

THE EXPERTS IN DRILLING.

// 2022 | 2023



drill better.
alpen

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| 189 | 69 | 638 | 143 | 784 | 246 | 980 | 96 |
| 202 | 181 | 640 | 166 | 785 | 248 | 981 | 96 |
| 216 | 202 | 642 | 166 | 786 | 250 | 982 | 96 |
| 226 | 203 | 648 | 166 | 787 | 252 | 983 | 96 |
| 228 | 203 | 654 | 166 | 788 | 254 | 984 | 96 |
| 234 | 212 | 655 | 140 | 789 | 256 | 985 | 96 |
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| 237 | 211 | 680 | 41 | 807 | 85 | 2270 | 287 |
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| 257 | 45 | 706 | 276 | 835 | 80 | 2320 | 297 |
| 258 | 46 | 707 | 275 | 837 | 87 | 2340 | 292 |
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| 289 | 54 | 709 | 283 | 847 | 87 | 2380 | 290 |
| 290 | 53 | 710 | 279 | 871 | 101 | 2387 | 290 |
| 297 | 52 | 711 | 280 | 872 | 101 | 2390 | 288 |
| 300 | 50 | 712 | 278 | 875 | 81 | 2397 | 288 |
| 301 | 125 | 713 | 278 | 877 | 88 | 5430 | 278 |
| 303 | 48 | 714 | 282 | 885 | 102 | 6146 | 225 |
| 311 | 124 | 717 | 274 | 886 | 102 | 6147 | 225 |
| 321 | 122 | 718 | 74 | 887 | 88 | 6156 | 228 |
| 327 | 74 | 719 | 284 | 888 | 102 | 6157 | 228 |
| 330 | 180 | 720 | 302 | 889 | 98 | 6405 | 233 |
| 331 | 123 | 721 | 305 | 890 | 98 | 6407 | 233 |
| 336 | 180 | 721 | 307 | 891 | 99 | 6530 | 232 |
| 352 | 39 | 722 | 303 | 892 | 99 | 6637 | 232 |
| 367 | 74 | 723 | 305 | 893 | 99 | | |
| 371 | 123 | 725 | 305 | 894 | 99 | | |
| 501 | 170 | 726 | 303 | 895 | 99 | | |

Spezialbohrer
Special drill bits
Brocas especiales

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Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cinceles

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Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
Broca para metal y broca de acero inoxidable

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Holzbohrer
Drills for wood
Brocas para madera

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Hartmetall Werkzeuge
Tungsten carbide tools
Herramientas de metal duro

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Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
Herramientas para roscar, avellanar y escarpar

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NEW

PROTECTOR

★★★★★

- ① Feinsteinzeug-Fliesenbohrer
- ② Porcelain / gres tile drill bit
- ③ Broca para baldosas de gres porcelánico

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Für das perfekte Bohrloch in den härtesten Feinsteinzeugfliesen.
For the perfect hole in the hardest porcelain tiles.
Para el agujero perfecto hasta en las baldosas de gres más resistentes.

max. 600 min⁻¹

HSS PZ-COBALT GRIP

★★★★★

- ① HSS Cobalt Spiralbohrer, 3-Flächenschaft, extra kurz, DIN 1897 PZ
- ② HSS Cobalt stub drills, 3-surface shank, DIN 1897 PZ
- ③ Broca espiral HSS Cobalt, eje de 3 cantos, extra corta, DIN 1897 PZ

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NEW

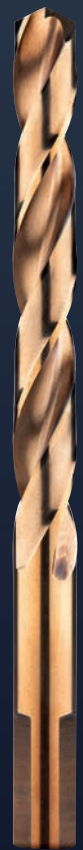
HSS COBALT GRIP

★★★★★

- ① HSS Cobalt Spiralbohrer, 3-Flächenschaft, kurz, DIN 338 RN
- ② HSS Cobalt jobber drills, 3-surface shank, DIN 338 RN
- ③ Broca espiral HSS Cobalt, eje de 3 cantos, corta, DIN 338 RN

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NEW



Der 3-Flächenschaft verhindert das Durchdrehen im Bohrfutter
The 3-surface shank prevents slipping in the chuck
El nuevo vástago antideslizante evita la rotación en el portabrocas



SDS MAX



① Stockermeißel

② Bushing chisel

③ Cíncel dentado

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Zum Aufrauen von Oberflächen und zur Entfernung von Betonüberständen.
For roughening surfaces and removing excess concrete.
Para legrar superficies y eliminar restos de hormigón.

HSS COBALT



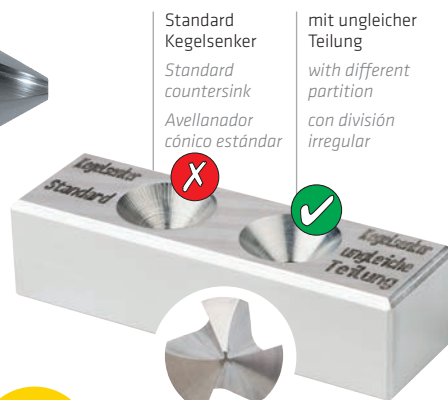
① HSS Cobalt Kegelsenker, ungleiche Teilung,

② HSS Cobalt countersinks, different partition,

③ Avellanador cónico HSS Cobalto, división irregular,

DIN 334 C, 60°

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DIN 335 C, 90°

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VIelfältiges KASSETTEN-SORTIMENT

② NUMEROUS CASSETTE-OPTIONS

③ GRAN VARIEDAD DE CAJAS

Wir bieten unseren Kunden ein breites Angebot an Set- und Kassettenlösungen, um den unterschiedlichsten Bedürfnissen zu entsprechen.

We offer a broad selection of sets and cassette options to cover our customers' varying requirements.

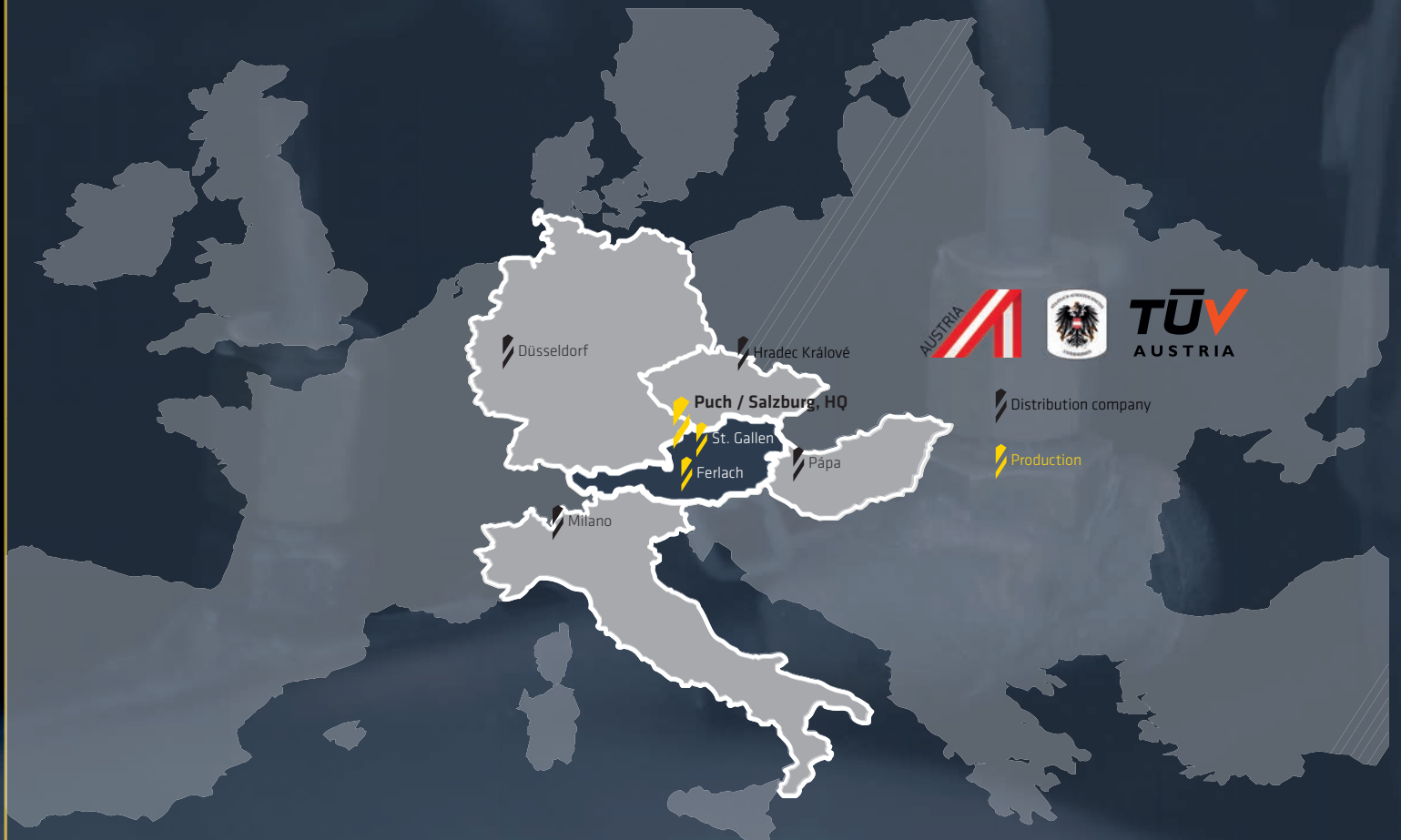
Asimismo, ofrecemos a nuestros clientes una amplia oferta de juegos y cajas para satisfacer las necesidades más variadas.



DER **BOHREXPORTE** FÜR PROFIS

Wir stehen für Qualität- Innovation - Zuverlässigkeit.

// Als führender Hersteller von Metall-, Stein- und Holzbohrern und als Europas einziger Komplettanbieter für Bohrwerkzeuge aus eigener Fertigung produzieren wir jährlich mehr als 35 Millionen professionelle und innovative Produkte für unsere Kunden. Unsere österreichischen Produktionsstandorte bedienen Profis weltweit - in über 70 Ländern. Auf Basis von mehr als 60 Jahren Erfahrung als Familienunternehmen und herausragenden Alleinstellungsmerkmalen sind wir überzeugt, das perfekte Werkzeug für jede Herausforderung zu bieten. Mithilfe intelligenter Technik setzen wir alles daran, die hohe Qualität noch weiter auszubauen und somit den Markt von morgen mitzugestalten.





E THE DRILL EXPERTS FOR PROFESSIONALS

We stand for quality – innovation – reliability.

As a leading manufacturer of drill bits for metal, masonry and wood and as Europe's only comprehensive provider of drilling tools from proprietary production, we produce more than 35 million professional and innovative products for our customers every year. Our Austrian production sites serve professionals worldwide - in over 70 countries. Based on more than 60 years of experience as a family-owned company and outstanding unique selling propositions, we are convinced to offer the perfect tool for every challenge. With the help of intelligent technology, we are doing everything we can to expand our high quality even further and thus help shape the market of tomorrow.

ES EL EXPERTO EN TALADROS PARA PROFESIONALES.

Somos una empresa de calidad, innovación y fiabilidad.

Como fabricante líder de brocas para metal, piedra y madera, y como único proveedor europeo de herramientas de perforación de producción propia, producimos cada año más de 35 millones de productos profesionales e innovadores para nuestros clientes. Nuestros centros de producción austríacos sirven a profesionales de todo el mundo, en más de 70 países. Gracias a nuestros más de 60 años de experiencia como empresa familiar y a nuestras extraordinarias propuestas de venta, estamos convencidos de que ofrecemos la herramienta perfecta para cada reto. Con la ayuda de la tecnología inteligente, hacemos todo lo posible para seguir ampliando nuestra alta calidad y contribuir así a dar forma al mercado del mañana.

UNSERE VIELSEITIGKEIT IST IHR GEWINN.

// Mit unserem Sortiment an über 4000 Standard- und Spezialbohrern garantieren wir Ihnen das perfekte Werkzeug für jede Anforderung. Egal wo Sie arbeiten - mit uns bohren Sie schneller, einfacher und wirtschaftlicher. Dabei überzeugen wir durch Qualität, kurze Bohrzeiten und hohe Standzeiten auch unter härtesten Bedingungen.



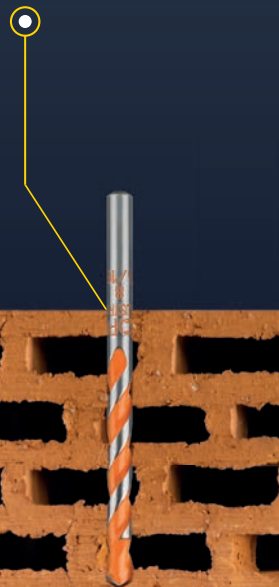
ALLESKÖNNER

- E** ALLROUNDER
- ES** EL POLIVALENTE



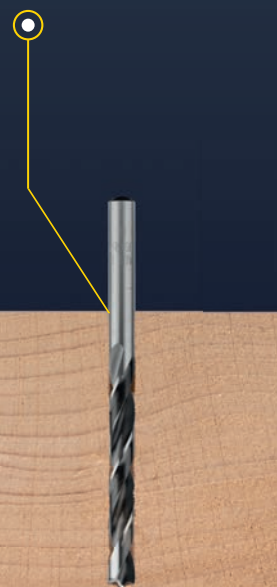
HOHLZIEGEL

- E** CAVITY BRICKS
- ES** LADRILLOS HUECOS



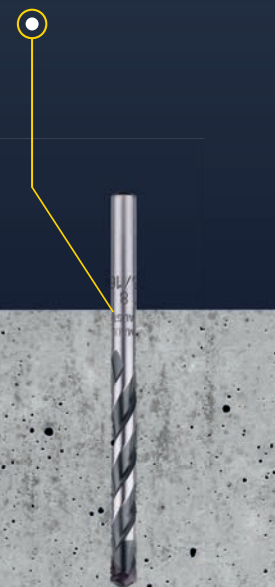
HOLZ

- E** WOOD
- ES** MADERA



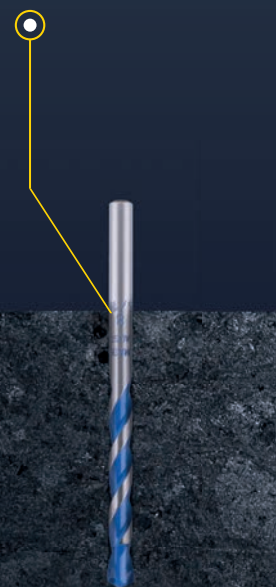
BETON

- E** CONCRETE
- ES** HORMIGÓN



GRANIT

- E** GRANITE
- ES** GRANITO



E OUR VERSATILITY IS YOUR GAIN

With our range of over 4,000 standard and special drills, we offer the perfect tool for every requirement. No matter where you work - with us you drill faster, easier and more economically. At the same time, we convince with quality, short drilling times and long tool life even under the toughest conditions.

ES NUESTRA VERSATILIDAD ES SU VENTAJA

Con nuestra gama de más de 4000 brocas estándar y especiales, le garantizamos la herramienta perfecta para cada necesidad. No importa dónde trabaje: con nosotros perforará más rápido, más fácil y más económicamente. Al mismo tiempo, convencemos con la calidad, los cortos tiempos de perforación y la larga vida útil incluso en las condiciones más duras.

METALL

- E** METAL
- ES** METAL



EDELSTAHL

- E** STAINLESS STEEL
- ES** ACERO INOXIDABLE



GLAS

- E** GLASS
- ES** VIDRIO



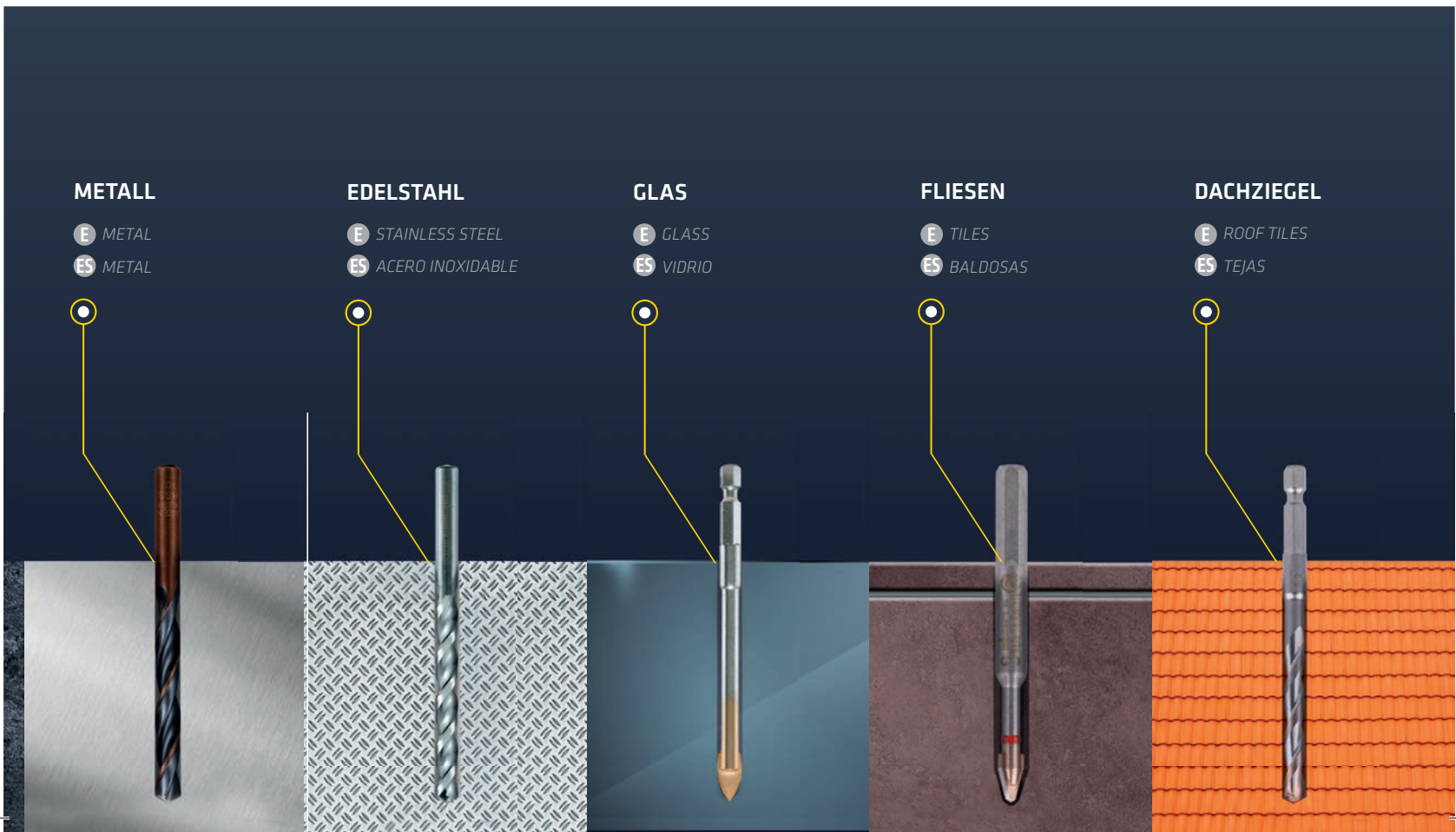
FLIESEN

- E** TILES
- ES** BALDOSAS



DACHZIEGEL

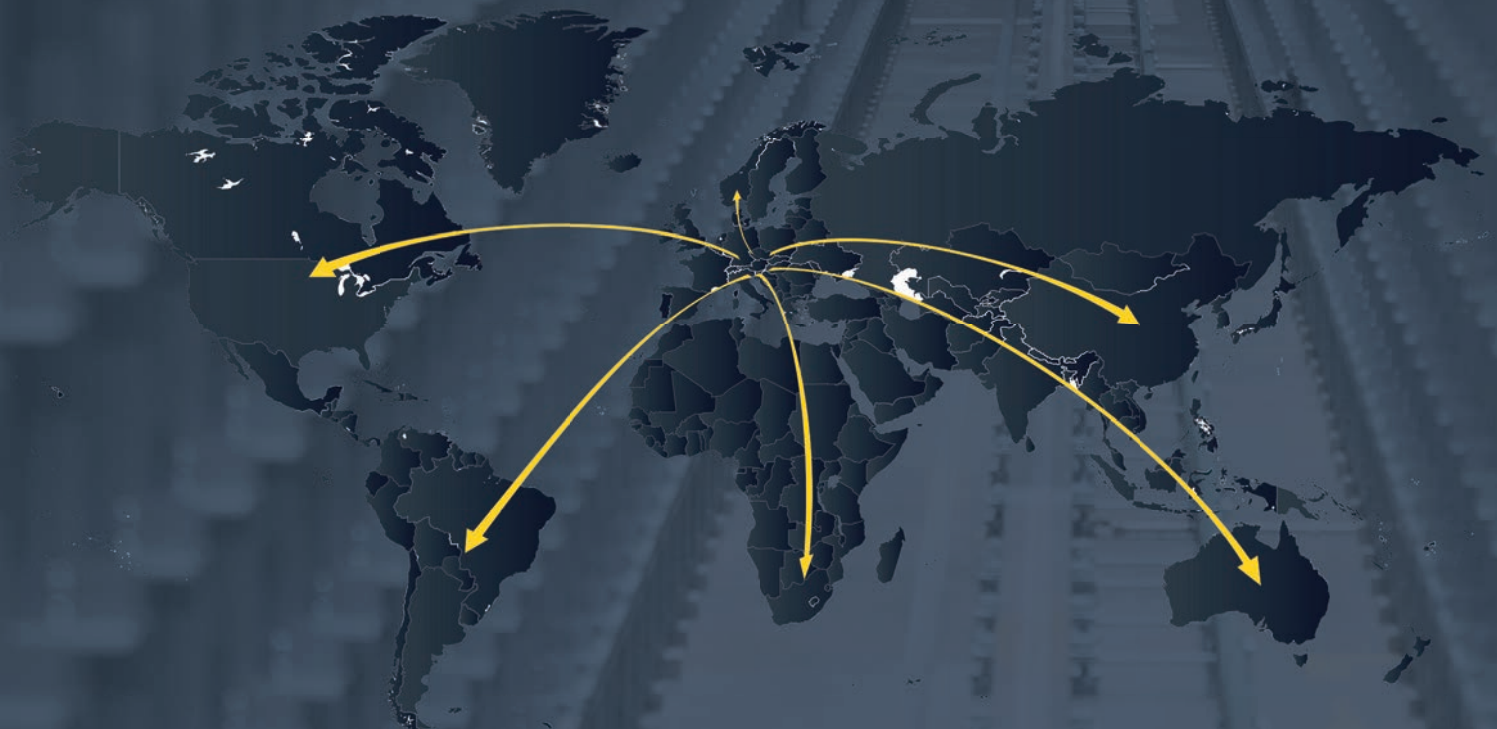
- E** ROOF TILES
- ES** TEJAS



DARAUF KÖNNEN SIE SICH **VERLASSEN**

Egal wann, egal wo – wir sind für Sie da und kümmern uns mit vollem Einsatz um Ihr Anliegen.

// Auf Basis von mehr als 60 Jahren Erfahrung und internationalen Netzwerken in über 70 Ländern liefern wir Ihnen eine Vielzahl an Produkten – täglich und weltweit. Dabei beraten wir Sie selbstverständlich allumfassend in vielen Sprachen. Indem wir flexibel unterschiedlichste IT-Anbindungen an Ihr Warenwirtschaftssystem realisieren, bestellen Sie noch unkomplizierter und einfacher.



E SERVICE YOU CAN RELY ON.

No matter when, no matter where - we are there for you and take care of your concerns with full commitment.

Based on more than 60 years of experience and international networks in over 70 countries, we deliver a wide range of products - daily and worldwide. And (needless to say) we advise you comprehensively in many languages. By flexibly implementing a wide variety of IT connections to your merchandise management system, you can order even more easily and conveniently.

ES UN SERVICIO EN EL QUE PUEDE CONFIAR.

No importa cuándo ni dónde, estamos a su disposición y nos ocupamos de sus preocupaciones con total compromiso.

Basándonos en más de 60 años de experiencia y en redes internacionales en más de 70 países, le suministramos una amplia gama de productos, a diario y en todo el mundo. Y (por supuesto) ofrecemos un asesoramiento completo en muchos idiomas. Gracias a la implementación flexible de una gran variedad de conexiones informáticas a su sistema de gestión de mercancías, podrá realizar pedidos de forma aún más fácil y sencilla.



WIR DENKEN FÜR SIE **VORAUSS**

// Wir wissen:
nur mit neuester Technologie und einer kontinuierlichen Weiterentwicklung können wir Ihnen das beste Werkzeug für jede Anforderung bieten. Und so arbeitet unsere Forschungs- und Entwicklungsabteilung stetig daran, noch präzisere, langlebigere und bessere Produkte zu gestalten.

E WE THINK IN ADVANCE ON YOUR BEHALF.

We know that we can only offer you the best tool for every requirement with the latest technology and continuous further development. This is why our Research and Development department is constantly working on designing even more precise, more durable and better products.

ES PENSAMOS POR USTED POR ADELANTADO.

*Lo sabemos:
sólo con la más novedosa tecnología y el continuo desarrollo podemos ofrecerle la mejor herramienta para cada necesidad. Por ello, nuestro departamento de investigación y desarrollo trabaja constantemente en el diseño de productos aún más precisos, más duraderos y mejores.*

CLEAN UP CLEAN BETTER.

Wir entwickeln uns ständig weiter - unser Gewerbeback auch!

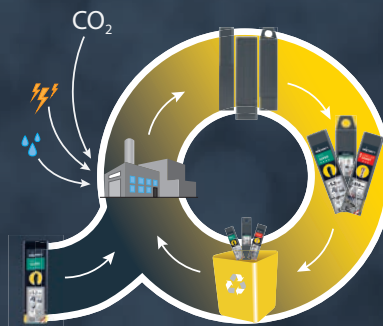
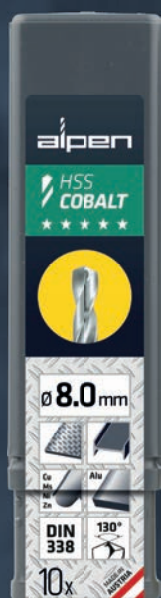
// Der Schutz der Umwelt betrifft uns alle und deshalb möchten wir auch hier einen Schritt weiter gehen. Unsere Gewerbeback-Verpackungen bestehen jetzt aus bereits recyceltem Material und sind ebenso wieder recycelbar.

**E WE ARE CONSTANTLY ENVOLVING -
OUR INDUSTRIALPACK TOO!**

The protection of the environment affects us all and that's the reason why we go one step further. Our Industrialpack is now made from material that has already been recycled and can also be recycled again.

**ES ESTAMOS EVOLUCIONANDO CON-
STANTEMENTE - NUESTRO PAQUETE
INDUSTRIAL TAMBIÉN!**

La protección del medio ambiente nos afecta a todos y por ello queremos dar un paso hacia adelante. Ahora nuestros paquetes industriales están fabricados a base de material reciclado y son de nuevo reciclables.







Diebstahlschutz

- E Anti-theft protection
- ES Protección antirrobo

Qualitätssystem

- E Quality system
- ES Sistema de calidad

Produkt

- E Product
- ES Producto

Infobox

- E Infobox
- ES Infobox

Materialhintergrund

- E Material background
- ES Fondo del material



Markenfläche & Farbleitsystem

- E Label space & colour guide system
- ES Espacio para la marca & sistema de guía por colores

Sicherheitshinweise

- E Safety notes
- ES Instrucciones de seguridad

Farbleitsystem & Produktname

- E Colour guide system & product name
- ES Sistema de guía por colores y nombre de los productos

Selbsterklärende Verpackung

Das Farbleitsystem, unterschiedliche Qualitätsstufen, Informationsgrafiken sowie die eindeutige Zuordnung der Anwendung schaffen Klarheit und Verständnis am POS.

- E Self-Explanatory packaging
The color coding system, different quality levels, information graphics and an unambiguous assignment of the application provide clarity and understanding at the POS.
- ES Envase intuitivo
Claridad y comprensión en el punto de venta: El sistema de guía por colores, diferentes niveles de calidad, gráficos informativos y una indicación clara del ámbito de uso.

Qualitätsstufen für jede Anforderung

- E Quality levels for every demand
- ES Niveles de calidad para todos los requisitos.



ALLE INFORMATIONEN AUF EINEN BLICK.

Sie sind neugierig geworden? Unser innovatives Verpackungsdesign informiert Sie schnell und effizient.

// Unserer POS-Platzierungsoptionen Vereinen ansprechendes Design mit hoher Funktionalität. Somit informieren wir Sie unkompliziert und verständlich über unsere Vielzahl an Produkten. Dabei denken wir immer einen Schritt weiter: unsere Verpackungen sind zudem innovativ und umweltfreundlich gestaltet.

E ALL INFORMATION AT A GLANCE.

Are you curious? Our innovative packaging design informs you quickly and efficiently.

Our POS placement options combine attractive design with high functionality. So we inform you uncomplicated and understandable about our variety of products. We always think one step ahead: our packaging is also innovative and designed to be eco-friendly.

ES TODA LA INFORMACIÓN DE UN VISTAZO.

¿Siente curiosidad? Nuestro innovador diseño de envases le informa de forma rápida y eficaz.

Nuestras opciones de presentación en el punto de venta combinan un diseño atractivo con una gran funcionalidad. De este modo, le informamos sobre nuestra amplia gama de productos de forma sencilla y comprensible. Y siempre pensamos un paso por delante: nuestros envases también están diseñados para ser innovadores y respetuosos con el medio ambiente.



Metallkassette
E Metal cassettes
ES Caja de metal



SB-Aufhänger
E Plastic tag
ES Expositores para autoservicio



Kunststoffbox
E Plastic box
ES Embalaje de plástico



Kunststoffkassette
E Plastic cassettes
ES Caja de plástico



Kombiset
E Mix-packs
ES Juego combinado



VIELFÄLTIGES KASSETTEN SORTIMENT.

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ES GRAN VARIEDAD DE CAJAS.

Asimismo, ofrecemos a nuestros clientes una amplia oferta de juegos y cajas para satisfacer las necesidades más variadas.



Drehzahltabellen
Spindle speed chart
Tabla de revoluciones

Diebstahlschutz
Anti-theft protection
Protección antirobo

Einfache Entnahme der Bohrer
Easy remove of the drills
Broca fácil de sacar

Funktionelles und modernes Design
Functional and state-of-the-art design
Diseño moderno y funcional

Passendes Materialmotiv
Respective material motive
Imagen de materiales compatibles

Absolut bruchfest
Absolutely break-resistant
Totalmente resistente a la rotura

Diebstahlschutz
Anti-theft protection
Protección antirobo



Kunststoffkassetten – schmale Bauform
Plastic cassettes – narrow size
Cajas de plástico – versión estrecha

Kunststoffkassetten – breite Bauform
Plastic cassettes – wide size
Cajas de plástico – versión ancha



UNSERE **ERFAHRUNGEN** AM POS

Vielfältige POS-Präsentation für jeden Bedarf

- // Unsere **markterprobten Verkaufssysteme** erhöhen den Flächenumsatz und steigern Ihren Ertrag.
- // Für jeden Platzbedarf **das zielführende Verkaufssystem:** Vom Thekendisplay bis zur kompletten Präsentationswand.
- // Produktschilder in der gewünschten Landessprache, **das verständliche Farbleitsystem** und die **marktgerechten Bestückungsvarianten** bieten eine optimale und übersichtliche Präsentation am POS und somit einen starken Abverkauf.

E **OUR EXPERIENCE** **AT THE POINT OF SALE**

Wide range of POS presentations for any shop

Our market-approved sales systems increase the sales density and raise your revenue.

Fits perfect. The appropriate sales systems for every space:

From counter displays up to complete presentation walls.

Product labels in the local language, the comprehensible colour coding system and the market-driven display assortment provide optimum and clear presentation at the POS and raise your revenue.

ES **NUESTRA EXPERIENCIA** **EN EL PUNTO DE VENTA**

Diferentes presentaciones para cada tipo de necesidad

Nuestros sistemas de venta probados en el mercado aumentan el volumen de venta de la superficie e incrementan sus beneficios.

Tenemos los sistemas de venta apropiados en el mercado para todas las necesidades de espacio: Desde el expositor de mostrador hasta el panel de presentación.

Los carteles de los productos en el idioma deseado, un comprensible sistema de guía por colores, juntos con los modelos de montaje competitivos ofrecen una presentación óptima en el punto de venta y, por lo tanto, unas ventas de una forma rápida.

D POS KNOW HOW VON ALPEN.

Erhöhung des Flächenumsatzes und Profits.

Durch die Auswahl von Qualitätsstufen und Sorten für verschiedene Materialien haben die Kunden die Möglichkeit sich zu entscheiden. Dadurch entscheidet man sich sehr oft für eine bessere Qualität. ... und deshalb gibt es höhere Margen am Point of Sale

Due to the assortment of quality levels and types for different materials the customer has the choice to decide! Thereby the customer decides very often for a better quality ... that's why we create higher turnovers and profits for all at the Point of Sale

Los clientes tienen la posibilidad de elegir entre varios niveles de calidad y tipos de materiales. De este modo se deciden normalmente por una mejor calidad. ... y esto significa un margen de beneficio mayor para el punto de venta

// Fortlaufende Platzierung des Farbleitsystems | Continuous placement of the colour system
Posicionamiento continuo del sistema de guía por colores



Sortimentsbreite | Product range | Gama de productos

D GARANTIERT STARKER ABVERKAUF.



Sortenreine Präsentation
Unmixed presentation
Presentación ordenada por tipos de material

E GUARANTEED STRONG SALES.



Anwendungsgleiche Präsentation
Same application presentation
Presentación por tipos de uso

ES GARANTIZA LA VENTA RÁPIDA.



Spezielle 6-kant Bohrer Präsentation
Special hexagonal shank presentation
Presentación especial de brocas hexagonales

D **DAS PERFEKTE ANGEBOT.**

Markterprobtes POS-Know-how für starken Abverkauf. Für jeden Platzbedarf haben wir das passende Display.



Boden-Display
Ground display
Expositor de pie

E **THE PERFECT OFFER.**

Market-approved POS know-how for strong sales. We have the right display for every available space.



Bohrer-Display
Drill display
Expositor con forma de broca

ES **LA OFERTA PERFECTA.**

Conocimientos del punto de venta probados en el mercado para obtener ventas de una forma rápida. Tenemos los expositores adecuados para todas las necesidades de espacio.



Präsentationswand
Presentation wall
Panel de presentación



Metal-Magazinschrank
Metal cabinet
Cajón metálico con estantes



Karton-Display
Cardboard display
Expositor de cartón



Säulen-Display
Pillar display
Expositor de columna






Theken-Display
Counter-display
Expositor para mostrador












D ZEICHENERKLÄRUNG

E SIGNS AND SYMBOLS

ES SIGNIFICADO DE LOS SIMBOLOS

| | |
|---|--|
|  | Armierter Beton Reinforced concrete Hormigón armado |
|  | Beton Concrete Hormigón |
|  | Stein Natural stone Piedra |
|  | Vollziegel Solid brick Ladrillo macizo |
|  | Hohlziegel Cavity brick Ladrillo hueco |
|  | Dachziegel Roof tile Teja |
|  | Dachziegel 1x Roof tile 1x Teja 1x |
|  | Dachziegel 2x Roof tile 2x Teja 2x |
|  | Marmor Marble Mármol |
|  | Granit Granite Granito |
|  | Verbund Composites Combinación |
|  | Fliesen Tiles Baldosas |
|  | Fein-Steinzeugfliesen Ceramic tiles Baldosas de gres porcelánicos |
|  | Glas Glass Vidrio |
|  | Diamant Beschichtung Diamond coating Recubrimiento de diamante |

| | |
|---|---|
|  | Allgemeine Baustähle Structural steels Aceros de construcción generales $< 400 \text{ N/mm}^2$ |
|  | Automatenstähle Free cutting steels Aceros de corte fácil $< 850 \text{ N/mm}^2$ |
|  | Unlegierte Vergütungsstähle Unalloyed heat treatable steels Aceros para bonificar no aleados $< 1.100 \text{ N/mm}^2$ |
|  | Legierte Vergütungsstähle Alloyed heat treatable steels Aceros para bonificar aleados $< 1.300 \text{ N/mm}^2$ |
|  | Metall Metal Metal |
|  | Rostfreie Stähle Stainless steels Aceros inoxidables |
|  | Blech Sheet metal Chapa |
|  | GRAUGUSS CAST IRON GISHA GRICIA Grauguss, Temperguss Grey cast iron, malleable cast iron Hierro fundido gris, fundición maleable |
|  | Ti Titan- und Titanlegierungen Titanium and titanium alloys Titanio y aleaciones de titanio |
|  | Cu Ms Ni Zn Kupfer, Messing Copper, brass Cobre, latón |
|  | Alu Aluminium Aluminio Aluminio |
|  | Kunststoffe Plastics Plásticos |

| | |
|---|--|
|  | Weichholz Soft wood Madera blanda |
|  | Mittelweiches Holz Medium soft wood Madera media blanda |
|  | Hartholz Hard wood Madera dura |
|  | Holz geleimt Glued timbers Madera encolada |
|  | Holzbalken Joiced timbers Viga de madera |
|  | Verleimter Holzbalken Glued joiced timbers Viga de madera pegada |
|  | Spanplatte Chipboard Tabla de madera aglomerada |
|  | Beschichtete Spanplatte Coated chipboard Tablero de virutas revestido |
|  | Resopal Laminated Chipboard Resopal |
|  | Gipskarton Gypsum plaster boards Cartón yeso |

D TECHNISCHE ZEICHNUNGEN
E TECHNICAL DRAWINGS
ES DIBUJOS TECNICOS



d1 Schneiddurchmesser
Cutting diameter | Diámetro de corte
d2 Schaft | Shank | Eje
d3 Freistellung | Neck | Cuello
d4 Zapfen-/Spiegeldurchmesser
Ø pilot / mirror | Diámetro piloto
d5 Senkdurchmesser
Ø countersink | Diámetro avellanador
a Schlüsselweite | Wrench size | Anchura casquillo
b Breite | Width | Anchura
l1 Gesamtlänge | Total length | Longitud total
l2 Schneidlänge | Cutting length | Longitud de corte
l3 Freistelllänge | Neck length | Longitud cuello
l4 Bohrlänge | Drilling length | Longitud de taladro
l5 Dübelbohrlänge / Gewindelänge
Dowel drilling length / thread length
Longitud de anclaje / Longitud de rosca

D ZEICHENERKLÄRUNG

E SIGNS AND SYMBOLS

ES SIGNIFICADO DE LOS SIMBOLOS

| | | | | | |
|-----------------|---|-------------------------------------|--|---------------------------|--|
| CV | Chrom-Vanadium Chrome-Vanadium Cromo-vanadio | WN | Werksnorm Works standard Norma interna | A | Anschnittformen Cutting form Formas de corte de entrada |
| HSS | Hochleistungsschnellarbeitsstahl High Speed Steel El acero de alta velocidad | M | Metrisches Gewinde Metric threads Rasca metrica | PZ | Werkzeug Typ Tool type Tipo de herramienta |
| HSS Co5 | 5% kobaltlegierter HSS-Stahl 5% cobalt-alloyed high speed steel Acero HSS aleado con un 5% de cobalto | G | Rohrgewinde Pipe threads Rasca para tubos | 3.d | Bohrtiefe Drilling depth Hondura de perforar |
| HSS TiN | Titan-Nitrid-Beschichtung Titanium-Nitride-coating Recubrimiento titanio nitrato | SICHERSAFE | Prüfzeichen Mauerbohrer Approval mark masonry drills Certificado brocas de albañilería | 120° | Spitzenwinkel Point angle Ángulo de punta |
| HM | Hartmetall Carbide Metal duro | Flächenanschliff | Flächenanschliff Facet ground forms Formas de la faceta | 35° | Drallsteigung Spiral grade Paso de hélice |
| | Akkuboherer Cordless drill Taladro con batería | Stirnverzahnung | Stirnverzahnung Spur gearing Dentado frontal | 102°-138° | Ungleichteilung Senker Unequal spacing - countersink División irregular de avellanadores |
| | Bohrmaschine Drilling machine Taladro | 55° P | Gewindeflankenwinkel Thread flank angle Ángulo de flanco de rosca | Shank | 3-Flächenschaft 3-surface shank Eje triangular |
| | Bohrhammer Hammer drill machine Martillo perforador | Gewindegänge | Gewindegänge Thread convolution Pasos de rosca | 6-Kantschaft | Hexagonal shank Eje hexagonal |
| | Drehbohren Rotary drilling Solo taladrado rotativo | Gewinde | Gewinde Thread Rosca | Senkkopf | Countersink head Cabeza avellanada |
| | Schlagbohren Percussion drilling Perforación a percusión | ≤1,5d1 | Durchgangsbohrung Tapped through hole Rosca pasante | 90° | Senkwinkel Countersink angle Ángulo de avellanar |
| ISO 2 6H | Toleranz GWB Dimensions according to DIN Tolerancia de machos de roscar | Durchgangs- und Grundgewinde | Durchgangs- und Grundgewinde Through hole and blind hole threads Roscas pasante y roscas ciega | R1 | Reihen nach DIN 1869 Rows according to DIN 1869 Serie según DIN 1869 |
| DIN 1897 | Baumaße nach DIN Tap tolerance Tolerancia de machos de roscar | 6g | Toleranzfeld Tolerance zone Dominio de tolerancia | Verpackungseinheit | Packing unit Unidad de embalaje |

D SCHAFTAUSFÜHRUNGEN

E SHANK DESIGNS

ES DISEÑOS DE EJES













| | | | | | | | |
|--|--|--|--|--|---|--|---|
| | 1/4" Sechskantschaft 1/4" hexagonal shank Eje hexagonal 1/4" | | SDS-plus mit Schlag Stopp Funktion SDS-plus with hammer-stop function SDS-plus con parada de percusión | | SDS-plus Schaft SDS-plus shank Eje SDS-plus | | SDS-max Schaft SDS-max shank Eje SDS-max |
| | Zylindrischer Schaft Cylindrical shank Eje cilíndrico | | Reduzierter Schaft Reduced shank Eje reducido | | Morsekegelschaft Morse taper shank Eje con cono Morse | | Anti-slip Schaft Anti-slip shank Eje antideslizante |
| | Sechskantschaft Hexagonal shank Eje hexagonal | | 3-Flächenschaft 3-surface shank Eje de 3 caras | | Vierkantschaft Square shank Eje cuadrado | | Grip Schaft Grip shank Eje de agarre |



ÜBERSICHT BOHRER MIT 1/4"-SECHSKANTSCHAFT

E OVERVIEW
DRILL BITS WITH
1/4" HEXAGONAL SHANK

ES RESUMEN DE BROCAS
CON CODO HEXAGONAL
1/4"

| | Name / Nombre | Code / Código | Seite / Page / Página |
|---|----------------|---------------|-----------------------|
|  | Profi Multicut | 272 | 33 |
|  | Profi Dach | 252, 253 | 43 |
|  | Profi Diamant | 290 | 53 |
|  | Profi Glas | 289 | 54 |
|  | Profi Beton | 189 | 69 |
|  | Pro | 952 | 155 |
|  | Profi Holz | 622 | 198 |
|  | | 237, 238 | 211 |
|  | | 702 | 285 |
|  | | 703 | 286 |
|  | | 720 | 302 |
|  | | 0070503071100 | |

A photograph of two men working on a brick wall. The man in the foreground is wearing a yellow hard hat and a blue and red plaid shirt, holding a large grey power tool. The man in the background is wearing a white t-shirt and is using a black power drill to drill into the brick wall. The background is a dark, cloudy sky.

SPEZIALBOHRER

// MEHRZWECKBOHRER, BOHRER FÜR HOHLZIEGEL, DACHZIEGEL,
GRANIT, FEINSTEINZEUG, FLIESEN, KERAMIK UND GLAS



E SPECIAL DRILL BITS

- // MULTIPURPOSE DRILL BITS
- // DRILL BITS FOR CAVITY BRICKS
- // ROOF TILES
- // GRANITE
- // PORCELAIN/GRES
- // TILES
- // CERAMIC AND GLASS



ES BROCAS ESPECIALES

- // BROCAS MULTIUSOS
- // BROCAS PARA LADRILLOS HUECOS
- // TEJAS
- // GRANITO
- // GRES PORCELÁNICO
- // BALDOSAS
- // CERÁMICA Y VIDRIO

Übersicht

Overview

Resumen

| |  |  |  |  |  |  |
|--|---|---|--|---|---|---|
| Norm / Estándar | WN | WN | WN | WN | WN | WN |
| Name / Nombre | Profi Multicut | Profi Multicut | Profi Multicut | Profi Multicut | Profi Ziegel | DUST EXTRACTOR SHARP |
| Schaft / Shank / Eje |  |  |  |  |  |  |
| Ø mm | 3,00 - 12,00 | 5,00 - 16,00 | 4,00 - 10,00 | 5,00 - 20,00 | 4,00 - 10,00 | 6,00 - 16,00 |
| Code / Código | 172 | 729-730 | 272 | 509, 519, 529, 539, 579 | 352 | 680 |
| Seite / Page / Página | 31 | 32 | 33 | 34 | 39 | 41 |
| Geeignet für / Suitable for / Adecuada para | | | | | | |
|  Beton Concrete Hormigón |  |  |  |  | | |
|  Stein Natural stone Piedra |  |  |  |  | | |
|  Vollziegel Solid brick Ladrillo macizo |  |  |  |  |  |  |
|  Hohlziegel Cavity brick Ladrillo hueco |  |  |  |  |  |  |
|  Dachziegel 1x Roof tile 1x Teja 1x |  |  |  |  |  | |
|  Dachziegel 2x Roof tile 2x Teja 2x |  |  |  |  | | |
|  Marmor Marble Mármol |  |  |  |  |  |  |
|  Granit Granite Granito |  |  |  |  | | |
|  Fliesen Tiles Baldosas |  |  |  |  |  |  |
|  Fein-Steinzeugfliesen Ceramic tiles Baldosas de gres porcelánicos |  |  |  |  | | |
|  Holz Natural Madera |  |  |  |  | | |
|  Metall Metal Metal |  |  |  |  | | |
|  Kunststoffe Plastics Plásticos |  |  |  |  |  | |
|  Glas Glass Vidrio |  |  |  |  | | |


































































Übersicht

Overview

Resumen



Spezialbohrer
special drill bit
broca especial

|  |  |  |  |  |  |  |  |
|---|---|---|---|---|--|---|---|
| WN | DIN ISO 5468 | DIN ISO 5468 | WN | WN | DIN 5468 | WN | WN |
| Profi Dach | Profi Granit | Longlife Granit | C PROTECTOR | Keramo Extreme | Profi Keramo | Profi Diamant | Profi Glas |
|  |  |  |  |  |  |  |  |
| 3,50 - 6,00 | 4,00 - 14,00 | 4,00 - 12,00 | 5,00 - 14,00 | 5,00 - 14,00 | 4,00 - 12,00 | 5,00 - 15,00 | 3,00 - 12,00 |
| 252-253 | 257 | 258 | 303 | 300 | 297 | 290 | 289 |
| 43 | 45 | 46 | 48 | 50 | 52 | 53 | 54 |
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PROFI MULTICUT



Der Alleskönner

Flexible Einsatzmöglichkeiten bei unterschiedlichen Materialien ohne Bohrerwechsel

The all-rounder

Flexible application possibilities for different materials without changing the drill bit

El polivalente

Diversas posibilidades de uso en materiales diferentes sin necesidad de cambiar de broca

Extra scharfe Schneiden

Diamantgeschliffene, scharfe Schneiden ermöglichen Bohren auch in Metall

Extra sharp cutting edges

Diamond-ground, sharp cutting edges enable drilling even in metal

Filos especialmente afilados

Los filos afilados pulidos con diamante permiten incluso la perforación de metal

Patentiertes 4-fach Stufenprofil

Schnelle Bohrmehlförderung beim Bohren in Mauerwerk und Beton

Patented 4-step profile

Fast drill dust feed when drilling into masonry and concrete

Perfil cuádruple escalonado patentado

Rápida eliminación de los detritos durante la perforación en mampostería y hormigón



D Hartmetall-Mehrzweckbohrer mit zylindrischem Schaft, kurz

Einsatzbereich:

Hohe Flexibilität und präzise Bohrung - auch bei abwechselndem Bohren in unterschiedlichen Materialien. Zum Drehbohren in Fliesen, Mauerwerk, Metall, Holz und Kunststoff.

E Tungsten carbide multi purpose drill bits with cylindrical shank, short series

Range of application:

Extremely versatile and precise drilling - even with changing drills in various materials. For precision rotary drilling in tiles, natural stone, metal, wood and plastics.

ES Broca multiuso de metal duro, con eje cilíndrico, corta

Ámbito de aplicación:

Elevada flexibilidad y taladrados precisos, incluso si se cambian las brocas en materiales diversos. Para el taladrado rotativo en baldosas, mampostería, metal, madera y plástico.



Spezialbohrer
special drill bit
broca especial



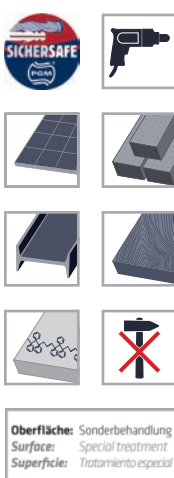
Universeller Spezialbohrer
Universal special drill bits
Taladradora especial universal



Für Metall, Mauerwerk und Fliesen
For metal, masonry and tiles
Para metal, albañilería y baldosas



Diamantgeschliffene, scharfe Schneiden
Diamond ground, sharp cutting edges
Filos muy afilados pulidos con diamante



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 172 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|-------|----------------------|---------------|----|
| 3,00 | 1/8 | 60 | 30 | | 0017200300100 | 1 | 10 |
| 4,00 | 5/32 | 75 | 39 | | 0017200400100 | 1 | 10 |
| 5,00 | 3/16 | 85 | 39 | | 0017200500100 | 1 | 10 |
| 5,50 | | 85 | 39 | | 0017200550100 | 1 | 10 |
| 6,00 | 15/64 | 100 | 54 | | 0017200600100 | 1 | 10 |
| 6,50 | 1/4 | 100 | 54 | | 0017200650100 | 1 | 10 |
| 7,00 | 9/32 | 100 | 54 | | 0017200700100 | 1 | 10 |
| 8,00 | 5/16 | 120 | 80 | | 0017200800100 | 1 | 10 |
| 10,00 | 3/8 | 120 | 80 | | 0017201000100 | 1 | 10 |
| 12,00 | 15/32 | 150 | 90 | 10,00 | 0017201200100 | 1 | 10 |

① Hartmetall-Mehrzweckbohrer mit zylindrischem Schaft, lang

Einsatzbereich:

Zum Drehbohren in Fliesen, Mauerwerk, Metall, Holz und Kunststoff. Durch extra-lange Ausführung mehr Möglichkeiten bei der Fenstermontage: Bohren von Kunststoff, Metall und Mauerwerk in einem Arbeitsgang.

