174,753	240202200	214,550
25	25	166	90	4	1	240182500	208,138	240202500	264,182
28	25	166	90	4	1	240182800	238,933	240202800	299,510

Confezione / *Packaging*

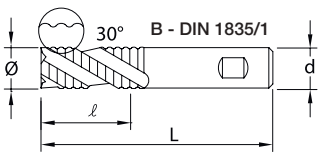


Applicazioni / *Applications*



- Acciai e metalli con R<850 N/mm², ghisa con durezza HB30<200, acciai molto duri con R<1000 N/mm².
- Steel and metals with R<850 N/mm2, cast iron with HB30<200, hard steel with R<1000 N/mm².

Rompitruciolo tipo NR
Chip-breaker NR type



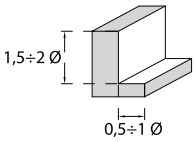
FRESE FRONTALI CIL. A 4 TAGLIENTI PER SEMIFINITURA IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% four flutes end mills, Weldon shank for finishing purpose / Fraises à rainurer HSS-CO8% pour semi-finissage, quatre dents, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon /Vierschneider Langlochfräser

DIN 844 K

24021 24023





Semifinitura
Semifinishing

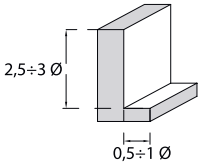
Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø k12	d mm	L mm	l mm	z	pcs	Art. 24021 HSS-Co8% cod.	€ cad/each	Art. 24023 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	57	13	4	1	240210600	43,282	240230600	53,737
8	10	69	19	4	1	240210800	45,575	240230800	57,731
10	10	72	22	4	1	240211000	56,045	240231000	67,421
12	12	83	26	4	1	240211200	62,071	240231200	76,069
14	12	83	26	4	1	240211400	74,316	240231400	90,001
16	16	92	32	4	1	240211600	85,211	240231600	107,973
18	16	92	32	4	1	240211800	89,978	240231800	114,719
20	20	104	38	4	1	240212000	102,454	240232000	127,650

DIN 844 L

24022 24024





Semifinitura
Semifinishing

Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

Ø k12	d mm	L mm	l mm	z	pcs	Art. 24022 HSS-Co8% cod.	€ cad/each	Art. 24024 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	68	24	4	1	240220600	55,992	240240600	68,205
8	10	88	38	4	1	240220800	59,789	240240800	71,868
10	10	95	45	4	1	240221000	67,422	240241000	80,214
12	12	110	53	4	1	240221200	88,699	240241200	106,187
14	12	110	53	4	1	240221400	98,251	240241400	120,183
16	16	123	63	4	1	240221600	116,262	240241600	139,936
18	16	123	63	4	1	240221800	120,435	240241800	151,998
20	20	141	75	4	1	240222000	137,695	240242000	172,058
22	20	141	75	4	1	240222200	339,238	240242200	419,072
25	25	166	90	4	1	240222500	401,184	240242500	505,785
28	25	166	90	4	1	240222800	501,907	240242800	628,758

Confezione / *Packaging*

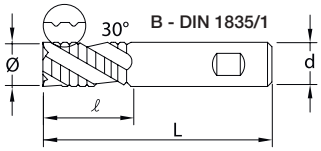


Applicazioni / *Applications*



- Acciai e metalli con R<850 N/mm², ghisa con durezza HB30<200, acciai molto duri con R<1000 N/mm².
- Steel and metals with R<850 N/mm², cast iron with HB30<200, hard steel with R<1000 N/mm².

Rompitruciolo tipo NF
Chip-breaker NF type



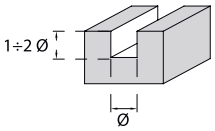
FRESE FRONTALI CILINDRICHE A 3 TAGLIENTI IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% three flutes end mills, Weldon shank / Fraises à rainurer HSS-CO8%, trois dents, queue Weldon /
Fresas frontales HSS-CO8%, mango Weldon /Dreischneider Langlochfräser

DIN 844 K

24009 24011





Fresa per cave
Slot end mills

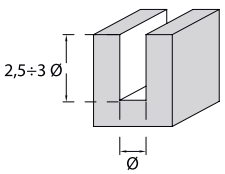
Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø e8	d mm	L mm	l mm	z	pcs	Art. 24009 HSS-Co8% cod.	€ cad/each	Art. 24011 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	52	13	3	1	240090300	15,715	240110300	21,560
4	6	55	13	3	1	240090400	15,715	240110400	21,560
5	6	57	13	3	1	240090500	15,715	240110500	21,560
6	6	57	13	3	1	240090600	15,770	240110600	20,622
8	10	69	19	3	1	240090800	21,390	240110800	26,880
10	10	72	22	3	1	240091000	20,898	240111000	27,158
12	12	79	22	3	1	240091200	27,756	240111200	36,050
14	12	83	26	3	1	240091400	34,971	240111400	42,797
16	16	92	32	3	1	240091600	39,646	240111600	50,728
18	16	92	32	3	1	240091800	51,157	240111800	61,089
20	20	104	38	3	1	240092000	58,431	240112000	71,339

DIN 844 L

24010 24012





Fresa per cave
Slot end mills

Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24010 HSS-Co8% cod.	€ cad/each	Art. 24012 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	56	12	3	1	240100300	25,145	240120300	29,189
4	6	63	19	3	1	240100400	25,145	240120400	29,189
5	6	68	24	3	1	240100500	25,145	240120500	29,189
6	6	68	24	3	1	240100600	20,499	240120600	27,847
8	10	88	38	3	1	240100800	28,854	240120800	35,557
10	10	95	45	3	1	240101000	28,854	240121000	36,621
12	12	110	53	3	1	240101200	39,646	240121200	48,631
14	12	110	53	3	1	240101400	50,395	240121400	63,501
16	16	123	63	3	1	240101600	55,435	240121600	76,203
18	16	123	63	3	1	240101800	68,574	240121800	94,796
20	20	141	75	3	1	240102000	83,710	240122000	107,527

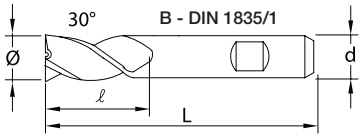
Confezione / *Packaging*



Applicazioni / *Applications*



- Acciai e metalli con R<850 N/mm².
- Steel and metals with R<850 N/mm².



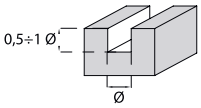
FRESE FRONTALI CILINDRICHE A 2 TAGLIENTI IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% two flutes end mills, Weldon shank / Fraises à rainurer HSS-CO8%, deux dents, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon /Zweischneider Langlochfräser

DIN 327 D

24001 24003





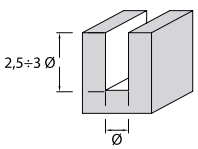
Fresa per cave
Slot end mills

Serie corta / Short serie / Sèrie courte Serie corta / Kurze Ausführung							Art. 24001 HSS-Co8%		Art. 24003 HSS-Co8%+TiAlN	
Ø	tol.	d mm	L mm	l mm	z	pcs	cod.	€ cad/each	cod.	€ cad/each
2	e8	6	48	4	2	1	240010200	13,376	240030200	20,388
2,5	e8	6	49	5	2	1	240010250	14,436	240030250	22,505
3	e8	6	49	5	2	1	240010300	13,376	240030300	20,499
3,5	h10	6	51	7	2	1	240010350	14,373	240030350	21,168
4	e8	6	51	7	2	1	240010400	13,376	240030400	19,669
4,5	h10	6	52	8	2	1	240010450	14,373	240030450	21,562
5	e8	6	52	8	2	1	240010500	13,376	240030500	19,557
5,5	h10	6	52	8	2	1	240010550	14,373	240030550	20,833
6	e8	6	52	8	2	1	240010600	13,376	240030600	19,049
6,5	h10	10	60	10	2	1	240010650	20,681	240030650	26,572
7	e8	10	60	10	2	1	240010700	20,681	240030700	26,417
7,5	h10	10	61	11	2	1	240010750	20,681	240030750	27,906
8	e8	10	61	11	2	1	240010800	19,203	240030800	25,353
8,5	h10	10	61	11	2	1	240010850	20,681	240030850	27,374
9	h10	10	61	11	2	1	240010900	20,681	240030900	28,185
9,5	h10	10	63	13	2	1	240010950	20,681	240030950	29,078
10	e8	10	63	13	2	1	240011000	19,203	240031000	29,384
11	h10	12	73	16	2	1	240011100	27,450	240031100	36,073
12	e8	12	73	16	2	1	240011200	25,564	240031200	33,998
13	h10	12	73	16	2	1	240011300	29,570	240031300	39,185
14	e8	12	73	16	2	1	240011400	28,981	240031400	36,995
15	h10	12	79	19	2	1	240011500	34,936	240031500	43,512
16	e8	16	79	19	2	1	240011600	35,461	240031600	48,746
18	e8	16	79	19	2	1	240011800	42,529	240031800	55,431
20	e8	20	88	22	2	1	240012000	50,776	240032000	67,179

DIN 844 L

24002 24004





Fresa per cave
Slot end mills

Serie lunga / Long serie / Sèrie longue Serie larga / Lange Ausführung						Art. 24002 HSS-Co8%		Art. 24004 HSS-Co8%+TiAlN	
Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each	cod.	€ cad/each
3	6	56	12	2	1	240020300	21,677	240040300	30,488
4	6	63	19	2	1	240020400	21,677	240040400	31,202
5	6	68	24	2	1	240020500	21,677	240040500	31,202
6	6	68	24	2	1	240020600	21,677	240040600	29,838
8	10	88	38	2	1	240020800	30,512	240040800	39,185
10	10	95	45	2	1	240021000	30,512	240041000	39,438
12	12	110	53	2	1	240021200	40,527	240041200	50,133
14	12	110	53	2	1	240021400	46,867	240041400	64,924
16	16	123	63	2	1	240021600	57,283	240041600	86,052
18	16	123	63	2	1	240021800	76,193	240041800	102,955
20	20	141	75	2	1	240022000	85,530	240042000	119,218

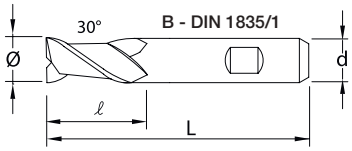
Confezione / *Packaging*



Applicazioni / *Applications*



- Acciai e metalli con R<850 N/mm², ghisa con durezza HB30<200.
- *Steel and metals with R<850 N/mm², cast iron with HB30<200.*



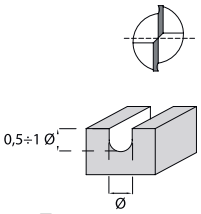
FRESE FRONTALI CILINDRICHE A RAGGIO IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% round edges end mills, Weldon shank / Fraises à rainurer à bout hémisphérique HSS-CO8%, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon /Zweischneider Langlochfräser

DIN 327 D

24005 24007





Fresa per cave
Slot end mills

443

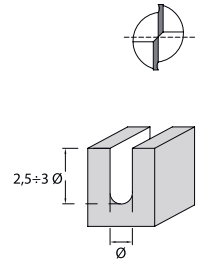
Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø e8/h10	d mm	L mm	l mm	z	pcs	Art. 24005 HSS-Co8% cod.	€ cad/each	Art. 24007 HSS-Co8%+TiAlN cod.	€ cad/each
2	6	48	4	2	1	240050200	25,586	240070200	34,298
3	6	49	5	2	1	240050300	25,239	240070300	34,125
4	6	51	7	2	1	240050400	25,586	240070400	32,616
5	6	52	8	2	1	240050500	25,009	240070500	33,054
6	6	52	8	2	1	240050600	25,586	240070600	33,714
7	10	60	10	2	1	240050700	33,486	240070700	42,128
8	10	61	11	2	1	240050800	29,604	240070800	39,388
9	10	61	11	2	1	240050900	33,171	240070900	42,104
10	10	63	13	2	1	240051000	30,600	240071000	39,876
12	12	73	16	2	1	240051200	40,630	240071200	51,161
14	12	73	16	2	1	240051400	45,373	240071400	55,267
16	16	79	19	2	1	240051600	52,162	240071600	67,536
18	16	79	19	2	1	240051800	64,255	240071800	75,551
20	20	88	22	2	1	240052000	69,304	240072000	88,234

Norma Krino

24006 24008





Fresa per cave
Slot end mills

443

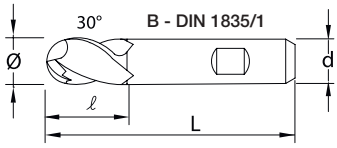
Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24006 HSS-Co8% cod.	€ cad/each	Art. 24008 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	56	8	2	1	240060300	31,295	240080300	39,185
4	6	63	11	2	1	240060400	30,719	240080400	39,230
5	6	68	13	2	1	240060500	32,678	240080500	39,876
6	6	68	13	2	1	240060600	31,295	240080600	39,230
8	10	88	19	2	1	240060800	37,660	240080800	46,363
10	10	95	22	2	1	240061000	39,939	240081000	50,741
12	12	110	26	2	1	240061200	49,090	240081200	61,070
14	12	110	26	2	1	240061400	55,844	240081400	68,752
16	16	123	32	2	1	240061600	65,116	240081600	86,038
18	16	123	32	2	1	240061800	80,328	240081800	103,673
20	20	141	38	2	1	240062000	87,295	240082000	119,461

Applicazioni / *Applications*

Acciaio *Steel* | Metals | Ghisa *Cast iron*

- Acciai e metalli con R<850 N/mm², ghisa con durezza HB30<200.
- *Steel and metals with R<850 N/mm², cast iron with HB30<200.*



FRESA FRONTALE PER PANTOGRAFI A UN DENTE PER ALLUMINIO

One flute end mills for aluminium

Alu

26100



1 Dente
1 Cutting edge

HSS-G

Ø mm	d mm	L mm	l mm	z	cod.	€ cad/each
3	8	60	12	1	2610003060	22,166
4	8	60	12	1	2610004060	22,166
4	8	80	16	1	2610004080	31,311
5	8	60	12	1	2610005060	22,166
5	8	80	16	1	2610005080	31,311
6	8	60	14	1	2610006060	22,166
6	8	90	16	1	2610006090	31,311
8	8	80	15	1	2610008080	27,045
8	8	100	28	1	2610008100	34,748
10	10	80	15	1	2610010080	27,855

Confezione / *Packaging*



Applicazioni / *Applications*

Alu

FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI IN HSS-CO5% CON ATTACCO CONICO MORSE

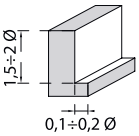
HSS-CO5% Morse taper end mills / Fraises à rainurer HSS-CO5%, queue Morse
Fresas frontales HSS-CO5%, mango Morse / Vierschneider Langlochfräser

24025

Art. 24025
Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung — **HSS-CO5%**



DIN 845K



Finitura
Finishing

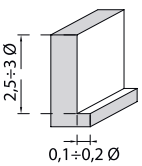
Ø k10	MK	M	FORM	L mm	l mm	z	pcs	cod.	€ cad/each
16	2	M10	A	117	32	4	1	240251600	64,112
18	2	M10	A	117	32	4	1	240251800	67,449
20	2	M10	A	123	38	4	1	240252000	75,984
25	3	M12	A	147	45	6	1	240252500	101,829
28	3	M12	A	147	45	6	1	240252800	114,093
30	3	M12	A	147	45	6	1	240253000	122,928
32	4	M16	A	178	53	6	1	240253200	148,329
40	4	M16	A	178	63	6	1	240254000	214,878

24026

Art. 24026
Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung



DIN 845L



Finitura
Finishing

Ø k10	MK	M	FORM	L mm	l mm	z	pcs	cod.	€ cad/each
16	2	M10	A	148	63	4	1	240261600	72,701
20	2	M10	A	160	75	4	1	240262000	91,492
25	3	M12	A	192	90	6	1	240262500	136,413
28	3	M12	A	192	90	6	1	240262800	156,068
32	4	M16	A	231	106	6	1	240263200	218,787
40	4	M16	A	250	125	6	1	240264000	357,000

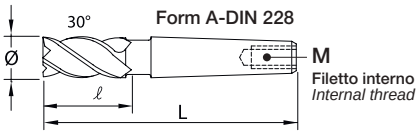
Confezione / *Packaging*



Applicazioni / *Applications*



- Acciai e metalli con R<850 N/mm², ghisa con durezza HB30<200.
- *Steel and metals with R<850 N/mm², cast iron with HB30<200.*



FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI A SGROSSARE IN HSS-CO5% CON ATTACCO CONICO MORSE

HSS-CO5% Morse taper end mills for roughing purpose / Fraises à rainurer HSS-CO5%, queue Morse, pour dégrossissage
Fresas frontales HSS-CO5%, mango Morse / Vierschneider Langlochfräser

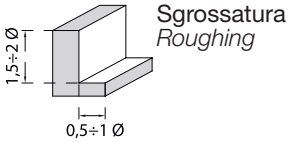
24029

Art. 24029
Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

HSS-CO5%



DIN 845K



Sgrossatura
Roughing

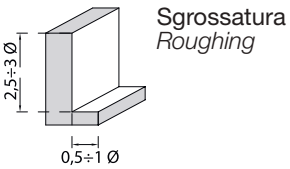
Ø k12	MK	M	FORM	L mm	l mm	z	pcs	cod.	€ cad/each
16	2	M10	A	117	32	4	1	240291600	86,306
18	2	M10	A	117	32	4	1	240291800	89,561
20	2	M10	A	123	38	4	1	240292000	106,323
25	3	M12	A	147	45	6	1	240292500	146,220
28	3	M12	A	147	45	6	1	240292800	165,544
30	3	M12	A	147	45	6	1	240293000	178,428
40	4	M12	A	147	45	6	1	240294000	472,500

24030

Art. 24030
Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung



DIN 845L



Sgrossatura
Roughing

Ø k12	MK	M	FORM	L mm	l mm	z	pcs	cod.	€ cad/each
16	2	M10	A	148	63	4	1	240301600	115,950
20	2	M10	A	160	75	4	1	240302000	147,537
25	3	M12	A	192	90	6	1	240302500	210,014
28	3	M12	A	192	90	6	1	240302800	240,906

Confezione / *Packaging*

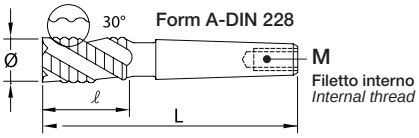


Applicazioni / *Applications*



- Acciai e metalli con R<850 N/mm², ghisa con durezza HB30<200.
- *Steel and metals with R<850 N/mm², cast iron with HB30<200.*

Rompitruciolo tipo NR
Chip-breaker NR type



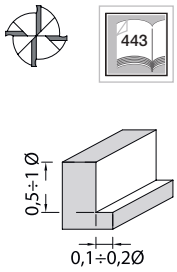
FRESE FRONTALI A 4 TAGLIENTI IN METALLO DURO INTEGRALE

*Four flutes **carbide** end mills / Fraise carbure quatre dents*
Fresas frontales de metal duro cuatro dientes / Hartmetall Vierschneider Langlochfräser

DIN 6527 K

24165 24167





Finitura
Finishing

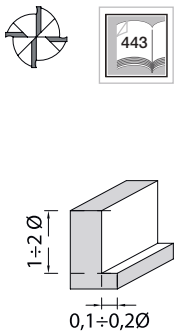
Serie corta / *Short serie*

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24165 VHM Carbide cod.	€ cad/each	Art. 24167 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
2	6	50	4	4	1	241650200	31,843	241670200	36,647
3	6	50	5	4	1	241650300	28,739	241670300	33,075
4	6	54	8	4	1	241650400	25,767	241670400	30,909
5	6	54	9	4	1	241650500	25,767	241670500	30,909
6	6	54	10	4	1	241650600	28,597	241670600	37,514
8	8	58	12	4	1	241650800	36,016	241670800	53,590
10	10	66	14	4	1	241651000	54,936	241671000	78,600
12	12	73	16	4	1	241651200	82,142	241671200	101,823
14	14	75	18	4	1	241651400	105,837	241671400	135,763
16	16	82	22	4	1	241651600	136,474	241671600	175,063
18	18	84	24	4	1	241651800	201,951	241671800	259,021
20	20	92	26	4	1	241652000	214,458	241672000	275,099

DIN 6527 L

24166 24168



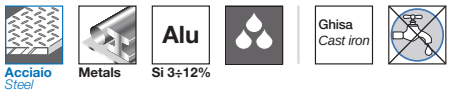


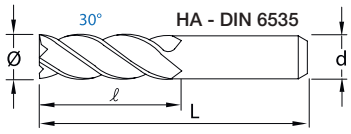
Finitura
Finishing

Serie lunga / *Long serie*

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24166 VHM Carbide cod.	€ cad/each	Art. 24168 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
2	6	57	7	4	1	241660200	42,076	241680200	48,351
3	6	57	8	4	1	241660300	35,765	241680300	41,583
4	6	57	11	4	1	241660400	32,858	241680400	39,394
5	6	57	13	4	1	241660500	32,372	241680500	38,867
6	6	57	13	4	1	241660600	32,293	241680600	44,659
8	8	63	19	4	1	241660800	39,601	241680800	64,460
9	10	72	19	4	1	241660900	70,583	241680900	89,536
10	10	72	22	4	1	241661000	62,928	241681000	90,767
12	12	83	26	4	1	241661200	85,441	241681200	118,195
14	14	83	26	4	1	241661400	121,850	241681400	146,265
16	16	92	32	4	1	241661600	147,751	241681600	181,882
18	18	92	32	4	1	241661800	207,710	241681800	257,560
20	20	104	38	4	1	241662000	228,158	241682000	289,683

R < 850 N/mm²

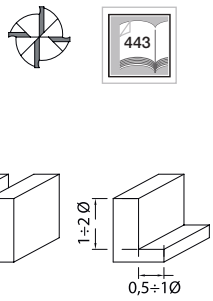




DIN 6527 L

24182





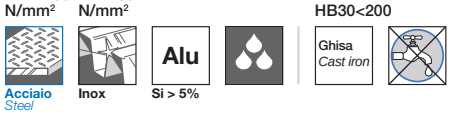
Fresa per cave
Slot end mills

Sgrossatura
Roughing

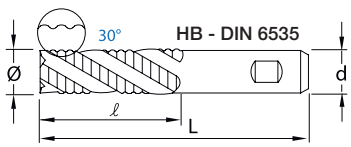
Serie lunga / *Long serie*

Ø h10	d mm	L mm	l mm	z	pcs	VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
6	6	57	13	4	1	241820600	114,651
8	8	63	19	4	1	241820800	131,143
10	10	72	22	4	1	241821000	143,568
12	12	83	26	4	1	241821200	170,288
14	14	83	26	4	1	241821400	238,029
16	16	92	32	4	1	241821600	323,470
18	18	92	32	4	1	241821800	359,688
20	20	104	38	4	1	241822000	395,145

R < 1200 N/mm² R < 750 N/mm²



Rompitruciolo tipo NRF
Chip-breaker NRF type



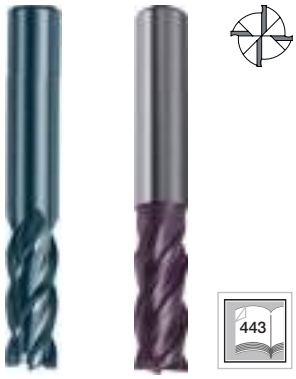
FRESE FRONTALI A 4 TAGLIENTI AD ELICA VARIABILE IN METALLO DURO INTEGRALE

*Four flutes **carbide** end mills with variable helix / Fraise carbure quatre dents avec helice variable*

Fresas frontales de metal duro cuatro dientes con helica variable / Hartmetall Vierschneider Langlochfräser

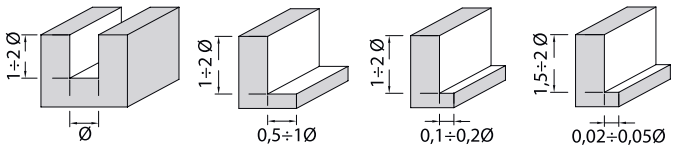
DIN 6527 L

24169 24171



Serie lunga / *Long serie*

Ø h10	d mm	d_1 mm	L mm	l mm	z	pcs	Art. 24169 VHM Carbide cod.	€ cad/each	Art. 24171 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
4	6	3,7	57	11	4	1	241690400	39,787	241710400	45,183
5	6	4,7	57	13	4	1	241690500	39,787	241710500	45,183
6	6	5,5	57	13	4	1	241690600	38,975	241710600	55,004
8	8	7,5	63	19	4	1	241690800	45,470	241710800	75,959
10	10	9,2	72	22	4	1	241691000	76,328	241711000	115,249
12	12	11,2	83	26	4	1	241691200	108,805	241711200	146,680
14	14	13,2	83	26	4	1	241691400	147,780	241711400	197,756
16	16	15,0	92	32	4	1	241691600	180,260	241711600	254,071
18	18	17,0	92	32	4	1	241691800	259,833	241711800	350,985
20	20	19,0	104	38	4	1	241692000	300,433	241712000	395,512



Fresa per cave *Slot end mills* | Sgrossatura *Roughing* | Finitura *Finishing* | Superfinitura *Superfinishing*

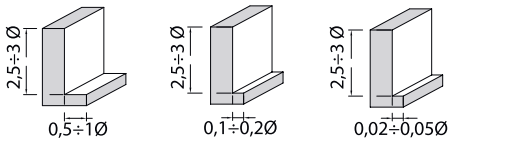
Norma Krino
Krino norm

24170 24172



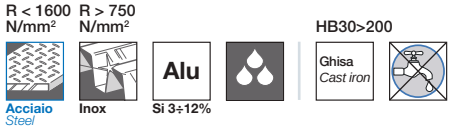
Serie extra lunga / *Extra long serie*

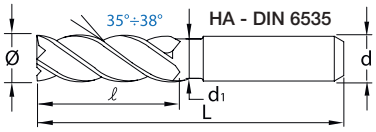
Ø mm	d mm	d_1 mm	L mm	l mm	z	pcs	Art. 24170 VHM Carbide cod.	€ cad/each	Art. 24172 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
10	10	9,2	100	40	4	1	241701000	154,829	241721000	189,772
12	12	11,2	150	45	4	1	241701200	247,727	241721200	272,629
14	14	13,2	150	45	4	1	241701400	328,237	241721400	483,000
16	16	15,0	150	65	4	1	241701600	439,714	241721600	500,667
18	18	17,0	150	65	4	1	241701800	495,452	241721800	724,500
20	20	19,0	150	65	4	1	241702000	579,059	241722000	706,509



Sgrossatura *Roughing* | Finitura *Finishing* | Superfinitura *Superfinishing*

Le eliche variabili garantiscono minori vibrazioni, migliore finitura, maggiore rendimento.
The variable helix ensures less vibration, better finishing, higher efficiency.





Eliche variabili 35°-38°
Variable helix 35°-38°

FRESE FRONTALI A 4 E 3 TAGLIENTI IN METALLO DURO INTEGRALE RIV. TIALN

*Four and three flutes **carbide** end mills TiAlN coated / Fraise carbure quatre et trois dents TiAlN*
Fresas frontales de metal duro cuatro y tres dientes, TiAlN

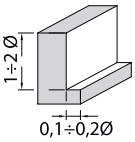
DIN 6527 L

24183

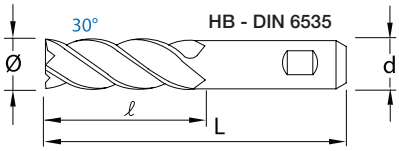


Serie lunga / Long serie

Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
2	2	57	7	4	1	241830200	49,525
3	3	57	8	4	1	241830300	43,214
4	4	57	11	4	1	241830400	41,930
5	5	57	13	4	1	241830500	41,930
6	6	57	13	4	1	241830600	41,930
8	8	63	19	4	1	241830800	53,175
9	9	72	19	4	1	241830900	84,553
10	10	72	22	4	1	241831000	78,575
12	12	83	26	4	1	241831200	109,081
14	14	83	26	4	1	241831400	148,976
16	16	92	32	4	1	241831600	179,790
18	18	92	32	4	1	241831800	261,216
20	20	104	38	4	1	241832000	286,319



Finitura
Finishing



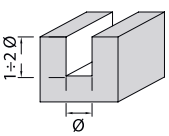
DIN 6527 L

24184



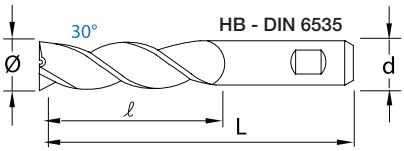
Serie lunga / Long serie

Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
2	6	57	6	3	1	241840200	48,455
3	6	57	7	3	1	241840300	48,455
4	6	57	8	3	1	241840400	46,379
5	6	57	10	3	1	241840500	46,379
6	6	57	10	3	1	241840600	46,379
8	8	63	16	3	1	241840800	59,955
9	10	72	16	3	1	241840900	83,070
10	10	72	19	3	1	241841000	85,946
12	12	83	22	3	1	241841200	122,518
14	14	83	22	3	1	241841400	158,026
16	16	92	26	3	1	241841600	197,496
18	18	92	26	3	1	241841800	278,151
20	20	104	32	3	1	241842000	309,917



Fresa per cave
Slot end mills

R < 850 N/mm²
Metals
Alu
Si 3÷12%
HB30<200
Ghisa
Cast iron



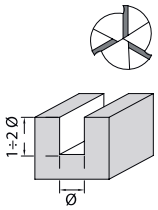
FRESE FRONTALI A 3 TAGLIENTI IN METALLO DURO INTEGRALE

*Three flutes **carbide** end mills / Fraise carbure trois dents*
Fresas frontales de metal duro tres dientes / Hartmetall Dreischneider Langlochfräser

DIN 6527 L

24161 24163





Fresa per cave
Slot end mills

443

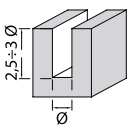
Serie lunga / *Long serie*

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24161 VHM Carbide cod.	€ cad/each	Art. 24163 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
3	6	57	7	3	1	241610300	36,787	241630300	43,041
4	6	57	8	3	1	241610400	35,110	241630400	41,088
5	6	57	10	3	1	241610500	35,110	241630500	41,088
6	6	57	10	3	1	241610600	35,110	241630600	41,088
8	8	63	16	3	1	241610800	43,131	241630800	53,846
9	10	72	16	3	1	241610900	61,428	241630900	77,512
10	10	72	19	3	1	241611000	62,689	241631000	78,272
12	12	83	22	3	1	241611200	91,744	241631200	114,364
14	14	83	22	3	1	241611400	119,173	241631400	148,589
16	16	92	26	3	1	241611600	149,695	241631600	181,967
18	18	92	26	3	1	241611800	213,501	241631800	256,202
20	20	104	32	3	1	241612000	235,120	241632000	285,800

Norma Krino / Krino norm

24162 24164





Fresa per cave
Slot end mills

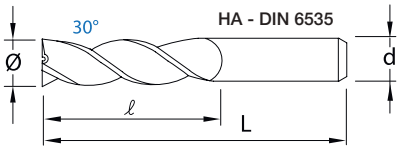
443

Serie extra lunga / *Extra long serie*

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24162 VHM Carbide cod.	€ cad/each	Art. 24164 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
3	3	75	20	3	1	241620300	42,224	241640300	58,463
4	4	75	25	3	1	241620400	46,309	241640400	64,120
5	5	75	30	3	1	241620500	51,076	241640500	70,722
6	6	75	30	3	1	241620600	66,739	241640600	92,407
8	8	100	40	3	1	241620800	85,808	241640800	118,811
10	10	100	40	3	1	241621000	113,048	241641000	156,528
12	12	150	45	3	1	241621200	166,238	241641200	224,421
16	16	150	65	3	1	241621600	310,123	241641600	418,667
20	20	150	65	3	1	241622000	407,910	241642000	550,679

R < 850 N/mm²
Acciaio / *Steel*
Metals
Alu
Si 3÷12%

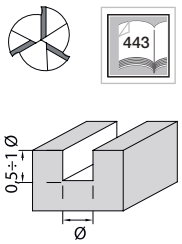
HB30<200
Ghisa / *Cast iron*



Norma Krino / Krino norm

24181





Mini fresa per cave
Mini slot end mills

443

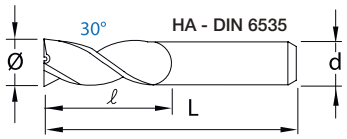
Minifresa / *Mini end mills*

Ø e8	d mm	L mm	l mm	z	pcs	VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
0,5	3	38	1,5	3	1	241810050	27,521
1	3	38	2	3	1	241810100	25,053
1,5	3	38	2	3	1	241810150	25,053
2	6	38	4	3	1	241810200	28,206
2,5	6	38	5	3	1	241810250	30,131
3	6	38	5	3	1	241810300	28,206
3,5	6	38	6	3	1	241810350	30,131
4	6	38	7	3	1	241810400	29,067
4,5	6	38	8	3	1	241810450	33,119
5	6	38	8	3	1	241810500	31,903
6	6	38	8	3	1	241810600	31,903
8	8	43	11	3	1	241810800	44,106
10	10	50	13	3	1	241811000	63,705
12	12	55	15	3	1	241811200	76,872

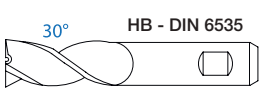
R < 850 N/mm²
Acciaio / *Steel*
Metals

R > 750 N/mm²
Inox
Alu
Si<12%

ø<2mm



ø≥2mm



FRESE FRONTALI IN METALLO DURO INTEGRALE PER ALLUMINIO

Carbide *end mills for aluminium / Fraise carbure pour aluminium / Fresas frontales de metal duro para aluminium / Hartmetall Langlochfräser für Aluminium*

~ DIN 6527 L

24156

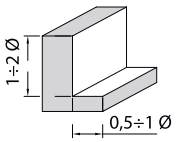


Taglienti raggiati
Corner radius

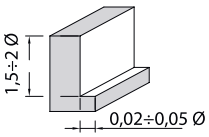
Serie lunga / **Long serie**

Canalina di lubrorefrigerazione
Cooling System

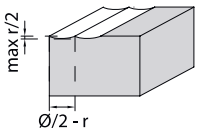
Ø h10	d mm	d_1 mm	L mm	l mm	r mm	z	pcs	cod.	€ cad/each
6	6	5,7	57	10	1	3	1	241560600	77,298
8	8	7,7	63	16	1	3	1	241560800	86,960
10	10	9,5	72	19	1,5	3	1	241561000	154,597
12	12	11,5	83	22	1,5	3	1	241561200	224,165
16	16	15,5	92	26	2	3	1	241561600	357,503
20	20	19,5	104	32	2,5	3	1	241562000	506,303



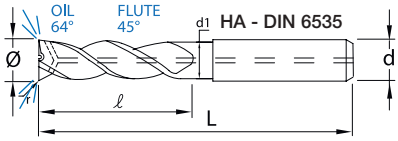
Sgrossatura
Roughing



Superfinitura
Superfinishing



Fresa per copiatori
Ball nose end mills



Alu
Si<12%

DIN 6527 K

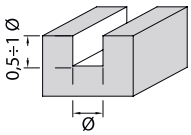
24154



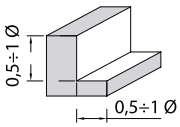
Serie corta / **Short serie**

Alu

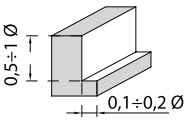
Ø e8	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
3	6	50	4	2	1	241540300	28,377
4	6	54	5	2	1	241540400	28,377
5	6	54	6	2	1	241540500	28,377
6	6	54	7	2	1	241540600	28,377
8	8	58	9	2	1	241540800	34,050
10	10	66	11	2	1	241541000	45,838
12	12	73	12	2	1	241541200	73,121
14	14	75	14	2	1	241541400	101,498
16	16	82	16	2	1	241541600	109,137
18	18	84	18	2	1	241541800	148,427
20	20	92	20	2	1	241542000	196,447



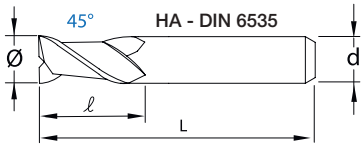
Frese per cave
Slot end mills



Sgrossatura
Roughing



Finitura
Finishing



Alu
Si<3%

Norma Krino / Krino norm

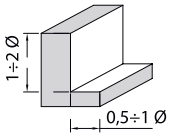
24155



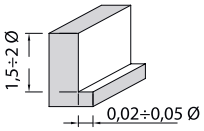
Serie extra lunga / **Extra long serie**

Alu

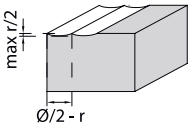
Ø h10	d mm	L mm	l mm	z	pcs	cod.	€
5	5	75	30	2	1	241550500	55,552
6	6	75	30	2	1	241550600	75,435
8	8	100	40	2	1	241550800	91,175
10	10	100	40	2	1	241551000	127,821
12	12	150	45	2	1	241551200	201,161
16	16	150	65	2	1	241551600	368,796



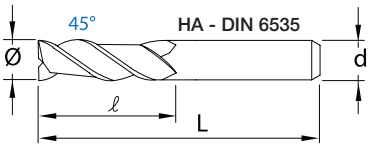
Frese per cave
Slot end mills



Sgrossatura
Roughing



Finitura
Finishing



Alu
Si<3%

Nella lavorazione di alluminio, superleghe di titanio e quando ci sia pericolo di incollaggio trucioli si consiglia l'uso di fresatura concorde, che è anche indicata nel caso di lavorazioni di spessori sottili, perché le forze di taglio aiutano a tenere saldo il pezzo in lavorazione.
When machining aluminum, titanium superalloys and whenever there is a risk of chip bonding, we recommend the use of concordant milling, which is also suitable for thin-wall machining, because the cutting forces help to keep the workpiece firmly in place.

FRESE FRONTALI A 2 TAGLIENTI IN METALLO DURO INTEGRALE

*Two-flutes **carbide** end mills / Fraise carbure deux dents*

Fresas frontales de metal duro dos dientes / Hartmetall Zweischneider Langlochfräser

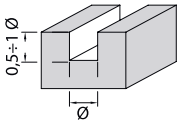
DIN 6527 K

24150 24152









Frese per cave
Slot end mills

Serie corta / *Short serie*

Ø mm	d mm	L mm	l mm	z	pcs	Art. 24150 VHM Carbide cod.	€ cad/each	Art. 24152 VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
2	6	50	3	2	1	241500200	29,243	241520200	34,232
3	6	50	4	2	1	241500300	28,498	241520300	33,324
4	6	54	5	2	1	241500400	27,567	241520400	32,235
5	6	54	6	2	1	241500500	27,567	241520500	32,235
6	6	54	7	2	1	241500600	26,450	241520600	30,963
8	8	58	9	2	1	241500800	36,693	241520800	42,949
10	10	66	11	2	1	241501000	54,015	241521000	63,198
12	12	73	12	2	1	241501200	79,161	241521200	92,618
14	14	75	14	2	1	241501400	109,893	241521400	128,576
16	16	82	16	2	1	241501600	126,657	241521600	148,189
18	18	84	18	2	1	241501800	193,710	241521800	226,641
20	20	92	20	2	1	241502000	206,749	241522000	241,897

R < 850 N/mm²



Acciaio
Steel



Si 3÷12%



HB30<200





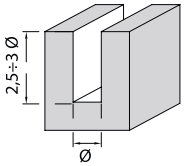
Norma Krino / Krino norm

24151 24153









Frese per cave
Slot end mills

Serie extra lunga / *Extra long serie*

Ø mm	d mm	L mm	l mm	z	pcs	Art. 24151 VHM Carbide cod.	€ cad/each	Art. 24153 VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
3	3	75	20	2	1	241510300	45,072	241530300	60,439
4	4	75	25	2	1	241510400	49,723	241530400	66,687
5	5	75	30	2	1	241510500	52,098	241530500	69,894
6	6	75	30	2	1	241510600	58,227	241530600	73,572
8	8	100	40	2	1	241510800	98,418	241530800	129,603
10	10	100	40	2	1	241511000	118,941	241531000	163,649
12	12	150	45	2	1	241511200	182,994	241531200	254,361
14	14	150	45	2	1	241511400	232,287	241531400	304,980
16	16	150	65	2	1	241511600	308,232	241531600	404,690
18	18	150	65	2	1	241511800	367,503	241531800	456,590
20	20	150	65	2	1	241512000	414,999	241532000	515,597

R < 850 N/mm²



Acciaio
Steel

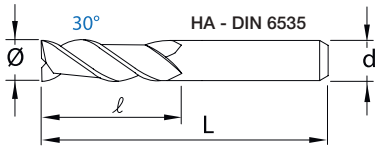


Metals



Si<3%





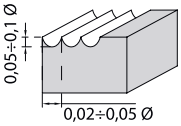
FRESE FRONTALI A RAGGIO IN METALLO DURO INTEGRALE

Carbide *end mills with ball end / Fraise carbure à bout hémisphérique*
Fresas frontales radiales de metal duro / Hartmetall Langlochfräser

DIN 6527 L

24157 24159



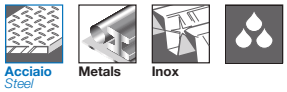


Frese per copiatori
Ball nose end mills

Serie lunga / Long serie

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24157 VHM Carbide cod.	Art. 24157 VHM Carbide € cad/each	Art. 24159 VHM +TiAlN Carbide + TiAlN cod.	Art. 24159 VHM +TiAlN Carbide + TiAlN € cad/each
2	6	57	6	2	1	241570200	39,849	241590200	52,735
3	6	57	7	2	1	241570300	39,581	241590300	48,732
4	6	57	8	2	1	241570400	38,696	241590400	48,732
5	6	57	10	2	1	241570500	39,581	241590500	48,732
6	6	57	10	2	1	241570600	38,696	241590600	48,732
8	8	63	16	2	1	241570800	46,053	241590800	58,037
10	10	72	19	2	1	241571000	58,765	241591000	74,073
12	12	83	22	2	1	241571200	87,776	241591200	110,597
14	14	83	22	2	1	241571400	112,874	241591400	142,231
16	16	92	26	2	1	241571600	138,765	241591600	174,843
18	18	92	26	2	1	241571800	166,843	241591800	210,192
20	20	104	32	2	1	241572000	221,185	241592000	278,692

R < 1200 N/mm² R < 750 N/mm²

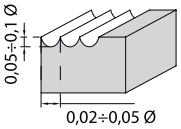




Norma Krino / Krino norm

24158 24160





Frese per copiatori
Ball nose end mills

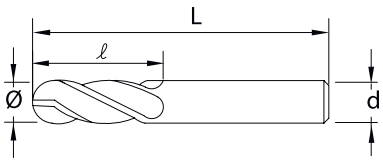
Serie extra lunga / Extra long serie

Ø h10	d mm	L mm	l mm	z	pcs	Art. 24158 VHM Carbide cod.	Art. 24158 VHM Carbide € cad/each	Art. 24160 VHM +TiAlN Carbide + TiAlN cod.	Art. 24160 VHM +TiAlN Carbide + TiAlN € cad/each
3	3	75	20	2	1	241580300	69,727	241600300	99,709
4	4	75	25	2	1	241580400	71,257	241600400	101,937
5	5	75	30	2	1	241580500	79,712	241600500	113,989
6	6	75	30	2	1	241580600	88,933	241600600	127,156
8	8	100	40	2	1	241580800	101,214	241600800	144,778
10	10	100	40	2	1	241581000	136,480	241601000	195,166
12	12	150	45	2	1	241581200	180,882	241601200	258,718

R < 850 N/mm²







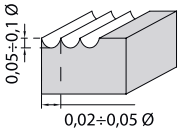
DIN 6528

24179







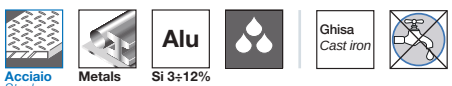


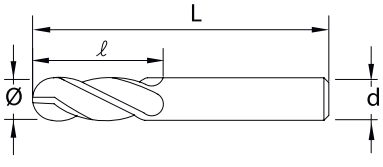
Frese per copiatori
Ball nose end mills

Serie lunga / Long serie

Ø h10	d mm	L mm	l mm	z	pcs	VHM +TiAlN Carbide + TiAlN cod.	VHM +TiAlN Carbide + TiAlN € cad/each
4	4	50	11	4	1	241790400	45,942
5	5	50	13	4	1	241790500	49,673
6	6	57	13	4	1	241790600	51,221
8	8	63	19	4	1	241790800	64,493
10	10	72	22	4	1	241791000	88,847
12	12	83	26	4	1	241791200	121,349
14	14	83	26	4	1	241791400	149,333
16	16	92	32	4	1	241791600	188,589
18	18	92	32	4	1	241791800	238,273
20	20	104	38	4	1	241792000	292,569

R < 1200 N/mm² HB30<200





FRESE FRONTALI A 6 E PIÙ TAGLIENTI PER SUPERFINITURA IN METALLO DURO INTEGRALE RIV. TIALN

*Two-flutes **carbide** end mills / Fraise carbure deux dents*
Fresas frontales de metal duro dos dientes / Hartmetall Zweischneider Langlochfräser

Per materiali con HRC < 50
Suitable for materials with HRC < 50

≈DIN 6527 L

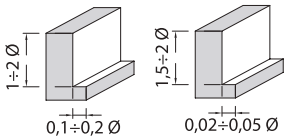
24177 24185

Serie lunga / Long serie

Ø h10	d mm	L mm	l mm	z	pcs	24177 cod.	24177 € cad/each	24185 cod.	24185 € cad/each
3	6	57	8	6	1	241770300	55,119	-	-
4	6	57	11	6	1	241770400	52,219	-	-
5	6	57	13	6	1	241770500	50,043	-	-
6	6	57	13	6	1	241770600	50,043	241850600	54,875
8	8	63	19	6	1	241770800	59,471	241850800	65,255
10	10	72	22	6	1	241771000	95,733	241851000	103,817
12	12	83	26	6	1	241771200	129,094	241851200	137,927
14	14	83	26	6	1	241771400	176,961	241851400	192,803
16	16	92	32	6	1	241771600	232,080	241851600	244,710
18	18	92	32	8	1	241771800	271,244	241851800	287,721
20	20	104	38	8	1	241772000	326,118	241852000	352,977
25	25	121	45	10	1	241772500	535,968	241852500	575,441

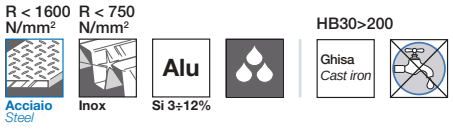


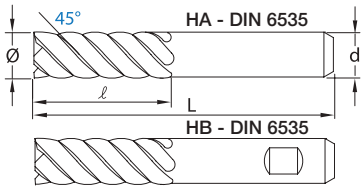




Finitura *Finishing*

Superfinitura *Superfinishing*





Norma Krino / Krino norm

24178

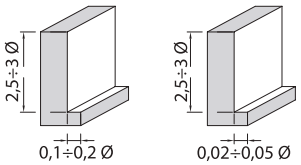
Serie extra lunga / Extra long serie

Per materiali con HRC < 50
Suitable for materials with HRC < 50

Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
6	6	75	30	6	1	241780600	77,578
8	8	100	40	6	1	241780800	90,243
10	10	100	40	6	1	241781000	159,905
12	12	150	45	6	1	241781200	221,649
16	16	150	65	6	1	241781600	398,970
20	20	150	65	8	1	241782000	607,953
25	25	150	75	10	1	241782500	1.240,843

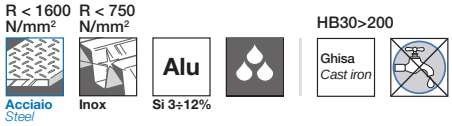


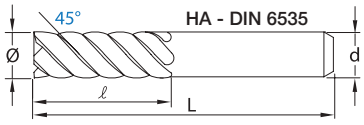




Finitura *Finishing*

Superfinitura *Superfinishing*





≈DIN 6527 L

24186

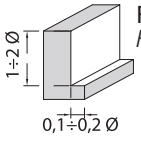
Serie lunga / Long serie

Per materiali con HRC < 62
Suitable for materials with HRC < 62

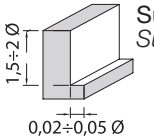
Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
3	6	57	8	6	1	241860300	80,675
4	6	57	11	6	1	241860400	82,882
5	6	57	13	6	1	241860500	84,821
6	6	57	13	6	1	241860600	85,245
8	8	63	19	6	1	241860800	103,390
10	10	72	22	6	1	241861000	166,237
12	12	83	26	6	1	241861200	223,662
14	14	83	26	6	1	241861400	299,734
16	16	92	32	6	1	241861600	413,717
18	18	92	32	8	1	241861800	436,934
20	20	104	38	8	1	241862000	560,918





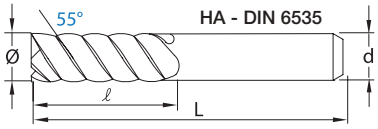


Finitura *Finishing*



Superfinitura *Superfinishing*





FRESE FRONTALI A ELICA VARIABILE IN METALLO DURO INTEGRALE RIV. TIALN

Carbide *end mills with variable helix, TiAlN coated / Fraises carbure avec helice variable*

Fresas frontales de metal duro con helica variable

≈DIN 6527 L

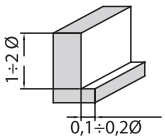
Serie lunga / *Long serie* — **Universale** / *Universal*

24176

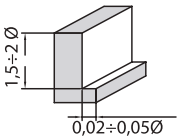




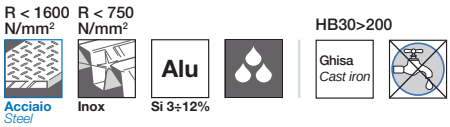
Ø h10	d mm	d_1 mm	L mm	l mm	z	pcs	cod.	€ cad/each
8	8	7,5	63	19	6	1	241760800	99,054
10	10	9,2	72	22	6	1	241761000	158,991
12	12	11,2	83	26	6	1	241761200	213,690
16	16	15,0	92	32	6	1	241761600	383,158
20	20	19,0	104	38	6	1	241762000	552,494
25	25	23,5	121	45	6	1	241762500	890,470

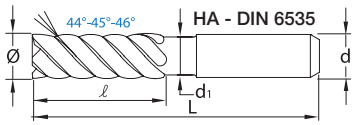


Finitura
Finishing



Superfinitura
Superfinishing





DIN 6527 L

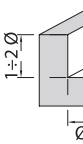
Serie lunga / *Long serie* — **Speciale inox** / *Stainless steel*

24174 24175

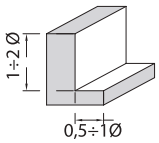




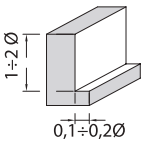
Ø h10	d mm	d_1 mm	L mm	l mm	z	pcs	cod.	€ cad/each	cod.	€ cad/each
4	6	3,7	57	11	4	1	241740400	64,408	241750400	66,532
5	6	4,7	57	13	4	1	241740500	64,408	241750500	66,532
6	6	5,5	57	13	4	1	241740600	78,816	241750600	81,415
8	8	7,5	63	19	4	1	241740800	110,173	241750800	113,805
10	10	9,2	72	22	4	1	241741000	164,412	241751000	169,832
12	12	11,2	83	26	4	1	241741200	210,176	241751200	217,105
16	16	15,0	92	32	4	1	241741600	362,724	241751600	374,681
20	20	19,0	104	38	4	1	241742000	559,339	241752000	577,779



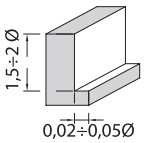
Fresa per cave
Slot end mills



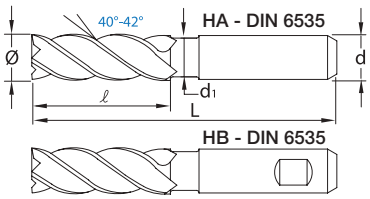
Sgrossatura
Roughing

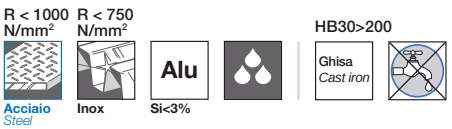


Finitura
Finishing



Superfinitura
Superfinishing





Norma Krino / Krino norm

Serie lunga / *Long serie* — **Speciale alluminio** / *Aluminium*

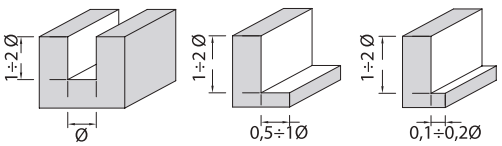
24180



Metallo duro
Carbide



Ø h10	d mm	d_1 mm	L mm	l mm	z	pcs	cod.	€ cad/each
3	6	2,7	57	8	3	1	241800300	51,025
4	6	3,7	57	11	3	1	241800400	51,800
5	6	4,7	57	13	3	1	241800500	52,049
6	6	5,5	57	13	3	1	241800600	49,830
8	8	7,5	63	16	3	1	241800800	65,703
10	10	9,2	72	19	3	1	241801000	91,860
12	12	11,2	83	22	3	1	241801200	132,589
16	16	11,2	92	32	3	1	241801600	226,783
20	20	19,0	104	38	3	1	241802000	360,444

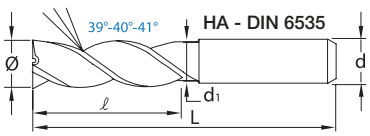


Fresa per cave
Slot end mills

Sgrossatura
Roughing

Finitura
Finishing





Le eliche variabili garantiscono minori vibrazioni, migliore finitura, maggiore rendimento.

The variable helix ensures less vibration, better finishing, higher efficiency.

BUILDING

CUTTING TOOLS **ENGINEERING**

Le operazioni di taglio nei materiali per edilizia richiedono utensili speciali per le varie e molteplici esigenze che incontrano gli utilizzatori del settore. Nelle applicazioni altamente professionali sui martelli leggeri e pesanti, le offerte di punte con attacchi speciali, resistenti alle sollecitazioni torsionali, risolvono tutte le esigenze di alte prestazioni nell'utilizzo intensivo. I fori di grandi dimensioni nel muro, per il passaggio di tubi, per l'aerazione ed altri usi, così come le forature in materiali duri e fragili, quali ceramica, gres, gres porcellanato, sono ora possibili grazie all'offerta di nuove frese a tazza.

Drilling operations into building and construction materials require special tools for the needs of professional hand users for intensive applications. The range of drills with special shanks capable of withstanding a high degree of torsional stress for ultra-professional light and heavy duty hammers are suited to all intensive performance requirements. The wide holes on wall for pipes, ventilation and other applications, as well as the cutting into sandware and special hard ceramics are possible thanks to the offer of new hole saws series.



UTENSILI DA TAGLIO PER EDILIZIA

Building and construction tools
Outils pour bâtiment
Utensilios para construcción
Werkzeuge für Baumaterialien

High Quality professional

PUNTE "**SUPERIOR**" A ROTOPERCUSSIONE PER EDILIZIA AD ELEVATO RENDIMENTO

Professional quality masonry drills "Superior" / Forets à béton professionnel, qualité "Superior"
Broca professional "Superior" para hormigon / Superior Betonschlagbohrer

DIN 8039 - ISO 5468





HVA ≃ 1650

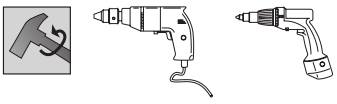
Corpo fresato con scanalatura ad "L" ad alta evacuazione. Placchetta M.D. resistente alla forte percussione, brasatura con lega saldante a 1100° C.
Brazing temperature at 1100° C. Large milled flute type "L" for a faster dust removal.