② Tungsten carbide multi purpose drill bits with cylindrical shank, long series

Range of application:

For precision rotary drilling in tiles, natural stone, metal, wood and plastics. Due to its extra long version more options when installing windows: drill through plastics, metal and masonry in one work step.

③ Broca especial de metal duro con eje cilíndrico, larga

Ámbito de aplicación:

Para el taladrado rotativo en baldosas, mampostería, metal, madera y plástico. Gracias al diseño extralargo, hay más posibilidades para el montaje de ventanas: taladrado de plástico, metal y mampostería en una misma operación.



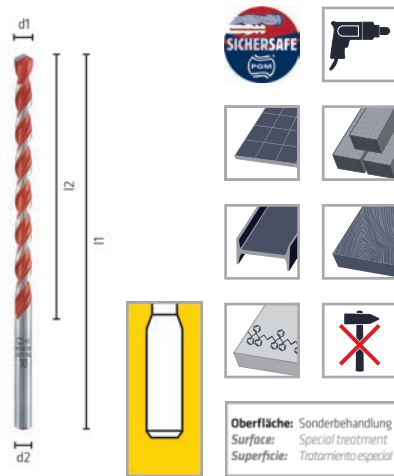
Universeller Spezialbohrer
Universal special drill bits
Taladradora especial universal



Für Metall, Mauerwerk und Fliesen
For metal, masonry and tiles
Para metal, albañilería y baldosas



Diamantgeschliffene, scharfe Schneiden
Diamond ground, sharp cutting edges
Filos muy afilados pulidos con diamante



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 729 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|-------|----------------------|---------------|----|
| 5,00 | 3/16 | 150 | 85 | | 0072900500100 | 1 | 10 |
| 5,50 | | 150 | 85 | | 0072900550100 | 1 | 10 |
| 6,00 | 15/64 | 200 | 135 | | 0072900600100 | 1 | 10 |
| 6,50 | 1/4 | 200 | 135 | | 0072900650100 | 1 | 10 |
| 7,00 | 9/32 | 200 | 135 | | 0072900700100 | 1 | 10 |
| 8,00 | 5/16 | 200 | 135 | | 0072900800100 | 1 | 10 |
| 10,00 | 3/8 | 200 | 135 | | 0072901000100 | 1 | 10 |
| 12,00 | 15/32 | 220 | 150 | 10,00 | 0072901200100 | 1 | 10 |
| 14,00 | 9/16 | 220 | 150 | 10,00 | 0072901400100 | 1 | 10 |

Länge / Length / Longitud: 400/300 mm

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 730 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|-------|----------------------|---------------|----|
| 5,00 | 3/16 | 400 | 300 | | 0073000500100 | 1 | 10 |
| 5,50 | | 400 | 300 | | 0073000550100 | 1 | 10 |
| 6,00 | 15/64 | 400 | 300 | | 0073000600100 | 1 | 10 |
| 6,50 | 1/4 | 400 | 300 | | 0073000650100 | 1 | 10 |
| 8,00 | 5/16 | 400 | 300 | | 0073000800100 | 1 | 10 |
| 10,00 | 3/8 | 400 | 300 | | 0073001000100 | 1 | 10 |
| 12,00 | 15/32 | 400 | 300 | 10,00 | 0073001200100 | 1 | 10 |
| 14,00 | 9/16 | 400 | 300 | 10,00 | 0073001400100 | 1 | 10 |
| 16,00 | 5/8 | 400 | 300 | 10,00 | 0073001600100 | 1 | 10 |

D Hartmetall-Mehrzweckbohrer mit 1/4"-Sechskantschaft

Einsatzbereich:

Zum Drehbohren in Fliesen, Mauerwerk, Metall, Holz und Kunststoff. Passend für jeden Standard-Akkuschrauber durch genormtes Schaftprofil.

E Tungsten carbide multi purpose drill bits with 1/4" hexagonal shank

Range of application:

For precision rotary drilling in tiles, natural stone, metal, wood and plastics. Ideal for all standard cordless drills thanks to its standardized shank profile.

E3 Broca multiuso de metal duro con eje hexagonal 1/4"

Ámbito de aplicación:

Para el taladrado de baldosas, mampostería, metal, madera y plástico. Adecuadas para todos los destornilladores con baterías convencionales gracias al perfil de eje normativo.



Spezialbohrer
special drill bit
broca especial



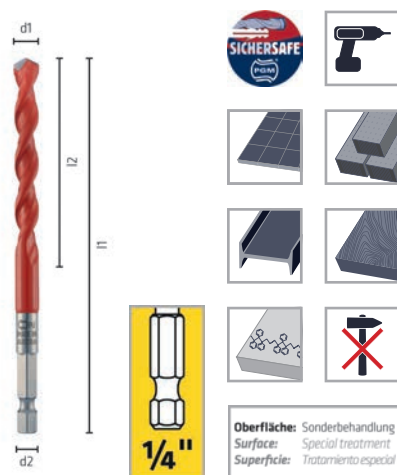
Universeller Spezialbohrer
Universal special drill bits
Taladradora especial universal



Für Metall, Mauerwerk und Fliesen
For metal, masonry and tiles
Para metal, albañilería y baldosas



Diamantgeschliffene, scharfe Schneiden
Diamond ground, sharp cutting edges
Filos muy afilados pulidos con diamante



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | d1 inch | l1 mm | l2 mm | d2 mm | Code 272 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|----------|----------------------|---------------|----|
| 4,00 | 5/32 | 100 | 39 | 1/4" | 0027200400100 | 1 | 10 |
| 5,00 | 3/16 | 100 | 39 | 1/4" | 0027200500100 | 1 | 10 |
| 5,50 | | 100 | 39 | 1/4" | 0027200550100 | 1 | 10 |
| 6,00 | 15/64 | 100 | 54 | 1/4" | 0027200600100 | 1 | 10 |
| 7,00 | 9/32 | 100 | 54 | 1/4" | 0027200700100 | 1 | 10 |
| 8,00 | 5/16 | 120 | 80 | 1/4" | 0027200800100 | 1 | 10 |
| 10,00 | 3/8 | 120 | 80 | 1/4" | 0027201000100 | 1 | 10 |

1 Hartmetall-Mehrzweckbohrer mit SDS-plus Schaft

Einsatzbereich:

Zum Drehbohren in Fliesen, Mauerwerk, Metall, Holz und Kunststoff. Spezielle Schaftausführung mit automatischer Schlag-Stopp Funktion für SDS-plus Bohrhämmer, dadurch deutliche Verlängerung der Standzeit des Bohrers.



Automatische Schlag-Stopp Funktion
Automatic hammer-stop function
Función de parada automática



Für Metall, Mauerwerk und Fliesen
For metal, masonry and tiles
Para metal, albañilería y baldosas



Diamantgeschliffene, scharfe Schneiden
Diamond ground, sharp cutting edges
Filos muy afilados pulidos con diamante

E Tungsten carbide multipurpose drill bits with SDS-plus shank

Range of application:

For rotary drilling in tiles, masonry, metal, wood and plastics. Special shank design with automatic hammer-stop function for SDS-plus hammer drills with a significantly longer service life.

ES Broca multiuso con eje SDS-plus

Ámbito de aplicación:

Para el taladrado rotativo de baldosas, mampostería, metal, madera y plástico. La realización del eje especial con función automática de parada de percusión para su uso con martillos perforadores SDS-plus permite que la broca se utilice durante un periodo mucho más prolongado.



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

Länge / Length / Longitud: 110/50 mm


| d1 mm | l1 mm | l2 mm | d2 | Code 509 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|----|
| 5,00 | 110 | 50 | SDS-plus | 0050900500100 | 1 | 10 |
| 6,00 | 110 | 50 | SDS-plus | 0050900600100 | 1 | 10 |
| 8,00 | 110 | 50 | SDS-plus | 0050900800100 | 1 | 10 |

Länge / Length / Longitud: 160/100 mm


| d1 mm | l1 mm | l2 mm | d2 | Code 519 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|----|
| 5,00 | 160 | 100 | SDS-plus | 0051900500100 | 1 | 10 |
| 6,00 | 160 | 100 | SDS-plus | 0051900600100 | 1 | 10 |
| 7,00 | 160 | 100 | SDS-plus | 0051900700100 | 1 | 10 |
| 8,00 | 160 | 100 | SDS-plus | 0051900800100 | 1 | 10 |
| 10,00 | 160 | 100 | SDS-plus | 0051901000100 | 1 | 10 |
| 12,00 | 160 | 100 | SDS-plus | 0051901200100 | 1 | 10 |
| 14,00 | 160 | 100 | SDS-plus | 0051901400100 | 1 | 10 |

Einzelverpackung
Single pack
Embalaje individual


Länge / Length / Longitud: 210/150 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 529 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|----------|----------------------|---------------|--|
| 6,00 | 210 | 150 | SDS-plus | 0052900600100 | 1 | 10 |
| 8,00 | 210 | 150 | SDS-plus | 0052900800100 | 1 | 10 |
| 10,00 | 210 | 150 | SDS-plus | 0052901000100 | 1 | 10 |
| 12,00 | 210 | 150 | SDS-plus | 0052901200100 | 1 | 10 |
| 14,00 | 210 | 150 | SDS-plus | 0052901400100 | 1 | 10 |

Länge / Length / Longitud: 260/200 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 539 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|----------|----------------------|---------------|--|
| 6,00 | 260 | 200 | SDS-plus | 0053900600100 | 1 | 10 |
| 6,50 | 260 | 200 | SDS-plus | 0053900650100 | 1 | 10 |
| 8,00 | 260 | 200 | SDS-plus | 0053900800100 | 1 | 10 |
| 10,00 | 260 | 200 | SDS-plus | 0053901000100 | 1 | 10 |
| 12,00 | 260 | 200 | SDS-plus | 0053901200100 | 1 | 10 |
| 14,00 | 260 | 200 | SDS-plus | 0053901400100 | 1 | 10 |
| 16,00 | 260 | 200 | SDS-plus | 0053901600100 | 1 | 10 |

Länge / Length / Longitud: 450/400 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 579 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|----------|----------------------|---------------|--|
| 6,50 | 450 | 400 | SDS-plus | 0057900650100 | 1 | 10 |
| 8,00 | 450 | 400 | SDS-plus | 0057900800100 | 1 | 10 |
| 10,00 | 450 | 400 | SDS-plus | 0057901000100 | 1 | 10 |
| 12,00 | 450 | 400 | SDS-plus | 0057901200100 | 1 | 10 |
| 14,00 | 450 | 400 | SDS-plus | 0057901400100 | 1 | 10 |
| 16,00 | 450 | 400 | SDS-plus | 0057901600100 | 1 | 10 |
| 18,00 | 450 | 400 | SDS-plus | 0057901800100 | 1 | 10 |
| 20,00 | 450 | 400 | SDS-plus | 0057902000100 | 1 | 10 |



Spezialbohrer
special drill bit
broca especial


















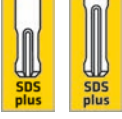
Automatische
Schlag-Stopp-Funktion
Automatic hammer-stop
function
Función automática de
parada de percusión



🇩🇪 Kassetten, Sets

🇪🇸 Cassettes, sets

🇪🇸 Cajas, juegos

| | | | | | | | | |
|--|----------------------------|----------------------------|--|----------------------------|----------------------------|--|----------------------------|----------------------------|
| <p>Profi Multicut PM 3</p>   | | | <p>Profi Multicut PM 5</p>   | | | <p>Profi Multicut BOX 4</p>   | | |
| <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100703100</p> | | | <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100705100</p> | | | <p>4-tlg. / 4-pcs. / 4-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0000100808100</p> | | |
| Ø | Stk. ⁽¹⁾ | pc. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | pc. ⁽¹⁾ | Ø | l1 | Stk. ⁽¹⁾ |
| mm | | | mm | | | mm | mm | pc. ⁽¹⁾ |
| Profi Multicut | | | Profi Multicut | | | Profi Multicut | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | Ø 6,00 / 8,00 / 10,00 / 12,00 | 400 | 1 |
| <p>Profi Multicut ATM 3</p>   | | | <p>Profi Multicut ATM 5</p>   | | | <p>Profi Multicut ATM 6</p>   | | |
| <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100803100</p> | | | <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100805100</p> | | | <p>6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100802100</p> | | |
| Ø | Stk. ⁽¹⁾ | pc. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | pc. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | pc. ⁽¹⁾ |
| mm | | | mm | | | mm | | |
| Profi Multicut | | | Profi Multicut | | | Profi Multicut | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | Ø 4,00 / 5,00 / 6,00 / 7,00 / 8,00 / 10,00 | | 1 |
| <p>Profi Multicut SPM 5</p>   | | | <p>Profi Multicut BOX 4</p>   | | | <p>Combi Construction Set SDS-plus MB 7</p>   | | |
| <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100905100</p> | | | <p>4-tlg. / 4-pcs. / 4-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0057900004100</p> | | | <p>7-tlg. / 7-pcs. / 7-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100007100</p> | | |
| Ø | l1 | Stk. ⁽¹⁾ | Ø | l1 | Stk. ⁽¹⁾ | Ø | l1 | Stk. ⁽¹⁾ |
| mm | mm | pc. ⁽¹⁾ | mm | mm | pc. ⁽¹⁾ | mm | mm | pc. ⁽¹⁾ |
| Profi Multicut | | | Profi Multicut | | | F4 Forte | | |
| Ø 5,00 / 6,00 | 110 | 1 | Ø 8,00 / 10,00 / 12,00 / 16,00 | 450 | 1 | Ø 5,00 | 110 | 1 |
| Ø 6,00 / 8,00 / 10,00 | 160 | 1 | | | | Ø 6,00 / 8,00 / 10,00 | 160 | 1 |
| | | | | | | Profi Multicut | | |
| | | | | | | Ø 5,00 | | |
| | | | | | | 110 | | |
| | | | | | | 1 | | |
| | | | | | | Ø 6,00 / 8,00 | | |
| | | | | | | 160 | | |
| | | | | | | 1 | | |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| KIT SET 13-1 | | KIT SET 13 | |
|---|---|--|---|
|  | |  | |
| 13-tlg. / 13-pcs. / 13-unid. Set Art.-Nr. 0000303213100 | | 13-tlg. / 13-pcs. / 13-unid. Set Art.-Nr. 0000303513100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| C PROTECTOR | | C PROTECTOR | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 6,00 / 8,00 / 10,00 | 1 |
| F4 Forte | | FORCE X | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 6,00 / 8,00 / 10,00 | 1 |
| Profi Multicut | | Profi Multicut | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 6,00 / 8,00 / 10,00 | 1 |
| Wera | | Wera | |
| 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | | 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | |



Spezialbohrer
special drill bit
broca especial

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



PROFI ZIEGEL



Keine Ausbrüche

Einzigartige Schneidengeometrie verhindert ein Ausbrechen der Hohlräume

No breakoffs

Unique cutting geometry prevents cavities from breaking off

Sin requerado

La geometría de corte exclusiva impide la rotura de los huecos

Perfekter Dübelhalt

Durch geometrisch exakte Löcher wird ein perfekter Dübelhalt garantiert

Perfect dowel hold

Geometrically exact holes guarantee perfect hold of dowel

Sujeción perfecta del taco

Sujeción perfecta del taco garantizada gracias a los orificios con geometría exacta

Optimale Bohrleistung für Hohlziegel

Bruchsicheres Drehbohren für exakte Löcher

Optimal drilling performance for cavity bricks

Shatter-proof rotary drilling for precise holes

Capacidad de perforación óptima para ladrillos huecos

Taladrado rotativo resistente a las roturas para agujeros exactos



alpen *drill better.*

D Hartmetall-Hohlziegelbohrer mit zylindrischem Schaft

Einsatzbereich:

Spezialbohrer zum bruch sicheren Drehbohren von Hohlziegeln. Durch einzigartige Schneidengeometrie wird ein Ausbrechen der Hohlräume verhindert und somit ein sicherer Dübelhalt gewährleistet.

E Tungsten carbide cavity brick drill bits with cylindrical shank

Range of application:

Special drill bits for shatter-proof rotary drilling of cavity bricks. The unique cutting geometry prevents the cavities from breaking and thereby ensures a secure dowel hold.

ES Broca de metal duro para ladrillos huecos con eje cilíndrico

Ámbito de aplicación:

Broca especial para el taladrado rotativo resistente a las roturas de ladrillos huecos. Gracias a la geometría de corte exclusiva se impide la rotura de los huecos y, por lo tanto, se garantiza una sujeción segura de la espiga.



Bruch sicheres Bohren / Für perfekten Dübelhalt
Shatter-proof drilling / secure dowel hold
Taladro a prueba de rotura / Para una sujeción de espigas perfecta



Optimale Bohrleistung durch Spezialanschliff
Optimum drilling performance thanks to a special point shape
Óptima potencia de taladrado gracias a su punta afilada especial



Sicher
Secure
Segura



Spezialbohrer
special drill bit
broca especial



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | d1 inch | l1 mm | l2 mm | Code 352 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|----------------------|---------------|----|
| 4,00 | 5/32 | 75 | 39 | 0035200400100 | 1 | 10 |
| 5,00 | 3/16 | 85 | 39 | 0035200500100 | 1 | 10 |
| 6,00 | 15/64 | 100 | 54 | 0035200600100 | 1 | 10 |
| 8,00 | 5/16 | 120 | 80 | 0035200800100 | 1 | 10 |
| 10,00 | 3/8 | 120 | 80 | 0035201000100 | 1 | 10 |

Profi Ziegel PZ 5



5-tlg. / 5-pcs. / 5-unid.
Kunststoffkassette / Plastic cassette / Caja de plástico
Art.-Nr. 0000200705100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---|---|
| Profi Ziegel Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



DUST EXTRACTOR SHARP



Der neue 2 in 1 Bohrer

Bohren und Staubsaugen in einem Schritt

The new 2-in-1 drill bit

Drilling and dust extraction in a single step

Nueva broca 2 en 1

Perforación y aspiración en un paso

Saubere, staubfreie Bohrlöcher

Erspart lästige Reinigung und ermöglicht das sichere Einsetzen chemischer Dübel

Clean, dust-free drill holes

Saves annoying cleaning and enables safe insertion of chemical dowels

Agujeros limpios y sin polvo

Evita el fastidio de la limpieza y permite el uso seguro de tacos químicos

Schützt den Anwender

Gesundheitliche Belastungen werden vermieden

Protects the user

Health risks are avoided

Protección del usuario

Se evita poner en riesgo la salud



alpen *drill better.*

D Hartmetall-Saugbohrer für Ziegel mit SDS-plus Schaft

Einsatzbereich:

Spezialbohrer zum bruchsicheren Drehbohren von Voll- und Hohlziegeln sowie Fliesen. Durch einzigartige Schneidengeometrie wird ein Ausbrechen der Hohlräume verhindert und somit ein sicherer Dübelhalt gewährleistet.



Bruchsicheres Bohren / Für perfekten Dübelhalt
Shatter-proof drilling / secure dowel hold
Taladro a prueba de rotura / Para una sujeción de espigas perfecta



Optimale Bohrleistung durch Spezialanschliff
Optimum drilling performance thanks to a special point shape
Óptima potencia de taladrado gracias a su punta afilada especial



Sicher
Secure
Segura

E Tungsten carbide extraction drill bits for bricks with SDS-plus shank

Range of application:

Special drill bits for shatter-proof rotary drilling of solid and cavity bricks as well as tiles. The unique cutting geometry prevents the cavities from breaking and thereby ensures a secure dowel hold.

ES Broca de aspiración de metal duro para ladrillos con eje SDS-plus

Ámbito de aplicación:

Broca especial para el taladrado rotativo resistente a roturas de ladrillos macizos, ladrillos huecos y baldosas. Gracias a la geometría de corte exclusiva se impide la rotura de los huecos y, por lo tanto, se garantiza una sujeción segura de la espiga.



Spezialbohrer
special drill bit
broca especial



SICHERSAFE
SDS plus

Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial

120°



SB-Aufhänger
Plastic tag
Gancho para autoservicio

| d1 mm | l1 mm | l2 mm | d2 | Code 680 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|---|
| 6,00 | 220 | 100 | SDS-plus | 0068000600100 | 1 | 1 |
| 8,00 | 270 | 150 | SDS-plus | 0068000800100 | 1 | 1 |
| 10,00 | 270 | 150 | SDS-plus | 0068001000100 | 1 | 1 |
| 12,00 | 320 | 200 | SDS-plus | 0068001200100 | 1 | 1 |
| 14,00 | 370 | 250 | SDS-plus | 0068001400100 | 1 | 1 |
| 16,00 | 370 | 250 | SDS-plus | 0068001600100 | 1 | 1 |

Automatische Schlag-Stopp-Funktion
Automatic hammer-stop function
Función automática de parada de percusión



 **PROFI DACH**



Für harte Materialien

Selbst für die härtesten Dachziegel geeignet

For hard materials

Suitable even for the hardest roof tiles

Para materiales duros

Apta incluso para las tejas más duras

Passt. Sitzt. Hält.

Durch genormtes Schaftprofil passend für jeden Standard-Akkuschrauber

Fits. Sits. Holds.

Due to standardized shank profile suitable for any standard cordless drill

Apta. Encaja. Resiste.

Gracias a su perfil de eje conforme a la norma, es apta para todos los destornilladores a batería estándar

Exakte Ergebnisse

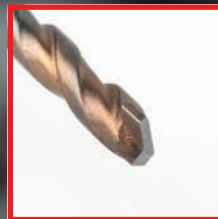
Präzisionsgeschliffene Spiralnuten sorgen für exakte Bohrungen

Precise results

Precision-ground spiral flutes ensure accurate holes

Resultados exactos

Las ranuras en espiral afiladas con precisión garantizan perforaciones exactas



 *drill better.*

D Hartmetall-Dachziegelbohrer mit 1/4"-Sechskantschaft

Einsatzbereich:

Spezialbohrer zum Drehbohren in Dachziegel, Dachstein, Eternit, Schiefer, Keramik, Fliesen, Marmor und Granit. Passend für jeden Standard-Akkuschrauber durch genormtes Schaftprofil.



Für härteste Dachziegel / Lange Lebensdauer
For the hardest roof tiles / Long tool life
Para las tejas más duras / Larga vida útil

E Tungsten carbide roof tile drill bits with 1/4" hexagonal shank

Range of application:

Special drill bits for rotary drilling in roof tiles, concrete tiles, cement asbestos, slate, ceramics, tiles, marble and granite. Suitable for all standard cordless drills with standardised shank profile.



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápida



Hart
Hard
Dura

ES Broca de metal duro para tejas con eje hexagonal 1/4"

Ámbito de aplicación:

Broca especial para el taladrado rotativo de tejas, tejas de material no cerámico, eternita, pizarra, cerámica, baldosas, mármol y granito. Adecuada para todos los destornilladores con baterías convencionales gracias al perfil de eje normativo.



Spezialbohrer
special drill bit
broca especial

| <p>Oberfläche: kugelgestrahlt Surface: GM-finish Superficie: GM-finish</p> | | | | | <p>Einzelverpackung Single pack Embalaje individual</p> | | | <p>Gewerbepack Industrial packing Paquete industrial</p> | | |
|---|------------|----------|----------|----------|---|---------------|----|--|---------------|--|
| d1 mm | d1 inch | l1 mm | l2 mm | d2 mm | Code 252 Art.-Nr. | Inh. Cont. | | Code 253 Art.-Nr. | Inh. Cont. | |
| 3,50 | | 100 | 39 | 1/4" | 0025200350100 | 1 | 10 | 0025300350100 | 10 | |
| 4,00 | 5/32 | 100 | 39 | 1/4" | 0025200400100 | 1 | 10 | 0025300400100 | 10 | |
| 5,00 | 3/16 | 100 | 39 | 1/4" | 0025200500100 | 1 | 10 | 0025300500100 | 10 | |
| 6,00 | 15/64 | 100 | 54 | 1/4" | 0025200600100 | 1 | 10 | 0025300600100 | 10 | |

 **PROFI GRANIT**



Schnell und präzise

Optimierte Schneidengeometrie sorgt für schnelles und präzises Arbeiten

Fast and precise

Optimized cutting geometry ensures fast and precise work

Rápido y preciso

La geometría optimizada de los filos permite trabajar de forma rápida y precisa

Optimale Bohrmehlförderung

durch spezielle Spiralnutgeometrie

Optimal drilling dust transport

with special spiral flute geometry

Eliminación óptima de los detritos

gracias a la geometría especial de la ranura en espiral

Für harte Materialien

Selbst der härteste Granit und Marmor lässt sich dank der Hartmetall-Platte exakt bohren

For hard materials

Even the hardest granite and marble can be drilled accurately thanks to the carbide plate

Para materiales duros

Permite incluso la perforación del granito y del mármol más resistente gracias a su placa de metal duro



 **alpen** *drill better.*

**D Hartmetall-Granitbohrer,
DIN ISO 5468**

Einsatzbereich:

Spezialbohrer zum Dreh- und Schlagbohren von Granit und Marmor. Durch spezielle Bohrer-geometrie und Hartmetall-Platte sehr gut geeignet zum Bohren von allen Granitsorten - auch in den härtesten.



Präzise
Precise
Preciso



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápida



Stabil
Stable
Estable

**E Tungsten carbide granite drill
bits DIN ISO 5468**

Range of application:

Special drill bits for rotary and percussion drilling of granite and marble. Extremely suitable for drilling all granite types with special drill bit geometry and carbide plate - even the hardest of granite.

**ES Broca de metal duro para granito,
DIN ISO 5468**

Ámbito de aplicación:

Broca especial para el taladrado rotativo y a percusión de granito y mármol. Gracias a la geometría especial de la broca y la placa de metal duro es muy adecuada para taladrar cualquier tipo de granito, incluso los más duros.



Spezialbohrer
special drill bit
broca especial



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 257 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|-------|----------------------|---------------|----|
| 4,00 | 5/32 | 75 | 39 | | 0025700400100 | 1 | 10 |
| 5,00 | 3/16 | 85 | 39 | | 0025700500100 | 1 | 10 |
| 6,00 | 15/64 | 100 | 54 | | 0025700600100 | 1 | 10 |
| 8,00 | 5/16 | 120 | 80 | | 0025700800100 | 1 | 10 |
| 10,00 | 3/8 | 120 | 80 | | 0025701000100 | 1 | 10 |
| 12,00 | 15/32 | 150 | 90 | 10,00 | 0025701200100 | 1 | 10 |
| 14,00 | 9/16 | 150 | 90 | 10,00 | 0025701400100 | 1 | 10 |

Profi Granit PG 5



5-tlg. / 5-pcs. / 5-unid.
Kunststoffkassette / Plastic cassette / Caja de plástico
Art.-Nr. 0025700005100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---------|---|
|---------|---|

Profi Granit

| | |
|-------------------------------------|---|
| Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |
|-------------------------------------|---|

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

**① Hartmetall-Granitbohrer,
DIN ISO 5468**

Einsatzbereich:

Spezialbohrer zum Schlagbohren von Granit und Marmor. Durch spezielle Bohrergeometrie und Hartmetall-Platte sehr gut geeignet zum Bohren von Granit.

**② Tungsten carbide granite drill
bits DIN ISO 5468**

Range of application:

Special drill bits for percussion drilling of granite and marble. Extremely suitable for drilling granite with special drill bit geometry and carbide plate.

**③ Broca de metal duro para grani-
to, DIN ISO 5468**

Ámbito de aplicación:

Broca especial para el taladrado a percusión de granito y mármol. Gracias a la geometría especial de la broca y la placa de metal duro es muy adecuada para taladrar el granito.



Präzise
Precise
Preciso



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápido



Stabil
Stable
Estable



Gewerbepack mit Aufhänger
Industrial packing with tag
Paquete industrial con gancho

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 258 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|-------|----------------------|---------------|
| 4,00 | 5/32 | 75 | 39 | | 0025800400100 | 10 |
| 5,00 | 3/16 | 85 | 39 | | 0025800500100 | 10 |
| 6,00 | 15/64 | 100 | 54 | | 0025800600100 | 10 |
| 8,00 | 5/16 | 120 | 80 | | 0025800800100 | 10 |
| 10,00 | 3/8 | 120 | 80 | | 0025801000100 | 10 |
| 12,00 | 15/32 | 150 | 90 | 10,00 | 0025801200100 | 5 |



Der Problemlöser

Präzise Ergebnisse selbst für die härtesten Feinsteinzeugfliesen

The problem solver

Precise results even for the hardest porcelain stoneware tiles

La solución a los problemas

Resultados precisos incluso en los azulejos de gres más duros

Stabiles, bruchsicheres Bohren

Garantiert jede Bohrung ohne Riss

Stable, shatter-proof drilling

Guarantees every hole without a crack

Perforación estable resistente a las roturas

Garantiza perforaciones sin grietas

Einfach und exakt

Der neue Anti-slip Schaft verhindert das Durchdrehen und sichert somit eine leichte, exakte Bohrung

Simple and precise

The new anti-slip shank prevents spinning and ensures easy, accurate drilling

Fácil y preciso

El nuevo eje antideslizante evita la rotación y asegura una perforación fácil y precisa



① Feinsteinzeug-Fliesenbohrer
"C PROTECTOR"

Einsatzbereich:

Für extrem harte Steinzeugfliesen bis Mohs-/ Ritz-Härte 9 sowie Glas und Porzellan. Keine Kühlung erforderlich. Nicht geeignet zum Schlagbohren.

② Porcelain / gres tile drill bit
"C PROTECTOR"

Range of application:

For extremely hard porcelain tiles up to Mohs / Ritz hardness 9 and glass. No cooling required. Not suitable for percussion drilling.

③ Broca para baldosas de gres
porcelánico "C PROTECTOR"

Ámbito de aplicación:

Para baldosas de gres extremadamente duras con una dureza 9 de Mohs / Ritz y vidrio y porcelana. No es necesaria la refrigeración. No adecuada para el taladrado a percusión.



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Ideal zum Trockenbohren
Ideal for dry drilling
Ideal para perforaciones en seco



Anti-slip Schaft
Anti-slip shank
Mango anti-slip



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | d1 inch | l1 mm | d2 mm | Code 303 Art.-Nr. | Inh. Cont. | | Code 20303 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|----------------------|---------------|----|------------------------|---------------|
| 5,00 | 3/16 | 103 | 10,00 | 0030300500100 | 1 | 10 | | |
| 6,00 | 15/64 | 105 | 10,00 | 0030300600100 | 1 | 10 | 2030300600100 | 3 |
| 8,00 | 5/16 | 106 | 10,00 | 0030300800100 | 1 | 10 | 2030300800100 | 3 |
| 10,00 | 3/8 | 107 | | 0030301000100 | 1 | 10 | | |
| 12,00 | 15/32 | 110 | 10,00 | 0030301200100 | 1 | 10 | | |

C PROTECTOR ATM 2



2-tlg. / 2-pcs. / 2-unid.
Kunststoffkassette / Plastic cassette / Caja de plástico
Art.-Nr. 0000303002100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|----------------|---|
| C PROTECTOR | |
| Ø 14,00 / 8,00 | 1 |

Vorböhrn mit Ø 8,00 mm / To pre-drill with Ø 8,00 mm / Pretaladrado con Ø 8,00 mm
⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro








D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos



Spezialbohrer
special drill bit
broca especial

| <p>C PROTECTOR BOX 3</p>  <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0000303003100</p> | <p>C PROTECTOR ATM 2</p>  <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303052100</p> | <p>C PROTECTOR ATM 2</p>  <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303062100</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---------------------|-------------|-----------------------|-----------------------|--|---------|---------------------|-----------------------|--|----------------|---------------------|-----------------------|---|---------|---|--|------|---------------------|-------------|---|--------|---------------------|-------------|--|----------------------|---|----------|--|----------------------|---|----------------|--|----------------------|---|------|--|---|--|
| <table border="1"> <thead> <tr> <th>Ø mm</th> <th>Stk. (1) pc. (1)</th> </tr> </thead> <tbody> <tr> <td>C PROTECTOR</td> <td></td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00</td> <td>1</td> </tr> </tbody> </table> | Ø mm | Stk. (1) pc. (1) | C PROTECTOR | | Ø 6,00 / 8,00 / 10,00 | 1 | <table border="1"> <thead> <tr> <th>Ø mm</th> <th>Stk. (1) pc. (1)</th> </tr> </thead> <tbody> <tr> <td>C PROTECTOR</td> <td></td> </tr> <tr> <td>Ø 5,00</td> <td>1</td> </tr> <tr> <td>Profi Beton</td> <td></td> </tr> <tr> <td>Ø 5,00</td> <td>1</td> </tr> </tbody> </table> | Ø mm | Stk. (1) pc. (1) | C PROTECTOR | | Ø 5,00 | 1 | Profi Beton | | Ø 5,00 | 1 | <table border="1"> <thead> <tr> <th>Ø mm</th> <th>Stk. (1) pc. (1)</th> </tr> </thead> <tbody> <tr> <td>C PROTECTOR</td> <td></td> </tr> <tr> <td>Ø 6,00</td> <td>1</td> </tr> <tr> <td>Profi Beton</td> <td></td> </tr> <tr> <td>Ø 6,00</td> <td>1</td> </tr> </tbody> </table> | Ø mm | Stk. (1) pc. (1) | C PROTECTOR | | Ø 6,00 | 1 | Profi Beton | | Ø 6,00 | 1 | | | | | | | | | | | | |
| Ø mm | Stk. (1) pc. (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | Stk. (1) pc. (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Profi Beton | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | Stk. (1) pc. (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Profi Beton | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>C PROTECTOR ATM 2</p>  <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303082100</p> | <p>C PROTECTOR ATM 2</p>  <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303102100</p> | <p>KIT SET 13-1</p>  <p>13-tlg. / 13-pcs. / 13-unid. Set Art.-Nr. 0000303213100</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Ø mm</th> <th>Stk. (1) pc. (1)</th> </tr> </thead> <tbody> <tr> <td>C PROTECTOR</td> <td></td> </tr> <tr> <td>Ø 8,00</td> <td>1</td> </tr> <tr> <td>Profi Beton</td> <td></td> </tr> <tr> <td>Ø 8,00</td> <td>1</td> </tr> </tbody> </table> | Ø mm | Stk. (1) pc. (1) | C PROTECTOR | | Ø 8,00 | 1 | Profi Beton | | Ø 8,00 | 1 | <table border="1"> <thead> <tr> <th>Ø mm</th> <th>Stk. (1) pc. (1)</th> </tr> </thead> <tbody> <tr> <td>C PROTECTOR</td> <td></td> </tr> <tr> <td>Ø 10,00</td> <td>1</td> </tr> <tr> <td>Profi Beton</td> <td></td> </tr> <tr> <td>Ø 10,00</td> <td>1</td> </tr> </tbody> </table> | Ø mm | Stk. (1) pc. (1) | C PROTECTOR | | Ø 10,00 | 1 | Profi Beton | | Ø 10,00 | 1 | <table border="1"> <thead> <tr> <th>Ø mm</th> <th>Stk. (1) pc. (1)</th> </tr> </thead> <tbody> <tr> <td>C PROTECTOR</td> <td></td> </tr> <tr> <td>Ø 5,00 / 6,00 / 8,00</td> <td>1</td> </tr> <tr> <td>F4 Forte</td> <td></td> </tr> <tr> <td>Ø 5,00 / 6,00 / 8,00</td> <td>1</td> </tr> <tr> <td>Profi Multicut</td> <td></td> </tr> <tr> <td>Ø 5,00 / 6,00 / 8,00</td> <td>1</td> </tr> <tr> <td>Wera</td> <td></td> </tr> <tr> <td>4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas</td> <td></td> </tr> </tbody> </table> | Ø mm | Stk. (1) pc. (1) | C PROTECTOR | | Ø 5,00 / 6,00 / 8,00 | 1 | F4 Forte | | Ø 5,00 / 6,00 / 8,00 | 1 | Profi Multicut | | Ø 5,00 / 6,00 / 8,00 | 1 | Wera | | 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | |
| Ø mm | Stk. (1) pc. (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 8,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Profi Beton | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 8,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | Stk. (1) pc. (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Profi Beton | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | Stk. (1) pc. (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F4 Forte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Profi Multicut | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wera | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>KIT SET 13</p>  <p>13-tlg. / 13-pcs. / 13-unid. Set Art.-Nr. 0000303513100</p> | <table border="1"> <thead> <tr> <th>Ø mm</th> <th>Stk. (1) pc. (1)</th> </tr> </thead> <tbody> <tr> <td>C PROTECTOR</td> <td></td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00</td> <td>1</td> </tr> <tr> <td>FORCE X</td> <td></td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00</td> <td>1</td> </tr> <tr> <td>Profi Multicut</td> <td></td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00</td> <td>1</td> </tr> <tr> <td>Wera</td> <td></td> </tr> <tr> <td>4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas</td> <td></td> </tr> </tbody> </table> | Ø mm | Stk. (1) pc. (1) | C PROTECTOR | | Ø 6,00 / 8,00 / 10,00 | 1 | FORCE X | | Ø 6,00 / 8,00 / 10,00 | 1 | Profi Multicut | | Ø 6,00 / 8,00 / 10,00 | 1 | Wera | | 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | Stk. (1) pc. (1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORCE X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Profi Multicut | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wera | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(1) Stück je Abmessung / Pieces each dimension / Piezas por diámetro

1 Feinsteinzeug-Fliesenbohrer

E Porcelain / gres tile drill bit

ES Broca para baldosas de gres porcelánico

Einsatzbereich:

Für extrem harte Steinzeugfliesen bis Mohs-/Ritz-Härte 9 sowie Glas und Porzellan. Keine Kühlung erforderlich. Spindeldrehzahl max. 200 U/min beachten. Nicht geeignet zum Schlagbohren.

Range of application:

For extremely hard porcelain/gres tiles up to Mohs/Ritz hardness 9 and glass. No cooling required. Please note max. spindle speed 200 rpm. Not suitable for percussion drilling.

Ámbito de aplicación:

Para baldosas de gres extremadamente duras con una dureza 9 de Mohs/Ritz y vidrio y porcelana. No es necesaria la refrigeración. No superar la velocidad del husillo máxima de 200 r.p.m. No adecuada para el taladrado a percusión.



Für härteste Steinzeugfliesen bis Mohs-/Ritz-Härte 9
For hardest porcelain/gres tiles up to Mohs/Ritz hardness 9
Para las baldosas de gres más duras hasta una dureza de 9 en la escala Mohs



Ideal zum Trockenbohren
Ideal for dry drilling
Ideal para perforaciones en seco



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | d1 inch | l1 mm | d2 mm | Code 300 Art.-Nr. | Inh. Cont. | | Code 20300 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|----------------------|---------------|----|------------------------|---------------|
| 5,00 | 3/16 | 105 | 10,00 | 0030000500100 | 1 | 10 | | |
| 6,00 | 15/64 | 115 | 10,00 | 0030000600100 | 1 | 10 | 2030000600100 | 3 |
| 8,00 | 5/16 | 120 | 10,00 | 0030000800100 | 1 | 10 | 2030000800100 | 3 |
| 10,00 | 3/8 | 120 | | 0030001000100 | 1 | 10 | | |
| 12,00 | 15/32 | 120 | 10,00 | 0030001200100 | 1 | 10 | | |

Keramo Extreme 2



2-tlg. / 2-pcs. / 2-unid.
Kunststoffkassette / Plastic cassette / Caja de plástico
Art.-Nr. 0000300002100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|----------------|---|
| Keramo Extreme | |
| Ø 14,00 / 8,00 | 1 |




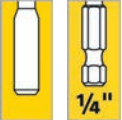

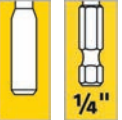

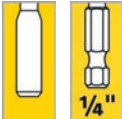

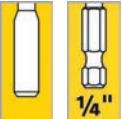
Vorbohren mit Ø 8,00 mm / To pre-drill with Ø 8,00 mm / Pretaladrado con Ø 8,00 mm

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| <p>Keramo Extreme BOX 3</p>   | | <p>Keramo Extreme ATM 2</p>   | | <p>Keramo Extreme ATM 2</p>   | |
|--|---|--|---|--|---|
| <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0000300003100</p> | | <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300052100</p> | | <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300062100</p> | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Keramo Extreme | | Keramo Extreme | | Keramo Extreme | |
| Ø 6,00 / 8,00 / 10,00 | 1 | Ø 5,00 | 1 | Ø 6,00 | 1 |
| | | Profi Beton | | Profi Beton | |
| | | Ø 5,00 | 1 | Ø 6,00 | 1 |
| <p>Keramo Extreme ATM 2</p>   | | <p>Keramo Extreme ATM 2</p>   | | | |
| <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300082100</p> | | <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300102100</p> | | | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | |
| Keramo Extreme | | Keramo Extreme | | | |
| Ø 8,00 | 1 | Ø 10,00 | 1 | | |
| Profi Beton | | Profi Beton | | | |
| Ø 8,00 | 1 | Ø 10,00 | 1 | | |



Spezialbohrer
special drill bit
broca especial

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

**① Hartmetall-Keramikbohrer,
DIN ISO 5468**

Einsatzbereich:

Hochleistungsbohrer zum Drehbohren von Fliesen, Keramik und Marmor. Nicht geeignet zum Schlagbohren.

**② Tungsten carbide rotary ceramic
drill bits, DIN ISO 5468**

Range of application:

High efficiency drill for drilling tiles, ceramics and marble. Rotary only.

**③ Broca de metal duro para cerámica,
DIN ISO 5468**

Ámbito de aplicación:

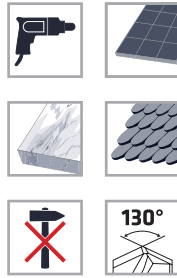
Broca de alto rendimiento para el taladrado rotativo de baldosas, cerámica y mármol. No adecuada para el taladrado a percusión.



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Stabil
Stable
Estable



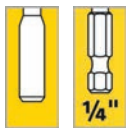
Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 297 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|-------|----------------------|---------------|----|
| 4,00 | 5/32 | 75 | 39 | | 0029700400100 | 1 | 10 |
| 5,00 | 3/16 | 85 | 39 | | 0029700500100 | 1 | 10 |
| 6,00 | 15/64 | 100 | 54 | | 0029700600100 | 1 | 10 |
| 6,50 | 1/4 | 100 | 54 | 6,00 | 0029700650100 | 1 | 10 |
| 8,00 | 5/16 | 120 | 80 | | 0029700800100 | 1 | 10 |
| 10,00 | 3/8 | 120 | 80 | | 0029701000100 | 1 | 10 |
| 12,00 | 15/32 | 150 | 90 | 10,00 | 0029701200100 | 1 | 10 |

Profi Keramo KSBF 8



| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|----------------|---|
| Profi Glas | |
| Ø 5,00 / 6,00 | 1 |
| Profi Keramo | |
| Ø 5,00 / 10,00 | 1 |
| Ø 6,00 / 8,00 | 2 |

8-tlg. / 8-pcs. / 8-unid.
Metallkassette
Art.-Nr. 0022700208100

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D **Diamant-Fliesenbohrer inkl. Bohrschablone**

Einsatzbereich:

Für extrem harte Steinzeugfliesen, extrem harte Dachziegel, Marmor, Granit, Glas sowie Porzellan. Speziell geeignet für Akku-Bohrmaschinen und Universalhalter durch genormtes Schaftprofil. Nicht geeignet zum Schlagbohren. Unbedingt mit Wasser kühlen!



Diamantbeschichtet für härteste Materialien
Diamond coated for the hardest materials
Con recubrimiento de diamant para los materiales más duros



Hart
Hard
Dura

E **Diamond tile drill bits incl. drilling template**

Range of application:

For extremely hard ceramic tiles, extremely hard roofing tiles, marble, granite, glass and porcelain. Suitable for any standard cordless drill thanks to its standardized shank profile. Not suitable for percussion drilling. Water cooling highly required.

ES **Broca de diamante para baldosas, incl. plantilla para taladrar**

Ámbito de aplicación:

Para baldosas de gres extremadamente duros, tejas extremadamente duras, mármol, granito, vidrio y porcelana. No adecuada para el taladrado a percusión. Especialmente adecuada para taladradoras con batería y soportes universales gracias a su perfil de eje normativo. Es indispensable enfriar con agua.



Spezialbohrer
special drill bit
broca especial



Blisterverpackung
Blister packaging
Embalaje en blister

| d1 mm | d1 inch | l1 mm | d2 mm | Code 290 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|----------------------|---------------|---|
| 5,00 | 3/16 | 60 | 1/4" | 0029000500100 | 1 | 1 |
| 6,00 | 15/64 | 60 | 1/4" | 0029000600100 | 1 | 1 |
| 8,00 | 5/16 | 60 | 1/4" | 0029000800100 | 1 | 1 |
| 10,00 | 3/8 | 60 | 1/4" | 0029001000100 | 1 | 1 |
| 12,00 | 15/32 | 60 | 1/4" | 0029001200100 | 1 | 1 |
| 15,00 | 19/32 | 60 | 1/4" | 0029001500100 | 1 | 1 |

Schaft nach DIN 3126, Form E6.3, ISO 1173 / Shank DIN 3126, Form E6.3, ISO 1173 /
Eje según DIN 3126, forma E6.3, ISO 1173



Inkl. Bohrschablone
Incl. drilling template
Incl. plantilla para taladrar

① Hartmetall-Glasbohrer

⑤ Tungsten carbide glass drill bits ⑥ Broca de metal duro para vidrio

Einsatzbereich:

Zum Bohren von Glas, Flaschen, Porzellan, Fliesen usw. Nicht geeignet zum Schlagbohren.

Range of application:

For drilling glass, bottles, porcelain, ceramics etc. Rotary only.

Ámbito de aplicación:

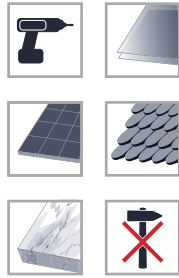
Para el taladrado de vidrio, botellas, porcelana, baldosas, etc. No adecuada para el taladrado a percusión.



Präzise
Precise
Preciso




Stabil
Stable
Estable



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish



Einzelverpackung
Single pack
Embalaje individual



| d1 mm | d1 inch | l mm | d2 mm | Code 289 Art.-Nr. | Inh. Cont. |  |
|----------|------------|---------|----------|----------------------|---------------|---|
| 3,00 | 1/8 | 100 | 1/4" | 0028900300100 | 1 | 10 |
| 4,00 | 5/32 | 100 | 1/4" | 0028900400100 | 1 | 10 |
| 5,00 | 3/16 | 105 | 1/4" | 0028900500100 | 1 | 10 |
| 6,00 | 15/64 | 105 | 1/4" | 0028900600100 | 1 | 10 |
| 8,00 | 5/16 | 110 | 1/4" | 0028900800100 | 1 | 10 |
| 10,00 | 3/8 | 130 | 1/4" | 0028901000100 | 1 | 10 |
| 12,00 | 15/32 | 113 | 10,00 | 0028901200100 | 1 | 10 |

Schaft nach DIN 3126, Form E6.3, ISO 1173 / Shank DIN 3126, Form E6.3, ISO 1173 / Eje según DIN 3126, forma E6.3, ISO 1173

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| Profi Keramo KSBF 8 | | Profi Glas ATM 3 | |
|---|---|---|---|
|  | |  | |
| 8-tlg. / 8-pcs. / 8-unid. Metallkassette Art.-Nr. 0022700208100 | | 3-tlg. / 3-pcs. / 3-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0028900003100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Profi Glas | | Profi Glas | |
| Ø 5,00 / 6,00 | 1 | Ø 5,00 / 6,00 / 8,00 | 1 |
| Profi Keramo | | | |
| Ø 5,00 / 10,00 | 1 | | |
| Ø 6,00 / 8,00 | 2 | | |



Spezialbohrer
special drill bit
broca especial

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Drehzahlen

E Spindle speeds

ES Velocidades

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

Profi Multicut



Code 172, 272, 729, 730, 509, 519, 529, 539, 579

| Ø mm | | | | | | |
|------|-----------------------|------|------|------|------|------|
| | U/min. rpm r.p.m. | | | | | |
| 3 | 930 | 4000 | 1590 | 2100 | 2600 | 1300 |
| 4 | 750 | 3000 | 1200 | 1600 | 2000 | 1000 |
| 5 | 600 | 2400 | 1000 | 1300 | 1600 | 800 |
| 5,5 | 545 | 2185 | 900 | 1180 | 1450 | 730 |
| 6 | 500 | 2000 | 800 | 1100 | 1300 | 700 |
| 6,5 | 465 | 1850 | 770 | 1000 | 1230 | 620 |
| 7 | 450 | 1750 | 700 | 900 | 1150 | 600 |
| 8 | 350 | 1500 | 600 | 800 | 1000 | 500 |
| 10 | 300 | 1200 | 500 | 650 | 800 | 400 |
| 12 | 250 | 1000 | 400 | 550 | 650 | 350 |
| 14 | 200 | 900 | 350 | 450 | 550 | 300 |
| 16 | 175 | 750 | 300 | 400 | 500 | 250 |
| 18 | 165 | 670 | 280 | 360 | 450 | 220 |
| 20 | 150 | 600 | 240 | 320 | 400 | 200 |

Profi Ziegel / DUST EXTRACTOR SHARP



Code 352, 680

| Ø mm | | |
|------|-----------------------|------|
| | U/min. rpm r.p.m. | |
| 4 | 3000 | 3000 |
| 5 | 2400 | 2400 |
| 6 | 2000 | 2000 |
| 8 | 1500 | 1500 |
| 10 | 1200 | 1200 |
| 12 | 1000 | 1000 |
| 14 | 900 | 900 |
| 16 | 800 | 800 |



Spezialbohrer
special drill bit
broca especial

Profi Dach

Profi Granit



Code 252, 253

| Ø mm | | | | | |
|---------|--------|-----|--------|------|-----|
| | U/min. | rpm | r.p.m. | | |
| 3,5 | 1150 | 700 | 850 | 1150 | 800 |
| 4 | 1000 | 600 | 750 | 1000 | 700 |
| 5 | 900 | 500 | 600 | 900 | 550 |
| 6 | 750 | 400 | 500 | 750 | 450 |

Code 257

| Ø mm | | |
|---------|--------|--------------|
| | U/min. | rpm r.p.m. |
| 4 | 2000 | 2400 |
| 5 | 1800 | 2000 |
| 6 | 1400 | 1700 |
| 8 | 1000 | 1250 |
| 10 | 800 | 1000 |
| 12 | 650 | 800 |
| 14 | 600 | 700 |

Beim Drehbohren in dünne Granitplatten
Reduzierung der Drehzahlen um 70%.