Confezione / *Packaging*



Applicazioni / *Applications*





- Per forare a forte percussione il muro, il cemento, il calcestruzzo, marmo, pietre. Uso intensivo ed alto rendimento.
- *For use, with rotary percussion, in masonry, concrete, natural stones. High performances in intensive uses.*
- *Pour percér à fort percussion, béton, ciment, carrelage, pierre. Haute rendement en emploi intensif.*
- *Para cortes professionales en muro, hormigon, cemento, marmol, piedra, suelos. Elevado rendimiento en empleo intensivo.*
- *Um Beton und Mauerwerk in Schlagbohrmaschinen zu bohren.*

Art. 03060 Serie Corta - *Short serie*

Art. **03061** Self
Disponibile su richiesta / *On demand*

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030600300	2,381
4	5/32	3,8	40	75	10	030600400	2,381
5	3/16	4,5	40	85	10	030600500	2,410
5,5	7/32	4,8	57	100	10	030600550	2,483
6	15/64	5,5	57	100	10	030600600	2,483
6,5	1/4	6	57	100	10	030600650	2,752
7	9/32	6,5	55	100	10	030600700	2,652
8x107	5/16	7,5	55	107	10	030600800C	2,854
8	5/16	7,5	70	120	10	030600800	2,854
9	11/32	8	70	120	6	030600900	3,199
10	3/8	9	70	120	6	030601000	3,711
11	7/16	10	90	150	6	030601100	5,486
12x120	15/32	10	90	120	6	030601200C	5,973
12	15/32	10	90	150	6	030601200	5,973
13	1/2	10	90	150	6	030601300	7,493
14	9/16	10	90	150	6	030601400	8,023
15	19/32	10	90	150	6	030601500	9,487
16	5/8	10	90	150	6	030601600	9,487
18	23/32	13	100	160	1	030601800	11,307
20	25/32	13	100	160	1	030602000	13,855

Art. 03063 L=150-200 mm

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
5	3/16	4,7	90	150	1	030630500	3,733
6	15/64	5,5	90	150	1	030630600	4,305
8	5/16	7,5	150	200	1	030630800	5,312
10	3/8	9	150	200	1	030631000	6,617
12	15/32	10	150	200	1	030631200	8,317
14	9/16	10	150	200	1	030631400	10,109
16	5/8	10	150	200	1	030631600	12,160
18	23/32	10	150	200	1	030631800	14,916
20	25/32	13	150	200	1	030632000	17,431

Art. 03065 L=400 mm

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
8	5/16	7,5	320	400	1	030650800	8,429
10	3/8	9,5	320	400	1	030651000	10,259
12	15/32	10	320	400	1	030651200	12,533
14	9/16	10	320	400	1	030651400	14,572
16	5/8	10	320	400	1	030651600	18,542
18	23/32	10	320	400	1	030651800	23,559
20	25/32	13	320	400	1	030652000	30,066
22	7/8	13	320	400	1	030652200	36,989
24	15/16	13	320	400	1	030652400	39,061

Art. 03067 L=600 mm

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
8	5/16	7,5	500	600	1	030670800	10,220
10	3/8	9,5	500	600	1	030671000	12,844
12	15/32	10	500	600	1	030671200	15,358
14	9/16	10	500	600	1	030671400	20,381
16	5/8	10	500	600	1	030671600	22,028
18	23/32	10	500	600	1	030671800	30,286
20	25/32	13	500	600	1	030672000	35,923
22	7/8	13	500	600	1	030672200	42,126
24	15/16	13	500	600	1	030672400	48,954

ASSORTIMENTI PUNTE “**SUPERIOR**” PER EDILIZIA

“Superior” masonry drills sets / Assortiments forets à béton professionnel “Superior”
Juego brocas “Superior” para hormigon / “Superior” Spiralbohrersätze



4 pcs
Ø 5-6-8-10 mm

03070201 € 10,501



7 pcs
Ø 3-4-5-6-8-9-10 mm

03070202 € 16,061



8 pcs
Ø 3-4-5-6-8-9-10-12 mm

03070203 € 19,565



12 pcs
Ø 3-4-4-5-5-6-6-7-8-8-9-10

03070101 € 25,742



390x150x225

141 pcs
Ø 3÷16 mm

Ø	pcs
3	7
4	7
5	14
6	28
7	7
8	28
9	10
10	15
12	10
13	5
14	5
16	5

03070504 € 576,640

142 pcs
Ø 3÷18 mm

Ø	pcs
3	9
4	9
5	9
6	27
7	9
8	18
9	6
10	12
12	6
13	6
14	6
16	6
8x400	6
10x400	3
12x400	3
14x400	3
16x400	2
18x400	2

03070503 € 705,353

PUNTE “**SUPERIOR**” A ROTOPERCUSSIONE PER EDILIZIA CON ATTACCO HEX 1/4”

Professional quality masonry drills “Superior” 1/4” q.c. shank / Forets à béton professionnel avec 1/4” q.c. queue, qualité “Superior”
Broca professional “Superior” con mango 1/4” q.c. para hormigon / Superior Betonschlagbohrer





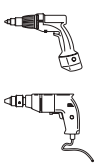




Ø 4-5-6-8-10 mm
03057700 € 22,164

Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
3	1/4	33	75	1	030590300	2,977
4	1/4	35	83	1	030590400	3,111
5	1/4	46	93	1	030590500	3,428
6	1/4	56	97	1	030590600	3,744
7	1/4	48	97	1	030590700	3,879
8	1/4	70	120	1	030590800	4,124
9	1/4	70	120	1	030590900	4,433
10	1/4	70	120	1	030591000	4,592

03059



High Quality professional

PUNTE ROTOBATTENTI “**MAX 4**” A 4 TAGLIENTI E 4 ELICHE PER FORARE AD ALTO RENDIMENTO TUTTI I MATERIALI EDILI

Rotary percussion drill bits “max 4” with 4 cutting edges and 4 flutes for cutting concrete and building materials / Foret rotation percussion “max 4” avec 4 tranchantes et 4 spirales pour percer concret e tous le matériaux de bâtiment / Broca rotacion, percucion “max 4” con 4 cortadores y 4 espirales para trabajar en el concreto y todol los materiales de construcion /Betonschlagbohrer “max 4” mit 4 schneiden und 4 schrauben für Mauerwerk

K-MAX4®

03072





4 taglienti-*cutting edges*
HVA 1650
Placchetta integrale a 4 taglienti in metallo duro resistente alla forte percussione, brasatura con lega saldante a 1100°C.
One-piece 4 cutting edges carbide tip resisting to percussion. Brazing temperature at 1000°C.



4 eliche-*flutes*
Corpo fresato con **scanalatura a “L” ad alta evacuazione**.
Large milled flute type “L” for a faster dust removal.

Ø mm	d mm	l mm	L mm	pcs	cod.	€ cad/each
4	3,8	40	75	1	030720400	2,683
5	4,8	40	85	1	030720500	2,683
6	5,4	57	100	1	030720600	2,834
7	6,3	55	100	1	030720700	3,111
8	7	70	120	1	030720800	3,197
9	8	70	120	1	030720900	3,506
10	8,5	70	120	1	030721000	3,959
11	10	90	150	1	030721100	4,671
12	10	90	150	1	030721200	4,925
13	10	90	150	1	030721300	6,222
14	10	90	150	1	030721400	7,347
15	10	90	150	1	030721500	9,333
16	10	90	150	1	030721600	10,370

Confezione / *Packaging*



Applicazioni / *Applications*





+30%PRESTAZIONI / *+30% performances*
FORO PERFETTAMENTE CIRCOLARE
rispetto a una comune punta a 2 taglienti
circular hole compared to a 2 cutting edges drill

- La placchetta in metallo duro monoblocco a 4 taglienti garantisce una grande capacità di taglio e un’ottima precisione di foratura. L’asportazione dei detriti è assicurata dalla combinazione delle 4 eliche e della geometria a “L” dello scarico. Grande rendimento di taglio in tutti i materiali edili, cemento, granito, pietre in genere, mattoni.
- *One-piece 4 cutting edges carbide tip assures great drilling performances and perfect circular holes. Faster dust removal due to the 4 “L” type flutes. Drilling in every building material, concrete, granite, stones.*



4 pcs
Ø 5-6-8-10 mm
03073201 € 11,466



6 pcs
Ø 4-5-6-8-9-10 mm
03073202 € 16,734



7 pcs
Ø 4-5-6-8-9-10-12 mm
03073203 € 19,833



390x150x225

134 pcs
Ø 4÷16 mm

Ø	pcs
4	7
5	14
6	28
7	7
8	28
9	10
10	15
12	10
13	5
14	5
16	5

03073504 € 492,315

PUNTE A ROTOPERCUSSIONE “**SUPERSPEED**” PER LA FORATURA VELOCE AD ALTO RENDIMENTO NEL GRANITO, CEMENTO ARMATO, MATTONI, PIETRE NATURALI ED ARTIFICIALI

“Superspeed” rotary percussion twist drills for fast drilling into granite, cement, brics, natural and artificial stones / Brocas a roto-percucion “Superspeed” para taladrar con alto rendimento granito, cemento, ladrillo , piedra artificial y natural / Forets a rotopercusion “Superspeed” pour perçage haute rendement en granit, ciment, carrelage, pierre artificielle et naturelle

DIN 8039 – ISO 5468

SuperSpeed

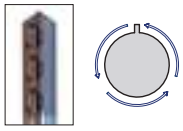
03075





HVA ≃ 1650

Punta autocentrante
Self centering point

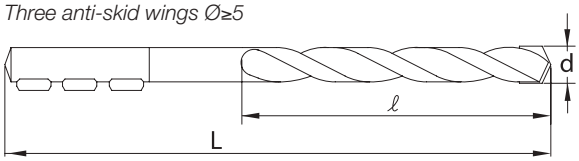


100% trasmissione della potenza grazie alle 3 alette antisdrucciolo
100% power transmission thanks to 3 anti-skid wings

Ø mm	d	l	L	pcs	cod.	€ cad/each
3	2,8	50	90	1	030750900300	4,481
4	3,8	50	90	1	030750900400	4,481
5	4,5	50	100	1	030751000500	4,592
6	5,5	50	100	1	030751000600	4,758
6	5,5	100	150	1	030751500600	7,911
6,5	6	100	150	1	030751500650	9,074
7	6,5	50	100	1	030751000700	5,611
8	7,5	50	100	1	030751000800	6,095
8	7,5	200	250	1	030752500800	11,047
9	8	50	100	1	030751000900	6,720
10	9	100	150	1	030751501000	7,377
10	9	200	250	1	030752501000	13,369
12	10	90	150	1	030751501200	10,189
14	10	90	150	1	030751501400	16,257



Tre alette antiscivolo Ø≥5
Three anti-skid wings Ø≥5



Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



Calcestruzzo
Concrete



Pietra
Natural stones



390x150x225

131 pcs
Ø 3÷14 mm

Ø	pcs
3x90	7
4x90	7
5x100	14
6x100	28
7x100	7
8x100	28
9x100	10
10x150	15
12x150	10
14x150	5

03070510 € 984,852

High Quality professional

PUNTE ROTOBATTENTI “**SUPER GRANIT**” PER FORARE LE PIETRE PIÙ DURE E I MATERIALI EDILI DURISSIMI

Rotary percussion drill bits “Super Granit” for extreme hard stones and building materials / Forets à béton “Super Granit” pour percer granit, la pierre naturelle, concrete, etc. / Brocas a percusion “Super Granit” para taladrar granito y la piedra natural, hormigon / Betonschlagbohrer “Super Granit” für Granit, Naturstein, Mauerwerk

DIN 8039 - ISO 5468

03110





HVA ≃ 1650

Placchetta affilata con diamante. Corpo rettificato con scarico ad “U”, in acciaio legato HRC 40÷50. Saldobrasatura a 1100° C.
Large milled flute type “U” for an efficient dust removal. Diamond sharpened. Body in alloy steel with HRC 40÷50. Brazing temperature at 1100° C

Confezione / *Packaging*



Applicazioni / *Applications*



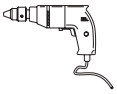
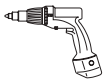
Art. 03110

Art. **03111** Self
Disponibile su richiesta / *On demand*

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	30	60	1	031100300	6,553
4	5/32	3,8	40	75	1	031100400	6,553
5	3/16	4,5	50	75	1	031100500	6,715
5,5	7/32	4,5	50	85	1	031100550	7,437
6	15/64	5,5	60	100	1	031100600	6,957
7	9/32	6,5	60	100	1	031100700	8,204
8	5/16	7,5	80	120	1	031100800	8,365
9	23/64	8	80	120	1	031100900	9,844
10	25/64	9	80	120	1	031101000	11,141
11	7/16	10	90	150	1	031101100	13,369
12	15/32	10	90	150	1	031101200	14,898
13	1/2	10	90	150	1	031101300	20,701
14	9/16	10	90	150	1	031101400	23,770
15	19/32	10	100	160	1	031101500	28,601
16	5/8	12	100	160	1	031101600	30,677
18	23/32	12	100	160	1	031101800	36,147
20	25/32	12	100	160	1	031102000	47,874

Art. 03112 L=150-250 mm

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
5	3/16	4,5	90	150	1	031121500500	10,533
5,5	7/32	4,5	90	150	1	031121500550	11,624
6	15/64	5,5	90	150	1	031121500600	11,624
6,5	1/4	5,5	90	150	1	031121500650	14,106
8	5/16	7,5	90	150	1	031121500800	14,106
8	5/16	7,5	200	250	1	031122500800	15,576
10	3/8	9	200	250	1	031122501000	17,247
12	15/32	10	200	250	1	031122501200	21,770
14	9/16	12	200	250	1	031122501400	26,437

- Taglio del granito a rotopercussione con grandi rendimenti, taglio delle pietre naturali e artificiali, calcestruzzo e materiali da edilizia vari, fino al 7° scala MOHS.
- *Rotary percussion cuts in granit, natural stone, concrete, masonry, up to 7° MOHS.*
- *Pour percage à fort percussion in granit, pierre naturelle et artificielle, ciment, carrelage (7° MOHS).*
- *Corte professional a percussion de grande rendimiento en granito, piedra, materiales de construccion muy duros (7° MOHS).*
- *Extrem robuster Schlagbohrer für höchste Beansruchung, für Granit, Beton, Mauerwerk, Naturstein.*



4 pcs
Ø 5-6-8-10 mm

03116202 € 40,291



7 pcs
Ø 3-4-5-6-8-9-10 mm

03116204 € 64,214



8 pcs
Ø 3-4-5-6-8-9-10-12 mm

03116205 € 81,838



390x150x225

112 pcs
Ø 3÷16 mm

Ø	pcs
3	10
4	10
5	10
6	20
7	5
8	15
9	4
10	8
12	6
14	2
16	2
5x150	4
6x150	6
8x250	3
10x250	3
12x250	2
14x250	2

03116503 € 1.233,975

PUNTE “**EXTREME HARD CUT**” ALTAMENTE PROFESSIONALI PER FORARE A SOLA ROTAZIONE TUTTI I MATERIALI EDILI DURISSIMI

Professional masonry drills “Extreme Hard Cut” for rotary cutting of hard building materials / Foréts béton professionelles “Extreme Hard Cut” pour percage rotation / Brocas “Extreme Hard Cut” altamente profesionales para cortar a sola rotaciòn todos los materiales de construcciòn muy duros Drehbohrer “Extreme Hard Cut” für drehenden Einsatz in Bohr- und Schlagbohrmaschinen

DIN 8039 - ISO 5468

03100



Affilatura positiva
Positive Rake



HVA ≃ 1650

Corpo fresato con scanalatura ad “U”. Saldobrasatura a 1120° C. Placchetta in metallo duro ISO Euronorm resistente a forti abrasioni, affilata con diamante ed autocentrante.
Large milled flute type “U”, with self-centering positive clearance. Brazing temperature over 1120° C. Special carbide grain tip.

Ø mm	*inch*	d	*l*	L	pcs	cod.	€ cad/each
3	1/8	2,8	30	70	1	031000300	3,795
4	5/32	3,8	40	75	1	031000400	4,121
5	3/16	4,5	50	85	1	031000500	4,121
6	15/64	5,5	60	100	1	031000600	4,202
7	9/32	6,5	60	100	1	031000700	5,181
8	5/16	7,5	80	120	1	031000800	5,181
10	3/8	9	80	120	1	031001000	7,277
12	15/32	10	90	150	1	031001200	11,270
14	9/16	10	200	250	1	031001400	16,624

Art. **03101** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*



Pietre naturali e artificiali
Natural and artificial stones



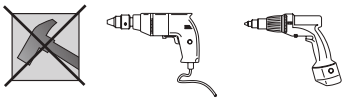
Ceramica
Ceramics



Piastrelle, mattoni durissimi
Tiles, hard burnt brick



Pietra - Granito
Natural stones granit



- Taglio preciso e senza sbavature a rotazione nel marmo, pietre, granito, ceramica, tutti i materiali da edilizia durissimi (sino a 7 gradi scala MOHS).
- *Precise rotary cut in hard building materials (marble, natural stones, ceramic, granit) up to 7° MOHS.*
- *Pour percage à rotation granit, pierre, ceramic 7° grado MOHS.*
- *Corte preciso y rapido a rotacion en materiales de construccion muy duros y abrasivos (7°MOHS).*
- *Drehenden Einsatz in harten Baumaterialen wie Dachziegel, Dachpfannen, Klinker, Keramik.*



4 pcs
Ø 5-6-8-10 mm

03105202 € 23,293



390x150x225

117 pcs
Ø 3÷14 mm

Ø	pcs
3	10
4	10
5	10
6	28
7	10
8	20
10	15
12	8
14	6

03105503 € 779,965

High Quality professional

PUNTA UNIVERSALE SDD PER IL TAGLIO DI TUTTI I MATERIALI

Univeral SDD drill / Forets universels SDD
Broca universal SDD / SDD Mehrzweckbohrer

DIN 8039 - ISO 5468 **SDD**

03069





HVA ≃ 1650

Ø mm	d	l	L	pcs	cod.	€ cad/each
3	2,8	20	60	10	030690600300	2,605
4	3,8	35	75	10	030690750400	2,605
5	4,5	45	85	10	030690850500	2,649
6	5,5	60	100	10	030691000600	2,692
6	5,5	210	250	1	030692500600	8,034
6	5,5	360	400	1	030694000600	12,116
7	6,4	60	100	10	030691000700	2,822
8	7,2	80	120	10	030691200800	2,997
8	7,2	210	250	1	030692500800	8,642
8	7,2	360	400	1	030694000800	12,376
9	8,3	80	120	10	030691200900	3,387
10	9,2	80	120	10	030691201000	4,023
10	9,2	210	250	1	030692501000	9,337
10	9,2	360	400	1	030694001000	12,984
10	9,2	560	600	1	030696001000	13,853
11	9,9	110	150	6	030691501100	6,262
12	10	110	150	6	030691501200	6,905
12	10	210	250	1	030692501200	12,984
12	10	360	400	1	030694001200	15,589
12	10	560	600	1	030696001200	20,888
13	12	110	150	6	030691501300	7,903
14	12,7	110	150	6	030691501400	8,642
14	12,7	210	250	1	030692501400	14,287
14	12,7	360	400	1	030694001400	17,327
15	13	110	150	6	030691501500	9,206
16	13	110	150	6	030691501600	10,205
16	13	210	250	1	030692501600	16,459
16	13	360	400	1	030694001600	19,932
16	13	560	600	1	030696001600	21,669
18	13	120	160	1	030691601800	12,116
20	13	120	160	1	030691602000	15,156

Confezione / *Packaging*



Applicazioni / *Applications*



Pietre naturali e artificiali
Natural and artificial stones



Ceramica
Ceramics



Metals



Piastrelle, mattoni durissimi
Tiles, hard burnt brick



Pietra - Granito
Natural stones granit



4 pcs
Ø 4x75-5x85
6x100-8x120 mm
03068201 € 13,455

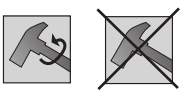
5 pcs
Ø 4x75-5x85-6x100
8x120-10x120 mm
03068203 € 17,392

7 pcs
Ø 3x70-4x75-5x85-6x100
8x120-9x120-10x120 mm
03068204 € 24,283



Ø	pcs
3x60	5 pcs
4x75	5 pcs
5x85	10 pcs
6x100	20 pcs
8x120	20 pcs
10x120	14 pcs
12x150	14 pcs

03068505 € 347,130



- Taglio preciso a rotazione in metalli, ceramica e in tutti i materiali da edilizia fragili e a rotopercussione in marmo, granito, pietre.
- *Precise cut, rotation only, into metals, ceramic and fragile building materials. Rotary percussion cut into marble, granit, stones.*
- *Pour percer à rotation acier dur, ceramic, bâtiment (8° Mohs) et à percussion in granit, pierre.*
- *Corte preciso en materiales de construccion. Corte a percussion en granito, piedra.*

PUNTA“**FORATUTTO**” UNIVERSALE MULTIK AD ALTE PRESTAZIONI PER IL TAGLIO DI TUTTI I MATERIALI

High performance multi-purpose drill bit / Forets universels pour materiaux
Broca universal para todos los materiales / Mehrzweckbohrer

DIN 8039 - ISO 5468





HVA ≃ 1650

Placchetta affilata con diamante con geometria innovativa. Corpo rettificato con scarico ad “U”, in acciaio legato HRC 40÷50. Saldobrasatura a 1100° C.
Large milled flute type “U” for an efficient dust removal. Diamond sharpened. Body in alloy steel with HRC 40÷50. Brazing temperature at 1100° C.

Ø mm	d	*l*	L	pcs	cod.	€ cad/each
3	2,8	40	70	1	030760300070	4,799
4	3,8	40	75	1	030760400075	4,828
5	4,5	50	85	1	030760500085	4,950
5	4,5	90	150	1	030760500150	7,105
5,5	4,5	50	85	1	030760550085	5,129
6	5,5	60	100	1	030760600100	5,208
6	5,5	90	150	1	030760600150	7,934
6	5,5	200	250	1	030760600250	9,704
6,5	5,5	60	100	1	030760650100	6,103
7	6,5	60	100	1	030760700100	6,599
8	7,2	80	120	1	030760800120	7,096
8	7,2	90	150	1	030760800150	8,701
8	7,2	200	250	1	030760800250	9,957
8	7,2	350	400	1	030760800400	39,440
9	8	80	120	1	030760900120	7,859
10	9	80	120	1	030761000120	8,332
10	9	90	150	1	030761000150	10,476
10	9	200	250	1	030761000250	13,014
10	9	350	400	1	030761000400	42,681
11	10	90	150	1	030761100150	11,534
12	10	90	150	1	030761200150	11,778
12	10	200	250	1	030761200250	15,078
12	10	350	400	1	030761200400	45,261
14	12,3	150	200	1	030761400200	16,314
14	12,3	200	250	1	030761400250	16,839
16	14	150	200	1	030761600200	26,670

03076



4 pcs
Ø 4x75-5x85
6x100-8x120 mm
03078201 € 29,147

5 pcs
Ø 4x75-5x85-6x100
8x120-10x120 mm
03078203 € 37,734

7 pcs
Ø 3x70-4x75-5x85-6x100
8x120-9x120-10x120 mm
03078204 € 53,826

DIN 8039 - ISO 5468



1/4 Q.C.



130°



HVA ≃ 1650

Ø mm	*inch*	d	*l*	L	pcs	cod.	€ cad/each
3	1/8	1/4	45	90	1	030770300090	5,713
4	5/32	1/4	45	90	1	030770400090	5,754
5	3/16	1/4	50	100	1	030770500100	5,874
5,5	7/32	1/4	60	100	1	030770550100	6,326
6	15/64	1/4	60	100	1	030770600100	6,467
6	15/64	1/4	200	250	1	030770600250	11,718
6,5	1/4	1/4	200	250	1	030770650250	12,301
7	9/32	1/4	50	100	1	030770700100	7,936
8	5/16	1/4	50	100	1	030770800100	7,795
10	3/8	1/4	90	150	1	030771000150	11,396

Confezione / *Packaging*



Applicazioni / *Applications*



Pietre naturali e artificiali
Natural and artificial stones



Ceramica
Ceramics



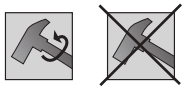
Metals



Piastrelle, mattoni durissimi
Tiles, hard burnt brick



Pietra - Granito
Natural stones granit



03077



4 pcs
Ø 4-5-6-8 mm
03078301 € 35,149



6 pcs
Ø 3-4-5-6-8-10 mm
03078302 € 52,669

- Taglio preciso e senza sbavature a rotazione in metalli, ceramica e in tutti i materiali da edilizia durissimi (sino 8° Mohs) e a rotopercussione in marmo, granito, pietre.
- *Precise cut, rotation only, into hardened steel, metals, ceramic and hard building materials (up to 8° Mohs). Rotary percussion cut into marble, granit, stones.*
- *Pour percer à rotation acier dur, ceramic, bâtiment (8° Mohs) et à fort percussion in granit, pierre.*
- *Corte preciso y rapido en materiales de construccion muy duros (8° Mohs). Corte a percussion en granito, piedra.*



Professional

PUNTA UNIVERSALE "**FORATUTTO®**"

Multi-purpose drill bits / Forets universels pour materiaux
Broca universal para todos los materiales / Mehrzweckbohrer

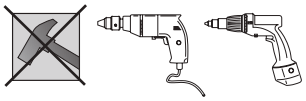
DIN 8039 - ISO 5468





HVA ≃ 1750

Affilatura positiva
Positive relief



Art. 03080 **Universale** - *Multipurpose*

Art. **03081** Self
Disponibile su richiesta / *On demand*

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030800300	2,575
4	5/32	3,8	40	75	10	030800400	2,575
5	3/16	4,5	40	85	10	030800500	2,575
6	15/64	5,5	55	100	10	030800600	2,688
7	9/32	6,5	55	100	10	030800700	3,049
8x107	5/16	7,5	70	107	10	030800800C	3,252
8	5/16	7,5	70	120	10	030800800	3,252
9	11/32	8	70	120	10	030800900	3,840
10	3/8	9	70	120	10	030801000	4,089
11	7/16	10	90	150	6	030801100	5,580
12x120	15/32	10	90	120	6	030801200C	5,580
12	15/32	10	90	150	6	030801200	5,580
13	1/2	10	90	150	6	030801300	8,051
14	9/16	10	90	150	6	030801400	9,553
15	19/32	10	90	150	6	030801500	12,545
16	5/8	10	90	150	6	030801600	12,545

Art. 03082 **Serie lunga** / *Long serie* **L = 250 mm**

ØxL mm	d	l	L	pcs	cod.	€ cad/each
6x150	5,5	125	150	10	030820600	6,663
8x250	7,5	130	250	10	030820800	9,822
10x250	9	130	250	10	030821000	10,233
12x250	10	130	250	6	030821200	12,880
14x250	10	130	250	6	030821400	20,056

Confezione / *Packaging*



Applicazioni / *Applications*







- Per forare **a sola rotazione**: acciaio duro, acciai in genere, ghisa, tutti i metalli, muro, calcestruzzo, ceramica, pavimenti in genere, legno e derivati, plastica, laminati.
- *For rotary cutting in hardened steel, metals, cement, brick, tiles, ceramic, wood, plastics.*
- *Pour percer à rotation: acier dur, béton, ceramic, bois, plastique.*
- *Para cortar a rotation: acero tratado, hormigon, ceramica, madera, plastica.*
- *Für drehenden Einsatz in Mauerwerk, Fliesen, Holz, hart Stahl, Kunststoffe.*



4 pcs
Ø 5-6-8-10 mm

03085201 € 12,828



7 pcs
Ø 3-4-5-6-8-9-10 mm

03085202 € 19,547



8 pcs
Ø 3-4-5-6-8-9-10-12 mm

03085203 € 23,815



12 pcs
Ø 3-4-4-5-5-6-6-7-8-8-9-10

03085101 € 30,533



390x150x225

156 pcs
Ø 3÷16 mm

Ø	pcs
3	9
4	9
5	18
6	27
7	9
8	18
9	6
10	18
11	6
12	12
13	6
14	6
15	6
16	6

03085503 € 720,590

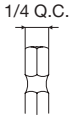
PUNTA UNIVERSALE “**FORATUTTO**®” CON ATTACCO HEX 1/4”

Multi-purpose drill bits / Forets universels pour materiaux
Broca universal para todos los materiales / Mehrzweckbohrer





Affilatura positiva
Positive relief



Confezione / *Packaging*



Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
3	1/4	33	75	1	030890300	3,546
4	1/4	40	83	1	030890400	3,746
5	1/4	46	93	1	030890500	3,746
6	1/4	56	97	1	030890600	4,047
7	1/4	48	97	1	030890700	4,356
8	1/4	70	120	1	030890800	4,438
9	1/4	70	120	1	030890900	4,786
10	1/4	70	120	1	030891000	5,032





03089



Ø 4-5-6-8-10 mm
03085700 € 24,424

PUNTE PER **VETRO E CERAMICA**

Glass drill bits / Forets verre / Broca para vidrio / Glasbohrer





Art. **03143** Self
Disponibile su richiesta
On demand

Ø mm	d	L	pcs	cod.	€ cad/each
3	3	58	1	031400300	4,264
4	3	58	1	031400400	4,423
5	4	58	1	031400500	4,591
6	5	58	1	031400600	5,047
7	5	78	1	031400700	5,542
8	6	78	1	031400800	5,542
9	6	98	1	031400900	6,334
10	7	98	1	031401000	7,916
12	8	98	1	031401200	9,895

03140



Ø 4-5-6-8-10 mm
03146700 € 25,323

Confezione / *Packaging*



Applicazioni / *Applications*







- Taglio a sola rotazione nel vetro, selezionando la velocità di taglio più bassa possibile e refrigerando con acqua o trementina. Riaffilare frequentemente nel taglio di vetri duri.
- Rotary cut in glass, with water cooling, at low speed.
- Pour percer le verre, à bas rotation, avec lubrification à l’eau.
- Para taladrar a rotation vidrio, refrigeracion por agua.
- Spezialbohrer zum Bohren von Glass, Wasser Schmierung.

PUNTE PER TRACCIARE CON RIPORTO IN METALLO DURO

Carbide scribers / Pointe carbure à tracer / Punta para trazar / Hartmetall Reißspitze

0314201



0314202



cod.	L	€ cad/each
0314201	200	5,977
0314202	150	5,199



147

Professional

PUNTE CILINDRICHE PER MURO **STANDARD PLUS**

Quality rotary percussion masonry drills / Forets à béton de qualité
Broca de qualidad para hormigon / Profi Steinbohrer

DIN 8039 - ISO 5468





HVA ≃ 1650

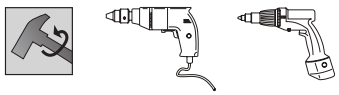
Corpo con placchetta di alta qualità.
Flute with high resistant carbide tips.

Confezione / *Packaging*



Applicazioni / *Applications*





Art. 03052 Serie Corta - *Short serie*

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030520300	1,607
4	5/32	3,8	40	75	10	030520400	1,607
5	3/16	4,5	40	85	10	030520500	1,641
5,5	7/32	4,8	55	100	10	030520550	1,759
6	15/64	5,5	55	100	10	030520600	1,759
6,5	1/4	6	70	120	10	030520650	1,943
7	9/32	6,5	70	120	10	030520700	2,025
8x107	5/16	7,5	70	107	10	030520800C	2,468
8	5/16	7,5	70	120	10	030520800	2,468
9	11/32	8	90	120	10	030520900	2,666
10	3/8	9	90	120	10	030521000	3,155
11	7/16	10	90	150	5	030521100	3,900
12x120	15/32	10	90	120	5	030521200C	3,900
12	15/32	10	90	150	5	030521200	3,900
13	1/2	10	90	150	5	030521300	4,365
14	9/16	10	90	150	5	030521400	4,831
15	19/32	10	90	150	5	030521500	5,775
16	5/8	10	90	150	5	030521600	6,414
18	23/32	10	100	160	5	030521800	6,636
20	25/32	13	100	160	5	030522000	8,194

Art. 03053 L=150-200 mm

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
5	3/16	4,7	90	150	5	030530500	3,448
5,5	7/32	4,8	90	150	5	030530550	3,555
6	15/64	5,5	90	150	5	030530600	4,307
8	5/16	7,5	150	200	5	030530800	4,925
10	3/8	9	150	200	5	030531000	5,705
12	15/32	10	150	200	5	030531200	6,577
14	9/16	10	150	200	5	030531400	8,125
16	5/8	10	150	200	5	030531600	9,135
18	23/32	10	150	200	5	030531800	10,290
20	25/32	13	150	200	5	030532000	11,288

Art. 03054 L=400 mm

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
8	5/16	7,5	320	400	1	030540800	7,380
10	3/8	9	320	400	1	030541000	9,988
12	15/32	10	320	400	1	030541200	11,873
14	9/16	10	320	400	1	030541400	12,445
16	5/8	10	320	400	1	030541600	22,130
18	23/32	10	320	400	1	030541800	28,359
20	25/32	13	320	400	1	030542000	34,575
22	7/8	13	320	400	1	030542200	36,494
24	15/16	13	320	400	1	030542400	39,375

Art. 03051 L=600 mm

NEW

Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
8	5/16	7,5	500	600	1	030510800	9,345
10	3/8	9	500	600	1	030511000	12,075
12	15/32	10	500	600	1	030511200	13,545
14	9/16	10	500	600	1	030511400	15,330
16	5/8	10	500	600	1	030511600	23,789
18	23/32	10	500	600	1	030511800	30,975
20	25/32	13	500	600	1	030512000	36,288
22	7/8	13	500	600	1	030512200	40,913
24	15/16	13	500	600	1	030512400	48,254

ASSORTIMENTI PUNTE CILINDRICHE PER MURO **STANDARD PLUS**

Quality rotary percussion masonry drills sets / Jeux forets à béton de qualitè
Juego brocas de qualidad para hormigon / Betonschlag bohrersätze



4 pcs
Ø 5-6-8-10 mm

03057202 € 10,698



7 pcs
Ø 3-4-5-6-8-9-10 mm

03057204 € 16,367



8 pcs
Ø 3-4-5-6-8-9-10-12 mm

03057205 € 19,395



390x150x225

177 pcs
Ø 3÷16 mm

Ø	pcs
3	10
4	10
5	10
6	45
7	10
8	20
9	10
10	20
12	10
14	5
16	5
8x400	5
10x400	6
12x400	6
14x400	5

03057503 € 686,217

Professional

PUNTE CILINDRICHE PER MURO, QUALITÀ STANDARD

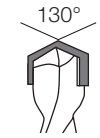
Carbide tipped masonry drills / Forets à béton au carbure de tungstene
Brocas para hormigon / Steinbohrer

DIN 8039-ISO 5468 Serie Corta

Short serie / Série courte / Serie corta / Kurz Serie

03001





HVA ≃ 1600

Art. **03002** Self
Disponibile su richiesta / *On demand*

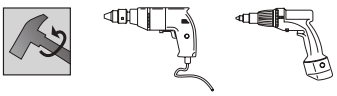
Confezione / *Packaging*



Applicazioni / *Applications*



Ø mm	inch	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030010300	0,734
3,5	9/64	3,2	40	75	10	030010350	0,828
4	5/32	3,2	40	75	10	030010400	0,776
4,5	11/64	3,8	40	85	10	030010450	0,848
5	3/16	3,8	40	85	10	030010500	0,776
5,5	7/32	4,7	50	85	10	030010550	0,932
6	15/64	4,7	55	100	10	030010600	0,848
6,5	1/4	5,4	55	100	10	030010650	1,058
7	9/32	5,4	55	100	10	030010700	0,953
7,5	19/64	5,8	70	100	10	030010750	1,163
8X107	5/16	7,5	70	107	10	030010800C	1,141
8	5/16	6	70	120	10	030010800	1,141
8,5	21/64	7,1	70	120	10	030010850	1,384
9	11/32	7,1	70	120	10	030010900	1,258
9,5	3/8	8	70	120	10	030010950	1,519
10	3/8	8	70	120	10	030011000	1,446
11	7/16	10	90	150	5	030011100	2,252
12X120	15/32	10	90	120	5	030011200C	2,252
12	15/32	10	90	150	5	030011200	2,252
13	1/2	10	90	150	5	030011300	3,028
14	9/16	10	90	150	5	030011400	3,112
15	19/32	10	90	150	5	030011500	3,898
16	5/8	10	90	150	5	030011600	3,898
18	23/32	10	100	160	5	030011800	4,758
20	25/32	13	100	160	5	030012000	5,511
22	7/8	13	100	160	1	030012200	7,638
24	15/16	13	100	160	1	030012400	9,052
25	1"	13	100	160	1	030012500	11,116
26	1. 1/32	13	100	160	1	030012600	15,988
28	1. 1/8	13	100	160	1	030012800	16,658
30	1. 3/16	13	100	160	1	030013000	18,818
32	1. 1/4	13	100	160	1	030013200	20,829



- Per forare a rotopercussione muro, cemento, marmo e pietre. Utilizzo non intensivo.
- *Rotary percussion in masonry, concrete, cement, marble, stone. Non intensive use.*
- *Pour percer à rotation percussion en pierre, béton, ciment, carrelage, marbre. Emploi non intensif.*
- *Para taladrar a roto-percussion muro, hormigon, cemento, marmol, piedra, suelos. Empleo non intensivo.*
- *Um Mauerwerk und Beton in Schlagbohrermaschinen zu bohren*

PUNTE CILINDRICHE PER MURO, SERIE LUNGA 200-300MM, QUALITÀ STANDARD

Carbide tipped masonry drills, 200-300mm. length / Forets à béton au carbure de tungstene, série longue 200-300m.
Brocas para hormigon, serie larga 200-300mm. / Steinbohrer, 200-300 mm Ausführung

DIN 8039 - ISO 5468



Art. 03005 L=200 mm

03005

Ø mm	*inch*	d	*l*	L	pcs	cod.	€ cad/each
6	15/64	4,7	115	200	5	030050600	2,591
8	5/16	6	115	200	5	030050800	2,871
9	11/32	7,1	115	200	5	030050900	3,619
10	3/8	8	115	200	5	030051000	3,619
12	15/32	10	120	200	5	030051200	4,434
13	1/2	10	120	200	5	030051300	4,959
14	9/16	10	120	200	5	030051400	5,474
16	5/8	10	120	200	5	030051600	6,801
18	23/32	10	120	200	5	030051800	8,718
20	25/32	13	120	200	5	030052000	10,355

Art. **03021** Self
Disponibile su richiesta / *On demand*

Art. 03009 L=300 mm

03009

Ø mm	*inch*	d	*l*	L	pcs	cod.	€ cad/each
6	15/64	4,7	180	300	5	030090600	3,127
8	5/16	6	180	300	5	030090800	3,535
9	11/32	7,1	180	300	5	030090900	4,520
10	3/8	8	180	300	5	030091000	4,520
12	15/32	10	180	300	5	030091200	5,195
13	1/2	10	180	300	5	030091300	6,276
14	9/16	10	180	300	5	030091400	6,672
16	5/8	10	180	300	5	030091600	8,514
18	23/32	10	180	300	5	030091800	10,892
20	25/32	13	180	300	5	030092000	12,949

PUNTE CILINDRICHE PER MURO, SERIE LUNGA 400-600MM, QUALITÀ STANDARD

Carbide tipped masonry drills, 400-600mm. length / Forets à béton au carbure de tungstene, série longue 400-600m
Brocas para hormigon, serie larga 400-600mm /Steinbohrer, 400-600 mm Ausführung

DIN 8039 - ISO 5468



Art. 03011 L=400 mm

Art. **03022** Self
Disponibile su richiesta / *On demand*

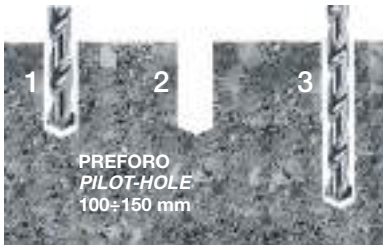
Ø mm	*inch*	d	*l*	L	pcs	cod.	€ cad/each
6	15/64	5	240	400	5	030110600	3,460
8	5/16	7	240	400	5	030110800	4,015
9	11/32	8	240	400	5	030110900	5,505
10	3/8	9	240	400	5	030111000	5,505
11	7/16	10	240	400	5	030111100	5,901
12	15/32	10	240	400	5	030111200	5,901
13	1/2	10	240	400	5	030111300	7,036
14	9/16	10	240	400	5	030111400	7,036
15	19/32	10	240	400	5	030111500	8,953
16	5/8	10	240	400	5	030111600	8,953
18	23/32	10	240	400	5	030111800	11,461
20	25/32	13	240	400	5	030112000	14,652
22	7/8	13	240	400	1	030112200	20,563
24	15/16	13	250	400	1	030112400	23,808
25	1"	13	250	400	1	030112500	26,989
26	1/32	13	250	400	1	030112600	30,181
28	1/8	13	250	400	1	030112800	32,387
30	3/16	13	250	400	1	030113000	36,756
32	1/4	13	250	400	1	030113200	42,155

Art. 03015 L=600 mm

Art. **03023** Self
Disponibile su richiesta / *On demand*

Ø mm	*inch*	d	*l*	L	pcs	cod.	€ cad/each
6	15/64	5	370	600	5	030150600	6,137
8	5/16	7	370	600	5	030150800	6,832
9	11/32	8	370	600	5	030150900	8,514
10	3/8	9	370	600	5	030151000	8,922
11	7/16	10	370	600	5	030151100	9,211
12	15/32	10	370	600	5	030151200	9,788
13	1/2	10	370	600	5	030151300	11,461
14	9/16	10	370	600	5	030151400	12,209
15	19/32	10	370	600	5	030151500	15,444
16	5/8	10	370	600	5	030151600	17,008
18	23/32	10	370	600	5	030151800	19,748
20	25/32	13	370	600	5	030152000	23,187
22	7/8	13	370	600	1	030152200	33,939
24	15/16	13	370	600	1	030152400	41,918
25	1"	13	370	600	1	030152500	46,289
26	1/32	13	370	600	1	030152600	48,141
28	1/8	13	370	600	1	030152800	54,524
30	3/16	13	370	600	1	030153000	62,771
35	3/8	13	370	600	1	030153500	79,317

Applicazioni / *Applications*



Si consiglia di eseguire un preforo di 100÷150 mm dello stesso diametro.
Use same size pilot drill for 100÷150 mm depth.

ASSORTIMENTI PUNTE PER MURO, QUALITÀ STANDARD

Masonry drills in plastic cases / Assortiments forets à béton
Juego brocas para hormigon / Steinbohrersätze



15 pcs
Ø 3÷10 x 0,5 mm

03050101 € 16,428



13 pcs
Ø 3-4-4-5-5-5,5-6-6-7-7-8-8-9-10 mm

03050102 € 15,412



7 pcs
Ø 3-4-5-6-8-9-10 mm

03050204 € 9,179



8 pcs
Ø 3-4-5-6-8-9-10-12 mm

03050205 € 10,771



4 pcs
Ø 4-5-6-8

03050201 € 5,668



4 pcs
Ø 5-6-8-10 mm

03050202 € 6,119



4 pcs
Ø 4-5-6-8-10 mm

03050203 € 6,464



390x150x225

281 pcs
Ø 3÷20

03050503 € 713,922

Ø	pcs
3	20
4	20
5	20
6	60
7	20
8	30
9	10
10	20
12	10
14	10
16	5
18	3
8x400	10
10x400	10
12x400	10
14x400	10
16x400	5
18x400	5
20x400	3

High Quality professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS, QUALITÀ SUPER PROFESSIONALE “K 4”

SDS-PLUS hammer drills “K 4” / Forets à marteau SDS-PLUS “K 4”
Brocas para martillo SDS-PLUS “K 4” / Hammerbohrer SDS-PLUS “K 4”

03160



K4
“SUPERPRO”



2 taglienti
cutting edges

4 spirali
4 spirals

HVA ≃ 1650

Corpo a 4 spirali indipendenti per un avanzamento più veloce (+35%) ed un maggior scarico dei detriti. Corpo in acciaio legato con HRC 50÷55. Geometria della testa più snella e più aggressiva, per un’ottima trasmissione della potenza. Saldobrasatura a 1100°C in atmosfera di gas protettivo. *Higher speed and durability due to the unique 4-fold spirals (more dust removal, more feeding speed); unique and aggressive head geometry for a smooth power transmission. Body in alloy steel with HRC 50÷55. Brazing temperature at 1100°C.*



Placchetta “attiva” con gole di scarico
ø ≤ 10 mm



Placchetta con puntina di centraggio
10 < ø ≤ 16 mm

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete



Muro
Masonry

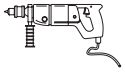


Pietra
Natural stones

L ≥ 300 mm







** 2 eliche - 2 Flutes*

Ø mm	L	l	pcs	cod.	€ cad/each
*3,5	110	50	1	031601100350	8,709
*3,5	135	75	1	031601350350	14,030
*4	110	50	1	031601100400	7,325
*4	160	100	1	031601600400	9,532
5	110	50	1	031601100500	4,616
5	160	100	1	031601600500	6,371
5	210	150	1	031602100500	10,807
5	310	250	1	031603100500	13,400
5,5	110	50	1	031601100550	4,927
5,5	160	100	1	031601600550	6,566
5,5	210	150	1	031602100550	8,344
5,5	260	200	1	031602600550	16,804
5,5	310	250	1	031603100550	24,334
5,5	460	400	1	031604600550	41,287
6	110	50	1	031601100600	4,284
6	160	100	1	031601600600	5,236
6	210	150	1	031602100600	6,127
6	260	200	1	031602600600	8,022
6	460	400	1	031604600600	18,900
6,5	110	50	1	031601100650	5,108
6,5	160	100	1	031601600650	5,301
6,5	210	150	1	031602100650	8,965
6,5	260	200	1	031602600650	9,350
6,5	310	250	1	031603100650	12,006
7	110	50	1	031601100700	6,758
7	160	100	1	031601600700	7,830
7	210	150	1	031602100700	8,709
8	110	50	1	031601100800	5,236
8	160	100	1	031601600800	6,630
8	210	150	1	031602100800	6,823
8	260	200	1	031602600800	8,344
8	310	250	1	031603100800	10,227
8	460	400	1	031604600800	16,750
8	610	550	1	031606100800	23,998
9	160	100	1	031601600900	9,853
9	210	150	1	031602100900	10,742
10	110	50	1	031601101000	5,623
10	160	100	1	031601601000	6,566
10	210	150	1	031602101000	7,701
10	260	200	1	031602601000	9,038
10	310	250	1	031603101000	9,038
10	360	300	1	031603601000	12,006
10	460	400	1	031604601000	19,425
10	610	550	1	031606101000	28,449
10	1000	950	1	0316010001000	52,981
11	160	100	1	031601601100	9,021
11	210	150	1	031602101100	12,704
11	260	200	1	031602601100	14,180
12	160	100	1	031601601200	9,220
12	210	150	1	031602101200	11,375
12	260	200	1	031602601200	12,510

Ø mm	L	l	pcs	cod.	€ cad/each
12	310	250	1	031603101200	16,237
12	460	400	1	031604601200	21,046
12	610	550	1	031606101200	29,142
12	1000	950	1	0316010001200	61,776
13	160	100	1	031601601300	13,517
13	210	150	1	031602101300	14,725
13	260	200	1	031602601300	16,237
13	460	400	1	031604601300	24,654
14	160	100	1	031601601400	11,180
14	210	150	1	031602101400	13,517
14	260	200	1	031602601400	14,340
14	310	250	1	031603101400	18,079
14	460	400	1	031604601400	23,006
14	610	550	1	031606101400	36,533
14	1000	950	1	0316010001400	72,464
15	160	100	1	031601601500	16,686
15	260	200	1	031602601500	20,221
15	460	400	1	031604601500	32,944
16	210	150	1	031602101600	19,149
16	260	200	1	031602601600	22,759
16	310	250	1	031603101600	23,198
16	460	400	1	031604601600	32,055
16	610	550	1	031606101600	37,806
16	1000	950	1	0316010001600	77,530
17	210	150	1	031602101700	30,790
18	200	150	1	031602001800	24,783
18	300	250	1	031603001800	28,638
18	450	400	1	031604501800	37,056
18	600	550	1	031606001800	50,996
18	1000	950	1	0316010001800	84,041
19	200	150	1	031602001900	39,712
19	450	400	1	031604501900	59,633
20	200	150	1	031602002000	28,511
20	300	250	1	031603002000	33,128
20	450	400	1	031604502000	41,736
20	600	550	1	031606002000	55,665
20	1000	950	1	0316010002000	95,737
22	250	200	1	031602502200	35,525
22	450	400	1	031604502200	63,928
22	600	550	1	031606002200	65,100
22	1000	950	1	0316010002200	110,045
24	250	200	1	031602502400	43,128
24	450	400	1	031604502400	60,330
25	250	200	1	031602502500	43,621
25	300	250	1	031603002500	78,226
25	450	400	1	031604502500	67,153
25	1000	950	1	0316010002500	136,691
26	250	200	1	031602502600	50,905
26	450	400	1	031604502600	66,712

Corpo a doppia spirale per ø ≤ 4 mm e ø > 16 mm

- Taglio ad **altissimo rendimento** a rotopercussione, su martelli SDS-plus, nel muro, cemento, calcestruzzo, pietre. **Taglia anche il tondino di acciaio** del cemento armato incontrato nella foratura.
- *Superprofessional hammer drills for intensive usage in concrete, masonry, bricks, natural stone, etc..*
- *Forets à marteau Superprofessionel pour percage in ciment, carrelage, pierre naturelle et artificielle, etc..*
- *Brocas para martillo Superprofesionales para cortar hormigon, cemento, marmo, piedra, suelos.*
- *Superprofi Einsatz in Bohrhammer mit SDS-PLUS aufnahme für Beton, Mauerwerk, Naturstein.*

ASSORTIMENTI PUNTE SDS-PLUS, QUALITÀ SUPER PROFESSIONALE “K 4”

“K 4” Hammer drills sets / Assortiments forets à marteau “K 4”
Juegos brocas martillo “K 4 “ / “K 4” Hammerbohrersätze

Abs



7 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 - 12 x 160 mm

03163403 € 45,218

Plastic



6 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 x 160 mm

03163202 € 39,667



5 pcs
Ø 5 - 6 x 110 mm
Ø 8 - 10 - 12 x 160 mm

03163203 € 36,262



30 pcs
Ø 6÷14 mm

Ø	pcs
6x160	5
8x160	5
10x160	5
12x160	5
10x210	5
12x210	3
14x210	2

03163460 € 252,124



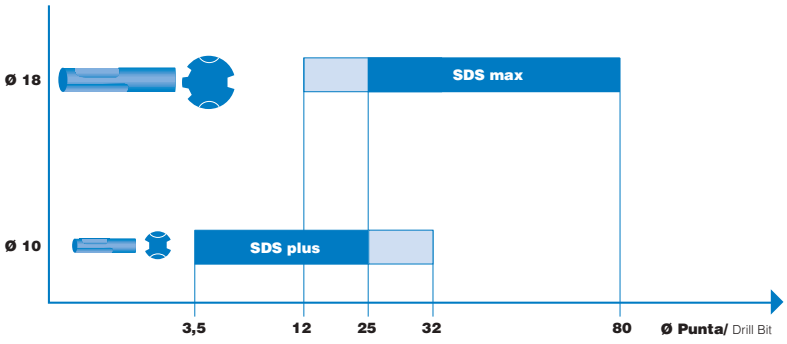
390x150x225

71 pcs
Ø 5÷16 mm

Ø	pcs
5x110	3
6x110	8
5x160	3
6x160	8
8x160	8
9x160	3
10x160	5
12x160	5
6x210	4
8x210	4
10x210	3
12x210	3
14x210	2
16x210	2
8x260	2
10x260	2
12x260	2
14x260	2
16x260	2

03163503 € 662,927

Campo di applicazione raccomandato per gli attacchi SDS per martelli
Range of applications for the SDS shanks



SDS-MAX
03170
376

High Quality professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI

SDS-PLUS hammer drills, 4 flutes, 4 cutting edges / Forets á marteau SDS-PLUS avec 4 tranchantes et 4 spirales
Brocas para martillo SDS-PLUS con 4 cortadores y 4 espirales / Hammerbohrer SDS-PLUS mit 4 Schneiden und 4 Schrauben

HAMMER

03169





ø 3,5÷4 mm



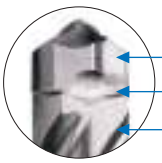
ø 3,5÷4 mm



ø 3,5÷4 mm

4 taglienti-*cutting edges*
HVA 1650
Placchetta integrale a 4 taglienti in metallo duro resistente alla forte percussione, è saldato al corpo per diffusione elettronica.
One-piece 4 cutting edges carbide tip resisting to percussion. Welded to the body by electronic diffusion bond.

4 eliche-*flutes*
Corpo fresato con scanalatura a "L" ad alta evacuazione.
Large milled flute type "L" for a faster dust removal.



Testa in metallo duro integrale
Carbide tip
Zona di transizione
Transition area
Corpo in acciaio
Steel body

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

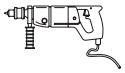


Muro
Masonry



Pietra
Natural stones







Saldatura per diffusione elettronica, 3 volte più resistente della saldobrasatura
Electronic diffusion bond, 3 times more resistant than brazing

Ø mm	L	l	pcs	cod.	€ cad/each
3,5	115	50	1	031691150350	10,041
3,5	165	100	1	031691650350	11,165
4	115	50	1	031691150400	10,853
4	165	100	1	031691650400	11,334
5	115	50	1	031691150500	7,788
5	165	100	1	031691650500	8,798
5	215	150	1	031692150500	10,954
5	265	200	1	031692650500	13,032
5	315	250	1	031693150500	18,192
5	465	400	1	031694650500	31,752
5,5	115	50	1	031691150550	8,295
5,5	165	100	1	031691650550	9,370
5,5	215	150	1	031692150550	10,954
5,5	265	200	1	031692650550	13,776
5,5	315	250	1	031693150550	18,192
5,5	465	400	1	031694650550	33,340
6	115	50	1	031691150600	8,170
6	165	100	1	031691650600	8,978
6	215	150	1	031692150600	11,017
6	265	200	1	031692650600	12,976
6	315	250	1	031693150600	18,390
6	465	400	1	031694650600	31,752
6,5	115	50	1	031691150650	8,295
6,5	165	100	1	031691650650	11,017
6,5	215	150	1	031692150650	14,844
6,5	265	200	1	031692650650	17,865
6,5	315	250	1	031693150650	21,962
7	115	50	1	031691150700	10,853
7	165	100	1	031691650700	11,815
7	215	150	1	031692150700	14,288
7	265	215	1	031692650700	26,250
8	115	50	1	031691150800	9,301
8	165	100	1	031691650800	9,511
8	215	150	1	031692150800	11,181
8	265	200	1	031692650800	13,164
8	315	250	1	031693150800	17,690
8	365	300	1	031693650800	26,989
8	465	400	1	031694650800	29,030
9	165	100	1	031691650900	11,017
9	215	150	1	031692150900	12,659
10	115	50	1	031691151000	9,580
10	165	100	1	031691651000	10,523
10	215	150	1	031692151000	12,224
10	265	200	1	031692651000	14,844
10	315	250	1	031693151000	17,865
10	365	300	1	031693651000	28,577
10	465	400	1	031694651000	31,364
10	600	550	1	031696001000	59,063
10	1000	950	1	0316910001000	128,520
11	165	100	1	031691651100	14,515
11	215	150	1	031692151100	16,874
11	265	200	1	031692651100	20,691
12	165	100	1	031691651200	11,903
12	215	150	1	031692151200	14,407
12	265	200	1	031692651200	16,708
12	315	250	1	031693151200	22,590
12	365	300	1	031693651200	31,752
12	465	400	1	031694651200	33,189
12	600	550	1	031696001200	60,701
12	1000	950	1	0316910001200	137,162
13	165	100	1	031691651300	16,399
13	215	150	1	031692151300	22,521
13	265	200	1	031692651300	26,944
14	165	100	1	031691651400	16,462
14	215	150	1	031692151400	21,962
14	265	200	1	031692651400	25,183
14	315	250	1	031693151400	27,778
14	365	300	1	031693651400	34,927
14	465	400	1	031694651400	35,341
14	600	550	1	031696001400	62,675
14	1000	950	1	0316910001400	167,895
15	165	100	1	031691651500	23,814
15	265	200	1	031692651500	29,661
15	465	400	1	031694651500	42,457
16	215	150	1	031692151600	28,985
16	265	200	1	031692651600	32,727
16	315	250	1	031693151600	36,878
16	465	400	1	031694651600	44,498
16	600	550	1	031696001600	73,826
16	1000	950	1	0316910001600	173,912
17	215	150	1	031692151700	48,941
17	315	250	1	031693151700	56,711
18	250	200	1	031692501800	51,135
18	450	400	1	031694501800	60,974
18	600	550	1	031696001800	68,082
18	1000	950	1	0316910001800	160,178
20	250	200	1	031692502000	58,685
20	450	400	1	031694502000	64,365
20	600	550	1	031696002000	130,977
20	1000	950	1	0316910002000	186,753
22	250	200	1	031692502200	72,786
22	450	400	1	031694502200	95,592
22	600	550	1	031696002200	135,461
22	1000	950	1	0316910002200	190,040
24	450	400	1	031694502400	107,573
25	450	400	1	031694502500	109,379
25	600	550	1	031696002500	159,191
25	1000	950	1	0316910002500	218,862
28	450	400	1	031694502800	121,076
30	450	400	1	031694503000	132,563

ø 18÷30 mm: 4 taglienti – 2 eliche
ø 18÷30 mm: 2 flutes – 4 cutting edges

ASSORTIMENTI PUNTE SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI

SDS/PLUS hammer drills sets, 4 flutes, 4 cutting edges
Assortiments forets à marteau SDS-PLUS / Juegos brocas martillo SDS-PLUS

HAMMER



6 pcs
Ø 5 - 6 - 8 x 115 mm
Ø 6 - 8 - 10 x 165 mm

03174202 € 60,425



5 pcs
Ø 5 - 6 x 115 mm
Ø 8 - 10 - 12 x 165 mm

03174203 € 53,507



7 pcs
Ø 5 - 6 - 8 x 115 mm
Ø 6 - 8 - 10 - 12 x 165 mm

03174403 € 77,237



390x150x225

68 pcs
Ø 5÷16 mm

Ø	pcs
5x115	3
6x115	8
5x165	3
6x165	8
8x165	8
10x165	5
12x165	5
6x215	4
8x215	4
10x215	3
12x215	3
14x215	2
16x215	2
8x265	2
10x265	2
12x265	2
14x265	2
16x265	2

03174503 € 871,815

La speciale testa dell'utensile è **saldata al corpo per diffusione**: questa nuova tecnologia garantisce un legame estremamente stabile tra placchetta in metallo duro e corpo della punta, perché la giunzione avviene allo stato solido per diffusione degli atomi del reticolo cristallino all'interfaccia tra i due pezzi.
La placchetta in metallo duro **monoblocco a 4 taglienti** garantisce una grande capacità di taglio, una perfetta trasmissione della potenza e un'ottima asportazione dei detriti grazie alla combinazione dei 4 taglienti, della placchetta integrale e delle 4 eliche. La punta a 4 taglienti e 4 spirali taglia sempre e senza problemi il tondino nel cemento armato. Garantisce un grande rendimento di taglio in tutti i materiali edili, cemento, granito, cemento armato, pietre in genere, mattoni. Grande precisione di foratura, grande durata della vita dell'utensile, massima limitazione delle vibrazioni del martello.
One-piece carbide tip is welded to the body by electronic diffusion bonding: this new technology assures a very stable link between the carbide tip and the drill body, because the bonding is made between solid phases through the atoms diffusion. *The solid carbide tip assures high performances, a good power transmission and a great debris removal thanks to 4 flutes and 4 cutting edges one-piece solid carbide. The hammer drill 4x4 Speedmaster always cuts the steel bar into reinforced concrete. You can drill into all the building materials, concrete, masonry, reinforced concrete, stones, bricks. It assures thorough holes, long tool life cycle, low hammer vibrations*

High Quality professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI

SDS-PLUS hammer drills, 4 flutes, 4 cutting edges / Forets á marteau SDS-PLUS avec 4 tranchantes et 4 spirales
Brocas para martillo SDS-PLUS con 4 cortadores y 4 espirales / Hammerbohrer SDS-PLUS mit 4 Schneiden und 4 Schrauben

4x4
Speedmaster

03167





Solid
carbide head
ø 5-10 mm



Single
carbide tip
ø 12-16 mm



Multi-part
carbide tip
ø 18-32 mm

HVA ≃ 1650

4 taglienti-*cutting edges*
HVA 1650
Placchetta integrale a 4 taglienti in metallo duro resistente alla forte percussione, brasatura con lega saldante a 1100°C.
One-piece 4 cutting edges carbide tip resisting to percussion. Brazing temperature at 1000°C

4 eliche-*flutes*
Corpo fresato con scanalatura a "L" ad alta evacuazione.
Large milled flute type "L" for a faster dust removal.

Ø mm	L	l	pcs	cod.	€ cad/each
5	110	50	1	031671100500	10,440
5	160	100	1	031671600500	11,237
5,5	110	50	1	031671100550	11,103
5,5	160	100	1	031671600550	12,032
6	110	50	1	031671100600	10,574
6	160	100	1	031671600600	11,568
6	210	150	1	031672100600	14,498
6	260	200	1	031672600600	17,418
6	310	250	1	031673100600	24,871
6,5	160	100	1	031671600650	14,697
6,5	210	150	1	031672100650	19,819
6,5	260	200	1	031672600650	25,469
6,5	310	250	1	031673100650	29,650
7	110	50	1	031671100700	13,957
7	160	100	1	031671600700	14,764
8	110	50	1	031671100800	12,298
8	160	100	1	031671600800	12,974
8	210	150	1	031672100800	14,764
8	260	200	1	031672600800	17,949
8	310	250	1	031673100800	25,602
8	460	400	1	031674600800	36,175
9	160	100	1	031671600900	13,636
10	110	50	1	031671101000	12,763
10	160	100	1	031671601000	13,636
10	210	150	1	031672101000	16,090
10	260	200	1	031672601000	19,619
10	310	250	1	031673101000	23,600
10	450	400	1	031674501000	41,295
10	600	550	1	031676001000	60,052
10	1000	950	1	0316710001000	149,620
11	160	100	1	031671601100	16,345
11	210	150	1	031672101100	19,719
12	160	100	1	031671601200	15,759
12	210	150	1	031672101200	19,221
12	260	200	1	031672601200	21,809
12	310	250	1	031673101200	29,926
12	450	400	1	031674501200	44,957
12	600	550	1	031676001200	61,898

Ø mm	L	l	pcs	cod.	€ cad/each
12	1000	950	1	0316710001200	157,925
13	160	100	1	031671601300	20,559
13	210	150	1	031672101300	34,395
13	260	200	1	031672601300	38,707
13	310	250	1	031673101300	41,438
14	160	100	1	031671601400	22,274
14	210	150	1	031672101400	29,783
14	260	200	1	031672601400	32,847
14	310	250	1	031673101400	36,905
14	450	400	1	031674501400	46,349
14	600	550	1	031676001400	67,162
14	1000	950	1	0316710001400	163,908
15	160	100	1	031671601500	34,848
15	210	150	1	031672101500	40,566
15	260	200	1	031672601500	44,148
15	450	400	1	031674501500	58,514
16	160	100	1	031671601600	36,905
16	210	150	1	031672101600	41,561
16	260	200	1	031672601600	44,226
16	310	250	1	031673101600	49,866
16	450	400	1	031674501600	59,189
16	600	550	1	031676001600	82,192
16	1000	950	1	0316710001600	172,877
18	250	200	1	031672501800	60,571
18	450	400	1	031674501800	71,542
20	250	200	1	031672502000	67,694
20	450	400	1	031674502000	77,868
22	250	200	1	031672502200	71,741
22	450	400	1	031674502200	90,299
24	250	200	1	031672502400	82,922
24	450	400	1	031674502400	99,941
25	250	200	1	031672502500	85,853
25	450	400	1	031674502500	105,261
28	250	200	1	031672502800	101,203
28	450	400	1	031674502800	111,244
30	250	200	1	031672503000	106,666
30	450	400	1	031674503000	145,572
32	450	400	1	031674503200	156,664

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

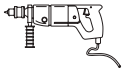


Muro
Masonry



Pietra
Natural stones





- La placchetta in metallo duro **monoblocco a 4 taglienti** garantisce una grande capacità di taglio, una perfetta trasmissione della potenza e un'ottima asportazione dei detriti grazie alla combinazione dei 4 taglienti, della placchetta integrale e delle 4 eliche. La punta a 4 taglienti e 4 spirali taglia sempre e senza problemi il tondino nel cemento armato. Garantisce un grande rendimento di taglio in tutti i materiali edili, cemento, granito, cemento armato, pietre in genere, mattoni. Grande precisione di foratura, grande durata della vita dell'utensile, massima limitazione delle vibrazioni del martello.
- *The solid carbide tip assures high performances, a good power transmission and a great debris removal thanks to 4 flutes and 4 cutting edges one-piece solid carbide. The hammer drill 4x4 Speedmaster always cuts the steel bar into reinforced concrete. You can drill into all the building materials, concrete, masonry, reinforced concrete, stones, bricks. It assures thorough holes, long tool life cycle, low hammer vibrations.*

ASSORTIMENTI PUNTE SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI

SDS/PLUS hammer drills sets, 4 flutes, 4 cutting edges

Assortiments forets à marteau SDS-PLUS / Juegos brocas martillo SDS-PLUS

4x4

Speedmaster

Metal



7 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 - 12 x 160 mm

03168401 € 90,906

Plastic



6 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 x 160 mm

03168202 € 75,501



5 pcs
Ø 5 - 6 x 110 mm
Ø 8 - 10 - 12 x 160 mm

03168203 € 68,003



30 pcs
Ø 6÷14 mm

Ø	pcs
6x160	5
8x160	5
10x160	5
12x160	5
10x210	5
12x210	3
14x210	2

03168460 € 486,331



390x150x225

68 pcs
Ø 5÷16 mm

Ø	pcs
5x110	3
6x110	8
5x160	3
6x160	8
8x160	8
10x160	5
12x160	5
6x210	4
8x210	4
10x210	3
12x210	3
14x210	2
16x210	2
8x260	2
10x260	2
12x260	2
14x260	2
16x260	2

03168503 € 1.210,462

46 pcs
Ø 5÷16 mm

Ø	pcs
5x110	4
6x110	6
6x160	6
8x160	6
10x160	4
12x160	4
8x210	4
10x210	2
12x210	2
14x210	2
16x210	2
14x260	2
16x260	2

03168500 € 903,699

Professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS, QUALITÀ STANDARD

Hammer drills / Forets à marteau
Brocas para martillo / Hammerbohrer

Standard quality **SDS-PLUS**

03155





2 taglienti
cutting edges

4 spirali
4 spirals

HVA ≈ 1650

Ø mm	L	l	pcs	cod.	€ cad/each
4	110	50	1	031551100400	3,182
4	160	50	1	031551600400	3,363
5	110	50	1	031551100500	2,945
5	160	100	1	031551600500	3,127
5	210	150	1	031552100500	3,697
5,5	110	50	1	031551100550	3,106
5,5	160	100	1	031551600550	3,278
5,5	210	150	1	031552100550	3,888
6	110	50	1	031551100600	2,966
6	160	100	1	031551600600	3,245
6	210	150	1	031552100600	4,358
6	260	200	1	031552600600	5,108
6,5	160	100	1	031551600650	3,363
6,5	210	150	1	031552100650	4,658
6,5	260	200	1	031552600650	5,547
7	110	50	1	031551100700	3,363
7	160	100	1	031551600700	3,771
8	110	50	1	031551100800	3,224
8	160	100	1	031551600800	3,619
8	210	150	1	031552100800	4,680
8	260	200	1	031552600800	5,547
8	310	250	1	031553100800	8,022
8	460	400	1	031554600800	12,648
9	160	100	1	031551600900	4,059
9	210	150	1	031552100900	5,580
10	110	50	1	031551101000	3,759
10	160	100	1	031551601000	4,156
10	210	150	1	031552101000	5,150
10	260	200	1	031552601000	6,040
10	310	250	1	031553101000	8,931
10	360	300	1	031553601000	11,524
10	460	400	1	031554601000	13,205
10	610	550	1	031556101000	18,732
10	1000	950	1	0315510001000	30,692
11	160	100	1	031551601100	4,638
11	210	150	1	031552101100	6,554
11	260	200	1	031552601100	7,036
12	160	100	1	031551601200	4,402
12	210	150	1	031552101200	6,062
12	260	200	1	031552601200	7,036
12	310	250	1	031553101200	10,571
12	460	400	1	031554601200	13,817
12	600	550	1	031556001200	20,028
12	1000	950	1	0315510001200	34,722

Ø mm	L	l	pcs	cod.	€ cad/each
13	160	100	1	031551601300	6,083
13	210	150	1	031552101300	8,900
13	260	200	1	031552601300	9,135
13	460	400	1	031554601300	14,148
14	160	100	1	031551601400	6,137
14	210	150	1	031552101400	7,133
14	260	200	1	031552601400	8,119
14	310	250	1	031553101400	10,838
14	460	400	1	031554601400	14,148
14	600	550	1	031556001400	21,902
14	1000	950	1	0315510001400	41,655
15	160	100	1	031551601500	7,529
15	260	200	1	031552601500	10,100
16	160	100	1	031551601600	8,226
16	210	150	1	031552101600	9,135
16	260	200	1	031552601600	11,855
16	310	250	1	031553101600	13,955
16	460	400	1	031554601600	16,150
16	600	550	1	031556001600	29,271
16	1000	950	1	0315510001600	50,813
18	210	150	1	031552101800	11,235
18	260	200	1	031552601800	13,441
18	310	250	1	031553101800	14,994
18	460	400	1	031554601800	18,262
18	600	550	1	031556001800	29,966
18	1000	950	1	0315510001800	55,208
20	200	150	1	031552002000	12,648
20	310	250	1	031553102000	17,724
20	460	400	1	031554602000	23,274
20	600	550	1	031556002000	37,003
20	1000	950	1	0315510002000	61,045
22	250	200	1	031552502200	16,858
22	460	400	1	031554602200	26,411
22	600	550	1	031556002200	39,809
22	1000	950	1	0315510002200	73,368
24	260	200	1	031552602400	19,910
24	460	400	1	031554602400	30,609
25	260	200	1	031552602500	19,910
25	460	400	1	031554602500	31,370
25	1000	950	1	0315510002500	82,947
26	460	400	1	031554602600	37,003
28	460	400	1	031554602800	45,432
30	460	400	1	031554603000	55,253

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

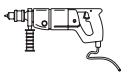
Muro
Masonry

Pietra
Natural stones

L ≥ 300 mm







- Taglio a rotopercussione, su martelli con attacco SDS-PLUS, nel muro, cemento, calcestruzzo, pietre.
- *Rotary percussion cut, with SDS plus hammers, in masonry, cement, reinforced concrete, natural and artificial stone.*
- *Forets à marteau SDS pour percer béton, ciment, pierre.*
- *Brocas para martillo SDS-plus para cortar hormigon, cemento, marmo, piedra.*
- *Einsatz in Bohrhammer mit SDS-plus aufnahme für Beton, Mauerwerk, Naturstein.*

ASSORTIMENTI PUNTE PER TRAPANI A MARTELLO SDS-PLUS

Hammer drills sets / Assortiments forets à marteau
Juegos brocas para martillo / Hammerbohrersätze

Metal



7 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 - 12 x 160 mm

03165401 € 31,500

Plastic



6 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 x 160 mm

03165202 € 23,390



5 pcs
Ø 5 - 6 x 110 mm
Ø 8 - 10 - 12 x 160 mm

03165203 € 21,624



30 pcs
Ø 6÷14 mm

Ø	pcs
6x165	5
8x165	5
10x165	5
12x165	5
10x215	5
12x215	3
14x215	2

03165460 € 149,798



390x150x225

71 pcs
Ø 5÷16 mm

Ø	pcs
5x110	3
6x110	8
5x160	3
6x160	8
8x160	8
9x160	3
10x160	5
12x160	5
6x210	4
8x210	4
10x210	3
12x210	3
14x210	2
16x210	2
8x260	2
10x260	2
12x260	2
14x260	2
16x260	2

03165503 € 448,300

Professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI K8®

SDS-PLUS hammer drills, 4 flutes, 4 cutting edges K8 / Forets marteau SDS-PLUS avec 4 tranchantes et 4 spirales K8
Brocas para martillo SDS-PLUS con 4 cortadores y 4 espirales K8 / Hammerbohrer SDS-PLUS mit 4 Schneiden und 4 Schrauben K8

K-8®

Standard quality **SDS-PLUS**

03156





HVA ≃ 1650



4 taglienti
cutting edges

4 spirali
4 spirals

Ø mm	L	l	pcs	cod.	€ cad/each
5	110	50	1	031561100500	3,344
5	160	100	1	031561600500	3,902
5,5	160	100	1	031561600550	4,209
6	110	50	1	031561100600	3,568
6	160	100	1	031561600600	4,209
6	210	150	1	031562100600	5,849
6	260	200	1	031562600600	6,686
6,5	160	100	1	031561600650	4,312
6,5	210	150	1	031562100650	5,849
6,5	260	200	1	031562600650	6,686
7	110	50	1	031561100700	3,781
7	160	100	1	031561600700	4,312
8	110	50	1	031561100800	3,902
8	160	100	1	031561600800	4,433
8	210	150	1	031562100800	5,969
8	260	200	1	031562600800	6,808
8	310	250	1	031563100800	8,232
8	460	400	1	031564600800	13,550
9	160	100	1	031561600900	4,507
9	210	150	1	031562100900	6,351
10	110	50	1	031561101000	4,005
10	160	100	1	031561601000	4,573
10	210	150	1	031562101000	6,351
10	260	200	1	031562601000	6,920
10	310	250	1	031563101000	10,067
10	360	300	1	031563601000	12,480
10	460	400	1	031564601000	13,588
10	610	550	1	031566101000	21,970
11	160	100	1	031561601100	5,179
11	210	150	1	031562101100	6,668
11	260	200	1	031562601100	7,180
12	160	100	1	031561601200	5,179
12	210	150	1	031562101200	6,975
12	260	200	1	031562601200	7,460
12	310	250	1	031563101200	11,912
12	460	400	1	031564601200	14,556
12	600	550	1	031566001200	24,121

Ø mm	L	l	pcs	cod.	€ cad/each
13	160	100	1	031561601300	5,933
13	210	150	1	031562101300	7,618
13	260	200	1	031562601300	7,889
13	460	400	1	031564601300	12,936
14	160	100	1	031561601400	6,986
14	210	150	1	031562101400	7,767
14	260	200	1	031562601400	8,243
14	310	250	1	031563101400	12,042
14	460	400	1	031564601400	13,430
14	600	550	1	031566001400	26,067
15	160	100	1	031561601500	8,232
15	260	200	1	031562601500	9,024
16	160	100	1	031561601600	9,564
16	210	150	1	031562101600	10,095
16	260	200	1	031562601600	12,815
16	310	250	1	031563101600	13,783
16	460	400	1	031564601600	14,454
16	600	550	1	031566001600	29,941
18	210	150	1	031562101800	13,233
18	260	200	1	031562601800	15,488
18	310	250	1	031563101800	14,482
18	460	400	1	031564601800	17,313
18	600	550	1	031566001800	29,923
20	200	150	1	031562002000	17,890
20	310	250	1	031563102000	19,287
20	460	400	1	031564602000	22,482
20	600	550	1	031566002000	33,350
22	250	200	1	031562502200	19,902
22	460	400	1	031564602200	25,350
22	600	550	1	031566002200	38,491
24	260	200	1	031562602400	21,690
24	460	400	1	031564602400	27,072
25	260	200	1	031562602500	23,487
25	460	400	1	031564602500	29,364
26	460	400	1	031564602600	36,721
28	460	400	1	031564602800	39,292
30	460	400	1	031564603000	45,709

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

Muro
Masonry

Pietra
Natural stones



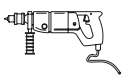


Sez. AA

Immagine ottenuta al microscopio sezionando la testa dell'utensile
Picture of the carbide tip







- Placchetta in metallo duro integrale con 4 taglienti, 4 eliche rapide, corpo in acciaio ad alta resistenza. La punta a 4 taglienti e 4 spirali **taglia sempre il tondino in cemento armato e non si blocca mai**.
- Grande durata dell'utensile, precisione e circolarità del foro.
- *One-piece solid carbide with 4 cutting edges, 4 flutes, steel body with high resistance.*
- *One-piece solid carbide tip always cuts the steel bar into reinforced concrete and it never stops.*
- *Long life cycle, thoroughness and roundness of the hole.*

ASSORTIMENTI PUNTE SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI K-8®

SDS-PLUS hammer drills sets, 4 flutes, 4 cutting edges K8
Assortiments forets à marteau SDS-PLUS / Juegos brocas martillo SDS-PLUS

Metal



7 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 - 12 x 160 mm

03166401 € 36,283



30 pcs
Ø 6÷14 mm

Ø	pcs
6x160	5
8x160	5
10x160	5
12x160	5
10x210	5
12x210	3
14x210	2

03166460 € 208,851



13 pcs



Ø	pcs
6x160	1
8x160	1
10x160	1
8x210	1
10x210	1
12x210	1
10x260	1
12x260	1
14x260	1
L=250	1
L=250	1
L=250	1
L=250	1

03165310 € 65,331

ESPOSITORE PUNTE SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI K8

SDS-PLUS hammer drills display, 4 flutes, 4 cutting edges K8
Display avec forets à marteau SDS-PLUS / Expositor brocas para martillo SDS-PLUS



390x150x225

107 pcs
Ø 5÷16 mm

Ø	pcs
5x110	5
6x110	10
5x160	5
6x160	10
8x160	10
10x160	10
12x160	10
6x210	5
8x210	5
10x210	5
12x210	5
14x210	5
16x210	3
8x260	5
10x260	5
12x260	3
14x260	3
16x260	3

03166503 € 755,852

High Quality professional

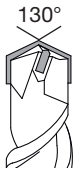
PUNTE PER MARTELLI SDS-MAX SUPERPROFESSIONALI

Super professional hammer drills bits SDS-MAX / Forets à marteau superprofessionelles SDS-MAX
Brocas para martillo super professionales SDS-MAX / Berufshammerbohrer SDS-MAX

Super Pro

03170





HVA ≃ 1650



Caratteristiche/*Features*
Speciali placchette in M.D. per resistere all'urto sulla nuova generazione dei martelli pesanti da 5 Kg ed oltre. Testa più snella ma compatta per la geometria dei taglienti, facile penetrazione nel cemento. Elica "vario flute", per una più rapida evacuazione dei materiali.
Risultati: + 30% di efficienza nella foratura, maggiore durata dell'utensile, più resistenza agli impatti, minori vibrazioni, fori più profondi e precisi.

Special cutting edges for a quick penetration into the hardest concrete. Large flute for a fast removal, strong reinforced web for a smooth cutting (no breakage, no vibrations).

Ø mm	L	l	pcs	cod.	€ cad/each
*12	340	200	1	031703401200	43,885
*12	540	400	1	031705401200	61,608
*12	740	600	1	031707401200	86,265
**13	540	400	1	031705401300	70,839
*14	340	200	1	031703401400	44,696
*14	540	400	1	031705401400	61,608
*14	740	600	1	031707401400	86,265
*14	940	800	1	031709401400	111,309
*15	340	200	1	031703401500	49,584
*15	540	400	1	031705401500	66,841
16	340	200	1	031703401600	55,323
16	540	400	1	031705401600	64,051
16	740	600	1	031707401600	86,265
16	940	800	1	031709401600	113,447
16	1340	1200	1	0317013401600	236,522
18	340	200	1	031703401800	52,148
18	540	400	1	031705401800	70,642
18	740	600	1	031707401800	86,265
18	940	800	1	031709401800	113,447
18	1340	1200	1	0317013401800	254,720
19	520	400	1	031705201900	84,059
20	320	200	1	031703202000	61,052
20	520	400	1	031705202000	76,419
20	720	600	1	031707202000	84,940
20	920	800	1	031709202000	102,741
20	1320	1200	1	0317013202000	266,494
22	320	200	1	031703202200	64,941
22	520	400	1	031705202200	83,257
22	720	600	1	031707202200	88,165
22	920	800	1	031709202200	115,584
22	1320	1200	1	0317013202200	266,494
24	320	200	1	031703202400	75,638
24	520	400	1	031705202400	89,897
25	320	200	1	031703202500	89,897

Ø mm	L	l	pcs	cod.	€ cad/each
25	520	400	1	031705202500	97,339
25	720	600	1	031707202500	101,633
25	920	800	1	031709202500	156,253
25	1320	1200	1	0317013202500	282,545
26	520	400	1	031705202600	131,250
28	320	200	1	031703202800	103,275
28	520	400	1	031705202800	134,208
28	720	600	1	031707202800	157,756
28	920	800	1	031709202800	157,756
28	1320	1200	1	0317013202800	273,075
30	320	200	1	031703203000	116,653
30	520	400	1	031705203000	141,272
32	320	200	1	031703203200	122,008
32	520	400	1	031705203200	149,832
32	720	600	1	031707203200	183,464
32	920	800	1	031709203200	230,100
32	1320	1200	1	0317013203200	312,842
35	370	250	1	031703703500	144,487
35	520	400	1	031705203500	170,166
35	720	600	1	031707203500	204,422
35	920	800	1	031709203500	243,943
35	1320	1200	1	0317013203500	312,842
37	570	450	1	031705703700	224,758
37	920	800	1	031709203700	314,655
38	370	250	1	031703703800	159,469
38	520	400	1	031705203800	195,853
38	720	600	1	031707203800	204,422
40	520	400	1	031705204000	224,758
40	720	600	1	031707204000	230,100
40	920	800	1	031709204000	316,790
40	1320	1200	1	0317013204000	434,523
45	520	400	1	031705204500	279,912
50	570	450	1	031705705000	480,543
52	570	450	1	031705705200	480,543

* 2 taglienti - *2 cutting edges*
** Ad esaurimento - *To be discontinued*

Confezione / *Packaging*



Applicazioni / *Applications*


Calcestruzzo
Concrete

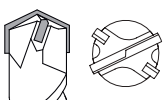

Muro
Masonry


Pietre naturali e artificiali
Natural and artificial stones





Super PRO



HVA ≃ 1650

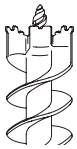
- 4 taglienti – 2 eliche ampie nuovo disegno dei denti
- *4 cutting edges – 2 wide flutes new teeth design*

- Taglio ad **altissimo rendimento**, su martelli SDS-MAX, nel muro, cemento, calcestruzzo, pietre, grazie alla placchetta estremamente aggressiva. L'accurata geometria della testa favorisce il centraggio e la perfetta circolarità del foro. La placchetta snella, con taglienti laterali inclinati e gli ampi canali di rimozione dei detriti consentono una velocità di foratura elevatissima, mantenendo un basso tenore di vibrazioni sul martello. Per fori superiori a 400 mm, utilizzare un preforo di 150÷200 mm dello stesso diametro.
- *Superprofessional cut for hammer drills with SDS-MAX chucking in concrete, masonry and natural stone. Smooth running, accurate hole, reduced vibrations due to its high quality.*
- *Forets à marteau SDS-MAX superprofessionnel pour perçage in carrelage, ciment, pierre naturelle et artificielle.*
- *Brocas para martillo SDS-MAX siperprofessionales para corta hormigon, cemento, piedra, suelos.*

PUNTA DI GRANDE DIAMETRO PER MARTELLI SDS-MAX

Breakthrough drill bit SDS-MAX / Forets à défoncer SDS-MAX
Broca para hendiduras SDS-MAX / Durchbruchbohrer SDS-MAX





Integrale
One piece



Ø mm	L	/	pcs	cod.	€ cad/each
45	550	100	1	031715504500	379,004
45	990	100	1	031719904500	441,691
55	550	100	1	031715505500	427,446
55	990	100	1	031719905500	503,438
65	550	100	1	031715506500	473,991
65	990	100	1	031719906500	539,533
80	550	100	1	031715508000	531,936
80	990	100	1	031719908000	676,314

03171

Applicazioni / *Applications*







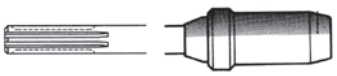
- Adatta per la foratura di grandi dimensioni (ø 45÷80 mm) con martelli SDS-MAX in cemento, muratura, arenaria. Speciale per forature passanti per il passaggio di cavi e tubature.
- *Useful for drilling into large diameters (ø 45÷80 mm) with SDS-MAX hammer tools into concrete, masonry, sandstone. Special for breakthrough cuts for cables and pipes.*
- *Adapte au perçage des grandes dimensions (ø 45÷80 mm) avec machines à marteaux SDS-MAX dans le cément, béton, pierre. Spécial pour trous passants pour les passages des câbles et tuyaux.*
- *Adecuado para agujeros de grandes dimensiones (ø 45÷80 mm) con taladros de martillos SDS-MAX en concreto, hormigon, arenisca. Especial para agujeros para los pasajes des cables y tubos.*

ADATTATORE A CAMBIO RAPIDO SDS-MAX / SDS-PLUS

SDS-MAX / SDS-PLUS adapter / Adaptateurs pour meches SDS-MAX / SDS-PLUS / Adaptatores con salida SDS-MAX / SDS-PLUS

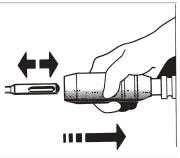


SDS-MAX



SDS-PLUS

cod.	L	€
03184101	220	76,832



Millerighe 19,3 mm
Large spline shank



SDS-PLUS

***03184102**	220	128,87

* Ad esaurimento - *To be discontinued*

Attacco esagonale SW 13 (corto)
Hexagonal shank SW 13 (short)



SDS-PLUS

***03184103**	208	179,555

* Ad esaurimento - *To be discontinued*

High Quality professional

PUNTE “DUST FREE” CON SISTEMA DI ASPIRAZIONE DELLA POLVERE

Professional drills bits with dust removal technology / Forets avec technologie de dépoussiérage
Brocas con tecnologia de eliminacion de polvo / Spitzen mit Staubabsaugsystem

03172 NEW

SDS PLUS **SDS MAX**



SDS PLUS

Ø mm	L	l	pcs	cod.	€ cad/each
12	330	200	1	031723301200	115,206
14	360	240	1	031723601400	121,769
16	360	240	1	031723601600	128,331
18	360	240	1	031723601800	153,857

SDS MAX

Ø mm	L	l	pcs	cod.	€ cad/each
16	600	400	1	031726001600	268,338
18	600	400	1	031726001800	279,269
20	600	400	1	031726002000	290,210
22	600	400	1	031726002200	294,588
24	600	400	1	031726002400	313,541
25	600	400	1	031726002500	303,335
28	900	700	1	031729002800	504,588
30	900	700	1	031729003000	523,541
32	900	700	1	031729003200	549,791
35	900	700	1	031729003500	564,375

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete



Muro
Masonry



Pietre naturali e artificiali
Natural and artificial stones





Caratteristiche/*Features*

- Ideale per effettuare fori nel cemento armato per i quali sia previsto l’inserimento di ancorante chimico, evita la lunga e laboriosa procedura di pulizia del foro garantendo un risultato ottimale (Avvertenza: per la sistemazione di tasselli, attenersi comunque sempre alle indicazioni del produttore dei tasselli stessi)
- Riduce la dispersione di polveri nell’ambiente di lavoro
- Permette una foratura più veloce ed efficiente grazie all’immediata rimozione del materiale di scarto che nelle punte tradizionali si interpone tra i taglienti e la superficie da forare
- Compatibile con qualsiasi aspiratore reperibile sul mercato (si raccomanda l’utilizzo di aspiratori in classe M per una più efficace riduzione delle polveri nell’ambiente di lavoro)
- La speciale forma della testa a quattro taglienti (per diametri ≤ 28mm) o a 2 taglienti con grandi fori di aspirazione (per diametri ≥ 28mm) evita l’inceppamento della punta anche nei lavori più gravosi di foratura del cemento armato.
- La speciale forma del gambo delle punte con diametro > 28 agevola la centratura del foro e ne migliora la maneggevolezza

- *Ideal to work in to reinforced concrete for which the insertion of a chemical anchor is foreseen, this technology avoids the long and laborious cleaning procedure of the hole guaranteeing an optimal and faster result. (Warning: for the installation of dowels, always follow the manufacturer’s instructions dowels themselves).*
- *It reduces the dispersion of dust in the working environment.*
- *It allows a faster and more efficient drilling due to the immediate removal of the debris which normally interposes between the cutting edges of the drill and the surface to be worked.*
- *Compatible with any vacuum cleaner available on the market (the use of class M vacuum cleaners is recommended for a more effective reduction of dust in the workplace)*
- *The head with 4 cutting edges (2 cutting edges for measures ≤ 28mm) avoids the jamming of the tip even in the most difficult jobs of drilling reinforced concrete.*
- *The special shape of the shank of the drills with a diameter> 28 facilitates the centering of the hole and improves its handling.*

ADATTATORE PER PUNTE

Connector to the dust aspirator / Connecteur pour le systeme d’aspiration
Conector para sistema de aspiración / Steckverbindungen für Saugsysteme

SDS PLUS **SDS MAX**



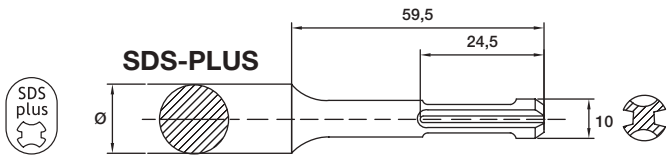


Cod.	Attacco *Attachment*	€
03172ADATTSDS	SDS PLUS	23,331
03172ADATTMAX	SDS MAX	24,791

High Quality professional

SCALPELLI DI QUALITÀ PREMIUM PER MARTELLI ELETTRICI PERFORATORI

Premium quality chisels for electric hammers / Burins et pics pour marteaux perforateurs
Cincels para martillos / Einsteckwerkzeuge für Elektrohämmer



Qualità Premium - *Premium performance*

Auto affilante
Self-Sharpening

03221

Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	ø	cod.	€ cad/each
250	14	0322102250	17,811



Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

mm	L mm	ø	cod.	€ cad/each
20	**250**	14	0322106020250	17,811



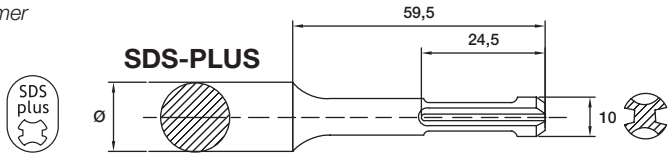




High Quality professional

SCALPELLI DI QUALITÀ PER MARTELLI ELETTRICI PERFORATORI

High quality chisels for electric hammers / Burins et pics pour marteaux perforateurs
Cincels para martillos / Einsteckwerkzeuge für Elektrohämmer



Alta Qualità - *High performance*

03220



Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	ø	cod.	€ cad/each	
250	14	0322002250	10,464	

Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

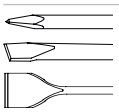
mm	L mm	ø	cod.	€ cad/each	
20	250	14	0322001020250	10,464	
20	250	14	0322006020250	13,640	

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	ø	cod.	€ cad/each	
40	250	14	0322003040250	15,819	
40	260	14	0322003040260	31,836	25°
22	250	14	0322004022250	21,504	
22	250	16	0322005022250	57,797	



3 pcs



03281100 € 35,175

Qualità Standard - *Standard quality*

NEW

03222



Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	ø	cod.	€ cad/each	
250	14	0322202250	7,350	

Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

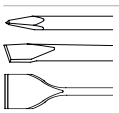
mm	L mm	ø	cod.	€ cad/each	
20	250	14	0322201020250	7,350	

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	ø	cod.	€ cad/each	
40	250	14	0322203040250	11,130	
75	160	14	032220775160	19,058	25°
40	250	14	032220740250	11,865	25°



3 pcs



03281120 € 21,000

High Quality professional

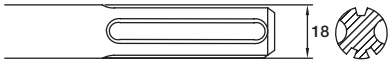
SCALPELLI DI QUALITÀ PER MARTELLI ELETTRICI PERFORATORI

High quality chisels for electric hammers / Burins et pics pour marteaux perforateurs
Cincels para martillos / Einsteckwerkzeuge für Elektrohämmer

Alta Qualità - *High performance*

SDS max

SDS-MAX



03210



Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	ø	cod.	€ cad/each	
280	18	0321002280	15,120	
400	18	0321002400	16,905	
600	18	0321002600	23,625	

Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

mm	L mm	ø	cod.	€ cad/each	
27	280	18	0321001027280	15,120	
27	400	18	0321001027400	16,905	
27	600	18	0321001027600	24,150	

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	ø	cod.	€ cad/each	
50	400	18	0321003050400	40,950	
80	300	18	0321003080300	50,400	
115	350	22	0321003115350	54,600	
50	300	18	0321003050300	44,100	10°
38	280	18	0321005038280	59,850	
38	280	18	0321006038280	157,500	



Scalpelli a sgorbia
Grooving chisels / Gouges
Rozadores / Hohlmeißel

mm	L mm	ø	cod.	€ cad/each	
26	300	18	0321004026300	39,900	
32	300	18	0321004032300	54,600	
35	380	23	0321007035380	99,750	

Qualità Standard - *Standard quality*

03212 NEW



Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	ø	cod.	€ cad/each	
280	18	0321002280	9,870	
400	18	0321202400	12,075	
600	18	0321202600	17,115	

Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

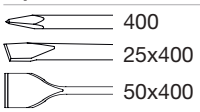
mm	L mm	ø	cod.	€ cad/each	
25	280	18	0321201025280	9,870	
25	400	18	0321201025400	12,075	
25	600	18	0321201025600	17,115	

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	ø	cod.	€ cad/each	
50	400	18	0321203050400	21,000	
75	300	18	0321203075300	26,250	



3 pcs



03281121 € 42,000

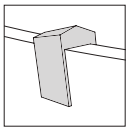
High Quality professional

FRESE PERFORATRICI A TAZZA "IMPACT" PER EDILIZIA PER MARTELLI LEGGERI

Masonry impact core bits for light hammers / Trépans pour marteau légér
Broca corona para martillo / Schlagbohrkronen

21110 21111

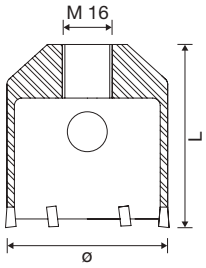


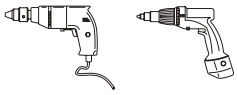


Uso rotopercussione su trapani e piccoli martelli sino 40 N
Rotary percussion use

Art. 21110

Ø fresa *hole cutter*	L	Z n. denti *tips*	pcs	cod.	€ cad/each
25	75	4	1	2111002500	24,143
30	75	4	1	2111003000	27,489
35	75	4	1	2111003500	32,933
40	75	4	1	2111004000	36,149
45	75	4	1	2111004500	38,381
50	75	6	1	2111005000	40,545
65	75	6	1	2111006500	50,396
80	75	6	1	2111008000	73,978
90	75	6	1	2111009000	78,978
100	75	8	1	2111010000	95,674
112	75	8	1	2111011200	110,126
125	80	10	1	2111012500	136,835
150	80	12	1	2111015000	184,666





Ø ≤ 50 mm 600W
Ø > 50 mm 800W (3J)
F ≤ 40 N

Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



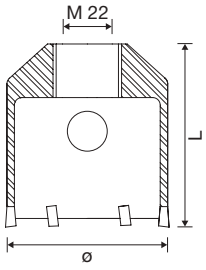
Calcestruzzo
Concrete



Pietre naturali e artificiali
Natural and artificial stones

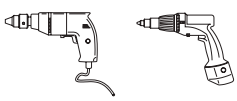
Art. 21111

Ø fresa *hole cutter*	L	Z n. denti *tips*	pcs	cod.	€ cad/each
50	75	6	1	2111105000	40,545
55	75	6	1	2111105500	46,575
60	75	6	1	2111106000	48,059
65	75	6	1	2111106500	50,396
68	75	6	1	2111106800	60,076
80	75	6	1	2111108000	73,978
90	75	6	1	2111109000	78,978
100	75	8	1	2111110000	95,674
112	75	8	1	2111111200	110,126
125	80	10	1	2111112500	136,835
150	80	12	1	2111115000	184,666





- Foratura a rotopercussione su trapani e piccoli martelli nel calcestruzzo, cemento, pietre. Massima profondità di foratura 60 mm.
- *Use with hammer drills up to 40 N in masonry and concrete (60 mm drill depth).*
- *Pour percage béton avec marteau léger (40 N Max).*
- *Coronas para construccion, hormigon-piedra con martillo 40 N max.*
- *Für Beton und Mauerwerk mit Bohrhammer bis max 40 N.*



Ø ≥ 50 mm 800W (3J)
F ≤ 40 N

GAMBI PER FRESE PERFORATRICI A TAZZA "IMPACT"

Chucking shanks for "Impact" core bits / Arbres de montage pour trépans "Impact"
Husillos para coronas perforadoras "Impact" / "Impact" Fräserschäfte

	Cod.	Attacco filettato *Thread attachment*	Lunghezza tot. *Overall length*	€
Gambo esagonale - *Hex. shank*				
M 16 x 2 	21115501	M 16 x 2	100 mm	13,306
	21115502	M 16 x 2	220 mm	19,651
	21115503	M 16 x 2	370 mm	30,221
M 22 x 2,5 	21115521	M 22 x 2,5	100 mm	17,892
	21115522	M 22 x 2,5	220 mm	26,589
	21115523	M 22 x 2,5	370 mm	37,648
Gambo SDS PLUS - *SDS PLUS shank*				
M 16 x 2 	21115504	M 16 x 2	100 mm	17,892
	21115505	M 16 x 2	220 mm	26,589
	21115507	M 16 x 2	370 mm	33,888
	21115509	M 16 x 2	460 mm	53,689
M 22 x 2,5 	21115524	M 22 x 2,5	100 mm	17,892
	21115525	M 22 x 2,5	220 mm	26,589
	21115527	M 22 x 2,5	370 mm	37,648
	21115529	M 22 x 2,5	460 mm	59,184
Gambo SDS MAX* - *SDS MAX shank**				
M 16 x 2 	21115510	M 16 x 2	370 mm	70,732
M 16 x 2 	21115520	M 22 x 2,5	370 mm	70,732

*** Usare solo per materiali da costruzione leggeri come arenaria, mattoni forati. Non usare per cemento armato, calcestruzzo e pietre.**
Use with light building materials only.

Punta pilota - *Pilot drill*



Cod.		€
21115506	Ø 8 x 120	4,820

ESPOSITORE FRESE "IMPACT" PER EDILIZIA

Masonry core bits set / Assortiments trépans pour marteau lèger
Surtido brocas coronas para martillo / Schlagbohrkronen Sortimente



Cod.	Attacco filettato *Thread attachment*		€
21116112	**Ø 30 ÷ 100 mm**	**24 pcs**	641,097
21110	M 16	 Ø 30 35 40 pcs 1 1 1	
21111	M 22	 Ø 50 65 80 90 100 pcs 1 1 1 1 1	
21115501	(M 16)		L = 100 mm N° 1 pc
21115502	(M 16)		L = 220 mm N° 1 pc
21115521	(M 22)		L = 100 mm N° 1 pc
21115522	(M 22)		L = 220 mm N° 1 pc
21115504	(M 16)		L = 100 mm N° 1 pc
21115505	(M 16)		L = 220 mm N° 1 pc
21115524	(M 22)		L = 100 mm N° 1 pc
21115525	(M 22)		L = 220 mm N° 1 pc
21115506			Ø = 8 mm N° 8 pcs

High Quality professional

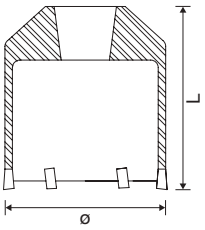
CORONE PERFORATRICI PER EDILIZIA CON ATTACCO CONICO PER MARTELLI PESANTI

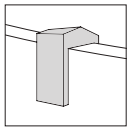
Hammer core bits with taper chucking - Trépans marteau pour béton cône 1/8
Brocas coronas para martillo potente, mango conico - Hammerbohrkronen mit Konus-Verbindung 1:8

21120



Ø corona *core bit*	L	Z n. denti *tips*	pcs	cod.	€ cad/each
35	100	4	1	2112003500	52,587
40	100	5	1	2112004000	59,091
45	100	5	1	2112004500	69,254
50	100	6	1	2112005000	80,716
60	100	6	1	2112006000	82,782
66	100	7	1	2112006600	97,461
70	100	8	1	2112007000	108,482
80	100	8	1	2112008000	121,829
90	100	8	1	2112009000	139,232
100	100	10	1	2112010000	163,598
110	100	12	1	2112011000	179,848
125	100	12	1	2112012500	207,694
130	100	12	1	2112013000	256,419
150	100	14	1	2112015000	280,788





Attacco conico 1:8
1:8 taper attachment

Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



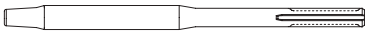
Calcestruzzo
Concrete



Pietre naturali e artificiali
Natural and artificial stones

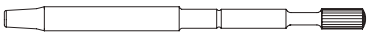
Asta porta corona senza asola - *Shank without slot*

SDS Max



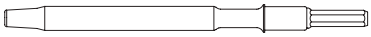
Cod.	L (mm)	€
21130211	250	58,194
21130220	450	63,738
21130225	600	77,246

Millerighe Ø 19,3 mm *Large spline shank*



Cod.	L (mm)	€
21130235	250	54,179
21130245	600	73,620

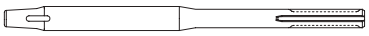
HEX SW 13



Cod.	L (mm)	€
21130255	250	54,179
21130260	450	58,491
21130265	600	73,620

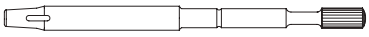
Asta porta corona con asola - *Shank with slot*

SDS Max



Cod.	L (mm)	€
21130011	250	58,194
21130020	450	63,738
21130025	600	77,246

Millerighe Ø 19,3 mm *Large spline shank*



Cod.	L (mm)	€
21130035	250	54,179
21130040	450	58,491
21130045	600	73,620

HEX SW 13



Cod.	L (mm)	€
21130055	250	54,179
21130060	450	58,491
21130065	600	73,620

Punta pilota - *Pilot drill*



Cod.	Ø (mm)	€
21130110	12x135	11,079

Estrattore per punte pilota - *Drill drift*



Cod.	€
281580102	7,625

- Grandi rendimenti nel calcestruzzo, muro, pietre calcaree.
- *High performances in masonry- concrete, sand-lime brick, natural stone.*
- *Haute rendement en béton-carrelage.*
- *Elevado rendimiento in hormigon, piedra.*
- *Einsatz in Bohrhammer für Beton, Mauerwerk, Naturstein.*

Uso rotopercussione su trapani pesanti > 45 N e con potenza > 900W (fino a 1500W)
Hammer drill use > 45 N and electrical power > 900W





CORONE PERFORATRICI PER EDILIZIA CON ATTACCO FILETTATO LARGO PER MARTELLI PESANTI

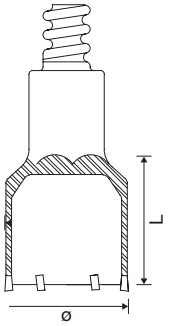
Hammer core bits with special threaded shank / Trépans marteaux pour béton avec queue filetée
Brocas coronas para martillo potente, mango roscado / Hammerbohrkronen mit gewindeaufnahme

21131



Robusti, potenti, facili da montare e smontare
Strong and powerful, easy to fit and remove

Ø corona *core bit*	L	pcs	cod.	€ cad/each
45	80	1	2113104500	344,970
50	80	1	2113105000	344,970
55	80	1	2113105500	361,054
82	80	1	2113108200	443,773
150	80	1	2113115000	934,270




21122



Asta porta corona - *Shank*

SDS Max



Cod.	L (mm)	€
2113220	460	217,692

Punta pilota Ø 11,5 - *Pilot drill*



Cod.	Ø x L	€
2113270	11,5x136	41,327

Confezione / *Packaging*



Applicazioni / *Applications*


Muro
Masonry


Calcestruzzo
Concrete


Pietre naturali e artificiali
Natural and artificial stones

- L'attacco filettato molto robusto permette una versatilità d'uso sui diversi martelli. Grandi rendimenti nel calcestruzzo, muro, pietre calcaree. Speciale per passaggio tubi.
- *High performances with hammer drills for cutting masonry, concrete, natural stone.*
- *Haute rendement et versatilité en percage béton avec marteau.*
- *Coronas potente en cortar a forte percussion hormignon, cemento.*
- *Einsatz in Bohrhammer für Beton, Mauerwerk, Naturstein.*





Uso rotopercussione su martelli pesanti.
Hammer drill use.

High Quality professional

CORONE PERFORATRICI PER EDILIZIA CON FILETTO A MOLLA PER MARTELLI PESANTI SDS-MAX

Hammer core bits with spring thread for hammer SDS-MAX / Trépans marteau pour béton avec filet à ressort pour marteaux SDS MAX/
Coronas perforadoras para martillo SDS-MAX con rosca e resorte de acoplamiento

SDS max

21122



Ø mm	L mm	Z n. denti *tips*	pcs	cod.	€ cad/each
40	100	5	1	2112204000	57,906
50	100	6	1	2112205000	79,627
60	100	6	1	2112206000	96,149
66	100	7	1	2112206600	113,633
70	100	8	1	2112207000	149,697
80	100	8	1	2112208000	152,970
90	100	8	1	2112209000	164,993
100	100	10	1	2112210000	180,287
110	100	12	1	2112211000	190,118
125	100	12	1	2112212500	234,920
150	100	14	1	2112215000	290,646



Asta porta corona - *Shank*

SDS Max Con molla - *With spring*



Cod.	L (mm)	€
21130300	250	74,395
21130305	450	95,808
21130310	600	129,624

Molla di accoppiamento - *Coupling spring*



Cod.	€
21130316	1,050

Punta pilota - *Pilot drill*

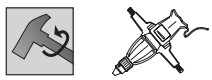


Cod.	Ø (mm)	€
21130315	12x135	9,492

Estrattore per punte pilota - *Drill drift*



Cod.	Ø x L (mm)	€
21130317	9,5x100	4,507



Uso rotopercussione su trapani pesanti > 45 N e con potenza > 900W
Hammer drill use > 45 N and electrical power > 900W

Confezione / *Packaging*



Applicazioni / *Applications*



Muro *Masonry*



Calcestruzzo *Concrete*



Pietre naturali e artificiali *Natural and artificial stones*

Espositore corone perforatrici per edilizia con filetto a molla - *Hammer core bits with spring thread set*



Cod.	Composizione *Description*
21116117 29 pcs Ø 40÷100 € 1.351,132	 Ø 40-50-60-66 80-90-100 (1x)
	 21130300 (3x) 21130305 (3x)
	 21130315 (6x)
	 21130316 (10x)

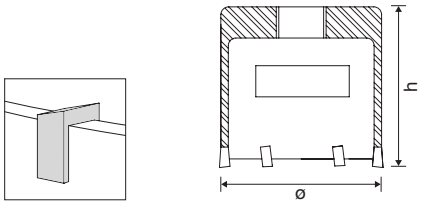
- Grandi rendimenti nel calcestruzzo, muro, pietre calcaree. Corona sempre smontabile grazie alla molla di accoppiamento.
- *High performances in masonry- concrete, sand-lime brick, natural stone. Easy removable core bits thanks to the coupling spring.*
- *Haute rendement en béton-carrelage. Trepans marteaux toujours dèmontable par le ressort.*
- *Elevado rendimiento in hormigon, piedra. Corona perforadora siempre desmontable por el resorte de acopliamento.*

FRESE PERFORATRICI A TAZZA CON TAGLIENTI IN METALLO DURO PER EDILIZIA

Carbide tipped hole cutters for masonry, rotation only / Scies trepans pour beton à rotation uniquement
Coronas para construccion, dientes de metal duro / H.M. Lochsäge für Fliesen, Mauerwerk, Leichtbaustoffe

21015





Ø Fresa Hole cutter	h Altezza tazza Cup	Z N. denti *Tips*	d Gambo Shank	pcs	cod.	€ cad/each
16	40	2	10	1	2101501600	21,804
22	40	3	10	1	2101502200	23,213
25	40	3	10	1	2101502500	30,511
27	40	3	10	1	2101502700	31,583
30	40	4	10	1	2101503000	32,352
35	40	4	10	1	2101503500	35,169
38	40	5	10	1	2101503800	38,684
40	40	5	10	1	2101504000	41,489
45	40	5	10	1	2101504500	45,715
50	40	6	10	1	2101505000	49,231
55	40	6	12	1	2101505500	59,778
60	40	7	12	1	2101506000	65,412
65	40	7	12	1	2101506500	73,852
70	40	8	12	1	2101507000	78,754
80	40	9	12	1	2101508000	97,054
85	40	10	12	1	2101508500	115,586
100	40	11	12	1	2101510000	145,050
125	40	12	12	1	2101512500	186,983
150	40	15	12	1	2101515000	278,773

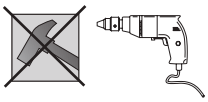
Confezione / *Packaging*



Applicazioni / *Applications*



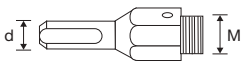
- Forano a sola rotazione calcestruzzo leggero, muro, piastrelle, ceramica, laminati plastici. Adatti per fori precisi a pavimento di porte blindate, fori per condotte, scatole di derivazione, etc…
- *Rotary use in masonry, tiles, light construction materials.*
- *Trépans à utiliser en rotation, pour couper le sol pour les portes blindés, boîtes de déviation, etc.*
- *Para cortar a rotacion muro, ladrillos, ceramica, cemento.*
- *Drehend Einsatz für Mauerwerk, Leichtbaustoffe, Fliesen.*



Utilizzo a rotazione
Rotary use only

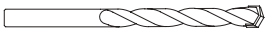
Gambo - *Arbor*

3 Pianetti / *3 Flats*



Cod.	Per frese *Fit hole cutters*	d	M	€
21020100	Ø 16 ÷ 35	10	12x1,25	5,215
21020101	Ø 38 ÷ 150	12	16x1,5	15,366

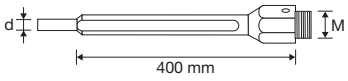
Punta pilota - *Pilot drill*



Cod.	Per frese *Fit hole cutters*	d	Ø mm	€
21020110	Ø 16 ÷ 50	5,85	6	3,990
21020111	Ø 55 ÷ 150	7,25	8	5,250

Prolunga 400 mm - *Extension*

3 Pianetti / *3 Flats*



Cod.	Per frese *Fit hole cutters*	d	M	€
21020120	Ø 16 ÷ 50	12	12x1,25	29,768
21020121	Ø 55 ÷ 150	12	16x1,5	44,447



Cod.

21030110
12 pcs
Ø 22 25 27 30 35 38 40 45 50 55 60 65

€ 526,988



Set frese a tazza per impiantisti, idraulici, etc.
Hole cutters set for journeymen and plumbers. Jeu de scie trépans pour ouvriers spécialistes et plombiers. / Juego de coronas perforadoras para obreros especialistas y fontaneros. Lochsägensortiment für Facharbeiter und Installateurs.

Cod.