*Please reduce spindle speeds by 70%
if drilling into thin granite tiles.*

*Cuando taladre en placas de granito finas,
reduzca la velocidad en un 70%.*

① Drehzahlen

② Spindle speeds

③ Velocidades

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

Longlife Granit

Keramo extreme

C PROTECTOR



Code 258

| Ø mm | U/min. rpm r.p.m. | |
|---------|-----------------------|--------------|
| | U/min. | rpm r.p.m. |
| 4 | 1850 | 2250 |
| 5 | 1650 | 1800 |
| 6 | 1300 | 1500 |
| 8 | 930 | 1150 |
| 10 | 740 | 900 |
| 12 | 600 | 750 |

Code 300

| Ø mm | U/min. rpm r.p.m. | |
|---------|-----------------------|--------------|
| | U/min. | rpm r.p.m. |
| 5 | 500 | 500 |
| 6 | 400 | 400 |
| 8 | 300 | 300 |
| 10 | 300 | 300 |
| 12 | 300 | 300 |
| 14 | 200 | 200 |

Code 303

| Ø mm | U/min. rpm r.p.m. | |
|---------|-----------------------|--------------|
| | U/min. | rpm r.p.m. |
| 5 | 800 | 800 |
| 6 | 600 | 600 |
| 8 | 600 | 600 |
| 10 | 400 | 400 |
| 12 | 400 | 400 |
| 14 | 200 | 200 |



Spezialbohrer
special drill bit
broca especial

Profi Keramo

Profi Diamant

Profi Glas



Code 297

| Ø mm | U/min. rpm r.p.m. | | |
|---------|-----------------------|------|------|
| | 4 | 750 | 1600 |
| 5 | 600 | 1300 | 800 |
| 6 | 500 | 1100 | 700 |
| 6,5 | 450 | 1000 | 650 |
| 8 | 350 | 800 | 500 |
| 10 | 300 | 650 | 400 |
| 12 | 250 | 550 | 350 |

Code 290

| Ø mm | U/min. rpm r.p.m. | | | |
|---------|-----------------------|------|-----|------|
| | 5 | 1000 | 950 | 950 |
| 6 | 900 | 800 | 800 | 1300 |
| 8 | 700 | 600 | 600 | 1000 |
| 10 | 550 | 500 | 500 | 800 |
| 12 | 450 | 400 | 400 | 650 |
| 15 | 400 | 350 | 350 | 550 |


Code 289

| Ø mm | U/min. rpm r.p.m. | |
|---------|-----------------------|-----|
| | 3 | 400 |
| 4 | 300 | 750 |
| 5 | 250 | 600 |
| 6 | 200 | 500 |
| 8 | 150 | 350 |
| 10 | 100 | 300 |
| 12 | 75 | 250 |



GESTEINSBOHRER, SDS-BOHRER UND MEISSEL

// SCHLAGBOHRER, HAMMERBOHRER, BOHRKRONEN UND MEISSEL



E CONCRETE AND MASONRY DRILL BITS, SDS HAMMER DRILL BITS AND CHISELS

- // PERCUSSION DRILL BITS
- // HAMMER DRILL BITS
- // CORE BITS AND CHISELS



















































ES BROCA PARA PIEDRA, BROCA DE PERCUSIÓN SDS Y CINCELES

- // BROCA DE PERCUSION
- // CORONAS DE PERFORAR Y CINCELES

Übersicht

Overview
































































Resumen

| |  |  |  |  |  |  |
|--|---|---|--|---|---|---|
| Norm / Estándar | DIN ISO 5468 | WN | DIN ISO 5468 | WN | WN | WN |
| Name / Nombre | Profi Beton | Profi Beton | Long Life | FORCE X | F4 Forte | DUST EXTRACTOR SMASH |
| Schaft / Shank / Eje |  |  |  |  |  |  |
| Ø mm | 3,00 - 20,00 | 4,00 - 10,00 | 3,00 - 22,00 | 5,00 - 32,00 | 4,00 - 26,00 | 6,00 - 16,00 |
| Code / Código | 188, 727, 737 | 189 | 117, 118, 327, 367, 517, 617, 718 | 762-765, 805, 815, 825, 835, 845, 875, 905, 915 | 768-771, 773, 778, 807, 817, 827, 837, 847, 877, 887, 913, 914 | 580 |
| Seite / Page / Página | 67 | 69 | 73 | 79 | 85 | 93 |
| Geeignet für / Suitable for / Adecuada para | | | | | | |
|  Beton Concrete Hormigón |  |  |  |  |  |  |
|  Armierter Beton Reinforced concrete Hormigón armado | | | |  |  | |
|  Stein Natural stone Piedra |  |  |  |  |  |  |
|  Ziegel Brick Ladrillo |  |  |  |  |  |  |
|  Granit Granite Granito |  |  |  |  |  |  |
|  Marmor Marble Mármol |  |  |  |  |  |  |

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| | | | | | | | | |
|---|---|---|---|---|--|---|---|---|
|  |  |  |  |  |  |  |  |  |
| WN | | | | | | | | |
| SDS-plus Bohrkronen | DEMOLISHER Plus | DEMOLISHER Plus | DEMOLISHER Plus | SDS-plus Meißel | SDS-plus Meißel | SDS-plus Meißel | SDS-plus Meißel | SDS-plus Meißel |
|  |  |  |  |  |  |  |  |  |
| 25,00 - 80,00 | | | | | | | | |
| 897-899 | 987 | 987 | 987 | 982 | 983 | 985 | 981 | 984 |
| 94 | 95 | 95 | 95 | 96 | 96 | 96 | 96 | 96 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |




















































Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cinceles

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| |  |  |  |  |  |  |
|--|---|---|--|---|---|---|
| Norm / Estándar | | | WN | WN | WN | |
| Name / Nombre | SDS-plus Meißel | SDS-plus Meißel | SDS-max | SDS-max Bohrkronen | SDS-max Fräskronen | DEMOLISHER Max |
| Schaft / Shank / Eje |  |  |  |  |  |  |
| Ø mm | | | 12,00 - 50,00 | 12,00 - 125,00 | 45,00 - 80,00 | |
| Code / Código | 983 | 980 | 889-895 | 871-872 | 885-886 | 973 |
| Seite / Page / Página | 96 | 96 | 98 | 101 | 102 | 103 |
| Geeignet für / Suitable for / Adecuada para | | | | | | |
|  Beton Concrete Hormigón |  |  |  |  |  |  |
|  Armierter Beton Reinforced concrete Hormigón armado | | |  | | | |
|  Stein Natural stone Piedra |  |  |  |  |  |  |
|  Ziegel Brick Ladrillo |  |  |  |  |  |  |
|  Granit Granite Granito |  |  |  |  |  |  |
|  Marmor Marble Mármol |  |  |  |  |  |  |

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| | | | | | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
| | | | | | | | | |
| DEMOLISHER Max | DEMOLISHER Max | SDS-max Meißel | SDS-max Meißel | SDS-max Meißel | SDS-max Meißel | SDS-max Meißel | SDS-max Meißel | Aufnahmeadapter |
| 973 | 973 | 978 | 979 | 971 | 974 | 970 | 974 | 996 |
| 103 | 103 | 104 | 104 | 104 | 104 | 104 | 104 | 106 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cinceles

 **PROFI BETON**



Exakte Ergebnisse

Herausragende Zentriereigenschaft ermöglicht punktgenaue Bohrungen

Precise results

Outstanding centering properties enable precise drilling

Resultados exactos

Las excelentes propiedades de centrado permiten perforaciones precisas

Fester, sicherer Halt

Durch vergüteten Schaft und einen hochfesten Bohrkörper wird ein stabiles Bohren ermöglicht

Firm and stable hold

Tempered shank and a very strong drilling core enables stable drilling

Sujeción firme y segura

El eje tratado y mejorado y el portabrocas de alta resistencia permiten una perforación estable

Präzise Nuten

Für eine optimale Bohrgutabtragung

Precise flutes

For optimal removal of drilling material

Ranuras precisas

Para una extracción óptima del material de perforación



 *drill better.*

**D Hartmetall-Betonbohrer,
DIN ISO 5468**

**E Tungsten carbide concrete drill
bits, DIN ISO 5468**

**ES Broca de metal duro para
hormigón, DIN ISO 5468**

Einsatzbereich:

Hochleistungsbohrer Profi Beton zum Einsatz in Schlagbohrmaschinen und Bohrhämmern mit Bohrfutteraufnahme. Geeignet zum Schlagbohren in Beton, Mauerwerk und Naturstein, zum Drehbohren in Marmor.

Range of application:

High efficiency Profi Beton drill for percussion and heavy-duty hammer drilling of natural stone, concrete, brick and for rotary drilling of marble.

Ámbito de aplicación:

Broca de alto rendimiento Profi Beton para su uso en taladradoras a percusión y martillos perforadores con toma para portabrocas. Adecuada para el taladrado a percusión en hormigón, mampostería y piedra natural y para el taladrado rotativo en mármol.



Leistungsstark
Efficient
Alto rendimiento



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Stabil
Stable
Estable



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual


| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 188 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|-------|----------------------|---------------|----|
| 3,00 | 1/8 | 60 | 30 | | 0018800300100 | 1 | 10 |
| 4,00 | 5/32 | 75 | 39 | | 0018800400100 | 1 | 10 |
| 5,00 | 3/16 | 85 | 39 | | 0018800500100 | 1 | 10 |
| 6,00 | 15/64 | 100 | 54 | | 0018800600100 | 1 | 10 |
| 6,50 | 1/4 | 100 | 54 | | 0018800650100 | 1 | 10 |
| 7,00 | 9/32 | 100 | 54 | | 0018800700100 | 1 | 10 |
| 8,00 | 5/16 | 120 | 80 | | 0018800800100 | 1 | 10 |
| 9,00 | 11/32 | 120 | 80 | | 0018800900100 | 1 | 10 |
| 10,00 | 3/8 | 120 | 80 | | 0018801000100 | 1 | 10 |
| 12,00 | 15/32 | 150 | 90 | 10,00 | 0018801200100 | 1 | 10 |
| 14,00 | 9/16 | 150 | 90 | 10,00 | 0018801400100 | 1 | 10 |
| 16,00 | 5/8 | 150 | 90 | 10,00 | 0018801600100 | 1 | 10 |
| 18,00 | 23/32 | 160 | 100 | 10,00 | 0018801800100 | 1 | 10 |
| 20,00 | 3/4 | 160 | 100 | 13,00 | 0018802000100 | 1 | 10 |




Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cinceles

Einzelverpackung
Single pack
Embalaje individual

Länge / Length / Longitud: 150/90 mm

| d1 mm | d1 inch | l1 mm | l2 mm | Code 727 Art.-Nr. | Inh. Cont. |  |
|----------|------------|----------|----------|----------------------|---------------|---|
| 5,00 | 3/16 | 150 | 90 | 0072700500100 | 1 | 10 |
| 5,50 | | 150 | 90 | 0072700550100 | 1 | 10 |
| 6,00 | 15/64 | 150 | 90 | 0072700600100 | 1 | 10 |
| 6,50 | 1/4 | 150 | 90 | 0072700650100 | 1 | 10 |
| 7,00 | 9/32 | 150 | 90 | 0072700700100 | 1 | 10 |
| 8,00 | 5/16 | 150 | 90 | 0072700800100 | 1 | 10 |
| 10,00 | 3/8 | 150 | 90 | 0072701000100 | 1 | 10 |

Länge / Length / Longitud: 200/140 mm

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 737 Art.-Nr. | Inh. Cont. |  |
|----------|------------|----------|----------|-------|----------------------|---------------|---|
| 6,00 | 15/64 | 200 | 140 | | 0073700600100 | 1 | 8 |
| 6,50 | 1/4 | 200 | 140 | | 0073700650100 | 1 | 8 |
| 8,00 | 5/16 | 200 | 140 | | 0073700800100 | 1 | 8 |
| 10,00 | 3/8 | 200 | 140 | | 0073701000100 | 1 | 8 |
| 12,00 | 15/32 | 200 | 140 | 10,00 | 0073701200100 | 1 | 8 |

D Hartmetall-Betonbohrer mit 1/4"-Sechskantschaft

Einsatzbereich:

Hochleistungsbohrer speziell für Standard-Akkubohrmaschinen und Universalhalter (Bithalter) durch genormtes Schaftprofil. Zum Schlagbohren in Beton, Mauerwerk und Naturstein, zum Drehbohren in Marmor.



Leistungsstark
Efficient
Alto rendimiento



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Stabil
Stable
Estable

E Tungsten carbide concrete drill bits with 1/4" hexagonal shank

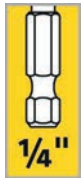
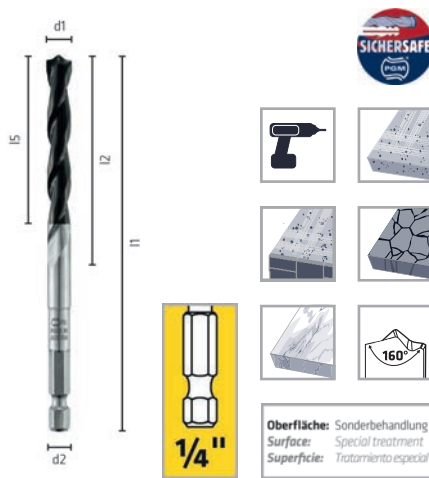
Range of application:

High performance drill especially for standard-cordless drills and universal holders (bit holder) through standard shank profile. For percussion drilling in concrete, brickwork and natural stone, rotary drilling in marble.

ES Broca de metal duro para hormigón con eje hexagonal 1/4"

Ámbito de aplicación:

Broca de alto rendimiento especial para taladradoras con batería estándar y soportes universales (soporte de broca) gracias a su perfil de eje normativo. Para el taladrado a percusión en hormigón, mampostería y piedra natural y el taladrado rotativo en mármol.



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | d1 inch | l1 mm | l2 mm | l5 mm | d2 | Code 189 Art.-Nr. | Inh. Cont. | |
|----------|------------|----------|----------|----------|------|----------------------|---------------|----|
| 4,00 | 5/32 | 100 | 39 | 25 | 1/4" | 0018900400100 | 1 | 10 |
| 5,00 | 3/16 | 100 | 39 | 35 | 1/4" | 0018900500100 | 1 | 10 |
| 6,00 | 15/64 | 100 | 54 | 40 | 1/4" | 0018900600100 | 1 | 10 |
| 8,00 | 5/16 | 120 | 80 | 55 | 1/4" | 0018900800100 | 1 | 10 |
| 10,00 | 3/8 | 120 | 80 | 63 | 1/4" | 0018901000100 | 1 | 10 |

Schaft nach DIN 3126, Form E6.3, ISO 1173 / Shank DIN 3126, Form E6.3, ISO 1173 / Eje según DIN 3126, forma E6.3, ISO 1173



Dübelbohrlänge
Drilling length for anchor
Longitud de perforación de la espiga








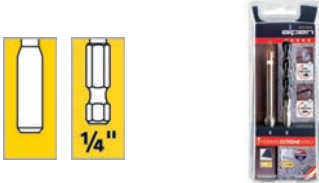
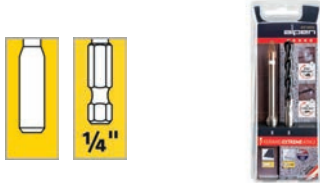


Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

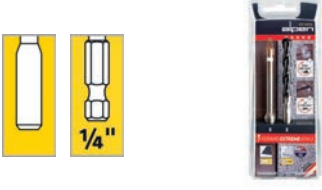

| | | | | | |
|--|----------------------------|--|----------------------------|--|----------------------------|
| <p>Profi Beton PTSB 5</p>  | | <p>Profi Beton PKSB 8</p>  | | <p>Profi Beton APTM 3</p>  | |
| <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 002270022100</p> | | <p>8-tlg. / 8-pcs. / 8-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0022700201100</p> | | <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000101803100</p> | |
| Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ |
| Profi Beton | | Profi Beton | | Profi Beton | |
| Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 3,00 / 4,00 / 5,00 / 10,00 | 1 | Ø 5,00 / 6,00 / 8,00 | 1 |
| | | Ø 6,00 / 8,00 | 2 | | |
| <p>C PROTECTOR ATM 2</p>  | | <p>C PROTECTOR ATM 2</p>  | | <p>C PROTECTOR ATM 2</p>  | |
| <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303052100</p> | | <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303062100</p> | | <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303082100</p> | |
| Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ |
| C PROTECTOR | | C PROTECTOR | | C PROTECTOR | |
| Ø 5,00 | 1 | Ø 6,00 | 1 | Ø 8,00 | 1 |
| Profi Beton | | Profi Beton | | Profi Beton | |
| Ø 5,00 | 1 | Ø 6,00 | 1 | Ø 8,00 | 1 |
| <p>C PROTECTOR ATM 2</p>  | | <p>Keramo Extreme ATM 2</p>  | | <p>Keramo Extreme ATM 2</p>  | |
| <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000303102100</p> | | <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300052100</p> | | <p>2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300062100</p> | |
| Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ |
| C PROTECTOR | | Keramo Extreme | | Keramo Extreme | |
| Ø 10,00 | 1 | Ø 5,00 | 1 | Ø 6,00 | 1 |
| Profi Beton | | Profi Beton | | Profi Beton | |
| Ø 10,00 | 1 | Ø 5,00 | 1 | Ø 6,00 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| Keramo Extreme ATM 2 | | Keramo Extreme ATM 2 | |
|---|---|---|---|
|  | |  | |
| 2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300082100 | | 2-tlg. / 2-pcs. / 2-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000300102100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Keramo Extreme | | Keramo Extreme | |
| Ø 8,00 | 1 | Ø 10,00 | 1 |
| Profi Beton | | Profi Beton | |
| Ø 8,00 | 1 | Ø 10,00 | 1 |



Gesteinsbohrer, SDS-Bohrer und Meißel
 Concrete and Masonry drill bits, SDS hammer drill bits and chisels
 Broca para piedra, broca de percusión SDS y cinceles

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

 **LONG LIFE**



Vielseitige Einsatzmöglichkeiten

Kann als Universalbohrer flexibel eingesetzt werden

Diverse application possibilities

Can be used flexibly as a universal drill

Múltiples posibilidades de uso

Se puede usar como broca universal versátil

Gefrästes Profil

Wie bei den SDS-Bohrern

Profile milled

As with SDS bits

Perfil fresado

Como las brocas SDS

Stabiler Grundkörper

Bohrung von harten Materialien wird durch Grundkörper aus Werkzeugstahl sichergestellt

Robust core

Drilling of hard materials is ensured by a core made of tool steel

Cuerpo base estable

Perforación de materiales duros asegurada gracias al cuerpo base de acero para herramientas



 **alpen** *drill better.*

**D Hartmetall-Steinbohrer,
DIN ISO 5468**

**E Tungsten carbide masonry drill
bits, DIN ISO 5468**

**ES Broca de metal duro para pie-
dra, DIN ISO 5468**

Einsatzbereich:

Universeller Mauerbohrer Typ Long Life in gefräster Ausführung zum Schlag- und Drehbohren in Mauerwerk und Naturstein.

Range of application:

Masonry drill bit type Long Life, milled flutes, for percussion and rotary drilling in concrete, brick and natural stone.

Ámbito de aplicación:

Broca universal para mampostería, tipo Long Life en modelo fresado para el taladrado a percusión y rotativo en mampostería y piedra natural.



Universeller Schlagbohrer
Universal percussion drill bits
Taladradora universal



Lange Lebensdauer
Long tool life
Larga vida útil



Hart
Hard
Dura







Einzelverpackung
Single pack
Embalaje individual




Gewerbepack mit Aufhänger
Industrial packing with tag
Paquete industrial con gancho

| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 117 Art.-Nr. | Inh. Cont. | | Code 118 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|-------|----------------------|---------------|----|----------------------|---------------|
| 3,00 | 1/8 | 60 | 30 | | 0011700300100 | 1 | 10 | 0011800300100 | 10 |
| 4,00 | 5/32 | 75 | 39 | | 0011700400100 | 1 | 10 | 0011800400100 | 10 |
| 5,00 | 3/16 | 85 | 39 | | 0011700500100 | 1 | 10 | 0011800500100 | 10 |
| 5,50 | | 85 | 39 | | 0011700550100 | 1 | 10 | | |
| 6,00 | 15/64 | 100 | 54 | | 0011700600100 | 1 | 10 | 0011800600100 | 10 |
| 6,50 | 1/4 | 100 | 54 | | 0011700650100 | 1 | 10 | 0011800650100 | 10 |
| 7,00 | 9/32 | 100 | 54 | | 0011700700100 | 1 | 10 | | |
| 8,00 | 5/16 | 120 | 80 | | 0011700800100 | 1 | 10 | 0011800800100 | 10 |
| 9,00 | 11/32 | 120 | 80 | | 0011700900100 | 1 | 10 | | |
| 10,00 | 3/8 | 120 | 80 | | 0011701000100 | 1 | 10 | 0011801000100 | 10 |
| 11,00 | 7/16 | 150 | 90 | 10,00 | 0011701100100 | 1 | 10 | | |
| 12,00 | 15/32 | 150 | 90 | 10,00 | 0011701200100 | 1 | 10 | 0011801200100 | 10 |
| 13,00 | 1/2 | 150 | 90 | 10,00 | 0011701300100 | 1 | 10 | | |
| 14,00 | 9/16 | 150 | 90 | 10,00 | 0011701400100 | 1 | 10 | | |
| 15,00 | 19/32 | 150 | 90 | 10,00 | 0011701500100 | 1 | 10 | | |
| 16,00 | 5/8 | 150 | 90 | 10,00 | 0011701600100 | 1 | 10 | | |
| 18,00 | 23/32 | 160 | 100 | 10,00 | 0011701800100 | 1 | 10 | | |
| 20,00 | 3/4 | 160 | 100 | 13,00 | 0011702000100 | 1 | 10 | | |

Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

| | | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack mit Aufhänger <i>Industrial packing with tag</i> <i>Paquete industrial con gancho</i> | |
|--|------------|----------|----------|-------|--|---------------|---|---|---------------|
| Länge / Length / Longitud: 150/90 mm | | | | | | | | | |
| d1 mm | d1 inch | l1 mm | l2 mm | | Code 718 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 4,00 | 5/32 | 150 | 90 | | 0071800400100 | 1 | 10 | | |
| 5,00 | 3/16 | 150 | 90 | | 0071800500100 | 1 | 10 | | |
| 5,50 | | 150 | 90 | | 0071800550100 | 1 | 10 | | |
| 6,00 | 15/64 | 150 | 90 | | 0071800600100 | 1 | 10 | | |
| 6,50 | 1/4 | 150 | 90 | | 0071800650100 | 1 | 10 | | |
| 7,00 | 9/32 | 150 | 90 | | 0071800700100 | 1 | 10 | | |
| 8,00 | 5/16 | 150 | 90 | | 0071800800100 | 1 | 10 | | |
| 10,00 | 3/8 | 150 | 90 | | 0071801000100 | 1 | 10 | | |
| Länge / Length / Longitud: 200/140 mm | | | | | | | | | |
| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 367 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 6,00 | 15/64 | 200 | 140 | | 0036700600100 | 1 | 8 | | |
| 8,00 | 5/16 | 200 | 140 | | 0036700800100 | 1 | 8 | | |
| 10,00 | 3/8 | 200 | 140 | | 0036701000100 | 1 | 8 | | |
| 12,00 | 15/32 | 200 | 140 | 10,00 | 0036701200100 | 1 | 8 | | |
| 14,00 | 9/16 | 200 | 140 | 10,00 | 0036701400100 | 1 | 8 | | |
| 16,00 | 5/8 | 200 | 140 | 10,00 | 0036701600100 | 1 | 8 | | |
| Länge / Length / Longitud: 300/220 mm | | | | | | | | | |
| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 327 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 6,00 | 15/64 | 300 | 220 | | 0032700600100 | 1 | 5 | | |
| 8,00 | 5/16 | 300 | 220 | | 0032700800100 | 1 | 5 | | |
| 10,00 | 3/8 | 300 | 220 | | 0032701000100 | 1 | 5 | | |
| 12,00 | 15/32 | 300 | 220 | 10,00 | 0032701200100 | 1 | 5 | | |
| 14,00 | 9/16 | 300 | 220 | 10,00 | 0032701400100 | 1 | 5 | | |
| 16,00 | 5/8 | 300 | 220 | 10,00 | 0032701600100 | 1 | 5 | | |
| 18,00 | 23/32 | 300 | 220 | 10,00 | 0032701800100 | 1 | 5 | | |
| 20,00 | 3/4 | 300 | 220 | 13,00 | 0032702000100 | 1 | 5 | | |
| Länge / Length / Longitud: 400/300 mm | | | | | | | | | |
| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 517 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 6,00 | 15/64 | 400 | 300 | | 0051700600100 | 1 | 5 | | |
| 6,50 | 1/4 | 400 | 300 | | 0051700650100 | 1 | 5 | | |
| 8,00 | 5/16 | 400 | 300 | | 0051700800100 | 1 | 5 | | |
| 10,00 | 3/8 | 400 | 300 | | 0051701000100 | 1 | 5 | | |
| 12,00 | 15/32 | 400 | 300 | 10,00 | 0051701200100 | 1 | 5 | | |
| 13,00 | 1/2 | 400 | 300 | 10,00 | 0051701300100 | 1 | 5 | | |
| 14,00 | 9/16 | 400 | 300 | 10,00 | 0051701400100 | 1 | 5 | | |
| 16,00 | 5/8 | 400 | 300 | 10,00 | 0051701600100 | 1 | 5 | | |
| 18,00 | 23/32 | 400 | 300 | 10,00 | 0051701800100 | 1 | 5 | | |
| 20,00 | 3/4 | 400 | 300 | 13,00 | 0051702000100 | 1 | 5 | | |
| 22,00 | | 400 | 300 | 13,00 | 0051702200100 | 1 | 5 | | |

| Länge / Length / Longitud: 600/500 mm | | | | | Einzelverpackung Single pack Embalaje individual | Gewerbepack mit Aufhänger Industrial packing with tag Paquete industrial con gancho | | | |
|---------------------------------------|------------|----------|----------|-------|--|---|--|----------|---------------|
| d1 mm | d1 inch | l1 mm | l2 mm | d2 | Code 617 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 8,00 | 5/16 | 600 | 500 | | 0061700800100 | 1 | 5 | | |
| 10,00 | 3/8 | 600 | 500 | | 0061701000100 | 1 | 5 | | |
| 12,00 | 15/32 | 600 | 500 | 10,00 | 0061701200100 | 1 | 5 | | |
| 14,00 | 9/16 | 600 | 500 | 10,00 | 0061701400100 | 1 | 5 | | |
| 16,00 | 5/8 | 600 | 500 | 10,00 | 0061701600100 | 1 | 5 | | |
| 18,00 | 23/32 | 600 | 500 | 10,00 | 0061701800100 | 1 | 5 | | |
| 20,00 | 3/4 | 600 | 500 | 13,00 | 0061702000100 | 1 | 5 | | |

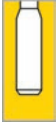













Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cinceles

① Kassetten, Sets

② Cassettes, sets

③ Cajas, juegos

| <p>Long Life TSS 3</p>   | | <p>Long Life TSS 5</p>   | | <p>Long Life TSS 8</p>   | |
|--|---|--|---|---|---|
| <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000700103100</p> | | <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000700105100</p> | | <p>8-tlg. / 8-pcs. / 8-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000700108100</p> | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Long Life | | Long Life | | Long Life | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 3,00-10,00 | 1 |
| <p>KIT SET 22</p>   | | <p>KIT SET 30</p>   | | <p>Combiset TM 9</p>   | |
| <p>22-tlg. / 22-pcs. / 22-unid. Set Art.-Nr. 0000800222100</p> | | <p>30-tlg. / 30-pcs. / 30-unid. Set Art.-Nr. 0000800230100</p> | | <p>9-tlg. / 9-pcs. / 9-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000802102100</p> | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Long Life | | Holz | | Holz | |
| Ø 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 5,00 / 6,00 / 8,00 | 1 |
| Sprint Master | | HSS Super | | Long Life | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 2,50 / 3,20 | 1 | Ø 5,00 / 6,00 / 8,00 | 1 |
| Wera | | Long Life | | Sprint Master | |
| 9 Bits sortiert / 9 Bits sorted / 9 brocas surtidas | | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 5,00 / 6,00 / 8,00 | 1 |
| Bitshalter / Bitholder / Portabrocas | | Sprint Master | | | |
| Körner / Centerpunch / Punzón | | Ø 3,00 / 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | |
| | | Wera | | | |
| | | 9 Bits sortiert / 9 Bits sorted / 9 brocas surtidas | | | |
| | | Bitshalter / Bitholder / Portabrocas | | | |
| | | Körner / Centerpunch / Punzón | | | |

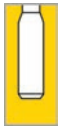
⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

Combiset TM 9/1



9-tlg. / 9-pcs. / 9-unid.
Kunststoffkassette / Plastic cassette / Caja de plástico
Art.-Nr. 0000802122100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|------------------------------------|---|
| Long Life | |
| Ø 4,00 / 5,00 / 6,00 / 8,00 | 1 |
| Sprint Master | |
| Ø 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 |

Combiset Master SET 16



16-tlg. / 16-pcs. / 16-unid.
Set
Art.-Nr. 0000811003100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---|---|
| Holz | |
| Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |
| Long Life | |
| Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |
| Sprint Master | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



FORCE X



Kein Verhaken

4 Vollhartmetallschneiden verhindert das Einhaken bei Armierungstreffern

No hooking

4 tungsten carbide cutting edges prevent hooking when hitting reinforcement

No se engancha

Los cuatro filos de metal duro y macizo evitan el enganche al impactar contra la armadura

Schnell und problemlos

Das progressive Spiralendesign liefert schnelle und exakte Ergebnisse

Fast and trouble-free

The progressive spiral design delivers fast and accurate results

Rápido y sin problemas

Su diseño en espiral proporciona resultados rápidos y precisos

Exakte Bohrtiefe

Durch den Einsatz von Dübellängenindikatoren

Exact drilling depth

Through the use of dowel length indicators

Profundidad de perforación precisa

Gracias al uso de un indicador de longitud de anclaje



alpen *drill better.*

D SDS-plus Hammerbohrer
"FORCE X", 4 Schneiden

Einsatzbereich:

SDS-plus Hochleistungsbohrer mit 4 Vollhartmetall-Schneiden und neuem progressiven Spiralendesign mit Dübellängenindikator. Problemloses Durchbohren von Eisenarmierungen, vibrationsarmer Lauf und schnelle Bohrmehlförderung.



Für armierten Beton
For reinforced concrete
Para hormigón armado



4 Vollhartmetallschneiden
4 tungsten carbide cutting edges
4 filos de metal duro y macizo



Dübellängenindikator
Dowel length indicator
Indicador de longitud del anclaje

E SDS-plus hammer drill bits
"FORCE X", 4 cutting edges

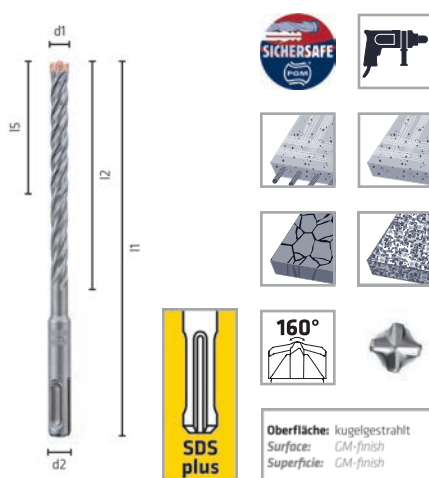
Range of application:

SDS-plus high performance drill bit with 4 tungsten carbide cutting edges and new progressive spiral design with dowel length indicator. Problem-free drilling in reinforced concrete, vibrationless running and fast removal of drilling dust.

ES Brocas de percusión SDS-plus
"FORCE X", 4 filos

Ámbito de aplicación:

Broca SDS-plus de alto rendimiento con 4 filos de metal duro integral y una ranura diseñada de forma progresiva con indicador de longitud del anclaje. Perforación de armaduras de hierro sin problemas, taladro sin vibraciones y eliminación rápida del polvo.



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

Länge / Length / Longitud: 110/50 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 805 Art.-Nr. | Inh. Cont. | | Code 762 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 5,00 | 110 | 50 | SDS-plus | 0080500500100 | 1 | 10 | 0076200500100 | 10 |
| 5,50 | 110 | 50 | SDS-plus | 0080500550100 | 1 | 10 | | |
| 6,00 | 110 | 50 | SDS-plus | 0080500600100 | 1 | 10 | 0076200600100 | 10 |
| 7,00 | 110 | 50 | SDS-plus | 0080500700100 | 1 | 10 | | |
| 8,00 | 110 | 50 | SDS-plus | 0080500800100 | 1 | 10 | 0076200800100 | 10 |
| 10,00 | 110 | 50 | SDS-plus | 0080501000100 | 1 | 10 | | |

Länge / Length / Longitud: 160/100 mm


| d1 mm | l1 mm | l2 mm | l5 mm | d2 | Code 815 Art.-Nr. | Inh. Cont. | | Code 763 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 5,00 | 160 | 100 | 35 | SDS-plus | 0081500500100 | 1 | 10 | | |
| 5,50 | 160 | 100 | 35 | SDS-plus | 0081500550100 | 1 | 10 | | |
| 6,00 | 160 | 100 | 40 | SDS-plus | 0081500600100 | 1 | 10 | 0076300600100 | 10 |
| 6,50 | 160 | 100 | 40 | SDS-plus | 0081500650100 | 1 | 10 | | |
| 7,00 | 160 | 100 | 40 | SDS-plus | 0081500700100 | 1 | 10 | | |
| 8,00 | 160 | 100 | 55 | SDS-plus | 0081500800100 | 1 | 10 | 0076300800100 | 10 |
| 9,00 | 160 | 100 | 55 | SDS-plus | 0081500900100 | 1 | 10 | | |
| 10,00 | 160 | 100 | 70 | SDS-plus | 0081501000100 | 1 | 10 | 0076301000100 | 10 |
| 12,00 | 160 | 100 | | SDS-plus | 0081501200100 | 1 | 10 | 0076301200100 | 5 |
| 14,00 | 160 | 100 | | SDS-plus | 0081501400100 | 1 | 10 | | |
| 15,00 | 160 | 100 | | SDS-plus | 0081501500100 | 1 | 10 | | |
| 16,00 | 160 | 100 | | SDS-plus | 0081501600100 | 1 | 10 | | |

Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos


Einzelverpackung
Single pack
Embalaje individual

Gewerbepack
Industrial packing
Paquete industrial


Länge / Length / Longitud: 210/150 mm



| d1 mm | l1 mm | l2 mm | l5 mm | d2 | Code 825 Art.-Nr. | Inh. Cont. |  | Code 764 Art.-Nr. | Inh. Cont. |
|-------------|------------|------------|-----------|-----------------|----------------------|---------------|---|----------------------|---------------|
| 5,00 | 210 | 150 | 35 | SDS-plus | 0082500500100 | 1 | 8 | | |
| 6,00 | 210 | 150 | 40 | SDS-plus | 0082500600100 | 1 | 8 | 0076400600100 | 10 |
| 6,50 | 210 | 150 | 40 | SDS-plus | 0082500650100 | 1 | 8 | | |
| 8,00 | 210 | 150 | 55 | SDS-plus | 0082500800100 | 1 | 8 | 0076400800100 | 10 |
| 9,00 | 210 | 150 | 55 | SDS-plus | 0082500900100 | 1 | 8 | | |
| 10,00 | 210 | 150 | 70 | SDS-plus | 0082501000100 | 1 | 8 | 0076401000100 | 10 |
| 12,00 | 210 | 150 | 80 | SDS-plus | 0082501200100 | 1 | 8 | 0076401200100 | 5 |
| 14,00 | 210 | 150 | 90 | SDS-plus | 0082501400100 | 1 | 8 | | |
| 16,00 | 210 | 150 | 100 | SDS-plus | 0082501600100 | 1 | 8 | | |

NEW

| d1 mm | l1 mm | l2 mm | l5 mm | d2 | Code 835 Art.-Nr. | Inh. Cont. |  | Code 765 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------|----------------------|---------------|---|----------------------|---------------|
| 6,00 | 260 | 200 | 40 | SDS-plus | 0083500600100 | 1 | 8 | 0076500600100 | 10 |
| 6,50 | 260 | 200 | 40 | SDS-plus | 0083500650100 | 1 | 8 | | |
| 8,00 | 260 | 200 | 55 | SDS-plus | 0083500800100 | 1 | 8 | 0076500800100 | 10 |
| 9,00 | 260 | 200 | 55 | SDS-plus | 0083500900100 | 1 | 8 | | |
| 10,00 | 260 | 200 | 70 | SDS-plus | 0083501000100 | 1 | 8 | 0076501000100 | 10 |
| 12,00 | 260 | 200 | 80 | SDS-plus | 0083501200100 | 1 | 8 | 0076501200100 | 5 |
| 14,00 | 260 | 200 | 90 | SDS-plus | 0083501400100 | 1 | 8 | 0076501400100 | 5 |
| 15,00 | 260 | 200 | 90 | SDS-plus | 0083501500100 | 1 | 8 | | |
| 16,00 | 260 | 200 | 100 | SDS-plus | 0083501600100 | 1 | 8 | | |
| 18,00 | 250 | 200 | | SDS-plus | 0083501800100 | 1 | 8 | | |
| 20,00 | 250 | 200 | | SDS-plus | 0083502000100 | 1 | 8 | | |
| 22,00 | 250 | 200 | | SDS-plus | 0083502200100 | 1 | 8 | | |
| 24,00 | 250 | 200 | | SDS-plus | 0083502400100 | 1 | 8 | | |
| 25,00 | 250 | 200 | | SDS-plus | 0083502500100 | 1 | 8 | | |

Länge / Length / Longitud: 310/250 mm

| d1 mm | l1 mm | l2 mm | l5 mm | d2 | Code 845 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------|----------------------|---------------|---|----------|---------------|
| 6,00 | 310 | 250 | 40 | SDS-plus | 0084500600100 | 1 | 8 | | |
| 6,50 | 310 | 250 | 40 | SDS-plus | 0084500650100 | 1 | 8 | | |
| 8,00 | 310 | 250 | 55 | SDS-plus | 0084500800100 | 1 | 8 | | |
| 10,00 | 310 | 250 | 70 | SDS-plus | 0084501000100 | 1 | 8 | | |
| 12,00 | 310 | 250 | 80 | SDS-plus | 0084501200100 | 1 | 8 | | |
| 14,00 | 310 | 250 | 90 | SDS-plus | 0084501400100 | 1 | 8 | | |
| 16,00 | 310 | 250 | 100 | SDS-plus | 0084501600100 | 1 | 8 | | |

| | | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> |
|--|----------|----------|----------|----------|--|---------------|--|----------|---|
| Länge / Length / Longitud: 450/400 mm | | | | | | | | | |
| d1 mm | l1 mm | l2 mm | l5 mm | d2 | Code 875 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 8,00 | 450 | 400 | 55 | SDS-plus | 0087500800100 | 1 | 5 | | |
| 10,00 | 450 | 400 | 70 | SDS-plus | 0087501000100 | 1 | 5 | | |
| 12,00 | 450 | 400 | 80 | SDS-plus | 0087501200100 | 1 | 5 | | |
| 14,00 | 450 | 400 | 90 | SDS-plus | 0087501400100 | 1 | 5 | | |
| 16,00 | 450 | 400 | 100 | SDS-plus | 0087501600100 | 1 | 5 | | |
| 18,00 | 450 | 400 | | SDS-plus | 0087501800100 | 1 | 5 | | |
| 20,00 | 450 | 400 | | SDS-plus | 0087502000100 | 1 | 5 | | |
| 22,00 | 450 | 400 | | SDS-plus | 0087502200100 | 1 | 5 | | |
| 24,00 | 450 | 400 | | SDS-plus | 0087502400100 | 1 | 5 | | |
| 25,00 | 450 | 400 | | SDS-plus | 0087502500100 | 1 | 5 | | |
| 28,00 | 450 | 400 | | SDS-plus | 0087502800100 | 1 | 5 | | |
| 30,00 | 450 | 400 | | SDS-plus | 0087503000100 | 1 | 5 | | |
| 32,00 | 450 | 400 | | SDS-plus | 0087503200100 | 1 | 5 | | |
| Länge / Length / Longitud: 600/550 mm | | | | | | | | | |
| d1 mm | l1 mm | l2 mm | l5 mm | d2 | Code 905 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 10,00 | 600 | 550 | 70 | SDS-plus | 0090501000100 | 1 | 5 | | |
| 12,00 | 600 | 550 | 80 | SDS-plus | 0090501200100 | 1 | 5 | | |
| 14,00 | 600 | 550 | 90 | SDS-plus | 0090501400100 | 1 | 5 | | |
| 16,00 | 600 | 550 | 100 | SDS-plus | 0090501600100 | 1 | 5 | | |
| 18,00 | 600 | 550 | | SDS-plus | 0090501800100 | 1 | 5 | | |
| 20,00 | 600 | 550 | | SDS-plus | 0090502000100 | 1 | 5 | | |
| 22,00 | 600 | 550 | | SDS-plus | 0090502200100 | 1 | 5 | | |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

- > Ø 16 Ausführung ohne Dübellängenindikator und 3-tlg. Hartmetallplatte
- > Ø 16 versions without dowel length indicator and 3-piece carbide tip
- > Ø 16 Versión sin indicador de longitud de anclaje y placa de metal duro de tres piezas



**① SDS-plus Hammerbohrer
"FORCE X", 4 Schneiden**

Einsatzbereich:

SDS-plus Hochleistungsbohrer mit 4 Vollhartmetall-Schneiden und neuem progressiven Spiralendesign mit Dübellängenindikator. Problemloses Durchbohren von Eisenarmierungen, vibrationsarmer Lauf und schnelle Bohrmehlförderung.



Für armierten Beton
For reinforced concrete
Para hormigón armado



4 Vollhartmetallschneiden
4 tungsten carbide cutting edges
4 filos de metal duro y macizo



Dübellängenindikator
Dowel length indicator
Indicador de longitud del anclaje

**② SDS-plus hammer drill bits
"FORCE X", 4 cutting edges**

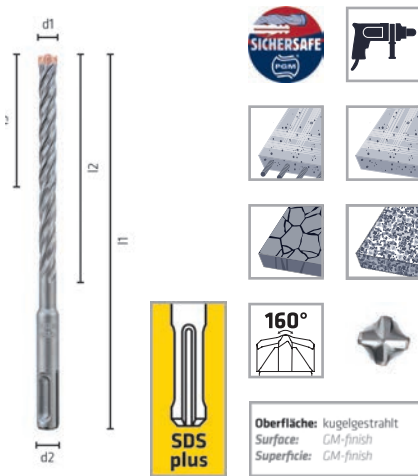
Range of application:

SDS-plus high performance drill bit with 4 tungsten carbide cutting edges and new progressive spiral design with dowel length indicator. Problem-free drilling in reinforced concrete, vibrationless running and fast removal of drilling dust.

**③ Brocas de percusión SDS-plus
"FORCE X", 4 filos**

Ámbito de aplicación:

Broca SDS-plus de alto rendimiento con 4 filos de metal duro integral y una ranura diseñada de forma progresiva con indicador de longitud del anclaje. Perforación de armaduras de hierro sin problemas, taladro sin vibraciones y eliminación rápida del polvo.



SB-Aufhänger
Plastic tag
Gancho para autoservicio

Länge / Length / Longitud: 1000/950 mm

| d1 mm | l1 mm | l2 mm | l5 mm | d2 | Code 915 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------|----------------------|---------------|---|
| 10,00 | 1000 | 950 | 70 | SDS-plus | 0091501000100 | 1 | 1 |
| 12,00 | 1000 | 950 | 80 | SDS-plus | 0091501200100 | 1 | 1 |
| 14,00 | 1000 | 950 | 90 | SDS-plus | 0091501400100 | 1 | 1 |
| 16,00 | 1000 | 950 | 100 | SDS-plus | 0091501600100 | 1 | 1 |



Dübellängenindikator
Dowel length indicator
Indicador de longitud del anclaje

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| <p>FORCE X BOX 3</p>   <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0081506810100</p> | <p>FORCE X MB 5</p>   <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0080500005100</p> | <p>FORCE X KM 7</p>   <p>7-tlg. / 7-pcs. / 7-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0080500007100</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|---|------------------------------|--|-----------------------|---------------|-----|---|-------------------------------|----------|--|-----------------------|----------|---|--------------------------------|-----|---|---------------------------|-----|---|--|---------|----------|---|---------|---|----------------------|----------------------|-----------------------|---|-------------------------------|-----|-----------------------|---|----------------|--|-----------------------|---|------|--|---|--|
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| Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORCE X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORCE X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 | 110 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORCE X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 / 8,00 | 110 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>FORCE X BOX 7</p>   <p>7-tlg. / 7-pcs. / 7-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0081500007100</p> | <p>FORCE X KP 7</p>   <p>7-tlg. / 7-pcs. / 7-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0080501007100</p> | <p>KIT SET 13</p>     <p>13-tlg. / 13-pcs. / 13-unid. Set Art.-Nr. 0000303513100</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORCE X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 | 260 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORCE X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 / 8,00 | 110 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C PROTECTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FORCE X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Profi Multicut | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wera | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>SDS-plus FORCE X KIT SET 16</p>   <p>16-tlg. / 16-pcs. / 16-unid. Set Art.-Nr. 0000500216100</p> | <table border="1"> <thead> <tr> <th>Inhalt Contents / Contenido</th> <th>l1 mm</th> <th>Stk.⁽¹⁾ pc.⁽¹⁾</th> </tr> </thead> <tbody> <tr> <td>Bohrer / Drill bits / Broca:</td> <td></td> <td></td> </tr> <tr> <td>Ø 5,00 / 6,00</td> <td>110</td> <td>1</td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00 / 12,00</td> <td>160</td> <td>1</td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00</td> <td>210</td> <td>1</td> </tr> <tr> <td>Ø 8,00 / 10,00 / 12,00 / 14,00</td> <td>260</td> <td>1</td> </tr> <tr> <td>Meißel / Chisel / Cíncel:</td> <td></td> <td></td> </tr> <tr> <td>Spitz / point / punta</td> <td></td> <td>1</td> </tr> <tr> <td>Flach / flat / plana</td> <td></td> <td>1</td> </tr> <tr> <td>Breit / wide / ancha</td> <td></td> <td>1</td> </tr> </tbody> </table> | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Bohrer / Drill bits / Broca: | | | Ø 5,00 / 6,00 | 110 | 1 | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | Ø 6,00 / 8,00 / 10,00 | 210 | 1 | Ø 8,00 / 10,00 / 12,00 / 14,00 | 260 | 1 | Meißel / Chisel / Cíncel: | | | Spitz / point / punta | | 1 | Flach / flat / plana | | 1 | Breit / wide / ancha | | 1 | | | | | | | | | | | | | |
| Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bohrer / Drill bits / Broca: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 | 110 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 210 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 8,00 / 10,00 / 12,00 / 14,00 | 260 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meißel / Chisel / Cíncel: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spitz / point / punta | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flach / flat / plana | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Breit / wide / ancha | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cíncels

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



F4 FORTE



Schnell und präzise

Trotz schneller Bohrung entstehen exakte Dübellöcher

Fast and precise

Accurate dowel holes are created despite fast drilling

Rápido y preciso

Agujeros para el taco precisos a pesar de la rapidez de perforación

Exzellente Zentriereigenschaften

Dank dem Einsatz einer patentierten Hartmetallplatte

Excellent centering properties

Thanks to the use of a patented carbide tip

Excelentes propiedades de centrado

Gracias al uso de una placa de metal duro patentada

Schnelle Bohrmehlförderung

Aufgrund des patentierten 4-fach Stufenprofils

Fast drill dust feed

Due to the patented 4-step profile

Extracción rápida del polvo

gracias al perfil cuádruple escalonado patentado



alpen *drill better.*

D SDS-plus Hammerbohrer „F4“, 2 Schneiden **E** SDS-plus hammer drill bits “F4”, 2 cutting edges **ES** Brocas de percusión SDS-plus “F4”, 2 filos

Einsatzbereich:

Der SDS-plus Hammerbohrer F4 mit patentiertem 4-fach-Stufenprofil und patentierter Hartmetallplatte. Geringer Verschleiß, sehr hohe Standzeit. Hochleistungsbohrer zum Hammerbohren in Beton, Naturstein und Mauerwerk.

Range of application:

The SDS-plus hammer drill bit F4 with its patented 4X stepped profile and patented tip. Low wear, very long service life. High efficiency drill bit for heavy-duty drilling in concrete, natural stone and brickwork.

Ámbito de aplicación:

La broca de percusión SDS-plus F4 con perfil cuádruple escalonado patentado y plancha de metal duro patentada. Menor desgaste, largo tiempo de uso. Broca de alto rendimiento para taladrado a percusión en hormigón, piedra natural y mampostería.