21030300
8 pcs
Ø 16 22 25 27 30 35 40 50

€ 295,897

Cod.

21030301
6 pcs
Ø 16 22 25 27 30 35

€ 201,464

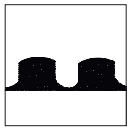
High Quality professional

FRESE A TAZZA CON DENTI RIVESTITI IN CARBURO DI TUNGSTENO IN GRANI

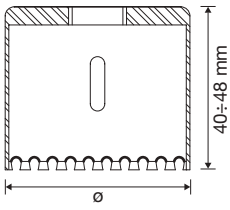
Carbide grit hole saws, high quality / Scies trépans au carbure de tungstene
Coronas de carburo de tungsteno / H.M. Lochsäge

21105





Carbide grit



Art. **21135** Self
Disponibile su richiesta / *On demand*

Ø mm	Pollici *inch*	d Filetto Thread	pcs	cod.	€ cad/each
16	5/8	UNF 1/2 x 20	1	2110501600	15,958
19	3/4		1	2110501900	15,958
20	-		1	2110502000	16,332
22	7/8		1	2110502200	16,332
25	1"		1	2110502500	16,332
29	1-1/8		1	2110502900	16,986
32	1-1/4	UNF 5/8 x 18	1	2110503200	17,982
35	1-3/8		1	2110503500	18,571
38	1-1/2		1	2110503800	19,878
44	1-3/4		1	2110504400	21,762
48	1-7/8		1	2110504800	21,762
51	2"		1	2110505100	21,762
54	2-1/8		1	2110505400	21,762
57	2-1/4		1	2110505700	22,085
60	2-3/8		1	2110506000	23,092
64	2-1/2		1	2110506400	23,092
70	2-3/4		1	2110507000	27,568
76	3"		1	2110507600	28,520
83	3-1/4		1	2110508300	29,454
86	3-3/8		1	2110508600	30,363
95	3-3/4		1	2110509500	30,696
102	4"		1	2110510200	30,696
114	4-1/2		1	2110511400	36,328







Confezione / *Packaging*



Applicazioni / *Applications*



Ceramica
Ceramics



Pietre naturali Marmo
Stones Marble



Piastrelle Mattoni durissimi
Tiles Hard burnt brick



Fibra di vetro Laminati plastici
Fiberglass

Per frese - *Fit hole saws*



Ø	cod.	€
16 ÷ 29	210706519	11,909
32 ÷ 114	210706546	20,838

Punta pilota - *Pilot drill*



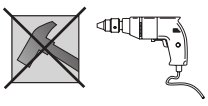
Ø	cod.	€
Ø 7x80	21020112	11,711



03121002

393

- Per tagliare: Ceramica, gres, granito, marmo, ardesia, fibre di vetro, ghisa, laminati e tutti i materiali abrasivi. Max profondità di foratura: 40 mm.
- *Cuts: Ceramic tile, laminates, composition board, marble, fiberglass, cast iron, and other abrasive materials. Maximum cutting depth: 40 mm.*
- *Pour percer: Ceramic, marbre, fonte, tous les materiales abrasifs. Profondeur de coupe: 40 mm.*
- *Aplicaciones: gres, marmol, ladrillo, fibra cemento, aglomerados, fibra de vidrio, todos los materiales abrasivos. Profondidad de corte: 40 mm.*
- *Allgemeinen Einsatz in Beton leicht armierten Beton, Klinker, Fliesen, Mauerwerk, Kalksandstein. Maximale Bohrtiefe: 40 mm.*



Utilizzo a rotazione
Rotary use only

ASSORTIMENTI FRESE A TAZZA CON DENTI RIVESTITI IN CARBURO DI TUNGSTENO IN GRANI

Carbide grit hole saws, high quality / Scies trépans au carbure de tungstene
Coronas de carburo de tungsteno / H.M. Lochsäg

HSS-G DIN 338



cod. 21107301 € 104,143

Composizione:
6 pcs Art. 21105: Ø 16, 20, 22, 25, 32, 35 mm (1x)
Art. 210706519: (Ø 16÷29 N. 1 pc)
Art. 210706546: (Ø 32÷114 N. 1 pc)

cod. 21107300 € 140,651

Composizione:
8 pcs Art. 21105: Ø 16, 20, 22, 25, 32, 35, 38, 51 mm (1x)
Art. 210706519: (Ø 16÷29 N. 1 pc)
Art. 210706546: (Ø 32÷114 N. 1 pc),



cod. 21107600 € 78,580

Composizione:
10 pcs Ø 33, 53, 67, 73, 83 mm (1x)

205

FRESA A TAZZA MULTIPLA PER EDILIZIA IN CARBURO DI TUNGSTENO IN GRANI

Multiple sizes carbide grit hole saw

21108



Standard quality

Ø mm	d ⬡	pcs	cod.	€ cad/each
33-43-53-67-83	10	1	21108100	67,996

Confezione / *Packaging*



High Quality professional

FRESA A TAZZA A CORONA CONTINUA PER IL TAGLIO DEL GRES PORCELLANATO E DEI MATERIALI EDILI DURISSIMI

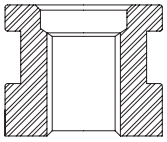
Diamond drill bit and core drills with continuous edge for sandware and very strong building materials / Forets diamantées et scies trépans avec couronne continue pour grès céram et matériaux de construction très durs / Brocas diamantadas y coronas perforadoras con corona continua para gres porcelanico y materiales de construccion durisimos / Diamantbesetzter Spiralbohrer und Lochsägen mit endloser Kranz für Feinsteinzeug und sehr harte Baumaterialen

21106





Matrice metallica altofondente brasata che trattiene i diamanti a grana medio-fine
The high-melting brazed bond keeps medium-fine grain diamonds



Attacco M14 speciale per smerigliatrici angolari M14 shank
M14 shank to fit angular grinding machine

Ø mm	Pollici *inch*	L	pcs	cod.	€ cad/each
*6	15/64	62	1	211060600	36,489
*8	5/16	62	1	211060800	37,120
*10	25/64	62	1	211061000	37,120
*12	15/32	62	1	211061200	38,854
*14	35/64	62	1	211061400	41,683
*16	5/8	62	1	211061600	43,279
*18	23/32	62	1	211061800	44,541
20	25/32	60	1	211062000	46,414
22	7/8	60	1	211062200	48,700
25	1"	60	1	211062500	53,084
28	1-1/16	60	1	211062800	58,545
30	1-3/16	60	1	211063000	63,009
32	1-1/4	60	1	211063200	67,279
35	1-3/8	60	1	211063500	73,626
40	1-9/16	60	1	211064000	84,243
45	1-49/64	60	1	211064500	94,628
50	2"	60	1	211065100	101,665
55	2-11/64	60	1	211065500	115,401
60	2-3/8	60	1	211066000	125,787
65	2-9/16	60	1	211066500	136,172
67	2-5/8	60	1	211066700	140,788
70	2-3/4	60	1	211067000	147,713
80	3-5/32	60	1	211068000	167,331
90	3-9/16	60	1	211069000	183,132
100	4"	60	1	2110610000	203,640

***Con cera vegetale all'interno** - *With internal coolant*



cod. 21103315
€ 207,270

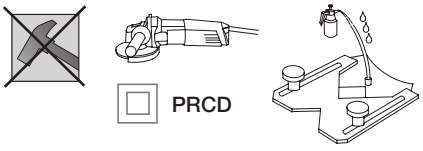
Composizione:
5 pcs Ø 6, 8, 10, 12, 14 mm



cod. 21103310
€ 560,249

Composizione:
6 pcs Ø 22, 35, 40, 45, 50, 67 mm

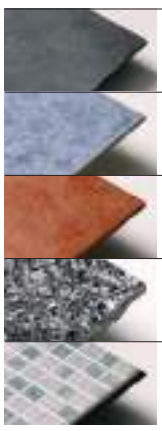
Massima profondità di foratura 10 mm.
Velocità di rotazione consigliata 10.000-13.000 giri/min.



Confezione *Packaging*



Applicazioni / *Applications*



Gres porcellanato
Sandware/Grès céram/Gres porcelanico

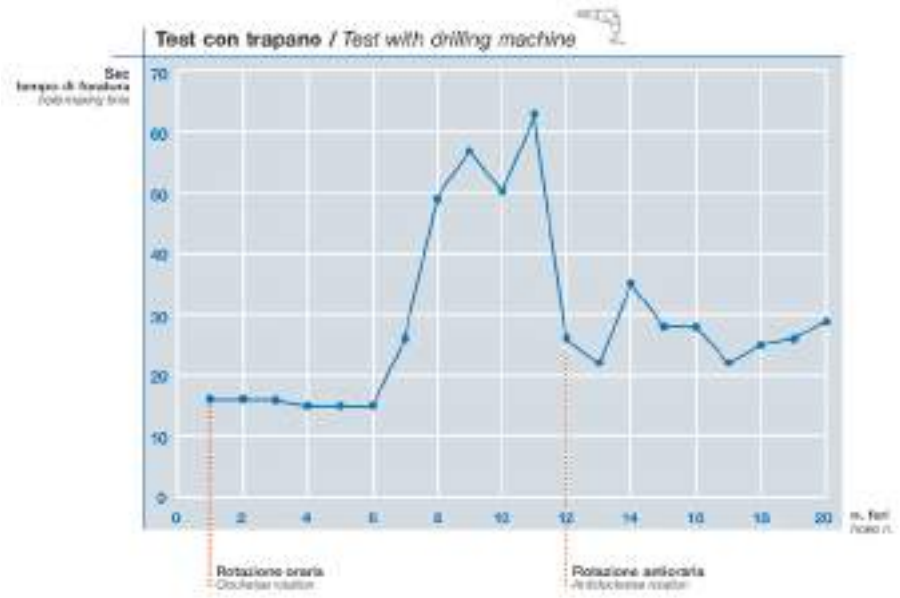
Gres smaltato
Glazed sandstone/Grès emaillé/Gres esmaltado

Gres
Sandstone/Grès/Gres Fragranite®/Clinker

Marmo
Marble/Marbre
Mármol

Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar

Prestazioni di una fresa diamantata di ø 6 mm a corona continua nella foratura di una piastrella in gres porcellanato con raffreddamento ad acqua: invertendo periodicamente il senso di rotazione della fresa da orario ad antiorario si ravvivano i diamanti e la fresa continua a lavorare per un ciclo di vita utile più lungo.
Nel grafico si mostra come, all'inversione del senso di rotazione, la fresa completa il foro con un tempo comparabile ai primi fori effettuati quando l'utensile era nuovo.
Performances of ø 6 mm diamond core bit with continuous edge when water cooled cutting into sandware: if you cyclically change from clockwise to anti-clockwise rotation you can revive the diamonds thus assuring a longer tool life. Here below the graphics that shows you that, starting the anti-clockwise rotation, the tool can complete the hole briefly, just as it were new.



PUNTA DIAMANTATA A CORONA CONTINUA PER IL TAGLIO A SECCO E UMIDO DEL GRES PORCELLANATO E DI TUTTE LE PIASTRELLE

Diamond drill bit with continuous edge for dry cutting of sandware and very hard building materials / Forets diamantées avec couronne continue pour percer à sec grès céram et matériaux de construction très durs / Brocas diamantadas con corona continua para taladrar en seco gres porcelanico y materiales de construccion durisimos / Diamantbesetzter Spiralbohrer mit endloser kranz für Feinsteinzeug und sehr harte Baumaterialen.

Keramaster® Plus

03122

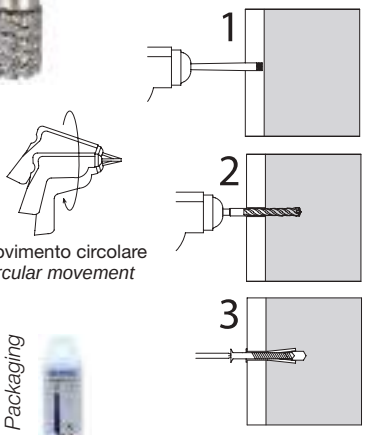




Refrigerante vegetale
Internal cooling system

Matrice metallica altofondente brasata che trattiene i diamanti a grana medio-fine
The high-melting brazed bond keeps medium-fine grain diamonds

Ø mm	d ⬡	L	pcs	cod.	€ cad/each
5	9,5	70	1	031220500	41,406
6	9,5	70	1	031220600	41,406
8	9,5	80	1	031220800	41,406
10	9,5	80	1	031221000	41,406
12	9,5	80	1	031221200	46,007
14	12,5	80	1	031221400	56,880
16	12,5	80	1	031221600	63,197
18	12,5	80	1	031221800	70,572
20	12,5	80	1	031222000	77,945
22	12,5	80	1	031222200	85,318
25	12,5	80	1	031222500	96,905



Movimento circolare
Circular movement

Confezione
Packaging

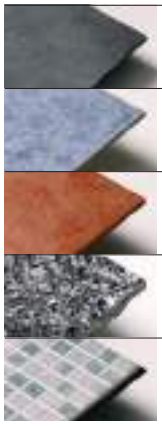
Foratura a secco a sola rotazione. Funzionamento ottimale su pareti verticali (ottimizzato il sistema di refrigerazione interna). Si consiglia di non asportare la carota, che funge da tappo-dosatore per il refrigerante. **L'utilizzo con refrigerazione ad acqua allunga la vita utile dell'utensile.**
Dry cutting, rotation use only. *Best performances on walls to better fit the internal cooling system. Do not remove the deposits: they work as a plug to stop the lubricant.* ***Water cooling extends the tool life cycle.***

Istruzioni d'uso: Iniziare il taglio inclinando la fresa di 30° per agevolare la centratura (oppure utilizzare l'apposita guida). Portarsi gradualmente in posizione verticale. Usare una velocità di taglio di 1000÷3000 giri/min in funzione del diametro decrescente della fresa. Durante il taglio applicare un lieve movimento circolare per agevolare l'evacuazione dei detriti. Invertendo periodicamente il senso di rotazione della fresa, si ravvivano i diamanti e si allunga la vita utile dell'utensile. Utilizzando trapani elettrici e raffreddando ad acqua, dotarsi di dispositivo PRCD.
Nel caso si voglia inserire un tassello(3), terminato il taglio nel gres(1), continuare con una punta per muro tradizionale a rotopercussione(2).
Use tips: *To achieve an easy centering, please start the cut at 30° (or use the proper guide) and then go on vertically. Use 1000÷3000 rpm as cutting speed, depending on the decreasing tool diameter. Please use a circular movement during cutting to better evacuate the deposits. For longer tool life, please use alternatively right and left hand rotation. When water cooling, always use PRCD safety system.*



03121001 03121002 03121005

Applicazioni / *Applications*



Gres porcellanato
Sandware/Grès céram/Gres porcelanico

Gres smaltato
Glazed sandstone/Grès emaillé/Gres esmaltado

Gres
Sandstone/Grès/Gres Fragranite®/Clinker

Marmo
Marble/Marbre Mármol

Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar



cod. 03120300
€ 837,620

Composizione:
15 pcs Ø 5÷25 mm

Ø	5	6	8	10	12	14	16	18	20	22	25
pcs	2	2	2	2	1	1	1	1	1	1	1

cod. 03120301
€ 595,719

Composizione:
15 pcs Ø 5÷25 mm

Ø	5	6	8	10	12	14	16	20
pcs	1	2	2	2	1	1	1	1

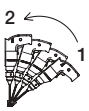


cod. 03120210
€ 120,758

Composizione:
3 pcs Ø 6, 8, 10 mm

Utilizzando trapani elettrici adottare il sistema di sicurezza PRCD
PRCD safety system
Système de sécurité PRCD
Despositivo de seguridad PRCD









A SECCO
DRY CUTTING
(REFRIGERANTE VEGETALE)

High Quality professional

PUNTA DIAMANTATA E FRESE A TAZZA A CORONA CONTINUA PER IL TAGLIO DEL GRES PORCELLANATO E DEI MATERIALI EDILI DURISSIMI

Diamond drill bit and core drills with continuous edge for sandware and very strong building materials / Forets diamantées et scies trépans avec couronne continue pour grès céram et matériaux de construction très durs / Brocas diamantadas y coronas perforadoras con corona continua para gres porcelanico y materiales de construccion durisimos / Diamantbesetzter Spiralbohrer und Lochsägen mit endloser Kranz für Feinsteinzeug und sehr harte Baumaterialen

Keramaster®

03117



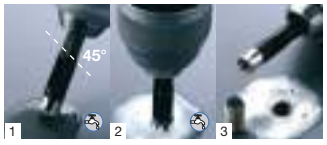


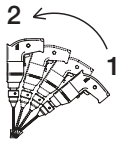
Matrice metallica altofondente brasata che trattiene i diamanti a grana medio-fine
The high-melting brazed bond keeps medium-fine grain diamonds

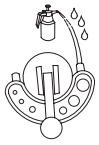
Ø mm	d ⬡	L	pcs	cod.	€ cad/each
5	9,5	56	1	031170500	23,065
6	9,5	56	1	031170600	23,065
7	9,5	56	1	031170700	23,065
8	9,5	56	1	031170800	23,065
10	9,5	56	1	031171000	25,458
12	9,5	56	1	031171200	29,861
14	9,5	56	1	031171400	40,860

Confezione *Packaging*



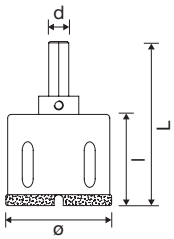






21104

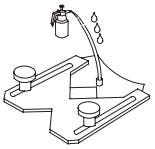


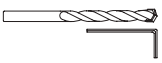


Ø mm	d ⬡	L	l	pcs	cod.	€ cad/each
16	12,5	90	50	1	211041600	57,916
18	12,5	90	50	1	211041800	57,916
20	12,5	90	50	1	211042000	62,956
22	12,5	90	50	1	211042200	69,254
25	12,5	90	50	1	211042500	77,438
28	12,5	90	50	1	211042800	85,621
30	12,5	90	50	1	211043000	91,920
32	12,5	90	50	1	211043200	94,434
35	12,5	90	50	1	211043500	110,801
40	12,5	90	50	1	211044000	124,655
45	12,5	90	50	1	211044500	139,764
50	12,5	90	50	1	211045000	153,618
60	12,5	90	50	1	211046000	181,312
65	12,5	90	50	1	211046500	195,167
67	12,5	90	50	1	211046700	204,706
70	12,5	90	50	1	211047000	217,079
80	12,5	90	50	1	211048000	237,971

Confezione *Packaging*





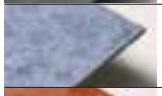
5 mm  **Punta pilota** *Pilot drill* ø 6x100 21020113 € 3,990

Si sconsiglia l'uso della punta pilota come centraggio nel gres porcellanato; la dima a ventosa consente un'agevole centratura e sicurezza di taglio.
We dissuade to use the pilot drill as centering into sandware; the suction guide allows an easy centering with a safe cut.
Nous déconseillons l'utilisation du foret pilote pour le centrage pendant grés cèram; la guide a ventouse permet une facile centrage et une perçage en sécurité.
Disuadimos de utilizar la broca pilota come centradora en gres porcelanico; la guia permite una facil centradura con un corte en seguridad.

Applicazioni / *Applications*



Gres porcellanato
Sandware/Grès céram/Gres porcelanico



Gres smaltato
Glazed sandstone/Grès emaillé/Gres esmaltado



Gres
Sandstone/Grès/Gres Fragranite®/Clinker



Marmo
Marble/Marbre
Mármol



Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar

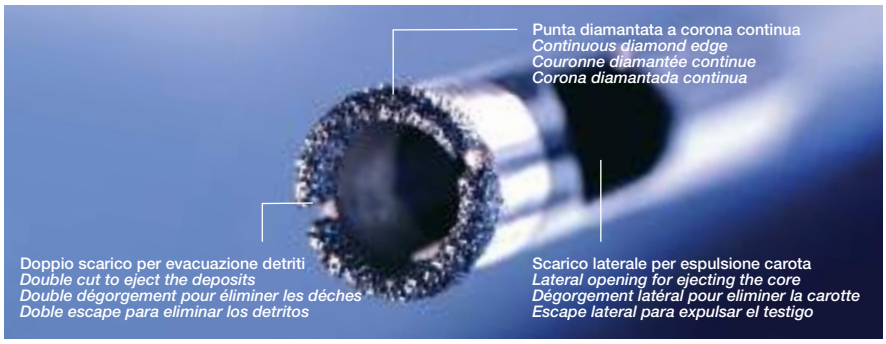




FORATURA AD ACQUA
WET DRILLING
PERÇAGE À EAU
PERFORACIÓN CON AGUA



Utilizzando trapani elettrici adottare il sistema di sicurezza PRCD
PRCD safety system
Système de sécurité PRCD
Despositivo de seguridad PRCD



Diametro fresa *Core drill diameter*	5÷7	8÷10	12÷14	16÷25	28÷35	40÷50	60÷80
Velocità giri/min. *Speed r.p.m.*	3000	2000	1500	1000	600	400	300

ASSORTIMENTI FRESE A TAZZA DIAMANTATE Keramaster®

"Keramaster®" diamond core drills sets / Jeux de fraises diamants "Keramaster®"
Juegos de coronas diamantadas "Keramaster®"

Keramaster®



3 pcs
Ø 6-8-10 mm
03120199 € 74,907

4 pcs
Ø 5-6-8-10 mm
03120200 € 96,703

5 pcs
Ø 5-6-8-10-12 mm
03120201 € 124,507



6 pcs
Ø 16-22-25-28-30-35
21103300 € 478,467



230x510x170



Retrodidattica
Back side

03120101
Ø 5÷14 **36 pcs**
Ø/pcs 5/8 - 6/8 - 7/3 - 8/6
10/5 - 12/3 - 14/3
€ 916,234

03120100
Ø 5÷14 **30 pcs**
Ø/pcs 5/6 - 6/6 - 7/2 - 8/6
10/5 - 12/3 - 14/2
€ 805,941



400x650x320

21103100
Ø 5÷35 **21 pcs**
Ø 5-6-7-8-10-12-14 (2x)
Ø 16-20-25-28-30-32-35 (1x)
€ 1.117,561

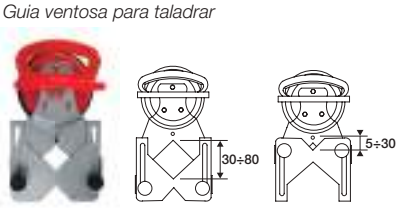
21103101
Ø 5÷80 **29 pcs**
Ø 5-6-7-8-10-12-14
16-18-20-25-30 (2x)
Ø 35-50-60-65-80 (1x)
€ 1.913,859

Dima a ventosa per forare
Drilling suction cup / Guide ventouse à percer
Guia ventosa para taladrar



7 fori/*holes*
Ø 4-5-6-7-8-10-12 mm
03121001 € 37,463

Dima a ventosa regolabile per forare
Drilling suction cup / Guide ventouse à percer
Guia ventosa para taladrar



03121002 € 55,649

Bottiglia per refrigerazione
Cooling bottle / Bouteille à réfrigèrer
Contenidor para refrigeración



03121005 € 21,402

Taglio preciso e pulito con trapani e con raffreddamento ad acqua in tutti i materiali edili difficili da lavorare: gres porcellanato, gres smaltato, marmo, granito, ceramica, ardesia, materiali compositi quali poliestere, fibre di vetro, ecc. Nel caso si voglia inserire un tassello, terminato il taglio nel gres, continuare con una punta per muro tradizionale a rotopercussione. Per idraulici, installatori, elettricisti, ecc. / *For an accurate and sharp cut with drilling machines of all hard materials: sandware, glazed sandstone, marble, granite, ceramics, slate, composites such as polyester, fiber glass, etc. Ideal for plumbers, journeymen, electricians, etc. Water cooling. / Pour une coupe soignée et nette avec perceuses de tous les matériaux durs: grès céram, grès émaillée, marbre, granit, céramique, ardoise, matériaux composites comme polyester, fibre de verre, etc. Pour plombiers, installateurs et électriciens. Refroidissement à eau. / Para un corte exacto y limpio con taladros de todos los materiales duros: gres porcelanico, gres esmaltado, mármol, ceramica, pizarra, materiales compuestos como poliéster, hebra de vidrio, etc. Ideal para hidráulicos, instaladores, electricistas. Refrigeración por agua.*

High Quality professional

PUNTA DIAMANTATA A CORONA CONTINUA PER IL TAGLIO DI PIASTRELLE, GRES E DEI MATERIALI DURI

Diamond drill bit with continuous edge for sandware and strong building materials / Forets diamantées avec couronne continue pour grès et matériaux de construction durs / Broca diamantada con corona continua para gres y materiales de construccion duros / Diamantbesetzter Spiralbohrer mit endloser Kranz für Feinsteinzeug und sehr harte Baumaterialen

Standard quality

03125



Matrice metallica elettrodepositata che trattiene diamanti a grana fine.
The electroplated bond keeps fine grain diamonds.

Ø mm	d mm	L	pcs	cod.	€ cad/each
5	6	65	1	031250500	11,083
6	6	65	1	031250600	11,083
8	6	65	1	031250800	11,083
10	6	65	1	031251000	11,083
12	6	65	1	031251200	13,298
14	6	65	1	031251400	15,515

FORATURA AD ACQUA
WET DRILLING
PERÇAGE À EAU
PERFORACIÓN CON AGUA

Utilizzando trapani elettrici adottare il sistema di sicurezza PRCD
PRCD safety system
Système de sécurité PRCD
Despositivo de seguridad PRCD

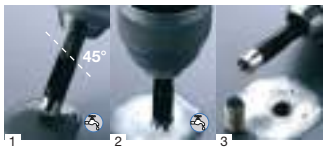
PRCD

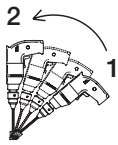
- La corona diamantata a spessore sottile garantisce tagli senza sbavature. Questa caratteristica agevola i lavori di foratura su piastrelle dure in posa, dove sia necessario realizzare un foro pulito, senza scheggiare la piastrella.
- *The thin diamond continuous edge guarantees cuts without smudging. This feature facilitates the drilling work on hard tiles in laying, where it is necessary to make a clean hole, without splintering the tile.*
- *La couronne en diamant mince garantit des coupes sans bavures. Cette caractéristique facilite le travail de perçage sur des dalles dures en pose, où il est nécessaire de faire un trou propre, sans fendre la dalle.*
- *La corona de diamante de calibre delgado garantiza cortes sin manchas. Esta característica facilita el trabajo de perforación en las baldosas duras en el tendido, donde es necesario hacer un agujero limpio, sin astillar la baldosa.*

Confezione / *Packaging*



Diametro fresa *Core drill diameter*	5÷7	8÷10	12÷14
Velocità giri/min. *Speed r.p.m.*	3000	2000	1500

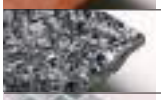




Applicazioni / *Applications*



Gres
Sandstone/Grès/Gres Fragranite®/Clinker



Marmo
Marble/Marbre
Mármol



Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar

DISCHI DIAMANTATI PER GRES PORCELLANATO, CERAMICA E PIASTRELLE IN GENERE

Diamond discs for sandware, tiles and ceramics / Disques diamant pour grés, carrelage et céramiques
Discos diamantados para gres porcelanico, azulejos y ceramicas / Diamanttrennscheiben für das emailliert Steingut, Fliesen und Ton

PROFESSIONAL SUPER

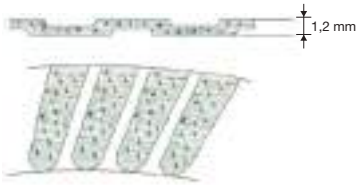
SPECIALE GRES PORCELLANATO SPECIAL GRES

Corona Turbo - Turbo continuous rim - Couronne continue Turbo - Corona continua Turbo

03515

Ø mm	d	cod.	€ cad/each
115	22.2	03515115	36,384







Confezione *Packaging*



Applicazioni / *Applications*



Gres porcellanato
Sandware/Grès céram/Gres porcelanico



Gres smaltato
Glazed sandstone/Grès emaillé/Gres esmaltado



Gres
Sandstone/Grès/Gres Fragranite®/Clinker



Marmo
Marble/Marbre
Mármol



Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar

- Taglio preciso e pulito in tutti i materiali edili difficili da lavorare: gres porcellanato, gres smaltato, marmo, granito, ceramica, ardesia etc.
- *For an accurate and sharp cut of all hard materials: sandware, glazed sanstone, marble, granite, ceramics, slate etc.*
- *Puor une coupe soignée et nette de tous les matériaux durs: grès porcellanato, grès émaillé, marbre, granit, céramique, ardoise etc.*
- *Para un corte exacto y limpio de todos los materiales duros: gres porcelanico, gres esmaltado, mármol, ceramica, pizarra etc.*
- *Für einen sauberen undgenauren Schnitt von allen harten Materialen: Feinsteinzeug, glasiertem Steinzeug, Marmor, Granit, Keramik, Schiefer.*

DISCHI DIAMANTATI PER MATERIALI EDILI

Diamond discs for building materials / Disc diamantes pour batimant
Discos diamantados para construciones / Diamanttrennscheiben für Baumaterialen

PROFESSIONAL | **PROFESSIONAL SUPER**

PRCD

Corona Turbo - Turbo continuous rim - Couronne continue Turbo - Corona continua Turbo

Muro - Cemento - Piastrelle - Pietre naturali /Masonry - Concrete - Tiles - Natural stones
Béton - Ciment - Carellage - Pierres naturelles / Hormigon - Concreto - Azulejos - Piedras naturales

03405



03505



Ø mm	d	cod.	€ cad/each	cod.	€ cad/each
115	22.2	03405115	10,707	03505115	19,268
230	22.2	03405230	50,307	03505230	96,327



Corona continua - Continuous rim - Couronne continue - Corona continua

Ceramica - Marmo - Pietre naturali / Ceramics - Marble - Natural stones
Céramique - Marbre - Pierres naturelles / Ceramica - Marbol - Piedras naturales

03400



03500



Ø mm	d	cod.	€ cad/each	cod.	€ cad/each
115	22.2	03400115	9,202	03500115	16,093
230	22.2	03400230	40,670	03500230	83,859



Corona segmentata - Segmented rim - Couronne segmentée - Corona segmentada

Muro - Cemento - Marmo - Pietre naturali / Masonry - Concrete - Marble - Natural stones
Béton - Ciment - Marbre - Pierres naturelles / Hormigon - Concreto - Marbol - Piedras naturales

03410



03510



Ø mm	d	cod.	€ cad/each	cod.	€ cad/each
115	22.2	03410115	10,089	03510115	18,702
230	22.2	03410230	49,861	03510230	90,659





N. 1 cod. 03405115 TURBO
N. 1 cod. 03400115 CONTINUE
N. 1 cod. 03410115 SEGMENTED

cod. 03412100 € 28,894

GUIDA ALLA RISOLUZIONE DEI PROBLEMI DI FORATURA DEI MATERIALI EDILI

Troubleshooting guide for drilling of building materials

Immagine del difetto / *Photo of the defect*



Fresa a tazza
Hole saw

Descrizione del difetto
Description of the defect

Si rompe o si scheggia un dente in metallo duro a causa di urti (es. cadute accidentali, urto contro tondino del ceemnto armato o pezzi duri inglobati nel materiale in lavorazione).
A tooth in hard metal breaks or chips due to impacts (e.g. accidental falls, knock against reinforced cement or hard pieces incorporated into work materials).

Possibili soluzioni del problema
Possible solutions to the problem

Procedere con cautela durante la foratura, evitando il più possibile urti accidentali:
-quando si maneggia l'utensile,
-in fase di inizio foratura,
-durante la foratura, soprattutto nel caso di lavorazioni di materiali stratificati o compositi.
Proceed carefully during the drilling, and avoid accidental knocks as much as possible:
- when handling the tool,
- at the start of drilling
- during the drilling in particular of laminated or composite materials.

Immagine del difetto / *Photo of the defect*



Denti con carburo in grani
Carbide gritted teeth

Descrizione del difetto
Description of the defect

Si impasta il materiale in lavorazione sui grani di carburo di tungsteno. Il materiale lavorato è tenero e pastoso.
The material being drilled blends with the tungsten carbide grains. The material being drilled is soft and mushy.

Possibili soluzioni del problema
Possible solutions to the problem

Scegliere un altro utensile maggiormente idoneo allo scopo. Aumentare la refrigerazione dell'area in lavorazione. Aumentare la velocità di foratura.
Choose another tool which is more suitable for the purpose. Increase the refrigeration of the area being drilled. Increase the drilling speed.

Immagine del difetto / *Photo of the defect*



Fresa diamantata
Diamond core bit

Descrizione del difetto
Description of the defect

Si impasta il materiale in lavorazione sui diamanti. Il materiale lavorato è tenero e pastoso.
The material being drilled blends with the diamonds. The material being drilled is soft and mushy.

Possibili soluzioni del problema
Possible solutions to the problem

Scegliere un altro utensile maggiormente idoneo allo scopo. Aumentare la refrigerazione dell'area in lavorazione. Aumentare la velocità di foratura.
Choose another tool which is more suitable for the purpose. Increase the refrigeration of the area being drilled. Increase the drilling speed.

PUNTE PER LA FORATURA DI MATERIALI EDILI

Drill bits for drilling building materials

Immagine del difetto / *Photo of the defect*



Fresa diamantata
Diamond core bit

Descrizione del difetto
Description of the defect

Si usura precocemente la corona diamantata a causa di un uso intensivo dell'utensile in assenza di una corretta refrigerazione.
The diamond crown wears prematurely due to intensive use of the tool without proper refrigeration.

Possibili soluzioni del problema
Possible solutions to the problem

Aumentare la refrgerazione della zona in lavorazione, per evitare il surriscaldamento della lega che trattiene i diamanti sul corpo dell'utensile.
Increase refrigeration in the drilling area to prevent overheating of the alloy that holds the diamonds on the body of the tool.

Immagine del difetto / *Photo of the defect*



Punta per muro
Masonry drill

Descrizione del difetto
Description of the defect

Si usura la testa dell'utensile.
The head of the tool wears away.

Possibili soluzioni del problema
Possible solutions to the problem

Evitare qualsiasi urto durante la foratura. Scegliere il martello con potenza idonea al tipo di punta che si utilizza (attacco SDS-PLUS, attacco SDS-MAX, codolo cilindrico).
Avoid any kind of impact during the drilling process. Choose a hammer strong enough for the type of bit used (SDS-PLUS connection, SDS-MAX connection, cylindrical shank).

Immagine del difetto / *Photo of the defect*



Punta per muro
Masonry drill

Descrizione del difetto
Description of the defect

Si rompe la punta all'inizio dell'elica, a causa dell'applicazione di un momento flettente eccessivo.
The tip at the start of the screw snaps due to excessive bending.

Possibili soluzioni del problema
Possible solutions to the problem

Evitare movimenti oscillatori al fine di allargare il diametro del foro che si sta realizzando. Non eccedere con la profondità del foro che si intende realizzare: utilizzare allo scopo un utensile con lunghezza totale più elevata.
Avoid swinging movements to widen the diameter of the hole that is being made.
Do not go beyond the depth of the hole that needs to be made: for this purpose, use a tool with a longer overall length.

Immagine del difetto / *Photo of the defect*



Attacco SDS-PLUS
SDS-PLUS shank

Descrizione del difetto
Description of the defect

Si rompe/deforma l'attacco dell'utensile.
The connection of the tool breaks/deforms.

Possibili soluzioni del problema
Possible solutions to the problem

Sostituire il mandrino usurato, che inevitabilmente danneggia l'attacco dell'utensile.
Replace the worn spindle, which inevitably damages the tool connection.

GUIDE DE DÉPANNAGE POUR LES PROBLÈMES DE PERÇAGE DES MATÉRIAUX DE CONSTRUCTION

Guía para la resolución de problema de perforación de los materiales de edilicia

Image du dèfaut / *Foto del defecto*



Description du dèfaut
Descripción del defecto

Une dent en métal dur se brise ou se fend à cause des chocs (par exemple chutes accidentelles, impact de la tige contre le rond en béton armé ou pièces dures incorporées dans les matériaux usinés).
Se rompe o se desportilla un diente de metal duro debido a golpes (por ejemplo en caso de caídas accidentales, golpe contra redondos de hormigón o piezas duras que se encuentran dentro de los materiales que se están trabajando).

Solutions possibles au problème
Posibles soluciones del problema

Procéder avec prudence lors du perçage, en évitant autant que possible les chocs accidentels :
- lors de la manipulation de l'outil,
- au début du perçage,
- pendant le perçage, notamment dans le cas d'usinages de matériaux stratifiés ou composites.

Actuar con cuidado durante la perforación, evitando lo máximo posible golpes accidentales:
-cuando se usa el utensilio,
-en la fase de inicio perforación,
-durante la perforación, sobre todo en caso de trabajos sobre materiales estratificados o compuestos.

Image du dèfaut / *Foto del defecto*



Description du dèfaut
Descripción del defecto

Le matériau usiné doit être pétri sur des grains de carbure de tungstène. Le matériau usiné est tendre et pâteux.
Se amasa el material que se tiene que trabajar sobre granos de carburo de tungsteno. El material trabajado es tierno y pastoso.

Solutions possibles au problème
Posibles soluciones del problema

Choisir un autre outil plus approprié au but.
Augmenter le refroidissement de la zone d'usinage.
Augmenter la vitesse de perçage.
Escoger otro utensilio que sea más idóneo para el trabajo. Aumentar la refrigeración del área trabajada. Aumentar la velocidad de perforación.

Image du dèfaut / *Foto del defecto*



Description du dèfaut
Descripción del defecto

Le matériau usiné doit être pétri sur des diamants. Le matériau usiné est tendre et pâteux.
Se amasa el material que se tiene que trabajar sobre diamantes. El material trabajado es tierno y pastoso.

Solutions possibles au problème
Posibles soluciones del problema

Choisir un autre outil plus approprié au but.
Augmenter le refroidissement de la zone d'usinage. Augmenter la vitesse de perçage.
Escoger otro utensilio que sea más idóneo para el trabajo. Aumentar la refrigeración del área trabajada. Aumentar la velocidad de perforación.

FORETS POUR LE PERÇAGE DES MATÉRIAUX DE CONSTRUCTION

Brocas para la perforación de materiales de edilicia

Image du dèfaut / *Foto del defecto*



Description du dèfaut
Descripción del defecto

La couronne diamant s'use prématurément en raison d'une utilisation intensive de l'outil en l'absence de réfrigération appropriée.
Se gasta de forma precoz la corona de diamante debido a un uso intenso del utensilio sin adecuada refrigeración.

Solutions possibles au problème
Posibles soluciones del problema

Augmenter le refroidissement dans la zone d'usinage, afin d'éviter une surchauffe de l'alliage qui contient les diamants sur le corps de l'outil.
Aumentar la refrigeración de la zona trabajada para evitar el recalentamiento de la aleación que atrapa a los diamantes sobre el cuerpo del utensilio.

Image du dèfaut / *Foto del defecto*



Description du dèfaut
Descripción del defecto

La tête de l'outil s'use.
Se gasta la cabeza del utensilio.

Solutions possibles au problème
Posibles soluciones del problema

Éviter tout impact pendant le perçage.
Choisir le marteau avec une puissance adaptée au type de foret utilisé (raccord SDS-PLUS, raccord SDS-MAX attaque, cône cylindrique).
Evitar cualquier tipo de golpe durante la perforación.
Escoger el martillo de potencia adecuada al tipo de broca que se usa (empalme SDS-PLUS, empalme SDS-MAX, mango cilíndrico).

Image du dèfaut / *Foto del defecto*



Image du dèfaut / *Foto del defecto*



Description du dèfaut
Descripción del defecto

Le foret au début de de l'hélice se brise, en raison de l'application d'une flexion excessive.
Se rompe la punta del principio del hélice, debido a la aplicación de un momento de flexión excesivo.

Solutions possibles au problème
Posibles soluciones del problema

Éviter les mouvements oscillatoires afin d'agrandir le diamètre du trou en cours de réalisation. Ne pas exagérer avec la profondeur du trou à réaliser: utiliser un outil dans ce but avec une longueur totale plus élevée.
Evitar oscilaciones con el fin de anchar el diámetro del orificio que se está realizando.
No exagerar con la profundidad del orificio que se quiere realizar: usar para ello un utensilio con una longitud total mayor.

Description du dèfaut
Descripción del defecto

Le raccord de l'outil se brise ou se déforme.
Se rompe/deforma el empalme del utensilio.

Solutions possibles au problème
Posibles soluciones del problema

Remplacer le mandrin usé qui endommage inévitablement le raccord de l'outil.
Sustituir el mandril gastado que inevitablemente daña al empalme del utensilio.



UTENSILI PER TAGLIO LEGNO

Woodworking tools
Outils à bois
Utensilios para madera
Holzwerkzeuge

WOOD

CUTTING TOOLS ENGINEERING

The wood drilling is more important than what you can imagine and often is undervalued. The Krino wood working tools are undeformable steel made, they have the appropriate heat treatment and geometries for a precise and safe cut. For extreme uses, we developed new lines of tools made with High speed steel, allied steel and carbide tips for high temperatures resistance and special profiles with smooth surface for an easy and fast chips evacuation. Almost all wood working tools have an hexagonal shank for more grip and a safer work. A special care has been dedicated for final users sets and displays for retail shops in order to offer a stock and a useful selection for the customers. The range enlargement has been developed with a wide offer of new sets contained into convenient and attractive wooden boxes, for professional use. There are now available, new wall and bench displays for retailers.

La coupe du bois est une opération plus importante de ce qu'il peut paraître qui est sous-évaluée la plupart du temps. Les outils de coupe Krino sont en acier indéformable ayant subi un traitement thermique adéquat, dans les formes géométriques les plus adaptées pour un travail sûr et précis. Pour les utilisations plus ardues et intenses, des versions avec tranchant en métal dur, acier super rapide et profils spéciaux pour l'évacuation rapide des copeaux sont également disponibles. La plus part des outils sont équipés avec queue hexagonale. Les jeux pour les utilisateurs finals ont été étudiés attentivement comme aussi les présentoires pour les magasins au détail afin d'offrir un stock et une exposition utile pour la clientèle. L'élargissement de la gamme a été développé avec une offre de nouveaux assortiments dans des pratiques et attractives confections en bois pour toutes les utilisations professionnelles. Pour la vente ou détails sont aussi disponibles des nouveaux présentoirs étudiés pour chaque classe de produit.

El corte de la madera es más importante de lo que parece, en la mayoria de los casos está subestimado. Las herramientas de corte Krino están fabricadas en acero indeformable, con apropriado tratamiento térmico, en las geometrias más adecuadas para un trabajo seguro y preciso. Para las utilizaciones más laboriosas y intensivas, también están disponibles ejecuciones con filo de metal duro, acero super rapido y perfil para la evacuación rapida de las virutas. La mayoria de los utensilios para madera son con mango hexagonal. La realización de los juegos para utilizatores finales y expositores para tiendas al detalle offrecen un stock completo y una exposición para los clientes.

Il taglio del legno è più importante di quanto possa sembrare e spesso è sottovalutato. Gli utensili da taglio Krino sono costruiti in acciaio indeformabile, con appropriato trattamento termico, nelle geometrie più adatte per un lavoro sicuro e preciso. Per gli usi più impegnativi ed intensivi sono state sviluppate nuove linee di utensili con caratteristiche adatte a resistere alle alte temperature, quali gli acciai superrapidi, acciai legati, placchette in metallo duro, e con speciali profili ad alto scarico con superfici altamente levigate al fine di permettere una facile evacuazione dei trucioli. Gran parte degli utensili da taglio per legno sono costruiti con attacco esagonale antisdrucciolo, per un lavoro più sicuro. L'ampliamento della gamma dei prodotti si è sviluppato anche nella vasta offerta di nuovi assortimenti in pratiche ed attrattive confezioni di legno, per tutti gli utilizzi professionali. Sono pure disponibili, per le vendite al dettaglio, nuovi espositori self-service ed espositori da banco per classe di prodotto.

Professional

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI CON PUNTA GUIDA A CENTRARE

Wood working drills, brad point / Forets à bois
Broca para madera / Holzspiralbohrer

W.S. ~ DIN 7487

05001





HRC ≅ 50

Confezione / *Packaging*



Applicazioni / *Applications*



- Per forare legno e i suoi derivati.
- *For drilling wood.*
- *Pour percer tous les bois.*
- *Para maderas y sus derivaciones.*
- *Zum Bohren in Holz.*

Ø mm	Ø *inch*	d	*l*	L	pcs	cod.	€ cad/each
3	1/8	3	33	61	10	050010300	0,752
4	5/32	4	43	75	10	050010400	0,862
5	3/16	5	52	86	10	050010500	0,896
6	15/64	6	57	93	10	050010600	1,106
7	9/32	7	69	109	10	050010700	1,272
8	5/16	8	75	117	10	050010800	1,338
9	11/32	9	81	125	10	050010900	1,505
10	3/8	10	87	133	10	050011000	1,746
11	7/16	10	94	142	5	050011100	2,565
12	15/32	10	101	151	5	050011200	2,632
13	1/2	10	101	151	5	050011300	3,572
14	9/16	10	108	160	5	050011400	3,960
15	19/32	10	114	169	5	050011500	4,700
16	5/8	10	120	178	5	050011600	4,989
18	23/32	10	130	191	5	050011800	8,427
20	3/4	10	140	205	5	050012000	10,219
22	7/8	10	140	210	1	050012200	12,020
24	15/16	10	140	215	1	050012400	14,123
26	1.1/32	10	140	215	1	050012600	16,410
28	1.1/8	10	140	220	1	050012800	19,951
30	1.3/16	12	140	220	1	050013000	23,434

Art. **05002** Self
Disponibile su richiesta / *On demand*



5 pcs W.S.
Ø 4-5-6-8-10 mm
05010201 € 6,933



8 pcs W.S.
Ø 3-4-5-6-7-8-9-10 mm
05010202 € 10,285



390x150x225

137 pcs
Ø 3÷16 mm
05010503 € 574,161

05001		05020		05025	
Ø	pcs	Ø	pcs	Ø	pcs
3	10	6x245	5	6x400	5
4	10	8x245	5	8x400	5
5	10	10x245	5	10x400	5
6	10	12x245	5	12x400	3
7	10	14x245	3	14x400	3
8	10				
9	10				
10	10				
12	5				
14	5				
16	3				

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI CON PUNTA GUIDA A CENTRARE, SERIE LUNGA

Wood working drills, long serie / Forets à bois, série longue
Brocas para madera, serie larga / Holzspiralbohrer, extralang

W.S.

05020 **05025**





HRC ≅ 50

L=245 mm

Art. **05021** Self
Disponibile su richiesta / *On demand*

05020

Ø mm	d	/	L	pcs	cod.	€ cad/each
6	6	160	245	1	050200600	6,029
7	7	160	245	1	050200700	6,029
8	8	160	245	1	050200800	6,029
9	9	160	245	1	050200900	6,694
10	10	160	245	1	050201000	6,694
11	10	160	245	1	050201100	8,695
12	10	160	245	1	050201200	8,695
13	10	160	245	1	050201300	10,209
14	10	160	245	1	050201400	10,209
15	10	160	245	1	050201500	11,850
16	10	160	245	1	050201600	11,850
18	10	160	245	1	050201800	15,064
20	10	160	245	1	050202000	18,754
22	13	160	245	1	050202200	23,457
24	13	160	245	1	050202400	26,111

L=400 mm

Art. **05026** Self
Disponibile su richiesta / *On demand*

05025

Ø mm	d	/	L	pcs	cod.	€ cad/each
6	6	230	400	1	050250600	8,335
8	8	230	400	1	050250800	10,675
10	10	230	400	1	050251000	11,047
12	10	230	400	1	050251200	12,386
13	10	230	400	1	050251300	15,460
14	10	230	400	1	050251400	15,460
15	10	230	400	1	050251500	18,253
16	10	230	400	1	050251600	18,253
18	10	230	400	1	050251800	24,436
20	10	230	400	1	050252000	29,464
22	13	230	400	1	050252200	38,848
24	13	230	400	1	050252400	49,732
26	13	230	400	1	050252600	55,714
28	13	230	400	1	050252800	58,718
30	13	230	400	1	050253000	73,748

Confezione / *Packaging*



Applicazioni / *Applications*



- Forano legno dolce, stratificati, tutti i suoi derivati. Speciali per mensole a scomparsa e travi in legno.
- *For soft wood, plywood, non coated chipboards. Special for wood beams.*
- *Pour tous les bois, contreplaques. Special pour poutres de bois.*
- *Para taladrar viga de madera y sus derivaciones.*
- *Einsatz in Weichholz, Tischlerplatten und unbeschichteten Spanplatten.*

High Quality professional

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI CON ATTACCO HEX 1/4”

Wood working drills, 1/4 Q.C. shank / Forets à bois avec 1/4 Q.C. queue
Broca para madera con mango 1/4 Q.C. / Holzspiralbohrer

W.S.

05009





Confezione / *Packaging*



Applicazioni / *Applications*



Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
3	1/4	31	80	1	050090300	1,643
4	1/4	42	92	1	050090400	1,776
5	1/4	53	106	1	050090500	1,840
6	1/4	57	113	1	050090600	1,973
8	1/4	75	137	1	050090800	2,169
10	1/4	87	153	1	050091000	2,514

- Per forare legno e i suoi derivati.
- *For drilling wood.*
- *Pour percer tous les bois.*
- *Para maderas y sus derivaciones.*
- *Zum Bohren in Holz.*



5 pcs
Ø 4-5-6-8-10 mm
05010700 € 13,161

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI, ALTA QUALITÀ HSS

HSS wood working drills / Forets à bois HSS
Broca HSS para madera / HSS Holzspiralbohrer

HSS ~DIN 7487

05200





Confezione / *Packaging*



Applicazioni / *Applications*



Ø mm	d	l	L	pcs	cod.	€ cad/each
3	3	33	61	1	052000300	1,090
4	4	43	75	1	052000400	1,336
5	5	52	86	1	052000500	1,583
6	6	57	93	1	052000600	2,138
7	7	69	109	1	052000700	2,632
8	8	75	117	1	052000800	3,621
9	9	81	125	1	052000900	4,235
10	10	87	133	1	052001000	5,254
11	10	94	142	1	052001100	6,530
12	10	101	151	1	052001200	8,312
13	10	101	151	1	052001300	9,648
14	10	108	160	1	052001400	11,528
15	10	114	169	1	052001500	14,211
16	10	120	178	1	052001600	16,366

- Per forare legno, derivati, kevlar, fibre aramidiche senza sbavature.
- *For drilling wood, derivatives, kevlar, aramidic fibers without smudging.*
- *Pour le perçage du bois, des dérivés, du kevlar, des fibres d’aramide sans bavures.*
- *Para perforar madera, derivados, kevlar, fibras de aramida sin manchas.*

Art. **05201** Self
Disponibile su richiesta / *On demand*



5 pcs HSS
Ø 4-5-6-8-10 mm
05010206 € 15,915



8 pcs HSS
Ø 3-4-5-6-7-8-9-10 mm
05010207 € 24,519

PUNTE ELICOIDALI PER LEGNO A 4 TAGLIENTI CON ATTACCO HEX ¼”

Hex ¼” shank drill bits for wood with 4 cutting edges / Forets hélicoïdaux pour bois avec 4 tranchants avec connexion hex ¼”
Brocas helicoidales para madera con 4 filos de corte con conexión hex ¼”

W.S.





Ø mm	d	l	L	pcs	cod.	€ cad/each
10	1/4	65	165	1	050541000	12,698
12	1/4	65	165	1	050541200	13,081
14	1/4	65	165	1	050541400	15,757
16	1/4	65	165	1	050541600	16,749
18	1/4	65	165	1	050541800	18,201
20	1/4	65	165	1	050542000	18,739
22	1/4	65	165	1	050542200	21,034
24	1/4	65	165	1	050542400	23,555
25	1/4	65	165	1	050542500	25,928
26	1/4	65	165	1	050542600	26,465
28	1/4	65	165	1	050542800	28,144
30	1/4	65	165	1	050543000	30,134
32	1/4	65	165	1	050543200	31,437

05054

Confezione / *Packaging*



Applicazioni / *Applications*



- Per forare a grande rendimento il legno e i suoi derivati.
- *For drilling wood and its derivatives with high efficiency.*
- *Pour percer le bois et ses dérivés avec une grande efficacité.*
- *Para la perforación de madera y sus derivados con alta eficiencia.*



6 pcs
Ø 16-18-20-22-25-32 mm
05055300 € 144,417

High Quality professional

PUNTE ELICOIDALI PER LEGNO CON PUNTA GUIDA A CENTRARE ED ELICHE AD ALTO SCARICO DEI TRUCIOLI. QUALITÀ SUPERPROFESSIONALE, SERIE LUNGA

High performing wood working drills / Forets à bois superprofessionnel / Brocas para madera de alta calidad / profi Holzspiralbohrer

W.S.

05210 05212





W.S.
HRC ≃ 55

L=245 mm

Ø mm	d	l	L	pcs	cod.	€ cad/each
6	6	160	245	1	052100600	20,136
8	8	160	245	1	052100800	21,205
10	10	160	245	1	052101000	22,708
12	10	160	245	1	052101200	23,956
14	10	160	245	1	052101400	26,202
16	10	160	245	1	052101600	28,962
18	10	160	245	1	052101800	33,179
20	10	160	245	1	052102000	37,868
22	13	160	245	1	052102200	42,708
24	13	160	245	1	052102400	49,011

L=400 mm

Ø mm	d	l	L	pcs	cod.	€ cad/each
6	6	160	400	1	052120600	25,243
8	8	160	400	1	052120800	27,509
10	10	160	400	1	052121000	29,151
12	10	250	400	1	052121200	32,149
14	10	250	400	1	052121400	37,007
16	10	250	400	1	052121600	44,835
18	10	250	400	1	052121800	52,702
20	10	250	400	1	052122000	60,498
22	13	250	400	1	052122200	68,118
24	13	250	400	1	052122400	76,251

Confezione / *Packaging*



Applicazioni / *Applications*



- Forano legno duro e dolce, stratificati, tutti i suoi derivati. Speciali per mensole a scomparsa e travi in legno.
- *For soft and tough wood, plywood, non coated chipboards. Special for wood beams.*
- *Pour tous les bois, contreplaques. Special pour poutres de bois.*
- *Para taladrar viga de madera y sus derivaciones.*
- *Einsatz in Weichholz und Hartholz, Tischlerplatten und unbeschichteten Spanplatten.*

PUNTE ELICOIDALI PER LEGNO, SERIE LUNGA

Wood working drills for plankings / Forets pour coffrages
Broca para madera / Schalungsbohrer

W.S.