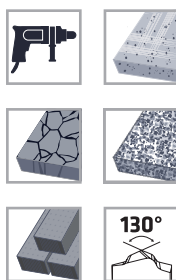
Leistungsstark
Efficient
Alto rendimiento



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápido



Präzise
Precise
Preciso



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish



Einzelverpackung
Single pack
Embalaje individual







Gewerbepack
Industrial packing
Paquete industrial

Länge / Length / Longitud: 110/50 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 807 Art.-Nr. | Inh. Cont. | | Code 768 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 4,00 | 110 | 50 | SDS-plus | 0080700400100 | 1 | 10 | 0076800400100 | 10 |
| 5,00 | 110 | 50 | SDS-plus | 0080700500100 | 1 | 10 | 0076800500100 | 10 |
| 5,50 | 110 | 50 | SDS-plus | 0080700550100 | 1 | 10 | 0076800550100 | 10 |
| 6,00 | 110 | 50 | SDS-plus | 0080700600100 | 1 | 10 | 0076800600100 | 10 |
| 6,50 | 110 | 50 | SDS-plus | 0080700650100 | 1 | 10 | 0076800650100 | 10 |
| 7,00 | 110 | 50 | SDS-plus | 0080700700100 | 1 | 10 | 0076800700100 | 10 |
| 8,00 | 110 | 50 | SDS-plus | 0080700800100 | 1 | 10 | 0076800800100 | 10 |
| 10,00 | 110 | 50 | SDS-plus | 0080701000100 | 1 | 10 | 0076801000100 | 10 |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cinceles

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|---------------------------------------|----------|----------|----------|--|---------------|---|---|---------------|
| Länge / Length / Longitud: 160/100 mm | | | | | | | | |
| d1 mm | l1 mm | l2 mm | d2 | Code 817 Art.-Nr. | Inh. Cont. |  | Code 769 Art.-Nr. | Inh. Cont. |
| 4,00 | 160 | 100 | SDS-plus | 0081700400100 | 1 | 10 | 0076900400100 | 10 |
| 5,00 | 160 | 100 | SDS-plus | 0081700500100 | 1 | 10 | 0076900500100 | 10 |
| 5,50 | 160 | 100 | SDS-plus | 0081700550100 | 1 | 10 | 0076900550100 | 10 |
| 6,00 | 160 | 100 | SDS-plus | 0081700600100 | 1 | 10 | 0076900600100 | 10 |
| 6,50 | 160 | 100 | SDS-plus | 0081700650100 | 1 | 10 | 0076900650100 | 10 |
| 7,00 | 160 | 100 | SDS-plus | 0081700700100 | 1 | 10 | 0076900700100 | 10 |
| 8,00 | 160 | 100 | SDS-plus | 0081700800100 | 1 | 10 | 0076900800100 | 10 |
| 9,00 | 160 | 100 | SDS-plus | 0081700900100 | 1 | 10 | 0076900900100 | 10 |
| 9,50 | 160 | 100 | SDS-plus | 0081700950100 | 1 | 10 | | |
| 10,00 | 160 | 100 | SDS-plus | 0081701000100 | 1 | 10 | 0076901000100 | 10 |
| 11,00 | 160 | 100 | SDS-plus | 0081701100100 | 1 | 10 | | |
| 12,00 | 160 | 100 | SDS-plus | 0081701200100 | 1 | 10 | 0076901200100 | 5 |
| 13,00 | 160 | 100 | SDS-plus | 0081701300100 | 1 | 10 | | |
| 14,00 | 160 | 100 | SDS-plus | 0081701400100 | 1 | 10 | 0076901400100 | 5 |
| 15,00 | 160 | 100 | SDS-plus | 0081701500100 | 1 | 10 | 0076901500100 | 5 |
| 16,00 | 160 | 100 | SDS-plus | 0081701600100 | 1 | 10 | 0076901600100 | 5 |
| Länge / Length / Longitud: 210/150 mm | | | | | | | | |
| d1 mm | l1 mm | l2 mm | d2 | Code 827 Art.-Nr. | Inh. Cont. |  | Code 770 Art.-Nr. | Inh. Cont. |
| 5,00 | 210 | 150 | SDS-plus | 0082700500100 | 1 | 8 | 0077000500100 | 10 |
| 5,50 | 210 | 150 | SDS-plus | 0082700550100 | 1 | 8 | 0077000550100 | 10 |
| 6,00 | 210 | 150 | SDS-plus | 0082700600100 | 1 | 8 | 0077000600100 | 10 |
| 6,50 | 210 | 150 | SDS-plus | 0082700650100 | 1 | 8 | 0077000650100 | 10 |
| 7,00 | 210 | 150 | SDS-plus | 0082700700100 | 1 | 8 | 0077000700100 | 10 |
| 8,00 | 210 | 150 | SDS-plus | 0082700800100 | 1 | 8 | 0077000800100 | 10 |
| 9,00 | 210 | 150 | SDS-plus | 0082700900100 | 1 | 8 | 0077000900100 | 10 |
| 10,00 | 210 | 150 | SDS-plus | 0082701000100 | 1 | 8 | 0077001000100 | 10 |
| 12,00 | 210 | 150 | SDS-plus | 0082701200100 | 1 | 8 | 0077001200100 | 5 |
| 14,00 | 210 | 150 | SDS-plus | 0082701400100 | 1 | 8 | 0077001400100 | 5 |
| 15,00 | 210 | 150 | SDS-plus | 0082701500100 | 1 | 8 | 0077001500100 | 5 |
| 16,00 | 210 | 150 | SDS-plus | 0082701600100 | 1 | 8 | 0077001600100 | 5 |
| 17,00 | 210 | 150 | SDS-plus | 0082701700100 | 1 | 8 | | |
| 18,00 | 210 | 150 | SDS-plus | 0082701800100 | 1 | 8 | | |
| 19,00 | 210 | 150 | SDS-plus | 0082701900100 | 1 | 8 | | |
| 20,00 | 210 | 150 | SDS-plus | 0082702000100 | 1 | 8 | | |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|---------------------------------------|----------|----------|----------|--|---------------|--|---|---------------|
| Länge / Length / Longitud: 260/200 mm | | | | | | | | |
| d1 mm | l1 mm | l2 mm | d2 | Code 837 Art.-Nr. | Inh. Cont. |  | Code 771 Art.-Nr. | Inh. Cont. |
| 5,00 | 260 | 200 | SDS-plus | 0083700500100 | 1 | 8 | | |
| 5,50 | 260 | 200 | SDS-plus | 0083700550100 | 1 | 8 | | |
| 6,00 | 260 | 200 | SDS-plus | 0083700600100 | 1 | 8 | 0077100600100 | 10 |
| 6,50 | 260 | 200 | SDS-plus | 0083700650100 | 1 | 8 | 0077100650100 | 10 |
| 7,00 | 260 | 200 | SDS-plus | 0083700700100 | 1 | 8 | 0077100700100 | 10 |
| 8,00 | 260 | 200 | SDS-plus | 0083700800100 | 1 | 8 | 0077100800100 | 10 |
| 10,00 | 260 | 200 | SDS-plus | 0083701000100 | 1 | 8 | 0077101000100 | 10 |
| 11,00 | 260 | 200 | SDS-plus | 0083701100100 | 1 | 8 | | |
| 12,00 | 260 | 200 | SDS-plus | 0083701200100 | 1 | 8 | 0077101200100 | 5 |
| 13,00 | 260 | 200 | SDS-plus | 0083701300100 | 1 | 8 | | |
| 14,00 | 260 | 200 | SDS-plus | 0083701400100 | 1 | 8 | 0077101400100 | 5 |
| 15,00 | 260 | 200 | SDS-plus | 0083701500100 | 1 | 8 | 0077101500100 | 5 |
| 16,00 | 260 | 200 | SDS-plus | 0083701600100 | 1 | 8 | 0077101600100 | 5 |
| 18,00 | 260 | 200 | SDS-plus | 0083701800100 | 1 | 8 | | |
| 20,00 | 260 | 200 | SDS-plus | 0083702000100 | 1 | 8 | | |
| 22,00 | 260 | 200 | SDS-plus | 0083702200100 | 1 | 8 | | |
| 24,00 | 260 | 200 | SDS-plus | 0083702400100 | 1 | 8 | | |
| 25,00 | 260 | 200 | SDS-plus | 0083702500100 | 1 | 8 | | |
| 26,00 | 260 | 200 | SDS-plus | 0083702600100 | 1 | 8 | | |
| Länge / Length / Longitud: 310/250 mm | | | | | | | | |
| d1 mm | l1 mm | l2 mm | d2 | Code 847 Art.-Nr. | Inh. Cont. |  | Code 773 Art.-Nr. | Inh. Cont. |
| 5,00 | 310 | 250 | SDS-plus | 0084700500100 | 1 | 8 | | |
| 5,50 | 310 | 250 | SDS-plus | 0084700550100 | 1 | 8 | | |
| 6,00 | 310 | 250 | SDS-plus | 0084700600100 | 1 | 8 | 0077300600100 | 10 |
| 6,50 | 310 | 250 | SDS-plus | 0084700650100 | 1 | 8 | | |
| 7,00 | 310 | 250 | SDS-plus | 0084700700100 | 1 | 8 | 0077300700100 | 10 |
| 8,00 | 310 | 250 | SDS-plus | 0084700800100 | 1 | 8 | 0077300800100 | 10 |
| 10,00 | 310 | 250 | SDS-plus | 0084701000100 | 1 | 8 | 0077301000100 | 10 |
| 12,00 | 310 | 250 | SDS-plus | 0084701200100 | 1 | 8 | 0077301200100 | 5 |
| 13,00 | 310 | 250 | SDS-plus | 0084701300100 | 1 | 8 | | |
| 14,00 | 310 | 250 | SDS-plus | 0084701400100 | 1 | 8 | 0077301400100 | 5 |
| 16,00 | 310 | 250 | SDS-plus | 0084701600100 | 1 | 8 | 0077301600100 | 5 |
| 18,00 | 310 | 250 | SDS-plus | 0084701800100 | 1 | 8 | | |
| 19,00 | 310 | 250 | SDS-plus | 0084701900100 | 1 | 8 | | |
| 20,00 | 310 | 250 | SDS-plus | 0084702000100 | 1 | 8 | | |
| 22,00 | 310 | 250 | SDS-plus | 0084702200100 | 1 | 8 | | |
| 24,00 | 310 | 250 | SDS-plus | 0084702400100 | 1 | 8 | | |
| 25,00 | 310 | 250 | SDS-plus | 0084702500100 | 1 | 8 | | |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|--|----------|----------|----------|--|---------------|---|---|---------------|
| d1 mm | l1 mm | l2 mm | d2 | Code 877 Art.-Nr. | Inh. Cont. |  | Code 778 Art.-Nr. | Inh. Cont. |
| 5,00 | 450 | 400 | SDS-plus | 0087700500100 | 1 | 5 | | |
| 5,50 | 450 | 400 | SDS-plus | 0087700550100 | 1 | 5 | | |
| 6,00 | 450 | 400 | SDS-plus | 0087700600100 | 1 | 5 | 0077800600100 | 10 |
| 6,50 | 450 | 400 | SDS-plus | 0087700650100 | 1 | 5 | | |
| 8,00 | 450 | 400 | SDS-plus | 0087700800100 | 1 | 5 | 0077800800100 | 10 |
| 10,00 | 450 | 400 | SDS-plus | 0087701000100 | 1 | 5 | 0077801000100 | 10 |
| 12,00 | 450 | 400 | SDS-plus | 0087701200100 | 1 | 5 | 0077801200100 | 5 |
| 13,00 | 450 | 400 | SDS-plus | 0087701300100 | 1 | 5 | | |
| 14,00 | 450 | 400 | SDS-plus | 0087701400100 | 1 | 5 | 0077801400100 | 5 |
| 15,00 | 450 | 400 | SDS-plus | 0087701500100 | 1 | 5 | | |
| 16,00 | 450 | 400 | SDS-plus | 0087701600100 | 1 | 5 | 0077801600100 | 5 |
| 18,00 | 450 | 300 | SDS-plus | 0087701800100 | 1 | 5 | | |
| 20,00 | 450 | 400 | SDS-plus | 0087702000100 | 1 | 5 | | |
| 22,00 | 450 | 400 | SDS-plus | 0087702200100 | 1 | 5 | | |
| 24,00 | 450 | 400 | SDS-plus | 0087702400100 | 1 | 5 | | |
| 25,00 | 450 | 400 | SDS-plus | 0087702500100 | 1 | 5 | | |
| 26,00 | 450 | 400 | SDS-plus | 0087702600100 | 1 | 5 | | |
| Länge / Length / Longitud: 600/550 mm | | | | | | | | |
| d1 mm | l1 mm | l2 mm | d2 | Code 887 Art.-Nr. | Inh. Cont. |  | Art.-Nr. | Inh. Cont. |
| 10,00 | 600 | 550 | SDS-plus | 0088701000100 | 1 | 5 | | |
| 12,00 | 600 | 550 | SDS-plus | 0088701200100 | 1 | 5 | | |
| 14,00 | 600 | 550 | SDS-plus | 0088701400100 | 1 | 5 | | |
| 16,00 | 600 | 550 | SDS-plus | 0088701600100 | 1 | 5 | | |
| 18,00 | 600 | 550 | SDS-plus | 0088701800100 | 1 | 5 | | |
| 20,00 | 600 | 550 | SDS-plus | 0088702000100 | 1 | 5 | | |
| 24,00 | 600 | 550 | SDS-plus | 0088702400100 | 1 | 5 | | |
| 25,00 | 600 | 550 | SDS-plus | 0088702500100 | 1 | 5 | | |

D SDS-plus Hammerbohrer „F4“,
2 Schneiden

E SDS-plus hammer drill bits “F4”,
2 cutting edges

ES Brocas de percusión SDS-plus
“F4”, 2 filos

Einsatzbereich:

Der SDS-plus Hammerbohrer F4 mit patentiertem 4-fach-Stufenprofil und patentierter Hartmetallplatte. Geringer Verschleiß, sehr hohe Standzeit. Hochleistungsbohrer zum Hammerbohren in Beton, Naturstein und Mauerwerk.

Range of application:

The SDS-plus hammer drill bit F4 with its patented 4X stepped profile and patented tip. Low wear, very long service life. High efficiency drill bit for heavy-duty drilling in concrete, natural stone and brickwork.

Ámbito de aplicación:

La broca de percusión SDS-plus F4 con perfil cuádruple escalonado patentado y plancha de metal duro patentada. Menor desgaste, largo tiempo de uso. Broca de alto rendimiento para taladrado a percusión en hormigón, piedra natural y mampostería.



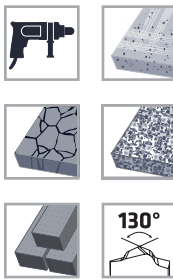
Leistungsstark
Efficient
Alto rendimiento



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápido



Präzise
Precise
Preciso



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish



SB-Aufhänger
Plastic tag
Gancho para autoservicio

Länge / Length / Longitud: 800/740 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 913 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|---|
| 12,00 | 800 | 740 | SDS-plus | 0091301200100 | 1 | 1 |
| 16,00 | 800 | 740 | SDS-plus | 0091301600100 | 1 | 1 |
| 20,00 | 800 | 740 | SDS-plus | 0091302000100 | 1 | 1 |

Länge / Length / Longitud: 1000/950 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 914 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|---|
| 10,00 | 1000 | 950 | SDS-plus | 0091401000100 | 1 | 1 |
| 12,00 | 1000 | 950 | SDS-plus | 0091401200100 | 1 | 1 |
| 14,00 | 1000 | 950 | SDS-plus | 0091401400100 | 1 | 1 |
| 16,00 | 1000 | 950 | SDS-plus | 0091401600100 | 1 | 1 |
| 18,00 | 1000 | 950 | SDS-plus | 0091401800100 | 1 | 1 |
| 20,00 | 1000 | 950 | SDS-plus | 0091402000100 | 1 | 1 |
| 25,00 | 1000 | 950 | SDS-plus | 0091402500100 | 1 | 1 |





















Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cinceles

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| | | | | | | | | |
|---|-----------|-----------------|---|-----------|-----------------|---|-----------|-----------------|
| <p>F4 Forte BOX 3</p>   <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0081700568100</p> | | | <p>F4 Forte BOX 3</p>   <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0081700571100</p> | | | <p>F4 Forte MB 5</p>   <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0080705680100</p> | | |
| Ø | l1 | Stk. (1) | Ø | l1 | Stk. (1) | Ø | l1 | Stk. (1) |
| mm | mm | pc. (1) | mm | mm | pc. (1) | mm | mm | pc. (1) |
| F4 Forte | | | F4 Forte | | | F4 Forte | | |
| Ø 5,00 / 6,00 / 8,00 | 160 | 1 | Ø 6,00 / 7,00 / 10,00 | 160 | 1 | Ø 5,00 / 6,00 | 110 | 1 |
| | | | | | | Ø 6,00 / 8,00 / 10,00 | 160 | 1 |
| <p>F4 Forte MB 7</p>   <p>7-tlg. / 7-pcs. / 7-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0080700007100</p> | | | <p>F4 Forte SET 8</p>   <p>8-tlg. / 8-pcs. / 8-unid. Set Art.-Nr. 0080704100100</p> | | | <p>F4 Forte KM 7</p>   <p>7-tlg. / 7-pcs. / 7-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000500007100</p> | | |
| Ø | l1 | Stk. (1) | Ø | l1 | Stk. (1) | Ø | l1 | Stk. (1) |
| mm | mm | pc. (1) | mm | mm | pc. (1) | mm | mm | pc. (1) |
| F4 Forte | | | F4 Forte | | | F4 Forte | | |
| Ø 5,00 / 6,00 | 110 | 1 | Ø 5,00 / 6,00 / 8,00 | 110 | 1 | Ø 5,00 / 6,00 / 8,00 | 110 | 1 |
| Ø 6,00 / 7,00 / 8,00 / 9,00 / 10,00 | 160 | 1 | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 |
| | | | Ø 8,00 | 210 | 1 | | | |
| <p>F4 Forte BOX 5</p>   <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 10077809005100</p> | | | <p>F4 Forte BOX 5</p>   <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 10088709005100</p> | | | <p>Combi Construction Set SDS-plus MB 7</p>   <p>7-tlg. / 7-pcs. / 7-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100007100</p> | | |
| Ø | l1 | Stk. (1) | Ø | l1 | Stk. (1) | Ø | l1 | Stk. (1) |
| mm | mm | pc. (1) | mm | mm | pc. (1) | mm | mm | pc. (1) |
| F4 Forte | | | F4 Forte | | | F4 Forte | | |
| Ø 10,00 / 12,00 / 14,00 / 16,00 / 20,00 | 450 | 1 | Ø 10,00 / 12,00 / 14,00 / 16,00 / 20,00 | 600 | 1 | Ø 5,00 | 110 | 1 |
| | | | | | | Ø 6,00 / 8,00 / 10,00 | 160 | 1 |
| | | | | | | Profi Multicut | | |
| | | | | | | Ø 5,00 | 110 | 1 |
| | | | | | | Ø 6,00 / 8,00 | 160 | 1 |

(1) Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Kassetten, Sets

E Cassettes, sets


ES Cajas, juegos

| KIT SET 13-1 | | | SDS-plus F4 Forte Mix BOX 8 | | | SDS-plus F4 Forte KIT SET 16 | | |
|--|---|---|---|---|--------------------------------|---|---|--|
|  | | |  | | |  | | |
| 13-tlg. / 13-pcs. / 13-unid. Set Art.-Nr. 0000303213100 | | | 8-tlg. / 8-pcs. / 8-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0000500008100 | | | 16-tlg. / 16-pcs. / 16-unid. Set Art.-Nr. 0000500016100 | | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | |
| C PROTECTOR | | Bohrer / Drill bits / Broca: | | | Bohrer / Drill bits / Broca: | | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | Ø 5,00 / 6,00 | 110 | 1 | |
| F4 Forte | | Ø 8,00 / 10,00 | 210 | 1 | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Meißel / Chisel / Cincel: | | | Ø 6,00 / 8,00 / 10,00 | 210 | 1 | |
| Profi Multicut | | Spitz / point / punta | | 1 | Ø 8,00 / 10,00 / 12,00 / 14,00 | 260 | 1 | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Flach / flat / plana | | 1 | Meißel / Chisel / Cincel: | | | |
| Wera | | | | | Spitz / point / punta | | 1 | |
| 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | | | | | Flach / flat / plana | | 1 | |
| | | | | | Breit / wide / ancha | | 1 | |
| SDS-plus Mix Set F4 Forte KM 6 | | | | | | | | |
|  | | | | | | | | |
| 6-tlg. / 6-pcs. / 6-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0081700006100 | | | | | | | | |
| Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | |
| F4 Forte | | | | | | | | |
| Ø 5,00 / 6,00 / 8,00 / 10,00 | 160 | 1 | | | | | | |
| Meißel / Chisel / Cincel: | | | | | | | | |
| Spitz / point / punta | 140 | 1 | | | | | | |
| Flach / flat / plana | 20 x 140 | 1 | | | | | | |



Gesteinsbohrer, SDS-Bohrer und Meißel
 Concrete and Masonry drill bits, SDS hammer drill bits and chisels
 Broca para piedra, broca de percusión SDS y cincelos

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



DUST EXTRACTOR SMASH



Der neue 2 in 1 Bohrer

Bohren und Staubsaugen in einem Schritt

The new 2-in-1 drill bit

Drilling and dust extraction in a single step

Nueva broca 2 en 1

Perforación y aspiración en un paso

Saubere, staubfreie Bohrlöcher

Erspart lästige Reinigung und ermöglicht das sichere Einsetzen chemischer Dübel

Clean, dust-free drill holes

Saves annoying cleaning and enables safe insertion of chemical dowels

Agujeros limpios y sin polvo

Evita el fastidio de la limpieza y permite el uso seguro de tacos químicos

Schützt den Anwender

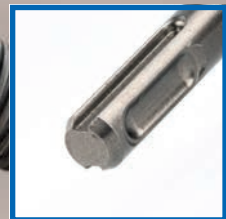
Gesundheitliche Belastungen werden vermieden

Protects the user

Health risks are avoided

Protección del usuario

Se evita poner en riesgo la salud



D SDS-plus Saugbohrer
„DUST EXTRACTOR SMASH“
2 Schneiden

Einsatzbereich:

Der SDS-plus Hammerbohrer zum Saugbohren mit geringem Verschleiß und sehr hoher Standzeit. Hochleistungsbohrer zum Hammerbohren in Beton, Naturstein und Mauerwerk.



Leistungsstark
Efficient
Alto rendimiento



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápida



Präzise
Precise
Preciso

E SDS-plus extraction drill bits
„DUST EXTRACTOR SMASH“
2 cutting edges

Range of application:

The SDS-plus hammer drill bit for extraction drilling with low wear and very long service life. High efficiency drill bit for heavy-duty drilling in concrete, natural stone and brick-work.

ES Broca de aspiración SDS-plus
„DUST EXTRACTOR SMASH“
2 filos

Ámbito de aplicación:

La broca SDS-plus para perforar a percusión aspirando el polvo con desgaste mínimo y larga duración. Broca de alto rendimiento para taladrado a percusión en hormigón, piedra natural y mampostería.



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish



SB-Aufhänger
Plastic tag
Gancho para autoservicio

| d1 mm | l1 mm | l2 mm | d2 | Code 580 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|---|
| 6,00 | 220 | 100 | SDS-plus | 0058000600100 | 1 | 1 |
| 8,00 | 270 | 150 | SDS-plus | 0058000800100 | 1 | 1 |
| 10,00 | 270 | 150 | SDS-plus | 0058001000100 | 1 | 1 |
| 12,00 | 320 | 200 | SDS-plus | 0058001200100 | 1 | 1 |
| 14,00 | 370 | 250 | SDS-plus | 0058001400100 | 1 | 1 |
| 16,00 | 370 | 250 | SDS-plus | 0058001600100 | 1 | 1 |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

① Hammerfeste SDS-plus Bohrkronen

Einsatzbereich:

Hammerfeste Schlagbohrkronen mit hochfestem Kronengrundkörper und Hartmetallschneidern in Hammerbohrerqualität. Für Beton und Mauerwerk.



Hart
Hard
Dura



Leistungsstark
Efficient
Alto rendimiento



② Hammer-active SDS-plus core bit

Range of application:

Hammer-active core bit with high strength base body and carbide tips in SDS hammer drilling quality, for concrete and masonry.

③ Corona de perforar resistente a la percusión SDS-plus

Ámbito de aplicación:

Corona de perforar a percusión resistente al martillo con cuerpo base de la corona de alta resistencia y filos de metal duro con la calidad de una broca de percusión. Para hormigón y mampostería.



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

Länge / Length / Longitud: 85/65 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 897 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------------------|---------------|
| 25,00 | 85 | 65 | SDS-plus | 0089702500100 | 1 |
| 30,00 | 85 | 65 | SDS-plus | 0089703000100 | 1 |
| 35,00 | 85 | 65 | SDS-plus | 0089703500100 | 1 |
| 40,00 | 85 | 65 | SDS-plus | 0089704000100 | 1 |
| 50,00 | 85 | 65 | SDS-plus | 0089705000100 | 1 |
| 66,00 | 85 | 65 | SDS-plus | 0089706600100 | 1 |
| 68,00 | 85 | 65 | SDS-plus | 0089706800100 | 1 |
| 80,00 | 85 | 65 | SDS-plus | 0089708000100 | 1 |

Aufnahmeschaft einzeln
Single arbor / Espiga de soporte individual (1 unid.)

| l1 mm | d2 mm | Code 898 Art.-Nr. | Inh. Cont. |
|----------|----------|----------------------|---------------|
| 95 | 1/4" | 0089800095100 | 1 |
| 110 | SDS-plus | 0089800110100 | 1 |
| 220 | SDS-plus | 0089800200100 | 1 |

Zentrierbohrer einzeln
Single pilot drill / Broca de centrar individual (1 unid.)

| d1 mm | l1 mm | l2 mm | Code 899 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 8,00 | 120 | 70 | 0089900800100 | 1 |

D SDS-plus Meißel
"DEMOLISHER Plus"

Einsatzbereich:

Spezialhärtung mit extrem harter Spitze, dadurch extrem leistungsfähig. Maximale Stabilität und verschleißfestes Einsteckende.



Leistungsstark
Efficient
Alto rendimiento



Stabil
Stable
Estable

E SDS-plus chisels
"DEMOLISHER Plus"

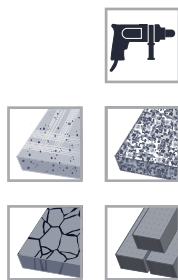
Range of application:

Special hardening with extremely hard tip, therefore extremely efficient. Maximum stability and wear-resistant insertion end.

ES Cincel SDS-plus
"DEMOLISHER Plus"

Ámbito de aplicación:

Endurecimiento especial con punta extremadamente dura para un rendimiento excelente. Estabilidad máxima y encastre resistente al desgaste.



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish

SB-Aufhänger
Plastic tag
Gancho para autoservicio



| | l1 mm | b mm | d2 | Code 987 Art.-Nr. | Inh. Cont. | |
|-----------------------|----------|---------|----------|----------------------|---------------|---|
| Spitz / point / punta | 250 | | SDS-plus | 0098700251100 | 1 | 1 |
| Flach / flat / plana | 250 | 20-25 | SDS-plus | 0098700252100 | 1 | 1 |
| Breit / wide / ancha | 250 | 40-50 | SDS-plus | 0098700253100 | 1 | 1 |

Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

① SDS-plus Meißel
Länge 250 mm

② SDS-plus chisels
length 250 mm

③ Cíncel SDS-plus
Longitud 250 mm

Einsatzbereich:

Für allgemeine Meißel- und Abbrucharbeiten von Mauerwerk, Beton und Gestein. Für alle Bohrhämmer mit SDS-plus Aufnahme.

Range of application:

For general chiselling and demolition work in masonry, concrete and stone. For all hammer drills with SDS-plus adapters.

Ámbito de aplicación:

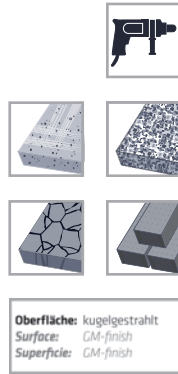
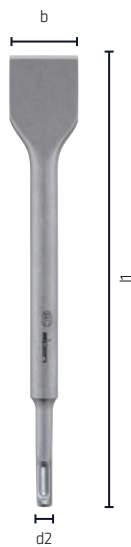
Para trabajos generales con cíncelos y de demolición de mampostería, hormigón y piedra. Para todos los martillos perforadores con toma SDS-plus.



Leistungsstark
Efficient
Alto rendimiento



Hart
Hard
Dura



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish

SB-Aufhänger
Plastic tag
Gancho para autoservicio



| | l1 mm | b mm | d2 | Code Art.-Nr. | Inh. Cont. | |
|--|----------|---------|----------|------------------|---------------|-----|
| | 250 | | SDS-plus | 0098000250100 | 1 | 1 |
| Spitz / point / punta | 250 | | SDS-plus | 0098001250100 | 1 | 10* |
| | 250 | 20 | SDS-plus | 0098100250100 | 1 | 1 |
| Flach / flat / plana | 250 | 20 | SDS-plus | 0098101250100 | 1 | 10* |
| | 250 | 40 | SDS-plus | 0098200425100 | 1 | 1 |
| Breit / wide / ancha | 250 | 40 | SDS-plus | 0098201425100 | 1 | 10* |
| | 250 | 22 | SDS-plus | 0098300225100 | 1 | 1 |
| Hohl / gouge / hueco | 250 | 22 | SDS-plus | 0098300505100 | 1 | 1 |
| | 250 | 50 | SDS-plus | 0098300505100 | 1 | 1 |
| Breit gekröpft / wide cranked / acodada ancha | 250 | 50 | SDS-plus | 0098300505100 | 1 | 1 |
| | 165 | 75 | SDS-plus | 0098500165100 | 1 | 1 |
| Extra breit / extra wide / ancha especial | 165 | 75 | SDS-plus | 0098500165100 | 1 | 1 |
| | 250 | 22 | SDS-plus | 0098400225100 | 1 | 1 |
| Flügel / winged gouge / ala | 250 | 22 | SDS-plus | 0098400225100 | 1 | 1 |

*) Ohne SB-Aufhänger
without plastic tag
sin gancho para autoservicio

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| <p>SDS-plus Meißel-Set BOX 3</p>  <p>3-tlg. / 3-pcs. / 3-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0098000003100</p> <table border="1"> <thead> <tr> <th>Inhalt Contents / Contenido</th> <th>l1 mm</th> <th>Stk. ⁽¹⁾ pc. ⁽¹⁾</th> </tr> </thead> <tbody> <tr> <td>Meißel / Chisel / Cincel:</td> <td></td> <td></td> </tr> <tr> <td>Spitz / point / punta</td> <td>250</td> <td>1</td> </tr> <tr> <td>Flach / flat / plana</td> <td>250</td> <td>1</td> </tr> <tr> <td>Breit / wide / ancha</td> <td>250</td> <td>1</td> </tr> </tbody> </table> | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Meißel / Chisel / Cincel: | | | Spitz / point / punta | 250 | 1 | Flach / flat / plana | 250 | 1 | Breit / wide / ancha | 250 | 1 | <p>SDS-plus F4 Forte Mix BOX 8</p>  <p>8-tlg. / 8-pcs. / 8-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0000500008100</p> <table border="1"> <thead> <tr> <th>Inhalt Contents / Contenido</th> <th>l1 mm</th> <th>Stk. ⁽¹⁾ pc. ⁽¹⁾</th> </tr> </thead> <tbody> <tr> <td>Bohrer / Drill bits / Broca:</td> <td></td> <td></td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00 / 12,00</td> <td>160</td> <td>1</td> </tr> <tr> <td>Ø 8,00 / 10,00</td> <td>210</td> <td>1</td> </tr> <tr> <td>Meißel / Chisel / Cincel:</td> <td></td> <td></td> </tr> <tr> <td>Spitz / point / punta</td> <td></td> <td>1</td> </tr> <tr> <td>Flach / flat / plana</td> <td></td> <td>1</td> </tr> </tbody> </table> | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Bohrer / Drill bits / Broca: | | | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | Ø 8,00 / 10,00 | 210 | 1 | Meißel / Chisel / Cincel: | | | Spitz / point / punta | | 1 | Flach / flat / plana | | 1 | <p>SDS-plus F4 Forte KIT SET 16</p>  <p>16-tlg. / 16-pcs. / 16-unid. Set Art.-Nr. 0000500016100</p> <table border="1"> <thead> <tr> <th>Inhalt Contents / Contenido</th> <th>l1 mm</th> <th>Stk. ⁽¹⁾ pc. ⁽¹⁾</th> </tr> </thead> <tbody> <tr> <td>Bohrer / Drill bits / Broca:</td> <td></td> <td></td> </tr> <tr> <td>Ø 5,00 / 6,00</td> <td>110</td> <td>1</td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00 / 12,00</td> <td>160</td> <td>1</td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00</td> <td>210</td> <td>1</td> </tr> <tr> <td>Ø 8,00 / 10,00 / 12,00 / 14,00</td> <td>260</td> <td>1</td> </tr> <tr> <td>Meißel / Chisel / Cincel:</td> <td></td> <td></td> </tr> <tr> <td>Spitz / point / punta</td> <td></td> <td>1</td> </tr> <tr> <td>Flach / flat / plana</td> <td></td> <td>1</td> </tr> <tr> <td>Breit / wide / ancha</td> <td></td> <td>1</td> </tr> </tbody> </table> | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Bohrer / Drill bits / Broca: | | | Ø 5,00 / 6,00 | 110 | 1 | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | Ø 6,00 / 8,00 / 10,00 | 210 | 1 | Ø 8,00 / 10,00 / 12,00 / 14,00 | 260 | 1 | Meißel / Chisel / Cincel: | | | Spitz / point / punta | | 1 | Flach / flat / plana | | 1 | Breit / wide / ancha | | 1 |
|--|--------------------------------|---|---|------------------------------|--|--|-----------------------|-----|---|-------------------------------|-----|---|-----------------------|-----|---|---|--------------------------------|----------|---|------------------------------|--|-----------------------|-------------------------------|-----|----------------------|----------------|-----|----------------------|---------------------------|---|--|--------------------------------|----------|---|----------------------|--|---|---|--------------------------------|----------|---|------------------------------|--|-----------------------|---------------|-----|----------------------|-------------------------------|-----|---|--------------------------------|----------|---|--------------------------------|-----|---|---------------------------|----------|---|-----------------------|----------|---|----------------------|--|---|----------------------|--|---|
| Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meißel / Chisel / Cincel: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spitz / point / punta | 250 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flach / flat / plana | 250 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Breit / wide / ancha | 250 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bohrer / Drill bits / Broca: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 8,00 / 10,00 | 210 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meißel / Chisel / Cincel: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spitz / point / punta | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flach / flat / plana | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bohrer / Drill bits / Broca: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 | 110 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 210 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 8,00 / 10,00 / 12,00 / 14,00 | 260 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meißel / Chisel / Cincel: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spitz / point / punta | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flach / flat / plana | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Breit / wide / ancha | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>SDS-plus FORCE X KIT SET 16</p>  <p>16-tlg. / 16-pcs. / 16-unid. Set Art.-Nr. 0000500216100</p> <table border="1"> <thead> <tr> <th>Inhalt Contents / Contenido</th> <th>l1 mm</th> <th>Stk. ⁽¹⁾ pc. ⁽¹⁾</th> </tr> </thead> <tbody> <tr> <td>Bohrer / Drill bits / Broca:</td> <td></td> <td></td> </tr> <tr> <td>Ø 5,00 / 6,00</td> <td>110</td> <td>1</td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00 / 12,00</td> <td>160</td> <td>1</td> </tr> <tr> <td>Ø 6,00 / 8,00 / 10,00</td> <td>210</td> <td>1</td> </tr> <tr> <td>Ø 8,00 / 10,00 / 12,00 / 14,00</td> <td>260</td> <td>1</td> </tr> <tr> <td>Meißel / Chisel / Cincel:</td> <td></td> <td></td> </tr> <tr> <td>Spitz / point / punta</td> <td></td> <td>1</td> </tr> <tr> <td>Flach / flat / plana</td> <td></td> <td>1</td> </tr> <tr> <td>Breit / wide / ancha</td> <td></td> <td>1</td> </tr> </tbody> </table> | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Bohrer / Drill bits / Broca: | | | Ø 5,00 / 6,00 | 110 | 1 | Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | Ø 6,00 / 8,00 / 10,00 | 210 | 1 | Ø 8,00 / 10,00 / 12,00 / 14,00 | 260 | 1 | Meißel / Chisel / Cincel: | | | Spitz / point / punta | | 1 | Flach / flat / plana | | 1 | Breit / wide / ancha | | 1 | <p>SDS-plus Mix Set F4 Forte KM 6</p>  <p>6-tlg. / 6-pcs. / 6-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0081700006100</p> <table border="1"> <thead> <tr> <th>Inhalt Contents / Contenido</th> <th>l1 mm</th> <th>Stk. ⁽¹⁾ pc. ⁽¹⁾</th> </tr> </thead> <tbody> <tr> <td>F4 Forte</td> <td></td> <td></td> </tr> <tr> <td>Ø 5,00 / 6,00 / 8,00 / 10,00</td> <td>160</td> <td>1</td> </tr> <tr> <td>Meißel / Chisel / Cincel:</td> <td></td> <td></td> </tr> <tr> <td>Spitz / point / punta</td> <td>140</td> <td>1</td> </tr> <tr> <td>Flach / flat / plana</td> <td>20 x 140</td> <td>1</td> </tr> </tbody> </table> | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | F4 Forte | | | Ø 5,00 / 6,00 / 8,00 / 10,00 | 160 | 1 | Meißel / Chisel / Cincel: | | | Spitz / point / punta | 140 | 1 | Flach / flat / plana | 20 x 140 | 1 | <p>SDS-plus Kurzmeißel-Set</p>  <p>3-tlg. / 3-pcs. / 3-unid. Röhrchen / Tube / Tubo Art.-Nr. 0098000013100</p> <table border="1"> <thead> <tr> <th>Inhalt Contents / Contenido</th> <th>l1 mm</th> <th>Stk. ⁽¹⁾ pc. ⁽¹⁾</th> </tr> </thead> <tbody> <tr> <td>Spitz / point / punta</td> <td>140</td> <td>1</td> </tr> <tr> <td>Flach / flat / plana</td> <td>20 x 140</td> <td>1</td> </tr> <tr> <td>Breit / wide / ancha</td> <td>30 x 140</td> <td>1</td> </tr> </tbody> </table> | Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Spitz / point / punta | 140 | 1 | Flach / flat / plana | 20 x 140 | 1 | Breit / wide / ancha | 30 x 140 | 1 | | | | | | |
| Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bohrer / Drill bits / Broca: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 | 110 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 6,00 / 8,00 / 10,00 | 210 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 8,00 / 10,00 / 12,00 / 14,00 | 260 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meißel / Chisel / Cincel: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spitz / point / punta | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flach / flat / plana | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Breit / wide / ancha | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F4 Forte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ø 5,00 / 6,00 / 8,00 / 10,00 | 160 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Meißel / Chisel / Cincel: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spitz / point / punta | 140 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flach / flat / plana | 20 x 140 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inhalt Contents / Contenido | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spitz / point / punta | 140 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flach / flat / plana | 20 x 140 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Breit / wide / ancha | 30 x 140 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

① SDS-max Hammerbohrer

② SDS-max hammer drill bits

③ Broca de percusión SDS-max

Einsatzbereich:

Für alle Bohrhämmer mit SDS-max Aufnahme. Zum Hammerbohren in Beton, Naturstein und Mauerwerk.

Range of application:

High efficiency drill bit for heavy-duty SDS-max hammer drilling of concrete, natural stone, masonry.

Ámbito de aplicación:

Para todos los martillos perforadores con toma SDS-max. Para el taladrado a percusión en hormigón, piedra natural y mampostería.



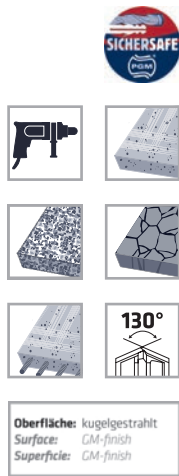
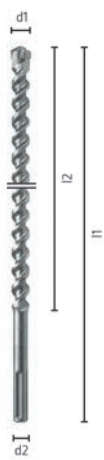
Leistungsstark
Efficient
Alto rendimiento



Hart
Hard
Dura



Präzise
Precise
Preciso



Oberfläche: kugelgestraht
Surface: GM-finish
Superficie: GM-finish




SB-Aufhänger
Plastic tag
Gancho para autoservicio

| d1 mm | l1 mm | l2 mm | d2 | Code 889 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|---------|----------------------|---------------|---|
| 12,00 | 340 | 200 | SDS-max | 0088901200100 | 1 | 1 |
| 13,00 | 340 | 200 | SDS-max | 0088901300100 | 1 | 1 |
| 14,00 | 340 | 200 | SDS-max | 0088901400100 | 1 | 1 |
| 15,00 | 340 | 200 | SDS-max | 0088901500100 | 1 | 1 |
| 16,00 | 340 | 200 | SDS-max | 0088901600100 | 1 | 1 |
| 18,00 | 340 | 200 | SDS-max | 0088901800100 | 1 | 1 |
| 20,00 | 320 | 200 | SDS-max | 0088902000100 | 1 | 1 |
| 22,00 | 320 | 200 | SDS-max | 0088902200100 | 1 | 1 |
| 24,00 | 320 | 200 | SDS-max | 0088902400100 | 1 | 1 |
| 25,00 | 320 | 200 | SDS-max | 0088902500100 | 1 | 1 |
| 26,00 | 320 | 200 | SDS-max | 0088902600100 | 1 | 1 |


Länge / Length / Longitud: 320/200 mm


| d1 mm | l1 mm | l2 mm | d2 | Code 890 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|---------|----------------------|---------------|---|
| 28,00 | 320 | 200 | SDS-max | 0089002800100 | 1 | 1 |
| 30,00 | 320 | 200 | SDS-max | 0089003000100 | 1 | 1 |
| 32,00 | 320 | 200 | SDS-max | 0089003200100 | 1 | 1 |
| 35,00 | 320 | 200 | SDS-max | 0089003500100 | 1 | 1 |
| 38,00 | 320 | 200 | SDS-max | 0089003800100 | 1 | 1 |
| 40,00 | 320 | 200 | SDS-max | 0089004000100 | 1 | 1 |


SB-Aufhänger
 Plastic tag
 Gancho para autoservicio

| d1 mm | l1 mm | l2 mm | d2 | Code 891 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|---------|----------------------|---------------|--|
| 12,00 | 540 | 400 | SDS-max | 0089101200100 | 1 | 1 |
| 13,00 | 540 | 400 | SDS-max | 0089101300100 | 1 | 1 |
| 14,00 | 540 | 400 | SDS-max | 0089101400100 | 1 | 1 |
| 15,00 | 540 | 400 | SDS-max | 0089101500100 | 1 | 1 |
| 16,00 | 540 | 400 | SDS-max | 0089101600100 | 1 | 1 |
| 18,00 | 540 | 400 | SDS-max | 0089101800100 | 1 | 1 |
| 19,00 | 520 | 400 | SDS-max | 0089101900100 | 1 | 1 |
| 20,00 | 520 | 400 | SDS-max | 0089102000100 | 1 | 1 |
| 22,00 | 520 | 400 | SDS-max | 0089102200100 | 1 | 1 |
| 24,00 | 520 | 400 | SDS-max | 0089102400100 | 1 | 1 |
| 25,00 | 520 | 400 | SDS-max | 0089102500100 | 1 | 1 |
| 26,00 | 520 | 400 | SDS-max | 0089102600100 | 1 | 1 |


Länge / Length / Longitud: 520/400 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 892 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|---------|----------------------|---------------|--|
| 28,00 | 520 | 400 | SDS-max | 0089202800100 | 1 | 1 |
| 30,00 | 520 | 400 | SDS-max | 0089203000100 | 1 | 1 |
| 32,00 | 520 | 400 | SDS-max | 0089203200100 | 1 | 1 |
| 35,00 | 520 | 400 | SDS-max | 0089203500100 | 1 | 1 |
| 38,00 | 520 | 400 | SDS-max | 0089203800100 | 1 | 1 |
| 40,00 | 520 | 400 | SDS-max | 0089204000100 | 1 | 1 |
| 45,00 | 520 | 400 | SDS-max | 0089204500100 | 1 | 1 |
| 50,00 | 520 | 400 | SDS-max | 0089205000100 | 1 | 1 |

| d1 mm | l1 mm | l2 mm | d2 | Code 893 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|---------|----------------------|---------------|--|
| 12,00 | 740 | 600 | SDS-max | 0089301200100 | 1 | 1 |
| 28,00 | 720 | 600 | SDS-max | 0089302800100 | 1 | 1 |
| 35,00 | 720 | 600 | SDS-max | 0089303500100 | 1 | 1 |

| d1 mm | l1 mm | l2 mm | d2 | Code 894 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|---------|----------------------|---------------|--|
| 16,00 | 940 | 800 | SDS-max | 0089401600100 | 1 | 1 |
| 18,00 | 920 | 800 | SDS-max | 0089401800100 | 1 | 1 |
| 20,00 | 920 | 800 | SDS-max | 0089402000100 | 1 | 1 |
| 22,00 | 920 | 800 | SDS-max | 0089402200100 | 1 | 1 |
| 25,00 | 920 | 800 | SDS-max | 0089402500100 | 1 | 1 |
| 32,00 | 920 | 800 | SDS-max | 0089403200100 | 1 | 1 |
| 40,00 | 920 | 800 | SDS-max | 0089404000100 | 1 | 1 |

Länge / Length / Longitud: 1320/1200 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 895 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|---------|----------------------|---------------|--|
| 22,00 | 1320 | 1200 | SDS-max | 0089502200100 | 1 | 1 |
| 25,00 | 1320 | 1200 | SDS-max | 0089502500100 | 1 | 1 |
| 32,00 | 1320 | 1200 | SDS-max | 0089503200100 | 1 | 1 |
| 40,00 | 1320 | 1200 | SDS-max | 0089504000100 | 1 | 1 |



Gesteinsbohrer, SDS-Bohrer und Meißel
 Concrete and Masonry drill bits, SDS hammer drill bits and chisels
 Broca para piedra, broca de percusión SDS y cincelos

① Set

Ⓔ Set

Ⓔ Juego

SDS-max Mix BOX 5



5-tlg. / 5-pcs. / 5-unid.

Kunststoffbox / Plastic box / Caja de plástico

Art.-Nr. 0089100005100

| Inhalt <i>Contents / Contenido</i> | l1 <i>mm</i> | Stk. ⁽¹⁾ <i>pc. ⁽¹⁾</i> |
|---------------------------------------|-----------------|--|
| <i>Meißel / Chisel / Cincel:</i> | | |
| Spitz / point / punta | | 1 |
| Flach / flat / plana | | 1 |
| <i>Bohrer / Drill bits / Broca:</i> | | |
| Ø 25,00 | 520 | 1 |
| Ø 30,00 / 35,00 | 520 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D SDS-max Bohrkronen

E SDS-max core bit

ES Corona de perforar SDS-max

Einsatzbereich:

Die Hartmetall-Zähne ermöglichen hohe Standzeiten. Durch die wechselnde Zahnfolge können Bohren und Meißeln in einem Arbeitsgang durchgeführt werden. Zum Bearbeiten von Beton, Naturstein, Mauerwerk, Marmor und Klinker.



Stabil
Stable
Estable



Hart
Hard
Dura

Range of application:

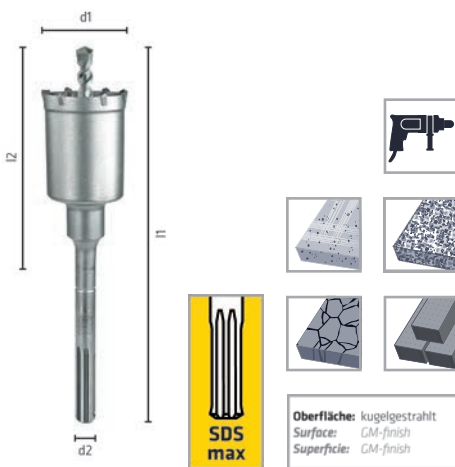
High durabilities are achieved due to the tungsten carbide teeth. Because of the changing tooth order, drilling and chiseling can be done in one operation. For heavy duty SDS-max hammer drilling of concrete, natural stone, masonry and marble.

Ámbito de aplicación:

Los dientes de metal duro hacen posible un largo tiempo de uso. Gracias a la secuencia de dientes cambiante se pueden realizar agujeros y cincelados en una misma operación. Para procesar hormigón, piedra natural, mampostería, mármol y ladrillos.



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos



Drehpack
Twistpack
Paquete giratorio

Länge / Length / Longitud: 290/170 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 871 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|---------|----------------------|---------------|---|
| 50,00 | 290 | 170 | SDS-max | 0087105000100 | 1 | 1 |
| 68,00 | 290 | 170 | SDS-max | 0087106800100 | 1 | 1 |
| 80,00 | 290 | 170 | SDS-max | 0087108000100 | 1 | 1 |

Länge / Length / Longitud: 550/430 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 872 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|---------|----------------------|---------------|---|
| 50,00 | 550 | 430 | SDS-max | 0087205000100 | 1 | 1 |
| 68,00 | 550 | 430 | SDS-max | 0087206800100 | 1 | 1 |
| 80,00 | 550 | 430 | SDS-max | 0087208000100 | 1 | 1 |
| 100,00 | 550 | 430 | SDS-max | 0087209999100 | 1 | 1 |
| 125,00 | 550 | 430 | SDS-max | 0087212500100 | 1 | 1 |

Zentrierbohrer für Bohrkronen / Centre drill for drilling crown / Broca de centrar para corona de perforar

Plastiktasche
Plastic wallet / Embalaje de plástico

| d1 mm | l1 mm | Code 871 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------------------|---------------|---|
| 12,00 | 128 | 0087101200100 | 1 | 1 |

Die Bohrtiefe setzt sich aus mehreren Schritten zusammen: jeweils nach Erreichen der Nutzlänge Kern ausbrechen.
The drilling depth is done in several steps: after reaching the working length break up the core.
La profundidad de perforación se compone de varios pasos: cada vez que se alcanza la longitud útil romper el núcleo.

SDS-max Fräskrone

E SDS-max milling crown

ES Corona de fresar SDS-max

Einsatzbereich:

Sicherer Ansatz auch in Ecken durch langen Zentrierbohrer. Exakte Bohrlochgeometrie auch bei tiefen Bohrlöchern. Durch asynchrone Bohrkopfstruktur schnelle Bohrmehlförderung. Zum Bearbeiten von Beton, Mauerwerk, Marmor und Klinker.

Range of application:

Safe fixing even in corners thanks to long centre drill. Precise geometry of the drilling hole even at deep holes. Due to the asynchronous structure of the drilling head the drilling dust will be moved faster. For heavy-duty cutting in concrete, masonry and marble.

Ámbito de aplicación:

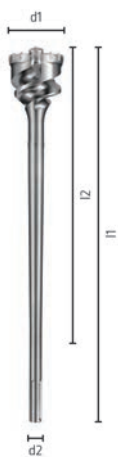
Seguridad de uso incluso en las esquinas gracias a su larga broca de centrar. Geometría exacta de los agujeros incluso en agujeros de perforación profundos. Su estructura de cabezal asíncrono permite la rápida eliminación de los detritos. Para procesar hormigón, mampostería, mármol y ladrillos.



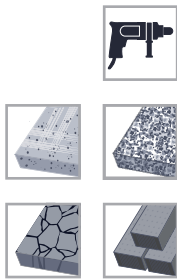
Präzise
Precise
Preciso



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápido



Oberfläche: kugelgestraht
Surface: GM-finish
Superficie: GM-finish



Einzelverpackung
Single packing
Embalaje individual

Länge / Length / Longitud: 550/450 mm

| d1 mm | l1 mm | l2 mm | Code 885 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------------------|---------------|---|
| 45,00 | 550 | 450 | 0088504500100 | 1 | 1 |
| 55,00 | 550 | 450 | 0088505500100 | 1 | 1 |
| 65,00 | 550 | 450 | 0088506500100 | 1 | 1 |
| 80,00 | 550 | 450 | 0088508000100 | 1 | 1 |

Länge / Length / Longitud: 990/850 mm

| d1 mm | l1 mm | l2 mm | Code 886 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------------------|---------------|---|
| 45,00 | 990 | 850 | 0088604500100 | 1 | 1 |
| 55,00 | 990 | 850 | 0088605500100 | 1 | 1 |
| 65,00 | 990 | 850 | 0088606500100 | 1 | 1 |
| 80,00 | 990 | 850 | 0088608000100 | 1 | 1 |

Gewindefett / Thread grease / Grasa para roscas

Dose / Can / Caja

| Inhalt Contents / Contenido | Code 888 Art.-Nr. | Inh. Cont. | |
|--------------------------------|----------------------|---------------|---|
| 200 g | 0088800002100 | 1 | 1 |

D SDS-max Meißel
„DEMOLISHER Max“

Einsatzbereich:

Spezialhärtung mit extrem harter Spitze, dadurch extrem leistungsfähig. Maximale Stabilität und verschleißfestes Einsteckende.