Art. 05030 - L=400 mm

Art. **05031** Self
Disponibile su richiesta / *On demand*

05030

Ø mm	d	l	L	pcs	cod.	€ cad/each
6	5	100	400	1	050300600	8,090
8	7	100	400	1	050300800	10,383
10	9	100	400	1	050301000	10,745
12	10	100	400	1	050301200	13,271
14	10	100	400	1	050301400	15,763
16	10	100	400	1	050301600	18,056
18	13	100	400	1	050301800	25,785
20	13	100	400	1	050302000	31,513
22	13	100	400	1	050302200	41,549
24	13	100	400	1	050302400	42,804
26	13	100	400	1	050302600	57,228
28	13	100	400	1	050302800	62,665
30	13	100	400	1	050303000	70,942

Art. 05033 - L=600 mm

Art. **05034** Self
Disponibile su richiesta / *On demand*

05033

Ø mm	d	l	L	pcs	cod.	€ cad/each
6	5	100	600	1	050330600	12,048
8	7	100	600	1	050330800	12,980
10	9	100	600	1	050331000	14,434
12	10	100	600	1	050331200	15,983
14	10	100	600	1	050331400	17,555
16	10	100	600	1	050331600	19,092
18	13	100	600	1	050331800	27,554
20	13	100	600	1	050332000	32,666
22	13	100	600	1	050332200	42,979
24	13	100	600	1	050332400	52,410
26	13	100	600	1	050332600	65,285
28	13	100	600	1	050332800	71,269
30	13	100	600	1	050333000	83,108

Confezione / *Packaging*



Applicazioni / *Applications*

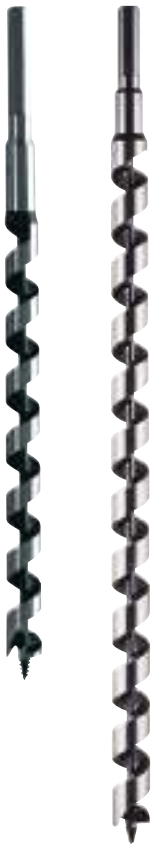


- Per forare legno e i suoi derivati, pannelli in gesso, pannelli isolanti.
  Speciali per casseformi, installazioni, carpenteria.
- *For holes in beams, boards, soft metal sheets, special for journeyman's.*
- *Pour percer tous les bois, métals légers. Special pour coffrages.*
- *Para maderas y sus derivaciones, planchas de hierro no duros.*
- *Zum Bohren in Schlungen, Brettern, Dielen, Leichtmetall.*

PUNTE PER LEGNO PROFESSIONALI A SPIRALE SINGOLA TIPO LEWIS, GAMBO ESAGONALE

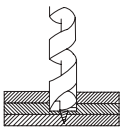
Hexagonal shank auger bits, Lewis type, for professional use / Mèche à bois à spirale unique pour percage professionnel
Broca para madera tipo Lewis para cortes professionales / Profi-Schlangenbohrer

W.S.





HRC ≅ 50



Art. 05035 L=155 mm

Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
6	6	90	155	1	050350600	6,938
8	8	90	155	1	050350800	7,392
10	10	90	155	1	050351000	8,673
12	10	90	155	1	050351200	9,953
14	10	90	155	1	050351400	11,047
16	10	90	155	1	050351600	11,968
18	13	90	155	1	050351800	13,701
20	13	90	155	1	050352000	15,786
22	13	90	155	1	050352200	16,798
24	13	90	155	1	050352400	17,892

Art. 05036 L=235 mm

Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
6	6	160	235	1	050360600	7,857
8	8	160	235	1	050360800	8,486
10	10	160	235	1	050361000	9,953
12	10	160	235	1	050361200	12,083
14	10	160	235	1	050361400	13,713
16	10	160	235	1	050361600	14,772
18	13	160	235	1	050361800	16,961
20	13	160	235	1	050362000	19,370
22	13	160	235	1	050362200	19,651
24	13	160	235	1	050362400	22,432

Art. 05040 - L=300 mm

Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
6	6	220	300	1	050400600	11,047
8	8	220	300	1	050400800	11,047
9	9	220	300	1	050400900	11,991
10	10	220	300	1	050401000	12,747
11	10	220	300	1	050401100	14,074
12	10	220	300	1	050401200	15,134
13	10	220	300	1	050401300	14,808
14	10	220	300	1	050401400	16,239
15	10	220	300	1	050401500	17,706
16	10	220	300	1	050401600	17,706
18	13	220	300	1	050401800	19,884
20	13	220	300	1	050402000	21,956
22	13	220	300	1	050402200	24,854
24	13	220	300	1	050402400	27,241
25	13	220	300	1	050402500	30,058
26	13	220	300	1	050402600	30,371
28	13	220	300	1	050402800	34,539
30	13	220	300	1	050403000	38,917
32	13	220	300	1	050403200	48,136

Art. 05042 - L=460 mm

Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
6	6	360	460	1	050420600	20,954
8	8	360	460	1	050420800	21,501
10	10	360	460	1	050421000	22,002
12	10	360	460	1	050421200	27,276
13	10	360	460	1	050421300	29,127
14	10	360	460	1	050421400	29,196
16	10	360	460	1	050421600	31,118
18	13	360	460	1	050421800	34,865
20	13	360	460	1	050422000	39,755
22	13	360	460	1	050422200	43,073
24	13	360	460	1	050422400	44,819
25	13	360	460	1	050422500	48,963
26	13	360	460	1	050422600	50,943
28	13	360	460	1	050422800	57,834
30	13	360	460	1	050423000	67,485
32	13	360	460	1	050423200	81,210
35	13	360	460	1	050423500	107,565
40	13	360	460	1	050424000	143,187

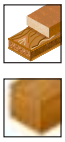
Art. 05044 - L=600 mm

Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
8	8	400	600	1	050440800	28,043
10	10	400	600	1	050441000	34,318
12	10	400	600	1	050441200	37,416
13	10	400	600	1	050441300	43,619
14	10	400	600	1	050441400	41,304
16	10	400	600	1	050441600	43,084
18	13	400	600	1	050441800	51,163
20	13	400	600	1	050442000	53,724
22	13	400	600	1	050442200	58,113
24	13	400	600	1	050442400	58,498
25	13	400	600	1	050442500	65,470
26	13	400	600	1	050442600	68,835
28	13	400	600	1	050442800	81,210
30	13	400	600	1	050443000	92,548
32	13	400	600	1	050443200	112,058

Confezione / *Packaging*



Applicazioni / *Applications*



- Per forature di travi in legno. Foratura precisa e veloce grazie al centrino autoavvitante ed alla grande capacità di evacuazione dei trucioli.
- *For drilling wood beams and plankings.*
- *Percage en tous les bois, poutre de bois.*
- *Para taladrar vigas de madera.*
- *Für präzise Bohren in Weich und Hartholz, Leimbinder sowie für Stir-Holz.*



05240300

Cassetta in legno o in metallo
Metal or wooden case

7 pcs ⬡
L = 300 mm
Ø 8-10-12-14-16-18-20

05240300 € 188,588



05240301

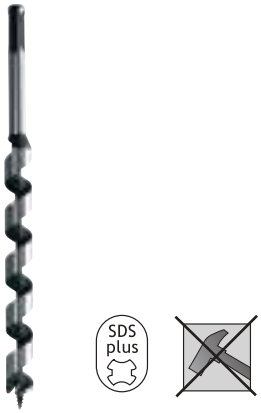
Cassetta in legno o in metallo
Metal or wooden case

6 pcs ⬡
L = 460 mm
Ø 10-12-14-16-18-20

05240301 € 209,543

PUNTE PER LEGNO PROFESSIONALI A SPIRALE SINGOLA TIPO LEWIS CON GAMBO SDS-PLUS

SDS-PLUS shank auger bits, Lewis type / Mèche à bois Lewis à spirale unique avec queue SDS-PLUS
Broca para madera tipo Lewis con mango SDS-PLUS / Schlangenbohrer Lewis für Holz mit SDS-PLUS Kegel



Art. 05037 L=235 mm

Ø mm	l	L	pcs	cod.	€ cad/each
8	160	235	1	050370800	8,766
10	160	235	1	050371000	10,314
12	160	235	1	050371200	11,968
14	160	235	1	050371400	13,598
16	160	235	1	050371600	15,064
18	160	235	1	050371800	16,798
20	160	235	1	050372000	19,930
22	160	235	1	050372200	20,873
24	160	235	1	050372400	23,445

Art. 05038 L=460 mm

Ø mm	l	L	pcs	cod.	€ cad/each
8	360	460	1	050380800	16,438
10	360	460	1	050381000	16,704
12	360	460	1	050381200	19,348
14	360	460	1	050381400	23,003
16	360	460	1	050381600	26,205
18	360	460	1	050381800	30,931
20	360	460	1	050382000	34,633
22	360	460	1	050382200	36,915
24	360	460	1	050382400	39,977



05240307

Cassetta in metallo
Metal case

7 pcs SDS-PLUS
L = 235 mm
Ø 8-10-12-14-16-18-20 mm

05240307 € 195,573



05240308

Cassetta in metallo
Metal case

6 pcs SDS-PLUS
L = 460 mm
Ø 10-12-14-16-18-20 mm

05240308 € 214,048

Professional

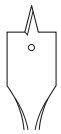
MECCHIE PIATTE PER LEGNO, CODOLO ESAGONALE

Hexagonal shank wood spade bits / Mèche à bois plate
Broca plana para madera / Flach Zentrums Bohrer

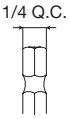
W.S.

05045





HRC ≅ 48÷50



Art. **05047** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*



Serie corta - Short serie

Ø mm	d ⬡	L	pcs	cod.	€ cad/each
6	6,35	150	5	050450600	2,748
8	6,35	150	5	050450800	2,748
9	6,35	150	5	050450900	2,771
10	6,35	150	5	050451000	2,771
11	6,35	150	5	050451100	2,806
12	6,35	150	5	050451200	2,806
13	6,35	150	5	050451300	2,968
14	6,35	150	5	050451400	2,968
15	6,35	150	5	050451500	3,062
16	6,35	150	5	050451600	3,062
18	6,35	150	5	050451800	3,283
19	6,35	150	5	050451900	3,399
20	6,35	150	5	050452000	3,399
22	6,35	150	5	050452200	3,864
24	6,35	150	5	050452400	4,167
25	6,35	150	5	050452500	4,354
26	6,35	160	5	050452600	4,691
28	6,35	160	5	050452800	4,890
30	6,35	160	5	050453000	5,181
32	6,35	160	5	050453200	5,436
34	6,35	160	5	050453400	6,216
35	6,35	160	5	050453500	6,449
36	6,35	160	5	050453600	6,449
38	6,35	160	5	050453800	6,577
40	6,35	160	5	050454000	6,810



6 pcs
Ø 10-12-16 -18-20-25 mm
05055100 € 18,546

PROLUNGA PER MECCHIE L = 300 MM

Spade bit extension

05046



Confezione / *Packaging*



Ø mm	d ⬡	L	pcs	cod.	€ cad/each
13	6,35	300	1	05046	18,638

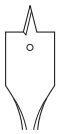
MECCHIE PIATTE PER LEGNO, CODOLO ESAGONALE

Hexagonal shank wood spade bits / Mèche à bois plate
Broca plana para madera / Flach Zentrums Bohrer

Serie lunga - L=400 mm Long serie

05048





HRC ≅ 48÷50

1/4 Q.C.



Ø mm	d ⬡	L	pcs	cod.	€ cad/each
***6**	4,50	400	5	050480600	8,766
8	6,35	400	5	050480800	9,813
10	6,35	400	5	050481000	10,233
12	6,35	400	5	050481200	11,735
14	6,35	400	5	050481400	12,783
16	6,35	400	5	050481600	13,388
18	6,35	400	5	050481800	13,667
20	6,35	400	5	050482000	14,097
22	6,35	400	5	050482200	14,553
24	6,35	400	5	050482400	14,854
25	6,35	400	5	050482500	15,273
26	6,35	400	5	050482600	16,357
28	6,35	400	5	050482800	16,357
30	6,35	400	5	050483000	17,077
32	6,35	400	5	050483200	17,531
34	6,35	400	5	050483400	17,857
35	6,35	400	5	050483500	18,567
36	6,35	400	5	050483600	18,999
38	6,35	400	5	050483800	19,324
40	6,35	400	5	050484000	20,057

*Attacco esagonale / *Hexagonal shank*

Confezione / *Packaging*



Applicazioni / *Applications*



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.
- *For drilling wood.*
- *Pour percer les bois.*
- *Para taladrar madera.*
- *Zum Bohren in Holz.*

MECCHIE PIATTE PER LEGNO, CODOLO ESAGONALE

Hexagonal shank wood spade bits / Mèche à bois plate
Broca plana para madera / Flach Zentrums Bohrer

W.S.

05050



Art. **05051** Self
Disponibile su richiesta
On demand

Ø min-max mm	d ⬡	pcs	cod.	€ cad/each
Ø 14,5 ÷ 45	10	1	0505001	23,609
Ø 22 ÷ 75	10	1	0505002	28,835

Ricambi / *Spare parts*



Ø 14,5 ÷ 45 (2pcs)	1	0505011	5,657
Ø 22 ÷ 75 (2pcs)	1	0505012	6,367

Confezione / *Packaging*



Applicazioni / *Applications*



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.
- *For drilling wood*
- *Pour percer les bois*
- *Para taladrar madera*
- Zum Bohren in Holz

FRESE TIPO FORSTNER A DUE TAGLIENTI CON PUNTA DA CENTRO ED INCISORI PER FORI NEL LEGNO

Wood center bits, Forstner type / Mèche à faconner
Broca Forstner / Forstnerbohrer

~ DIN 7483

05063



HRC ≅ 48÷50

Confezione / *Packaging*



Applicazioni / *Applications*



- Legno dolce e derivati
- *Mild wood*
- *Bois*
- *Madera*
- *Leichtholz*

Art. 05063

Ø mm	d	L	pcs	cod.	€ cad/each
10	8	90	1	050631000	7,218
12	8	90	1	050631200	7,218
14	8	90	1	050631400	9,232
15	8	90	1	050631500	9,232
16	8	90	1	050631600	10,221
17	8	90	1	050631700	10,419
18	8	90	1	050631800	10,419
20	8	90	1	050632000	11,408
22	8	90	1	050632200	12,061
24	8	90	1	050632400	12,596
25	8	90	1	050632500	12,957
26	8	90	1	050632600	13,411
28	8	90	1	050632800	17,636
30	8	90	1	050633000	19,720
32	10	90	1	050633200	21,339
34	10	90	1	050633400	22,141
35	10	90	1	050633500	22,141
36	10	90	1	050633600	23,794
38	10	90	1	050633800	26,310
40	10	100	1	050634000	27,764
45	10	100	1	050634500	31,781
50	10	100	1	050635000	36,087



5 pcs
Ø 15-20-25-30-35 mm
05100600 € 75,553

~ DIN 7483

05067



W.S.
HRC ≅ 55

Confezione / *Packaging*



Art. 05067

Ø mm	d	L	pcs	cod.	€ cad/each
15	8	90	1	050671500	18,789
18	8	90	1	050671800	19,033
20	8	90	1	050672000	20,628
22	8	90	1	050672200	21,013
24	8	90	1	050672400	21,223
25	8	90	1	050672500	21,223
26	8	90	1	050672600	21,223
28	8	90	1	050672800	21,408
30	8	90	1	050673000	21,408
35	10	90	1	050673500	21,956
40	10	90	1	050674000	24,342
45	10	90	1	050674500	26,566
48	10	90	1	050674800	26,566
50	10	90	1	050675000	30,955



5 pcs
Ø 15-20-25-30-35 mm
05100605 € 88,136

H.M. ~ DIN 7483

05065





Metallo duro
Carbide tip

Confezione / *Packaging*



Art. 05065 - Metallo duro - *carbide*

Ø mm	d	L	pcs	cod.	€ cad/each
15	8	90	1	050651500	31,793
20	8	90	1	050652000	34,098
25	8	90	1	050652500	36,355
26	8	90	1	050652600	38,648
30	8	90	1	050653000	40,895
35	10	90	1	050653500	43,178

Applicazioni / *Applications*



- Legno dolce e derivati
- *Mild wood*
- *Bois*
- *Madera*
- *Leichtholz*

FRESE PER CERNIERE INVISIBILI

Wood center bits / Mèche pour charnière invisible
Barrena para madera / Scharnier Lochbohrer

05058
05060





Art. 05058 - Acciaio W.S. - *WS Steel*

Ø mm	d	L	pcs	cod.	€ cad/each
26	8	55	1	050582600	8,591
30	8	55	1	050583000	9,825
35	10	60	1	050583500	11,047

Art. 05060 - Metallo duro H.M. - *Carbide edges*

Ø mm	d	L	pcs	cod.	€ cad/each
26	8	55	1	050602600	32,794
30	8	55	1	050603000	35,355
35	10	60	1	050603500	36,158

FRESE PER TASSELLI

Tenon dowel plug cutters / Fraises pour goujons
Fresas para cuñas / Scheibenschneider-zapfenfräser

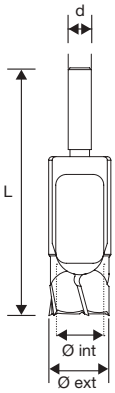
05077

DIN 7489 W.S.





Ø int mm	Ø ext mm	n. taglienti	d	L	pcs	cod.	€ cad/each
8	**17,5**	4	11	140	1	050770800	36,048
10	**20,5**	4	11	140	1	050771000	40,006
12	**23,5**	4	13	140	1	050771200	44,053
15	**26,5**	4	13	140	1	050771500	50,079
16	**28**	4	13	140	1	050771600	52,058
20	**32**	4	13	140	1	050772000	60,054
22	**34**	5	13	140	1	050772200	64,100
25	**37**	5	13	140	1	050772500	70,126
26	**38**	5	13	140	1	050772600	72,106
30	**42**	5	13	140	1	050773000	80,268
35	**47**	6	16	160	1	050773500	89,897
40	**52**	6	16	160	1	050774000	100,603



TRIVELLINO PROFESSIONALE PER LEGNO

Two flute gimlet / Vrille professionnel

05076



Ø mm	L	pcs	cod.	€ cad/each
2	110	1	050760200	3,086
3	115	1	050760300	3,189
4	135	1	050760400	3,655

Ø mm	L	pcs	cod.	€ cad/each
5	140	1	050760500	4,971
6	160	1	050760600	7,242
7	170	1	050760700	7,242

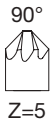
Professional

SVASATORE 90° PER LEGNO

90°Wood countersink / Fraise à ébavurer pour bois
Avellanadores para madera / Senker für Holz

05440







Art. **05442** Self
Disponibile su richiesta / *On demand*

Art. 05440 - *W.S.*

Ø mm	d	L	pcs	cod.	€ cad/each
8	8	50	1	05440500800	4,913
10	6	50	1	05440501000	5,367
12	8	50	1	05440501200	5,564
16	8	50	1	05440501600	6,124
20	8	50	1	05440502000	6,776

Applicazioni / *Applications*



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.

- *For drilling wood - Pour percer les bois*
- *Para taladrar madera - Zum Bohren in Holz*

FRESA A 90° PER LEGNO

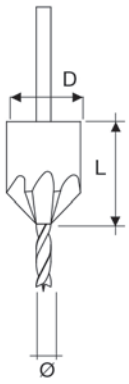
90° milling cutters / Fraise a 90° pour bois / Fresas de avellanar para madera / Aufstecksenker

05070
05072

05072 **05070**









Art. 05072

Ø mm	D	L	pcs	cod.	€ cad/each
3	16	25	1	050720300	10,347
4	16	25	1	050720400	10,347
5	16	25	1	050720500	10,450
6	16	25	1	050720600	10,653
7	16	25	1	050720700	10,897
8	20	25	1	050720800	12,228
10	20	25	1	050721000	12,796
12	20	25	1	050721200	14,148

Art. 05070

Ø mm	D	L	pcs	cod.	€ cad/each
3	16	25	1	050700300	10,002
4	16	25	1	050700400	10,002
5	16	25	1	050700500	10,002
6	16	25	1	050700600	10,002
7	16	25	1	050700700	10,002
8	20	25	1	050700800	10,002
9	20	25	1	050700900	10,002
10	20	25	1	050701000	10,002
11	20	25	1	050701100	10,002
12	20	25	1	050701200	10,002



4 pcs
Ø 4-5-6-8 mm
05010200 € 39,472

5 pcs
Ø 4-5-6-8-10 mm
05010205 € 45,455

PUNTA FRESA UNIVERSALE PER FORATURA O FRESATURA DI LEGNO SOTTILE

Universal milling drill for cutting and milling thin wooden materials

05432

CV



ØxL mm	pcs	cod.	€ cad/each
6 x 90	1	05432120	4,028

Applicazioni / *Applications*



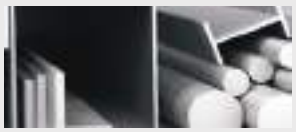
- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.

- *For drilling wood - Pour percer les bois*
- *Para taladrar madera - Zum Bohren in Holz*

UTENSILI PER MACCHINE AD OSCILLAZIONE

Tools for oscillating machines

Di seguito una breve guida alla scelta dell'utensile in funzione della tipologia di lavoro da effettuare
Below is a brief guide to the choice of tool depending on the type of work to be carried out

	Pavimento *Floor*	Costruzioni *Buildings*	Automotive	Superfici piastrellate *Tiled surfaces*
Rif. Bosch				
ASZ32SC	Materiali flessibili *Flexible materials*	Materiali isolanti *Insulating materials*		
ATZ52SC	Residui di moquette e colla *Residues of carpet and glue*			Malta per piastrelle *Tile mortar*
AVZ93G	Legno dolce, legno duro, parquet, vernici e pitture. *Softwood, hardwood, parquet, paints* Compensato, truciolato, laminato, pannelli rivestiti in plastica, materiali plastici teneri. *Plywood, chipboard, laminate, plastic coated panels, soft plastics*		Compositi *Composites* Profili in metalli non ferrosi, lamiere fino a 1 mm *Profiles in non-ferrous metals, sheets up to 1 mm*	
AIZ32BSPB	Legno duro, compensato, truciolato, parquet, laminato, pannelli rivestiti in plastica. *Hardwood, plywood, chipboard, parquet, laminate, plastic coated panels* Legno dolce, materiali plastici teneri *Soft wood, soft plastic materials*	Cartongesso, materiali stratificati *Drywall, laminated materials*	Compositi *Composites*	
AIZ32BSPC	Legno dolce. *Softwood* Legno duro, compensato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, parquet, plastic coated panels, soft plastics*			
AII65BSPC	Legno dolce. *Softwood* Legno duro, compensato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, parquet, plastic coated panels, soft plastics*			
AIZ32EPC	Legno dolce. *Softwood* Legno duro, compensato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, parquet, plastic coated panels, soft plastics*			
ACZ85EB	Legno dolce. *Softwood* Legno duro, compensato, truciolato, parquet, laminato, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, chipboard, parquet, laminate, plastic coated panels, soft plastics*	Materiali stratificati *Multilayer materials* Cartongesso, pannelli in fibra e cemento *Drywall, fiber and cement panels*	Profili in metallo non ferrosi, chiodi e viti non temprati *Non-ferrous metal profiles, nails and screws not hardened* Compositi, Lamiere fino a 1 mm *Composites, sheets up to 1 mm*	Materiale sigillante *Sealing material*
AIZ20AB	Legno duro, compensato, truciolato, laminato, pannelli rivestiti in plastica *Hardwood, plywood, chipboard, laminate, plastic coated panels* Parquet, materiali teneri *Parquet, soft materials*	Cartongesso *Drywall* Materiali stratificati, pannelli in fibra e cemento *Laminated materials, fiber and cement panels*	Profili in metalli non ferrosi, lamiere fino a 1 mm, chiodi e viti non temprati *Profiles in non-ferrous metals, sheets up to 1 mm, nails and screws not* hardened Compositi. *Composites*	
AIZ32APB	Legno duro, compensato, truciolato, laminato, pannelli rivestiti in plastica *Hardwood, plywood, chipboard, laminate, plastic coated panels* Parquet, materiali teneri *Parquet, soft materials*	Materiali stratificati *Multilayer materials* Cartongesso, pannelli in fibra e cemento *Drywall, fiber and cement panels*	Lamiere fino a 1 mm, chiodi e viti non temprati. *Plates up to 1 mm, nails and screws not hardened* Compositi, profili in metalli non ferrosi *Composites, profiles in non-ferrous metals*	
AII65APB	Legno dolce. *Softwood* Legno duro, compensato, truciolato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, chipboard, parquet, plastic-coated panels, soft plastics*			
AIZ32AB	Legno dolce, legno duro, compensato, truciolato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Softwood, hardwood, plywood, chipboard, parquet, plastic-coated panels, soft plastics*	Cartongesso. *Drywall* Materiali stratificati, pannelli in fibra e cemento *Laminated materials, fiber and cement panels*	Profili in metalli non ferrosi, lamiere fino a 1 mm, chiodi e viti non temprati *Profiles in non-ferrous metals, sheets up to 1 mm, nails and screws not* hardened Compositi. *Composites*	
AIZ20AT	Legno dolce, legno duro, compensato, truciolato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Softwood, hardwood, plywood, chipboard, parquet, plastic-coated panels, soft plastics*	Cartongesso, pannelli in fibra e cemento *Drywall, fiber and cement panels* Materiali stratificati *Mulitlayers*	Compositi, profili in metalli non ferrosi, lamiere fino a 1 mm, chiodi e viti temprati e non. *Composites, profiles in non-ferrous metals, sheets up to 1 mm, hardened and nails and screws*	Calcestruzzo poroso *Porous concrete*
ACZ85RT3		Pannelli in fibra e cemento *Fiber and cement panels* Cartongesso *Drywall*	Compositi *Composites*	Malta per fughe (2-3 mm), malta per piastrelle. *Mortar for joints (2-3 mm), grout for tiles* Piastrelle da parete tenere. *Wall tiles*
AVZ70RT4	Residui di moquette e colla *Residues of carpet and glue*	Pannelli in fibra e cemento *Fiber and cement panels* Cartongesso *Drywall*	Compositi *Composites*	Malta per fughe (2-3 mm), malta per piastrelle. *Mortar for joints (2-3 mm), grout for tiles* Piastrelle da parete tenere. *Wall tiles*
AVZ78RT2		Pannelli in legno *Wood panels*		Malta per fughe (2-3 mm), malta per piastrelle. *Mortar for joints (2-3 mm), grout for tiles* Piastrelle da parete tenere. *Wall tiles*

In nero le applicazioni ottimali, in blu le applicazioni adatte
The recommended applications in black, the basic applications in blue color.

High Quality professional

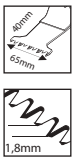
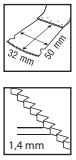
ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE

Accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions
Accesorios para herramientas oscilantes multifunción

23405

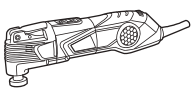
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LEGNO - *Wood*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23405100  € 25,049	AIZ32BSPB	Bimetal Curved TECH	 14 tpi	long LIFE clean CUT Precise	 Legno duro, multistrato, plastica *Hard wood, plywood, plastic. Bois franc, multicouche, plastique Madera dura, multicapa, plástico.*
23405105  € 19,354	AIZ32BSPC	HCS Curved TECH	 14 tpi	clean CUT Precise	 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Soft wood, plywood, plastic (eg center cut in massive wood for mounting an aeration grid). Bois résineux, contreplaqué, plastique (par exemple coupe en bois massif pour le montage d'une grille d'aération). Madera blanda, madera contrachapada, plástico (por ejemplo, corte central en madera maciza para montar una rejilla de aireación).*
23405110  € 24,142	AII65BSPC Flat Konvex	HCS Curved TECH	 14 tpi	clean CUT Precise	 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Soft wood, plywood, plastic (eg center cut in massive wood for mounting an aeration grid). Bois résineux, contreplaqué, plastique (par exemple coupe en bois massif pour le montage d'une grille d'aération). Madera blanda, madera contrachapada, plástico (por ejemplo, corte central en madera maciza para montar una rejilla de aireación).*
23405115  € 19,354	AIZ32EPC	HCS Curved TECH	 18 tpi	Precise	 Legno dolce, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Soft wood, plastic (eg center cut in massive wood for mounting an aeration grid). Bois résineux, plastique (par exemple coupe en bois massif pour le montage d'une grille d'aération). Madera blanda, plástico (por ejemplo, corte central en madera maciza para montar una rejilla de aireación).*

Confezione / *Packaging*





Per macchine multifunzione
To fit multipurpose machines
Starlock, Starlock Plus, Starlock Max, Milwaukee, Fein, Craftsman, Ridgid, Einhell, Westfalia, Chicago Electric, (®)... Dremel, Dewalt, B&D, Porter Cable, Rockwell, Worx, Multi2pro, Mastercraft (®) con adattatore/*with adapter*...

Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
ACZ85EB	23410100	**AIZ32BSPB**	23405100
ACZ85RT3	23415100	**AIZ32BSPC**	23405105
AII65APB	23410115	**AIZ32EPC**	23405115
AII65BSPC	23405110	**ASZ32SC**	23400100
AIZ20AB	23410105	**ATZ52SC**	23400105
AIZ20AT	23410125	**AVZ70RT4**	23415105
AIZ32AB	23410120	**AVZ78RT2**	23415115
AIZ32APB	23410110	**AVZ93G**	23400110

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23410

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LEGNO, METALLO, PLASTICHE - *Wood, metal, plastics*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23410100   € 32,966	ACZ85EB	BIM		long LIFE	   Parquet, multistrato s<20 mm, plastica epossidica. Tagli troncati e tagli dal centro, anche per tagli vicino ai bordi, negli angoli e in settori difficilmente accessibili (es. tagli di zoccolini già montati oppure telai delle porte). *Parquet, plywood s <20 mm, epoxy plastic. Truncated cuts and cuts from the center, also for cuts near the edges, in the corners and in sectors that are difficult to access (eg cuts of assembled skirting boards or door frames).*
23410105   € 14,717	AIZ20AB	Bimetal	  19 tpi	long LIFE	    Legno con chiodi, legno duro, cartongesso, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, hardwood, plasterboard, epoxy plastic, insulating sandwiches (eg door frame cuts, paneled cuts, non-ferrous pipe cuts and small profiles).*
23410110   € 25,049	AIZ32APB	Bimetal Curved TECH	  19 tpi	long LIFE Precise	   Legno con chiodi, legno duro, sandwich isolanti, alluminio, plastica epossidica (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, hardwood, insulating sandwich, aluminum, epoxy plastic (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles). Bois avec clous, bois dur, sandwich isolant, aluminium, plastique époxy (par ex. coupes de cadres de portes, découpes de panneaux revêtus, coupes de tuyaux en matériaux non ferreux et petits profilés). Madera con clavos, madera dura, sándwich aislante, aluminio, plástico epoxi (por ejemplo, cortes de marcos de puertas, cortes en paneles revestidos, cortes de tuberías en materiales no ferrosos y perfiles pequeños).*
23410115   € 30,696	AII65APB Flat	Bimetal Curved TECH	  14 tpi	long LIFE Precise	   Legno con chiodi, legno duro, sandwich isolanti, plastica epossidica (es. tagli di telai di porte, aperture per un ripiano). *Wood with nails, hardwood, insulating sandwiches, epoxy plastic (eg cuts of door frames, openings for a shelf). Bois avec clous, bois franc, sandwichs isolants, plastique époxy (par exemple coupes de cadres de portes, ouvertures pour une étagère). Madera con clavos, madera dura, sándwiches aislantes, plástico epoxi (por ejemplo, cortes de marcos de puertas, aberturas para un estante).*
23410120   € 22,277	AIZ32AB	BIM	  19 tpi	long LIFE	    Legno con chiodi, alluminio, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, aluminum, epoxy plastic, insulating sandwiches (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles). Bois avec clous, aluminium, plastique époxy, sandwichs isolants (par exemple coupes de cadres de portes, coupes de panneaux revêtus, coupes de tuyaux en matériaux non ferreux et petits profilés). Madera con clavos, aluminio, plástico epoxi, sándwiches aislantes (por ejemplo, cortes de marcos de puertas, cortes en paneles revestidos, cortes de tuberías en materiales no ferrosos y perfiles pequeños).*
23410125   € 33,706	AIZ20AT	TC/HM	  23 tpi	extra long LIFE	 Legno con chiodi, metallo con HRC 40÷50, acciaio inox, polimeri rinforzati con fibre. *Wood with nails, metal with HRC 40÷50, stainless steel, polymers reinforced with fibers. Bois avec clous, métal avec HRC 40÷50, acier inoxydable, polymères renforcés avec des fibres.* *Madera con clavos, metal con HRC 40÷50, acero inoxidable, polímeros reforzados con fibras.*

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23415

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MATERIALI ABRASIVI - *Abrasives*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23415100   € 46,610	ACZ85RT3	TC/HM	 	 	     Mattoni e cemento, piastrelle, plastica epossidica (es. rimuovere fughe tra piastrelle, tagliare cavità in piastrelle, pannelli di gesso o plastiche rinforzate). *Bricks and cement, tiles, epoxy plastics (eg removing joints between tiles, cutting tile cavities, gypsum boards or reinforced plastics). Briques et ciment, carreaux, plastiques époxydes (par ex. Enlever les joints entre les carreaux, découper les cavités des carreaux, les panneaux de gypse ou les plastiques renforcés). Ladrillos y cemento, baldosas, plásticos epoxídicos (por ejemplo, eliminación de juntas entre baldosas, corte de cavidades de baldosas, paneles de yeso o plásticos reforzados.*
23415105   € 65,447	AVZ70RT4	TC/HM	 	 	     Mattoni e cemento, piastrelle, plastica epossidica (es. rimozione di colla per piastrelle e malta per fughe, raspatura e levigatura di superfici dure). *Bricks and cement, tiles, epoxy plastic (eg tile glue and grout removal, buffing and sanding of hard surfaces). Briques et ciment, tuiles, plastique époxy (p. Ex. Enlèvement de la colle à carrelage et du coulis, polissage et ponçage des surfaces dures). Ladrillos y cemento, baldosas, plástico epoxi (por ejemplo, eliminación de pegamento y lechada, pulido y lijado de superficies duras).*
23415115   € 37,851	AVZ78RT2	TC/HM	 		    Malta, residui di calcestruzzo, legno, materiali abrasivi (es. rimozione di malta o colla per piastrelle, rimozione di residui di colla per moquette). *Mortar, residues of concrete, wood, abrasive materials (eg removal of mortar or tile adhesive, removal of residues of glue for carpet). Mortier, résidus de béton, bois, matériaux abrasifs (par ex. Enlèvement de mortier ou colle à carrelage, enlèvement de résidus de colle pour tapis). Mortero, residuos de hormigón, madera, materiales abrasivos (por ejemplo, eliminación de adhesivo de mortero o baldosas, eliminación de residuos de pegamento para alfombras).*

Kit per piastrelle
Tile set



23430100 € 82,732

4 pcs
Art. 23415100
Art. 23400105
Art. 23415115
Art. 23410105

Kit per pavimenti e installazioni
Flooring set



23430101 € 63,372

4 pcs
Art. 23410100
Art. 23400105
Art. 23405115
Art. 23405100

ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE

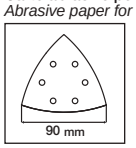
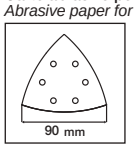
Accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions
Accesorios para herramientas oscilantes multifunción

23400

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MULTIMATERIALE - *Multitasking*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23400100   € 31,633	ASZ32SC	HCS Lama ***(Multi knife)***	 	long LIFE	  Moquette, tappeti, carta catramata, prato sintetico, cartone, tutti i materiali teneri e abrasivi flessibili. *Carpet, tar paper, synthetic grass, cardboard, all soft materials and flexible abrasives.* *Tapis, papier goudronné, gazon synthétique, carton, tous matériaux mous et abrasifs flexibles.* *Alfombras, papel alquitranado, hierba sintética, cartón, todos los materiales blandos y abrasivos flexibles.*
23400105   € 14,717	ATZ52SC	HCS Raschietto ***(Rigid scraper)***	 		    Moquette, malta, calcestruzzo, colla per piastrelle. *Carpet, mortar, concrete, tile adhesive.* *Tapis, mortier, béton, colle à carrelage.* *Alfombra, mortero, hormigón, adhesivo para azulejos.*
23400110   € 17,388	AVZ93G	Platorello per carte abrasive ***(Sanding Plate for delta sanding paper)***	 		   Levigatura di superfici piane sui bordi, negli angoli o in settori difficilmente accessibili (es. levigare legno, pittura, vernice, pietra, disossidare metalli, asportare vernici). *Sanding flat surfaces on edges, corners or in sectors that are difficult to access (eg sanding wood, painting, varnish, stone, deoxidising metals, removing varnishes).* *Ponçage des surfaces planes sur les bords, les coins ou dans des secteurs difficiles d'accès (par ex. Ponçage du bois, peinture, vernis, pierre, désoxydation des métaux, enlèvement des vernis).* *Lijado de superficies planas en bordes, esquinas o en sectores de difícil acceso (por ejemplo, lijado de madera, pintura, barniz, piedra, metales desoxidantes, eliminación de barnices).*

23529026	**20 pcs**	Carte abrasive per legno/vernici *Abrasive paper for wood/paint*	 	€ 6,615
23529027	**20 pcs**	Carte abrasive per legno/metallo *Abrasive paper for wood/metal*	 	€ 7,004

GUIDA ALL'USO DEGLI UTENSILI PER MACCHINE AD OSCILLAZIONE

Guide to the use of tools for oscillating machines / Guide d'utilisation des outils pour machines oscillantes
Guía de uso de herramientas para máquinas oscilantes



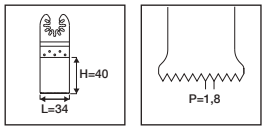
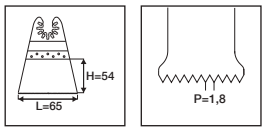
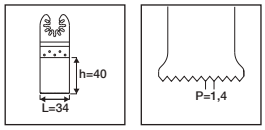
Si raccomanda l'uso delle lame per utensili multifunzione con una lieve pressione. La dentatura è appositamente studiata per fornire un'operazione di taglio senza sforzo e con ottima finitura. Nel caso si esercitasse una pressione eccessiva il prodotto potrebbe perdere prematuramente il filo tagliente oppure potrebbe surriscaldarsi eccessivamente, perdendo di conseguenza capacità tagliente.
The use of oscillating tools with light pressure is recommended. The tooth set is specially designed to provide a cutting operation effortlessly and with excellent finish. If excessive pressure is exerted, the product may prematurely lose the cutting edge or it may overheat excessively, thus losing its cutting capacity.

ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE UNIVERSAL QUICK CHANGE

Universal Quick Change accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions Universal Quick Change
Accesorios para herramientas oscilantes multifunción Universal Quick Change

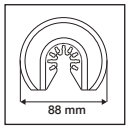
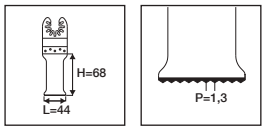
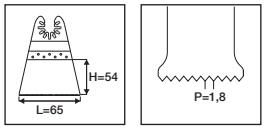
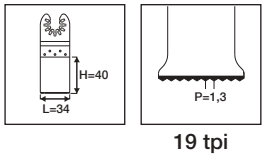
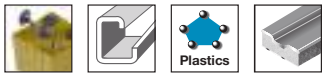
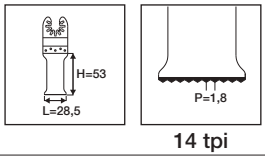
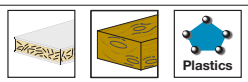
23505

LEGNO - *Wood*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23505105  € 7,090	≈AIZ32BSPC	HCS	 14 tpi	 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Softwood, plywood, plastic (eg center cut in massive wood for mounting an aeration grid).*
23505110  € 7,754	≈AII65BSPC	HCS	 14 tpi	 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Softwood, multilayer, plastic (eg center-cut in massive wood for mounting an aeration grid).*
23505115  € 5,613	≈AIZ32EPC	HCS	 18 tpi	 Legno dolce, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Softwood, plastic (eg cut from the center in massive wood to fit an aeration grid).*

23510

LEGNO, METALLO, PLASTICHE - *Wood, metal, plastics*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23510100  € 15,768	≈ACZ85EB	BIM		 Parquet, multistrato s<20 mm, plastica epossidica. Tagli troncati e tagli dal centro, anche per tagli vicino ai bordi, negli angoli e in settori difficilmente accessibili (es. tagli di zoccolini già montati oppure telai delle porte). *Parquet, multilayer s <20 mm, epoxy plastic. Truncated cuts and cuts from the center, also for cuts near the edges, in the corners and in sectors that are difficult to access (eg cuts of assembled skirting boards or door frames).*
23510105  € 10,421	≈AIZ20AB	BIM	 19 tpi	 Legno con chiodi, legno duro, cartongesso, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, hardwood, plasterboard, epoxy plastics, insulating sandwiches (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles).*
 € 7,349 23510115	≈AII65APB	HCS	 14 tpi	 Legno dolce, plastica. *Soft wood, plastics.*
23510120  € 9,490	≈AIZ32AB	BIM	 19 tpi	 Legno con chiodi, alluminio, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, aluminum, epoxy plastic, insulating sandwiches (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles).*
23510125  € 9,453	≈AIZ32BSPB	BIM	 14 tpi	 Legno duro, multistrato, plastica. *Hardwood, multilayer, plastic.*

Confezione / *Packaging*

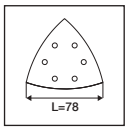
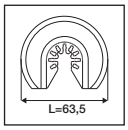


ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE UNIVERSAL QUICK CHANGE

Universal Quick Change accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions Universal Quick Change
Accesorios para herramientas oscilantes multifunción Universal Quick Change

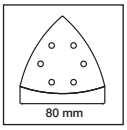
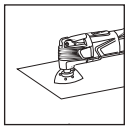
23515

MATERIALI ABRASIVI - *Abrasives*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23515100  € 11,492	≈ACZ85RT3	TC/HM	 	   Mattoni e cemento, piastrelle, plastica epossidica (es. rimuovere fughe tra piastrelle, tagliare cavità in piastrelle, pannelli di gesso o plastiche rinforzate). *Bricks and cement, tiles, epoxy plastics (eg to remove joints between tiles, cut tile cavities, gypsum boards or reinforced plastics).*
23515105  € 10,421	≈AVZ70RT4	TC/HM	 	   Mattoni e cemento, piastrelle, plastica epossidica (es. rimozione di colla per piastrelle e malta per fughe, raspatura e levigatura di superfici dure). *Bricks and cement, tiles, epoxy plastics (eg tile glue and grout removal, buffing and sanding of hard surfaces).*

23500

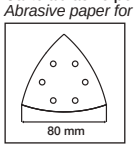
MULTIMATERIALE - *Multitasking*

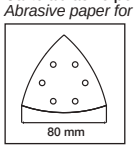
Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23500105  € 5,244	≈ATZ52SC	HCS Raschietto *(Rigid scraper)*		  Moquette, malta, calcestruzzo, colla per piastrelle. *Carpet, mortar, concrete, tile adhesive.*
23500110  € 6,020	≈AVZ93G	Platorello per carte abrasive (Sanding Plate for delta sanding paper)	  	Levigatura di superfici piane sui bordi, negli angoli o in settori difficilmente accessibili (es. levigare legno, pittura, vernice, pietra, disossidare metalli, asportare vernici). *Smoothing flat surfaces on edges, in corners or in sectors that are difficult to access (eg sanding wood, painting, varnish, stone, deoxidising metals, removing painting).*

23529

23529010  € 0,672
Adattatore per macchine Dremel®
Adapter to fit Dremel® machine

23529015  € 0,672
Adattatore per macchine Bosch® (non Starlock®)
Adapter to fit Bosch® (non Starlock®) machine

23529020 **20 pcs**  € 6,218
Carte abrasive per legno/vernici
Abrasive paper for wood/paint


23529025 **20 pcs**  € 6,773
Carte abrasive per legno/metallo
Abrasive paper for wood/metal




23530100 € 34,756

4 pcs

Art. 23505115
Art. 23500105
Art. 23510100
Art. 23500110



23530101 € 47,851

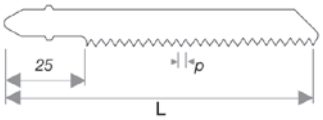
7 pcs

Art. 23510115
Art. 23505115
Art. 23510120
Art. 23500105 Inox
Art. 23515105
Art. 23510100 HCS
Art. 23500110

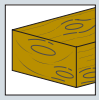
Professional

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® PER LEGNO

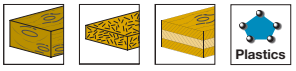
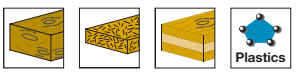
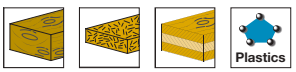
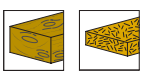
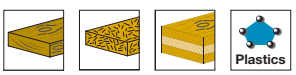
Jig saw blades BOSCH® type for wood and plywood / Lame de scies sauteuses modèle BOSCH® pour bois et dérivés
Hojas de sierra de calar tipo BOSCH® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit BOSCH®
Verbindungsstück für Holz und Nebenprodukten



Legno dolce
Mild wood

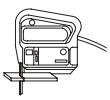


23600

Cod. € 3 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23600100 € 3,485	≃ T119B	**Basic**	76x2 *3x12*	Fresata *Milled*		<15 <15 <15
						
23600105 € 3,485	≃ T119BO	**Basic**	76x2 *3x12*	Fresata *Milled*		<15 <15 <15
						
23600110 € 2,696	≃ T111C	**Basic**	100x3 *4x8*	Fresata *Milled*		<50 <50 <50 <5 Ø<30
						
23600130 € 4,867	≃ T144D	**Fast**	100x4 *4x6*	Rettificata *Ground*		<50 <50 <50 <5 Ø<50
						
23600135 € 5,261	≃ T244D	**Fast**	100x4 *4x6*	Rettificata *Ground*		<50 <50 <50 <5 Ø<50
						
23600140 € 6,445	≃ T344D	**Fast**	132x4 *5x6*	Rettificata *Ground*		<100 <100
						
23600150 € 4,998	≃ T101AO	**Plus**	76x1,4 *3x18*	Rettificata *Ground*		<15 <15 <15
						
23600155 € 5,984	≃ T101B	**Plus**	100x2,5 *4x10*	Rettificata *Ground*		<30 <30 <30 <5 Ø<30
						
23600160 € 10,127	≃ T101BR	**Reverse**	100x2,5 *4x10*	Rettificata *Ground*		<30 <30 <30 <30 <5 Ø<30

Confezione / *Packaging*





AEG, ATLAS COPCO, BOSCH, DE WALT, ELU, FESTOOL, HITACHI, MAKITA, METABO, HILTI, MAFELL, MILWAUKEE, RYOBI, SKIL,...(®)

Esempio di interpretazione della colonna "Impieghi (mm)":
How to read the "Application (mm)" column:

<50

Idoneo al taglio di legno stratificato dello spessore massimo di 50 mm
Suitable for cutting stratified wood – max thickness 50 mm

<5
Ø<50

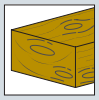
Idoneo al taglio di plastica in lastre con spessori fino a 5 mm e profili con dimensione massima 50 mm
Suitable for cutting plastics sheet (max thickness 5 mm) and plastics pipes / structural (max dimension 50 mm)

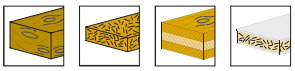
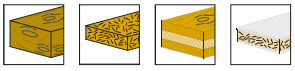
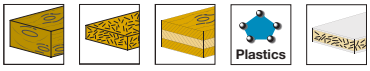
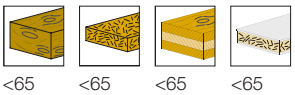
LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® PER LEGNO

Jig saw blades BOSCH® type for wood and plywood / Lame de scies sauteuses modèle BOSCH® pour bois et dérivés
Hojas de sierra de calar tipo BOSCH® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit BOSCH®
Verbindungsstück für Holz und Nebenprodukten

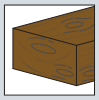
23600

Legno dolce
Mild wood

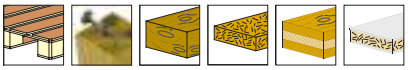
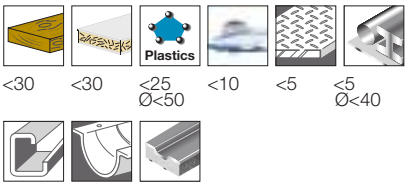
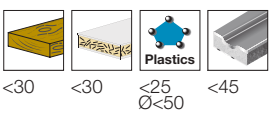
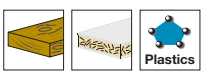
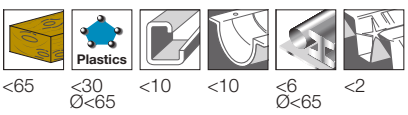


Cod. € 3 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23600170 € 7,977	≃ T308B	**Pro**	116x2,2 *4½x11*	HCS Rettificata *Ground*		 <65 <65 <65 <65
						
23600175 € 7,977	≃ T308B0	**Pro**	116x2,2 *4½x11*	HCS Rettificata *Ground*		 <65 <65 <65 <65
						
23600180 € 3,156	≃ T144DP	**Ultra**	100x4 *4x6*	HCS Rettificata *Ground*		 <50 <50 <50 <5 Ø<30 <50
						
23600190 € 7,977	≃ T234X	**Variable**	116x2÷3 *4½x8÷12*	HCS Rettificata *Ground*		 <65 <65 <65 <65

Legno duro
Hard wood



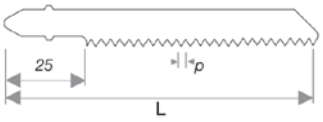
23610

Cod. € 3 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23610105 € 14,579	≃ T344DF	**Fast**	116x2,2 *6x6*	BM HSS Rettificata *Ground*		 <65 <100 <100 <100 <65
						
23610120 € 9,206	≃ T101BF	**Plus**	116x2,2 *4x10*	BM HSS Rettificata *Ground*		 <30 <30 <25 Ø<50 <10 <5 <5 Ø<40 <10 Ø<50 <10 Ø<50 <45
						
23610125 € 9,206	≃ T101BRF	**Reverse**	100x4 *4x10*	BM HSS Rettificata *Ground*		 <30 <30 <25 Ø<50 <45
						
23610140 € 8,299	≃ T101BIF	**Laminate**	116x2÷3 *3x15*	BM HSS Rettificata *Ground*		 <15 <15 <15
						
23610150 € 10,917	≃ T345XF	**Variable**	116x2÷3 *5x5÷10*	BM HSS Fresata *Milled*		 <65 <30 Ø<65 <10 <10 <6 Ø<65 <2

Professional

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® PER METALLI

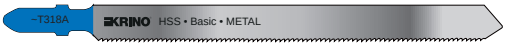
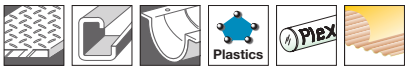
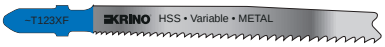
Jig saw blades BOSCH® type for metals /Lame de scies sauteuses modèle BOSCH® pour métaux
Hojas de sierra de calar tipo BOSCH® para metales / Sägeblatt für abwechselnden Metallsägen mit BOSCH®
Verbindungsstück für Metalls



Metalli
Metals



23620

Cod. € 3 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23620100	≃ T118G	**Basic**	76x0,8 *3x32*			<1,5 <1,5 <1,5
€ 4,734						
						
23620110	≃ T218A	**Basic**	76x1,2 *3x21*			<3 <3 <3
€ 4,669						
						
23620115	≃ T318A	**Basic**	132x1,2 *5x21*			<65 <3 <3 Ø<65 <3 Ø<65 <3 Ø<65 Plastics <10 Ø<65
€ 8,088						
						
23620125	≃ T318B	**Basic**	132x2 *5x12*			<6 Ø<65 <6 <6 Ø<65 <10 Ø<50 Plastics <25 Ø<65 <10
€ 8,286						
						
23620130	≃ T318AF	**Multi**	132x1,2 *5x21*			<65 <6 <6 Ø<65 <6 Ø<65 <6 Ø<65 Plex <6
€ 8,312						
						
23620150	≃ T118BF	**Multi**	76x2 *5x12*			<6 <6 <6 <6 Plastics <6 Plex <6
€ 4,734						
						
23620155	≃ T318BF	**Multi**	132x2 *5x12*			<65 <6 <6 Ø<65 <6 Ø<65 <6 Ø<65 Plastics <15 Ø<65 Plex <10
€ 8,312						
						
23620170	≃ T123XF	**Variable**	100x1,2÷2,6 *4x10÷21*			<10 <10 <10 <10 <10
€ 6,248						
						
23620175	≃ T118GFS	**Inox**	82x0,8 *3x32*			<1,5
€ 7,445						
						
23620180	≃ T127D	**Alu**	100x3 *4x8*			<15 <15 <15 <15 Ø<30
€ 6,544						
23620185	≃ T227D	**Alu**	100x3 *4x8*			<15 <15 <15 <15 Ø<30
€ 4,998						

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® **PER APPLICAZIONI SPECIALI**

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

23630

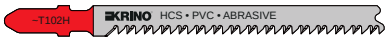
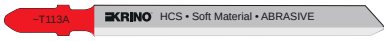
Cod. € 3 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23630090 € 4,117	≃ T102H	**PVC**	100x2,3 *4x11*	HCS  Rettificata *Ground* 		 <15 Ø<30
						
23630100 € 7,233	≃ T101A	**PC**	76x1,4 *3x18*	HSS  Rettificata *Ground* 		 <15  <15  <15
						
23630130 € 33,249	≃ T341HM	**Hard plastics**	132x4 *5x6*	 Con inserti in MD *Carbide tip*	 	 <50  <80  <20
						
23630150 € 10,917	≃ T150RIFF	**Grit 50**	76 grana 50 *3*	 Con grani in MD *Carbide grit*		 <10  <10  <10  <4
						
23630160 € 4,295	≃ T113A	**Soft**	100 *4*	HCS  Rettificata *Ground*		 <50  <10

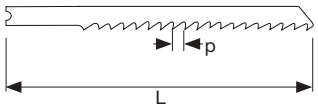
Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
≈T101A	23630100	**≈T144D**	23600130
≈T101AO	23600150	**≈T144DP**	23600180
≈T101B	23600155	**≈T150RIFF**	23630150
≈T101BF	23610120	**≈T218A**	23620110
≈T101BIF	23610140	**≈T227D**	23620185
≈T101BR	23600160	**≈T234X**	23600190
≈T101BRF	23610125	**≈T244D**	23600135
≈T102H	23630090	**≈T308B**	23600170
≈T111C	23600110	**≈T308BO**	23600175
≈T113A	23630160	**≈T318A**	23620115
≈T118BF	23620150	**≈T318AF**	23620130
≈T118G	23620100	**≈T318B**	23620125
≈T118GFS	23620175	**≈T318BF**	23620155
≈T119B	23600100	**≈T341HM**	23630130
≈T119BO	23600105	**≈T344D**	23600140
≈T123XF	23620170	**≈T344DF**	23610105
≈T127D	23620180	**≈T345XF**	23610150

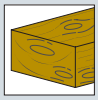
Professional

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BLACK&DECKER® PER LEGNO

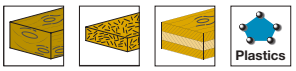
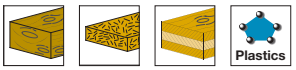
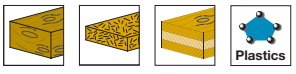
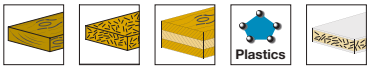
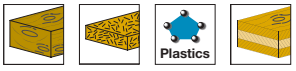
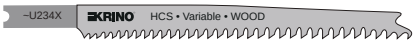
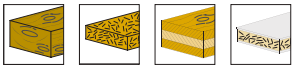
Jig saw blades BOSCH® type for wood and plywood / Lame de scies sauteuses modèle BOSCH® pour bois et dérivés
Hojas de sierra de calar tipo BOSCH® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit BOSCH®
Verbindungsstück für Holz und Nebenprodukten



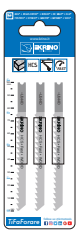
Legno dolce
Mild wood

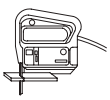


23700

Cod. € 3 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23700100 € 2,696	≃ U111C	**Basic**	100x3 *4x8*	HCS Fresata *Milled*		<50 <50 <50 <5 Ø<30
						
23700105 € 2,703	≃ U111D	**Basic**	100x4 *4x6*	HCS Fresata *Milled*		<65 <65 <65 <5 Ø<50
						
23700110 € 3,275	≃ U144D	**Fast**	100x4 *4x6*	HCS Rettificata *Ground*		<50 <50 <50 <5 Ø<30
						