Leistungsstark
Efficient
Alto rendimiento



Stabil
Stable
Estable

E SDS-max chisels
„DEMOLISHER Max“

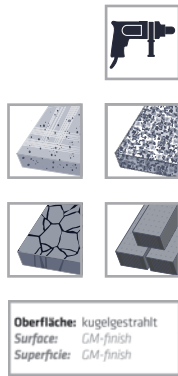
Range of application:

Special hardening with extremely hard tip, therefore extremely efficient. Maximum stability and wear-resistant insertion end.

ES Cincel SDS-max
„DEMOLISHER Max“

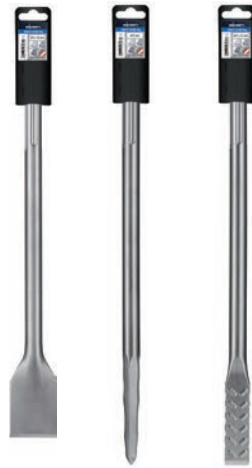
Ámbito de aplicación:

Endurecimiento especial con una punta extremadamente dura para un rendimiento excelente. Estabilidad máxima y encastre resistente al desgaste.



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish

SB-Aufhänger
Plastic tag
Gancho para autoservicio



| | l1 mm | b mm | d2 | Code 973 Art.-Nr. | Inh. Cont. | |
|-----------------------|----------|---------|---------|----------------------|---------------|---|
| Breit / wide / ancha | 380 | 50 | SDS-max | 0097300253100 | 1 | 1 |
| Spitz / point / punta | 400 | | SDS-max | 0097300251100 | 1 | 1 |
| Flach / flat / plana | 400 | 25 | SDS-max | 0097300252100 | 1 | 1 |

Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos

D SDS-max Meißel

E SDS-max chisels

ES Cincel SDS-max

Einsatzbereich:

Für allgemeine Meißel- und Abbrucharbeiten von Mauerwerk, Beton und Gestein. Für alle Bohrhämmer mit SDS-max Aufnahme.

Range of application:

For general chiselling and demolition work in masonry, concrete and stone. For all hammer drills with SDS-max adapters.

Ámbito de aplicación:

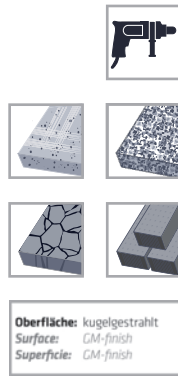
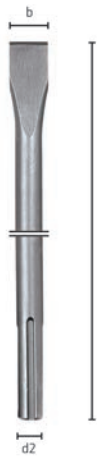
Para trabajos generales con cinceles y de demolición de mampostería, hormigón y piedra. Para todos los martillos perforadores con toma SDS-max.



Leistungsstark
Efficient
Alto rendimiento



Hart
Hard
Dura



Oberfläche: kugelgestrahlt
Surface: GM-finish
Superficie: GM-finish

SB-Aufhänger
Plastic tag
Gancho para autoservicio







|  | l1 mm | b mm | d2 | Code 970 Art.-Nr. | Inh. Cont. |  |
|---|----------|---------|---------|----------------------|---------------|---|
| Spitz / point / punta | 280 | | SDS-max | 0097000280100 | 1 | 1 |
| Spitz / point / punta | 400 | | SDS-max | 0097000400100 | 1 | 1 |
| Spitz / point / punta | 600 | | SDS-max | 0097000600100 | 1 | 1 |
|  | l1 mm | b mm | d2 | Code 971 Art.-Nr. | Inh. Cont. |  |
| Flach / flat / plana | 280 | 25 | SDS-max | 0097100280100 | 1 | 1 |
| Flach / flat / plana | 400 | 25 | SDS-max | 0097100400100 | 1 | 1 |
| Flach / flat / plana | 600 | 25 | SDS-max | 0097100600100 | 1 | 1 |
|  | l1 mm | b mm | d2 | Code 978 Art.-Nr. | Inh. Cont. |  |
| Breit / wide / ancha | 300 | 75 | SDS-max | 0097800830100 | 1 | 1 |
| Breit / wide / ancha | 350 | 115 | SDS-max | 0097801135100 | 1 | 1 |
| Breit / wide / ancha | 400 | 50 | SDS-max | 0097800540100 | 1 | 1 |
|  | l1 mm | b mm | d2 | Code 979 Art.-Nr. | Inh. Cont. |  |
| Breit gekröpft / wide cranked / acodada ancha | 300 | 80 | SDS-max | 0097900830100 | 1 | 1 |
| Breit gekröpft / wide cranked / acodada ancha | 400 | 50 | SDS-max | 0097900530100 | 1 | 1 |
|  | l1 mm | b mm | d2 | Code 974 Art.-Nr. | Inh. Cont. |  |
| NEW Stockermeißel / Bushing chisel / Cincel dentado | 240 | 50 | SDS-max | 0097405024100 | 1 | 1 |
| Hohl / gouge / hueco | 300 | 26 | SDS-max | 0097402630100 | 1 | 1 |

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| SDS-max Meißel BOX 2 | | | SDS-max Mix BOX 5 | | |
|---|-----------|---------------------------|--|-----------|---------------------------|
|   | | |   | | |
| 2-tlg. / 2-pcs. / 2-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0097004002100 | | | 5-tlg. / 5-pcs. / 5-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0089100005100 | | |
| Inhalt | l1 | Stk. ⁽¹⁾ | Inhalt | l1 | Stk. ⁽¹⁾ |
| <i>Contents / Contenido</i> | mm | pc. ⁽¹⁾ | <i>Contents / Contenido</i> | mm | pc. ⁽¹⁾ |
| Meißel / Chisel / Cincel: | | | Meißel / Chisel / Cincel: | | |
| Spitz / point / punta | 400 | 1 | Spitz / point / punta | | 1 |
| Flach / flat / plana | 400 | 1 | Flach / flat / plana | | 1 |
| Bohrer / Drill bits / Broca: | | | Bohrer / Drill bits / Broca: | | |
| | | | Ø 25,00 | 520 | 1 |
| | | | Ø 30,00 / 35,00 | 520 | 1 |



Gesteinsbohrer, SDS-Bohrer und Meißel
 Concrete and Masonry drill bits, SDS hammer drill bits and chisels
 Broca para piedra, broca de percusión SDS y cincelos

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Aufnahmeadapter

E Shank adaptor

ES Adaptador de tomas

Einsatzbereich:

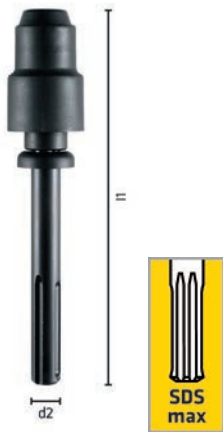
SDS-plus Kupplung mit SDS-max Aufnahme.
Für alle Bohrhämmer mit SDS-max Aufnahme.

Range of application:

Converts SDS-max to SDS-plus. For all hammer drills with SDS-max shank.

Ámbito de aplicación:

Acoplamiento SDS-plus con toma SDS-max.
Para todos los martillos perforadores con toma SDS-max.



SB-Aufhänger
Plastic tag
Gancho para autoservicio

Länge / Length / Longitud: 223 mm

| l1 mm | d2 | Code 996 Art.-Nr. | Inh. Cont. |
|----------|---------|----------------------|---------------|
| 223 | SDS-max | 0099600021100 | 1 |

D Drehzahlen
SDS-plus / SDS-max

Bitte beachten Sie die Drehzahl-empfehlungen des jeweiligen Bohrhammer-Maschinenherstellers.

E Spindle speeds
SDS-plus / SDS-max

Please note the spindle speed of the respective hammer drilling machine recommended by the manufacturer.

ES Velocidades
SDS-plus / SDS-max

Tenga en cuenta las recomendaciones de velocidad del fabricante respectivo de máquinas de martillos perforadores.

D Drehzahlen

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

E Spindle speeds

The recommended cutting data refer to standard applications.

ES Velocidades





Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

Profi Beton





Long Life



Code 188, 189, 727, 737

| Ø mm | U/min. rpm r.p.m. | | | |
|---------|---|---|---|---|
| |  |  |  |  |
| 3 | 3000 | 3000 | 2100 | 1300 |
| 4 | 2400 | 3000 | 1600 | 1000 |
| 5 | 1900 | 2500 | 1300 | 800 |
| 5,5 | 1750 | 2300 | 1200 | 750 |
| 6 | 1600 | 2100 | 1100 | 700 |
| 6,5 | 1500 | 1950 | 1000 | 650 |
| 7 | 1400 | 1800 | 900 | 600 |
| 8 | 1200 | 1600 | 800 | 500 |
| 9 | 1100 | 1400 | 700 | 450 |
| 10 | 950 | 1300 | 650 | 400 |
| 12 | 800 | 1050 | 550 | 350 |
| 14 | 700 | 900 | 450 | 300 |
| 16 | 600 | 800 | 400 | 250 |
| 18 | 550 | 700 | 350 | 200 |
| 20 | 500 | 650 | 300 | 200 |

Code 117, 118, 327, 367, 517, 617, 718

| Ø mm | U/min. rpm r.p.m. | | | |
|---------|--|---|---|---|
| |  |  |  |  |
| 3 | 3000 | 3000 | 2600 | 1300 |
| 4 | 3000 | 2400 | 2000 | 1000 |
| 5 | 2500 | 1900 | 1600 | 800 |
| 5,5 | 2300 | 1750 | 1450 | 750 |
| 6 | 2100 | 1600 | 1300 | 700 |
| 6,5 | 1950 | 1500 | 1200 | 650 |
| 7 | 1800 | 1400 | 1100 | 600 |
| 8 | 1600 | 1200 | 1000 | 500 |
| 9 | 1400 | 1100 | 900 | 450 |
| 10 | 1250 | 950 | 800 | 400 |
| 11 | 1150 | 850 | 700 | 350 |
| 12 | 1050 | 800 | 650 | 350 |
| 13 | 950 | 750 | 600 | 300 |
| 14 | 900 | 700 | 600 | 300 |
| 15 | 850 | 650 | 550 | 250 |
| 16 | 800 | 600 | 500 | 250 |
| 18 | 700 | 550 | 450 | 200 |
| 20 | 650 | 500 | 400 | 200 |
| 22 | 600 | 450 | 350 | 150 |
| 24 | 550 | 400 | 350 | 150 |
| 25 | 500 | 400 | 300 | 150 |



Gesteinsbohrer, SDS-Bohrer und Meißel
Concrete and Masonry drill bits, SDS hammer drill bits and chisels
Broca para piedra, broca de percusión SDS y cincelos



METALL- UND EDELSTAHLBOHRER



Ⓔ METAL DRILLS AND
STAINLESS STEEL DRILLS

Ⓔ BROCA PARA METAL Y BROCA
DE ACERO INOXIDABLE

Übersicht

Overview

Resumen

| |  |  |  |  |  |  |
|---|---|---|--|---|---|---|
| Norm / Estándar | DIN 1897 | | DIN 1897 | WN | WN | WN |
| Name / Nombre | HSS PZ-Cobalt | HSS PZ-Cobalt | HSS PZ-COBALT GRIP | HSS Super | HSS Super | HSS Super |
| Typ / Type / Tipo | PZ | PZ | PZ | | | |
| Bohrtiefe / Depth of drilling / Profundidad de perforación | 3xD | 3xD | 3xD | 3xD | 3xD | 3xD |
| Schneidstoff / Cutting material / Material de corte | HSS-Co5 | HSS-Co5 | HSS-Co5 | HSS | HSS | HSS |
| Beschichtung / Coating / Recubrimiento | | TiN | | | | |
| Spitzenwinkel / Lip angle / Ángulo de la punta | 130° | 130° | 130° | 118° | 118° | 118° |
| Sonderanschliff / Special point shape / Punta afilada especial | C (≥ Ø 2,0 mm) | C (≥ Ø 2,0 mm) | C (≥ Ø 2,0 mm) | | C | C |
| Schaft / Shank / Eje |  |  |  |  |  |  |
| Ø mm | 1,00 - 13,00 | 1,00 - 13,00 | 1,00 - 20,00 | 3,10 - 5,20 | 3,10 - 6,10 | 3,00 - 5,30 |
| Code / Código | 901, 921 | 907 | 904, 906 | 321 | 331, 371 | 311 |
| Seite / Page / Página | 114 | 114 | 119 | 122 | 123 | 124 |
| Geeignet für / Suitable for / Adecuada para | | | | | | |
|  Allgemeine Baustähle Structural steels Aceros de construcción generales |  |  |  |  |  |  |
|  Automatenstähle Free cutting steels Aceros de corte fácil |  |  |  |  |  |  |
|  Unlegierte Vergütungsstähle Unalloyed heat treatable steels Aceros para bonifi car no aleados |  |  |  |  |  |  |
|  Legierte Vergütungsstähle Alloyed heat treatable steels Aceros para bonifi car aleados |  |  |  | | | |
|  Rostfreie Stähle Stainless steels Aceros inoxidables |  |  |  | | | |
|  Grauguss, Temporguss Grey cast iron, malleable cast iron Hierro fundido gris, fundición maleable |  |  |  | | | |
|  Titan- und Titanlegierungen Titanium and titanium alloys Titanio y aleaciones de titanio |  |  |  | | | |
|  Kupfer, Messing Copper, brass Cobre, latón |  |  |  |  |  |  |
|  Aluminium Aluminio Aluminio |  |  |  |  |  |  |
|  Kunststoffe Plastics Plásticos |  |  |  |  |  |  |

Übersicht

Overview

Resumen

| | | | | | | | |
|---|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |  |
| WN | WN | DIN 338 | DIN 338 | DIN 338 | | DIN 338 | WN |
| HSS Super | HSS Sprint | HSS Co5 | HSS Forte Cobalt | HSS Cobalt | HSS Cobalt | HSS COBALT GRIP | HSS COBALT STABLE |
| | RN | R-AS | FORTE | RN | RN | RN | H |
| 3xD | 3xD | 5xD | 5xD | 5xD | 5xD | 5xD | 3xD |
| HSS | HSS | HSS-Co5 | HSS-Co5 | HSS-Co5 | HSS-Co5 | HSS-Co5 | HSS-Co5 |
| | | | | TiN | | | |
| 118° | 118° | 130° | 130° | 130° | 130° | 130° | 135° |
| | | C | AC (≥ Ø 2,0 mm) | C (≥ Ø 2,0 mm) | C (≥ Ø 2,0 mm) | C (≥ Ø 2,0 mm) | C |
|  |  |  |  |  |  |  |  |
| 2,50 - 6,35 | 14,28 - 25,40 | 2,00 - 13,00 | 1,00 - 13,00 | 1,00 - 16,00 | 1,00 - 16,00 | 1,00 - 20,00 | 2,00 - 13,00 |
| 301 | 734 | 663 | 183, 611 | 613, 623 | 607 | 655-656 | 638 |
| 125 | 126 | 127 | 131 | 135 | 135 | 140 | 143 |
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Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Übersicht

Overview

Resumen

| |  |  |  |  |  |  |
|---|---|---|--|---|---|---|
| Norm / Estándar | DIN 338 | DIN 338 | DIN 338 | DIN 338 | DIN 338 | DIN 338 |
| Name / Nombre | HSS DIN 338 | PRO | PRO | HSS Super | Sprint Master | Sprint Master |
| Typ / Type / Tipo | RN | RN | RN | RN | RN | RN |
| Bohrtiefe / Depth of drilling / Profundidad de perforación | 5xD | 5xD | 5xD | 5xD | 5xD | 5xD |
| Schneidstoff / Cutting material / Material de corte | HSS | HSS | HSS | HSS | HSS | HSS |
| Beschichtung / Coating / Recubrimiento | | | | | | |
| Spitzenwinkel / Lip angle / Ángulo de la punta | 118° | 135° | 135° | 118° | 118° | 118° |
| Sonderanschliff / Special point shape / Punta afilada especial | AC (≥ Ø 4,0 mm) | C (≥ Ø 3,0 mm) | C (≥ Ø 3,0 mm) | | | |
| Schaft / Shank / Eje |  |  |  |  |  |  |
| Ø mm | 0,20 - 20,00 | 1,00 - 13,00 | 2,00 - 8,00 | 1,00 - 13,00 | 0,40 - 20,00 | 10,50 - 20,00 |
| Code / Código | 601 | 184, 954 | 952 | 181, 951 | 618, 626, 631 | 640, 642, 648, 654 |
| Seite / Page / Página | 145 | 152 | 155 | 157 | 162 | 166 |
| Geeignet für / Suitable for / Adecuada para | | | | | | |
|  Allgemeine Baustähle Structural steels Aceros de construcción generales |  |  |  |  |  |  |
|  Automatenstähle Free cutting steels Aceros de corte fácil |  |  |  |  |  |  |
|  Unlegierte Vergütungsstähle Unalloyed heat treatable steels Aceros para bonifi car no aleados |  |  |  |  |  |  |
|  Legierte Vergütungsstähle Alloyed heat treatable steels Aceros para bonifi car aleados |  | | | | | |
|  Rostfreie Stähle Stainless steels Aceros inoxidable | | | | | | |
|  Grauguss, Temporguss Grey cast iron, malleable cast iron Hierro fundido gris, fundición maleable |  |  |  |  |  |  |
|  Titan- und Titanlegierungen Titanium and titanium alloys Titanio y aleaciones de titanio | | | | | | |
|  Kupfer, Messing Copper, brass Cobre, latón |  |  |  |  |  |  |
|  Aluminium Aluminio Aluminio |  |  |  |  |  |  |
|  Kunststoffe Plastics Plásticos |  |  |  |  |  |  |

Übersicht

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| | | | | | | | | |
|-----------------|--------------|-----------------|-----------------|-----------------|--------------------------|--------------------------------|--------------------------------|----------------|
| | | | | | | | | |
| DIN 340 | DIN 340 | DIN 1869-1 | DIN 1869-2 | DIN 1869-3 | WN | WN | WN | DIN 345 |
| HSS DIN 340 RN | HSS Super | HSS DIN 1869 R1 | HSS DIN 1869 R2 | HSS DIN 1869 R3 | HSS Super Fassadenbohrer | HSS Cobalt Schweisspunktbohrer | HSS Cobalt Schweisspunktbohrer | HSS DIN 345 RN |
| RN | RN | RN | RN | RN | RN | | | RN |
| 10xD | 10xD | >10xD | >10xD | >10xD | | | | 5xD |
| HSS | HSS | HSS | HSS | HSS | HSS | HSS-EC _o | HSS-EC _o | HSS |
| | | | | | | | TiN | |
| 118° | 118° | 118° | 118° | 118° | 120° | 180° | 180° | 118° |
| AC (≥ Ø 4,0 mm) | | AC | AC | AC | AC | E | E | A / AC |
| | | | | | | | | |
| 0,50 - 16,00 | 1,00 - 10,00 | 2,00 - 13,00 | 3,00 - 13,00 | 2,50 - 13,00 | 4,00 - 7,40 | 6,00 - 8,00 | 6,00 - 8,00 | 5,00 - 70,00 |
| 501 | 528, 551 | 100-101 | 111 | 121 | 123-127 | 130, 330 | 336 | 202 |
| 170 | 173 | 174 | 176 | 177 | 178 | 180 | 180 | 181 |
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Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

① HSS Cobalt Spiralbohrer, extra kurz, DIN 1897 PZ

Einsatzbereich:

5% kobaltlegierter Spiralbohrer mit verstärktem Kerndurchmesser. Besonders geeignet für zähe und harte Werkstoffe wie rost- und säurebeständige Chrom-Nickelstähle. Durch die kurze Bauweise sehr gut für Handbohrmaschinen geeignet.



Bruchsicher, kurze stabile Ausführung
Break-resistant, short stable design
A prueba de roturas, modelo corto y estable



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Industriequalität
Industrial quality
Calidad industrial

② HSS Cobalt stub drills, extra short, DIN 1897 PZ

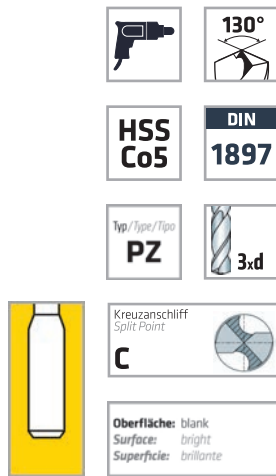
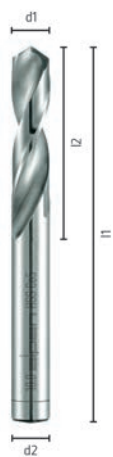
Range of application:

5% cobalt-alloyed high-efficiency drills with re-inforced web. Specially suitable for drilling stainless steel, acid-resisting steel, spring steel. Best for hand held operations.

③ Broca espiral HSS Cobalt, extra corta, DIN 1897 PZ

Ámbito de aplicación:

Broca espiral con 5 % de aleación de cobalto y diámetro central reforzado. Especialmente adecuadas para materiales tenaces y duros, como aceros al cromo-níquel que resisten los ácidos y la corrosión. Muy adecuadas para taladradoras manuales gracias al diseño corto.



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial



TiN
Hohe Performance, lange Standzeit
High performance, long durability
Rendimiento elevado, duración prolongada


Einzelverpackung
Single packing
Embalaje individual

| d1 mm | l1 mm | l2 mm | blank / bright / brillante | | | blank / bright / brillante | | | TiN | |
|----------|----------|----------|----------------------------|---------------|----|----------------------------|---------------|----------------------|---------------|---|
| | | | Code 921 Art.-Nr. | Inh. Cont. | | Code 901 Art.-Nr. | Inh. Cont. | Code 907 Art.-Nr. | Inh. Cont. | |
| 1,00 | 26 | 6 | | | | 0090100100100 | 10 | | 0090700100100 | 1 |
| 1,10 | 28 | 7 | | | | 0090100110100 | 10 | | 0090700110100 | 1 |
| 1,20 | 30 | 8 | | | | 0090100120100 | 10 | | 0090700120100 | 1 |
| 1,30 | 30 | 8 | | | | 0090100130100 | 10 | | 0090700130100 | 1 |
| 1,40 | 32 | 9 | | | | 0090100140100 | 10 | | 0090700140100 | 1 |
| 1,50 | 32 | 9 | | | | 0090100150100 | 10 | | 0090700150100 | 1 |
| 1,60 | 34 | 10 | | | | 0090100160100 | 10 | | 0090700160100 | 1 |
| 1,70 | 34 | 10 | | | | 0090100170100 | 10 | | 0090700170100 | 1 |
| 1,80 | 36 | 11 | | | | 0090100180100 | 10 | | 0090700180100 | 1 |
| 1,90 | 36 | 11 | | | | 0090100190100 | 10 | | 0090700190100 | 1 |
| 2,00 | 38 | 12 | 0092100200100 | 1 | 10 | 0090100200100 | 10 | | 0090700200100 | 1 |
| 2,10 | 38 | 12 | | | | 0090100210100 | 10 | | 0090700210100 | 1 |
| 2,20 | 40 | 13 | | | | 0090100220100 | 10 | | 0090700220100 | 1 |
| 2,30 | 40 | 13 | | | | 0090100230100 | 10 | | 0090700230100 | 1 |
| 2,40 | 43 | 14 | | | | 0090100240100 | 10 | | 0090700240100 | 1 |
| 2,50 | 43 | 14 | 0092100250100 | 1 | 10 | 0090100250100 | 10 | | 0090700250100 | 1 |
| 2,60 | 43 | 14 | | | | 0090100260100 | 10 | | 0090700260100 | 1 |
| 2,70 | 46 | 16 | | | | 0090100270100 | 10 | | 0090700270100 | 1 |
| 2,80 | 46 | 16 | | | | 0090100280100 | 10 | | 0090700280100 | 1 |
| 2,90 | 46 | 16 | | | | 0090100290100 | 10 | | 0090700290100 | 1 |
| 3,00 | 46 | 16 | 0092100300100 | 1 | 10 | 0090100300100 | 10 | | 0090700300100 | 1 |
| 3,10 | 49 | 18 | | | | 0090100310100 | 10 | | 0090700310100 | 1 |

| | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> |
|----------|----------|----------|--|---------------|----|----------------------------|---|--|----------------------|---------------|---|
| | | | blank / bright / brillante | | | blank / bright / brillante | | | TiN | | |
| d1 mm | l1 mm | l2 mm | Code 921 Art.-Nr. | Inh. Cont. | | Code 901 Art.-Nr. | Inh. Cont. | | Code 907 Art.-Nr. | Inh. Cont. | |
| 3,20 | 49 | 18 | 0092100320100 | 1 | 10 | 0090100320100 | 10 | | 0090700320100 | 1 | |
| 3,30 | 49 | 18 | 0092100330100 | 1 | 10 | 0090100330100 | 10 | | 0090700330100 | 1 | |
| 3,40 | 52 | 20 | | | | 0090100340100 | 10 | | 0090700340100 | 1 | |
| 3,50 | 52 | 20 | 0092100350100 | 1 | 10 | 0090100350100 | 10 | | 0090700350100 | 1 | |
| 3,60 | 52 | 20 | | | | 0090100360100 | 10 | | 0090700360100 | 1 | |
| 3,70 | 52 | 20 | | | | 0090100370100 | 10 | | 0090700370100 | 1 | |
| 3,80 | 55 | 22 | | | | 0090100380100 | 10 | | 0090700380100 | 1 | |
| 3,90 | 55 | 22 | | | | 0090100390100 | 10 | | 0090700390100 | 1 | |
| 4,00 | 55 | 22 | 0092100400100 | 1 | 10 | 0090100400100 | 10 | | 0090700400100 | 1 | |
| 4,10 | 55 | 22 | | | | 0090100410100 | 10 | | 0090700410100 | 1 | |
| 4,20 | 55 | 22 | 0092100420100 | 1 | 10 | 0090100420100 | 10 | | 0090700420100 | 1 | |
| 4,30 | 58 | 24 | | | | 0090100430100 | 10 | | 0090700430100 | 1 | |
| 4,40 | 58 | 24 | | | | 0090100440100 | 10 | | 0090700440100 | 1 | |
| 4,50 | 58 | 24 | 0092100450100 | 1 | 10 | 0090100450100 | 10 | | 0090700450100 | 1 | |
| 4,60 | 58 | 24 | | | | 0090100460100 | 10 | | 0090700460100 | 1 | |
| 4,70 | 58 | 24 | | | | 0090100470100 | 10 | | 0090700470100 | 1 | |
| 4,80 | 62 | 26 | | | | 0090100480100 | 10 | | 0090700480100 | 1 | |
| 4,90 | 62 | 26 | | | | 0090100490100 | 10 | | 0090700490100 | 1 | |
| 5,00 | 62 | 26 | 0092100500100 | 1 | 10 | 0090100500100 | 10 | | 0090700500100 | 1 | |
| 5,10 | 62 | 26 | | | | 0090100510100 | 10 | | 0090700510100 | 1 | |
| 5,20 | 62 | 26 | | | | 0090100520100 | 10 | | 0090700520100 | 1 | |
| 5,30 | 62 | 26 | | | | 0090100530100 | 10 | | 0090700530100 | 1 | |
| 5,40 | 66 | 28 | | | | 0090100540100 | 10 | | 0090700540100 | 1 | |
| 5,50 | 66 | 28 | 0092100550100 | 1 | 10 | 0090100550100 | 10 | | 0090700550100 | 1 | |
| 5,60 | 66 | 28 | | | | 0090100560100 | 10 | | 0090700560100 | 1 | |
| 5,70 | 66 | 28 | | | | 0090100570100 | 10 | | 0090700570100 | 1 | |
| 5,80 | 66 | 28 | | | | 0090100580100 | 10 | | 0090700580100 | 1 | |
| 5,90 | 66 | 28 | | | | 0090100590100 | 10 | | 0090700590100 | 1 | |
| 6,00 | 66 | 28 | 0092100600100 | 1 | 10 | 0090100600100 | 10 | | 0090700600100 | 1 | |
| 6,10 | 70 | 31 | | | | 0090100610100 | 10 | | 0090700610100 | 1 | |
| 6,20 | 70 | 31 | | | | 0090100620100 | 10 | | 0090700620100 | 1 | |
| 6,30 | 70 | 31 | | | | 0090100630100 | 10 | | 0090700630100 | 1 | |
| 6,40 | 70 | 31 | | | | 0090100640100 | 10 | | 0090700640100 | 1 | |
| 6,50 | 70 | 31 | 0092100650100 | 1 | 10 | 0090100650100 | 10 | | 0090700650100 | 1 | |
| 6,60 | 70 | 31 | | | | 0090100660100 | 10 | | 0090700660100 | 1 | |
| 6,70 | 70 | 31 | | | | 0090100670100 | 10 | | 0090700670100 | 1 | |
| 6,80 | 74 | 34 | 0092100680100 | 1 | 10 | 0090100680100 | 10 | | 0090700680100 | 1 | |
| 6,90 | 74 | 34 | | | | 0090100690100 | 10 | | 0090700690100 | 1 | |
| 7,00 | 74 | 34 | 0092100700100 | 1 | 10 | 0090100700100 | 10 | | 0090700700100 | 1 | |
| 7,10 | 74 | 34 | | | | 0090100710100 | 10 | | 0090700710100 | 1 | |
| 7,20 | 74 | 34 | | | | 0090100720100 | 10 | | 0090700720100 | 1 | |
| 7,30 | 74 | 34 | | | | 0090100730100 | 10 | | 0090700730100 | 1 | |
| 7,40 | 74 | 34 | | | | 0090100740100 | 10 | | 0090700740100 | 1 | |
| 7,50 | 74 | 34 | 0092100750100 | 1 | 10 | 0090100750100 | 10 | | 0090700750100 | 1 | |
| 7,60 | 79 | 37 | | | | 0090100760100 | 10 | | 0090700760100 | 1 | |
| 7,70 | 79 | 37 | | | | 0090100770100 | 10 | | 0090700770100 | 1 | |
| 7,80 | 79 | 37 | | | | 0090100780100 | 10 | | 0090700780100 | 1 | |
| 7,90 | 79 | 37 | | | | 0090100790100 | 10 | | 0090700790100 | 1 | |
| 8,00 | 79 | 37 | 0092100800100 | 1 | 10 | 0090100800100 | 10 | | 0090700800100 | 1 | |
| 8,10 | 79 | 37 | | | | 0090100810100 | 10 | | 0090700810100 | 1 | |
| 8,20 | 79 | 37 | | | | 0090100820100 | 10 | | 0090700820100 | 1 | |
| 8,30 | 79 | 37 | | | | 0090100830100 | 10 | | 0090700830100 | 1 | |
| 8,40 | 79 | 37 | | | | 0090100840100 | 10 | | 0090700840100 | 1 | |
| 8,50 | 79 | 37 | 0092100850100 | 1 | 10 | 0090100850100 | 10 | | 0090700850100 | 1 | |
| 8,60 | 84 | 40 | | | | 0090100860100 | 10 | | 0090700860100 | 1 | |
| 8,70 | 84 | 40 | | | | 0090100870100 | 10 | | 0090700870100 | 1 | |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

| | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | | |
|----------|----------|----------|--|---------------|---|---|---------------|--|---|---------------|--|
| | | | blank / bright / brillante | | | blank / bright / brillante | | | TIN | | |
| d1 mm | l1 mm | l2 mm | Code 921 Art.-Nr. | Inh. Cont. |  | Code 901 Art.-Nr. | Inh. Cont. | | Code 907 Art.-Nr. | Inh. Cont. | |
| 8,80 | 84 | 40 | | | | 0090100880100 | 10 | | 0090700880100 | 1 | |
| 8,90 | 84 | 40 | | | | 0090100890100 | 10 | | 0090700890100 | 1 | |
| 9,00 | 84 | 40 | 0092100900100 | 1 | 10 | 0090100900100 | 10 | | 0090700900100 | 1 | |
| 9,10 | 84 | 40 | | | | 0090100910100 | 10 | | 0090700910100 | 1 | |
| 9,20 | 84 | 40 | | | | 0090100920100 | 10 | | 0090700920100 | 1 | |
| 9,30 | 84 | 40 | | | | 0090100930100 | 10 | | 0090700930100 | 1 | |
| 9,40 | 84 | 40 | | | | 0090100940100 | 10 | | 0090700940100 | 1 | |
| 9,50 | 84 | 40 | 0092100950100 | 1 | 10 | 0090100950100 | 10 | | 0090700950100 | 1 | |
| 9,60 | 89 | 43 | | | | 0090100960100 | 10 | | 0090700960100 | 1 | |
| 9,70 | 89 | 43 | | | | 0090100970100 | 10 | | 0090700970100 | 1 | |
| 9,80 | 89 | 43 | | | | 0090100980100 | 10 | | 0090700980100 | 1 | |
| 9,90 | 89 | 43 | | | | 0090100990100 | 10 | | 0090700990100 | 1 | |
| 10,00 | 89 | 43 | 0092101000100 | 1 | 10 | 0090101000100 | 10 | | 0090701000100 | 1 | |
| 10,20 | 89 | 43 | 0092101020100 | 1 | 10 | 0090101020100 | 1 | | 0090701020100 | 1 | |
| 10,50 | 89 | 43 | | | | 0090101050100 | 1 | | 0090701050100 | 1 | |
| 11,00 | 95 | 47 | | | | 0090101100100 | 1 | | 0090701100100 | 1 | |
| 11,50 | 95 | 47 | | | | 0090101150100 | 1 | | 0090701150100 | 1 | |
| 12,00 | 102 | 51 | | | | 0090101200100 | 1 | | 0090701200100 | 1 | |
| 12,50 | 102 | 51 | | | | 0090101250100 | 1 | | 0090701250100 | 1 | |
| 13,00 | 102 | 51 | | | | 0090101300100 | 1 | | 0090701300100 | 1 | |

Kreuzanschliff $\geq \varnothing 2,0$ mm / Split Point $\geq \varnothing 2,0$ mm / Punta afilada en cruz $\geq \varnothing 2,0$ mm

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| HSS PZ-Cobalt TM 6 | | HSS PZ-Cobalt KM 10 | |
|---|---|---|---|
|  |  |  |  |
| 6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100906100 | | 10-tlg. / 10-pcs. / 10-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000100910100 | |
| Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ |
| HSS PZ-Cobalt | | HSS PZ-Cobalt | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 3,00 / 3,20 / 3,50 / 4,00 / 4,20 / 4,50 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |



Metal- und Edelstahlbohrer
 Metal drills and stainless steel drills
 broca para metal y broca de acero inoxidable

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



HSS PZ-COBALT GRIP



Stabiles, bruchsaicheres Bohren

Die bruch sichere, kurze Bauweise kombiniert mit einem verstärkten Kerndurchmesser garantieren größte Stabilität

Stable, shatter-proof drilling

The shatter-proof, short design combined with a reinforced web guarantee maximum stability

Perforación estable resistente a las roturas

La combinación del diseño corto resistente a las roturas y del diámetro central reforzado garantiza gran estabilidad

Exakte Ergebnisse

Dank eines selbstzentrierten Spezialanschliffs

Precise results

Thanks to a self-centering special point shape

Resultados exactos

Gracias a su punta afilada especial autocentrado

Für harte Materialien

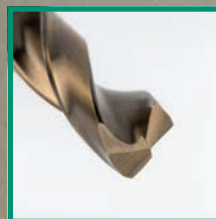
Bohrt selbst die zähesten und härtesten Werkstoffe

For hard materials

Drills even the toughest and hardest materials

Para materiales duros

Perfora incluso los materiales más duros y resistentes



**D HSS Cobalt Spiralbohrer,
3-Flächenschaft, extra kurz,
DIN 1897 PZ**

Einsatzbereich:

5% kobaltlegierter Spiralbohrer mit verstärktem Kerndurchmesser. Besonders geeignet für zähe und harte Werkstoffe wie rost- und säurebeständige Chrom-Nickelstähle. Durch die kurze Bauweise sehr gut für Handbohrmaschinen geeignet. Der 3-Flächenschaft verhindert das Durchdrehen im Bohrfutter und sorgt für eine optimale Drehmomentübertragung.



Bruchsicher, kurze stabile Ausführung
Break-resistant, short stable design
A prueba de roturas, modelo corto y estable



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



3-Flächenschaft
3-surface shank
3 caras

**E HSS Cobalt stub drills,
3-surface shank,
DIN 1897 PZ**

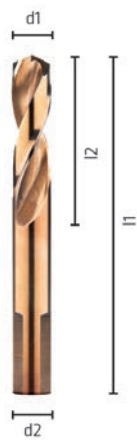
Range of application:

5% cobalt-alloyed high-efficiency drills with re-inforced web. Specially suitable for drilling stainless steel, acid-resisting steel, spring-steel. Best for hand held operations. The 3-surface shank prevents slipping in the chuck and ensures optimum torque transmission.

**ES Broca espiral HSS Cobalt,
eje de 3 cantos, extra corta,
DIN 1897 PZ**

Ámbito de aplicación:

Broca espiral con 5% de aleación de cobalto y diámetro central reforzado. Especialmente adecuada para materiales tenaces y duros, como aceros al cromo-níquel que resisten los ácidos y la corrosión. Muy adecuada para taladradoras manuales gracias al diseño corto. El nuevo vástago antideslizante evita la rotación en el portabrocas y asegura una transmisión de torsión óptima.



130°
HSS Co5
DIN 1897
Typ / Type / Tipo PZ
3.xd
Kreuzanschliff Split Point C
Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual




Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | d2 mm | Code 904 Art.-Nr. | Inh. Cont. | | Code 906 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 1,00 | 26 | 6 | | 0090400100100 | 1 | 10 | 0090600100100 | 10 |
| 1,50 | 32 | 9 | | 0090400150100 | 1 | 10 | 0090600150100 | 10 |
| 1,60 | 34 | 10 | | | | | 0090600160100 | 10 |
| 2,00 | 38 | 12 | | 0090400200100 | 1 | 10 | 0090600200100 | 10 |
| 2,50 | 43 | 14 | | 0090400250100 | 1 | 10 | 0090600250100 | 10 |
| 3,00 | 46 | 16 | | 0090400300100 | 1 | 10 | 0090600300100 | 10 |
| 3,20 | 49 | 18 | | 0090400320100 | 1 | 10 | 0090600320100 | 10 |
| 3,30 | 49 | 18 | | 0090400330100 | 1 | 10 | 0090600330100 | 10 |
| 3,50 | 52 | 20 | | 0090400350100 | 1 | 10 | 0090600350100 | 10 |
| 4,00 | 55 | 22 | | 0090400400100 | 1 | 10 | 0090600400100 | 10 |
| 4,10 | 55 | 22 | | | | | 0090600410100 | 10 |
| 4,20 | 55 | 22 | | 0090400420100 | 1 | 10 | 0090600420100 | 10 |
| 4,50 | 58 | 24 | | 0090400450100 | 1 | 10 | 0090600450100 | 10 |
| 5,00 | 62 | 26 | | 0090400500100 | 1 | 10 | 0090600500100 | 10 |
| 5,10 | 62 | 26 | | | | | 0090600510100 | 10 |
| 5,20 | 62 | 26 | | | | | 0090600520100 | 10 |
| 5,50 | 66 | 28 | | 0090400550100 | 1 | 10 | 0090600550100 | 10 |
| 6,00 | 66 | 28 | | 0090400600100 | 1 | 10 | 0090600600100 | 10 |
| 6,50 | 70 | 31 | | 0090400650100 | 1 | 10 | 0090600650100 | 10 |
| 6,80 | 74 | 34 | | 0090400680100 | 1 | 10 | 0090600680100 | 10 |
| 7,00 | 74 | 34 | | 0090400700100 | 1 | 10 | 0090600700100 | 10 |
| 7,50 | 74 | 34 | | 0090400750100 | 1 | 10 | 0090600750100 | 10 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable




| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|----------|----------|----------|--|---------------|---|---|---------------|
| d1 mm | l1 mm | l2 mm | d2 mm | Code 904 Art.-Nr. | Inh. Cont. |  | Code 906 Art.-Nr. | Inh. Cont. |
| 8,00 | 79 | 37 | | 0090400800100 | 1 | 10 | 0090600800100 | 10 |
| 8,50 | 79 | 37 | | 0090400850100 | 1 | 10 | 0090600850100 | 10 |
| 9,00 | 84 | 40 | | 0090400900100 | 1 | 10 | 0090600900100 | 10 |
| 9,50 | 84 | 40 | | 0090400950100 | 1 | 10 | 0090600950100 | 10 |
| 10,00 | 89 | 43 | | 0090401000100 | 1 | 10 | 0090601000100 | 10 |
| 10,20 | 89 | 43 | | 0090401020100 | 1 | 10 | 0090601020100 | 1 |
| 10,50 | 89 | 43 | | | | | 0090601050100 | 1 |
| 11,00 | 95 | 47 | | | | | 0090601100100 | 1 |
| 11,50 | 95 | 47 | | | | | 0090601150100 | 1 |
| 12,00 | 102 | 51 | | | | | 0090601200100 | 1 |
| 12,50 | 102 | 51 | | | | | 0090601250100 | 1 |
| 13,00 | 102 | 51 | | | | | 0090601300100 | 1 |
| 13,50 | 107 | 54 | 9,50 | | | | 0090601350100 | 1 |
| 14,00 | 107 | 54 | 9,50 | | | | 0090601400100 | 1 |
| 14,50 | 111 | 56 | 9,50 | | | | 0090601450100 | 1 |
| 15,00 | 111 | 56 | 9,50 | | | | 0090601500100 | 1 |
| 15,50 | 115 | 58 | 9,50 | | | | 0090601550100 | 1 |
| 16,00 | 115 | 58 | 9,50 | | | | 0090601600100 | 1 |
| 17,00 | 119 | 60 | 12,50 | | | | 0090601700100 | 1 |
| 18,00 | 123 | 62 | 12,50 | | | | 0090601800100 | 1 |
| 19,00 | 127 | 64 | 12,50 | | | | 0090601900100 | 1 |
| 20,00 | 131 | 66 | 12,50 | | | | 0090602000100 | 1 |

Kreuzanschliff $\geq \varnothing 2,0$ mm / Split Point $\geq \varnothing 2,0$ mm / Punta afilada en cruz $\geq \varnothing 2,0$ mm
 Zylindrischer Schaft $\leq \varnothing 3,5$ mm / Cylindrical shank $\leq \varnothing 3,5$ mm / Eje cilíndrico $\leq \varnothing 3,5$ mm

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| HSS PZ-COBALT GRIP TM 6 | | HSS PZ-COBALT GRIP KM 10 | | HSS PZ-COBALT GRIP KP 24 | |
|---|---|---|--|--|---|
|  |  |  |  |  |  |
| 6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0090600006100 | | 10-tlg. / 10-pcs. / 10-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0090600010100 | | 24-tlg. / 24-pcs. / 24-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0090600024100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HSS PZ-COBALT GRIP | | HSS PZ-COBALT GRIP | | HSS PZ-COBALT GRIP | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 3,00 / 3,20 / 3,50 / 4,00 / 4,20 / 4,50 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 1,00 / 1,50 / 2,00 / 2,50 / 3,00 / 3,30 / 3,50 / 4,00 / 4,20 / 4,50 / 5,00 / 5,50 / 6,00 / 6,50 / 6,80 / 7,00 / 7,50 / 8,00 / 8,50 / 9,00 / 9,50 / 10,00 / 10,20 / 10,50 | 1 |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

1 HSS Blindnietbohrer, doppelseitig

Einsatzbereich:

Spiralbohrer zum Bohren von dünnen Materialien, z. B. Spenglereien, Karosseriewerkstätten usw., für Handbohrmaschinen. Nicht für normale Bohrtiefen einsetzen.

E HSS stub drills for rivets, double-ended

Range of application:

Drill with extremely sturdy construction, particularly suitable for drilling thin materials. Used in portable-handtools, mainly in body panel shops, car repair shops etc.

ES Broca de remache ciego HSS de dos caras

Ámbito de aplicación:

Broca espiral para perforar materiales finos, p. ej., hojalaterías, talleres de carrocería, etc., para taladradoras manuales. No debe utilizarse para profundidades de perforación convencionales.



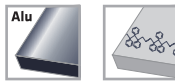
Präzise
Precise
Preciso



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Bruchstabil
Break-resistant
Resistente a la rotura



Oberfläche: dampfangelassen
Surface: steam tempered
Superficie: templado al vapor



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 321 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 3,10 | 49 | 14 | 0032100310100 | 10 |
| 3,20 | 49 | 14 | 0032100320100 | 10 |
| 3,25 | 49 | 14 | 0032100325100 | 10 |
| 3,30 | 49 | 14 | 0032100330100 | 10 |
| 3,50 | 52 | 17 | 0032100350100 | 10 |
| 4,00 | 55 | 17 | 0032100400100 | 10 |
| 4,10 | 55 | 17 | 0032100410100 | 10 |
| 4,20 | 55 | 17 | 0032100420100 | 10 |
| 4,90 | 62 | 20 | 0032100490100 | 10 |
| 5,10 | 62 | 20 | 0032100510100 | 10 |
| 5,20 | 62 | 20 | 0032100520100 | 10 |

D HSS Blindnietbohrer, doppelseitig

Einsatzbereich:

Spiralbohrer zum Bohren von dünnen Materialien, z. B. Spenglereien, Karosseriewerkstätten usw., für Handbohrmaschinen. Nicht für normale Bohrtiefen einsetzen.

E HSS stub drills for rivets, double-ended

Range of application:

Drill with extremely sturdy construction, particularly suitable for drilling thin materials. Used in portable-handtools, mainly in body panel shops, car repair shops etc.

ES Broca de remache ciego HSS de dos caras

Ámbito de aplicación:

Broca espiral para perforar materiales finos, p. ej., hojalaterías, talleres de carrocería, etc., para taladradoras manuales. No debe utilizarse para profundidades de perforación convencionales.



Präzise
Precise
Preciso



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Bruchstabil
Break-resistant
Resistente a la rotura



118°

HSS

Cu
Ms
Ni
Zn

Alu

Kreuzanschliff
Split Point

C

Oberfläche: blank
Surface: bright
Superficie: brillante



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 371 Art.-Nr. | Inh. Cont. | | Code 331 Art.-Nr. | Inh. Cont. |
|-------------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 3,10 | 49 | 14 | 0037100310100 | 2 | 10 | 0033100310100 | 10 |
| 3,20 | 49 | 14 | 0037100320100 | 2 | 10 | 0033100320100 | 10 |
| 3,25 | 49 | 14 | 0037100325100 | 2 | 10 | 0033100325100 | 10 |
| 3,30 | 49 | 14 | 0037100330100 | 2 | 10 | 0033100330100 | 10 |
| 4,10 | 55 | 17 | 0037100410100 | 2 | 10 | 0033100410100 | 10 |
| 4,20 | 55 | 17 | 0037100420100 | 2 | 10 | 0033100420100 | 10 |
| 4,90 | 62 | 20 | 0037100490100 | 2 | 10 | 0033100490100 | 10 |
| 5,10 | 62 | 20 | 0037100510100 | 2 | 10 | 0033100510100 | 10 |
| 6,10 | 70 | 23 | 0037100610100 | 2 | 10 | | |

NEW



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

① HSS Blindnietbohrer mit Kreuzanschliff

Einsatzbereich:

Spiralbohrer zum Bohren von dünnen Materialien, z. B. Spenglereien, Karosseriewerkstätten usw., für Handbohrmaschinen. Nicht für normale Bohrtiefen einsetzen.

② HSS stub drills for rivets with split point

Range of application:

Drill with extremely sturdy construction, particularly suitable for drilling thin materials. Used in portable-handtools, mainly in body panel shops, car repair shops etc.

③ Broca de remache ciego HSS con punta afilada en cruz

Ámbito de aplicación:

Broca espiral para perforar materiales finos, p. ej., hojalaterías, talleres de carrocería, etc., para taladradoras manuales. No debe utilizarse para profundidades de perforación convencionales.



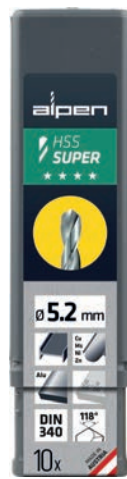
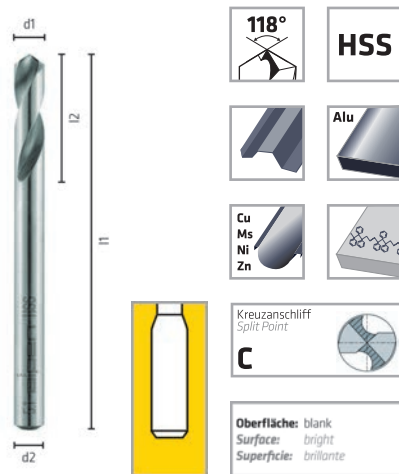
Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Präzise
Precise
Preciso



Bruchstabil
Break-resistant
Resistente a la rotura



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 311 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 3,00 | 46 | 14 | 0031100300100 | 10 |
| 3,10 | 49 | 14 | 0031100310100 | 10 |
| 3,20 | 49 | 14 | 0031100320100 | 10 |
| 3,25 | 49 | 14 | 0031100325100 | 10 |
| 3,30 | 49 | 14 | 0031100330100 | 10 |
| 3,50 | 52 | 17 | 0031100350100 | 10 |
| 4,00 | 55 | 17 | 0031100400100 | 10 |
| 4,10 | 55 | 17 | 0031100410100 | 10 |
| 4,20 | 55 | 17 | 0031100420100 | 10 |
| 4,90 | 62 | 20 | 0031100490100 | 10 |
| 5,10 | 62 | 20 | 0031100510100 | 10 |
| 5,20 | 62 | 20 | 0031100520100 | 10 |
| 5,30 | 62 | 20 | 0031100530100 | 10 |

D HSS Blindnietbohrer

E HSS stub drills for rivets

ES Broca de remache ciego HSS

Einsatzbereich:

Spiralbohrer zum Bohren von dünnen Materialien, z. B. Spenglereien, Karosseriewerkstätten usw., für Handbohrmaschinen. Nicht für normale Bohrtiefen einsetzen.

Range of application:

Drill with extremely sturdy construction, particularly suitable for drilling thin materials. Used in portable-handtools, mainly in body panel shops, car repair shops etc.

Ámbito de aplicación:

Broca espiral para perforar materiales finos, p.ej., hojalaterías, talleres de carrocería, etc., para taladradoras manuales. No debe utilizarse para profundidades de perforación convencionales.