23700115 € 5,307	≃ U1AO	**Plus**	76x1,4 *3x18*	HCS Rettificata *Ground*		<15 <15 <15 <15
						
23700120 € 5,721	≃ U101B	**Plus**	100x2,5 *4x10*	HCS Rettificata *Ground*		<30 <30 <30 <3 Ø<30 <30
						
23700125 € 5,721	≃ U101D	**Plus**	100x4 *4x6*	HCS Rettificata *Ground*		<45 <45 <5 <45
						
23700130 € 8,614	≃ U234X	**Variable**	106x2÷3 *4x8÷12*	HCS Rettificata *Ground*		<65 <65 <65 <65

Confezione / *Packaging*





BLACK&DECKER, KRESS, RYOBI, SKIL,...(®)

Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
≈U101B	23700120	**≈U118B**	23710105
≈U101D	23700125	**≈U127D**	23710115
≈U111C	23700100	**≈U144D**	23700110
≈U111D	23700105	**≈U1AO**	23700115
≈U118A	23710100	**≈U234X**	23700130

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BLACK&DECKER® PER METALLO

Jig saw blades BLACK & DECKER® type for metals /Lame de scies sauteuses modèle BLACK & DECKER® pour métaux
Hojas de sierra de calar tipo BLACK & DECKER® para metales / Sägeblatt für abwechselnden Metallsägen mit BLACK & DECKER® Verbindungsstück für Metalls



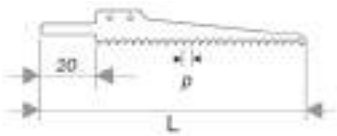
Metalli
Metals

23710

Cod. € 3 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23710100 € 5,195	≃ U118A	**Basic**	76x1,2 *3x21*	HSS Fresata *Milled*		 <3 <3 <3
						
23710105 € 5,195	≃ U118B	**Basic**	76x2 *3x12*	HSS Fresata *Milled*		 <6 <6 <6
						
23710115 € 6,576	≃ U127D	**Alu**	100x3 *4x8*	HSS Fresata *Milled*		 <15 <15 <15 <15 <30 <30

SEGHETTI BIMETAL CON ATTACCO SPECIALE SIG PER MACCHINE PNEUMATICHE ED ELETTRICHE, SPECIALI PER CARROZZERIA

Compressed-air saw blades / Lame de scies a air comprimé
Hojas de sierra de calar para maquinas pneumaticas/ Druckluftsägeblatter





Metalli
Metals

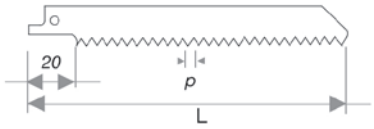
23720

Cod. € 5 pcs	Simile a *Similar to*	L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
					
23720100 € 10,462	≃ SIG1150	95x1,8 *3¾x14*	BIM HSS Fresata *Milled*		
					
23720105 € 10,462	≃ SIG1152	95x1 *3¾x25*	BIM HSS Fresata *Milled*		
					
23720110 € 10,462	≃ SIG1153	95x0,7 *3¾x36*	BIM HSS Fresata *Milled*		

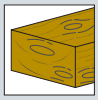
Professional

LAME PER SEGHETTI A GATTUCCIO CON ATTACCO UNIVERSALE SABRE® PER LEGNO

Reciprocating blades SABRE® universal type for wood and plywood / Lame de scies sauteuses modèle universelle SABRE® pour bois et dérivés
Hojas de sierra de calar tipo universale SABRE® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit SABRE
Universalverbindungsstück für Holz und Nebenprodukten



Legno dolce
Mild wood



23800

Cod. € 2 pcs	Simile a *Similar to*	L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
					
23800100 € 12,021	≃ S1617K	300x8,5 *12x3*	HCS Fresata *Milled*		<250 <250
					
23800105 € 13,041	≃ S2345X	200x2,5÷4,3 *8x6÷10*	HCS Rettificata *Ground*		<150 <60 <150 Plastics
					
23800110 € 7,713	≃ S644D	150x4,3 *6x6*	HCS Rettificata *Ground*		<100 <60 <100 Plastics
					
23800115 € 10,292	≃ S1531L	240x5 *10x5*	HCS Fresata *Milled*		<190 <190

Confezione / *Packaging*



Codolo universale 1/2"
Universal shank 1/2"

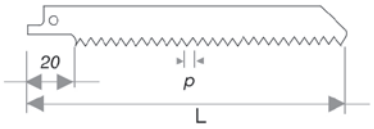
AEG, ATLAS COPCO, BOSCH, DE WALT, ELU, FESTOOL, HITACHI, MAKITA, METABO, FEIN, FLEX, HILTI, MILWAUKEE, PORTER CABLE, RIDGID, ROTHEN BERGER, RYOBI SKIL,...(®)

Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
≈S1120CF	23810170	**≈S2243HM**	23820130
≈S1122BF	23810110	**≈S2345X**	23800105
≈S1122HF	23815100	**≈S511DF**	23815150
≈S1122VFR	23815130	**≈S522BF**	23810190
≈S1126CHF	23810150	**≈S528DF**	23820160
≈S1136BEF	23810180	**≈S628DF**	23820100
≈S123XF	23810120	**≈S644D**	23800110
≈S1411DF	23815115	**≈S711DF**	23815110
≈S1531L	23800115	**≈S922EF**	23810100
≈S1617K	23800100	**≈S925VF**	23810160
≈S2041HM	23820120	**≈S936BEF**	23810175

LAME PER SEGHETTI A GATTUCCIO CON ATTACCO UNIVERSALE SABRE® PER METALLO

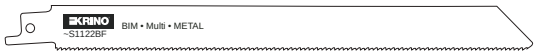
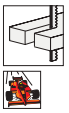
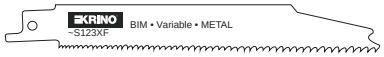
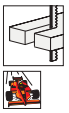
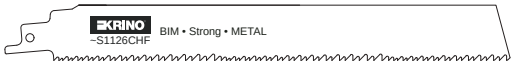
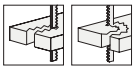
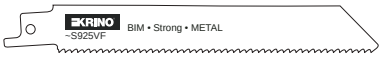
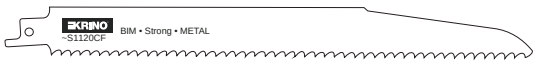
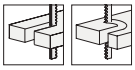
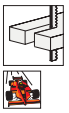
Reciprocating blades SABRE® universal type for metals / Lame de scies sauteuses modèle universelle SABRE® pour métaux
Hojas de sierra de calar tipo universale SABRE® para metales / Sägeblatt für abwechselnden Metallsägen mit SABRE®
Universalverbindungsstück für Metalls



23810

Metalli
Metals

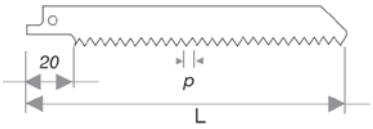


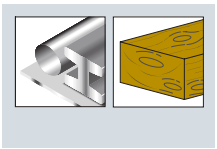
Cod. € 2 pcs	Simile a *Similar to*	L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
 **23810100** € 8,325	≃ S922EF	150x1,4 *6x18*	BIM HSS  Fresata *Milled*		 <4 <4 Ø<100 Ø<100
 **23810110** € 10,996	≃ S1122BF	230x1,8 *9x14*	BIM HSS  Fresata *Milled*		 <8 <8 Ø<175 Ø<175
 **23810120** € 8,286	≃ S123XF	150x1,8÷3,2 *6x8÷14*	BIM HSS  Fresata *Milled*		 <8 <8 Ø<100 Ø<100
 **23810150** € 15,736	≃ S1126CHF	230x2,5÷3,2 *9x8÷10*	BIM HSS  Fresata *Milled*		 <12 <12 Ø<250 Ø<250
 **23810160** € 10,266	≃ S925VF **Extreme**	150x1,8÷2,6 *6x10÷14*	BIM HSS  Fresata *Milled*		 <10 <10 Ø<150 Ø<150
 **23810170** € 18,913	≃ S1120CF **Extreme**	230x2,5÷3,2 *9x8÷10*	BIM HSS  Fresata *Milled*		 <12 <12 Ø<175 Ø<175
 **23810175** € 9,483	≃ S936BEF	150x1,4÷1,8 *6x14÷18*	BIM HSS  Fresata *Milled*		 <8 <8 Ø<100 Ø<100
 **23810180** € 13,054	≃ S1136BEF	230x1,4÷1,8 *9x14÷18*	BIM HSS  Fresata *Milled*		 <8 <8 Ø<175 Ø<175
 **23810190** € 15,415	≃ S522BF **Ideale con macchine compatte cordless** *Suitable for compact cordless machines*	100x1,8 *4x14*	BIM HSS  Fresata *Milled*		 <8

Professional

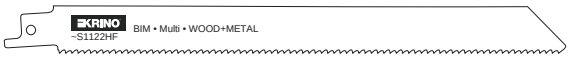
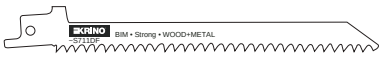
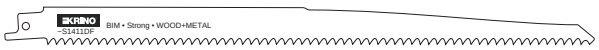
LAME PER SEGHETTI A GATTUCCIO CON ATTACCO UNIVERSALE SABRE® PER LEGNO E METALLO

Reciprocating blades SABRE® universal type for wood and metals / Lame de scies sauteuses modèle universelle SABRE® pour bois et metaux
Hojas de sierra de calar tipo universale SABRE® para madera y metales / Sägeblatt für abwechselnden Metallsägen mit SABRE®
Universalverbindungsstück für Holz und Metalls



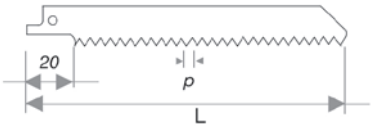


23815

Cod. € 2 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23815100 € 11,022	≃ S1122HF		230x2,5 *9x10*	BIM HSS Fresata *Milled*		<175 <175 <12 <12 <12
						
23815110 € 8,450	≃ S711DF		150x4,3 *6x6*	BIM HSS Fresata *Milled*		<100 <100 <8 <8 <8 <8 <50 <100 <100 <100
						
23815115 € 17,578	≃ S1411DF		300x4,3 *12x6*	BIM HSS Fresata *Milled*		<250 <250 <60 <60 <250 <250 <250
						
23815130 € 11,159	≃ S1122VFR	**No vibrations**	230x1,8÷2,6 *9x10÷14*	BIM HSS Fresata *Milled*		<175 <175
						
23815150 € 15,415	≃ S511DF	**Ideale con macchine compatte cordless** *Suitable for compact cordless machines*	100x4,3 *4x6*	BIM HSS Fresata *Milled*		<50 <50 <50 <50 <50

LAME PER SEGHETTI A GATTUCCIO CON ATTACCO UNIVERSALE SABRE® **PER APPLICAZIONI SPECIALI**

Reciprocating blades SABRE® universal type for abrasive materials / Lame de scies sauteuses modèle universelle SABRE® pour matériaux abrasif
Hojas de sierra de calar tipo universale SABRE® para materiales abrasivos / Sägeblatt für abwechselnden Metallsägen mit SABRE® Universalverbindungsstück für abrasiven Materialien



23820

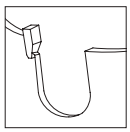
Cod. € 2 pcs	Simile a *Similar to*		L x p (mm) *(inches x tpi)*	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Applications* mm
						
23820100	≃ S628DF		150x4,3 *6x6*	BIM HSS Fresata *Milled*		<100
€ 10,436						
						  
23820120	≃ S2041HM		Carbide 400x8,5 *16x3*	Con inserti in MD *Carbide tip*		<350 <350 <150
€ 36,827 **(1 pc)**						
						
23820125	≃ S1543HM		Carbide 240x12,7 *10x2*	Con inserti in MD *Carbide tip*		<150
€ 65,668						
						
23820130	≃ S2243HM	**Extreme**	Carbide 455x12,7 *18x2*	Con inserti in MD *Carbide tip*		<365
€ 58,074 **(1 pc)**						
				BIM HSS		
23820160	≃ S528DF	**Ideale con macchine compatte cordless** *Suitable for compact cordless machines*	100x4,3 *4x6*	Fresata *Milled*		<50
€ 15,415						

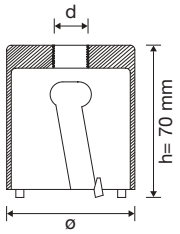
FRESE A TAZZA CON DENTI IN METALLO DURO PER LEGNO, TRUCIOLATI, AGGLOMERATI, ETC.

Carbide tipped hole saws for wood / Scies cloches avec dents en metal dur pour le bois
Corona con diente de metal duro para madera / Hartmetallochsägen für Holz

05078







Inserti in metallo duro
Carbide tips

Art. **05081** Self
Disponibile su richiesta / *On demand*

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	z	cod.	€ cad/each
19	3/4"	**UNF** 1/2 x 20	1	0507801900	11,874
22	7/8"		1	0507802200	12,370
25	1"		1	0507802500	13,061
29	1.1/8"		1	0507802900	13,854
32	1.1/4"	**UNF** 5/8 x 18	2	0507803200	15,032
35	1.3/8"		2	0507803500	16,446
38	1.1/2"		2	0507803800	17,782
41	1.5/8"		2	0507804100	19,196
44	1.3/4"		2	0507804400	20,621
48	1.7/8"		3	0507804800	22,541
51	2"		3	0507805100	23,877
54	2.1/8"		3	0507805400	25,291
57	2.1/4"		3	0507805700	26,717
60	2.3/8"		3	0507806000	28,141
64	2.1/2"		3	0507806400	29,972
67	2.5/8"		3	0507806700	31,387
68	2.23/32"		3	0507806800	33,634
70	2.3/4"		3	0507807000	33,634
73	2.7/8"		4	0507807300	35,058
76	3"		4	0507807600	36,562
79	3.1/8"		4	0507807900	37,988
83	3.1/4"		4	0507808300	39,897
89	3.1/2"		4	0507808900	42,747
95	3.3/4"		4	0507809500	45,666
102	4"		5	0507810200	53,928
114	4.1/2"		5	0507811400	60,281
127	5"		5	0507812700	67,197
140	5.1/2"		5	0507814000	74,054
152	6"		5	0507815200	80,387



Confezione / *Packaging*



Per frese - *Fit hole saws*	ø	d mm	cod.	€
	**Ø 19 ÷ 29**	HEX 8,5	210705580	11,909
	**Ø 32 ÷ 152**	HEX 8,5	210705581	20,838
		6,35x100	21070204	4,691



400x650x320

Cod.
05079504
Ø 19÷102 mm 32 pcs
Ø 19-22-25-29-32
35-38-41-44-48-51
57-60-70-83-102 (2x)

14÷29 **4 pcs** 5580
32÷152 **6 pcs** 5581

5 pcs 21070204

€ 1.070,252



Cod.
05079300
Ø 19÷64 mm 9 pcs
Ø 19-22-29-35
38-44-51-57-64

5580 - 5581

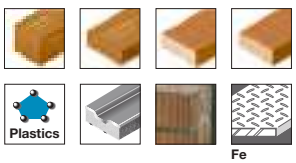
€ 241,754

Cod.
05079301
Ø 19÷64 mm 9 pcs
Ø 19-22-29-35
38-44-51-57-64

5580 - 5581

€ 163,688

Applicazioni
Applications



- Per forare con grande rendimento legno duro e dolce, stratificati, truciolati, agglomerati, laminati, materiali sandwich. Taglia anche plastica dura, mattoni forati e porosi, lamiera sottile dolce. max profondità di foratura 50 mm.
- *High performance on drilling into tough and soft wood, plywood, chipboards, agglomerates, laminated, porous bricks and thin metal sheet. Maximum cutting depth 50mm.*
- *Grande performance pour percer bois doux et bois dures, bois stratifiés, copeaux, agglomérés, laminés, briques et dans la tôle légère. Profondeur de coupe 50 mm.*
- *Grande rendimiento para cortar madera dura y douce, estratificados, aglomerados, laminados, ladrillos furados y chapa douce y delgada. Profondidad de corte 50 mm.*

High Quality professional

FRESE A TAZZA MULTIUSO PROFESSIONALI, CON TAGLIENTI CON PLACCHETTE IN METALLO DURO

Carbide tipped professional multi-purpose hole saws / Scies trépan universel, qualité professionnelle
Coronas de metal duro professionales multiuso / Profi Mehrzweck-Lochsäge

Universale - *Multipurpose*

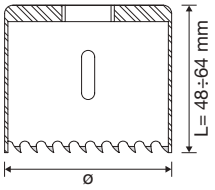


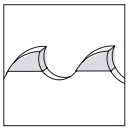


Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	cod.	€ cad/each
19	3/4	**UNF** 1/2 x 20	2110001900	20,475
22	7/8		2110002200	23,205
25	1"		2110002500	23,205
29	1-1/8		2110002900	24,150
32	1-1/4	**UNF** 5/8 x 18	2110003200	26,135
35	1-3/8		2110003500	26,135
38	1-1/2		2110003800	28,004
44	1-3/4		2110004400	29,400
51	2"		2110005100	31,731
57	2-1/4		2110005700	38,262
64	2-1/2		2110006400	40,131
68	2-23/32		2110006800	42,000
76	3"		2110007600	43,869
89	3-1/2		2110008900	52,500
108	4-1/4		2110010800	68,250

21100







Inserti in metallo duro
Carbide tips

Art. **21101** Self
Disponibile su richiesta / *On demand*

Per frese - *Fit hole saws*	ø	d mm	cod.	€
	**Ø 19 ÷ 29**	HEX 8,5	210707519	14,854
	**Ø 32 ÷ 108**	HEX 8,5	210707546	26,437
		6,35x90	21070202	4,691

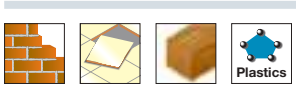


Confezione / *Packaging*



Cod.	Cod.
21109300 **Ø 19÷64 mm 9 pcs** Ø 19-22-29-35 38-44-51-57-64	**21109301** **Ø 19÷57 mm 6 pcs** Ø 19-22-29-38 44-57
7519 - 7546	5519 - 5546
	2 pcs Ø 7X100
€ 360,880	€ 267,749

- Taglio professionale nel legno, plastica, fibre di vetro, ceramica, piastrelle, materiali edili leggeri, acciaio inox. Max profondità di foratura: 40 mm.
- Multi purpose hole saws for wood, plastics, tiles, light construction materials, stainless steel. Maximum cutting depth: 40 mm.
- Scies trépans professionnels universels pour ceramiques, briques, plastiques, bois, acier inox. Profondeur de coupe: 40 mm.
- Coronas universales para cortar ceramica, suelos, plastica, madera, acero inox. Profondidad de corte: 40 mm.
- Nur drehend Einsatz für Massivholz, Spanplatten, Kunststoffe, Fliesen, Gasbeton, Acrylglass, V2A-V4A Stahl. Maximale Bohrtiefe: 40 mm.



Applicazioni
Applications

SEGHE A TAZZA PER LEGNO CON LAME INTERCAMBIABILI IN ACCIAIO W.S.

Tool steel hole-saw kit for wood / Scies trépans pour bois en acier outil
Coronas perforadoras para madera / W.S. Lochsägen für Holz

05080

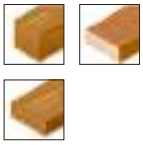


Composizione *Sizes*	H mm	pcs	cod.	€ cad/each
7 pcs Ø 26-32-38-45-50-56-63	25	1	05080100	8,781
7 pcs Ø 26-32-38-45-50-56-63	50	1	05080101	10,541
5 pcs Ø 60-67-74-81-95	40	1	05080102	27,869

Confezione *Packaging*



Applicazioni *Applications*



- Foratura nel legno, nei suoi derivati e nel cartongesso.
- *For drilling wood*
- *Pour percer les bois*
- *Para taladrar madera*
- *Zum Bohren in Holz*

KIT PER LEGNO E CARTONGESSO

Tool steel hole-saw kit for wood / Scies trépans pour bois en acier outil / Coronas perforadoras para madera / W.S. Lochsägen für Holz



Ø 40÷200 mm

05079600 € 150,869

n.1 sega regolabile a compasso con punta a centrare, due incisori e attacco hex per uso su trapani con mandrino a cremagliera
adjustable compass saw with centering tip, two engravers and hex attachment to fit drill chuck with key
velocità massima consigliata di utilizzo 300 giri/min
recommended max speed 300 rpm

ø 4-5-6-8-10 mm

ø 4-5-6-8-10 mm

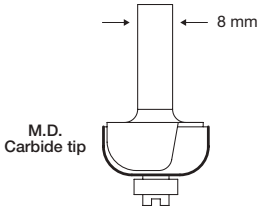
n.1 campana protettiva antipolvere trasparente ø 280 mm
transparent dustproof protective bell ø 280 mm
n.1 matita / *pencil*
n.1 flessometro / *measuring tape*

FRESE IN METALLO DURO PER LEGNO

Carbide router bits / Fraise carbure pour bois / Fresas de metal duro para madera / Hartmetall Profilfräser

In esaurimento / *To be discontinued*





4 pcs

05450210 € 19,144

Applicazioni / *Applications*



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso
- *For drilling wood - Pour percer les bois*
- *Para taladrar madera - Zum Bohren in Holz*

FRESE A PROFILO IN ACCIAIO DA UTENSILE PER TRAPANI E FRESATRICI

Tool bits for power drills / Fraise pour bois
Fresas para madera / Profilfräser für Holz

WS

05400

		cod.	d	ø mm	pcs	€ cad/each
	Fresa a mortasare *Straight bit*	05400100	8	6	1	8,836
	**Sega circolare** *Slotting saw*	05400170	8	50	1	10,233
	**Frese per incastri** *Tongue cutter*	05400110	8	30	1	11,071
	**Fresa conica 45°** *45° Chamfering bit*	05400180	8	35	1	10,827
	**Fresa cilindrica per spianare e levigare** *Cylindrical cutter*	05400120	8	25	1	11,071
	**Frese a raggio convesso** *Round cutter*	05400190	8	35	1	10,827
	**Fresa per profili tondi** *Rounding off cutter*	05400130	8	25	1	11,071
	**Frese a raggio concavo** *Round cutter*	05400200	8	35	1	10,827
	**Fresa per scanalature** *Flute cutter*	05400140	8	35	1	11,071
	**Frese a raggio convesso esterno** *Beading cutter*	05400210	8	35	1	11,408
	**Frese per intagli** *Slotting cutter*	05400150 05400160	8	35 S.2,5 35 S.1,5	1	6,519 6,519
	**Frese a raggio concavo interno** *Beading cut*	05400220	8	35	1	11,408

- Profilatura nel legno dolce e duro su trapani montati su supporto o su fresatrici.
- *Tool steel end mills for use in power drills with drill stand or with milling machines, for soft and medium hard wood.*
- *Utilisation avec perceuse à table et fraiseuse.*
- *Utilizo por taladros y fresadoras.*
- *Amwendung in stationär Bohrmaschinen und Fräsmaschinen.*

05430
05432

		cod.	d	ø mm	pcs	€ cad/each
	**Raspa cilindrica** *Cylindrical rasp*	05430100	6	15	1	4,971
	**Raspa cilindrica a testa semisferica** *Cylindrical rasp*	05430110	6	13	1	5,192
	**Raspa conica** *Conical rasp*	05430120	6	6/15	1	5,122
	**Raspa cilindrica** *Cylindrical rasp*	05432100	6	15	1	4,691
	**Raspa conica** *Conical rasp*	05432110	6	6/15	1	4,773
	**Punta raspa** *Deburring drill bit*	05432120	6	6	1	4,028

SET



5 pcs
05450201
€ 37,776



MANDRINI E ACCESSORI

Accessories
Accessories
Accessorios
Zubehürteilen

ACCESSORI

CUTTING TOOLS ENGINEERING

BUSSOLA DI RIDUZIONE PER CONI MORSE, TEMPRATA E RETTIFICATA INTERNAMENTE ED ESTERNAMENTE

Hardened and ground morse taper sleeve / Douilles de reduction trempé et rectifié pour cône morse
Cono de reducción tratado y rectificado / Reduzierhülsen, ganz gehärtet und geschliffen

DIN 2185

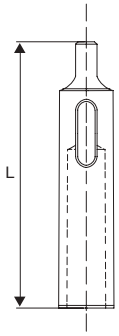
28150





Cono Morse *Morse taper* DIN 228 Esterno *External*	Interno *Internal*	L	cod.	€ cad/each
1	0	80	281500100	16,111
2	1	92	281500201	14,482
3	1	99	281500301	17,625
3	2	112	281500302	17,625
4	1	124	281500401	23,736
4	2	124	281500402	23,736
4	3	140	281500403	23,736
5	1	156	281500501	52,630
5	2	156	281500502	52,630
5	3	156	281500503	52,630
5	4	171	281500504	52,630
6	4	219	281500604	93,177
6	5	219	281500605	93,177

Cono esterno-*External* Morse DIN 228



Cono interno-*Internal* Morse DIN 228

PROLUNGHE PER UTENSILI CONO MORSE, TEMPRATE E RETTIFICATE INTERNAMENTE ED ESTERNAMENTE

Morse taper sleeve extension, hardened and ground / Douilles de reductions rallongué, trempé et rectifié
Cono de reducciòn prolongado, tratado y rectificado / Verlängerungshülsen, ganz gehärtet und geschliffen

DIN 2187

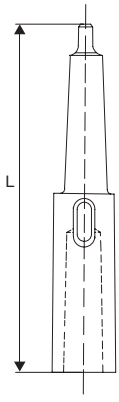
28154





Cono Morse *Morse taper* DIN 228 Esterno *External*	Interno *Internal*	L	cod.	€ cad/each
1	1	145	281540101	43,609
1	2	160	281540102	46,286
2	1	160	281540201	35,052
2	2	175	281540202	45,331
2	3	196	281540203	58,358
3	1	175	281540301	47,589
3	2	194	281540302	47,589
3	3	215	281540303	64,714
3	4	240	281540304	99,719
4	1	200	281540401	99,719
4	2	215	281540402	75,553
4	3	240	281540403	75,553
4	4	265	281540404	99,719
4	5	300	281540405	141,022
5	1	232	281540501	147,320
5	2	247	281540502	133,468
5	3	268	281540503	129,695
5	4	300	281540504	105,132
5	5	335	281540505	163,688
6	1	294	281540601	233,395
6	2	309	281540602	305,689
6	3	330	281540603	305,689
6	4	355	281540604	305,689
6	5	390	281540605	313,313

Cono esterno-*External* Morse DIN 228



Cono interno-*Internal* Morse DIN 228

ATTACCHI CONICI MORSE PER MANDRINI, TEMPRATI E RETTIFICATI

Taper drill chuck arbors / Cône de montage pour mandrins
Mango conico para portabrocas / Kegeldorne für Bohrfutter

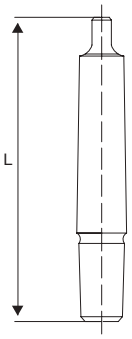
28160





Cono Morse *Morse taper*	Attacco conico mandrino *Drill chuck taper*	L	cod.	€ cad/each
DIN 228	DIN 238			
1	**B10**	86	281600110	11,572
1	**B12**	89	281600112	11,572
1	**B16**	99	281600116	11,572
1	**B18**	99	281600118	11,572
2	**B10**	105	281600210	14,482
2	**B12**	105	281600212	14,482
2	**B16**	112	281600216	14,482
2	**B18**	119	281600218	14,482
2	**B22**	130	281600222	14,482
3	**B12**	127	281600312	20,466
3	**B16**	134	281600316	20,466
3	**B18**	140	281600318	20,466
3	**B22**	147	281600322	20,466
3	**B24**	157	281600324	20,466
4	**B16**	157	281600416	32,002
4	**B18**	164	281600418	32,002
4	**B22**	176	281600422	32,002
4	**B24**	186	281600424	32,002
5	**B16**	198	281600516	47,846
5	**B18**	198	281600518	47,846
5	**B22**	207	281600522	47,846
5	**B24**	217	281600524	47,846

Cono esterno-*External* Morse DIN 228



Cono DIN 238 per mandrino-*For chuck*

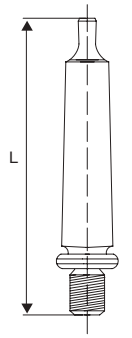
28165





Cono Morse *Morse taper*	Attacco conico mandrino *Drill chuck taper*	L	cod.	€ cad/each
DIN 228				
2	**3/8x24 UNF**	95	28165023/8	19,265
2	**1/2x20 UNF**	110	28165021/2	19,265
2	**5/8x16 UNF**	135	28165025/8	23,923
3	**3/8x24 UNF**	115	28165033/8	26,437
3	**1/2x20 UNF**	125	28165031/2	26,437
3	**5/8x16 UNF**	150	28165035/8	26,437

Cono esterno-*External* Morse DIN 228



Per mandrino-*For chuck*

ESTRATTORI PER UTENSILI CON CONO MORSE DIN 228 IN ACCIAIO TRATTATO

Ejector drifts / Chass-cône/Extractores para utensilios cono morse / Austreiber für Kegelschäfte

DIN 317

28158



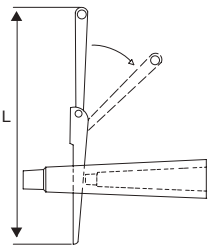
Cono Morse *Morse taper*	L	cod.	€ cad/each
1-2	140	281580102	7,625
3	190	281580300	11,839
4	225	281580400	17,834
5-6	265	281580506	24,551

DIN 318 Semiautomatic



Cono Morse *Morse taper*	L	cod.	€ cad/each
1-2-3	320	28158A0103	76,425
4-5-6	380	28158A0406	93,177





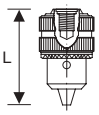
Professional

MANDRINI A CREMAGLIERA DI QUALITÀ COMPLETI DI CHIAVE PER ELETTROUTENSILI PORTATILI E PER MACCHINE UTENSILI

Quality drill chucks with key / Mandrins à crémaillère avec clé
Portabrocas con llave / Zahnkranz Bohrfutter

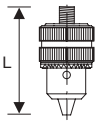
DIN 6349 **Professional**



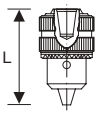


cod.	Capacità *Size* mm	Attacco *Attachment*	L	Chiave *Key*	pcs	€ cad/each	
Art. 28001							
2800110	**1÷10 R.**	3/8x24 UNF	62	S 1	5	12,297	
2800120	**1÷10 R.**	1/2x20 UNF	62	S 1	5	12,297	
2800130	**1,5÷13 R.**	3/8x24 UNF	78	S 2	5	13,642	
2800140	**1,5÷13 R.**	1/2x20 UNF	78	S 2	5	12,705	
2800160	**3÷16 R.**	1/2x20 UNF	87	S 3	5	28,521	
2800150	**3÷16 R.**	5/8x16 UNF	87	S 3	5	17,993	

R. Con foro interno passante per l'inserimento della vite sinistra di bloccaggio per rotazione destra e sinistra con trapani reversibili
R. With through hole for left screw for use with reversible drilling machines



Art. 28002							
2800210	**1÷10**	3/8x24 UNF	74	S 1	5	15,228	
2800220	**1÷10**	1/2x20 UNF	74	S 1	5	15,228	
2800230	**1,5÷13**	3/8x24 UNF	89	S 2	5	16,889	
2800240	**1,5÷13**	1/2x20 UNF	89	S 2	5	16,889	
2800250	**3÷16**	5/8x16 UNF	99	S 3	5	27,504	



Art. 28003							
2800310	**1÷10**	B 12	62	S 1	5	14,642	
2800320	**1,5÷13**	B 16	78	S 2	5	16,240	
2800325	**3÷16**	B 16	87	S 3	5	26,446	
2800330	**3÷16**	B 18	87	S 3	5	26,446	

Solo rotazione
No percussion

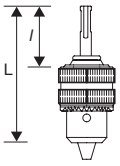


2800910 **2800930**





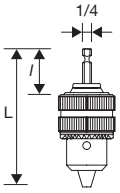
Autoserrante
Self tighten



cod.	Capacità *Size* mm	Attacco *Attachment*	*l*	L	Chiave *Key*	pcs	€ cad/each	
Art. 28009								
2800910	**1,5÷13**	SDS	52	107	S2	5	15,076	
2800930	**1÷13**	SDS	52	115	-	5	14,546	

2800920





2800920	**1÷10**	1/4 Q.C.	28	84	S1	5	35,252	

Confezione *Packaging*



5 pcs



cod.	Tipo/*Size* DIN	pcs	€ cad/each
Art. 28010			
2801009	**S1**	1	2,642
2801010	**S2**	1	3,655
2801020	**S3**	1	4,785

Confezione *Packaging*



MANDRINI A CREMAGLIERA PROFESSIONALI PER USO INTENSIVO

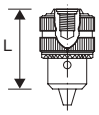
Intensive use professional drill chuck with key / Mandrin a cremaillere professional usage intensif
Portabrocas com llave calidad professional uso intensivo

DIN 6349

28004

NEW

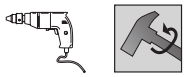




cod.	Capacità *Size mm*	Attacco *Attachment*	L	Chiave *Key*	pcs	€ cad/each
2800440	**2-13**	1/2x20 UNF	57	S2	1	35,700

Confezione *Packaging*

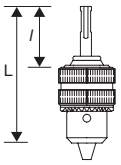




28007

NEW

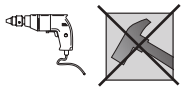




cod.	Capacità *Size mm*	Attacco *Attachment*	*l*	L	Chiave *Key*	pcs	€ cad/each
2800710	**2-13**	SDS PLUS	50	107	S2	1	38,850

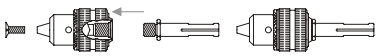
Confezione *Packaging*





RACCORDO DI ADATTAMENTO PER MANDRINO SDS PLUS-1/2 UNF

Mandrel adapter SDS PLUS-1/2 UNF / Adaptateur pour mandrin SDS PLUS-1/2 UNF
Adaptadores de portabrocas SDS PLUS-1/2 UNF - Adapter SDS PLUS-1/2 für Bohrfutter

Attacco *Attachment*		Attacco *Attachment*	cod.	pcs	€ cad/each	
SDS PLUS		1/2 x 20 UNF	**28186100**	10	11,327	
Ricambio / *Spare part*	 M6		**28186101**		0,851	

Confezione / *Packaging*



RACCORDI DI ADATTAMENTO PER MANDRINI

Mandrel adapter 3/8 UNF / Adaptateur pour mandrin 3/8 UNF
Adaptadores de portabrocas 3/8 UNF / Adapter für Bohrfutter 3/8 UNF

Attacco *Attachment*		Attacco *Attachment*	cod.	€ cad/each	
1/4 Q.C.		3/8 x 24 UNF	**28186200**	8,055	
1/4 Q.C.		1/2 x 20 UNF	**28186201**	8,295	
1/2 x 20 UNF		3/8 x 24 UNF	**28186204**	7,055	
1/2 x 20 UNF		3/8 x 24 UNF	**28186203**	7,055	
3/8 x 24 UNF		3/8 x 24 UNF	**28186205**	3,843	

Confezione / *Packaging*



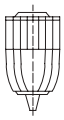
Professional

MANDRINI SENZA CHIAVE SENZA SISTEMA DI BLOCCAGGIO PER ELETTROUTENSILI REVERSIBILI

Keyless drill chucks without locking system for reversible power drills / Mandrins sans clé sans système de verrouillage pour perceuses portatives
Portabroca sin llave sin sistema de cierre convencional para taladros portatiles / Schlüsselloses Bohrfutter für Handbohrmaschinen

28058





Camicia plastica
Plastic sleeve

cod.	Capacità *Sizes* mm	Attacco *Attachment*	L	pcs	€ cad/each
2805810	0,5÷10	3/8x24 UNF	61	1	13,596
2805820	0,5÷10	1/2x20 UNF	61	1	13,596
2805830	2÷13	3/8x24 UNF	72	1	16,316
2805840	2÷13	1/2x20 UNF	72	1	16,316



Confezione *Packaging*

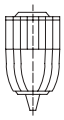


MANDRINI SENZA CHIAVE CON SISTEMA DI BLOCCAGGIO PER ELETTROUTENSILI PORTATILI REVERSIBILI ED A PERCUSSIONE

Keyless drill chucks with locking system for portable power drills with percussion / Mandrins sans clé avec système de verrouillage pour embout et perceuse portatives /Portabroca sin llave con sistema de cierre de seguridad para atornilladores y taladro portatiles / Schlüsselloses Bohrfutter für Handbohrmaschinen

28054





Camicia plastica
Plastic sleeve

cod.	Capacità *Sizes* mm	Attacco *Attachment*	L	pcs	€ cad/each
2805410	1 ÷ 10	3/8x24 UNF	64	1	21,079
2805420	1 ÷ 10	1/2x20 UNF	64	1	21,079
2805430	1,5 ÷ 13	3/8x24 UNF	75	1	22,833
2805440	1,5 ÷ 13	1/2x20 UNF	75	1	22,833

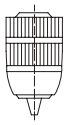


Confezione *Packaging*



28053 28055





Camicia metallica
Metal sleeve

cod.	Capacità *Sizes* mm	Attacco *Attachment*	L	pcs	€ cad/each
Art. 28053					
2805330	1,5÷13	3/8x24 UNF	75	1	31,619
2805340	1,5÷13	1/2x20 UNF	75	1	31,619
Art. 28055					
2805540	1,5÷13	1/2x20 UNF	75	1	36,818







Griffe in metallo duro
Carbide jaws

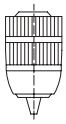
Confezione *Packaging*



28051 28007 NEW







Camicia metallica
Metal sleeve



Griffe in metallo duro
Carbide jaws

cod.	Capacità *Sizes* mm	Attacco *Attachment*	/	L	pcs	€ cad/each
Art. 28051						
2805140	1,5-13	1/2x20 UNF	-	65	1	51,450
Art. 28007						
2800730	1,5-13	SDS PLUS	50	115	1	54,600





Confezione *Packaging*



USO INTENSIVO

MANDRINI AUTO-SERRANTI CON GHIERA DI BLOCCAGGIO PER TRAPANI PORTATILI

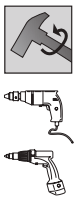
Self tighten keyless drill chucks with lock system for percussion power drills / Mandrins auto-serrant avec système de verrouillage pour perceuses portatives à percussion / Portabroca sin llave con sistema de seguridad para taladros portatiles a percusión

28031





cod.	Capacità *Sizes* mm	Attacco *Attachment*	L	pcs	€ cad/each
2803140	1÷13	1/2x20 UNF	100	1	82,600

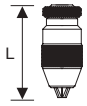


MANDRINI AUTO-SERRANTI PER ELETTROUTENSILI PORTATILI E PER TRAPANI STAZIONARI

Keyless drill chucks / Mandrins autoserrants pour perceuse / Portabroca autoajustable para taladro / Schnell Spann-Bohrfutter

28030 28032





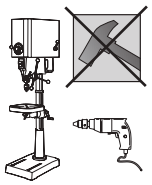


Art. 28030 Professional

cod.	Capacità *Sizes* mm	Attacco *Attachment*	L	pcs	€ cad/each
2803010	1÷10	3/8x24 UNF	86	1	52,376
2803020	1÷10	1/2x20 UNF	86	1	52,376
2803030	1÷13	3/8x24 UNF	102	1	58,421
2803040	1÷13	1/2x20 UNF	102	1	58,421
2803050	1÷16	1/2x20 UNF	102	1	69,000
2803060	1÷16	5/8X16 UNF	102	1	69,000

Art. 28032 Professional

2803210	1÷10	B 12	86	1	53,195
2803220	1÷10	B 16	86	1	53,195
2803229	1÷13	B 12	102	1	57,228
2803230	1÷13	B 16	102	1	57,228
2803231	1÷13	B 18	108	1	57,228
2803240	1÷16	B 16	108	1	65,100
2803250	1÷16	B 18	108	1	65,100



MANDRINI AUTO-SERRANTI DI PRECISIONE PER TRAPANI A COLONNA E MACCHINE UTENSILI

Industrial quality keyless drill chucks / Mandrins auto-serrant pour perceuses industrielle
Portabroca autoajustable para taladro, calidad industrial / Genauigkeits-Schnellspann-Bohrfutter

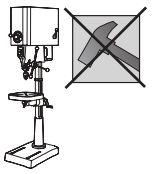
28034





Art. 28034 Professional Super

cod.	Capacità *Sizes* mm	Attacco *Attachment*	L	pcs	€ cad/each
2803410	1÷10	B 12	70	1	80,585
2803430	1÷13	B 16	90	1	86,630
2803440	1÷16	B 16	103	1	98,718
2803450	1÷16	B 18	105	1	98,718
2803460	5÷20	B 22	124	1	98,718



28035

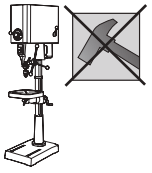
NEW





cod.	Capacità *Sizes* mm	Attacco *Attachment*	L	pcs	€ cad/each
2803540	1-16	B16	95	1	166,950

TOP QUALITY



Caratteristiche del rivestimento TiN
Il rivestimento monostrato TiN ha lo scopo di incrementare la resistenza a fenomeni di usura e ossidazione cui gli utensili sono sottoposti durante le lavorazioni di foratura: ha ottime caratteristiche di microdurezza (HV 0.05 2300), un basso coefficiente di attrito (0.4), una temperatura massima di esercizio pari a 500°C. Il rivestimento di pochi µm, depositato per via fisica mediante vapore (Physical Vapour Deposition), consente pertanto di aumentare la vita utile degli utensili da taglio, migliorando anche la finitura superficiale ed il conseguente scorrimento dei trucioli di lavorazione.

Caratteristiche del rivestimento TiAlN
É un esclusivo rivestimento PVD che permette il taglio a secco con elevatissimi parametri di taglio e, quindi, con grandissimi rendimenti. Sopporta, infatti temperature di lavoro elevatissime, sino a 800° C, grazie alle caratteristiche uniche del rivestimento TiAlN: supercompatto e durissimo (3300 HV 0,05), con conducibilità termica molto bassa (0,05), basso coefficiente di attrito (0,3), ottima tenacità. Il forte calore sviluppato nella foratura (> 400° C), genera, in ambiente ossidante, Al2 03, particolarmente resistente alle elevate sollecitazioni termiche, mentre il substrato di TiAlN garantisce una elevata resistenza meccanica. È pertanto adatto al taglio dei materiali fortemente abrasivi (ghisa, leghe Si-Al) degli acciai duri e pastosi come l'acciaio inossidabile, ma anche degli acciai basso legati purché si incrementino notevolmente i 2 parametri di taglio fondamentali: la velocità e l'avanzamento (sino a 2 volte i valori di un utensile HSS convenzionale non rivestito).

TECHNICAL

Technical tables
Tableaux techniques
Prospectos tecnico
Technische Tabellen

TABELLE

CUTTING TOOLS ENGINEERING

Features of TiN coating
TiN monolayer coating can increase both wear and oxidation resistance of every tool. It has high hardness (HV 0.05 2300), low friction coefficient (0.4), maximum working temperature 500°C. The coating thickness is very low (µm) and it's produced by Physical Vapour Deposition. TiN coating increases the life cycle of the tool, also improving the surface finishing and the drilling chips removal.

Caractéristiques du revêtement TiN
Le revêtement monocouche TiN sert à augmenter la résistance aux phénomènes d'usure et d'oxydation auxquels les outils sont soumis pendant les travaux de perçage: il possède des caractéristiques optimales de microdureté (HV 0,05 2300), un coefficient de frottement faible (0,4), une température maximale de fonctionnement égale à 500°C. Le revêtement de quelques µm, déposé par un procédé physique par le biais de la vapeur (Physical Vapour Deposition), permet donc d'augmenter la vie utile des outils de coupe, en améliorant aussi la finition de la surface et donc l'évacuation des copeaux d'usinage produits.

Caracteristicas del recubrimiento TiN
El recubrimiento monocapa TiN tiene la finalidad de aumentar la resistencia al desgaste y a la oxidación que sufren los utensilios durante los trabajos de perforado: tiene óptimas características de microdureza (HV 0.05 2300), un bajo coeficiente de fricción (0.4), una temperatura máxima de funcionamiento equivalente a 500°C. El recubrimiento de pocos µm, depositado físicamente con vapor (Physical Vapour Deposition), consiente aumentar la duración de los utensilios de corte, mejorando también el acabado superficial y el consiguiente deslizamiento de las virutas generadas durante la actividad.



Features of TiAlN coating
This exclusive PVD coating makes dry cutting possible to the highest cutting standards and performance levels. The drill can withstand extremely high working temperatures of up to 800° C on account of the unique properties of the TiAlN coating, namely, it is ultra-thin and exceptionally hard (3300 HV 0,05) with extremely low thermal conductivity (0,05) low friction coefficient (0,3) and excellent toughness. The phenomenal heat created during drilling (>400°C) generates Al2 03, in oxidizing environments which is particularly resilient to high temperatures whilst the substrate in TiAlN guarantee high mechanical resistance. It is thus suitable for cutting highly abrasive materials (cast iron, Si-Al alloys) and hard, pasty steel such as stainless steel. Nonetheless, it is equally suitable for low alloy steel providing the most important cutting settings (speed and feed) are increased by up to twice the values used for conventional, uncoated HSS tools.

Caractéristiques du Revêtement TiAlN
Il s'agit d'un revêtement exclusif PVD qui permet une coupe à sec avec des paramètres de coupe très pointus et donc des rendements très élevés. Il support en effet des températures de travail très élevées, jusqu'à 800°C, grâce aux caractéristiques uniques du revêtement TiAlN : ultracompact et très dur (3300 HV 0,05) avec une conductibilité thermique très basse (0,05), un faible coefficient de frottement (0,3), une excellente ténacité. La forte chaleur se dégageant lors du perçage (>400° C) génère, dans un milieu oxydant, de l'Al2 03 particulièrement résistant aux sollicitations thermiques élevées, tandis que la sous-couche de TiAlN garantit une grande résistance méchanique.
Il convient par conséquent à la coupe de matériaux fortement abrasifs (fonte, alliages Si-Al), des acier durs et pâteux comme l'acier inoxydable mais aussi des aciers à faible teneur en alliage à condition d'augmenter sensiblement les 2 paramètres fondamentaux de coupe : la vitesse et l'avance (jusqu'à 2 fois les valeurs d'un outil HSS conventionnel sans revêtement).

Caracteristicas del recubrimiento TiAlN
Es un exclusivo revestimiento PVD que permite el corte seco con parámetros de corte elevadísimos y, por lo tando, con rendimientos muy grandes. En efecto, soporta temperaturas de trabajo mui elevadas hasta 800° C, gracias a las características únicas de revestimiento TiAlN : supercompacto y durísimo (3300 HV 0,05), con conductibilidad térmica muy baja (0,05) bajo coeficiente de roce (0,3), optima tenacidad. El fuerte calor desarrollado durante el taladrado (>400° C) genera, en ambiente oxidante, Al2 03, particularmente resistente a los elevados esfuerzos térmicos, mientras que el substrato de TiAlN garantiza una elevada resistencia mecánica. Por lo tanto es adecuado para el corte de los materiales fuertemente abrasivos (hierro fundido, aleaciones Si-Al), de los aceros duros y pastosos como el acero inoxidable, pero también de los aceros bajo aleados, con tanto de que se incrementen notablemente los 2 parámetros de corte fundamentales: la velocidad y el avance (hasta 2 veces los valores de una herramiente HSS convencional no revestida).

SCELTA DELLA PUNTA PER METALLO E DEI PARAMETRI DI TAGLIO DA USARE IN FUNZIONE DEL MATERIALE DA LAVORARE

Chart for metal drills selection and relative cutting speeds in accordance with the materials to work

1  Twist drills made of high speed steel

Materiale da lavorare Work-piece material	**Qualità punta** Drill quality	**Velocità periferica** Peripherical speed **Mt/min**	**Diametro punta** / Drill size - mm						**Refrigerante** Cooland
			2	**5**	**8**	**12**	**16**	**25**	
			Avanzamento / Feed (mm/giro)						
Acciaio non legato da costruzione Common steel / Acier non alliées / Acero no aliado R<600N/mm²	HSS HSS-CO	20÷25 25÷30	0.05	0.12	0.20	0.25	0.30	0.40	♣
Acciaio da costruzione basso legato Low alloy steel / Acier bas alliées / Acero bajo aliado R<700÷900N/mm²	HSS HSS-CO	10÷12 15÷18	0.03	0.07	**0.10**	0.16	0.20	0.25	♣
Acciaio legato al Ni Cr Ni Cr Steel / Acier au Ni Cr / Acero Ni Cr R<1100÷1300N/mm²	HSS HSS-CO	6÷8 8÷10	0.02	0.05	0.08	0.12	0.14	0.18	♣
Acciaio Inox martensitico ed austenitico Stainless steel / Acier inox / Acero inoxidable **Acciaio refrattario Acciaio resistente alla corrosione** Heat resistant steel, corrosion resistant steel Acier réfractaire, acier résistent à la corrosion Acero refractario y resistente à la corrosión	HSS-CO 5% HSS-CO 8%	6÷8 8÷10	0.02	0.05	0.08	0.12	0.14	0.18	♣
Acciaio alto legato con tenore di manganese >10% High manganese content steel / Acier haute percentage de manganese /Acero con elevada percentual de manganese	HSS-CO 8%	3÷5	0.02	0.05	0.08	0.12	0.14	0.18	✕
Superleghe Nimonic, Hastelloy, Inconel	HSS-CO 5% HSS-CO 8%	3÷8	0.02	0.05	0.08	0.12	0.14	0.18	●
Titanio e leghe di titanio Titanium alloys / Titan / Titanio	HSS-CO 5% HSS-CO 8%	3÷6	0.02	0.05	0.08	0.12	0.14	0.18	●
Nichel Monel	HSS-CO	10÷12	0.02	0.05	0.08	0.12	0.14	0.18	♣
Ghisa Grigia 200 HB Cast Iron / Fonte grise / Fundición	HSS HSS-CO	15÷20 20÷25	0.02	0.12	0.20	0.25	0.30	0.40	✕
Ghisa Grigia 350 HB Cast Iron / Fonte grise / Fundición	HSS HSS-CO	5÷10 20÷25	0.03	0.07	0.10	0.16	0.20	0.25	✕
Bronzo dolce Soft bronze / Bronze doux / Bronce douce	HSS HSS-CO	20÷35	0.05	0.08	0.14	0.20	0.25	0.30	♣ ●
Bronzo duro Tough bronze / Bronze dur / Bronce duro	HSS HSS-CO	15÷30	0.05	0.08	0.14	0.20	0.25	0.30	♣ ●
Ottone dolce Soft brass / Laiton doux / Oton douce	HSS HSS-CO	60÷80	0.08	0.18	0.25	0.30	0.35	0.40	♣ ●
Ottone tenace Tough brass / Laiton dur / Oton duro	HSS HSS-CO	30÷50	0.05	0.15	0.20	0.25	0.35	0.40	♣ ●
Rame puro Copper / Cuivre / Cobre	HSS	30÷60	0.05	0.14	0.18	0.22	0.30	0.40	♣ ●
Rame elettrolitico Electrolite copper / Cuivre electrolite / Cobre elettrolitico	HSS	20÷35	0.05	0.14	0.18	0.22	0.30	0.40	♣ ●
Alluminio Aluminium / Aluminium / Aluminio	HSS	40÷80	0.05	0.14	0.18	0.22	0.30	0.40	♣
Leghe alluminio Aluminium alloys / Alliages de alu / Aleaciones de aluminio	HSS	30÷60	0.05	0.14	0.18	0.22	0.30	0.40	♣
Silumin - Leghe Al-Si Silumin	HSS	30÷50	0.05	0.08	0.14	0.20	0.25	0.30	♣
Leghe al manganese Manganese alloys / Alliage de manganese / Aleaciones de manganese	HSS	60÷90	0.08	0.18	0.25	0.30	0.35	0.40	✕
Zinco e sue leghe Zinc alloys / Alliages de Zingue / Aleaciones de cinc	HSS	30÷50	0.05	0.14	0.18	0.20	0.25	0.30	♣
Resine termoplastiche (dolci) Soft plastic / Plastique doux / Plastico douce	HSS	20÷40	0.05	0.08	0.14	0.20	0.25	0.30	🚰
Resine termoindurenti (dure) Hard plastic / Plastique dure / Plastico duro	HSS	10÷20	0.05	0.08	0.14	0.20	0.25	0.30	✕
Plexiglass	HSS	15÷20	0.05	0.08	0.14	0.20	0.25	0.30	🚰
Gomma dura Hard rubber / Caoutchouc dur / Goma dura	HSS	15÷35	0.08	0.18	0.25	0.30	0.35	0.40	✕
Grafite Graphite / Graphite / Grafite	HSS	3÷6	a mano / *by hand /à main / a mano*						✕

Nota: Le punte elicoidali cilindriche rettificate garantiscono la realizzazione di fori di tolleranza H10÷H12
Fully ground twist drills made holes with H10÷H12 tolerance

♣ acqua emulsionata con olio *oil+water*
● olio da taglio - *cutting oil*
🚰 acqua - *water*
✕ a secco - *dry*

CONVERSIONE DELLA VELOCITÀ PERIFERICA DI TAGLIO DA M/MIN IN GIRI/MIN IN FUNZIONE DEL DIAMETRO DELLA PUNTA

Cutting speed chart into revolution per minute (RPM), according to the twist drill diameter

2

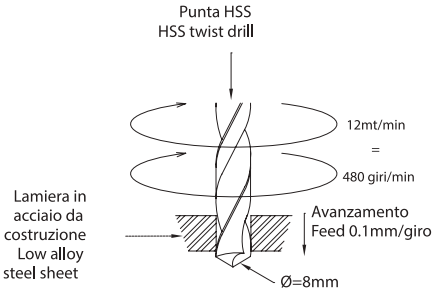
Diametro punta Drill size Ø		**Velocità di taglio /** Cutting speed Vt (mt/min)													
		3	**4**	**5**	**6**	**8**	**10**	**12**	**15**	**18**	**20**	**25**	**30**	**35**	**40**
(mm)	pollici *inch*	**Velocità di taglio /** Cutting speed							**n. giri/min (rpm)**						
2	5/64	480	640	800	960	1270	1590	1910	2390	2870	3180	3980	4780	5570	6370
3	1/8	320	420	530	640	850	1060	1270	1590	1910	2120	2650	3180	3720	4250
4	5/32	240	320	400	480	640	800	960	1190	1430	1590	1990	2390	2790	3180
5	13/64	190	250	320	380	510	640	760	960	1150	1270	1590	1910	2230	2550
6	15/64	160	210	270	320	420	530	640	800	960	1060	1330	1590	1860	2120
8	5/16	120	160	200	240	320	400	**480**	600	720	800	1000	1190	1390	1590
10	25/64	95	130	160	190	250	320	380	480	570	640	800	960	1110	1270
12	15/32	80	110	130	160	210	270	320	400	480	530	660	800	930	1060
14	35/64	70	90	110	140	180	230	270	340	410	450	570	680	800	910
16	5/8	60	80	100	120	160	200	240	300	360	400	500	600	700	800
18	23/32	55	70	90	110	140	180	210	270	320	350	440	530	620	710
20	25/32	50	65	80	100	130	160	190	240	290	320	400	480	560	640
22	7/8	45	60	70	85	120	140	170	220	260	290	360	430	510	580
24	15/16	40	55	65	80	110	130	160	200	240	270	330	400	460	530
27	1" 1/16	35	45	60	70	95	120	140	180	210	240	290	350	410	470
30	1" 1/8	30	40	55	65	85	110	130	160	190	210	270	320	370	420
32	1" 1/4	30	40	50	60	80	100	120	150	180	200	250	300	350	400
34	1" 3/8	30	35	45	55	75	95	110	140	170	190	230	280	330	370
36	1" 7/16	25	35	45	55	70	90	110	130	160	180	220	270	310	350
38	1" 1/2	25	35	40	50	65	85	100	130	150	170	210	250	290	340
40	1" 9/16	25	30	40	50	65	80	100	120	140	160	200	240	280	320
42	1" 5/8	25	30	40	45	60	75	90	110	140	150	190	230	270	300
44	1" 3/4	20	30	35	45	60	70	85	110	130	140	180	220	250	290
46	1" 13/16	20	30	35	40	55	70	85	100	120	140	170	210	240	280
48	1" 7/8	20	25	35	40	55	65	80	100	120	130	170	200	230	270
50	2"	20	25	30	40	50	65	75	100	110	130	160	190	220	250

$$\text{n° giri/min (r.p.m.)} = \frac{\text{Vt (Mt/min) x 1000}}{\text{3,14 x Ø (mm)}}$$

Formula di conversione della velocità periferica di taglio da mt/min in n.giri/min in funzione del diametro dell'utensile
Cutting tip speed conversion formula, from Meter Per Min. to RPM, in accordance with the tool size

Esempio di utilizzo delle tabelle:
Se si vuole praticare un foro del diametro di 8 mm con una punta HSS, in una lamiera in acciaio comune e si desidera conoscere i parametri di taglio adeguati alla foratura, si dovrà consultare la tabella n. 1 nella quale è indicato che una punta HSS da mm 8 avrà un avanzamento consigliato di 0,1 mm/giro ed una velocità di taglio di 10÷12 mt/min. Per la conversione della velocità da mt/min in giri/min, si consulterà la tabella n.2; incrociando la riga riferita al diametro 8 mm con la colonna che contiene la velocità 12 mt/min si troverà il valore di 480 giri/min. Il foro quindi andrà eseguito con una velocità di 480 giri/min e con un avanzamento di 0,1 mm/giro. Una buona lubrorefrigerazione infine garantirà un ottimo risultato di foratura.