Präzise
Precise
Preciso



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Bruchstabil
Break-resistant
Resistente a la rotura



118°
HSS
Alu
Cu
Ms
Ni
Zn
Oberfläche: dampfangelassen
Surface: steam tempered
Superficie: templada al vapor



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | d1 inch | l1 mm | l2 mm | Code 301 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|----------------------|---------------|
| 2,50 | | 43 | 95 | 0030100250100 | 10 |
| 3,10 | | 49 | 14 | 0030100310100 | 10 |
| 3,18 | 1/8 | 49 | 14 | 0030100318100 | 10 |
| 3,20 | | 49 | 14 | 0030100320100 | 10 |
| 3,25 | | 49 | 14 | 0030100325100 | 10 |
| 3,30 | | 49 | 14 | 0030100330100 | 10 |
| 3,57 | 9/64 | 52 | 17 | 0030100357100 | 10 |
| 3,97 | 5/32 | 55 | 17 | 0030100397100 | 10 |
| 4,10 | | 55 | 17 | 0030100410100 | 10 |
| 4,20 | | 55 | 17 | 0030100420100 | 10 |
| 4,37 | 11/64 | 58 | 20 | 0030100437100 | 10 |
| 4,76 | 3/16 | 62 | 20 | 0030100476100 | 10 |
| 4,90 | | 62 | 20 | 0030100490100 | 10 |
| 5,00 | | 62 | 20 | 0030100500100 | 10 |
| 5,10 | | 62 | 20 | 0030100510100 | 10 |
| 5,16 | 13/64 | 62 | 20 | 0030100516100 | 10 |
| 5,20 | | 62 | 20 | 0030100520100 | 10 |
| 5,56 | 7/32 | 66 | 23 | 0030100556100 | 10 |
| 6,35 | 1/4 | 70 | 23 | 0030100635100 | 10 |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

① HSS Spiralbohrer, extra kurz, mit reduziertem Schaft Ø 12,7 mm (1/2")

Einsatzbereich:

Universeller Spiralbohrer, hohe Elastizität. Sehr gut geeignet für den Einsatz in Handbohrmaschinen, zum Bearbeiten von legiertem und unlegiertem Stahl.

② HSS twist drill, extra short, with reduced shank Ø 12,7 mm (1/2")

Range of application:

HSS twist drill: toughness and precision combined with excellent cutting efficiency for drilling alloyed carbon and plain steel. Ideal for hand held operations.

③ Broca espiral HSS, extra corta, con eje reducido Ø 12,7 mm (1/2")

Ámbito de aplicación:

Broca espiral universal, alta elasticidad. Muy adecuada para su uso en taladradoras manuales. Para el procesamiento de acero aleado y no aleado.



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápida



Elastisch
Resilient
Elástica



Bruchstabil
Break-resistant
Resistente a la rotura



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | d1 inch | l1 mm | l2 mm | d2 mm | Code 734 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|----------|----------------------|---------------|
| 14,28 | 9/16 | 157 | 84 | 12,70 | 0073401428100 | 1 |
| 15,87 | 5/8 | 157 | 84 | 12,70 | 0073401587100 | 1 |
| 17,46 | 11/16 | 158 | 85 | 12,70 | 0073401746100 | 1 |
| 19,05 | 3/4 | 158 | 85 | 12,70 | 0073401905100 | 1 |
| 20,64 | 13/16 | 159 | 86 | 12,70 | 0073402064100 | 1 |
| 21,00 | | 159 | 86 | 12,70 | 0073402100100 | 1 |
| 22,00 | | 159 | 86 | 12,70 | 0073402200100 | 1 |
| 22,22 | 7/8 | 159 | 86 | 12,70 | 0073402222100 | 1 |
| 23,00 | | 159 | 86 | 12,70 | 0073402300100 | 1 |
| 23,81 | 15/16 | 160 | 87 | 12,70 | 0073402381100 | 1 |
| 24,00 | | 160 | 87 | 12,70 | 0073402400100 | 1 |
| 25,00 | | 160 | 87 | 12,70 | 0073402500100 | 1 |
| 25,40 | 1 | 160 | 87 | 12,70 | 0073402540100 | 1 |

D HSS Cobalt Spiralbohrer, kurz,
DIN 338 R-AS

E HSS Cobalt jobber drills,
DIN 338 R-AS

ES Broca espiral HSS Cobalt, corta,
DIN 338 R-AS

Einsatzbereich:

5% kobaltlegierter Spezialbohrer in sehr stabiler Bauweise für sehr schwer zerspanbare Werkstoffe wie rost- und säurebeständige austenitische Stähle sowie hitzebeständige Stähle.

Range of application:

5% cobalt-alloyed drills in a solid sturdy construction, specially suitable for stainless austenitic steels as well as heat resistant steels.

Ámbito de aplicación:

Broca especial con 5% de aleación de cobalto, especialmente estable, materiales muy difícilmente mecanizables con virutaje, aceros austeníticos resistentes a los ácidos y la corrosión, así como aceros resistentes al calor.



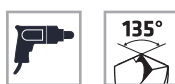
Rostfreie Stähle
Stainless steels
Aceros inoxidables



Bruchstabil
Break-resistant
Resistente a la rotura



Industriequalität
Industrial quality
Calidad industrial



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 663 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 2,00 | 49 | 24 | 0066300200100 | 10 |
| 2,10 | 49 | 24 | 0066300210100 | 10 |
| 2,20 | 53 | 27 | 0066300220100 | 10 |
| 2,30 | 53 | 27 | 0066300230100 | 10 |
| 2,40 | 57 | 30 | 0066300240100 | 10 |
| 2,50 | 57 | 30 | 0066300250100 | 10 |
| 2,60 | 57 | 30 | 0066300260100 | 10 |
| 2,70 | 61 | 33 | 0066300270100 | 10 |
| 2,80 | 61 | 33 | 0066300280100 | 10 |
| 2,90 | 61 | 33 | 0066300290100 | 10 |
| 3,00 | 61 | 33 | 0066300300100 | 10 |
| 3,10 | 65 | 36 | 0066300310100 | 10 |
| 3,20 | 65 | 36 | 0066300320100 | 10 |
| 3,30 | 65 | 36 | 0066300330100 | 10 |
| 3,40 | 70 | 39 | 0066300340100 | 10 |
| 3,50 | 70 | 39 | 0066300350100 | 10 |
| 3,60 | 70 | 39 | 0066300360100 | 10 |
| 3,70 | 70 | 39 | 0066300370100 | 10 |
| 3,80 | 75 | 43 | 0066300380100 | 10 |
| 3,90 | 75 | 43 | 0066300390100 | 10 |
| 4,00 | 75 | 43 | 0066300400100 | 10 |
| 4,10 | 75 | 43 | 0066300410100 | 10 |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 663 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 4,20 | 75 | 43 | 0066300420100 | 10 |
| 4,30 | 80 | 47 | 0066300430100 | 10 |
| 4,40 | 80 | 47 | 0066300440100 | 10 |
| 4,50 | 80 | 47 | 0066300450100 | 10 |
| 4,60 | 80 | 47 | 0066300460100 | 10 |
| 4,70 | 80 | 47 | 0066300470100 | 10 |
| 4,80 | 86 | 52 | 0066300480100 | 10 |
| 4,90 | 86 | 52 | 0066300490100 | 10 |
| 5,00 | 86 | 52 | 0066300500100 | 10 |
| 5,10 | 86 | 52 | 0066300510100 | 10 |
| 5,20 | 86 | 52 | 0066300520100 | 10 |
| 5,30 | 86 | 52 | 0066300530100 | 10 |
| 5,40 | 93 | 57 | 0066300540100 | 10 |
| 5,50 | 93 | 57 | 0066300550100 | 10 |
| 5,60 | 93 | 57 | 0066300560100 | 10 |
| 5,70 | 93 | 57 | 0066300570100 | 10 |
| 5,80 | 93 | 57 | 0066300580100 | 10 |
| 5,90 | 93 | 57 | 0066300590100 | 10 |
| 6,00 | 93 | 57 | 0066300600100 | 10 |
| 6,10 | 101 | 63 | 0066300610100 | 10 |
| 6,20 | 101 | 63 | 0066300620100 | 10 |
| 6,30 | 101 | 63 | 0066300630100 | 10 |
| 6,40 | 101 | 63 | 0066300640100 | 10 |
| 6,50 | 101 | 63 | 0066300650100 | 10 |
| 6,60 | 101 | 63 | 0066300660100 | 10 |
| 6,70 | 101 | 63 | 0066300670100 | 10 |
| 6,80 | 109 | 69 | 0066300680100 | 10 |
| 6,90 | 109 | 69 | 0066300690100 | 10 |
| 7,00 | 109 | 69 | 0066300700100 | 10 |
| 7,10 | 109 | 69 | 0066300710100 | 10 |
| 7,20 | 109 | 69 | 0066300720100 | 10 |
| 7,30 | 109 | 69 | 0066300730100 | 10 |
| 7,40 | 109 | 69 | 0066300740100 | 10 |
| 7,50 | 109 | 69 | 0066300750100 | 10 |
| 7,60 | 117 | 75 | 0066300760100 | 10 |
| 7,70 | 117 | 75 | 0066300770100 | 10 |
| 7,80 | 117 | 75 | 0066300780100 | 10 |
| 7,90 | 117 | 75 | 0066300790100 | 10 |
| 8,00 | 117 | 75 | 0066300800100 | 10 |
| 8,10 | 117 | 75 | 0066300810100 | 10 |
| 8,20 | 117 | 75 | 0066300820100 | 10 |
| 8,30 | 117 | 75 | 0066300830100 | 10 |
| 8,40 | 117 | 75 | 0066300840100 | 10 |
| 8,50 | 117 | 75 | 0066300850100 | 10 |
| 8,60 | 125 | 81 | 0066300860100 | 10 |
| 8,70 | 125 | 81 | 0066300870100 | 10 |
| 8,80 | 125 | 81 | 0066300880100 | 10 |
| 8,90 | 125 | 81 | 0066300890100 | 10 |
| 9,00 | 125 | 81 | 0066300900100 | 10 |
| 9,10 | 125 | 81 | 0066300910100 | 10 |
| 9,20 | 125 | 81 | 0066300920100 | 10 |
| 9,30 | 125 | 81 | 0066300930100 | 10 |
| 9,40 | 125 | 81 | 0066300940100 | 10 |
| 9,50 | 125 | 81 | 0066300950100 | 10 |
| 9,60 | 133 | 87 | 0066300960100 | 10 |
| 9,70 | 133 | 87 | 0066300970100 | 10 |

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 663 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 9,80 | 133 | 87 | 0066300980100 | 10 |
| 9,90 | 133 | 87 | 0066300990100 | 10 |
| 10,00 | 133 | 87 | 0066301000100 | 10 |
| 10,20 | 133 | 87 | 0066301020100 | 5 |
| 10,50 | 133 | 87 | 0066301050100 | 5 |
| 11,00 | 142 | 94 | 0066301100100 | 5 |
| 11,50 | 142 | 94 | 0066301150100 | 5 |
| 12,00 | 151 | 101 | 0066301200100 | 5 |
| 12,50 | 151 | 101 | 0066301250100 | 5 |
| 13,00 | 151 | 101 | 0066301300100 | 5 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable



HSS FORTE COBALT



Noch härter

Hohe Belastbarkeit durch Nitro-oxidierete Fase

Even harder

High resilience due to nitro-oxidized chamfer

Todavía más resistente

Alta resistencia gracias a la etapa nitro-oxidada

Exakte Ergebnisse

Dank eines selbstzentrierten Spezialanschliffs

Precise results

Thanks to a self-centering special point shape

Resultados exactos

Gracias a su punta afilada especial autocentrado

Exakte, tiefe Löcher

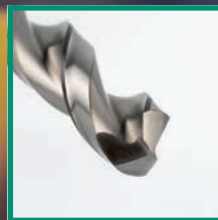
Die großen Spanräume garantieren präzise, tiefe Löcher bei hartem Stahl

Precise, deep holes

The large chip spaces guarantee precise, deep holes in hard steel

Agujeros precisos y profundos

El espacio ancho para virutas garantiza orificios precisos y profundos incluso en acero duro



D HSS Cobalt Spiralbohrer, kurz,
DIN 338 Forte

Einsatzbereich:

5% kobaltlegierter Spiralbohrer mit sehr hoher thermischer Belastbarkeit. Durch spezielle Nutausbildung bei schlechter Spanabfuhr bzw. für größere Bohrtiefen geeignet. Für Werkstoffe mit einer Festigkeit bis 1.300 N/mm².



Tieflochbohrer für hochfeste Stähle
Deep hole twist drills for high tensile steels
Broca de perforación profunda para aceros de alta resistencia

E HSS Cobalt jobber drills,
DIN 338 Forte

Range of application:

5% cobalt-alloyed jobber drills with an extremely sturdy construction (re-inforced web) for drilling under difficult conditions e. g. poor chipremoval and deep holes, for use in steel and cast-iron with tensile strength up to 1.300 N/mm².



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápido

ES Broca espiral HSS Cobalt, corta,
DIN 338 Forte

Ámbito de aplicación:

Broca espiral HSS con 5% de aleación de cobalto y muy alta clasificación térmica. Adecuada para una separación de virutas deficiente o para grandes profundidades de perforación gracias a la conformación especial de la ranura. Para materiales con una resistencia de hasta 1300 N/mm².



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Einzelverpackung
Single pack
Embalaje individual





Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 183 Art.-Nr. | Inh. Cont. | | Code 611 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 1,00 | 34 | 12 | 0018300100100 | 1 | 10 | 0061100100100 | 10 |
| 1,10 | 36 | 14 | | | | 0061100110100 | 10 |
| 1,20 | 38 | 16 | | | | 0061100120100 | 10 |
| 1,30 | 38 | 16 | | | | 0061100130100 | 10 |
| 1,40 | 40 | 18 | | | | 0061100140100 | 10 |
| 1,50 | 40 | 18 | 0018300150100 | 1 | 10 | 0061100150100 | 10 |
| 1,60 | 43 | 20 | | | | 0061100160100 | 10 |
| 1,70 | 43 | 20 | | | | 0061100170100 | 10 |
| 1,80 | 46 | 22 | | | | 0061100180100 | 10 |
| 1,90 | 49 | 24 | | | | 0061100190100 | 10 |
| 2,00 | 49 | 24 | 0018300200100 | 1 | 10 | 0061100200100 | 10 |
| 2,10 | 49 | 24 | | | | 0061100210100 | 10 |
| 2,20 | 53 | 27 | | | | 0061100220100 | 10 |
| 2,30 | 53 | 27 | | | | 0061100230100 | 10 |
| 2,40 | 57 | 30 | | | | 0061100240100 | 10 |
| 2,50 | 57 | 30 | 0018300250100 | 1 | 10 | 0061100250100 | 10 |
| 2,60 | 57 | 30 | | | | 0061100260100 | 10 |
| 2,70 | 61 | 33 | | | | 0061100270100 | 10 |
| 2,80 | 61 | 33 | | | | 0061100280100 | 10 |
| 2,90 | 61 | 33 | | | | 0061100290100 | 10 |
| 3,00 | 61 | 33 | 0018300300100 | 1 | 10 | 0061100300100 | 10 |
| 3,10 | 65 | 36 | | | | 0061100310100 | 10 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

| | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|----------|----------|--|---------------|---|---|---------------|
| d1 mm | l1 mm | l2 mm | Code 183 Art.-Nr. | Inh. Cont. |  | Code 611 Art.-Nr. | Inh. Cont. |
| 3,20 | 65 | 36 | 0018300320100 | 1 | 10 | 0061100320100 | 10 |
| 3,30 | 65 | 36 | 0018300330100 | 1 | 10 | 0061100330100 | 10 |
| 3,40 | 70 | 39 | | | | 0061100340100 | 10 |
| 3,50 | 70 | 39 | 0018300350100 | 1 | 10 | 0061100350100 | 10 |
| 3,60 | 70 | 39 | | | | 0061100360100 | 10 |
| 3,70 | 70 | 39 | | | | 0061100370100 | 10 |
| 3,80 | 75 | 43 | | | | 0061100380100 | 10 |
| 3,90 | 75 | 43 | | | | 0061100390100 | 10 |
| 4,00 | 75 | 43 | 0018300400100 | 1 | 10 | 0061100400100 | 10 |
| 4,10 | 75 | 43 | | | | 0061100410100 | 10 |
| 4,20 | 75 | 43 | 0018300420100 | 1 | 10 | 0061100420100 | 10 |
| 4,30 | 80 | 47 | | | | 0061100430100 | 10 |
| 4,40 | 80 | 47 | | | | 0061100440100 | 10 |
| 4,50 | 80 | 47 | 0018300450100 | 1 | 10 | 0061100450100 | 10 |
| 4,60 | 80 | 47 | | | | 0061100460100 | 10 |
| 4,70 | 80 | 47 | | | | 0061100470100 | 10 |
| 4,80 | 86 | 52 | | | | 0061100480100 | 10 |
| 4,90 | 86 | 52 | | | | 0061100490100 | 10 |
| 5,00 | 86 | 52 | 0018300500100 | 1 | 10 | 0061100500100 | 10 |
| 5,10 | 86 | 52 | | | | 0061100510100 | 10 |
| 5,20 | 86 | 52 | | | | 0061100520100 | 10 |
| 5,30 | 86 | 52 | | | | 0061100530100 | 10 |
| 5,40 | 93 | 57 | | | | 0061100540100 | 10 |
| 5,50 | 93 | 57 | 0018300550100 | 1 | 10 | 0061100550100 | 10 |
| 5,60 | 93 | 57 | | | | 0061100560100 | 10 |
| 5,70 | 93 | 57 | | | | 0061100570100 | 10 |
| 5,80 | 93 | 57 | | | | 0061100580100 | 10 |
| 5,90 | 93 | 57 | | | | 0061100590100 | 10 |
| 6,00 | 93 | 57 | 0018300600100 | 1 | 10 | 0061100600100 | 10 |
| 6,10 | 101 | 63 | | | | 0061100610100 | 10 |
| 6,20 | 101 | 63 | | | | 0061100620100 | 10 |
| 6,30 | 101 | 63 | | | | 0061100630100 | 10 |
| 6,40 | 101 | 63 | | | | 0061100640100 | 10 |
| 6,50 | 101 | 63 | 0018300650100 | 1 | 10 | 0061100650100 | 10 |
| 6,60 | 101 | 63 | | | | 0061100660100 | 10 |
| 6,70 | 101 | 63 | | | | 0061100670100 | 10 |
| 6,80 | 109 | 69 | 0018300680100 | 1 | 10 | 0061100680100 | 10 |
| 6,90 | 109 | 69 | | | | 0061100690100 | 10 |
| 7,00 | 109 | 69 | 0018300700100 | 1 | 10 | 0061100700100 | 10 |
| 7,10 | 109 | 69 | | | | 0061100710100 | 10 |
| 7,20 | 109 | 69 | | | | 0061100720100 | 10 |
| 7,30 | 109 | 69 | | | | 0061100730100 | 10 |
| 7,40 | 109 | 69 | | | | 0061100740100 | 10 |
| 7,50 | 109 | 69 | 0018300750100 | 1 | 10 | 0061100750100 | 10 |
| 7,60 | 117 | 75 | | | | 0061100760100 | 10 |
| 7,70 | 117 | 75 | | | | 0061100770100 | 10 |
| 7,80 | 117 | 75 | | | | 0061100780100 | 10 |
| 7,90 | 117 | 75 | | | | 0061100790100 | 10 |
| 8,00 | 117 | 75 | 0018300800100 | 1 | 10 | 0061100800100 | 10 |
| 8,10 | 117 | 75 | | | | 0061100810100 | 10 |
| 8,20 | 117 | 75 | | | | 0061100820100 | 10 |
| 8,30 | 117 | 75 | | | | 0061100830100 | 10 |
| 8,40 | 117 | 75 | | | | 0061100840100 | 10 |
| 8,50 | 117 | 75 | | | | 0061100850100 | 10 |
| 8,60 | 125 | 81 | | | | 0061100860100 | 10 |
| 8,70 | 125 | 81 | | | | 0061100870100 | 10 |

| | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|----------|----------|--|---------------|--|---|---------------|
| d1 mm | l1 mm | l2 mm | Code 183 Art.-Nr. | Inh. Cont. |  | Code 611 Art.-Nr. | Inh. Cont. |
| 8,80 | 125 | 81 | | | | 0061100880100 | 10 |
| 8,90 | 125 | 81 | | | | 0061100890100 | 10 |
| 9,00 | 125 | 81 | 0018300900100 | 1 | 10 | 0061100900100 | 10 |
| 9,10 | 125 | 81 | | | | 0061100910100 | 10 |
| 9,20 | 126 | 81 | | | | 0061100920100 | 10 |
| 9,30 | 125 | 81 | | | | 0061100930100 | 10 |
| 9,40 | 125 | 81 | | | | 0061100940100 | 10 |
| 9,50 | 125 | 81 | | | | 0061100950100 | 10 |
| 9,60 | 133 | 87 | | | | 0061100960100 | 10 |
| 9,70 | 133 | 87 | | | | 0061100970100 | 10 |
| 9,80 | 133 | 87 | | | | 0061100980100 | 10 |
| 9,90 | 133 | 87 | | | | 0061100990100 | 10 |
| 10,00 | 133 | 87 | 0018301000100 | 1 | 10 | 0061101000100 | 10 |
| 10,20 | 133 | 87 | | | | 0061101020100 | 5 |
| 10,50 | 133 | 87 | | | | 0061101050100 | 5 |
| 11,00 | 142 | 94 | 0018301100100 | 1 | 10 | 0061101100100 | 5 |
| 11,50 | 142 | 94 | | | | 0061101150100 | 5 |
| 12,00 | 151 | 101 | 0018301200100 | 1 | 10 | 0061101200100 | 5 |
| 12,50 | 151 | 101 | | | | 0061101250100 | 5 |
| 13,00 | 151 | 101 | 0018301300100 | 1 | 10 | 0061101300100 | 5 |





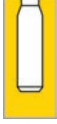





Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Kreuzanschliff $\geq \varnothing 2,0$ mm / Split Point $\geq \varnothing 2,0$ mm / Punta afilada en cruz $\geq \varnothing 2,0$ mm
Oberfläche: fasennitriert $\geq \varnothing 3,0$ mm / Surface: nitrided lands $\geq \varnothing 3,0$ mm / Superficie: etapa nitro-oxidada $\geq \varnothing 3,0$ mm

① Kassetten, Sets

Ⓔ Cassettes, sets

Ⓔ Cajas, juegos

| HSS Forte Cobalt TM 6 | | HSS Forte Cobalt KM 19 | | HSS Forte Cobalt KM 25 | |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| 6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100616100 | | 19-tlg. / 19-pcs. / 19-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000100619100 | | 25-tlg. / 25-pcs. / 25-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000100625100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HSS Forte Cobalt | | HSS Forte Cobalt | | HSS Forte Cobalt | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 1,00-10,00 | 0,5 | Ø 1,00-13,00 | 0,5 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D HSS Cobalt Spiralbohrer, kurz,
DIN 338 RN

Einsatzbereich:

5% kobaltlegierter Spiralbohrer mit sehr hoher thermischer Belastbarkeit zum Bohren von Werkstoffen mit höherem Legierungsgehalt und Festigkeit über 800 N/mm².

E HSS Cobalt jobber drills,
DIN 338 RN

Range of application:

5% cobalt-alloyed jobber drills with high heat-resistance for drilling steels with tensile strength over 800 N/mm², specially suitable for high alloyed steels, bearing-steels, hot/cold-rolled steel. Ideal for stainless steel.

ES Broca espiral HSS Cobalt, corta,
DIN 338 RN

Ámbito de aplicación:

Broca espiral HSS con 5% de aleación de cobalto y muy alta clasificación térmica. Especialmente adecuadas para aceros un porcentaje elevado de aleación con R > 800 N/mm².



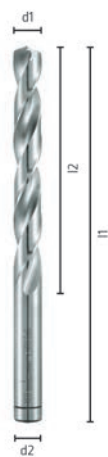
Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Bruchstabil
Break-resistant
Resistente a la rotura



Industriequalität
Industrial quality
Calidad industrial



130°
HSS Co5
DIN 338
Typ/Type/Tipo RN
5xd
Kreuzanschliff Split Point C
Oberfläche: blank/TIN
Surface: bright/TIN
Superficie: brillante/TIN



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial




TiN
Hohe Performance, lange Standzeit
High performance, long durability
Rendimiento elevado, duración prolongada



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

| | | | | blank / bright / brillante | | | blank / bright / brillante | | | TiN | |
|----------|------------|----------|----------|----------------------------|---------------|----|----------------------------|---------------|----------------------|---------------|--|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 623 Art.-Nr. | Inh. Cont. | | Code 613 Art.-Nr. | Inh. Cont. | Code 607 Art.-Nr. | Inh. Cont. | |
| 1,00 | | 34 | 12 | 0062300100100 | 1 | 10 | 0061300100100 | 10 | 0060700100100 | 1 | |
| 1,10 | | 36 | 14 | | | | 0061300110100 | 10 | 0060700110100 | 1 | |
| 1,19 | 3/64 | 38 | 16 | | | | 0061300119100 | 10 | 0060700119100 | 1 | |
| 1,20 | | 38 | 16 | | | | 0061300120100 | 10 | 0060700120100 | 1 | |
| 1,30 | | 38 | 16 | | | | 0061300130100 | 10 | 0060700130100 | 1 | |
| 1,40 | | 40 | 18 | | | | 0061300140100 | 10 | 0060700140100 | 1 | |
| 1,50 | | 40 | 18 | 0062300150100 | 1 | 10 | 0061300150100 | 10 | 0060700150100 | 1 | |
| 1,59 | 1/16 | 43 | 20 | | | | 0061300159100 | 10 | 0060700159100 | 1 | |
| 1,60 | | 43 | 20 | | | | 0061300160100 | 10 | 0060700160100 | 1 | |
| 1,70 | | 43 | 20 | | | | 0061300170100 | 10 | 0060700170100 | 1 | |
| 1,80 | | 46 | 22 | | | | 0061300180100 | 10 | 0060700180100 | 1 | |
| 1,90 | | 46 | 22 | | | | 0061300190100 | 10 | 0060700190100 | 1 | |
| 1,98 | 5/64 | 49 | 24 | | | | 0061300198100 | 10 | 0060700198100 | 1 | |
| 2,00 | | 49 | 24 | 0062300200100 | 1 | 10 | 0061300200100 | 10 | 0060700200100 | 1 | |
| 2,10 | | 49 | 24 | | | | 0061300210100 | 10 | 0060700210100 | 1 | |
| 2,20 | | 53 | 27 | | | | 0061300220100 | 10 | 0060700220100 | 1 | |
| 2,30 | | 53 | 27 | | | | 0061300230100 | 10 | 0060700230100 | 1 | |
| 2,38 | 3/32 | 57 | 30 | | | | 0061300238100 | 10 | 0060700238100 | 1 | |
| 2,40 | | 57 | 30 | | | | 0061300240100 | 10 | 0060700240100 | 1 | |
| 2,50 | | 57 | 30 | 0062300250100 | 1 | 10 | 0061300250100 | 10 | 0060700250100 | 1 | |
| 2,60 | | 57 | 30 | | | | 0061300260100 | 10 | 0060700260100 | 1 | |
| 2,70 | | 61 | 33 | | | | 0061300270100 | 10 | 0060700270100 | 1 | |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | | |
|----------|------------|----------|----------|--|---------------|---|---|---------------|--|---|---------------|--|
| | | | | blank / bright / brillante | | | blank / bright / brillante | | | TIN | | |
| d1 mm | d1 inch | l1 mm | l2 mm | Code 623 Art.-Nr. | Inh. Cont. |  | Code 613 Art.-Nr. | Inh. Cont. | | Code 607 Art.-Nr. | Inh. Cont. | |
| 2,78 | 7/64 | 61 | 33 | | | | 0061300278100 | 10 | | 0060700278100 | 1 | |
| 2,80 | | 61 | 33 | | | | 0061300280100 | 10 | | 0060700280100 | 1 | |
| 2,90 | | 61 | 33 | | | | 0061300290100 | 10 | | 0060700290100 | 1 | |
| 3,00 | | 61 | 33 | 0062300300100 | 1 | 10 | 0061300300100 | 10 | | 0060700300100 | 1 | |
| 3,10 | | 65 | 36 | | | | 0061300310100 | 10 | | 0060700310100 | 1 | |
| 3,17 | 1/8 | 65 | 36 | | | | 0061300317100 | 10 | | 0060700317100 | 1 | |
| 3,20 | | 65 | 36 | 0062300320100 | 1 | 10 | 0061300320100 | 10 | | 0060700320100 | 1 | |
| 3,30 | | 65 | 36 | 0062300330100 | 1 | 10 | 0061300330100 | 10 | | 0060700330100 | 1 | |
| 3,40 | | 70 | 39 | | | | 0061300340100 | 10 | | 0060700340100 | 1 | |
| 3,50 | | 70 | 39 | 0062300350100 | 1 | 10 | 0061300350100 | 10 | | 0060700350100 | 1 | |
| 3,57 | 9/64 | 70 | 39 | | | | 0061300357100 | 10 | | 0060700357100 | 1 | |
| 3,60 | | 70 | 39 | | | | 0061300360100 | 10 | | 0060700360100 | 1 | |
| 3,70 | | 70 | 39 | | | | 0061300370100 | 10 | | 0060700370100 | 1 | |
| 3,80 | | 75 | 43 | | | | 0061300380100 | 10 | | 0060700380100 | 1 | |
| 3,90 | | 75 | 43 | | | | 0061300390100 | 10 | | 0060700390100 | 1 | |
| 3,97 | 5/32 | 75 | 43 | | | | 0061300397100 | 10 | | 0060700397100 | 1 | |
| 4,00 | | 75 | 43 | 0062300400100 | 1 | 10 | 0061300400100 | 10 | | 0060700400100 | 1 | |
| 4,10 | | 75 | 43 | | | | 0061300410100 | 10 | | 0060700410100 | 1 | |
| 4,20 | | 75 | 43 | 0062300420100 | 1 | 10 | 0061300420100 | 10 | | 0060700420100 | 1 | |
| 4,30 | | 80 | 47 | | | | 0061300430100 | 10 | | 0060700430100 | 1 | |
| 4,37 | 11/64 | 80 | 47 | | | | 0061300437100 | 10 | | 0060700437100 | 1 | |
| 4,40 | | 80 | 47 | | | | 0061300440100 | 10 | | 0060700440100 | 1 | |
| 4,50 | | 80 | 47 | 0062300450100 | 1 | 10 | 0061300450100 | 10 | | 0060700450100 | 1 | |
| 4,60 | | 80 | 47 | | | | 0061300460100 | 10 | | 0060700460100 | 1 | |
| 4,70 | | 80 | 47 | | | | 0061300470100 | 10 | | 0060700470100 | 1 | |
| 4,76 | 3/16 | 86 | 52 | | | | 0061300476100 | 10 | | 0060700476100 | 1 | |
| 4,80 | | 86 | 52 | | | | 0061300480100 | 10 | | 0060700480100 | 1 | |
| 4,90 | | 86 | 52 | | | | 0061300490100 | 10 | | 0060700490100 | 1 | |
| 5,00 | | 86 | 52 | 0062300500100 | 1 | 10 | 0061300500100 | 10 | | 0060700500100 | 1 | |
| 5,10 | | 86 | 52 | | | | 0061300510100 | 10 | | 0060700510100 | 1 | |
| 5,16 | 13/64 | 86 | 52 | | | | 0061300516100 | 10 | | 0060700516100 | 1 | |
| 5,20 | | 86 | 52 | | | | 0061300520100 | 10 | | 0060700520100 | 1 | |
| 5,30 | | 86 | 52 | | | | 0061300530100 | 10 | | 0060700530100 | 1 | |
| 5,40 | | 93 | 57 | | | | 0061300540100 | 10 | | 0060700540100 | 1 | |
| 5,50 | | 93 | 57 | 0062300550100 | 1 | 10 | 0061300550100 | 10 | | 0060700550100 | 1 | |
| 5,56 | 7/32 | 93 | 57 | | | | 0061300556100 | 10 | | 0060700556100 | 1 | |
| 5,60 | | 93 | 57 | | | | 0061300560100 | 10 | | 0060700560100 | 1 | |
| 5,70 | | 93 | 57 | | | | 0061300570100 | 10 | | 0060700570100 | 1 | |
| 5,80 | | 93 | 57 | | | | 0061300580100 | 10 | | 0060700580100 | 1 | |
| 5,90 | | 93 | 57 | | | | 0061300590100 | 10 | | 0060700590100 | 1 | |
| 5,95 | 15/64 | 93 | 57 | | | | | | | 0060700595100 | 1 | |
| 6,00 | | 93 | 57 | 0062300600100 | 1 | 10 | 0061300600100 | 10 | | 0060700600100 | 1 | |
| 6,10 | | 101 | 63 | | | | 0061300610100 | 10 | | 0060700610100 | 1 | |
| 6,20 | | 101 | 63 | | | | 0061300620100 | 10 | | 0060700620100 | 1 | |
| 6,30 | | 101 | 63 | | | | 0061300630100 | 10 | | 0060700630100 | 1 | |
| 6,35 | 1/4 | 101 | 63 | | | | 0061300635100 | 10 | | 0060700635100 | 1 | |
| 6,40 | | 101 | 63 | | | | 0061300640100 | 10 | | 0060700640100 | 1 | |
| 6,50 | | 101 | 63 | 0062300650100 | 1 | 10 | 0061300650100 | 10 | | 0060700650100 | 1 | |
| 6,60 | | 101 | 63 | | | | 0061300660100 | 10 | | 0060700660100 | 1 | |
| 6,70 | | 101 | 63 | | | | 0061300670100 | 10 | | 0060700670100 | 1 | |
| 6,75 | 17/64 | 109 | 69 | | | | 0061300675100 | 10 | | 0060700675100 | 1 | |
| 6,80 | | 109 | 69 | 0062300680100 | 1 | 10 | 0061300680100 | 10 | | 0060700680100 | 1 | |
| 6,90 | | 109 | 69 | | | | 0061300690100 | 10 | | 0060700690100 | 1 | |
| 7,00 | | 109 | 69 | 0062300700100 | 1 | 10 | 0061300700100 | 10 | | 0060700700100 | 1 | |
| 7,10 | | 109 | 69 | | | | 0061300710100 | 10 | | 0060700710100 | 1 | |
| 7,14 | 9/32 | 109 | 69 | | | | 0061300714100 | 10 | | 0060700714100 | 1 | |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | | |
|-------|-------|-----|-----|--|-------|----|---|-------|--|---|-------|--|
| | | | | blank / bright / brillante | | | blank / bright / brillante | | | TiN | | |
| d1 | d1 | l1 | l2 | Code 623 | Inh. | | Code 613 | Inh. | | Code 607 | Inh. | |
| mm | inch | mm | mm | Art.-Nr. | Cont. | | Art.-Nr. | Cont. | | Art.-Nr. | Cont. | |
| 7,20 | | 109 | 69 | | | | 0061300720100 | 10 | | 0060700720100 | 1 | |
| 7,30 | | 109 | 69 | | | | 0061300730100 | 10 | | 0060700730100 | 1 | |
| 7,40 | | 109 | 69 | | | | 0061300740100 | 10 | | 0060700740100 | 1 | |
| 7,50 | | 109 | 69 | 0062300750100 | 1 | 10 | 0061300750100 | 10 | | 0060700750100 | 1 | |
| 7,54 | 19/64 | 117 | 75 | | | | 0061300754100 | 10 | | 0060700754100 | 1 | |
| 7,60 | | 117 | 75 | | | | 0061300760100 | 10 | | 0060700760100 | 1 | |
| 7,70 | | 117 | 75 | | | | 0061300770100 | 10 | | 0060700770100 | 1 | |
| 7,80 | | 117 | 75 | | | | 0061300780100 | 10 | | 0060700780100 | 1 | |
| 7,90 | | 117 | 75 | | | | 0061300790100 | 10 | | 0060700790100 | 1 | |
| 7,94 | 5/16 | 117 | 75 | | | | 0061300794100 | 10 | | 0060700794100 | 1 | |
| 8,00 | | 117 | 75 | 0062300800100 | 1 | 10 | 0061300800100 | 10 | | 0060700800100 | 1 | |
| 8,10 | | 117 | 75 | | | | 0061300810100 | 10 | | 0060700810100 | 1 | |
| 8,20 | | 117 | 75 | | | | 0061300820100 | 10 | | 0060700820100 | 1 | |
| 8,30 | | 117 | 75 | | | | 0061300830100 | 10 | | 0060700830100 | 1 | |
| 8,33 | 21/64 | 117 | 75 | | | | | | | 0060700833100 | 1 | |
| 8,40 | | 117 | 75 | | | | 0061300840100 | 10 | | 0060700840100 | 1 | |
| 8,50 | | 117 | 75 | 0062300850100 | 1 | 10 | 0061300850100 | 10 | | 0060700850100 | 1 | |
| 8,60 | | 125 | 81 | | | | 0061300860100 | 10 | | 0060700860100 | 1 | |
| 8,70 | | 125 | 81 | | | | 0061300870100 | 10 | | 0060700870100 | 1 | |
| 8,73 | 11/32 | 125 | 81 | | | | 0061300873100 | 10 | | 0060700873100 | 1 | |
| 8,80 | | 125 | 81 | | | | 0061300880100 | 10 | | 0060700880100 | 1 | |
| 8,90 | | 125 | 81 | | | | 0061300890100 | 10 | | 0060700890100 | 1 | |
| 9,00 | | 125 | 81 | 0062300900100 | 1 | 10 | 0061300900100 | 10 | | 0060700900100 | 1 | |
| 9,10 | | 125 | 81 | | | | 0061300910100 | 10 | | 0060700910100 | 1 | |
| 9,13 | 23/64 | 125 | 81 | | | | | | | 0060700913100 | 1 | |
| 9,20 | | 125 | 81 | | | | 0061300920100 | 10 | | 0060700920100 | 1 | |
| 9,30 | | 125 | 81 | | | | 0061300930100 | 10 | | 0060700930100 | 1 | |
| 9,40 | | 125 | 81 | | | | 0061300940100 | 10 | | 0060700940100 | 1 | |
| 9,50 | | 125 | 81 | 0062300950100 | 1 | 10 | 0061300950100 | 10 | | 0060700950100 | 1 | |
| 9,52 | 3/8 | 133 | 87 | | | | 0061300952100 | 10 | | 0060700952100 | 1 | |
| 9,60 | | 133 | 87 | | | | 0061300960100 | 10 | | 0060700960100 | 1 | |
| 9,70 | | 133 | 87 | | | | 0061300970100 | 10 | | 0060700970100 | 1 | |
| 9,80 | | 133 | 87 | | | | 0061300980100 | 10 | | 0060700980100 | 1 | |
| 9,90 | | 133 | 87 | | | | 0061300990100 | 10 | | 0060700990100 | 1 | |
| 9,92 | 25/64 | 133 | 87 | | | | | | | 0060700992100 | 1 | |
| 10,00 | | 133 | 87 | 0062301000100 | 1 | 10 | 0061301000100 | 10 | | 0060701000100 | 1 | |
| 10,20 | | 133 | 87 | 0062301020100 | 1 | 10 | 0061301020100 | 5 | | 0060701020100 | 1 | |
| 10,32 | 13/32 | 133 | 87 | | | | | | | 0060701032100 | 1 | |
| 10,50 | | 133 | 87 | | | | 0061301050100 | 5 | | 0060701050100 | 1 | |
| 11,00 | | 142 | 94 | 0062301100100 | 1 | 10 | 0061301100100 | 5 | | 0060701100100 | 1 | |
| 11,11 | 7/16 | 142 | 94 | | | | 0061301111100 | 5 | | 0060701111100 | 1 | |
| 11,50 | | 142 | 94 | | | | 0061301150100 | 5 | | 0060701150100 | 1 | |
| 11,51 | 29/64 | 142 | 94 | | | | | | | 0060701151100 | 1 | |
| 11,91 | 15/32 | 151 | 101 | | | | | | | 0060701191100 | 1 | |
| 12,00 | | 151 | 101 | 0062301200100 | 1 | 10 | 0061301200100 | 5 | | 0060701200100 | 1 | |
| 12,30 | 31/64 | 151 | 101 | | | | | | | 0060701230100 | 1 | |
| 12,50 | | 151 | 101 | | | | 0061301250100 | 5 | | 0060701250100 | 1 | |
| 12,70 | 1/2 | 151 | 101 | | | | 0061301270100 | 5 | | 0060701270100 | 1 | |
| 13,00 | | 151 | 101 | 0062301300100 | 1 | 10 | 0061301300100 | 5 | | 0060701300100 | 1 | |
| 13,50 | | 160 | 108 | | | | 0061301350100 | 1 | | 0060701350100 | 1 | |
| 14,00 | | 160 | 108 | | | | 0061301400100 | 1 | | 0060701400100 | 1 | |
| 14,50 | | 169 | 114 | | | | 0061301450100 | 1 | | 0060701450100 | 1 | |
| 15,00 | | 169 | 114 | | | | 0061301500100 | 1 | | 0060701500100 | 1 | |
| 16,00 | | 178 | 120 | | | | 0061301600100 | 1 | | 0060701600100 | 1 | |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Kreuzanschliff $\geq \varnothing 2,0$ mm / Split Point $\geq \varnothing 2,0$ mm / Punta afilada en cruz $\geq \varnothing 2,0$ mm

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| | | | | | | | | |
|--|---|---|---|---|---|---|---|---|
| <p>HSS Cobalt TM 6</p>  | | | <p>HSS Cobalt KM 19</p>  | | | <p>HSS Cobalt KP 19</p>  | | |
| <p>6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000100606100</p> | | | <p>19-tlg. / 19-pcs. / 19-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000100219100</p> | | | <p>19-tlg. / 19-pcs. / 19-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000102219100</p> | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HSS Cobalt | | | HSS Cobalt | | | HSS Cobalt | | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | | 1 | Ø 1,00-10,00 | 0,5 | 1 | Ø 1,00-10,00 | 0,5 | 1 |
| <p>HSS Cobalt KM 25</p>  | | | <p>HSS Cobalt KP 25</p>  | | | <p>HSS Cobalt KM 32</p>  | | |
| <p>25-tlg. / 25-pcs. / 25-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000100225100</p> | | | <p>25-tlg. / 25-pcs. / 25-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000102225100</p> | | | <p>32-tlg. / 32-pcs. / 32-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000101232100</p> | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HSS Cobalt | | | HSS Cobalt | | | HSS Cobalt | | |
| Ø 1,00-13,00 | 0,5 | 1 | Ø 1,00-13,00 | 0,5 | 1 | Ø 1,00-10,50 | 0,5 | 1 |
| | | | | | | 1,9/2,1/2,6/2,9/3,2/3,3/3,8/4,2/5,1/6,8/7,9/10,2 | | 1 |
| <p>HSS Cobalt KM 50</p>  | | | <p>HSS Cobalt KM 41</p>  | | | <p>HSS-E DIN Maschinengewindebohrersatz KM 14</p>  | | |
| <p>50-tlg. / 50-pcs. / 50-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000101250100</p> | | | <p>41-tlg. / 41-pcs. / 41-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000101241100</p> | | | <p>14-tlg. / 14-pcs. / 14-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0070800014100</p> | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HSS Cobalt | | | HSS Cobalt | | | HSS Cobalt | | |
| Ø 1,00-5,90 | 0,1 | 1 | Ø 6,00-10,00 | 0,1 | 1 | Ø 2,50 / 3,30 / 4,20 / 5,00 / 6,80 / 8,50 / 10,20 | | 1 |
| | | | | | | Ø M3 - M12 | | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



HSS **COBALT GRIP**



Selbstzentrierend
durch Spezialanschliff

Self-centering
thanks to special point shape

Autocentrado
gracias a la punta especialmente afilada

Bis 600° C
Bohren auch bei höchsten
Temperaturbelastungen

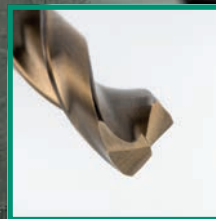
Up to 600° C
Drilling even with the highest thermal stress

Taladrado hasta 600° C
Incluso bajo temperaturas extremas

Schnell
Durch speziellen Bohrerschiff schneller
Bohrfortschritt und bis zu 50%
weniger Vorschubdruck erforderlich

Fast
Due to special drill grinding fast drilling progress and up to 50% less feed pressure required

Rápida
Gracias a la punta especialmente afilada avance rápido y presión de avance necesaria inferior al 50 %



 **alpen** *drill better.*

① HSS Cobalt Spiralbohrer, 3-Flächenschaft, kurz, DIN 338 RN

Einsatzbereich:

5% kobaltlegierter Spiralbohrer mit sehr hoher thermischer Belastbarkeit zum Bohren von Werkstoffen mit höherem Legierungsgehalt und Festigkeit über 800 N/mm². Der 3-Flächenschaft verhindert das Durchdrehen im Bohrfutter und sorgt für eine optimale Drehmomentübertragung.



Industriequalität
Industrial quality
Calidad industrial



Bohren mit stark verminderten Anpressdruck
Drilling with greatly reduced feed pressure
Perforar con una presión de avance muy disminuida



3-Flächenschaft
3-surface shank
3 caras

② HSS Cobalt jobber drills, 3-surface shank, DIN 338 RN

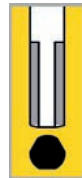
Range of application:

5% cobalt-alloyed jobber drills with high heat-resistance for drilling steels with tensile strength over 800 N/mm², specially suitable for high alloyed steels, bearing-steels, hot/ cold-rolled steel. Ideal for stainless steel. The 3-surface shank prevents slipping in the chuck and ensures optimum torque transmission.

③ Broca espiral HSS Cobalt, eje de 3 cantos, corta, DIN 338 RN

Ámbito de aplicación:

Broca espiral HSS con 5% de aleación de cobalto y muy alta clasificación térmica. Especialmente adecuada para aceros con un porcentaje elevado de aleación de R > 800 N/mm². El nuevo vástago antideslizante evita la rotación en el portabrocas y asegura una transmisión de torsión óptima.



130°
HSS Co5
DIN 338
Typ/Type/Tipo RN
Kreuzanschliff Split Point C
Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial




Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | d2 mm | Code 655 Art.-Nr. | Inh. Cont. | | Code 656 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 1,00 | 34 | 12 | | 0065500100100 | 1 | 10 | 0065600100100 | 10 |
| 1,50 | 40 | 18 | | 0065500150100 | 1 | 10 | 0065600150100 | 10 |
| 1,60 | 43 | 20 | | | | | 0065600160100 | 10 |
| 2,00 | 49 | 24 | | 0065500200100 | 1 | 10 | 0065600200100 | 10 |
| 2,50 | 57 | 30 | | 0065500250100 | 1 | 10 | 0065600250100 | 10 |
| 3,00 | 61 | 33 | | 0065500300100 | 1 | 10 | 0065600300100 | 10 |
| 3,20 | 65 | 36 | | 0065500320100 | 1 | 10 | 0065600320100 | 10 |
| 3,30 | 65 | 36 | | 0065500330100 | 1 | 10 | 0065600330100 | 10 |
| 3,50 | 70 | 39 | | 0065500350100 | 1 | 10 | 0065600350100 | 10 |
| 4,00 | 75 | 43 | | 0065500400100 | 1 | 10 | 0065600400100 | 10 |
| 4,20 | 75 | 43 | | 0065500420100 | 1 | 10 | 0065600420100 | 10 |
| 4,50 | 80 | 47 | | 0065500450100 | 1 | 10 | 0065600450100 | 10 |
| 5,00 | 86 | 52 | | 0065500500100 | 1 | 10 | 0065600500100 | 10 |
| 5,20 | 86 | 52 | | | | | 0065600520100 | 10 |
| 5,50 | 93 | 57 | | 0065500550100 | 1 | 10 | 0065600550100 | 10 |
| 6,00 | 93 | 57 | | 0065500600100 | 1 | 10 | 0065600600100 | 10 |
| 6,50 | 101 | 63 | | 0065500650100 | 1 | 10 | 0065600650100 | 10 |
| 6,80 | 109 | 69 | | 0065500680100 | 1 | 10 | 0065600680100 | 10 |
| 7,00 | 109 | 69 | | 0065500700100 | 1 | 10 | 0065600700100 | 10 |
| 7,50 | 109 | 69 | | 0065500750100 | 1 | 10 | 0065600750100 | 10 |
| 8,00 | 117 | 75 | | 0065500800100 | 1 | 10 | 0065600800100 | 10 |
| 8,50 | 117 | 75 | | 0065500850100 | 1 | 10 | 0065600850100 | 10 |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|----------|----------|----------|--|---------------|--|---|---------------|
| d1 mm | l1 mm | l2 mm | d2 mm | Code 655 Art.-Nr. | Inh. Cont. |  | Code 656 Art.-Nr. | Inh. Cont. |
| 9,00 | 125 | 81 | | 0065500900100 | 1 | 10 | 0065600900100 | 10 |
| 9,50 | 125 | 81 | | 0065500950100 | 1 | 10 | 0065600950100 | 10 |
| 10,00 | 133 | 87 | | 0065501000100 | 1 | 10 | 0065601000100 | 10 |
| 10,20 | 133 | 87 | | 0065501020100 | 1 | 10 | 0065601020100 | 5 |
| 10,50 | 133 | 87 | | | | | 0065601050100 | 5 |
| 11,00 | 142 | 94 | | 0065501100100 | 1 | 10 | 0065601100100 | 5 |
| 11,50 | 142 | 94 | | | | | 0065601150100 | 5 |
| 12,00 | 151 | 101 | | 0065501200100 | 1 | 10 | 0065601200100 | 5 |
| 12,50 | 151 | 101 | | | | | 0065601250100 | 5 |
| 13,00 | 151 | 101 | | 0065501300100 | 1 | 10 | 0065601300100 | 5 |
| 13,50 | 160 | 108 | 9,50 | | | | 0065601350100 | 1 |
| 14,00 | 160 | 108 | 9,50 | | | | 0065601400100 | 1 |
| 14,50 | 169 | 114 | 9,50 | | | | 0065601450100 | 1 |
| 15,00 | 169 | 114 | 9,50 | | | | 0065601500100 | 1 |
| 15,50 | 178 | 120 | 9,50 | | | | 0065601550100 | 1 |
| 16,00 | 178 | 120 | 9,50 | | | | 0065601600100 | 1 |
| 17,00 | 184 | 125 | 12,50 | | | | 0065601700100 | 1 |
| 18,00 | 191 | 130 | 12,50 | | | | 0065601800100 | 1 |
| 19,00 | 198 | 135 | 12,50 | | | | 0065601900100 | 1 |
| 20,00 | 205 | 140 | 12,50 | | | | 0065602000100 | 1 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Kreuzanschliff $\geq \varnothing 2,0$ mm / Split Point $\geq \varnothing 2,0$ mm / Punta afilada en cruz $\geq \varnothing 2,0$ mm
Zylindrischer Schaft $\leq \varnothing 3,5$ mm / Cylindrical shank $\leq \varnothing 3,5$ mm / Eje cilíndrico $\leq \varnothing 3,5$ mm

① Kassetten, Sets

② Cassettes, sets

③ Cajas, juegos

| | | | | | |
|---|---------------------|--|---------------------|--|---------------------|
| <p>HSS COBALT GRIP TM 6</p>   | | <p>HSS COBALT GRIP KM 19</p>   | | <p>HSS COBALT GRIP KM 25</p>   | |
| <p>6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0065600006100</p> | | <p>19-tlg. / 19-pcs. / 19-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0065600019100</p> | | <p>25-tlg. / 25-pcs. / 25-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0065600025100</p> | |
| Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ |
| HSS COBALT GRIP | | HSS COBALT GRIP | | HSS COBALT GRIP | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 1,00-10,00 | 0,5 | Ø 1,00-13,00 | 0,5 |
| <p>HSS COBALT GRIP KP 19</p>   | | <p>HSS COBALT GRIP KP 25</p>   | | | |
| <p>19-tlg. / 19-pcs. / 19-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0065600119100</p> | | <p>25-tlg. / 25-pcs. / 25-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0065600125100</p> | | | |
| Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | | |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ | | |
| HSS COBALT GRIP | | HSS COBALT GRIP | | | |
| Ø 1,00-10,00 | 0,5 | Ø 1,00-13,00 | 0,5 | | |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D HSS Cobalt Spiralbohrer für INOX-Bleche und Hardox®

Einsatzbereich:

Besonders geeignet für zähe und harte Werkstoffe wie rost- und säurebeständige Chrom-Nickelstähle, sowie sämtliche verschleißbeanspruchte Bauteile, überwiegend im Baugewerbe, wie z.B. HARDOX® 400 sowie XAR® 320 und XAR® 400 und ähnliche Werkstoffe.