Charts use example:
If you want to make a hole of 8 mm with an HSS bit into a metal sheet and you wish to know the correct cutting parameters, have a look on the chart n.1 where you can see that an HSS bit has a suggested feed of 0,1 mm/revolution and a cutting speed of 10÷12 mt/minute. For the speed conversion mt/min and rpm, please look at the chart n. 2; crossing the line containing the size 8 mm and the column of speed 10÷12 mt/min, you will find the value of 480 rpm .So that the drill should be made with a speed of 480 rpm with 0,1 mm/revolution feed. An appropriate lubricating finally guarantee the best cutting results.



PARAMETRI DI TAGLIO PER PUNTE IN METALLO DURO O CON PLACCHETTE IN METALLO DURO PER IL TAGLIO DEI METALLI

Recommended cutting parameter chart for tungsten carbide drill bits and carbide tipped twist drills on metals cuttings

3 

Metallo duro
H.M.

Materiale da lavorare Work-piece material	**Resistenza a trazione/durezza** Tensile strenght/hardness	**Velocità di taglio** Cutting speed **Mt/min**	**Diametro punta** / Drill size - mm **2**	**2,5**	**4**	**5**	**8**	**10** **Avanzamento** / Feed (mm/giro)	**Refrigerante** Cooland
Acciaio basso legato Low alloy steel	fino / up to 700 N/mm²	80-100	0,025	0,0315	0,05	0,05	0,08	0,1	
Acciaio legato e alto legato High alloy steel	fino / up to 900 N/mm² oltre / beyond 900 N/mm²	70-90 60-70	0,02 0,0125	0,025 0,016	0,04 0,025	0,05 0,025	0,063 0,04	0,08 0,05	
Acciaio per utensili Tool steel	fino / up to 1000 N/mm² oltre / beyond 1000 N/mm²	50-60 20-40	0,0125 0,01	0,016 0,0125	0,025 0,02	0,025 0,025	0,04 0,0315	0,05 0,04	
Acciaio temprato Tempered steel	fino / up to 60 HRC	10-30	0,0063	0,008	0,0125	0,0125	0,02	0,025	
Acciaio per molle Spring steel		20-50	0,01	0,0125	0,02	0,025	0,0315	0,04	
Acciaio austenitico Cr-Ni, Inox, resistente agli acidi e al calore Austenitic stainless steel, acid resistant steel, heat resistant steel		20-40	0,008	0,01	0,016	0,02	0,025	0,0315	
Acciaio ferritico, inox, resistente al calore Ferritic steel, stainless steel, heat resistant steel		40-60	0,0125	0,016	0,025	0,025	0,04	0,05	
Acciaio duro al Mn Hard Mn steel		20-40	0,0063	0,008	0,0125	0,0125	0,02	0,025	
Acciaio fuso Cast steel	fino / up to 500 N/mm² oltre / beyond 500 N/mm²	60-80 30-60	0,025 0,016	0,0315 0,02	0,05 0,0315	0,05 0,0315	0,08 0,05	0,1 0,08	
Acciaio fuso legato / Ghisa in conchiglia Alloy cast steel / Chilled iron	fino / up to 350 HB oltre / beyond 350 HB	40-60 20-40	0,0125 0,0063	0,016 0,008	0,025 0,0125	0,025 0,0125	0,04 0,02	0,05 0,025	
Ghisa grigia Grey cast iron	fino / up to GG 40	70-100	0,025	0,0315	0,05	0,05	0,08	0,1	
Ghisa sferoidale / Ghisa malleabile Spheroidal cast iron / Malleable cast iron	fino / up to GGG 60 fino / up to GTW / GTS 55	50-80	0,02	0,025	0,04	0,05	0,063	0,08	
Rame Copper		80-110	0,02	0,025	0,04	0,05	0,063	0,08	
Bronzo Bronze	duro / hard tenero / soft	60-80 100-120	0,016 0,025	0,02 0,0315	0,0315 0,05	0,0315 0,05	0,05 0,08	0,063 0,1	
Leghe di alluminio fino a 11% Si Aluminium alloy up to 11% Si		100-140	0,0135	0,04	0,063	0,063	0,1	0,125	
Leghe di alluminio oltre 11% Si Aluminium alloy beyond 11% Si		60-100	0,02	0,025	0,04	0,05	0,063	0,08	
Ottone, Zn, Bronzo per getti Brass, Zn, Cast bronze		80-110	0,02	0,025	0,04	0,05	0,063	0,08	
Titanio e sue leghe Titanium alloy		20-40	0,01	0,0125	0,02	0,025	0,0315	0,04	
Leghe di magnesio Magnesium alloy		100-150	0,0315	0,04	0,063	0,063	0,1	0,125	
Materie plastiche dure Hard plastics		60-100	0,0315	0,04	0,063	0,063	0,1	0,125	
Materie plastiche tenere, laminati, termoplastici Soft plastics, thermoplastics, laminates		80-150	0,04	0,05	0,08	0,1	0,125	0,16	
Resine epossidiche rinforzate Reinforced epoxy resins		60-100	0,0315	0,04	0,063	0,063	0,1	0,125	

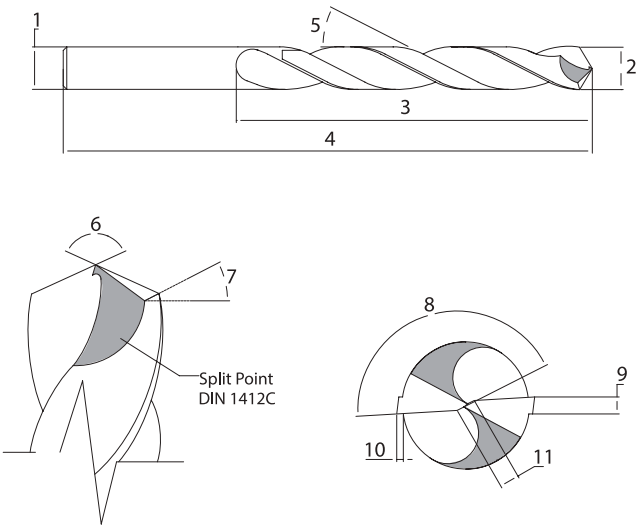
$$\text{n° giri/min (r.p.m.)} = \frac{\text{Vt (Mt/min) x 1000}}{\text{3,14 x Ø (mm)}}$$

Formula di conversione della velocità periferica di taglio da mt/min in n.giri/min in funzione del diametro dell'utensile
Cutting tip speed conversion formula, from Meter Per Min. to RPM, in accordance with the tool size

NOMENCLATURA PER PUNTE ELICOIDALI CILINDRICHE

Twist drill nomenclature

4

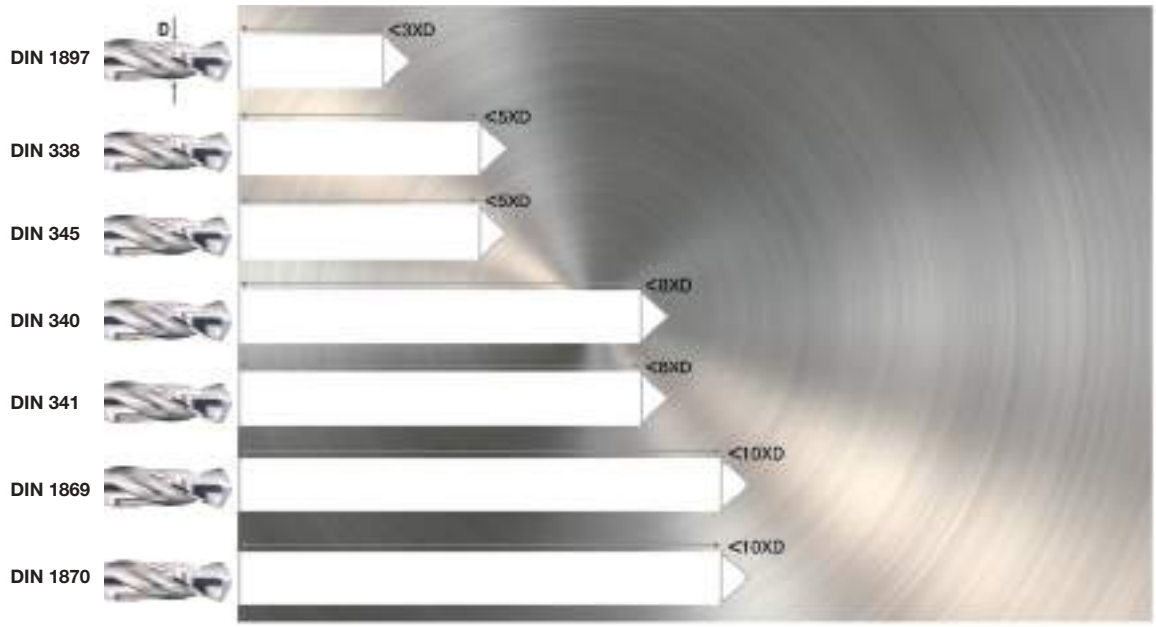


1	(d) Codolo - Shank Queue - Schaft
2	(Ø) Diametro - Diameter Diamètre - Bohrerdurchmesser
3	(l) Elica - Flute Goujure - Spannut
4	(L) Lunghezza totale - Overall length Longueur totale - Gesamttäge
5	(α) Angolo dell'elica - Helix angle Angle d'hèlice - Draliwinkel
6	Angolo dei taglienti - Point angle Angle au sommet - Spitzenwinkel
7	Angolo di spoglia - Lip clearance angle Angle de coupe - Spanwinkel
8	Angolo del tagliente centrale - Chisel edge angle Angle de l'arète centrale - Querschniden winkel
9	Fase - Land Largeur de listel - Fasenbreite
10	Profondità dello scarico - Depth of body clearance Profondeur du dègagement - Rückentiefe
11	Nocciolo - Web thickness Épaisseur de l'âme - Kerndicke

PROFONDITÀ DI FORATURA INDICATIVE PER PUNTE ELICOIDALI

Cutting depth according to twist drill standard

5



RELAZIONE TEORICA TRA LA VELOCITÀ DI TAGLIO E LA VITA UTILE DELL'UTENSILE

Theoretical link between the cutting speed and the tool life cycle

6

LEGGE DI TAYLOR

$$Vt \times T^n = C$$

Vt è la velocità di taglio espressa in m/min / **T** è la vita utile dell'utensile espressa in min / **C** (m/min) e **n** sono costanti che dipendono dalla tipologia di utensile. In particolare, per utensili HSS C=60 m/min e n=0.15, per utensili in metallo duro C=300 m/min e n=0.3

Vt is the cutting speed in m/min / T is the tool life cycle in min / C=60 m/min, n=0,15 for HSS cutting tools, C=300 m/min, n=0,3 for hard metal cutting tools. C (m/min) and n are constant values depending on the tool type

Una punta HSS di diametro 8 mm ha un ciclo di vita teorico di: 2500 h se usata a 400 giri/min - 25 h se usata a 800 giri/min.
HSS twist drill Ø 8 mm has a theorical tool life cycle of 2500h at 400rpm, 25h at 800rpm

VELOCITÀ DI TAGLIO PER FRESE A INCASSARE, SVASARE E SBAVARE IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for countersinks and deburring tools in accordance with the materials to work

7 

Frese a svasare
Deburring tools

Materiale da lavorare Work-piece material	**Velocità di taglio** Cutting speed **Mt/min**	**Refrigerante** Cooland
Acciaio non legato Carbon steel	20	
Acciaio legato fino a 700 N/mm² Alloy steel up to 700 N/mm²	15	
Acciaio legato fino a 1000 N/mm² Alloy steel up to 1000 N/mm²	10	
Ghisa fino a 250 N/mm² Cast iron up to 250 N/mm²	10	
Ghisa oltre 250 N/mm² Cast iron beyond 250 N/mm²	8	
Ottone fragile Fragile brass	40	
Ottone plastico Tough brass	20	
Leghe di alluminio fino a 11% Si Aluminium alloys up to 11% Si	20	
Materiale termoplastico Thermoplastics	15	
Materiale termoindurente Thermosetting plastics	10	

PARAMETRI DI TAGLIO PER UTENSILI CONICI IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for conical drill bits in accordance with the materials to work

8 

Utensili conici
Conical drill bits

Materiale da lavorare Work-piece material	**Profondità di foratura** Cutting depth **mm**	**Grandezza** Size								**Refrigerante** Cooland
		1	2	3	4	5	6	7	8	
		3÷14	6÷20	16÷30,5	26÷40	36÷50	40÷61	3÷31	3÷22,5	
		Giri/min - rpm								
Acciaio inox e alto legato Stainless steel high alloy steel	1	750	500	280	200	150	130	400	500	
Acciaio basso legato Low alloy steel	2	1100	740	420	300	220	190	580	740	
Ghisa fino a 250 N/mm² Cast iron up to 250 N/mm²	3	560	360	200	150	110	100	300	360	
Ghisa oltre 250 N/mm² Cast iron beyond 250 N/mm²	3	380	240	140	100	80	60	200	240	
Ottone fragile Fragile brass	3	2200	1500	830	600	440	400	1100	1500	
Ottone tenace Tough brass	3	1300	860	480	340	260	220	680	860	
Leghe leggere Light alloys	5	1100	740	420	300	220	190	580	740	
Plastica Plastics	5	1300	860	480	340	260	220	680	860	

PARAMETRI DI TAGLIO PER UTENSILI A GRADINO IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for step drills in accordance with the materials to work

9 

Utensili a gradino
Step drill bits

Materiale da lavorare Work-piece material	**Profondità di foratura** Cutting depth **mm**	**Grandezza** Size															**Refrigerante** Cooland
		1	2	3	4	5	6	7	8	9	10	11	21	22	23	24	
		4÷12	4÷12	12÷20	4÷20	20÷30	4÷30	30÷40	40÷50	6÷36	6÷58	4÷39	6,3÷26,75	6÷30,5	6÷37	6÷38	
		Giri/min - rpm															
Acciaio inox e alto legato Stainless steel high alloy steel	3÷4	800	800	400	530	250	380	180	140	300	200	300	400	350	300	300	
Acciaio basso legato Low alloy steel	3÷4	1200	1200	600	800	380	560	280	200	450	300	450	600	530	450	450	
Ghisa fino a 250 N/mm² Cast iron up to 250 N/mm²	3÷4	600	600	300	400	190	280	140	100	230	150	230	300	260	230	230	
Ghisa oltre 250 N/mm² Cast iron beyond 250 N/mm²	3÷4	400	400	200	260	130	190	90	70	150	100	150	200	180	150	150	
Ottone fragile Fragile brass	3÷4	2400	2400	1200	1600	760	1100	550	420	900	600	900	1200	1000	900	900	
Ottone tenace Tough brass	3÷4	1400	1400	700	920	450	650	320	240	530	350	530	700	620	530	530	
Leghe leggere Light alloys	3÷4	1200	1200	600	800	380	560	280	200	450	300	450	600	530	450	450	
Plastica Plastics	3÷4	1400	1400	700	920	450	650	320	240	530	350	530	700	620	530	530	

VELOCITÀ DI TAGLIO PER FRESE A TAZZA IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for hole cutters in accordance with the materials to work

10 

Frese a tazza
Hole cutters

Materiale da lavorare Work-piece material	**ø Fresa** / Hole cutter **mm**												**Refrigerante** Cooland
	12÷17	18÷24	25÷32	33÷38	39÷44	46÷51	52÷57	58÷64	65÷70	71÷80	81÷90	91÷100	
	n. giri/min - rpm												
Acciaio basso legato Low alloy steel	550	380	300	240	200	170	150	130	120	110	100	90	
Acciaio inox e alto legato Stainless steel high alloy steel	230	160	130	100	80	70	60	60	50	50	40	40	
Ghisa Cast iron	280	190	150	120	100	90	80	70	60	60	50	40	
Leghe leggere Light alloys	870	590	470	370	310	270	240	210	190	170	150	140	
Alluminio Aluminium	870	590	470	370	310	270	240	210	190	170	150	140	
Plastica Plastics	660	450	350	280	240	210	180	160	150	130	120	100	

VELOCITÀ DI TAGLIO PER FRESE A CAROTARE IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for core bits in accordance with the materials to work

11 

Frese a carotare in HSS
HSS Core drills

Materiale da lavorare Work-piece material	**ø Fresa** / Hole cutter **mm**							**Refrigerante** Cooland
	12÷15	16÷20	21÷25	26÷30	31÷35	36÷45	50÷60	
	n. giri/min - rpm							
Acciaio basso legato Low alloy steel	660	480	370	310	260	200	160	
Acciaio inox e alto legato Stainless steel high alloy steel	290	210	170	140	120	90	70	
Ghisa Cast iron	340	250	190	160	140	110	80	
Leghe leggere Light alloys	1030	740	580	480	410	320	240	

VELOCITÀ DI TAGLIO PER FRESE A CAROTARE CON DENTI IN METALLO DURO

Recommended cutting parameter chart for core bits in accordance with the materials to work

12 

Frese a carotare in HM
HM Core drills

Materiale da lavorare Work-piece material	**ø Fresa** / Hole cutter **mm**							**Refrigerante** Cooland
	12÷15	16÷20	21÷25	26÷30	31÷35	36÷45	50÷60	
	n. giri/min - rpm							
Acciaio basso legato Low alloy steel	1220	880	690	570	480	380	290	
Acciaio inox e alto legato Stainless steel high alloy steel	860	620	480	400	340	270	200	
Ghisa Cast iron	980	710	550	450	390	300	230	
Leghe leggere Light alloys	1470	1060	380	680	580	450	350	

VELOCITÀ DI TAGLIO PER FRESE A TAZZA TCT IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for TCT hole cutters in accordance with the materials to work

13 

Frese a tazza T.C.T.
T.C.T. Hole cutters

Materiale da lavorare Work-piece material	**Spessore di foratura** Cutting depth **mm**	**ø Frese TCT** / TCT hole cutter **mm**						**Refrigerante** Cooland
		15÷20	21÷25	26÷30	31÷40	41÷50	51÷70	
		n. giri/min - rpm						
Acciaio basso legato Low alloy steel	4	710	550	450	360	280	210	
Acciaio inox e alto legato Stainless steel high alloy steel	2	530	420	340	270	210	160	
Ghisa Cast iron	4	620	480	400	320	250	190	
Ottone Brass	4	800	620	510	410	320	240	
Alluminio Aluminium	4	880	690	570	450	350	270	
Plastica Plastics	4	740	580	480	380	300	220	

VELOCITÀ DI TAGLIO PER SEGHE A TAZZA IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for bimetal hole saws in accordance with the materials to work

14 

Seghe a tazza
Bimetal hole saws

Materiale da lavorare Work-piece material	**ø Sega** / Hole saw **mm**																	**Refrigerante** Cooland
	14÷17	19÷24	25÷32	33÷38	40÷44	46÷51	52÷57	59÷64	65÷70	73÷79	83÷89	92÷98	102÷108	111÷121	127÷140	146÷152	160÷210	
	n. giri/min - rpm																	
Ferro / Acciaio dolce Low alloy steel	530	360	280	230	190	170	140	130	120	110	90	80	80	70	60	50	40	
Acciai trattati - Acciai inox Stainless steel - High alloy steel	210	140	110	90	80	70	60	50	50	40	40	30	30	30	20	20	20	
Ghisa Cast iron	250	170	140	110	90	180	70	60	60	50	40	40	40	30	30	30	20	
Ottone Brass	740	510	400	320	270	230	200	180	170	150	130	120	110	100	80	70	60	
Alluminio e leghe leggere Aluminium Light alloys	850	580	450	360	300	270	230	210	190	170	150	130	120	110	100	80	70	
Legno Wood	960	650	510	410	340	300	260	230	210	190	170	150	140	120	110	100	80	
Plastica Plastics	640	430	340	270	230	200	170	150	140	130	110	100	90	80	70	60	50	
Cartongesso Gypsum board	960	650	510	410	340	300	260	230	210	190	170	150	140	120	110	100	80	

VELOCITÀ DI TAGLIO IN FUNZIONE DEL DIAMETRO DELLA FRESA ROTATIVA IN HSS

Recommended cutting parameter chart for HSS rotary files

15 

Z2: Vt 220 ÷ 250 m/min
Z3: Vt 80 ÷ 220 m/min

Frese Rotative HSS
HSS rotary files

Diametro fresa Rotary burr diameter **mm**	**Velocità di taglio** / Cutting speed **Mt/min**							
	80	100	150	200	220	230	240	250
	n. giri/min - rpm							
6	4250	5310	7960	10620	11680	12210	12740	13270
8	3180	3980	5970	7960	8760	9160	9550	9950
10	2550	3180	4780	6370	7010	7320	7640	7960
12	2120	2650	3980	5310	5840	6100	6370	6630
15	1700	2120	3180	4250	4670	4880	5100	5310

VELOCITÀ DI TAGLIO IN FUNZIONE DEL DIAMETRO DELLA FRESA ROTATIVA IN METALLO DURO

Recommended cutting parameter chart for carbide rotary files

16 

Tutti i tipi di taglio (HM1,HM3 PLUS, HM3, HM4): Vt 300 ÷ 400 m/min
All cut types (HM1,HM3 PLUS, HM3, HM4): Vt 300 ÷ 400 m/min

Frese Rotative HM
HM rotary files

Diametro fresa Rotary burr diameter **mm**	**Velocità di taglio** / Cutting speed **Mt/min**					
	300	320	340	360	380	400
	n. giri/min - rpm					
6	15930	16980	18050	19100	20170	21230
8	11950	12740	13535	14330	15130	15920
10	9550	10190	10830	11465	12100	12740
12	7960	8490	9020	9560	10085	10620
16	5970	6370	6770	7160	7570	7960

PARAMETRI DI TAGLIO DELLA SEGA CIRCOLARE IN HSS

Recommended cutting parameter chart for HSS band saw blades

17 

Seghe Circolari HSS
HSS circular blades

Materiale da lavorare Work-piece material	**Velocità avanzamento** Feed rate (mm/min)	**Velocità periferica di taglio** Cutting speed (mt/min)	**Refrigerante** Cooland
Acciaio con R<500 N/mm² Steel with R<500 N/mm²	15÷25	70÷100	
Acciaio con R<800 N/mm² Steel with R<800 N/mm²	10÷15	25÷35	
Acciaio con R<1000 N/mm² Steel with R<1000 N/mm²	5÷10	30÷40	
Acciaio con R<1400 N/mm² Steel with R<1400 N/mm²	5÷7	15÷25	
Acciaio inox Stainless steel	5÷7	25÷35	
Ghisa Cast iron	10÷15	50÷70	
Alluminio Aluminium	20÷40	70÷150	
Ottone e Bronzo Brass and bronze	20÷40	70÷150	
Rame Copper	20÷40	70÷150	
Plastica Plastics	20÷50	100÷200	

PARAMETRI DI TAGLIO DELLA SEGA CIRCOLARE IN METALLO DURO

Recommended cutting parameter chart for carbide band saw blades

18 

Seghe Circolari H.M.
H.M. circular blades

Materiale da lavorare Work-piece material	**Velocità periferica di taglio** Cutting speed **(mt/sec.)**	**Velocità di avanzamento** Feed rate **(mt/min.)**	**Art 27050**	**Art 27055**	**Art 27060**	**Art 27070**	**Refrigerante** Cooland
Legno tenero Soft wood	60÷90	10÷40					
Legno duro Hard wood	50÷70	10÷30					
Compensato truciolare Plywood-chipboard	60÷80	10÷20					
Plastica Plastics	25÷60	5÷10					
Alluminio Aluminium	20÷30	5÷8					
Ferro, Acciaio dolce Iron, Steel	20÷30	5÷8					
Leghe leggere Light alloys	20÷30	5÷8					

SCELTA DELLA LAMA E DEI SUOI PARAMETRI DI TAGLIO IN FUNZIONE DEL MATERIALE DA LAVORARE

Chart for blades selection and relative cutting speed in accordance with the materials to work

19 

Lame a nastro
Band saw blades

Materiale da lavorare Work-piece material	**Valori DIN**	**M-42 Art 25016**	**M-42 Art 25010**	**M-42 Art 25011**	**ASP Art 25018**	**Velocità di taglio** Cutting speed **Mt/min**	**Refrigerante** Cooland
Acciai da costruzione Structurall steels	St 37 / St 44 St 50 / St 60	■	■	■		80-100 50-70	1:20
Acciai da cementazione Case-Hardening steels	C 10 / C 15 14 NiCr14 21 NiCRMo 2 16 MnCr 5	■	■	■		80-100 40-55 50-60 50-60	1:15
Acciai automatici Free-Machining steels	9 S20	■	■	■		80-100	1:15
Acciai da bonifica Heat treating steels	C 35 / C 40 / C 45 40 Mn 4 36 NiCr 6 2 34 CrNiMo 42 CrMo 4		■	■	■	60-70 60-70 50-65 50-65 50-65	1:10
Acciai per cuscinetti a sfera Ball bearing tool steels	100 Cr 6 100 CrMn 6		■	■	■	35-50	1:10
Acciai per molle Spring steels	60 Si 7 50 Cr V4		■	■	■	45-60	1:10
Acciai per utensili per lavorazioni a freddo Cold-working tool steels	125 Cr 1 X 210 Cr 12 X 155 CrVMo 12 1 100 MnCrW 4 90 MnCrV 8		■	■	■	40-50 20-30 20-30 40-50 30-35	1:30 1:30 1:30 1:30 1:30
Acciai per utensili per lavorazioni a caldo Hot-working tool steels	40 CrMnMo 7 X 40 CrMoV 5 1 56 NiCrMoV 7 40 CrMnNiMo 8 6 4		■	■	■	20-25 18-22 25-30 20-25	1:20 1:20 1:20 1:20
Acciai rapidi High speed steels	S 6-5-2-5 S 6-5-2 S 3-3-2 S 18-0-1 S 18-1-2-10			■	■	35-45	1:10
Acciai per valvole Valve steels	W 45 CrSi 9 3 X 45 CrNiW 18 9			■	■	30-40	1:10
Acciai per alte temperature Heat resistant steels	X 20 CrMoV 12 1 X 5 NiCrTi 26 15			■	■	15-25	1:8
Acciai resistenti al calore Heat resistant steels	X 10 CrSi 6 X 10 CrAl 18 X 15 CrNiSi 25 30		■		■	15-25	1:8
Acciai inossidabili Stainless steels	X 5 CrNi 18 9 X 10 CrNiMoTi 1810	■	■	■	■	30-40	1:8
Acciai legati Alloyed steels	1000-1500 N/mm²			■	■	25-35	1:10
Leghe speciali a base di Nichel Nichel-Base Alloys	Nimonic Nimonic Hastelloy Hastelloy Incoloy Inconel				■	10-20 10-20 10-20 10-20 10-25 10-25	1:6
Plastiche Plastics	Teflon PVC		■	■		100-400	1:50 a secco/dry
Bronzo Bronze	CuSn 6 G-CuSn 8				■	80-150	1:30
Bronzo Alluminio Bronze-Aluminium	CuAl 8 CuAl 8 Fe G-CuAl 10 Fe				■	50-70 35-50 35-50	1:30
Alluminio Aluminium	Al-99,5		■	■		80-800	1:30
Ghisa Cast irons	G-AlSiCu 4 GG - 15 GG - 30 GTW - 40 GTS - 65 GGG - 50			■		50-70	a secco/dry
Fusioni d'acciaio Casting iron	GS - 38 GS - 60		■	■		40-60	1:30
Ottone Brass	CuZn10 CuZn408b 2		■	■		100-600	1:30
Rame Copper	Cu 99,0 Cu Be 2		■	■		100-400	1:10
Titanio Titanium	Ti 1		■	■	■	10-20	1:10

Consigli / Tips:



A = Trucioli sottili e/o spezzettati indicano una pressione di taglio insufficiente
Thin or powdery chips: increase feed pressure
B = Trucioli spessi, compressi e con una colorazione bluastra segnalano un eccessivo carico di lavoro
Heavy thick blue chips: reduce feed rate
C = Trucioli sottili e morbidamente arricciati rilevano un corretto utilizzo dei parametri di taglio
Loosely curled chips: correct feed speed

SCELTA DELLE VELOCITÀ DI TAGLIO DEI MASCHI A MACCHINA, IN FUNZIONE DEL MATERIALE DA FILETTARE

Chart for machine taps selection and relative cutting speed in accordance with the materials to work

20 

Maschi a macchina
Machine taps

Materiale da lavorare Work-piece material	**Velocità di taglio** Cutting speed **(m/min.)**	**Refrigerante** Cooland
Acciaio basso legato Low alloy steel	10÷20	
Acciai refrattari, Acciai per utensili Heat resistant steel, Tool steel	4÷8	
Acciai R>1200 N/mm² Steel R>1200N/mm²	2÷5	
Acciaio inox Stainless steel	5÷10	
Leghe speciali Nimonic, Hastelloy	2÷4	
Ghisa sferoidale Spheroidal cast iron	6÷20	
Ghisa malleabile Malleable cast iron	6÷12	
Ottone truciolo corto Brass short chipping	20÷30	
Ottone truciolo lungo, Leghe di rame, leghe di zinco Brass long chipping, Cu alloy, Zn alloy	10÷15	
Bronzo Bronze	6÷15	
Alluminio truciolo corto Alu Short chipping	15÷30	
Alluminio truciolo lungo, Leghe di magnesio Alu long-chipping, Mg alloy	10÷20	
Titanio Titanium	3÷4	
Plastica e materiali termoplastici Thermoplastics	5÷15	
Materiali termoindurenti Thermosetting materials	5÷10	

Note / Notes: Valido per i fori ciechi e passanti / Suited for blind and through holes
Consigli / Tips: Utilizzare per spessori <1,5 Ø dell'utensile / To be used with thickness < 1,5 Ø of the tool

SCELTA DEI MASCHI A MACCHINA CON ANELLI COLORATI IN FUNZIONE DEL MATERIALE DA FILETTARE

Chart for colored rings machine taps selection and relative cutting speed in accordance with the materials to work

21 

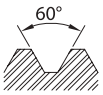
Maschi a macchina
Machine taps

Materiale da lavorare Work-piece material	**Velocità di taglio** Cutting speed **(m/min.)**	**Refrigerante** Cooland	**Art. 10500**	**Art. 10504**	**Art. 10508**	**Art. 10510**	**Art. 10511**	**Art. 10513**
Acciaio basso legato Low alloy steel	10÷20							
Acciai refrattari, Acciai per utensili Heat resistant steel, Tool steel	4÷8							
Acciai R>1200 N/mm² Steel R1200>N/mm²	2÷5							
Acciaio inox Stainless steel	5÷10							
Leghe speciali Nimonic, Hastelloy	2÷4							
Ghisa sferoidale Spheroidal cast ironl	6÷20							
Ghisa malleabile Malleable cast iron	6÷12							
Ottone truciolo corto Brass short chipping	20÷30							
Ottone truciolo lungo, leghe di rame, leghe di zinco Brass long chipping, Cu alloy, Zn alloy	10÷15							
Bronzo Bronze	6÷15							
Alluminio truciolo corto Alu Short chipping	15÷30							
Alluminio truciolo lungo, leghe di magnesio Alu long-chipping, Mg alloy	10÷20							
Titanio Titanium	3÷4							
Plastica e materiali termoplastici Thermoplastics	5÷15							
Materiali termoindurenti Thermosetting materials	5÷10							

Note / Notes: Valido per i fori ciechi e passanti / Suited for blind and through holes
Consigli / Tips: Utilizzare per spessori <1,5 Ø dell'utensile / To be used with thickness < 1,5 Ø of the tool

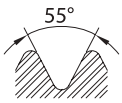
TABELLA DI CONVERSIONE DELLE FILETTATURE A POLLICE IN MISURE METRICHE

Conversion chart from metric to inch threads



M-MF

BSW



BSP-BSW-BSF

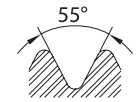
pollici inches	mm
1/16-60	1,59
3/32-48	2,38
1/8-40	3,17
5/32-32	3,96
3/16-24	4,76
7/32-24	5,55
1/4-20	6,35
5/16-18	7,93
3/8-16	9,52

pollici inches	mm
7/16-14	11,11
1/2-12	12,70
9/16-12	14,28
5/8-11	15,87
3/4-10	19,05
7/8-9	22,22
1”-8	25,40
1.1/8-7	28,57
1.1/4-7	31,75

pollici inches	mm
1.3/8-6	34,92
1.1/2-6	38,10
1.5/8-5	41,28
1.3/4-5	44,45
1.7/8-4,5	47,63
2”-4,5	50,80
2.1/4-4	57,15
2.1/2-4	63,50
2.3/4-3,5	69,85

pollici inches	mm
3”-3,5	76,20
3.1/4-3 1/4	82,55
3.1/2-3 1/4	88,90
3.3/4-3	95,24
4”-3	101,60
4.1/2-2 7/8	114,30
5”-2 3/4	127,00
5.1/2-2 5/8	139,70
6” 2,5	152,40

BSP - BSPT



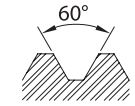
BSPT 1:16

pollici inches	mm	dist. di misura per BSPT dist. of the measure BSPT
1/8-28	9,72	10,10
1/4-19	13,15	15,00
3/8-19	16,66	15,40
1/2-14	20,95	20,50
5/8-14	22,90	20,10
3/4-14	26,44	21,80
7/8-14	30,20	24,45

pollici inches	mm	dist. di misura per BSPT dist. of the measure BSPT
1”-11	33,24	26,00
1.1/8-11	37,89	-
1.1/4-11	41,91	28,30
1.3/8-11	44,32	-
1.1/2-11	47,80	28,30
1.3/4-11	53,74	30,30
2”-11	59,61	32,70

pollici inches	mm	dist. di misura per BSPT dist. of the measure BSPT
2.1/4-11	65,71	36,10
2.1/2-11	75,18	37,10
2.3/4-11	81,53	-
3”-11	87,88	40,20
4”-11	113,03	-
5”-11	138,43	-

NPT



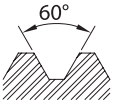
NPT-NPTF 1:16

pollici inches	mm	dist. di misura dist. of the measure
1/16-27	7,77	9,85
1/8-27	10,12	9,85
1/4-18	13,46	14,65
3/8-18	16,90	15,05
1/2-14	21,06	20,05

pollici inches	mm	dist. di misura dist. of the measure
5/8-14	22,71	20,05
3/4-14	26,40	21,35
1”-11,5	33,05	25,45
1.1/4-11,5	41,80	27,45
1.1/2-11,5	47,87	27,45

pollici inches	mm	dist. di misura dist. of the measure
1.3/4-11,5	56,04	27,75
2”-11,5	59,91	32,15
2.1/2-8	72,51	36,30
3”-8	88,42	39,40

UNC-UNF



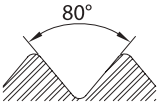
UNC-UNF

pollici inches	UNC	UNF	mm
n.1	64	72	1,85
n.2	56	64	2,18
n.3	48	56	2,51
n.4	40	48	2,84
n.5	40	44	3,17
n.6	32	40	3,50
n.8	32	36	4,16
n.10	24	32	4,82

pollici inches	UNC	UNF	mm
n.12	24	28	5,48
3/16	24	32	4,76
1/4	20	28	6,35
5/16	18	24	7,93
3/8	16	24	9,52
7/16	14	20	11,11
1/2	13	20	12,70
9/16	12	18	14,28

pollici inches	UNC	UNF	mm
5/8	11	18	15,87
3/4	10	16	19,05
7/8	9	14	22,22
1”	8	14	25,40
1.1/8	7	12	28,40
1.1/4	7	12	31,75
1.3/8	6	12	34,92
1.1/2	6	12	38,10

PG



Pg

n.	fil. per pollice threads per inch	mm
PG 7	20	12,50
PG 9	18	15,20
PG 11	18	18,60
PG 13,5	18	20,40

n.	fil. per pollice threads per inch	mm
PG 16	18	22,50
PG 21	16	28,30
PG 29	16	37,00
PG 36	16	47,00

n.	fil. per pollice threads per inch	mm
PG 42	16	54,00
PG 48	16	59,30

TABELLA RELATIVA AI PREFORI DI MASCHIATURA

Tapping drill sizes chart

M

M	Ø mm
M 1 x 0,25	0,75
M 1,1 x 0,25	0,85
M 1,2 x 0,25	0,95
M 1,4 x 0,3	1,1
M 1,6 x 0,35	1,25
M 1,7 x 0,35	1,3
M 1,8 x 0,35	1,45
M 2 x 0,4	1,6
M 2,2 x 0,45	1,75

M	Ø mm
M 2,3 x 0,4	1,9
M 2,5 x 0,45	2,05
M 2,6 x 0,45	2,1
M 3 x 0,5	2,5
M 3,5 x 0,6	2,9
M 4 x 0,7	3,3
M 4,5 x 0,75	3,7
M 5 x 0,8	4,2
M 6 x 1	5

M	Ø mm
M 7 x 1	6
M 8 x 1,25	6,8
M 9 x 1,25	7,8
M 10 x 1,5	8,5
M 11 x 1,5	9,5
M 12 x 1,75	10,2
M 14 x 2	12
M 16 x 2	14
M 18 x 2,5	15,5

M	Ø mm
M 20 x 2,5	17,5
M 22 x 2,5	19,5
M 24 x 3	21
M 27 x 3	24
M 30 x 3,5	26,5
M 33 x 3,5	29,5
M 36 x 4	32
M 39 x 4	35
M 42 x 4,5	37,5

M	Ø mm
M 45 x 4,5	40,5
M 48 x 5	43
M 52 x 5	47
M 3 x 0,6	2,4
M 3,5 x 0,75	2,75
M 4 x 0,75	3,25
M 5 x 0,9	4,1

MF

MF	Ø mm
M 3 x 0,35	2,65
M 3,5 x 0,35	3,15
M 4 x 0,35	3,65
M 4 x 0,5	3,5
M 5 x 0,5	4,5
M 6 x 0,5	5,5
M 6 x 0,75	5,2
M 7 x 0,75	6,2
M 8 x 0,5	7,5
M 8 x 0,75	7,2
M 8 x 1	7
M 9 x 1	8
M 10 x 0,5	9,5
M 10 x 0,75	9,2
M 10 x 1	9
M 10 x 1,25	8,8
M 11 x 1	10
M 12 x 0,75	10,2

MF	Ø mm
M 12 x 1	11
M 12 x 1,25	10,8
M 12 x 1,5	10,5
M 13 x 1	12
M 13 x 1,5	11,5
M 13 x 1,75	11,2
M 14 x 1	13
M 14 x 1,25	12,8
M 14 x 1,5	12,5
M 15 x 1	14
M 15 x 1,5	13,5
M 15 x 2	13
M 16 x 1	15
M 16 x 1,5	14,5
M 18 x 1	17
M 18 x 1,5	16,5
M 18 x 2	16
M 20 x 1	19

MF	Ø mm
M 20 x 1,5	18,5
M 20 x 2	18
M 22 x 1	21
M 22 x 1,5	20,5
M 22 x 2	20
M 24 x 1	23
M 24 x 1,5	22,5
M 24 x 2	22
M 25 x 1	24
M 25 x 1,5	23,5
M 26 x 1	25
M 26 x 1,5	24,5
M 27 x 1	26
M 27 x 1,5	25,5
M 27 x 2	25
M 28 x 1,5	26,5
M 28 x 2	26
M 30 x 1	29

MF	Ø mm
M 30 x 1,5	28,5
M 30 x 2	28
M 32 x 1,5	30,5
M 33 x 1,5	31,5
M 33 x 2	31
M 34 x 1,5	32,5
M 35 x 1,5	33,5
M 36 x 1,5	34,5
M 36 x 2	34
M 36 x 3	33
M 38 x 1,5	36,5
M 39 x 1,5	37,5
M 39 x 2	37
M 39 x 3	36
M 40 x 1,5	38,5
M 40 x 2	38
M 40 x 3	37
M 42 x 1,5	40,5

MF	Ø mm
M 42 x 2	40
M 42 x 3	39
M 45 x 1,5	43,5
M 45 x 2	43
M 45 x 3	42
M 48 x 1,5	46,5
M 48 x 2	46
M 48 x 3	45
M 50 x 1,5	48,5
M 50 x 2	48
M 50 x 3	47
M 52 x 1,5	50,5
M 52 x 2	50
M 52 x 3	49

BSW

BSW	Ø mm
W 3/32	1,8
W 1/8	2,6
W 5/32	3,1
W 3/16	3,6
W 7/32	4,4

BSW	Ø mm
W 1/4	5,1
W 5/16	6,5
W 3/8	7,9
W 7/16	9,3
W 1/2	10,5

BSW	Ø mm
W 9/16	12
W 5/8	13,5
W 3/4	16,5
W 7/8	19,25
W 1”	22

BSW	Ø mm
W 1.1/8	24,75
W 1.1/4	27,75
W 1.3/8	30,2
W 1.1/2	33,5
W 1.3/4	38,5

BSW	Ø mm
W 2”	44,5

BSF

BSF	Ø mm
BSF 1/4	5,2
BSF 5/16	6,6

BSF	Ø mm
BSF 3/8	8,1
BSF 7/16	9,5

BSF	Ø mm
BSF 1/2	11
BSF 5/8	14

BSF	Ø mm
BSF 3/4	16,5
BSF 7/8	19,5

BSF	Ø mm
BSF 1”	22,5

UNC

UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm
No. 1-64	1,5	No. 10-24	3,9	9/16 - 12	12,2	1.3/8 - 6	30,75	3” - 4	70
No. 2-56	1,8	No. 12-24	4,5	5/8 - 11	13,5	1.1/2 - 6	34	3.1/4 - 4	76,2
No. 3-48	2,1	1/4 - 20	5,2	3/4 - 10	16,5	1.3/4 - 5	39,5	3.1/2 - 4	82,6
No. 4-40	2,3	5/16 - 18	6,6	7/8 - 9	19,5	2” -4,5	51,5		
No. 5-40	2,6	3/8 - 16	8	1” - 8	22,25	2.1/4 - 4,5	51,5		
No. 6-32	2,85	7/16 - 14	9,4	1.1/8 - 7	25	2.1/2 - 4	51,5		
No. 8-32	3,5	1/2 - 13	10,8	1.1/4 - 7	28,25	2.3/4 - 4	63,5		

UNF

UNF	Ø mm	UNF	Ø mm	UNF	Ø mm	UNF	Ø mm	UNF	Ø mm
No. 0-80	1,3	No. 5-44	2,7	1/4-20	5,15	9/16-18	12,9	1.1/8-12	26,5
No. 1-72	1,6	No. 6-40	3	5/16-24	6,9	5/8-18	14,5	1.1/4-12	29,5
No. 2-64	1,9	No. 8-36	3,5	3/8-24	8,5	3/4-16	17,5	1.3/8-12	32,5
No. 3-56	2,1	No. 10-32	4,1	7/16-20	9,9	7/8-14	20,25	1.1/2-12	36
No. 4-48	2,4	No. 12-28	4,7	1/2-20	11,5	1”-12	23,25		

BSP

BSP	Ø mm	BSP	Ø mm	BSP	Ø mm	BSP	Ø mm	BSP	Ø mm
G 1/8	1,3	G 5/8	2,4	G 1.1/8	4,1	G 1.3/4	8,5	G 2.3/4	14,5
G 1/4	1,6	G 3/4	2,7	G 1.1/4	4,7	G 2”	9,9	G 3”	17,5
G 3/8	1,9	G 7/8	3	G 1.3/8	5,15	G 2.1/4	11,5		
G 1/2	2,1	G 1”	3,5	G 1.1/2	6,9	G 2.1/2	12,9		

BSPT

BSPT	Ø mm	BSPT	Ø mm	BSPT	Ø mm	BSPT	Ø mm	BSPT	Ø mm
1/8-28	8,20	1/2-14	18,00	7/8-14	27,50	1.1/2-11	44,00	3”-11	84,00
1/4-19	11,00	5/8-14	20,25	1”-11	29,50	2”-11	56,00		
3/8-19	14,50	3/4-14	23,50	1.1/4-11	38,50	2.1/2-11	71,00		

NPT

NPT	Ø mm	NPT	Ø mm	NPT	Ø mm	NPT	Ø mm
1/16-27	6,25	3/8-18	14,5	1”-11,5	29	2”-11,5	56
1/8-27	8,5	1/2-14	18	1.1/4-11,5	38	2.1/2-8	67
1/4-18	11,2	3/4-14	23	1.1/2-11,5	44	3”-8	83

PG

PG	Ø mm	PG	Ø mm	PG	Ø mm	PG	Ø mm	PG	Ø mm
PG 7	11,4	PG 11	17,25	PG 16	21,25	PG 29	35,5	PG 42	52,5
PG 9	14	PG 13,5	19	PG 21	26,9	PG 36	45,5	PG 48	58

TABELLA RELATIVA AI PREFORI DI MASCHIATURA PER MASCHI A RULLARE

Drill size cutting taps chart for forming ta

M

M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm
M 3 x 0,35	2,80	M 5 x 0,5	4,80	M 8 x 1	7,50	M 10 x 1,25	9,40	M 12 x 1,5	11,25
M 4 x 0,5	3,80	M 6 x 0,75	5,60	M 10 x 1	9,50	M 12 x 1,25	11,50	M 14 x 1,5	13,25

TABELLA PER FILETTATURA ESTERNA

External thread chart

M

M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm
M 1 x 0,25	0,97	M 2,3 x 0,4	2,23	M 4,5 x 0,75	4,41	M 12 x 1,75	11,83	M 33 x 3,5	32,73
M 1,1 x 0,25	1,07	M 2,5 x 0,45	2,43	M 5 x 0,8	4,90	M 14 x 2	13,82	M 36 x 4	35,70
M 1,2 x 0,25	1,17	M 2,6 x 0,45	2,53	M 5 x 0,9	4,89	M 16 x 2	15,82	M 39 x 4	38,70
M 1,4 x 0,3	1,36	M 3 x 0,5	2,92	M 6 x 1	5,88	M 18 x 2,5	17,79	M 42 x 4,5	41,69
M 1,6 x 0,35	1,54	M 3 x 0,6	2,91	M 7 x 1	6,88	M 20 x 2,5	19,79	M 45 x 4,5	41,69
M 1,7 x 0,35	1,64	M 3,5 x 0,6	3,41	M 8 x 1,25	7,87	M 22 x 2,5	21,79	M 48 x 5	47,66
M 1,8 x 0,35	1,74	M 3,5 x 0,75	3,41	M 9 x 1,25	8,87	M 24 x 3	23,77	M 52 x 5	51,66
M 2 x 0,4	1,93	M 4 x 0,7	3,91	M 10 x 1,5	9,85	M 27 x 3	26,77		
M 2,2 x 0,45	2,13	M 4 x 0,75	3,91	M 11 x 1,5	10,85	M 30 x 3,5	29,73		

MF

MF	Ø mm	MF	Ø mm	MF	Ø mm	MF	Ø mm	MF	Ø mm
M 3 x 0,35	2,94	M 12 x 1	11,88	M 20 x 1,5	19,85	M 30 x 1,5	29,85	M 42 x 2	41,82
M 3,5 x 0,35	3,44	M 12 x 1,25	11,86	M 20 x 2	19,82	M 30 x 2	29,82	M 42 x 3	41,76
M 4 x 0,35	3,94	M 12 x 1,5	11,85	M 22 x 1	21,88	M 32 x 1,5	31,85	M 45 x 1,5	44,85
M 4 x 0,5	3,93	M 13 x 1	12,88	M 22 x 1,5	21,85	M 33 x 1,5	32,85	M 45 x 2	44,82
M 5 x 0,5	4,93	M 13 x 1,5	12,85	M 22 x 2	21,82	M 33 x 2	32,82	M 45 x 3	44,76
M 6 x 0,5	5,93	M 13 x 1,75	12,83	M 24 x 1	23,88	M 34 x 1,5	33,85	M 48 x 1,5	47,85
M 6 x 0,75	5,90	M 14 x 1	13,88	M 24 x 1,5	23,85	M 35 x 1,5	34,85	M 48 x 2	47,82
M 7 x 0,75	6,90	M 14 x 1,25	13,86	M 24 x 2	23,82	M 36 x 1,5	35,85	M 48 x 3	47,46
M 8 x 0,5	7,93	M 14 x 1,5	13,85	M 25 x 1	24,88	M 36 x 2	35,82	M 50 x 1,5	49,85
M 8 x 0,75	7,90	M 15 x 1	14,88	M 25 x 1,5	24,85	M 36 x 3	35,76	M 50 x 2	49,82
M 8 x 1	7,83	M 15 x 1,5	14,85	M 26 x 1	25,88	M 38 x 1,5	37,85	M 50 x 3	49,76
M 9 x 1	8,88	M 15 x 2	14,82	M 26 x 1,5	25,85	M 39 x 1,5	38,85	M 52 x 1,5	51,85
M 10 x 0,5	9,93	M 16 x 1	15,88	M 27 x 1	26,88	M 39 x 2	38,82	M 52 x 2	51,82
M 10 x 0,75	9,90	M 16 x 1,5	15,85	M 27 x 1,5	26,85	M 39 x 3	38,76	M 52 x 3	51,76
M 10 x 1	9,88	M 18 x 1	17,88	M 27 x 2	26,82	M 40 x 1,5	39,85		
M 10 x 1,25	9,86	M 18 x 1,5	17,85	M 28 x 1,5	27,85	M 40 x 2	39,82		
M 11 x 1	10,88	M 18 x 2	17,82	M 28 x 2	27,82	M 40 x 3	39,76		
M 12 x 0,75	11,90	M 20 x 1	19,88	M 30 x 1	29,88	M 42 x 1,5	41,85		

BSW

BSW	Ø mm	BSW	Ø mm	BSW	Ø mm	BSW	Ø mm
W 1/4	6,16	W 7/16	10,89	W 5/8	15,62	W 1”	25,08
W 5/16	7,76	W 1/2	12,43	W 3/4	18,76	W 1.1/8	28,21
W 3/8	9,30	W 9/16	13,92	W 7/8	21,89		

BSF

BSF	Ø mm	BSF	Ø mm	BSF	Ø mm	BSF	Ø mm
BSF 3/16	4,67	BSF 3/8	9,39	BSF 9/16	14,12	BSF 7/8	22,02
BSF 1/4	6,25	BSF 7/16	10,97	BSF 5/8	15,71	BSF 1”	25,17
BSF 5/16	7,82	BSF 1/2	12,54	BSF 3/4	18,85		

UNC

UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm
No. 1-64	1,79	No. 8-32	4,07	7/16-14	10,95	1”-8	25,16	2”-4.5	50,45
No. 2-56	2,12	No. 10-24	4,71	1/2-13	12,52	1.1/8-7	28,31	2.1/4-4.5	56,80
No. 3-48	2,44	No. 12-24	5,37	9/16-12	14,10	1.1/4-7	31,49	2.1/2-4	63,10
No. 4-40	2,76	1/4-20	6,22	5/8-11	15,68	1.3/8-6	34,63	2.3/4-4	69,45
No. 5-40	3,09	5/16-18	7,80	3/4-10	18,84	1.1/2-6	37,81	3”-4	75,80
No. 6-32	3,41	3/8-16	9,37	7/8-9	22	1.3/4-5	44,12		

25 | ...continua

UNF

UNF	*Ø mm*	*UNF*	*Ø mm*	*UNF*	*Ø mm*	*UNF*	*Ø mm*	*UNF*	*Ø mm*
No. 0-80	1,47	No. 5-44	3,10	1/4-28	6,24	9/16-18	14,14	1.1/8-12	28,38
No. 1-72	1,79	No. 6-40	3,42	5/16-24	7,82	5/8-18	15,73	1.1/4-12	31,56
No. 2-64	2,12	No. 8-36	4,08	3/8-24	9,41	3/4-16	18,89	1.3/8-12	34,73
No. 3-56	2,44	No. 10-32	4,73	7/16-20	10,98	7/8-14	22,05	1.1/2-12	37,91
No. 4-48	2,77	No. 12-28	5,38	1/2-20	12,56	1”-12	25,21		

BSP

BSP	*Ø mm*	*BSP*	*Ø mm*	*BSP*	*Ø mm*	*BSP*	*Ø mm*	*BSP*	*Ø mm*
G 1/8	9,62	G 1/2	20,81	G 7/8	30,06	G 1.1/4	41,73	G 1.3/4	53,56
G 1/4	13,03	G 5/8	22,77	G 1”	33,07	G 1.3/8	44,14	G 2”	59,43
G 3/8	16,53	G 3/4	26,30	G 1.1/8	37,71	G 1.1/2	47,62		

NPT

NPT	*Ø mm*	*NPT*	*Ø mm*	*NPT*	*Ø mm*	*NPT*	*Ø mm*	*NPT*	*Ø mm*
1/16	8,17	1/4	14,10	1/2	21,85	1”	34,16	1.1/2	48,87
1/8	10,55	3/8	17,52	3/4	27,16	1.1/4	42,74	2”	60,95

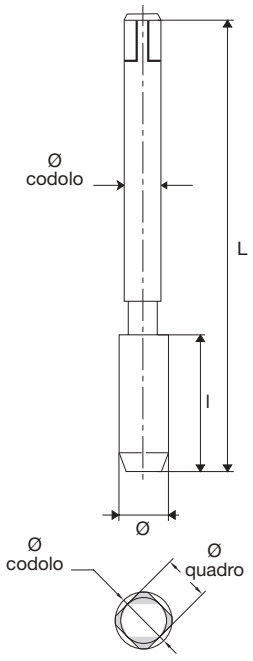
PG

PG	*Ø mm*	*PG*	*Ø mm*	*PG*	*Ø mm*	*PG*	*Ø mm*	*PG*	*Ø mm*
PG 7	12,4	PG 11	18,5	PG 16	22,4	PG 29	36,85	PG 42	53,85
PG 9	15,1	PG 13,5	20,3	PG 21	28,15	PG 36	46,85	PG 48	59,15