Industriequalität
Industrial quality
Calidad industrial



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión

E HSS Cobalt jobber drills for INOX sheet metals and Hardox®

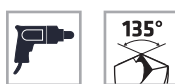
Range of application:

Specially suitable for drilling stainless steel, acid-resisting steel, spring-steel as well as extremely hard materials such as manganese steel, high-tensile fine grained machinery steel (e.g. HARDOX® 400, XAR® 320, XAR® 400) and similar materials.

ES Broca espiral HSS Cobalt para chapas INOX & Hardox®

Ámbito de aplicación:

Especialmente adecuadas para materiales tenaces y duros, como aceros al cromo-níquel que resisten los ácidos y la corrosión, así como elementos de mucho desgaste, principalmente en el campo de la construcción, como p. ej. HARDOX® 400 como XAR® 320 e XAR® 400 y otros materiales similares.



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 638 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 2,00 | 49 | 12 | 0063800200100 | 10 |
| 2,50 | 57 | 14 | 0063800250100 | 10 |
| 3,00 | 61 | 16 | 0063800300100 | 10 |
| 3,20 | 65 | 18 | 0063800320100 | 10 |
| 3,30 | 65 | 19 | 0063800330100 | 10 |
| 3,50 | 70 | 20 | 0063800350100 | 10 |
| 4,00 | 75 | 22 | 0063800400100 | 10 |
| 4,20 | 75 | 22 | 0063800420100 | 10 |
| 4,50 | 80 | 24 | 0063800450100 | 10 |
| 5,00 | 86 | 26 | 0063800500100 | 10 |
| 5,50 | 93 | 28 | 0063800550100 | 10 |
| 6,00 | 93 | 28 | 0063800600100 | 10 |
| 6,50 | 101 | 31 | 0063800650100 | 10 |
| 6,80 | 101 | 31 | 0063800680100 | 10 |
| 7,00 | 109 | 34 | 0063800700100 | 10 |
| 7,50 | 109 | 34 | 0063800750100 | 5 |
| 8,00 | 117 | 37 | 0063800800100 | 5 |
| 8,50 | 117 | 37 | 0063800850100 | 5 |
| 9,00 | 125 | 40 | 0063800900100 | 5 |
| 9,50 | 125 | 40 | 0063800950100 | 5 |
| 10,00 | 133 | 43 | 0063801000100 | 5 |
| 10,20 | 133 | 43 | 0063801020100 | 5 |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 638 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 10,50 | 133 | 43 | 0063801050100 | 5 |
| 11,00 | 142 | 47 | 0063801100100 | 5 |
| 11,50 | 142 | 47 | 0063801150100 | 5 |
| 12,00 | 151 | 51 | 0063801200100 | 5 |
| 12,50 | 151 | 51 | 0063801250100 | 5 |
| 13,00 | 151 | 51 | 0063801300100 | 5 |

D HSS Spiralbohrer mit Kreuzanschliff AC, kurz, DIN 338 RN

Einsatzbereich:

Spiralbohrer präzisionsgeschliffen, Industriequalität zum Bohren von legierten und unlegierten Stählen, Grauguss, Temperguss, Kupferlegierungen, Neusilber, Graphit, Sinterisen.

E HSS jobber drills with split point AC, DIN 338 RN

Range of application:

Industrial quality twist drill for drilling steel and steel castings, alloyed carbon and plain steel, grey iron castings, copper-alloys, nickel-silver, graphite and similar materials.

ES Broca espiral HSS con punta afilada en cruz AC, corta, DIN 338 RN

Ámbito de aplicación:

Broca espiral afilada con precisión, calidad industrial para el taladrado de aceros aleados y no aleados, hierro fundido gris, fundición maleable, aleaciones de cobre, alpaca, grafito, hierro sinterizado.



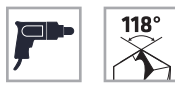
Industriequalität
Industrial quality
Calidad industrial



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Präzise
Precise
Preciso



118°



HSS
DIN 338



Typ / Type / Tipo
RN
5xd



Kreuzanschliff
Split Point
AC

Oberfläche: dampfangelassen
Surface: steam tempered
Superficie: templada al vapor



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 601 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 0,20 | 19 | 25 | 0060100020100 | 10 |
| 0,30 | 19 | 3 | 0060100030100 | 10 |
| 0,35 | 20 | 5 | 0060100035100 | 10 |
| 0,40 | 20 | 5 | 0060100040100 | 10 |
| 0,50 | 22 | 6 | 0060100050100 | 10 |
| 0,55 | 24 | 7 | 0060100055100 | 10 |
| 0,60 | 24 | 7 | 0060100060100 | 10 |
| 0,65 | 26 | 8 | 0060100065100 | 10 |
| 0,70 | 29 | 9 | 0060100070100 | 10 |
| 0,75 | 28 | 9 | 0060100075100 | 10 |
| 0,80 | 30 | 10 | 0060100080100 | 10 |
| 0,85 | 30 | 10 | 0060100085100 | 10 |
| 0,90 | 32 | 11 | 0060100090100 | 10 |
| 0,95 | 32 | 11 | 0060100095100 | 10 |
| 1,00 | 34 | 12 | 0060100100100 | 10 |
| 1,05 | 34 | 12 | 0060100105100 | 10 |
| 1,10 | 36 | 14 | 0060100110100 | 10 |
| 1,15 | 36 | 14 | 0060100115100 | 10 |
| 1,20 | 38 | 16 | 0060100120100 | 10 |
| 1,25 | 38 | 16 | 0060100125100 | 10 |
| 1,30 | 38 | 16 | 0060100130100 | 10 |
| 1,35 | 40 | 18 | 0060100135100 | 10 |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 601 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 1,40 | 40 | 18 | 0060100140100 | 10 |
| 1,45 | 40 | 18 | 0060100145100 | 10 |
| 1,50 | 40 | 18 | 0060100150100 | 10 |
| 1,55 | 43 | 20 | 0060100155100 | 10 |
| 1,60 | 43 | 20 | 0060100160100 | 10 |
| 1,65 | 43 | 20 | 0060100165100 | 10 |
| 1,70 | 43 | 20 | 0060100170100 | 10 |
| 1,75 | 46 | 22 | 0060100175100 | 10 |
| 1,80 | 46 | 22 | 0060100180100 | 10 |
| 1,85 | 46 | 22 | 0060100185100 | 10 |
| 1,90 | 46 | 22 | 0060100190100 | 10 |
| 1,95 | 49 | 24 | 0060100195100 | 10 |
| 2,00 | 49 | 24 | 0060100200100 | 10 |
| 2,05 | 49 | 24 | 0060100205100 | 10 |
| 2,10 | 49 | 24 | 0060100210100 | 10 |
| 2,15 | 53 | 27 | 0060100215100 | 10 |
| 2,20 | 53 | 27 | 0060100220100 | 10 |
| 2,25 | 53 | 27 | 0060100225100 | 10 |
| 2,30 | 53 | 27 | 0060100230100 | 10 |
| 2,35 | 53 | 27 | 0060100235100 | 10 |
| 2,40 | 57 | 30 | 0060100240100 | 10 |
| 2,45 | 57 | 30 | 0060100245100 | 10 |
| 2,50 | 57 | 30 | 0060100250100 | 10 |
| 2,55 | 57 | 30 | 0060100255100 | 10 |
| 2,60 | 57 | 30 | 0060100260100 | 10 |
| 2,65 | 57 | 30 | 0060100265100 | 10 |
| 2,70 | 61 | 33 | 0060100270100 | 10 |
| 2,75 | 61 | 33 | 0060100275100 | 10 |
| 2,80 | 61 | 33 | 0060100280100 | 10 |
| 2,85 | 61 | 33 | 0060100285100 | 10 |
| 2,90 | 61 | 33 | 0060100290100 | 10 |
| 2,95 | 61 | 33 | 0060100295100 | 10 |
| 3,00 | 61 | 33 | 0060100300100 | 10 |
| 3,10 | 65 | 36 | 0060100310100 | 10 |
| 3,20 | 65 | 36 | 0060100320100 | 10 |
| 3,25 | 65 | 36 | 0060100325100 | 10 |
| 3,30 | 65 | 36 | 0060100330100 | 10 |
| 3,40 | 70 | 39 | 0060100340100 | 10 |
| 3,50 | 70 | 39 | 0060100350100 | 10 |
| 3,60 | 70 | 39 | 0060100360100 | 10 |
| 3,70 | 70 | 39 | 0060100370100 | 10 |
| 3,75 | 70 | 39 | 0060100375100 | 10 |
| 3,80 | 75 | 43 | 0060100380100 | 10 |
| 3,90 | 75 | 43 | 0060100390100 | 10 |
| 4,00 | 75 | 43 | 0060100400100 | 10 |
| 4,10 | 75 | 43 | 0060100410100 | 10 |
| 4,20 | 75 | 43 | 0060100420100 | 10 |
| 4,25 | 75 | 43 | 0060100425100 | 10 |
| 4,30 | 80 | 47 | 0060100430100 | 10 |
| 4,40 | 80 | 47 | 0060100440100 | 10 |
| 4,50 | 80 | 47 | 0060100450100 | 10 |
| 4,60 | 80 | 47 | 0060100460100 | 10 |
| 4,70 | 80 | 47 | 0060100470100 | 10 |
| 4,75 | 80 | 47 | 0060100475100 | 10 |
| 4,80 | 86 | 52 | 0060100480100 | 10 |
| 4,90 | 86 | 52 | 0060100490100 | 10 |

Gewerbepack
 Industrial packing
 Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 601 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 5,00 | 86 | 52 | 0060100500100 | 10 |
| 5,10 | 86 | 52 | 0060100510100 | 10 |
| 5,20 | 86 | 52 | 0060100520100 | 10 |
| 5,25 | 86 | 52 | 0060100525100 | 10 |
| 5,30 | 86 | 52 | 0060100530100 | 10 |
| 5,40 | 93 | 57 | 0060100540100 | 10 |
| 5,50 | 93 | 57 | 0060100550100 | 10 |
| 5,60 | 93 | 57 | 0060100560100 | 10 |
| 5,70 | 93 | 57 | 0060100570100 | 10 |
| 5,75 | 93 | 57 | 0060100575100 | 10 |
| 5,80 | 93 | 57 | 0060100580100 | 10 |
| 5,90 | 93 | 57 | 0060100590100 | 10 |
| 6,00 | 93 | 57 | 0060100600100 | 10 |
| 6,10 | 101 | 63 | 0060100610100 | 10 |
| 6,20 | 101 | 63 | 0060100620100 | 10 |
| 6,25 | 101 | 63 | 0060100625100 | 10 |
| 6,30 | 101 | 63 | 0060100630100 | 10 |
| 6,40 | 101 | 63 | 0060100640100 | 10 |
| 6,50 | 101 | 63 | 0060100650100 | 10 |
| 6,60 | 101 | 63 | 0060100660100 | 10 |
| 6,70 | 101 | 63 | 0060100670100 | 10 |
| 6,75 | 109 | 69 | 0060100675100 | 10 |
| 6,80 | 109 | 69 | 0060100680100 | 10 |
| 6,90 | 109 | 69 | 0060100690100 | 10 |
| 7,00 | 109 | 69 | 0060100700100 | 10 |
| 7,10 | 109 | 69 | 0060100710100 | 10 |
| 7,20 | 109 | 69 | 0060100720100 | 10 |
| 7,25 | 109 | 69 | 0060100725100 | 10 |
| 7,30 | 109 | 69 | 0060100730100 | 10 |
| 7,40 | 109 | 69 | 0060100740100 | 10 |
| 7,50 | 109 | 69 | 0060100750100 | 10 |
| 7,60 | 117 | 75 | 0060100760100 | 10 |
| 7,70 | 117 | 75 | 0060100770100 | 10 |
| 7,75 | 117 | 75 | 0060100775100 | 10 |
| 7,80 | 117 | 75 | 0060100780100 | 10 |
| 7,90 | 117 | 75 | 0060100790100 | 10 |
| 8,00 | 117 | 75 | 0060100800100 | 10 |
| 8,10 | 117 | 75 | 0060100810100 | 10 |
| 8,20 | 117 | 75 | 0060100820100 | 10 |
| 8,25 | 117 | 75 | 0060100825100 | 10 |
| 8,30 | 117 | 75 | 0060100830100 | 10 |
| 8,40 | 117 | 75 | 0060100840100 | 10 |
| 8,50 | 117 | 75 | 0060100850100 | 10 |
| 8,60 | 125 | 81 | 0060100860100 | 10 |
| 8,70 | 125 | 81 | 0060100870100 | 10 |
| 8,75 | 125 | 81 | 0060100875100 | 10 |
| 8,80 | 125 | 81 | 0060100880100 | 10 |
| 8,90 | 125 | 81 | 0060100890100 | 10 |
| 9,00 | 125 | 81 | 0060100900100 | 10 |
| 9,10 | 125 | 81 | 0060100910100 | 10 |
| 9,20 | 125 | 81 | 0060100920100 | 10 |
| 9,25 | 125 | 81 | 0060100925100 | 10 |
| 9,30 | 125 | 81 | 0060100930100 | 10 |
| 9,40 | 125 | 81 | 0060100940100 | 10 |
| 9,50 | 125 | 81 | 0060100950100 | 10 |
| 9,60 | 133 | 87 | 0060100960100 | 10 |



Metall- und Edelstahlbohrer
 Metal drills and stainless steel drills
 broca para metal y broca de acero inoxidable

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 601 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 9,70 | 133 | 87 | 0060100970100 | 10 |
| 9,75 | 133 | 87 | 0060100975100 | 10 |
| 9,80 | 133 | 87 | 0060100980100 | 10 |
| 9,90 | 133 | 87 | 0060100990100 | 10 |
| 10,00 | 133 | 87 | 0060101000100 | 10 |
| 10,10 | 133 | 87 | 0060101010100 | 5 |
| 10,20 | 133 | 87 | 0060101020100 | 5 |
| 10,25 | 133 | 87 | 0060101025100 | 5 |
| 10,30 | 133 | 87 | 0060101030100 | 5 |
| 10,40 | 133 | 87 | 0060101040100 | 5 |
| 10,50 | 133 | 87 | 0060101050100 | 5 |
| 10,60 | 133 | 87 | 0060101060100 | 5 |
| 10,70 | 142 | 94 | 0060101070100 | 5 |
| 10,75 | 142 | 94 | 0060101075100 | 5 |
| 10,80 | 142 | 94 | 0060101080100 | 5 |
| 10,90 | 142 | 94 | 0060101090100 | 5 |
| 11,00 | 142 | 94 | 0060101100100 | 5 |
| 11,10 | 142 | 94 | 0060101110100 | 5 |
| 11,20 | 142 | 94 | 0060101120100 | 5 |
| 11,25 | 142 | 94 | 0060101125100 | 5 |
| 11,30 | 142 | 94 | 0060101130100 | 5 |
| 11,40 | 142 | 94 | 0060101140100 | 5 |
| 11,50 | 142 | 94 | 0060101150100 | 5 |
| 11,60 | 142 | 94 | 0060101160100 | 5 |
| 11,70 | 142 | 94 | 0060101170100 | 5 |
| 11,75 | 142 | 94 | 0060101175100 | 5 |
| 11,80 | 142 | 94 | 0060101180100 | 5 |
| 11,90 | 151 | 101 | 0060101190100 | 5 |
| 12,00 | 151 | 101 | 0060101200100 | 5 |
| 12,10 | 151 | 101 | 0060101210100 | 5 |
| 12,20 | 151 | 101 | 0060101220100 | 5 |
| 12,25 | 151 | 101 | 0060101225100 | 5 |
| 12,30 | 151 | 101 | 0060101230100 | 5 |
| 12,40 | 151 | 101 | 0060101240100 | 5 |
| 12,50 | 151 | 101 | 0060101250100 | 5 |
| 12,60 | 151 | 101 | 0060101260100 | 5 |
| 12,70 | 151 | 101 | 0060101270100 | 5 |
| 12,75 | 151 | 101 | 0060101275100 | 5 |
| 12,80 | 151 | 101 | 0060101280100 | 5 |
| 12,90 | 151 | 101 | 0060101290100 | 5 |
| 13,00 | 151 | 101 | 0060101300100 | 5 |
| 13,25 | 160 | 108 | 0060101325100 | 1 |
| 13,50 | 160 | 108 | 0060101350100 | 1 |
| 13,75 | 160 | 108 | 0060101375100 | 1 |
| 14,00 | 160 | 108 | 0060101400100 | 1 |
| 14,25 | 169 | 114 | 0060101425100 | 1 |
| 14,50 | 169 | 114 | 0060101450100 | 1 |
| 14,75 | 169 | 114 | 0060101475100 | 1 |
| 15,00 | 169 | 114 | 0060101500100 | 1 |
| 15,25 | 178 | 120 | 0060101525100 | 1 |
| 15,50 | 178 | 120 | 0060101550100 | 1 |
| 15,75 | 178 | 120 | 0060101575100 | 1 |
| 16,00 | 178 | 120 | 0060101600100 | 1 |
| 16,50 | 184 | 125 | 0060101650100 | 1 |
| 17,00 | 184 | 125 | 0060101700100 | 1 |
| 17,50 | 191 | 130 | 0060101750100 | 1 |

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 601 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 18,00 | 191 | 130 | 0060101800100 | 1 |
| 18,50 | 198 | 135 | 0060101850100 | 1 |
| 19,00 | 198 | 135 | 0060101900100 | 1 |
| 19,50 | 205 | 140 | 0060101950100 | 1 |
| 20,00 | 205 | 140 | 0060102000100 | 1 |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Für unser umfangreiches Sortiment an HSS- und VHM-Werkzeugen fordern Sie bitte den MAYKESTAG-Katalog an!

For our extensive range of HSS and solid carbide cutting tools please request the MAYKESTAG catalogue!

Si desea consultar la gama completa de herramientas HSS y VHM, solicite nuestro catálogo de MAYKESTAG.

Kreuzanschliff $\geq \varnothing 4,0$ mm / Split Point $\geq \varnothing 4,0$ mm / Punta afilada en cruz $\geq \varnothing 4,0$ mm

Oberfläche: dampfangelassen $\geq \varnothing 1,0$ mm / Surface: steam tempered $\geq \varnothing 1,0$ mm / Superficie: templada al vapor $\geq \varnothing 1,0$ mm

① Kassetten, Sets

② Cassettes, sets

③ Cajas, juegos

| HSS DIN 338 KM 19 | | | | HSS DIN 338 KM 25 | | | | HSS DIN 338 KM 50 | | | |
|--|---|--|--------------------|--|---|--|--------------------|--|---|---|--------------------|
|  | |  | |  | |  | |  | |  | |
| 19-tlg. / 19-pcs. / 19-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 000010131100 | | | | 25-tlg. / 25-pcs. / 25-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 000010132100 | | | | 50-tlg. / 50-pcs. / 50-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 000010035100 | | | |
| Ø |  | Stk. ⁽¹⁾ | pc. ⁽¹⁾ | Ø |  | Stk. ⁽¹⁾ | pc. ⁽¹⁾ | Ø |  | Stk. ⁽¹⁾ | pc. ⁽¹⁾ |
| HSS DIN 338 | | | | HSS DIN 338 | | | | HSS DIN 338 | | | |
| Ø 1,00-10,00 | | 0,5 | 1 | Ø 1,00-13,00 | | 0,5 | 1 | Ø 1,00-5,90 | | 0,1 | 1 |
| HSS DIN 338 KM 41 | | | | | | | | | | | |
|  | |  | | | | | | | | | |
| 41-tlg. / 41-pcs. / 41-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 000010036100 | | | | | | | | | | | |
| Ø |  | Stk. ⁽¹⁾ | pc. ⁽¹⁾ | | | | | | | | |
| HSS DIN 338 | | | | | | | | | | | |
| Ø 6,00-10,00 | | 0,1 | 1 | | | | | | | | |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



PRO



Spezialanschliff

Kein Ankörnen erforderlich, weniger Vorschubdruck notwendig

Special split point

No center punching required, less feed pressure needed

Punta afilada especial

No es preciso el graneteado, necesita menor presión de avance

Präzisionsgeschliffen

Precision ground

Afilada con precisión

Stahlqualität

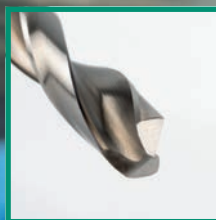
Hochwertigste HSS-Stahlqualität

Steel grade

Highest-quality HSS steel grade

Calidad del acero

Acero HSS de la más alta calidad



alpen *drill better.*

① HSS Spiralbohrer, kurz, DIN 338 RN

Einsatzbereich:

Präzisionsgeschliffener Spiralbohrer mit speziellem Kreuzanschliff, engen Toleranzen und hoher Rundlaufgenauigkeit. Zum Bearbeiten von legiertem und unlegiertem Stahl.

② HSS jobber drills, DIN 338 RN

Range of application:

HSS twist drill ground from solid, special split point. Bright finish: toughness and precision combined with excellent cutting efficiency for drilling alloyed carbon and plain steel.

③ Broca espiral HSS, corta, DIN 338 RN

Ámbito de aplicación:

Broca espiral afilada con precisión, con punta afilada en cruz especial, tolerancias estrechas y alta precisión de concentricidad. Para el procesamiento de acero aleado y no aleado.



Optimale Bohrleistung durch Spezialanschliff
Optimum drilling performance thanks to a special point shape
Óptima potencia de taladrado gracias a su punta afilada especial



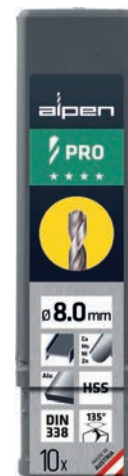
Präzisionsgeschliffen
Precision ground
Afiada con precisión



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión




Einzelverpackung
Single pack
Embalaje individual




Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | d1 inch | l1 mm | l2 mm | Code 184 Art.-Nr. | Inh. Cont. | | Code 954 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 1,00 | | 34 | 12 | 0018400100100 | 1 | 10 | 0095400100100 | 10 |
| 1,10 | | 36 | 14 | | | | 0095400110100 | 10 |
| 1,19 | 3/64 | 38 | 16 | | | | 0095400119100 | 10 |
| 1,20 | | 38 | 16 | | | | 0095400120100 | 10 |
| 1,30 | | 38 | 16 | | | | 0095400130100 | 10 |
| 1,40 | | 40 | 18 | | | | 0095400140100 | 10 |
| 1,50 | | 40 | 18 | 0018400150100 | 1 | 10 | 0095400150100 | 10 |
| 1,59 | 1/16 | 43 | 20 | | | | 0095400159100 | 10 |
| 1,60 | | 43 | 20 | | | | 0095400160100 | 10 |
| 1,70 | | 43 | 20 | | | | 0095400170100 | 10 |
| 1,80 | | 46 | 22 | | | | 0095400180100 | 10 |
| 1,90 | | 49 | 24 | | | | 0095400190100 | 10 |
| 1,98 | 5/64 | 49 | 24 | | | | 0095400198100 | 10 |
| 2,00 | | 49 | 24 | 0018400200100 | 1 | 10 | 0095400200100 | 10 |
| 2,10 | | 49 | 24 | | | | 0095400210100 | 10 |
| 2,20 | | 53 | 27 | | | | 0095400220100 | 10 |
| 2,30 | | 53 | 27 | | | | 0095400230100 | 10 |
| 2,38 | 3/32 | 57 | 30 | | | | 0095400238100 | 10 |
| 2,40 | | 57 | 30 | | | | 0095400240100 | 10 |
| 2,50 | | 57 | 30 | 0018400250100 | 1 | 10 | 0095400250100 | 10 |
| 2,60 | | 57 | 30 | | | | 0095400260100 | 10 |
| 2,70 | | 61 | 33 | | | | 0095400270100 | 10 |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|------------|----------|----------|--|---------------|--|---|---------------|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 184 Art.-Nr. | Inh. Cont. |  | Code 954 Art.-Nr. | Inh. Cont. |
| 2,78 | 7/64 | 61 | 33 | | | | 0095400278100 | 10 |
| 2,80 | | 61 | 33 | | | | 0095400280100 | 10 |
| 2,90 | | 61 | 33 | | | | 0095400290100 | 10 |
| 3,00 | | 61 | 33 | 0018400300100 | 1 | 10 | 0095400300100 | 10 |
| 3,10 | | 65 | 36 | | | | 0095400310100 | 10 |
| 3,18 | 1/8 | 65 | 36 | | | | 0095400318100 | 10 |
| 3,20 | | 65 | 36 | 0018400320100 | 1 | 10 | 0095400320100 | 10 |
| 3,30 | | 65 | 36 | 0018400330100 | 1 | 10 | 0095400330100 | 10 |
| 3,40 | | 70 | 39 | | | | 0095400340100 | 10 |
| 3,50 | | 70 | 39 | 0018400350100 | 1 | 10 | 0095400350100 | 10 |
| 3,57 | 9/64 | 70 | 39 | | | | 0095400357100 | 10 |
| 3,60 | | 70 | 39 | | | | 0095400360100 | 10 |
| 3,70 | | 70 | 39 | | | | 0095400370100 | 10 |
| 3,80 | | 75 | 43 | | | | 0095400380100 | 10 |
| 3,90 | | 75 | 43 | | | | 0095400390100 | 10 |
| 3,97 | 5/32 | 75 | 43 | | | | 0095400397100 | 10 |
| 4,00 | | 75 | 43 | 0018400400100 | 1 | 10 | 0095400400100 | 10 |
| 4,10 | | 75 | 43 | | | | 0095400410100 | 10 |
| 4,20 | | 75 | 43 | 0018400420100 | 1 | 10 | 0095400420100 | 10 |
| 4,30 | | 80 | 47 | | | | 0095400430100 | 10 |
| 4,37 | 11/64 | 80 | 47 | | | | 0095400437100 | 10 |
| 4,40 | | 80 | 47 | | | | 0095400440100 | 10 |
| 4,50 | | 80 | 47 | 0018400450100 | 1 | 10 | 0095400450100 | 10 |
| 4,60 | | 80 | 47 | | | | 0095400460100 | 10 |
| 4,70 | | 80 | 47 | | | | 0095400470100 | 10 |
| 4,76 | 3/16 | 86 | 52 | | | | 0095400476100 | 10 |
| 4,80 | | 86 | 52 | 0018400480100 | 1 | 10 | 0095400480100 | 10 |
| 4,90 | | 86 | 52 | | | | 0095400490100 | 10 |
| 5,00 | | 86 | 52 | 0018400500100 | 1 | 10 | 0095400500100 | 10 |
| 5,10 | | 86 | 52 | | | | 0095400510100 | 10 |
| 5,16 | 13/64 | 86 | 52 | | | | 0095400516100 | 10 |
| 5,20 | | 86 | 52 | | | | 0095400520100 | 10 |
| 5,30 | | 86 | 52 | | | | 0095400530100 | 10 |
| 5,40 | | 93 | 57 | | | | 0095400540100 | 10 |
| 5,50 | | 93 | 57 | 0018400550100 | 1 | 10 | 0095400550100 | 10 |
| 5,56 | 7/32 | 93 | 57 | | | | 0095400556100 | 10 |
| 5,60 | | 93 | 57 | | | | 0095400560100 | 10 |
| 5,70 | | 93 | 57 | | | | 0095400570100 | 10 |
| 5,80 | | 93 | 57 | | | | 0095400580100 | 10 |
| 5,90 | | 93 | 57 | | | | 0095400590100 | 10 |
| 5,95 | 15/64 | 93 | 57 | | | | 0095400595100 | 10 |
| 6,00 | | 93 | 57 | 0018400600100 | 1 | 10 | 0095400600100 | 10 |
| 6,10 | | 101 | 63 | | | | 0095400610100 | 10 |
| 6,20 | | 101 | 63 | | | | 0095400620100 | 10 |
| 6,30 | | 101 | 63 | | | | 0095400630100 | 10 |
| 6,35 | 1/4 | 101 | 63 | | | | 0095400635100 | 10 |
| 6,40 | | 101 | 63 | | | | 0095400640100 | 10 |
| 6,50 | | 101 | 63 | 0018400650100 | 1 | 10 | 0095400650100 | 10 |
| 6,60 | | 101 | 63 | | | | 0095400660100 | 10 |
| 6,70 | | 101 | 63 | | | | 0095400670100 | 10 |
| 6,75 | 17/64 | 109 | 69 | | | | 0095400675100 | 10 |
| 6,80 | | 109 | 69 | 0018400680100 | 1 | 10 | 0095400680100 | 10 |
| 6,90 | | 109 | 69 | | | | 0095400690100 | 10 |
| 7,00 | | 109 | 69 | 0018400700100 | 1 | 10 | 0095400700100 | 10 |
| 7,10 | | 109 | 69 | | | | 0095400710100 | 10 |
| 7,14 | 9/32 | 109 | 69 | | | | 0095400714100 | 10 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|------------|----------|----------|--|---------------|---|---|---------------|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 184 Art.-Nr. | Inh. Cont. |  | Code 954 Art.-Nr. | Inh. Cont. |
| 7,20 | | 109 | 69 | | | | 0095400720100 | 10 |
| 7,30 | | 109 | 69 | | | | 0095400730100 | 10 |
| 7,40 | | 109 | 69 | | | | 0095400740100 | 10 |
| 7,50 | | 109 | 69 | 0018400750100 | 1 | 10 | 0095400750100 | 10 |
| 7,54 | 19/64 | 117 | 75 | | | | 0095400754100 | 10 |
| 7,60 | | 117 | 75 | | | | 0095400760100 | 10 |
| 7,70 | | 117 | 75 | | | | 0095400770100 | 10 |
| 7,80 | | 117 | 75 | | | | 0095400780100 | 10 |
| 7,90 | | 117 | 75 | | | | 0095400790100 | 10 |
| 7,94 | 5/16 | 117 | 75 | | | | 0095400794100 | 10 |
| 8,00 | | 117 | 75 | 0018400800100 | 1 | 10 | 0095400800100 | 10 |
| 8,10 | | 117 | 75 | | | | 0095400810100 | 10 |
| 8,20 | | 117 | 75 | | | | 0095400820100 | 10 |
| 8,30 | | 117 | 75 | | | | 0095400830100 | 10 |
| 8,33 | 21/64 | 117 | 75 | | | | 0095400833100 | 10 |
| 8,40 | | 117 | 75 | | | | 0095400840100 | 10 |
| 8,50 | | 117 | 75 | 0018400850100 | 1 | 10 | 0095400850100 | 10 |
| 8,60 | | 125 | 81 | | | | 0095400860100 | 10 |
| 8,70 | | 125 | 81 | | | | 0095400870100 | 10 |
| 8,73 | 11/32 | 125 | 81 | | | | 0095400873100 | 10 |
| 8,80 | | 125 | 81 | | | | 0095400880100 | 10 |
| 8,90 | | 125 | 81 | | | | 0095400890100 | 10 |
| 9,00 | | 125 | 81 | 0018400900100 | 1 | 10 | 0095400900100 | 10 |
| 9,10 | | 125 | 81 | | | | 0095400910100 | 10 |
| 9,13 | 23/64 | 125 | 81 | | | | 0095400913100 | 10 |
| 9,20 | | 125 | 81 | | | | 0095400920100 | 10 |
| 9,30 | | 125 | 81 | | | | 0095400930100 | 10 |
| 9,40 | | 125 | 81 | | | | 0095400940100 | 10 |
| 9,50 | | 125 | 81 | 0018400950100 | 1 | 10 | 0095400950100 | 10 |
| 9,53 | 3/8 | 133 | 87 | | | | 0095400953100 | 10 |
| 9,60 | | 133 | 87 | | | | 0095400960100 | 10 |
| 9,70 | | 133 | 87 | | | | 0095400970100 | 10 |
| 9,80 | | 133 | 87 | | | | 0095400980100 | 10 |
| 9,90 | | 133 | 87 | | | | 0095400990100 | 10 |
| 9,92 | 25/64 | 133 | 87 | | | | 0095400992100 | 10 |
| 10,00 | | 133 | 87 | 0018401000100 | 1 | 10 | 0095401000100 | 10 |
| 10,20 | | 133 | 87 | 0018401020100 | 1 | 10 | 0095401020100 | 5 |
| 10,32 | 13/32 | 133 | 87 | | | | 0095401032100 | 5 |
| 10,50 | | 133 | 87 | 0018401050100 | 1 | 10 | 0095401050100 | 5 |
| 10,72 | 27/64 | 142 | 94 | | | | 0095401072100 | 5 |
| 11,00 | | 142 | 94 | 0018401100100 | 1 | 10 | 0095401100100 | 5 |
| 11,11 | 7/16 | 142 | 94 | | | | 0095401111100 | 5 |
| 11,50 | | 142 | 94 | 0018401150100 | 1 | 10 | 0095401150100 | 5 |
| 11,51 | 29/64 | 142 | 94 | | | | 0095401151100 | 5 |
| 11,91 | 15/32 | 151 | 101 | | | | 0095401191100 | 5 |
| 12,00 | | 151 | 101 | 0018401200100 | 1 | 10 | 0095401200100 | 5 |
| 12,30 | 31/64 | 151 | 101 | | | | 0095401230100 | 5 |
| 12,50 | | 151 | 101 | 0018401250100 | 1 | 10 | 0095401250100 | 5 |
| 12,70 | 1/2 | 151 | 101 | | | | 0095401270100 | 5 |
| 13,00 | | 151 | 101 | 0018401300100 | 1 | 10 | 0095401300100 | 5 |

Kreuzanschliff $\geq \varnothing 3,0$ mm / Split Point $\geq \varnothing 3,0$ mm / Punta afilada en cruz $\geq \varnothing 3,0$ mm

D HSS Spiralbohrer,
ähnlich DIN 338 RN
mit 1/4"-Sechskantschaft

Einsatzbereich:

Wie Code 184/954, zusätzlich passend für jeden Standard-Akkuschrauber und Universal-Halter (Bithalter) durch genormtes Schaftprofil. Spannung auch in konventionellen Bohrfuttern - kein Durchrutschen durch Sechskantschaft.



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápido



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Präzise
Precise
Preciso

E HSS jobber drills,
sim. to DIN 338 RN
with 1/4" hexagonal shank

Range of application:

Same as Code 184/954, additionally suitable for any standard cordless drill thanks to its standardized shank profile. Suitable for all universal holders (bit holders). Can also be clamped in conventional drill chucks - no slipping owing to the hexagonal shank.

ES Brocas espirales HSS
semejantes a DIN 338 RN
con eje hexagonal 1/4"

Ámbito de aplicación:

Igual que el código 184/954, apta además para todos los destornilladores a batería estándar y soportes universales (soporte de broca) gracias a su perfil de eje normativo. Tensión incluso en portabrocas convencionales, no se desliza gracias al eje hexagonal.



135°
HSS

DIN 338

Cu, Ms, Ni, Zn / Alu

Kreuzanschliff / Split Point / C

Oberfläche: blank / Surface: bright / Superficie: brillante

1/4"



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 952 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------------------|---------------|----|
| 2,00 | 62 | 24 | 0095200200100 | 1 | 10 |
| 3,00 | 74 | 33 | 0095200300100 | 1 | 10 |
| 4,00 | 88 | 43 | 0095200400100 | 1 | 10 |
| 5,00 | 100 | 52 | 0095200500100 | 1 | 10 |
| 6,00 | 107 | 57 | 0095200600100 | 1 | 10 |
| 8,00 | 117 | 75 | 0095200800100 | 1 | 10 |



















Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Schaft nach DIN 3126, Form E6.3, ISO 1173 / Shank DIN 3126, Form E6.3, ISO 1173 / Eje según DIN 3126, forma E6.3, ISO 1173
Kreuzanschliff $\geq \varnothing 3,0$ mm / Split Point $\geq \varnothing 3,0$ mm / Punta afilada en cruz $\geq \varnothing 3,0$ mm

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| | | | | | |
|---|---------------------------|--|---|---|---------------------------|
| <p>PRO TM 6</p>   <p>6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000111806100</p> | | <p>PRO ATM 4</p>   <p>4-tlg. / 4-pcs. / 4-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000110804100</p> | | <p>PRO APM 3</p>   <p>3-tlg. / 3-pcs. / 3-unid. Einzelverpackung / Single pack / Embalaje individual Art.-Nr. 0095200234100</p> | |
| Ø | Stk.⁽¹⁾ | Ø | Stk.⁽¹⁾ | Ø | Stk.⁽¹⁾ |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ |
| PRO | | PRO | | PRO | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 2,00 / 3,00 / 4,00 / 5,00 | 1 | Ø 2,00 / 3,00 / 4,00 | 1 |
| <p>PRO ATM 6</p>   <p>6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000110806100</p> | | <p>PRO KM 19</p>   <p>19-tlg. / 19-pcs. / 19-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000110311100</p> | | <p>PRO KM 25</p>   <p>25-tlg. / 25-pcs. / 25-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000110321100</p> | |
| Ø | Stk.⁽¹⁾ | Ø |  | Stk.⁽¹⁾ | Ø |
| mm | pc. ⁽¹⁾ | mm | | pc. ⁽¹⁾ | mm |
| PRO | | PRO | | | PRO |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 1,00-10,00 | 0,5 | 1 | Ø 1,00-13,00 |
| <p>PRO KP 19</p>   <p>19-tlg. / 19-pcs. / 19-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000110319100</p> | | <p>PRO KP 25</p>   <p>25-tlg. / 25-pcs. / 25-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000110325100</p> | | | |
| Ø | Stk.⁽¹⁾ | Ø |  | Stk.⁽¹⁾ | |
| mm | pc. ⁽¹⁾ | mm | | pc. ⁽¹⁾ | |
| PRO | | PRO | | | |
| Ø 1,00-10,00 | 0,5 | Ø 1,00-13,00 | 0,5 | 1 | |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D HSS Spiralbohrer, kurz,
DIN 338 RN

Einsatzbereich:

Spiralbohrer präzisionsgeschliffen, mit engen Toleranzen und hoher Rundlaufgenauigkeit. Zum Bearbeiten von legiertem und unlegiertem Stahl.

E HSS jobber drills,
DIN 338 RN

Range of application:

HSS twist drill ground from solid, bright finish: toughness and precision combined with excellent cutting efficiency for drilling alloyed carbon and plain steel.

ES Broca espiral HSS, corta,
DIN 338 RN

Ámbito de aplicación:

Broca espiral afilada con precisión, con tolerancias estrechas y alta precisión de concentricidad. Para el procesamiento de acero aleado y no aleado.



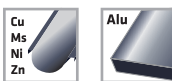
Präzisionsgeschliffen
Precision ground
Afiada con precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Bruchstabil
Break-resistant
Resistente a la rotura



Oberfläche: blank
Surface: bright
Superficie: brillante





Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | d1 inch | l1 mm | l2 mm | Code 181 Art.-Nr. | Inh. Cont. | | Code 951 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 1,00 | | 34 | 12 | 0018100100100 | 3 | 10 | 0095100100100 | 10 |
| 1,10 | | 36 | 14 | | | | 0095100110100 | 10 |
| 1,19 | 3/64 | 38 | 16 | | | | 0095100119100 | 10 |
| 1,20 | | 38 | 16 | | | | 0095100120100 | 10 |
| 1,30 | | 38 | 16 | | | | 0095100130100 | 10 |
| 1,40 | | 40 | 18 | | | | 0095100140100 | 10 |
| 1,50 | | 40 | 18 | 0018100150100 | 3 | 10 | 0095100150100 | 10 |
| 1,59 | 1/16 | 43 | 20 | | | | 0095100159100 | 10 |
| 1,60 | | 43 | 20 | | | | 0095100160100 | 10 |
| 1,70 | | 43 | 20 | | | | 0095100170100 | 10 |
| 1,80 | | 46 | 22 | | | | 0095100180100 | 10 |
| 1,90 | | 49 | 24 | | | | 0095100190100 | 10 |
| 1,98 | 5/64 | 49 | 24 | | | | 0095100198100 | 10 |
| 2,00 | | 49 | 24 | 0018100200100 | 3 | 10 | 0095100200100 | 10 |
| 2,10 | | 49 | 24 | | | | 0095100210100 | 10 |
| 2,20 | | 53 | 27 | | | | 0095100220100 | 10 |
| 2,30 | | 53 | 27 | | | | 0095100230100 | 10 |
| 2,38 | 3/32 | 57 | 30 | | | | 0095100238100 | 10 |
| 2,40 | | 57 | 30 | | | | 0095100240100 | 10 |
| 2,50 | | 57 | 30 | 0018100250100 | 3 | 10 | 0095100250100 | 10 |
| 2,60 | | 57 | 30 | | | | 0095100260100 | 10 |
| 2,70 | | 61 | 33 | | | | 0095100270100 | 10 |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|------------|----------|----------|--|---------------|---|---|---------------|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 181 Art.-Nr. | Inh. Cont. |  | Code 951 Art.-Nr. | Inh. Cont. |
| 2,78 | 7/64 | 61 | 33 | | | | 0095100278100 | 10 |
| 2,80 | | 61 | 33 | | | | 0095100280100 | 10 |
| 2,90 | | 61 | 33 | | | | 0095100290100 | 10 |
| 3,00 | | 61 | 33 | 0018100300100 | 3 | 10 | 0095100300100 | 10 |
| 3,10 | | 65 | 36 | | | | 0095100310100 | 10 |
| 3,18 | 1/8 | 65 | 36 | | | | 0095100318100 | 10 |
| 3,20 | | 65 | 36 | 0018100320100 | 3 | 10 | 0095100320100 | 10 |
| 3,30 | | 65 | 36 | 0018100330100 | 3 | 10 | 0095100330100 | 10 |
| 3,40 | | 70 | 39 | | | | 0095100340100 | 10 |
| 3,50 | | 70 | 39 | 0018100350100 | 2 | 10 | 0095100350100 | 10 |
| 3,57 | 9/64 | 70 | 39 | | | | 0095100357100 | 10 |
| 3,60 | | 70 | 39 | | | | 0095100360100 | 10 |
| 3,70 | | 70 | 39 | | | | 0095100370100 | 10 |
| 3,80 | | 75 | 43 | | | | 0095100380100 | 10 |
| 3,90 | | 75 | 43 | | | | 0095100390100 | 10 |
| 3,97 | 5/32 | 75 | 43 | | | | 0095100397100 | 10 |
| 4,00 | | 75 | 43 | 0018100400100 | 2 | 10 | 0095100400100 | 10 |
| 4,10 | | 75 | 43 | | | | 0095100410100 | 10 |
| 4,20 | | 75 | 43 | 0018100420100 | 2 | 10 | 0095100420100 | 10 |
| 4,30 | | 80 | 47 | | | | 0095100430100 | 10 |
| 4,37 | 11/64 | 80 | 47 | | | | 0095100437100 | 10 |
| 4,40 | | 80 | 47 | | | | 0095100440100 | 10 |
| 4,50 | | 80 | 47 | 0018100450100 | 2 | 10 | 0095100450100 | 10 |
| 4,60 | | 80 | 47 | | | | 0095100460100 | 10 |
| 4,70 | | 80 | 47 | | | | 0095100470100 | 10 |
| 4,76 | 3/16 | 86 | 52 | | | | 0095100476100 | 10 |
| 4,80 | | 86 | 52 | 0018100480100 | 2 | 10 | 0095100480100 | 10 |
| 4,90 | | 86 | 52 | | | | 0095100490100 | 10 |
| 5,00 | | 86 | 52 | 0018100500100 | 2 | 10 | 0095100500100 | 10 |
| 5,10 | | 86 | 52 | | | | 0095100510100 | 10 |
| 5,16 | 13/64 | 86 | 52 | | | | 0095100516100 | 10 |
| 5,20 | | 86 | 52 | | | | 0095100520100 | 10 |
| 5,30 | | 86 | 52 | | | | 0095100530100 | 10 |
| 5,40 | | 93 | 57 | | | | 0095100540100 | 10 |
| 5,50 | | 93 | 57 | 0018100550100 | 2 | 10 | 0095100550100 | 10 |
| 5,56 | 7/32 | 93 | 57 | | | | 0095100556100 | 10 |
| 5,60 | | 93 | 57 | | | | 0095100560100 | 10 |
| 5,70 | | 93 | 57 | | | | 0095100570100 | 10 |
| 5,80 | | 93 | 57 | | | | 0095100580100 | 10 |
| 5,90 | | 93 | 57 | | | | 0095100590100 | 10 |
| 5,95 | 15/64 | 93 | 57 | | | | 0095100595100 | 10 |
| 6,00 | | 93 | 57 | 0018100600100 | 2 | 10 | 0095100600100 | 10 |
| 6,10 | | 101 | 63 | | | | 0095100610100 | 10 |
| 6,20 | | 101 | 63 | | | | 0095100620100 | 10 |
| 6,30 | | 101 | 63 | | | | 0095100630100 | 10 |
| 6,35 | 1/4 | 101 | 63 | | | | 0095100635100 | 10 |
| 6,40 | | 101 | 63 | | | | 0095100640100 | 10 |
| 6,50 | | 101 | 63 | 0018100650100 | 1 | 10 | 0095100650100 | 10 |
| 6,60 | | 101 | 63 | | | | 0095100660100 | 10 |
| 6,70 | | 101 | 63 | | | | 0095100670100 | 10 |
| 6,75 | 17/64 | 109 | 69 | | | | 0095100675100 | 10 |
| 6,80 | | 109 | 69 | 0018100680100 | 1 | 10 | 0095100680100 | 10 |
| 6,90 | | 109 | 69 | | | | 0095100690100 | 10 |
| 7,00 | | 109 | 69 | 0018100700100 | 1 | 10 | 0095100700100 | 10 |
| 7,10 | | 109 | 69 | | | | 0095100710100 | 10 |
| 7,14 | 9/32 | 109 | 69 | | | | 0095100714100 | 10 |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | |
|----------|------------|----------|----------|--|---------------|--|---|---------------|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 181 Art.-Nr. | Inh. Cont. |  | Code 951 Art.-Nr. | Inh. Cont. |
| 7,20 | | 109 | 69 | | | | 0095100720100 | 10 |
| 7,30 | | 109 | 69 | | | | 0095100730100 | 10 |
| 7,40 | | 109 | 69 | | | | 0095100740100 | 10 |
| 7,50 | | 109 | 69 | 0018100750100 | 1 | 10 | 0095100750100 | 10 |
| 7,54 | 19/64 | 117 | 75 | | | | 0095100754100 | 10 |
| 7,60 | | 117 | 75 | | | | 0095100760100 | 10 |
| 7,70 | | 117 | 75 | | | | 0095100770100 | 10 |
| 7,80 | | 117 | 75 | | | | 0095100780100 | 10 |
| 7,90 | | 117 | 75 | | | | 0095100790100 | 10 |
| 7,94 | 5/16 | 117 | 75 | | | | 0095100794100 | 10 |
| 8,00 | | 117 | 75 | 0018100800100 | 1 | 10 | 0095100800100 | 10 |
| 8,10 | | 117 | 75 | | | | 0095100810100 | 10 |
| 8,20 | | 117 | 75 | | | | 0095100820100 | 10 |
| 8,30 | | 117 | 75 | | | | 0095100830100 | 10 |
| 8,33 | 21/64 | 117 | 75 | | | | 0095100833100 | 10 |
| 8,40 | | 117 | 75 | | | | 0095100840100 | 10 |
| 8,50 | | 117 | 75 | 0018100850100 | 1 | 10 | 0095100850100 | 10 |
| 8,60 | | 125 | 81 | | | | 0095100860100 | 10 |
| 8,70 | | 125 | 81 | | | | 0095100870100 | 10 |
| 8,73 | 11/32 | 125 | 81 | | | | 0095100873100 | 10 |
| 8,80 | | 125 | 81 | | | | 0095100880100 | 10 |
| 8,90 | | 125 | 81 | | | | 0095100890100 | 10 |
| 9,00 | | 125 | 81 | 0018100900100 | 1 | 10 | 0095100900100 | 10 |
| 9,10 | | 125 | 81 | | | | 0095100910100 | 10 |
| 9,13 | 23/64 | 125 | 81 | | | | 0095100913100 | 10 |
| 9,20 | | 125 | 81 | | | | 0095100920100 | 10 |
| 9,30 | | 125 | 81 | | | | 0095100930100 | 10 |
| 9,40 | | 125 | 81 | | | | 0095100940100 | 10 |
| 9,50 | | 125 | 81 | 0018100950100 | 1 | 10 | 0095100950100 | 10 |
| 9,53 | 3/8 | 133 | 87 | | | | 0095100953100 | 10 |
| 9,60 | | 133 | 87 | | | | 0095100960100 | 10 |
| 9,70 | | 133 | 87 | | | | 0095100970100 | 10 |
| 9,80 | | 133 | 87 | | | | 0095100980100 | 10 |
| 9,90 | | 133 | 87 | | | | 0095100990100 | 10 |
| 9,92 | 25/64 | 133 | 87 | | | | 0095100992100 | 10 |
| 10,00 | | 133 | 87 | 0018101000100 | 1 | 10 | 0095101000100 | 10 |
| 10,20 | | 133 | 87 | 0018101020100 | 1 | 10 | 0095101020100 | 5 |
| 10,32 | 13/32 | 133 | 87 | | | | 0095101032100 | 5 |
| 10,50 | | 133 | 87 | 0018101050100 | 1 | 10 | 0095101050100 | 5 |
| 10,72 | 27/64 | 142 | 94 | | | | 0095101072100 | 5 |
| 11,00 | | 142 | 94 | 0018101100100 | 1 | 10 | 0095101100100 | 5 |
| 11,11 | 7/16 | 142 | 94 | | | | 0095101111100 | 5 |
| 11,50 | | 142 | 94 | 0018101150100 | 1 | 10 | 0095101150100 | 5 |
| 11,51 | 29/64 | 142 | 94 | | | | 0095101151100 | 5 |
| 11,91 | 15/32 | 151 | 101 | | | | 0095101191100 | 5 |
| 12,00 | | 151 | 101 | 0018101200100 | 1 | 10 | 0095101200100 | 5 |
| 12,30 | 31/64 | 151 | 101 | | | | 0095101230100 | 5 |
| 12,50 | | 151 | 101 | 0018101250100 | 1 | 10 | 0095101250100 | 5 |
| 12,70 | 1/2 | 151 | 101 | | | | 0095101270100 | 5 |
| 13,00 | | 151 | 101 | 0018101300100 | 1 | 10 | 0095101300100 | 5 |


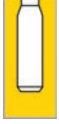






Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

① Kassetten, Sets

Ⓔ Cassettes, sets

Ⓔ Cajas, juegos

| HSS Super TM 6 | | HSS Super KM 19 | | HSS Super KM 25 | |
|---|---|---|--|---|---|
|  |  |  |  |  |  |
| 6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000110806100 | | 19-tlg. / 19-pcs. / 19-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000100311100 | | 25-tlg. / 25-pcs. / 25-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000100321100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HSS Super | | HSS Super | | HSS Super | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 1,00-10,00 | 0,5 | Ø 1,00-13,00 | 0,5 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



SPRINT MASTER



Präzises Ergebnis

Dank der scharfen Schneiden bedarf es wenig Vorschubdruck

Precise results

Thanks to the sharp cutting edges it requires little feed pressure

Resultado preciso

Gracias a sus filos afilados, necesita menos presión de avance

Hohe Elastizität

Aufgrund höchster Zähigkeit wird die Bruchgefahr selbst bei kleinen Durchmessern stark verringert

High elasticity

Due to highest toughness, the risk of breakage is greatly reduced even for small diameters

Alta elasticidad

Gracias a su máxima tenacidad, reduce considerablemente el riesgo de rotura en diámetros pequeños.