DIMENSIONI TIPICHE DI CODOLO E QUADRO DEI MASCHI, IN FUNZIONE DELLA NORMA DI PRODUZIONE

Dimension of shank and square depending on the applicable standard

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Ø Codolo *Shank*	Ø Quadro *Square*	DIN 352	DIN 371	DIN 376	DIN 374	ISO 529
2,5	2,1	M1÷1,8	M1÷1,8	M3,5	M3,5	M1÷2
2,8	2,1	M2÷2,5	M2÷2,5	M4	M4	M2,2÷2,5
3,2	2,4					M3
3,5	2,7	M3	M3	M5	M5	M3,5
4	3	M3,5	M3,5			M4
4,5	3,4	M4	M4	M6	M5,5÷6	M4,5
6	4,9	M5÷8	M5÷6	M8	M8	M6
7	5,5	M10		M10	M9÷10	
8	6,2		M8			M8
9	7	M12		M12	M12	
10	8		M10			M10
11	9	M14		M14	M14	
12	9	M16		M16	M16	
14	11	M18		M18	M18	
16	12	M20		M20	M20	M22
18	14,5	M22÷24		M22÷24	M22÷24	
20	16	M27		M27	M27÷28	M27÷M30
22	18	M30		M30	M30	
25	20	M33		M33	M33	
28	22	M36		M36	M36	
32	24	M39÷42		M39÷42	M39÷42	M50
36	29	M45÷48		M45÷48	M45÷48	
40	32	M52		M52		

DIAMETRO DELLA PUNTA IN FUNZIONE DELLE DIMENSIONI DEL FILETTO DA RIPRISTINARE

Drill diameter according to thread dimension to be restored

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DIN 8140 - ISO 2/6H

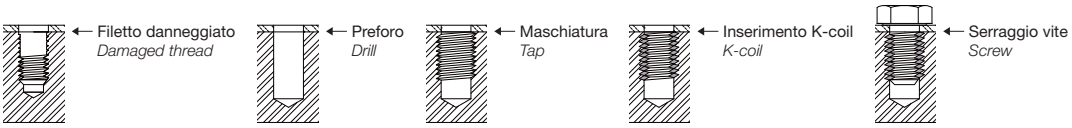


K-COIL

Acciaio inox austenitico 18/8
Austenitic stainless steel 18/8

10606 - M/MF

	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm
M	2 x 0,4	2,10	10 x 1,25	10,30	18 x 2,5	18,60	27 x 3	27,75
	2,2 x 0,45	2,30	10 x 1	10,30	18 x 2	18,50	27 x 2	27,50
	2,5 x 0,45	2,60	11 x 1,5	11,40	18 x 1,5	18,50	27 x 1,5	27,50
	3 x 0,5	3,20	12 x 1,75	12,40	20 x 2,5	20,60	28 x 1,5	28,50
	3,5 x 0,6	3,70	12 x 1,5	12,40	20 x 2	20,50	30 x 3,5	31,00
	4 x 0,7	4,20	12 x 1,25	12,30	20 x 1,5	20,50	30 x 2	30,50
	5 x 0,8	5,20	12 x 1	12,30	22 x 2,5	22,60	30 x 1,5	30,50
	6 x 1	6,30	14 x 2	14,50	22 x 2	22,50	33 x 3,5	34,00
	7 x 1	7,30	14 x 1,5	14,40	22 x 1,5	22,50	33 x 2	33,50
	8 x 1,25	8,30	14 x 1,25	14,40	24 x 3	24,75	36 x 4	37,00
	8 x 1	8,30	14 x 1	14,30	24 x 2	24,50	36 x 3	37,00
	9 x 1,25	9,30	16 x 2	16,50	24 x 1,5	24,50	36 x 2	36,50
	10 x 1,5	10,40	16 x 1,5	16,40	26 x 1,5	26,50	36 x 1,5	36,50



10607 - UNC

	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm
N.	8 x 32	4,40	5/16 x 18	8,30	9/16 x 12	14,80	1” x 8	26,25
	10 x 24	5,10	3/8 x 16	9,90	5/8 x 11	16,50	1.1/8 x 7	29,50
	12 x 24	5,70	7/16 x 14	11,60	3/4 x 10	19,75	1.1/4 x 7	33,00
UNC	1/4 x 20	6,70	1/2 x 13	13,00	7/8 x 9	23,00	1.1/2 x 6	39,50

10608 - UNF

	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm
N.	8 x 36	4,40	3/8 x 24	9,80	5/8 x 18	16,25	1.1/8 x 12	29,00
	10 x 32	5,10	7/16 x 20	11,50	3/4 x 16	19,50	1.1/4 x 12	32,50
	1/4 x 28	6,60	1/2 x 20	13,00	7/8 x 14	22,75	1.1/2 x 12	38,50
UNF	5/16 x 24	8,20	9/16 x 18	14,80	1” x 12	26,00		

10609 - BSW

Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm
1/8 x 40	3,40	5/16 x 18	8,30	1/2 x 12	13,00	3/4 x 10	20,00
3/16 x 24	5,10	3/8 x 16	9,90	9/16 x 12	14,80	7/8 x 9	23,00
1/4 x 20	6,70	7/16 x 14	11,60	5/8 x 11	16,70	1” x 8	26,50

10610 - BSF

Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm
3/16 x 32	5,00	3/8 x 20	9,90	9/16 x 16	14,80	7/8 x 11	22,70
1/4 x 26	6,60	7/16 x 18	11,60	5/8 x 14	16,40	1” x 10	26,50
5/16 x 22	8,30	1/2 x 16	13,00	3/4 x 12	19,50		

10610 - BSF

	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm	Filetto *Thread*	Ø *Drill size* mm
G	1/8 x 28	10,00	3/8 x 19	17,10	5/8 x 14	23,40	7/8 x 14	30,60
	1/4 x 19	13,60	1/2 x 14	21,50	3/4 x 14	27,00	1” x 11	33,70

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI METRICI

Metric wire-thread insert dimensions

28 |  1.5 d

Metric

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *ø Coil free min*	Diametro Coil non installato max (mm) *ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*
2x0,4	2,1	2,49	2,70	4,80	4,40	3,00
2,2x0,45	2,3	2,76	3,00	5,33	4,88	3,30
2,5x0,45	2,6	3,05	3,70	5,78	5,33	3,75
3x0,5	3,2	3,61	4,35	6,75	6,25	4,50
3,5x0,6	3,7	4,24	4,95	7,95	7,35	5,25
4x0,7	4,2	4,86	5,60	9,15	8,45	6,00
5x0,8	5,2	5,98	6,80	11,10	10,30	7,50
6x1	6,3	7,23	7,95	13,50	12,50	9,00
7x1	7,3	8,22	9,20	15,00	14,00	10,50
8x1,25	8,3	9,53	10,35	17,63	16,38	12,00
8x1	8,3	9,39	10,25	16,50	15,50	12,00
9x1,25	9,4	10,52	11,16	19,13	17,88	13,50
10x1,5	10,4	11,83	12,50	21,75	20,25	15,00
10x1,25	10,3	11,74	12,65	20,63	19,38	15,00
10x1	10,3	11,41	12,50	19,50	18,50	15,00
11x1,5	11,4	12,82	13,59	23,25	21,75	16,50
12x1,75	12,5	14,13	15,00	25,88	24,13	18,00
12x1,5	12,4	14,09	15,20	24,75	23,25	18,00
12x1,25	12,3	13,76	15,00	23,63	22,38	18,00
12x1	12,3	13,43	14,49	22,50	21,50	18,00
14x2	14,5	16,43	17,35	30,00	28,00	21,00
14x1,5	14,4	16,11	17,25	27,75	26,25	21,00
14x1,25	14,3	15,78	17,03	26,63	25,38	21,00
14x1	14,3	15,45	16,68	25,50	24,50	21,00
16x2	16,5	18,41	19,60	33,00	31,00	24,00
16x1,5	16,5	18,13	19,60	30,75	29,25	24,00
18x2,5	18,8	21,04	22,00	38,25	35,75	27,00
18x2	18,5	20,80	21,85	36,00	34,00	27,00
18x1,5	18,5	20,15	21,75	33,75	32,25	27,00
20x2,5	20,8	23,02	24,40	41,25	38,75	30,00
20x2	20,5	22,82	24,05	39,00	37,00	30,00
20x1,5	20,5	22,17	24,00	36,75	35,25	30,00
22x2,5	22,8	25,00	26,90	44,25	41,75	33,00
22x2	22,5	24,84	26,50	42,00	40,00	33,00
22x1,5	22,5	24,19	26,45	39,75	38,25	33,00
24x3	25,0	27,62	29,00	49,50	46,50	36,00
24x2	24,5	26,86	29,10	45,00	43,00	36,00
24x1,5	24,5	26,21	28,28	42,75	41,25	36,00
26x1,5	26,5	28,23	30,46	45,75	44,25	39,00
27x3	28,0	30,59	32,40	54,00	51,00	40,50
27x2	27,5	29,89	32,30	49,50	47,50	40,50
30x3,5	31,0	34,20	35,81	60,75	57,25	45,00
30x2	30,5	32,92	35,70	54,00	52,00	45,00
33x3,5	34,0	37,17	38,80	65,25	61,75	49,50
33x2	33,5	35,95	39,20	58,50	56,50	49,50
36x4	37,0	40,78	42,67	72,00	68,00	54,00
36x3	37,0	40,30	42,70	67,50	64,50	54,00

NUMERO DI SPIRE DEGLI INSERTI FILETTATI METRICI IN FUNZIONE DELLA LUNGHEZZA DELL'INSERTO

Number of turns of the coil depending on the insert length

29

	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*	N. spire max *N. max*
	1 D		1,5 D		2 D		2,5 D		3 D	
2x0,4	3,3	3,0	5,7	5,2	8,1	7,4	10,5	9,6	13,0	11,8
2,2x0,45	3,2	2,9	5,5	5,0	7,9	7,1	10,3	9,3	12,6	11,2
2,5x0,45	3,8	3,1	6,5	5,2	9,2	7,4	11,9	9,5	14,6	11,9
3x0,5	4,3	3,4	7,2	5,8	10,1	8,2	13,1	10,5	16,0	12,2
3,5x0,6	4,1	3,4	7,0	5,8	9,8	8,2	12,6	10,5	15,5	12,2
4x0,7	4,0	3,4	6,8	5,7	9,6	8,1	12,3	10,5	15,1	12,2
5x0,8	4,5	3,9	7,6	6,5	10,6	9,2	13,7	11,8	16,7	14,6
6x1	4,3	3,8	7,2	6,4	10,1	9,1	13,1	11,7	16,0	14,5
7x1	5,3	4,6	8,7	7,7	12,1	10,7	15,6	13,7	19,0	16,8
8x1,25	4,7	4,2	7,8	7,1	10,9	9,9	14,1	12,8	17,2	15,9
8x1	6,1	5,6	10,0	9,1	13,8	12,5	17,7	16,0	21,5	19,5
9x1,25	5,5	5,1	9,0	8,4	12,5	11,7	16,1	15,0	19,6	18,3
9x1	7,1	6,5	11,5	10,5	15,8	14,5	20,2	18,5	24,5	22,5
10x1,5	4,9	4,6	8,2	7,7	11,5	10,8	14,7	13,8	18,0	16,9
10x1,25	6,1	5,6	10,0	9,2	13,8	12,7	17,7	16,3	21,5	19,8
10x1	8,1	7,3	12,9	11,7	17,8	16,1	22,6	20,5	27,5	24,9
11x1,5	5,6	5,2	9,2	8,6	12,8	12,0	16,4	15,4	20,0	18,7
11x1,25	6,9	6,4	11,2	10,3	15,4	14,2	19,7	18,1	23,9	22,0
11x1	9,1	8,4	14,4	13,3	19,8	18,2	25,1	23,1	30,4	28,0
12x1,75	5,1	4,8	8,5	7,9	11,9	11,1	15,2	14,2	18,6	17,3
12x1,5	6,1	5,6	10,0	9,2	13,8	12,7	17,7	16,2	21,5	19,8
12x1,25	7,7	7,0	12,4	11,2	17,0	15,5	21,6	19,7	26,3	23,9
12x1	10,1	9,3	15,9	14,7	21,7	20,0	27,6	25,4	33,4	30,8
13x1,75	5,7	5,3	9,4	8,7	13,0	12,2	16,7	15,6	20,3	19,0
13x1,5	6,8	6,2	11,0	10,1	15,2	13,9	19,3	17,8	23,5	21,6
13x1,25	8,5	7,8	13,5	12,5	18,6	17,1	23,6	21,7	28,7	26,4
14x2	5,3	5,0	8,7	8,2	12,1	11,4	15,6	14,6	19,0	17,9
14x1,5	7,5	6,9	12,0	11,1	16,5	15,3	21,0	19,4	25,5	23,6
14x1,25	9,3	8,6	14,7	13,6	20,2	18,6	25,6	23,6	31,0	28,6
14x1	12,1	11,1	18,9	17,4	25,7	23,7	32,5	30,0	39,3	36,2
15x2	5,8	5,4	9,5	8,8	13,1	12,3	16,8	15,7	20,5	19,2
15x1,25	8,1	7,5	12,9	11,9	17,8	16,4	22,6	20,8	27,5	25,3
16x2	6,3	5,9	10,2	9,5	14,2	13,2	18,1	16,9	22,0	20,5
16x1,5	8,8	8,0	13,9	12,8	19,1	17,5	24,3	22,3	29,4	27,0
18x2,5	5,5	5,2	9,0	8,6	12,5	11,9	16,1	15,3	19,6	18,6
18x2	7,1	6,7	11,5	10,9	15,8	15,0	20,2	19,1	24,5	23,2
18x1,5	10,1	9,3	15,9	14,6	21,7	20,0	27,6	25,4	33,4	30,7
20x2,5	6,3	5,9	10,2	9,6	14,2	13,3	18,1	16,9	22,0	20,6
20x2	8,1	7,7	12,9	12,2	17,8	16,8	22,6	21,4	27,5	25,9
20x1,5	11,4	10,5	17,9	16,4	24,4	22,4	30,9	28,3	37,4	34,3
22x2,5	7,1	6,5	11,4	10,5	15,8	14,5	20,1	18,5	24,5	22,5
22x2	9,1	8,5	14,4	13,4	19,8	18,4	25,1	23,4	30,4	28,4
22x1,5	12,7	11,6	19,9	18,1	27,0	24,6	34,2	31,1	41,3	37,6
24x3	6,3	5,9	10,2	9,7	14,2	13,4	18,1	17,1	22,0	20,9
24x2	10,1	9,2	15,9	14,6	21,7	19,9	27,6	25,3	33,4	30,6
24x1,5	14,0	12,9	21,8	20,1	29,7	27,3	37,5	34,5	45,3	41,7
26x1,5	15,4	14,2	23,8	22,0	32,3	29,8	40,8	37,6	49,2	45,4
27x3	7,3	6,8	11,7	11,0	16,2	15,2	20,6	19,3	25,1	23,5
27x2	11,6	10,6	18,1	16,7	24,7	22,7	31,3	28,8	37,9	34,8
30x3,5	6,9	6,5	11,1	10,5	15,3	14,5	19,5	18,6	23,8	22,6
30x3	8,1	7,6	12,9	12,2	17,8	16,8	22,6	21,3	27,5	25,9
30x2	13,0	12,0	20,4	18,7	27,7	25,4	35,0	32,1	42,3	38,8
33x3,5	7,7	7,4	12,4	11,8	17,0	16,2	21,7	20,7	26,4	25,1
33x3	9,1	8,5	14,4	13,5	19,8	18,5	25,1	23,6	30,4	28,6
33x2	14,5	13,3	22,6	20,6	30,6	28,0	38,7	35,3	46,8	42,7
36x4	7,3	6,9	11,7	11,2	16,2	15,4	20,6	19,6	25,1	23,8
36x3	10,1	9,5	15,9	14,9	21,7	20,4	27,6	25,9	33,4	31,4
39x4	8,0	7,7	12,9	12,2	17,7	16,8	22,5	21,4	27,3	26,0
42x4,5	7,6	7,3	12,2	11,8	16,8	16,2	21,5	20,7	26,1	25,1
42x3	12,1	11,4	18,9	17,8	25,7	24,2	32,5	30,6	39,3	37,1

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI UNC

UNC wire-thread insert dimensions

30 

UNC

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *ø Coil free min*	Diametro Coil non installato max (mm) *ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
NO. 8 x 32	4,4	5,08	5,59	9,83	9,02	6,25	5,50	6,10
NO.10 x 24	5,1	6,10	6,60	11,99	10,92	7,24	4,60	5,00
NO.12 x 24	5,7	6,86	7,11	12,98	11,94	8,23	5,60	6,00
1/4 x 20	6,7	7,87	8,38	15,24	13,97	9,53	5,30	5,70
5/16 x 18	8,3	9,65	10,16	18,24	16,84	11,91	6,30	6,70
3/8 x 16	9,9	11,43	11,94	21,44	19,84	14,27	6,80	7,20
7/16 x 14	11,6	13,21	13,97	24,82	23,01	16,66	7,00	7,40
1/2 x 13	13,0	14,99	15,75	27,84	25,88	19,05	7,50	8,00
9/16 x 12	15,0	16,76	17,53	30,96	28,83	21,44	7,90	8,40
5/8 x 11	16,5	18,80	19,56	34,21	31,90	23,80	8,10	8,50
3/4 x 10	19,8	22,10	23,11	40,01	37,47	28,58	9,00	9,50
7/8 x 9	23,0	25,65	26,67	46,02	43,21	33,32	9,60	10,00
1' x 8	26,2	29,21	30,48	52,37	49,20	38,10	9,80	10,20
1.1/8 x 7	29,5	33,02	34,54	59,18	55,55	42,85	9,60	10,10
1.1/4 x 7	32,5	36,07	37,59	63,96	60,33	47,63	10,90	11,40
1.1/2 x 6	39,5	43,18	44,96	76,20	71,96	57,15	11,20	11,70

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI UNF

UNF wire-thread insert dimensions

31 

UNF

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *ø Coil free min*	Diametro Coil non installato max (mm) *ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
NO. 8 x 36	4,4	5,08	5,59	9,42	8,71	6,25	6,1	6,9
NO.10 x 32	5,1	5,84	6,60	10,82	10,01	7,24	6,4	7,2
1/4 x 28	6,6	7,62	8,38	13,61	12,70	9,53	7,7	8,5
5/16 x 24	8,2	9,40	10,16	16,66	15,60	11,91	8,5	9,2
3/8 x 24	9,8	10,92	11,94	19,05	17,98	14,27	10,5	11,4
7/16 x 20	11,5	12,95	13,97	22,38	21,11	16,66	10,2	11,1
1/2 x 20	13,0	14,48	15,75	24,77	23,50	19,05	11,9	12,9
9/16 x 18	14,7	16,26	17,53	27,76	26,37	21,44	12,2	13,3
5/8 x 18	16,3	17,78	19,30	30,15	28,75	23,80	13,8	14,9
3/4 x 16	19,5	21,34	22,86	35,71	34,14	28,58	14,7	15,9
7/8 x 14	22,5	24,89	26,67	41,50	39,67	33,32	15,1	16,3
1' x 12	26,0	28,45	30,48	47,63	45,52	38,10	14,8	16
1.1/8 x 12	29,5	31,75	33,78	52,37	50,27	42,85	16,9	18,2
1.1/4 x 12	32,5	34,80	37,34	57,15	55,04	47,63	19	20,4
1.1/2 x 12	38,5	41,15	44,45	66,68	64,57	57,15	23,1	24,9
1.1/2 x 6	39,5	43,18	44,96	76,20	71,96	57,15	11,20	11,70

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI BSW

BSW wire-thread insert dimensions

32



BSW

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *ø Coil free min*	Diametro Coil non installato max (mm) *ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
1/8 x 40	3,4	3,81	4,32	7,62	6,99	4,75	5,1	5,8
3/16 x 24	5,0	5,84	6,60	11,91	10,85	7,14	4,6	5,1
1/4 x 20	6,7	7,87	8,38	15,24	13,97	9,53	5,4	5,9
5/16 x 18	8,3	9,40	10,16	18,24	16,84	11,91	6,4	6,9
3/8 x 16	10,0	11,18	11,94	21,44	19,84	14,27	6,9	7,4
7/16 x 14	11,6	13,21	13,97	24,82	23,01	16,66	7,1	7,6
1/2 x 12	13,0	14,99	16,00	28,58	26,47	19,05	7,0	7,4
9/16 x 12	14,8	16,51	17,53	30,96	28,83	21,44	8,0	8,6
5/8 x 11	16,7	18,29	19,56	34,21	31,90	23,80	8,2	8,7
3/4 x 10	20,0	21,84	22,86	40,01	37,47	28,58	9,2	9,7
7/8 x 9	23,2	25,15	26,67	46,02	43,21	33,32	9,7	10,2
1" x 8	26,5	28,70	30,48	52,37	49,20	38,10	9,9	10,4

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI BSF

BSF wire-thread insert dimensions

33



BSF

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *ø Coil free min*	Diametro Coil non installato max (mm) *ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
3/16 x 32	5,0	5,84	6,35	10,72	9,91	7,14	6,5	7,2
1/4 x 26	6,6	7,62	8,38	13,92	12,95	9,53	7,1	7,9
5/16 x 22	8,3	9,40	10,16	17,09	15,95	11,91	7,7	8,5
3/8 x 20	9,8	11,18	12,19	19,99	18,72	14,27	8,6	9,4
7/16 x 18	11,6	12,95	14,22	23,01	21,62	16,66	9,1	10,0
1/2 x 16	13,2	14,73	16,00	26,19	24,61	19,05	9,3	10,2
9/16 x 16	14,8	16,26	17,78	28,58	26,97	21,44	10,6	11,7
5/8 x 14	16,3	18,29	19,56	31,98	30,15	23,80	10,4	11,3
3/4 x 12	19,5	21,84	23,37	38,10	35,99	28,58	10,8	11,7
7/8 x 11	22,8	25,15	27,18	43,74	41,43	33,32	11,6	12,6
1" x 10	26,2	28,70	30,99	49,53	46,99	38,10	12,1	13,2

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI BSP

BSP wire-thread specific insert dimensions

34



BSP

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *ø Coil free min*	Diametro Coil non installato max (mm) *ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
1/8 x 28	10,0	10,92	11,94	8,84	7,92	4,75	3,2	3,6
1/4 x 19	13,6	14,99	16,26	15,54	14,20	9,53	5	5,4
3/8 x 19	17,1	18,54	20,07	20,29	18,97	14,27	8,2	8,9
1/2 x 14	21,5	23,37	25,15	27,20	25,40	19,05	8,1	8,8
5/8 x 14	23,4	25,40	27,43	31,95	30,15	23,80	10,4	11,3
3/4 x 14	27,0	28,96	31,24	36,73	34,93	28,58	12,9	13,9
7/8 x 14	30,5	32,77	35,31	41,50	39,67	33,32	15,3	16,5
1" x 11	33,7	36,32	39,12	48,49	46,18	38,10	13,6	14,7

VELOCITÀ DI TAGLIO ESPRESSE IN M/MIN PER ALESATORI IN FUNZIONE DEL MATERIALE DA LAVORARE

Cutting speed chart in m/min for reamers according to the work-piece material

35 

Alesatori
Reamers

Materiale da lavorare *Work-piece material*	**Velocità di taglio** *Cutting speed (m/min)*
Acciaio con R<550 MPa *Steel with R<550 MPa*	10÷15
Acciaio con 550<R<850 MPa *Steel with 550<R<850 MPa*	12÷15
Acciaio 850<R<1200 MPa *Steel with 850<R<1200 MPa*	7÷10
Acciaio inox austenitico *Austenitic stainless steel*	6÷8
Acciaio inox ferritico o martensitico *Ferrtici and martensitic stailess steel*	5÷6
Acciaio inox duplex o alto legato *Duplex and high alloy stainless steel*	4÷5
Ghisa nodulare *Nodular cast iron*	9÷11
Ghisa lamellare *Lamellar cast iron*	13÷15
Rame e sue leghe a truciolo lungo *Copper and long chip alloys*	16÷20
Rame e sue leghe a truciolo corto *Copper and short chip alloys*	20÷24
Plastica *Plastics*	11÷13
Polimeri termoindurenti *Thermosetting polymers*	7÷10

Utilizzare valori di avanzamento più elevati rispetto alle operazioni di foratura, perché in alesatura si asporta un minor volume di materiale. Inoltre si utilizzano velocità di taglio inferiori per evitare il surriscaldamento dell'utensile e del pezzo in lavorazione.
Use higher feed rates than drilling operations, because a smaller volume of material is removed in reaming. Furthermore, lower cutting speeds are used to prevent overheating of the tool and the work-piece material.)

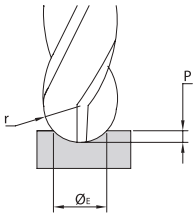
VELOCITÀ DI TAGLIO ESPRESSE IN M/MIN PER FRESE FRONTALI IN FUNZIONE DEL MATERIALE DA LAVORARE

Cutting speed chart in m/min for end mills according to the work-piece material

36 

Frese frontali
End mills

Materiale da lavorare *Work-piece material*	**Velocità di taglio** *Cutting speed (m/min)* **HSS-CO**	**Velocità di taglio** *Cutting speed (m/min)* **HSS-CO+TiAlN**	**Velocità di taglio** *Cutting speed (m/min)* **HM**
Acciaio con R<550 MPa *Steel with R<550 MPa*	15÷25	25÷40	40÷80
Acciaio con 550<R<850 MPa *Steel with 550<R<850 MPa*	10÷15	15÷30	30÷45
Acciaio 850<R<1200 MPa *Steel with 850<R<1200 MPa*	12÷20	20÷25	25÷30
Acciaio inox austenitico *Austenitic stainless steel*	12÷15	15÷20	20÷25
Acciaio inox ferritico o martensitico *Ferrtici and martensitic stailess steel*	8÷12	12÷20	20÷22
Acciaio inox duplex o alto legato *Duplex and high alloy stainless steel*	5÷8	8÷10	10÷12
Ghisa nodulare *Nodular cast iron*	20÷30	30÷40	40÷50
Ghisa lamellare *Lamellar cast iron*	15÷20	20÷30	30÷60
Rame e sue leghe a truciolo lungo *Copper and long chip alloys*	50÷100	100÷110	110÷220
Plastica *Plastics*	50÷100	100÷170	170÷300
Alluminio *Aluminium*	50÷100	100÷170	170÷300
Polimeri termoindurenti *Thermosetting polymers*	20÷30	30÷45	45÷60



$$n° \text{ giri/min (r.p.m.)} = \frac{Vt \text{ (Mt/min)} \times 1000}{3{,}14 \times Ø \text{ (mm)}}$$

Nel caso di frese frontali raggiate usare $Ø_E$ al posto di Ø
When using ball nose end mills please insert $Ø_E$ instead of Ø

$$Ø_E = 2\sqrt{P(2r-P)}$$

Tasso di rimozione del materiale T
Material removing rate T

$$T = \frac{P \times R \times A}{1000} \quad \frac{Cm^3}{min}$$

P Profondità assiale (mm) *Axial depth*
R Profondità radiale (mm) *Radial depth*
A Avanzamento (mm/min) *Feed*

CORRISPONDENZA MISURE METRICHE E MISURE IN POLLICI PER PUNTE DA EDILIZIA

Correspondence of metric and inches dimensions for construction tips

37

Dimensioni in mm *Dimensions (mm)*	**Dimensioni in pollici** *Dimensione (inches)*
3,5X110	9/64x4
3,5X135	9/64x5
4X110	5/32x4
4X160	5/32x6
5X110	3/16x4
5X160	3/16x6
5X210	13/64x8
5X310	3/16x12
5,5X110	7/32x4
5,5X160	7/32x6
5,5X210	7/32x8
5,5X260	7/32x10
5,5X310	7/32x12
5,5X460	7/32x18
6X110	15/64x4
6X160	15/64x6
6X210	15/64x8
6X260	15/64x10
6X460	15/64x18
6,5X110	1/4x4
6,5X160	1/4x6
6,5X210	1/4x8
6,5X260	1/4x10
6,5X310	1/4x12
7X110	9/32x4
7X160	9/32x6
7X210	9/32x8
8X110	5/16x4
8X160	5/16x6
8X210	5/16x8
8X260	5/16x10
8X310	5/16x12
8X410	5/16x16
8X460	5/16x18
8X610	5/16x24
9X160	11/32x6
9X210	11/32x8
9,5X160	3/8x6
10X1000	3/8x40
10X110	3/8x4
10X160	3/8x6
10X210	3/8x8
10X260	3/8x10
10X310	3/8x12
10X360	3/8x14
10X460	3/8x18
10X610	3/8x24
11X160	7/16x6
11X210	7/16x8
11X260	7/16x10
11X310	7/16x12
12X1000	15/32x40
12X160	15/32x6
12X210	15/32x8
12X260	15/32x10
12X310	15/32x12

Dimensioni in mm *Dimensions (mm)*	**Dimensioni in pollici** *Dimensione (inches)*
12X360	15/32x14
12X460	15/32x18
12X610	15/32x24
13X160	1/2x6
13X210	1/2x8
13X260	1/2x10
13X310	1/2x12
13X460	1/2x18
14X1000	9/16x40
14X160	9/16x6
14X210	9/16x8
14X260	9/16x10
14X310	9/16x12
14X460	9/16x18
14X610	9/16x24
15X160	19/32x6
15X210	19/32x8
15X260	19/32x10
15X460	19/32x18
16X1000	5/8x40
16X160	5/8x6
16X210	5/8x8
16X260	5/8x10
16X310	5/8x12
16X460	5/8x18
16X610	5/8x24
16X800	5/8x32
17X210	11/16x8
18X1000	23/32x40
18X200	23/32x8
18X250	23/32x10
18X300	23/32x12
18X450	23/32x18
18X600	23/32x24
19X200	24/32x8
19X450	24/32x18
20X1000	25/32x40
20X200	25/32x8
20X300	25/32x12
20X450	25/32x18
20X600	25/32x24
22X1000	7/8x40
22X250	7/8x10
22X300	7/8x12
22X450	7/8x18
22X600	7/8x24
24X250	15/16x10
24X450	31/32x18
25X1000	1"x40
25X250	1"x10
25X300	1"x12
25X450	1"x18
26X250	1-1/32x10
26X450	1-1/32x18
28X450	1-1/8x18
30X450	1-3/16x18

Taglio materiali edili / *Building materials cutting*

VELOCITÀ DI TAGLIO ESPRESSE IN GIRI AL MINUTO PER LA FORATURA NEL MURO E NEL CEMENTO

Cutting speed chart in RPM for drilling into concrete and bricks

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Muro
Masonry

Diametro Punta *Drill size*	3	4	5	6	8	10	12	14	16
Velocità giri/min. *Speed r.p.m.*	2000	1800	1400	1200	900	700	600	500	400

Consigli / Tips **Granito e pietre dure: ridurre la velocità del 40÷60%**
Granite and hard stones: reduce speed (-40÷60%)

VELOCITÀ DI TAGLIO ESPRESSE IN GIRI AL MINUTO NELL'IMPIEGO DELLE PUNTE UNIVERSALI "FORATUTTO"

Cutting speed chart in RPM for drilling with universal drills

39 

Foratutto
Multi-Purpose

Materiale da lavorare *Work-piece material*	**Diametro punta** / *Drill size (mm)*	
	3÷7	8÷12
	Velocità di taglio / *Cutting speed (r.p.m.)*	
Acciaio duro *Hard steel*	1800÷800	800÷500
Muro, Marmo *Masonry, Marble*	2000÷800	800÷500
Vetro, Ceramica* *Glass, Tiles*	1000÷400	400÷300
Legno, Plastica *Wood, Plastics*	1200÷600	600÷300

***Consigli** / Tips **Velocità più bassa possibile. Lubrificare con trementina**
Lowest speed possible. Use kerosene as lubricant

VELOCITÀ DI TAGLIO PER FRESE A TAZZA PER EDILIZIA A SOLA ROTAZIONE,IN FUNZIONE DEL MATERIALE DA LAVORARE

Cutting speed chart in RPM for drilling into concrete and bricks on rotation only

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Frese a tazza con denti in MD
Carbide tipped hole cutters

Materiale da lavorare *Work-piece material*	**Diametro fresa** / *Core bit diameter (mm)*			
	16÷35	38÷55	60÷85	100÷150
	Velocità di taglio / *Cutting speed (r.p.m.)*			
Calcestruzzo, Muro *Concrete, Masonry*	2800÷1600	1500÷1000	950÷680	580÷380
Ceramica, Marmo *Tiles, Marble*	2500÷1100	1000÷700	650÷450	400÷250
Pietra *Stone*	1800÷800	750÷500	470÷340	300÷200

VELOCITÀ DI TAGLIO PER FRESE A ROTOPERCUSSIONE PER EDILIZIA IN FUNZIONE DEL MATERIALE DA LAVORARE

Chart for percussion core bits selection and relative cutting speed in accordance with the materials to work

41 

Rotopercussione
Rotary percussion

Materiale da lavorare *Work-piece material*	**Diametro fresa** / *Core bit diameter (mm)*			
	25÷40	45÷65	70÷100	110÷130
	Velocità di taglio / *Cutting speed (r.p.m.)*			
Calcestruzzo, Muro *Concrete, Masonry*	2150÷1350	1200÷850	770÷550	500÷400
Cemento armato *Armoured concrete*	1600÷1000	900÷600	550÷400	360÷300
Pietre dure *Hard stone*	760÷470	420÷300	270÷200	170÷150

VELOCITÀ DI TAGLIO PER FRESE A TAZZA CON DENTI RIVESTITI IN CARBURO DI TUNGSTENO IN GRANI

Chart for carbide grit hole saw selection and relative cutting speed

42



Frese a tazza con denti rivestiti in grani di carburo di tungsteno
Carbide grit hole saws

Materiale da lavorare *Work-piece material*	**Diametro fresa** / *Core bit diameter (mm)*							
	16÷20	22÷29	32÷38	44÷51	54÷60	64÷76	83÷95	102÷114
	Velocità di taglio / *Cutting speed (r.p.m.)*							
Mattoni, Ceramica *Brick, Ceramic*	500	350	260	190	160	130	100	80
Ardesia *Slate*	1200	850	650	480	400	320	260	220
Plastica rinforzata *Reinforced plastics*	1700	1200	900	670	570	450	350	300
Fibre *Fiber*	710	510	390	290	250	190	160	125

Consigli / Tips **Assicurare una continua refrigerazione ad acqua**
Keep a continuos water cooling

VELOCITÀ DI TAGLIO PER PUNTE E FRESE A TAZZA DIAMANTATE NELLA FORATURA DI PIASTRELLE IN GRES PORCELLANATO

Chart for carbide grit hole saw selection and relative cutting speed for sandware

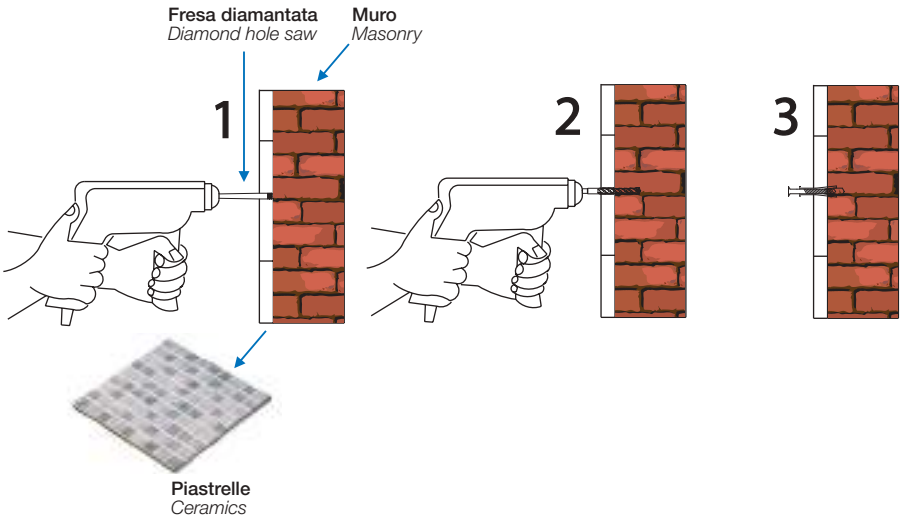
43



Frese a tazza diamantate
Diamond core drills

Diametro fresa *Core drill diameter*	4÷6	8÷10	12÷16	18÷25	28÷35	40÷50	60÷80
Velocità giri/min. *Speed r.p.m.*	3000	2000	1500	1000	600	400	300

Consigli / Tips **Assicurare una continua refrigerazione ad acqua**
Keep a continuos water cooling



VELOCITÀ DI TAGLIO PER PUNTE PER LEGNO NELLA FORATURA DI LEGNI DURI E TENERI

Chart for woodworking drills selection and relative cutting speed into soft and hard wood

44

	Articolo *Item*	Materiale da lavorare *Work-piece material*	Velocità di taglio *Cutting speed (r.p.m.)*
	Punta per legno con punta guida a centrare *Wood working drills brad point* *Art. 05001, 05020, 05025, 05200, 05210, 05212*	legno tenero / *soft wood* legno duro / *tough wood*	800÷1400 700÷1200
	**Punta elicoidale per legno per casseformi** *Wood working drills for plankings* *Art. 05030, 05033*	legno tenero / *soft wood* legno duro / *tough wood*	700÷1200 600÷1000
	**Punta a spirale tipo Lewis** *Auger bits, Lewis type* *Art. 05035, 05036, 05037, 05038, 05040, 05042, 05044*	legno tenero / *soft wood* legno duro / *tough wood*	400÷1200 300÷1000

Consigli / Tips **Per articoli professionali, aumentare la velocità di +25%**
For professional use, increse cutting speed +25%

VELOCITÀ DI TAGLIO PER UTENSILI PER LEGNO NELLA FORATURA DI LEGNI DURI E TENERI

Chart for woodworking drills selection and relative cutting speed into soft and hard wood

45

	Articolo *Item*	Materiale da lavorare *Work-piece material*	Velocità di taglio *Cutting speed (r.p.m.)*
	**Mecchia piatta** *Wood spade bit* *Art. 05045, 05048*	legno tenero / *soft wood* legno duro / *tough wood*	500-1500 400-1300
	**Mecchia regolabile** *Expansive wood bit* *Art. 050503*	legno tenero / *soft wood* legno duro / *tough wood*	400-1300 300-1200
	**Frese Forstner in WS** *Wood center bits, forstner type (WS)* *Art. 05063, 05067*	legno tenero / *soft wood* legno duro / *tough wood*	600-2000 500-1700
	**Frese Forstner in MD** *Wood center bits, forstner type (HM)* *Art. 05065*	legno tenero / *soft wood* legno duro / *tough wood*	800-2200 700-2000

VELOCITÀ DI TAGLIO PER FRESE A TAZZA NELLA FORATURA DI LEGNI DURI E TENERI

Chart for hole saws selection and relative cutting speed into soft and hard wood

46

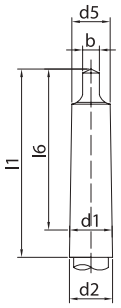
	Articolo *Item*	Materiale da lavorare *Work-piece material*	Velocità di taglio *Cutting speed (r.p.m.)*
	**Frese a tazza** *Hole saws for wood* *Art. 05078*	legno tenero / *soft wood* legno duro / *tough wood*	300-600 200-500

DIMENSIONI CARATTERISTICHE DEI CONI MORSE IN ACCORDO ALLA NORMA DIN 228

Morse taper drill chucks dimensions in accordance with the DIN 228 standards

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Coni morse
Morse taper



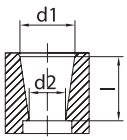
Cono Morse	*l 1* mm	*l 6* mm	*d1* mm	*d5* mm	*b* mm	*d2* mm	*Conicità* %
0	59,5	56,5	9,045	6,1	3,9	9,2	5,205
1	65,5	62,0	12,065	9,0	5,2	12,2	4,988
2	80,0	75,0	17,780	14,0	6,3	18,0	4,995
3	99,0	94,0	23,825	19,1	7,9	24,1	5,020
4	124,0	117,5	31,267	25,2	11,9	31,6	5,194
5	156,0	149,5	44,339	36,5	15,9	44,7	5,263
6	218,0	210,0	63,348	52,4	19,0	63,8	5,214

DIMENSIONI CARATTERISTICHE DEI CONI DI ATTACCO DEI MANDRINI IN ACCORDO ALLE NORME DIN 238 E JACOBS®

Taper drill chucks dimensions in accordance with the DIN 238 standards and Jacobs®

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Coni di attacco dei mandrini
Taper drill chuck shank



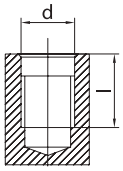
Tipo di norma	*Cono del mandrino*	*d1* mm	*d2* mm	*l* mm
DIN 238	B6	6,35	5,85	10,0
	B10	10,094	9,4	14,5
	B12	12,065	11,1	18,5
	B16	15,733	14,5	24,0
	B18	17,780	16,2	32,0
	B22	21,793	19,8	40,5
	B24	23,825	21,3	50,5
JACOBS	J0	6,350	5,803	11,11
	J1	9,754	8,468	16,67
	J2	14,2	12,39	22,23
	J2 corto	13,94	12,39	19,05
	J33	15,85	14,24	25,4
	J6	17,17	15,85	25,4
	J3	20,6	18,95	30,96
	J4	28,55	26,35	42,07

DIMENSIONI CARATTERISTICHE DEGLI ATTACCHI FILETTATI DEI MANDRINI

Thread drill chucks dimensions

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Attacchi filettati dei mandrini
Threaded drill chuck shank



Tipo	*Classe*	*d* mm	*Passo* mm	*l* mm
3/8” x 24 UNF	3B	9,525	1,058	14,5
1/2” x 20 UNF	3B	12,700	1,270	16,0
5/8” x 16 UNF	3B	15,875	1,588	19,0
3/4” x 16 UNF	3B	19,050	1,588	19,0
M14 x 2	MA	14,00	2,00	19,0
M18 x 2.5	MA	18,00	2,50	19,0

VALORI DI TOLLERANZA ESPRESSI IN MM IN FUNZIONE DEL DIAMETRO DELL'UTENSILE

Tolerance values according to the tool diameter

50

Gradi di tolleranza *Tolerance grade*	Diametro dell'utensile (mm) / *Tool diameter (mm)*					
	0÷3	**3÷6**	**6÷10**	**10÷18**	**18÷30**	**30÷50**
h8 (toll. costruttiva delle punte per metallo in acciaio superrapido rettificate) *Production tolerance of hss ground twist drills*	0 -0,014	0 -0,018	0 -0,022	0 -0,027	0 -0,027	0 -0,039
H10 (toll. minima sul foro creato dalle punte per metallo rettificate) *Minimum tolerance of the hole made by ground twist drills*	+0,040 0	+0,048 0	+0,058 0	+0,070 0	+0,070 0	+0,100 0
H12 (toll. massima sul foro creato dalle punte per metallo rettificate) *Maximum tolerance of the hole made by ground twist drills*	+0,100 0	+0,120 0	+0,150 0	+0,180 0	+0,180 0	+0,250 0
h7 (toll. costruttiva delle punte in metallo duro) *Production tolerance of carbide twist drills*	0 -0,010	0 -0,012	0 -0,015	0 -0,018	0 -0,018	0 -0,025
h10 (toll. costruttiva di svasatori e frese frontali in metallo duro) *Production tolerance of carbide end mills and deburring tools*	0 -0,040	0 -0,048	0 -0,058	0 -0,070	0 -0,070	0 -0,100
G6 (toll. sul filetto creato dai maschi sovradimensionati in acciaio superrapido) *Production tolerance of the thread made by hss oversized taps*	+0,008 +0,002	+0,012 +0,004	+0,014 +0,005	+0,017 +0,006	+0,017 +0,006	+0,025 +0,009
G7 (toll. sul filetto creato dai maschi sovradimensionati in acciaio superrapido) *Production tolerance of the thread made by hss oversized taps*	+0,012 +0,002	+0,016 +0,004	+0,020 +0,005	+0,024 +0,006	+0,024 +0,006	+0,034 +0,009
H7 (toll. sul foro creato dagli alesatori) *Tolerance of the hole made by the reamers*	+0,010 0	+0,012 0	+0,015 0	+0,018 0	+0,018 0	+0,025 0
e8 (toll. costruttiva delle frese frontali in acciaio superrapido) *Production tolerance of hss end mills*	-0,014 -0,028	-0,020 -0,038	-0,025 -0,047	-0,032 -0,059	-0,032 -0,059	-0,050 -0,089
k10 (toll. costruttiva delle frese frontali in acciaio superrapido) *Production tolerance of hss end mills*	+0,040 0	+0,048 0	+0,058 0	+0,070 0	+0,070 0	+0,100 0
k12 (toll. costruttiva delle frese frontali in acciaio superrapido) *Production tolerance of hss end mills*	+0,100 0	+0,120 0	+0,150 0	+0,180 0	+0,180 0	+0,250 0

Nota: I gradi di tolleranza IT5÷IT13 sono idonei agli usuali accoppiamenti meccanici
IT5÷IT13 tolerance range are suitable for the common mechanical coupling

TABELLA DI CONVERSIONE DELLE DUREZZE (ROCKWELL E VICKERS) E DI COMPARAZIONE CON I VALORI DI RESISTENZA A TRAZIONE

Hardness (Rockwell and Vickers) and traction resistance conversion chart

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HV *Vickers hardness*	**HRC** *Rockwell hardness*	**Carico di resistenza** *Tensile strength Carbon steel* (N/mm^2)	**Carico di resistenza** *Tensile strength Stainless steel* (N/mm^2)
940	68		
920	67,5		
900	67	2521	2374
880	66,4		
864	66		
860	65,9		
840	65,3		
829	65	2413	2276
820	64,7		
800	64		
782	63,5		
780	63,3		
773	63	2305	2178
760	62,5		
745	62		
740	61,8		
737	61,7	2217	2089
720	61		
700	60,1		
698	60		
690	59,7	2119	2001
680	59,2		
675	59		
670	58,8		
667	58,7		
660	58,3		
655	58	2040	1923
650	57,8		
639	57		

HV *Vickers hardness*	**HRC** *Rockwell hardness*	**Carico di resistenza** *Tensile strength Carbon steel* (N/mm^2)	**Carico di resistenza** *Tensile strength Stainless steel* (N/mm^2)
630	56,8		
620	56,3		
615	56	1962	1854
610	55,7		
600	55,2		
596	55		
590	54,7	1883	1785
580	54,1		
570	53,6		
569	53,5		
560	53	1815	1707
550	52,3		
547	52,1		
544	52		
540	51,7		
530	51,1		
528	51	1746	1648
520	50,5		
510	49,8		
508	49,6		
500	49,1		
491	48,5	1628	1540
490	48,4		
480	47,7		
472	47,1	1560	1481
470	46,9		
460	46,1		
455	45,7	1511	1432
450	45,3		

Nota: la durezza è la misura della resistenza di un materiale alla deformazione plastica. Si misura valutando l'area dell'impronta che lascia un penetratore sottoposto a un carico specifico. Il penetratore è una piramide di diamante con angolo al vertice di 136° per la durezza Vickers, mentre è un cono di diamante con angolo al vertice di 120° per la durezza Rockwell. / *Note: hardness is the measure of material strenght to plastic deformation. Push the indenter against the material at a certain load and measure the impression area to find the hardness value. The indenter can be a diamond pyramid with 136° angle at the top for Vickers hardness test or it can be a diamond cone with 120° angle at the top for Rockwell hardness test.*

SCALA MOHS DI DUREZZA

Mohs hardness scale

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Valore di durezza *Mohs value*	1	2	3	4	5	6	7	8	9	10
Materiali *Materials*	Talco *Talc*	Gesso *Gypsum*	Calcite *Calcite*	Fluorite *Fluorite*	Apatite *Apatite*	Ortoclasio *Orthoclase*	Quarzo *Quartz*	Topazio *Topaz*	Corindone *Corundum*	Diamante *Diamond*


KRINO
CUTTING TOOLS

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CONDIZIONI GENERALI DI VENDITA

Le condizioni di seguito riportate si intendono accettate dal committente in fase di ordinazione.

1. ORDINI: con il conferimento dell'ordine si intendono approvate dal committente tutte le condizioni di vendita in vigore, salvo accordi particolari accettati dai contraenti. Tutti gli ordini sono irrevocabili da parte del committente ma potranno non essere da noi evasi a nostro insindacabile giudizio e senza obbligo di comunicazione o giustificazione. Nell'ordine è necessario specificare il codice dell'articolo.
2. PREZZI: i prezzi si intendono per merce franco nostro magazzino (imballo, iva, trasporto esclusi) e non sono impegnativi. I prezzi che avranno valore saranno quelli in vigore al momento della spedizione.
3. IMBALLO: gratuito, salvo specifiche richieste del committente, che verranno fatturate al costo.
4. SPEDIZIONE: verrà effettuata come segue:
a) a mezzo nostro corriere di fiducia, in porto franco con addebito in fattura, in tal caso la merce sarà parzialmente assicurata** (vedere punto 10 dell'elenco);
b) a corriere di fiducia del committente: la resa sarà franco nostro stabilimento di Monticello e la merce viaggia a totale rischio e pericolo del committente. Pertanto in caso di ritardi, ammanchi, avaria, furti, etc. i reclami devono essere indirizzati al Vettore, solo ed unico responsabile.
5. CONSEGNE: il termine di consegna, qualora venisse indicato, è puramente indicativo e pertanto solleva la nostra società da ogni qualsivoglia rivalsa.
6. RECLAMI: debbono pervenire per iscritto entro 8 giorni dalla data di ricevimento merce. Trascorso tale termine, i reclami non verranno accettati. I reclami di qualsiasi natura non sospendono l'obbligo di effettuare i pagamenti nella forma convenuta. L'acquirente, nel caso che la merce sia da noi ritenuta non idonea, ha diritto esclusivamente alla sostituzione della stessa o all'accredito dell'importo. Ogni altro tipo di indennizzo si intende privo di valore. Per qualsiasi contestazione si elegge unico foro competente quello del Tribunale di Lecco.
7. RESI: ogni reso o sostituzione dovrà essere preventivamente autorizzato da KRINO SPA. La merce sarà accettata di ritorno, salvo verifica all'arrivo in magazzino. Questa dovrà essere inviata in porto franco e accompagnata dalla bolla di consegna con indicati gli estremi della fattura con la quale è stata precedentemente fornita.
8. PAGAMENTI: debbono essere effettuati esclusivamente alla nostra sede, secondo le forme concordate. Nel caso di ritardato pagamento, verranno addebitati gli interessi bancari dalla data di scadenza concordata sino all'avvenuto pagamento, maggiorati delle eventuali spese accessorie.
9. CARATTERISTICHE DEI PRODOTTI: le immagini contenute nel presente catalogo sono puramente indicative, pertanto la nostra azienda si riserva il diritto di apportare modifiche migliorative dei prodotti senza nessun obbligo di preavviso.

LA RIPRODUZIONE ANCHE PARZIALE DEL PRESENTE CATALOGO È VIETATA

10. VALORE DELL'ORDINE: la spedizione verrà effettuata come segue:
- ordini singoli (non cumulabili) di importo superiore a Euro 600,00: spedizione in porto franco a mezzo nostro corriere di fiducia;
- ordini singoli (non cumulabili) di importo inferiore ad Euro 600,00: spedizione in porto franco con addebito in fattura di Euro 10,00;
- ordini singoli (non cumulabili) di importo inferiore ad Euro 100,00: spedizione in porto franco con addebito in fattura di Euro 10,00 + addebito di € 10 per oneri gestionali.

Riepilogando:

Valore ordine	Trasporto / Addebito	Oneri gestionali
Maggiore di Euro 600,00	Porto Franco	-
Minore di Euro 600,00	Euro 10,00	-
Minore di Euro 100,00	Euro 10,00	Euro 10,00

GENERAL SALES CONDITIONS

1. ORDERS: when an order is placed, all conditions are automatically accepted by the client. The order is irrevocable but we reserve the right to accept it. All orders should specify the items numbers.
2. PRICES: all prices are ex works (packing, VAT and freight excluded).
3. PACKAGING: is free, a part of special requirements extra charged.
4. SHIPMENT: It can be CIF with invoice charge, by parcel post or with a forwarding agent suggested by the customer.
5. DELIVERY TIME: is purely indicative.
6. CLAIMS: They should be notified within 8 days from the date of goods receipt. We shall only arrange free replacement of the tools acknowledged as defective ones by us. In case of dispute, the Civil Court of LECCO will be competent.
7. GOODS RETURNED: Any goods return should be authorized by us.
8. PAYMENTS: to be made directly to our head office. In case of late payment, we charge the bank interest rate, including additional expenses.
9. PRODUCTS CARACTERISTICS: The images of this catalogue are purely indicatives, we reserve the right to make modifications without any notice.
THE REPRODUCTION OF THIS CATALOGUE IS PROHIBITED.
Any clause contained into your order sheets which is in contrast with the above mentioned conditions it is not valid.

CONDITIONS GENERAL DE VENTE

1. COMMANDES: Chaque commande envoyée accepte automatiquement nos conditions de vente. Les commandes sont irrévocables mais nous nous réservons le droit de les accepter. Dans les commandes signalez les codes des références.
2. PRIX: Les prix sont pour marchandise franco départ (emballage, VAT et transport exclus).
3. EMBALLAGE: gratuit, sauf spécifique demande du client et qui sera chargée sur la facture.
4. EXPEDITION: CIF avec charge sur facture, par plis postal ou par le transporteur du client.
5. DELAI DE LIVRAISON: Le délai est seulement indicatif.
6. RECLAMATIONS: Ils doivent être notifiés par écrit dans 8 jours de la date de réception de la marchandise. Ils seront pris en considération si les outils seront reconnues pour nous défectueux. Le Tribunal de LECCO sera compétent en cas de n'importe quelle contestation.
7. MERCHANDISE RENDUE: Chaque envoi doit être autorisé par nous.
8. PAIEMENTS: devront parvenir exclusivement à notre siège en respect des accords pris. En cas de
retards nous débiterons les intérêts de banque et tous les frais accessoires.
9. CARACTERISTIQUES DES PRODUITS: Les images contenues dans ce catalogue là sont indicatives. Notre société se réserve le droit d'apporter des modifications aux produits sans aucune notification.
LA REPRODUCTION DE CE CATALOGUE C'EST INTERDIT.
N'importe quelle clause contenue dans Vos commandes et en contradictions avec les conditions ci-dessus
n'est pas valable.

CONDICIONES GENERALES DE VENTA

1. PEDIDOS: con el envio del pedido el cliente acepta automáticamente todas las condiciones de venta.
2. PRECIOS: Los precios son porte debidos (embalajes, IVA y transporte excluidos)
3 EMBALAJE: gratuito. salvo embalaje especial cargado en factura.
4. PORTES: Pagado con cargo en factura, paquete postal, con trasportista del cliente.
5. PLAZO DE ENTREGA: aproximado
6. RECLAMACIONES: Se atenderán todas aquellas reclamaciones que se planten dentro del plazo de los 8 días siguientes a la recepción del material y comunicados sus discrepancias. En caso de litigio el fuero competente es el Tribunal de Lecco.
7. DEVOLUCIONES DE MATERIAL: Es obligatoria autorización de la Empresa para devolución del material.
8. PAGO: El pago debe ser enviado directamente a nuestra casa central.
9. CARACTERISTICAS DE LOS PRODUCTOS: Las imagines de este catalogo son indicativas. Nos reservamos el derecho de modificar cualquier articulo sin previo aviso.
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