Optimale Bohrleistung

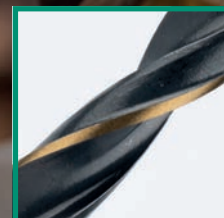
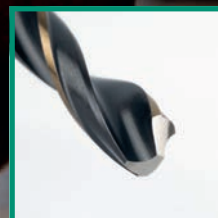
Garantiert eine schnelle, präzise Bohrung

Optimum drilling performance

Guarantees fast, precise drilling

Capacidad de perforación óptima

Garantiza una perforación rápida y precisa



 **alpen** *drill better.*

**① HSS Spiralbohrer, kurz,
DIN 338 RN**

**② HSS jobber drills, short
DIN 338 RN**

**③ Broca espiral HSS, corta,
DIN 338 RN**

Einsatzbereich:

Universeller Spiralbohrer, hohe Elastizität. Sehr gut geeignet für den Einsatz in Handbohrmaschinen, zum Bearbeiten von legiertem und unlegiertem Stahl.

Range of application:

HSS twist drill: toughness and precision combined with excellent cutting efficiency for drilling alloyed carbon and plain steel. Ideal for hand held operations.

Ámbito de aplicación:

Broca espiral universal con gran elasticidad. Muy adecuada para uso en taladros manuales, para el procesamiento de acero aleado y no aleado.



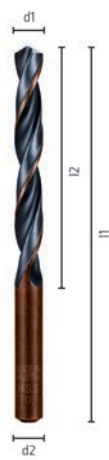
Elastisch
Resilient
Elástica



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápida



Lange Lebensdauer
Long tool life
Larga vida útil



118°
HSS
DIN 338
Cu Ms Ni Zn
Alu
Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial



Gewerbepack mit Aufhänger
Industrial packing with tag
Paquete industrial con gancho


| d1 mm | d1 inch | l1 mm | l2 mm | Code 618 Art.-Nr. | Inh. Cont. | Code 626 Art.-Nr. | Inh. Cont. | Code 631 Art.-Nr. | Inh. Cont. |
|----------|------------|----------|----------|----------------------|---------------|----------------------|---------------|----------------------|---------------|
| 0,40 | 1/64 | 20 | 5 | | | 0062600040100 | 10 | | |
| 0,79 | 1/32 | 30 | 10 | | | 0062600079100 | 10 | | |
| 1,00 | | 34 | 12 | 0061800100100 | 3 10 | 0062600100100 | 10 | 0063100100100 | 10 |
| 1,10 | | 36 | 14 | | | 0062600110100 | 10 | | |
| 1,19 | 3/64 | 38 | 16 | | | 0062600119100 | 10 | | |
| 1,20 | | 38 | 16 | | | 0062600120100 | 10 | | |
| 1,25 | | 38 | 16 | | | 0062600125100 | 10 | | |
| 1,30 | | 38 | 16 | | | 0062600130100 | 10 | | |
| 1,40 | | 40 | 18 | | | 0062600140100 | 10 | | |
| 1,50 | | 40 | 18 | 0061800150100 | 3 10 | 0062600150100 | 10 | 0063100150100 | 10 |
| 1,59 | 1/16 | 43 | 20 | | | 0062600159100 | 10 | | |
| 1,60 | | 43 | 20 | | | 0062600160100 | 10 | | |
| 1,70 | | 43 | 20 | | | 0062600170100 | 10 | | |
| 1,75 | | 46 | 22 | | | 0062600175100 | 10 | | |
| 1,80 | | 46 | 22 | | | 0062600180100 | 10 | | |
| 1,90 | | 49 | 24 | | | 0062600190100 | 10 | | |
| 1,98 | 5/64 | 49 | 24 | | | 0062600198100 | 10 | | |
| 2,00 | | 49 | 24 | 0061800200100 | 3 10 | 0062600200100 | 10 | 0063100200100 | 10 |
| 2,10 | | 49 | 24 | | | 0062600210100 | 10 | | |
| 2,20 | | 53 | 27 | | | 0062600220100 | 10 | | |
| 2,25 | | 53 | 27 | | | 0062600225100 | 10 | | |

NEW

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | | | Gewerbepack mit Aufhänger <i>Industrial packing with tag</i> <i>Paquete industrial con gancho</i> | | |
|----------|------------|----------|----------|--|---------------|----|---|---------------|----------------------|---|--|--|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 618 Art.-Nr. | Inh. Cont. | | Code 626 Art.-Nr. | Inh. Cont. | Code 631 Art.-Nr. | Inh. Cont. | | |
| 2,30 | | 53 | 27 | | | | 0062600230100 | 10 | | | | |
| 2,38 | 3/32 | 57 | 30 | | | | 0062600238100 | 10 | | | | |
| 2,40 | | 57 | 30 | | | | 0062600240100 | 10 | | | | |
| 2,50 | | 57 | 30 | 0061800250100 | 3 | 10 | 0062600250100 | 10 | 0063100250100 | 10 | | |
| 2,60 | | 57 | 30 | | | | 0062600260100 | 10 | | | | |
| 2,70 | | 61 | 33 | | | | 0062600270100 | 10 | | | | |
| 2,75 | | 61 | 33 | | | | 0062600275100 | 10 | | | | |
| 2,78 | 7/64 | 61 | 33 | | | | 0062600278100 | 10 | | | | |
| 2,80 | | 61 | 33 | | | | 0062600280100 | 10 | | | | |
| 2,90 | | 61 | 33 | | | | 0062600290100 | 10 | | | | |
| 3,00 | | 61 | 33 | 0061800300100 | 3 | 10 | 0062600300100 | 10 | 0063100300100 | 10 | | |
| 3,10 | | 65 | 36 | | | | 0062600310100 | 10 | 0063100310100 | 10 | | |
| 3,18 | 1/8 | 65 | 36 | | | | 0062600318100 | 10 | | | | |
| 3,20 | | 65 | 36 | 0061800320100 | 3 | 10 | 0062600320100 | 10 | 0063100320100 | 10 | | |
| 3,25 | | 65 | 36 | | | | 0062600325100 | 10 | | | | |
| 3,30 | | 65 | 36 | 0061800330100 | 3 | 10 | 0062600330100 | 10 | 0063100330100 | 10 | | |
| 3,40 | | 70 | 39 | | | | 0062600340100 | 10 | | | | |
| 3,50 | | 70 | 39 | 0061800350100 | 2 | 10 | 0062600350100 | 10 | 0063100350100 | 10 | | |
| 3,57 | 9/64 | 70 | 39 | | | | 0062600357100 | 10 | | | | |
| 3,60 | | 70 | 39 | | | | 0062600360100 | 10 | | | | |
| 3,70 | | 70 | 39 | | | | 0062600370100 | 10 | | | | |
| 3,75 | | 70 | 39 | | | | 0062600375100 | 10 | | | | |
| 3,80 | | 75 | 43 | | | | 0062600380100 | 10 | | | | |
| 3,90 | | 75 | 43 | | | | 0062600390100 | 10 | | | | |
| 3,97 | 5/32 | 75 | 43 | | | | 0062600397100 | 10 | | | | |
| 4,00 | | 75 | 43 | 0061800400100 | 2 | 10 | 0062600400100 | 10 | 0063100400100 | 10 | | |
| 4,10 | | 75 | 43 | | | | 0062600410100 | 10 | 0063100410100 | 10 | | |
| 4,20 | | 75 | 43 | 0061800420100 | 2 | 10 | 0062600420100 | 10 | 0063100420100 | 10 | | |
| 4,25 | | 75 | 43 | | | | 0062600425100 | 10 | | | | |
| 4,30 | | 80 | 47 | | | | 0062600430100 | 10 | | | | |
| 4,37 | 11/64 | 80 | 47 | | | | 0062600437100 | 10 | | | | |
| 4,40 | | 80 | 47 | | | | 0062600440100 | 10 | | | | |
| 4,50 | | 80 | 47 | 0061800450100 | 2 | 10 | 0062600450100 | 10 | 0063100450100 | 10 | | |
| 4,60 | | 80 | 47 | | | | 0062600460100 | 10 | | | | |
| 4,70 | | 80 | 47 | | | | 0062600470100 | 10 | | | | |
| 4,75 | | 80 | 47 | | | | 0062600475100 | 10 | | | | |
| 4,76 | 3/16 | 80 | 47 | | | | 0062600476100 | 10 | | | | |
| 4,80 | | 86 | 52 | 0061800480100 | 2 | 10 | 0062600480100 | 10 | 0063100480100 | 10 | | |
| 4,90 | | 86 | 52 | | | | 0062600490100 | 10 | | | | |
| 5,00 | | 86 | 52 | 0061800500100 | 2 | 10 | 0062600500100 | 10 | 0063100500100 | 10 | | |
| 5,10 | | 86 | 52 | | | | 0062600510100 | 10 | | | | |
| 5,16 | 13/64 | 86 | 52 | | | | 0062600516100 | 10 | | | | |
| 5,20 | | 86 | 52 | | | | 0062600520100 | 10 | | | | |
| 5,25 | | 86 | 52 | | | | 0062600525100 | 10 | | | | |
| 5,30 | | 86 | 52 | | | | 0062600530100 | 10 | | | | |
| 5,40 | | 93 | 57 | | | | 0062600540100 | 10 | | | | |
| 5,50 | | 93 | 57 | 0061800550100 | 2 | 10 | 0062600550100 | 10 | 0063100550100 | 10 | | |
| 5,56 | | 93 | 57 | | | | 0062600556100 | 10 | | | | |
| 5,60 | | 93 | 57 | | | | 0062600560100 | 10 | | | | |
| 5,70 | | 93 | 57 | | | | 0062600570100 | 10 | | | | |
| 5,75 | | 93 | 57 | | | | 0062600575100 | 10 | | | | |
| 5,80 | | 93 | 57 | | | | 0062600580100 | 10 | | | | |
| 5,90 | | 93 | 57 | | | | 0062600590100 | 10 | | | | |
| 5,95 | | 93 | 57 | | | | 0062600595100 | 10 | | | | |
| 6,00 | | 93 | 57 | 0061800600100 | 2 | 10 | 0062600600100 | 10 | 0063100600100 | 10 | | |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | | | Gewerbepack mit Aufhänger <i>Industrial packing with tag</i> <i>Paquete industrial con gancho</i> | | |
|----------|------------|----------|----------|--|---------------|---|---|---------------|----------------------|---|--|--|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 618 Art.-Nr. | Inh. Cont. |  | Code 626 Art.-Nr. | Inh. Cont. | Code 631 Art.-Nr. | Inh. Cont. | | |
| 6,10 | | 101 | 63 | | | | 0062600610100 | 10 | | | | |
| 6,20 | | 101 | 63 | | | | 0062600620100 | 10 | | | | |
| 6,25 | | 101 | 63 | | | | 0062600625100 | 10 | | | | |
| 6,30 | | 101 | 63 | | | | 0062600630100 | 10 | | | | |
| 6,35 | 1/4 | 101 | 63 | | | | 0062600635100 | 10 | | | | |
| 6,40 | | 101 | 63 | | | | 0062600640100 | 10 | | | | |
| 6,50 | | 101 | 63 | 0061800650100 | 1 | 10 | 0062600650100 | 10 | 0063100650100 | 10 | | |
| 6,60 | | 101 | 63 | | | | 0062600660100 | 10 | | | | |
| 6,70 | | 101 | 63 | | | | 0062600670100 | 10 | | | | |
| 6,75 | | 109 | 69 | | | | 0062600675100 | 10 | | | | |
| 6,80 | | 109 | 69 | 0061800680100 | 1 | 10 | 0062600680100 | 10 | 0063100680100 | 10 | | |
| 6,90 | | 109 | 69 | | | | 0062600690100 | 10 | | | | |
| 7,00 | | 109 | 69 | 0061800700100 | 1 | 10 | 0062600700100 | 10 | 0063100700100 | 10 | | |
| 7,10 | | 109 | 69 | | | | 0062600710100 | 10 | | | | |
| 7,14 | 9/32 | 109 | 69 | | | | 0062600714100 | 10 | | | | |
| 7,20 | | 109 | 69 | | | | 0062600720100 | 10 | | | | |
| 7,25 | | 109 | 69 | | | | 0062600725100 | 10 | | | | |
| 7,30 | | 109 | 69 | | | | 0062600730100 | 10 | | | | |
| 7,40 | | 109 | 69 | | | | 0062600740100 | 10 | | | | |
| 7,50 | | 109 | 69 | 0061800750100 | 1 | 10 | 0062600750100 | 10 | 0063100750100 | 10 | | |
| 7,54 | 19/64 | 117 | 75 | | | | 0062600754100 | 10 | | | | |
| 7,60 | | 117 | 75 | | | | 0062600760100 | 10 | | | | |
| 7,70 | | 117 | 75 | | | | 0062600770100 | 10 | | | | |
| 7,75 | | 117 | 75 | | | | 0062600775100 | 10 | | | | |
| 7,80 | | 117 | 75 | | | | 0062600780100 | 10 | | | | |
| 7,90 | | 117 | 75 | | | | 0062600790100 | 10 | | | | |
| 7,94 | | 117 | 75 | | | | 0062600794100 | 10 | | | | |
| 8,00 | | 117 | 75 | 0061800800100 | 1 | 10 | 0062600800100 | 10 | 0063100800100 | 10 | | |
| 8,10 | | 117 | 75 | | | | 0062600810100 | 10 | | | | |
| 8,20 | | 117 | 75 | | | | 0062600820100 | 10 | | | | |
| 8,25 | | 117 | 75 | | | | 0062600825100 | 10 | | | | |
| 8,30 | | 117 | 75 | | | | 0062600830100 | 10 | | | | |
| 8,33 | | 117 | 75 | | | | 0062600833100 | 10 | | | | |
| 8,40 | | 117 | 75 | | | | 0062600840100 | 10 | | | | |
| 8,50 | | 117 | 75 | 0061800850100 | 1 | 10 | 0062600850100 | 10 | 0063100850100 | 10 | | |
| 8,60 | | 125 | 81 | | | | 0062600860100 | 10 | | | | |
| 8,70 | | 125 | 81 | | | | 0062600870100 | 10 | | | | |
| 8,73 | 11/32 | 125 | 81 | | | | 0062600873100 | 10 | | | | |
| 8,75 | | 125 | 81 | | | | 0062600875100 | 10 | | | | |
| 8,80 | | 125 | 81 | | | | 0062600880100 | 10 | | | | |
| 8,90 | | 125 | 81 | | | | 0062600890100 | 10 | | | | |
| 9,00 | | 125 | 81 | 0061800900100 | 1 | 10 | 0062600900100 | 10 | 0063100900100 | 10 | | |
| 9,10 | | 125 | 81 | | | | 0062600910100 | 10 | | | | |
| 9,13 | 23/64 | 125 | 81 | | | | 0062600913100 | 10 | | | | |
| 9,20 | | 125 | 81 | | | | 0062600920100 | 10 | | | | |
| 9,25 | | 125 | 81 | | | | 0062600925100 | 10 | | | | |
| 9,30 | | 125 | 81 | | | | 0062600930100 | 10 | | | | |
| 9,40 | | 125 | 81 | | | | 0062600940100 | 10 | | | | |
| 9,50 | | 125 | 81 | 0061800950100 | 1 | 10 | 0062600950100 | 10 | 0063100950100 | 10 | | |
| 9,53 | 3/8 | 133 | 87 | | | | 0062600953100 | 10 | | | | |
| 9,60 | | 133 | 87 | | | | 0062600960100 | 10 | | | | |
| 9,70 | | 133 | 87 | | | | 0062600970100 | 10 | | | | |
| 9,75 | | 133 | 87 | | | | 0062600975100 | 10 | | | | |
| 9,80 | | 133 | 87 | | | | 0062600980100 | 10 | | | | |
| 9,90 | | 133 | 87 | | | | 0062600990100 | 10 | | | | |

| | | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Gewerbepack <i>Industrial packing</i> <i>Paquete industrial</i> | | | Gewerbepack mit Aufhänger <i>Industrial packing with tag</i> <i>Paquete industrial con gancho</i> | | |
|----------|------------|----------|----------|--|---------------|----|---|---------------|----------------------|---|--|--|
| d1 mm | d1 inch | l1 mm | l2 mm | Code 618 Art.-Nr. | Inh. Cont. | | Code 626 Art.-Nr. | Inh. Cont. | Code 631 Art.-Nr. | Inh. Cont. | | |
| 9,92 | 25/64 | 133 | 87 | | | | 0062600992100 | 10 | | | | |
| 10,00 | | 133 | 87 | 0061801000100 | 1 | 10 | 0062601000100 | 10 | 0063101000100 | 10 | | |
| 10,20 | | 133 | 87 | 0061801020100 | 1 | 10 | 0062601020100 | 5 | | | | |
| 10,25 | | 133 | 87 | | | | 0062601025100 | 5 | | | | |
| 10,32 | 13/32 | 133 | 87 | | | | 0062601032100 | 5 | | | | |
| 10,50 | | 133 | 87 | 0061801050100 | 1 | 10 | 0062601050100 | 5 | | | | |
| 10,72 | 27/64 | 142 | 94 | | | | 0062601072100 | 5 | | | | |
| 10,75 | | 142 | 94 | | | | 0062601075100 | 5 | | | | |
| 10,80 | | 142 | 94 | | | | 0062601080100 | 5 | | | | |
| 11,00 | | 142 | 94 | 0061801100100 | 1 | 10 | 0062601100100 | 5 | | | | |
| 11,11 | 7/16 | 142 | 94 | | | | 0062601111100 | 5 | | | | |
| 11,20 | | 142 | 94 | | | | 0062601120100 | 5 | | | | |
| 11,25 | | 142 | 94 | | | | 0062601125100 | 5 | | | | |
| 11,50 | | 142 | 94 | 0061801150100 | 1 | 10 | 0062601150100 | 5 | | | | |
| 11,51 | 29/64 | 142 | 94 | | | | 0062601151100 | 5 | | | | |
| 11,75 | | 142 | 94 | | | | 0062601175100 | 5 | | | | |
| 11,80 | | 142 | 94 | | | | 0062601180100 | 5 | | | | |
| 11,91 | 15/32 | 151 | 101 | | | | 0062601191100 | 5 | | | | |
| 12,00 | | 151 | 101 | 0061801200100 | 1 | 10 | 0062601200100 | 5 | | | | |
| 12,20 | | 151 | 101 | | | | 0062601220100 | 5 | | | | |
| 12,25 | | 151 | 101 | | | | 0062601225100 | 5 | | | | |
| 12,30 | 31/64 | 151 | 101 | | | | 0062601230100 | 5 | | | | |
| 12,50 | | 151 | 101 | 0061801250100 | 1 | 10 | 0062601250100 | 5 | | | | |
| 12,70 | 1/2 | 151 | 101 | | | | 0062601270100 | 5 | | | | |
| 12,80 | | 151 | 101 | | | | 0062601280100 | 5 | | | | |
| 13,00 | | 151 | 101 | 0061801300100 | 1 | 10 | 0062601300100 | 5 | | | | |
| 13,49 | 17/32 | 160 | 108 | | | | 0062601349100 | 5 | | | | |
| 13,50 | | 160 | 108 | | | | 0062601350100 | 5 | | | | |
| 14,00 | | 160 | 108 | | | | 0062601400100 | 5 | | | | |
| 14,28 | 9/16 | 169 | 114 | | | | 0062601428100 | 5 | | | | |
| 14,50 | | 169 | 114 | | | | 0062601450100 | 5 | | | | |
| 15,00 | | 169 | 114 | | | | 0062601500100 | 5 | | | | |
| 15,50 | | 178 | 120 | | | | 0062601550100 | 3 | | | | |
| 15,87 | 5/8 | 178 | 120 | | | | 0062601587100 | 3 | | | | |
| 16,00 | | 178 | 120 | | | | 0062601600100 | 3 | | | | |
| 16,50 | | 184 | 125 | | | | 0062601650100 | 3 | | | | |
| 17,00 | | 184 | 125 | | | | 0062601700100 | 3 | | | | |
| 17,46 | 11/16 | 184 | 125 | | | | 0062601746100 | 3 | | | | |
| 17,50 | | 191 | 130 | | | | 0062601750100 | 3 | | | | |
| 18,00 | | 191 | 130 | | | | 0062601800100 | 3 | | | | |
| 18,50 | | 198 | 135 | | | | 0062601850100 | 3 | | | | |
| 19,00 | | 198 | 135 | | | | 0062601900100 | 3 | | | | |
| 19,05 | 3/4 | 198 | 135 | | | | 0062601905100 | 3 | | | | |
| 19,50 | | 205 | 140 | | | | 0062601950100 | 3 | | | | |
| 20,00 | | 205 | 140 | | | | 0062602000100 | 3 | | | | |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

D HSS Spiralbohrer,
mit reduziertem Schaft,
kurz, DIN 338 RN

Einsatzbereich:

Universeller Spiralbohrer, hohe Elastizität. Sehr gut geeignet für den Einsatz in Handbohrmaschinen, zum Bearbeiten von legiertem und unlegiertem Stahl.

E HSS jobber drills,
with reduced shank,
short, DIN 338 RN

Range of application:

HSS twist drill: toughness and precision combined with excellent cutting efficiency for drilling alloyed carbon and plain steel. Ideal for hand held operations.

ES Broca espiral HSS,
con eje reducido,
corta, DIN 338 RN

Ámbito de aplicación:

Broca espiral universal con gran elasticidad. Muy adecuada para uso en taladros manuales, para el procesamiento de acero aleado y no aleado.



Elastisch
Resilient
Elástica



Schneller Bohrfortschritt
Fast drilling progress
Avance de perforación rápida



Lange Lebensdauer
Long tool life
Larga vida útil



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | d2 mm | Code 640, 648 Art.-Nr. | Inh. Cont. | | Code 642, 654 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------|---------------------------|---------------|----|---------------------------|---------------|
| 10,50 | 133 | 87 | 9,50 | 0064001050100 | 1 | 10 | 0064201050100 | 5 |
| 11,00 | 142 | 94 | 9,50 | 0064001100100 | 1 | 10 | 0064201100100 | 5 |
| 11,50 | 142 | 94 | 9,50 | 0064001150100 | 1 | 10 | 0064201150100 | 5 |
| 12,00 | 151 | 101 | 9,50 | 0064001200100 | 1 | 10 | 0064201200100 | 5 |
| 12,50 | 151 | 101 | 9,50 | 0064001250100 | 1 | 10 | 0064201250100 | 5 |
| 13,00 | 151 | 101 | 9,50 | 0064001300100 | 1 | 10 | 0064201300100 | 5 |
| 13,50 | 160 | 108 | 9,50 | 0064001350100 | 1 | 8 | 0064201350100 | 5 |
| 14,00 | 160 | 108 | 9,50 | 0064001400100 | 1 | 8 | 0064201400100 | 5 |
| 14,50 | 169 | 114 | 9,50 | 0064001450100 | 1 | 8 | 0064201450100 | 5 |
| 15,00 | 169 | 114 | 9,50 | 0064001500100 | 1 | 8 | 0064201500100 | 5 |
| 15,50 | 178 | 120 | 9,50 | 0064001550100 | 1 | 8 | 0064201550100 | 3 |
| 16,00 | 178 | 120 | 9,50 | 0064001600100 | 1 | 8 | 0064201600100 | 3 |
| 16,50 | 184 | 125 | 12,50 | 0064801650100 | 1 | 8 | 0065401650100 | 3 |
| 17,00 | 184 | 125 | 12,50 | 0064801700100 | 1 | 8 | 0065401700100 | 3 |
| 17,50 | 191 | 130 | 12,50 | 0064801750100 | 1 | 8 | 0065401750100 | 3 |
| 18,00 | 191 | 130 | 12,50 | 0064801800100 | 1 | 8 | 0065401800100 | 3 |
| 18,50 | 198 | 135 | 12,50 | 0064801850100 | 1 | 8 | 0065401850100 | 3 |
| 19,00 | 198 | 135 | 12,50 | 0064801900100 | 1 | 8 | 0065401900100 | 3 |
| 19,50 | 205 | 140 | 12,50 | 0064801950100 | 1 | 8 | 0065401950100 | 3 |
| 20,00 | 205 | 140 | 12,50 | 0064802000100 | 1 | 8 | 0065402000100 | 3 |

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| <p>Sprint Master TM 6</p>  <p>6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000811122100</p> | | | <p>Sprint Master TM 10</p>  <p>10-tlg. / 10-pcs. / 10-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000811092100</p> | | | <p>Sprint Master TM 13/2</p>  <p>13-tlg. / 13-pcs. / 13-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000811101100</p> | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Sprint Master | | | Sprint Master | | | Sprint Master | | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | | 1 | Ø 1,00-10,00 | 1,0 | 1 | Ø 1,50-6,50 | 0,5 | 1 |
| | | | | | | Sprint Master | | |
| | | | | | | Ø 3,20 / 4,80 | | 1 |
| <p>Sprint Master TM 13</p>  <p>13-tlg. / 13-pcs. / 13-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000811102100</p> | | | <p>Sprint Master KM 19</p>  <p>19-tlg. / 19-pcs. / 19-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000810311100</p> | | | <p>Sprint Master KP 19</p>  <p>19-tlg. / 19-pcs. / 19-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000812311100</p> | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Sprint Master | | | Sprint Master | | | Sprint Master | | |
| Ø 2,00-8,00 | 0,5 | 1 | Ø 1,00-10,00 | 0,5 | 1 | Ø 1,00-10,00 | 0,5 | 1 |
| <p>Sprint Master KM 21</p>  <p>21-tlg. / 21-pcs. / 21-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000810400100</p> | | | <p>Sprint Master KM 25</p>  <p>25-tlg. / 25-pcs. / 25-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000810321100</p> | | | <p>Sprint Master KP 25</p>  <p>25-tlg. / 25-pcs. / 25-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000812321100</p> | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Sprint Master | | | Sprint Master | | | Sprint Master | | |
| Ø 1,00-8,50 | 0,5 | 1 | Ø 1,00-13,00 | 0,5 | 1 | Ø 1,00-13,00 | 0,5 | 1 |
| Ø 9,00-13,00 | 1,0 | | | | | | | |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

🇩🇪 Kassetten, Sets

🇪🇸 Cassettes, sets

🇪🇸 Cajas, juegos






| <p>Sprint Master KM 32</p>  | | | <p>Sprint Master KM 50</p>  | | | <p>Sprint Master KM 41</p>  | | |
|--|---|---|---|--|---|---|---|---|
| <p>32-tlg. / 32-pcs. / 32-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000810371100</p> | | | <p>50-tlg. / 50-pcs. / 50-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000810351100</p> | | | <p>41-tlg. / 41-pcs. / 41-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000810361100</p> | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Sprint Master | | | Sprint Master | | | Sprint Master | | |
| Ø 1,00-10,50 | 0,5 | 1 | Ø 1,00-5,90 | 0,1 | 1 | Ø 6,00-10,00 | 0,1 | 1 |
| Ø 1,90 / 2,10 / 2,60 / 2,90 / 3,20 / 3,30 / 3,80 / 4,20 / 5,10 / 6,80 / 7,90 / 10,20 | | 1 | | | | | | |
| <p>Sprint Master KM 170</p>  | | | <p>Sprint Master RDM 19</p>  | | | | | |
| <p>170-tlg. / 170-pcs. / 170-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0000810170100</p> | | | <p>19-tlg. / 19-pcs. / 19-unid. Runddose Art.-Nr. 0000810521100</p> | | | | | |
| Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm |  | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | | |
| Sprint Master | | | Sprint Master | | | | | |
| Ø 1,00-8,00 | 0,5 | 10 | Ø 1,00-10,00 | 0,5 | 1 | | | |
| Ø 8,50-10,00 | 0,5 | 5 | | | | | | |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| Combiset TM 9 | | Combiset TM 9/1 | | Combiset Master SET 16 | |
|---|---|---|---|---|---|
|  | |  | |  | |
| 9-tlg. / 9-pcs. / 9-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000802102100 | | 9-tlg. / 9-pcs. / 9-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000802122100 | | 16-tlg. / 16-pcs. / 16-unid. Set Art.-Nr. 0000811003100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Holz | | Long Life | | Holz | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |
| Long Life | | Sprint Master | | Long Life | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |
| Sprint Master | | | | Sprint Master | |
| Ø 5,00 / 6,00 / 8,00 | 1 | | | Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 |
| KIT SET 22 | | KIT SET 30 | | | |
|  | |  | | | |
| 22-tlg. / 22-pcs. / 22-unid. Set Art.-Nr. 0000800222100 | | 30-tlg. / 30-pcs. / 30-unid. Set Art.-Nr. 0000800230100 | | | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | |
| Long Life | | Holz | | | |
| Ø 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | |
| Sprint Master | | HSS Super | | | |
| Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 2,50 / 3,20 | 1 | | |
| Wera | | Long Life | | | |
| 9 Bits sortiert / 9 Bits sorted / 9 brocas surtidas | | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | |
| Bitshalter / Bitholder / Portabrocas | | Sprint Master | | | |
| Körner / Centerpunch / Punzón | | Ø 3,00 / 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | |
| | | Wera | | | |
| | | 9 Bits sortiert / 9 Bits sorted / 9 brocas surtidas | | | |
| | | Bitshalter / Bitholder / Portabrocas | | | |
| | | Körner / Centerpunch / Punzón | | | |



Metal- und Edelstahlbohrer
 Metal drills and stainless steel drills
 broca para metal y broca de acero inoxidable

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

① HSS Spiralbohrer, lang, mit Kreuzanschliff AC, DIN 340 RN

② HSS long series drills with split point AC, DIN 340 RN

③ Broca espiral HSS, larga, con punta afilada en cruz AC, DIN 340 RN

Einsatzbereich:

Spiralbohrer präzisionsgeschliffen, Industriequalität zum Bohren von legierten und unlegierten Stählen, Grauguss, Temperguss, Kupferlegierungen, Neusilber, Graphit, Sinterisen.

Range of application:

Premium quality twist drill for drilling steel and steel castings, alloyed carbon and plain steel, grey iron castings, copper-alloys, nickel-silver, graphite and similar materials.

Ámbito de aplicación:

Broca espiral afilada con precisión, calidad industrial para el taladrado de aceros aleados y no aleados, hierro fundido gris, fundición maleable, aleaciones de cobre, alpaca, grafito, hierro sinterizado.



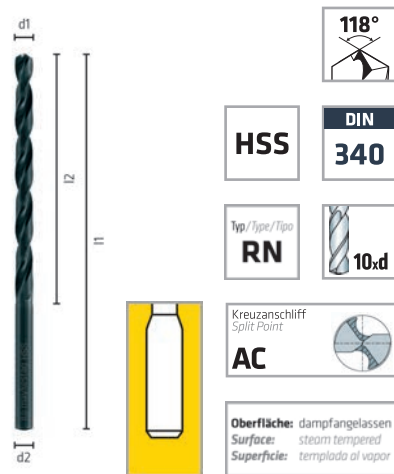
Industriequalität
Industrial quality
Calidad industrial



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Präzise
Precise
Preciso



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 501 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 0,50 | 32 | 12 | 0050100050100 | 10 |
| 0,60 | 35 | 15 | 0050100060100 | 10 |
| 0,70 | 42 | 21 | 0050100070100 | 10 |
| 0,80 | 46 | 25 | 0050100080100 | 10 |
| 1,00 | 56 | 33 | 0050100100100 | 10 |
| 1,10 | 60 | 37 | 0050100110100 | 10 |
| 1,20 | 65 | 41 | 0050100120100 | 10 |
| 1,30 | 65 | 41 | 0050100130100 | 10 |
| 1,40 | 70 | 45 | 0050100140100 | 10 |
| 1,50 | 70 | 45 | 0050100150100 | 10 |
| 1,60 | 76 | 50 | 0050100160100 | 10 |
| 1,70 | 76 | 50 | 0050100170100 | 10 |
| 1,80 | 80 | 53 | 0050100180100 | 10 |
| 1,90 | 80 | 53 | 0050100190100 | 10 |
| 2,00 | 85 | 56 | 0050100200100 | 10 |
| 2,10 | 85 | 56 | 0050100210100 | 10 |
| 2,20 | 90 | 59 | 0050100220100 | 10 |
| 2,30 | 90 | 59 | 0050100230100 | 10 |
| 2,40 | 95 | 62 | 0050100240100 | 10 |
| 2,50 | 95 | 62 | 0050100250100 | 10 |
| 2,60 | 95 | 62 | 0050100260100 | 10 |
| 2,70 | 100 | 66 | 0050100270100 | 10 |

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 501 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 2,80 | 100 | 66 | 0050100280100 | 10 |
| 2,90 | 100 | 66 | 0050100290100 | 10 |
| 3,00 | 100 | 66 | 0050100300100 | 10 |
| 3,10 | 106 | 69 | 0050100310100 | 10 |
| 3,20 | 106 | 69 | 0050100320100 | 10 |
| 3,30 | 106 | 69 | 0050100330100 | 10 |
| 3,40 | 112 | 73 | 0050100340100 | 10 |
| 3,50 | 112 | 73 | 0050100350100 | 10 |
| 3,60 | 112 | 73 | 0050100360100 | 10 |
| 3,70 | 112 | 73 | 0050100370100 | 10 |
| 3,80 | 119 | 78 | 0050100380100 | 10 |
| 3,90 | 119 | 78 | 0050100390100 | 10 |
| 4,00 | 119 | 78 | 0050100400100 | 10 |
| 4,10 | 119 | 78 | 0050100410100 | 10 |
| 4,20 | 119 | 78 | 0050100420100 | 10 |
| 4,30 | 126 | 82 | 0050100430100 | 10 |
| 4,40 | 126 | 82 | 0050100440100 | 10 |
| 4,50 | 126 | 82 | 0050100450100 | 10 |
| 4,60 | 126 | 82 | 0050100460100 | 10 |
| 4,70 | 126 | 82 | 0050100470100 | 10 |
| 4,80 | 132 | 87 | 0050100480100 | 10 |
| 4,90 | 132 | 87 | 0050100490100 | 10 |
| 5,00 | 132 | 87 | 0050100500100 | 10 |
| 5,10 | 132 | 87 | 0050100510100 | 10 |
| 5,20 | 132 | 87 | 0050100520100 | 10 |
| 5,30 | 132 | 87 | 0050100530100 | 10 |
| 5,40 | 139 | 91 | 0050100540100 | 10 |
| 5,50 | 139 | 91 | 0050100550100 | 10 |
| 5,60 | 139 | 91 | 0050100560100 | 10 |
| 5,70 | 139 | 91 | 0050100570100 | 10 |
| 5,80 | 139 | 91 | 0050100580100 | 10 |
| 5,90 | 139 | 91 | 0050100590100 | 10 |
| 6,00 | 139 | 91 | 0050100600100 | 10 |
| 6,10 | 148 | 97 | 0050100610100 | 10 |
| 6,20 | 148 | 97 | 0050100620100 | 10 |
| 6,30 | 148 | 97 | 0050100630100 | 10 |
| 6,40 | 148 | 97 | 0050100640100 | 10 |
| 6,50 | 148 | 97 | 0050100650100 | 10 |
| 6,60 | 148 | 97 | 0050100660100 | 10 |
| 6,70 | 148 | 97 | 0050100670100 | 10 |
| 6,80 | 156 | 102 | 0050100680100 | 10 |
| 6,90 | 156 | 102 | 0050100690100 | 10 |
| 7,00 | 156 | 102 | 0050100700100 | 10 |
| 7,10 | 156 | 102 | 0050100710100 | 10 |
| 7,20 | 156 | 102 | 0050100720100 | 10 |
| 7,30 | 156 | 102 | 0050100730100 | 10 |
| 7,40 | 156 | 102 | 0050100740100 | 10 |
| 7,50 | 156 | 102 | 0050100750100 | 10 |
| 7,60 | 165 | 109 | 0050100760100 | 10 |
| 7,70 | 165 | 109 | 0050100770100 | 10 |
| 7,80 | 165 | 109 | 0050100780100 | 10 |
| 7,90 | 165 | 109 | 0050100790100 | 10 |
| 8,00 | 165 | 109 | 0050100800100 | 10 |
| 8,20 | 165 | 109 | 0050100820100 | 10 |
| 8,50 | 165 | 109 | 0050100850100 | 10 |
| 8,80 | 175 | 115 | 0050100880100 | 10 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 501 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 9,00 | 175 | 115 | 0050100900100 | 10 |
| 9,50 | 175 | 115 | 0050100950100 | 10 |
| 9,80 | 184 | 121 | 0050100980100 | 10 |
| 10,00 | 184 | 121 | 0050101000100 | 10 |
| 10,20 | 184 | 121 | 0050101020100 | 1 |
| 10,50 | 184 | 121 | 0050101050100 | 1 |
| 11,00 | 195 | 128 | 0050101100100 | 1 |
| 11,50 | 195 | 128 | 0050101150100 | 1 |
| 12,00 | 205 | 134 | 0050101200100 | 1 |
| 12,50 | 205 | 134 | 0050101250100 | 1 |
| 13,00 | 205 | 134 | 0050101300100 | 1 |
| 13,50 | 214 | 140 | 0050101350100 | 1 |
| 14,00 | 214 | 140 | 0050101400100 | 1 |
| 14,50 | 220 | 144 | 0050101450100 | 1 |
| 15,00 | 220 | 144 | 0050101500100 | 1 |
| 15,50 | 227 | 149 | 0050101550100 | 1 |
| 16,00 | 227 | 149 | 0050101600100 | 1 |

Für unser umfangreiches Sortiment an HSS- und VHM-Werkzeugen fordern Sie bitte den MAYKESTAG-Katalog an!

For our extensive range of HSS and solid carbide cutting tools please request the MAYKESTAG catalogue!

Si desea consultar la gama completa de herramientas HSS y VHM, solicite nuestro catálogo de MAYKESTAG.

Ø 0,50mm / Ø 0,60mm / Ø 0,70mm = WN / Split Point ≥ Ø 4,0 mm / Punta afilada en cruz ≥ Ø 4,0 mm
Kreuzanschliff ≥ Ø 4,0 mm / Split Point ≥ Ø 4,0 mm / Punta afilada en cruz ≥ Ø 4,0 mm

D HSS Spiralbohrer, lang, DIN 340 RN

Einsatzbereich:

Spiralbohrer präzisionsgeschliffen, mit engen Toleranzen und hoher Rundlaufgenauigkeit. Zum Bearbeiten von legiertem und unlegiertem Stahl.

E HSS long series drills, DIN 340 RN

Range of application:

HSS twist drill ground from solid, bright finish: toughness and precision combined with excellent cutting efficiency for drilling alloyed carbon and plain steel.

ES Broca espiral HSS, larga, DIN 340 RN

Ámbito de aplicación:

Broca espiral afilada con precisión, con tolerancias estrechas y alta precisión de concentricidad. Para el procesamiento de acero aleado y no aleado.



Präzisionsgeschliffen
Precision ground
Afilada con precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Bruchstabil
Break-resistant
Resistente a la rotura



118°

HSS

DIN 340

Cu
Ms
Ni
Zn

Alu

Oberfläche: blank
Surface: bright
Superficie: brillante



Einzelverpackung
Single pack
Embalaje individual



Gewerbepack
Industrial packing
Paquete industrial

| d1 mm | l1 mm | l2 mm | Code 528 Art.-Nr. | Inh. Cont. | | Code 551 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 1,00 | 56 | 33 | | | | 0055100100100 | 10 |
| 1,50 | 70 | 45 | | | | 0055100150100 | 10 |
| 2,00 | 85 | 56 | | | | 0055100200100 | 10 |
| 2,50 | 95 | 62 | | | | 0055100250100 | 10 |
| 3,00 | 100 | 66 | 0052800300100 | 1 | 10 | 0055100300100 | 10 |
| 3,20 | 106 | 69 | | | | 0055100320100 | 10 |
| 3,50 | 112 | 73 | 0052800350100 | 1 | 10 | 0055100350100 | 10 |
| 4,00 | 119 | 78 | 0052800400100 | 1 | 10 | 0055100400100 | 10 |
| 4,20 | 119 | 78 | | | | 0055100420100 | 10 |
| 4,50 | 126 | 82 | 0052800450100 | 1 | 10 | 0055100450100 | 10 |
| 5,00 | 132 | 87 | 0052800500100 | 1 | 10 | 0055100500100 | 10 |
| 5,50 | 139 | 91 | 0052800550100 | 1 | 10 | 0055100550100 | 10 |
| 6,00 | 139 | 91 | 0052800600100 | 1 | 10 | 0055100600100 | 10 |
| 6,50 | 148 | 97 | | | | 0055100650100 | 10 |
| 7,00 | 156 | 102 | 0052800700100 | 1 | 10 | 0055100700100 | 10 |
| 8,00 | 165 | 109 | 0052800800100 | 1 | 10 | 0055100800100 | 10 |
| 9,00 | 175 | 115 | | | | 0055100900100 | 10 |
| 10,00 | 184 | 121 | 0052801000100 | 1 | 10 | 0055101000100 | 10 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

① HSS Spiralbohrer, überlang, DIN 1869 R1 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub, Kühlung sowie häufige Span-entleerung zu beachten sind.

② HSS extra long series drills, DIN 1869 R1 RN

Range of application:

High efficiency drills for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.

③ Broca espiral HSS, extra larga, DIN 1869 R1 RN

Ámbito de aplicación:

Broca de alto rendimiento para el taladrado de agujeros muy profundos, en los que hay que tener en cuenta la velocidad de corte, el avance, la refrigeración y la eliminación frecuente de virutas.



Industriequalität
Industrial quality
Calidad industrial



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Präzise
Precise
Preciso



118°
HSS
DIN 1869
Typ / Type / Tipo RN
R1
10:d
Kreuzanschliff
Split Point
AC
Oberfläche: dampfangelassen
Surface: steam tempered
Superficie: templada al vapor




Einzelverpackung
Single pack
Embalaje individual



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 100 Art.-Nr. | Inh. Cont. | | Code 101 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|----|----------------------|---------------|
| 2,00 | 125 | 85 | | | | 0010100200100 | 1 |
| 2,50 | 140 | 95 | | | | 0010100250100 | 1 |
| 3,00 | 150 | 100 | 0010000300100 | 1 | 10 | 0010100300100 | 1 |
| 3,50 | 165 | 115 | 0010000350100 | 1 | 10 | 0010100350100 | 1 |
| 4,00 | 175 | 120 | 0010000400100 | 1 | 10 | 0010100400100 | 1 |
| 4,20 | 175 | 120 | | | | 0010100420100 | 1 |
| 4,50 | 185 | 125 | | | | 0010100450100 | 1 |
| 4,80 | 195 | 135 | | | | 0010100480100 | 1 |
| 4,90 | 195 | 135 | | | | 0010100490100 | 1 |
| 5,00 | 195 | 135 | 0010000500100 | 1 | 10 | 0010100500100 | 1 |
| 5,50 | 205 | 140 | | | | 0010100550100 | 1 |
| 5,80 | 205 | 140 | | | | 0010100580100 | 1 |
| 6,00 | 205 | 140 | 0010000600100 | 1 | 10 | 0010100600100 | 1 |
| 6,20 | 215 | 150 | | | | 0010100620100 | 1 |
| 6,50 | 215 | 150 | | | | 0010100650100 | 1 |
| 6,80 | 225 | 155 | | | | 0010100680100 | 1 |
| 7,00 | 225 | 155 | | | | 0010100700100 | 1 |
| 7,50 | 225 | 155 | | | | 0010100750100 | 1 |
| 8,00 | 240 | 165 | 0010000800100 | 1 | 10 | 0010100800100 | 1 |
| 8,50 | 240 | 165 | | | | 0010100850100 | 1 |
| 9,00 | 250 | 175 | | | | 0010100900100 | 1 |
| 9,50 | 250 | 175 | | | | 0010100950100 | 1 |

| | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | | Einzelverpackung <i>Single pack</i> <i>Embalaje individual</i> | | |
|----------|----------|----------|--|---------------|--|--|---------------|--|
| d1 mm | l1 mm | l2 mm | Code 100 Art.-Nr. | Inh. Cont. |  | Code 101 Art.-Nr. | Inh. Cont. | |
| 10,00 | 265 | 185 | 0010001000100 | 1 | 10 | 0010101000100 | 1 | |
| 10,50 | 265 | 185 | | | | 0010101050100 | 1 | |
| 11,00 | 280 | 195 | | | | 0010101100100 | 1 | |
| 11,50 | 280 | 195 | | | | 0010101150100 | 1 | |
| 12,00 | 295 | 205 | | | | 0010101200100 | 1 | |
| 12,50 | 295 | 205 | | | | 0010101250100 | 1 | |
| 13,00 | 295 | 205 | | | | 0010101300100 | 1 | |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

① HSS Spiralbohrer, überlang, DIN 1869 R2 RN

② HSS extra long series drills, DIN 1869 R2 RN

③ Broca espiral HSS, extra larga, DIN 1869 R2 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub, Kühlung sowie häufige Spanentleerung zu beachten sind.

Range of application:

High efficiency drills for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.

Ámbito de aplicación:

Broca de alto rendimiento para el taladrado de agujeros muy profundos, en los que hay que tener en cuenta la velocidad de corte, el avance, la refrigeración y la eliminación frecuente de virutas.



Industriequalität
Industrial quality
Calidad industrial



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Präzise
Precise
Preciso



| | |
|---|----------------------|
| 118° | HSS |
| DIN 1869 | Typ / Type / Tipo RN |
| R2 | 10:d |
| Kreuzanschliff Split Point AC | |
| Oberfläche: dampfangelassen Surface: steam tempered Superficie: templado al vapor | |



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 111 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 3,00 | 190 | 130 | 0011100300100 | 1 |
| 3,50 | 210 | 145 | 0011100350100 | 1 |
| 4,00 | 220 | 150 | 0011100400100 | 1 |
| 4,20 | 220 | 150 | 0011100420100 | 1 |
| 4,50 | 235 | 160 | 0011100450100 | 1 |
| 5,00 | 245 | 170 | 0011100500100 | 1 |
| 5,50 | 260 | 180 | 0011100550100 | 1 |
| 6,00 | 260 | 180 | 0011100600100 | 1 |
| 6,50 | 275 | 190 | 0011100650100 | 1 |
| 7,00 | 290 | 200 | 0011100700100 | 1 |
| 7,50 | 290 | 200 | 0011100750100 | 1 |
| 8,00 | 305 | 210 | 0011100800100 | 1 |
| 8,50 | 305 | 210 | 0011100850100 | 1 |
| 9,00 | 320 | 220 | 0011100900100 | 1 |
| 9,50 | 320 | 220 | 0011100950100 | 1 |
| 10,00 | 340 | 235 | 0011101000100 | 1 |
| 10,20 | 340 | 235 | 0011101020100 | 1 |
| 10,50 | 340 | 235 | 0011101050100 | 1 |
| 11,00 | 365 | 250 | 0011101100100 | 1 |
| 11,50 | 365 | 250 | 0011101150100 | 1 |
| 12,00 | 375 | 260 | 0011101200100 | 1 |
| 12,50 | 375 | 260 | 0011101250100 | 1 |
| 13,00 | 375 | 260 | 0011101300100 | 1 |

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D HSS Spiralbohrer, überlang,
DIN 1869 R3 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von sehr tiefen Löchern, wobei Schnittgeschwindigkeit, Vorschub, Kühlung sowie häufige Spanentleerung zu beachten sind.

E HSS extra long series drills,
DIN 1869 R3 RN

Range of application:

High efficiency drills for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.

ES Broca espiral HSS, extra larga,
DIN 1869 R3 RN

Ámbito de aplicación:

Broca de alto rendimiento para el taladrado de agujeros muy profundos, en los que hay que tener en cuenta la velocidad de corte, el avance, la refrigeración y la eliminación frecuente de virutas.



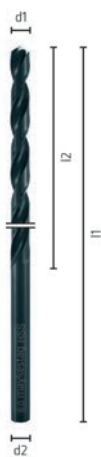
Industriequalität
Industrial quality
Calidad industrial



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Präzise
Precise
Preciso



Oberfläche: dampfangelassen
Surface: steam tempered
Superficie: templada al vapor



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 121 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 2,50 | 225 | 150 | 0012100250100 | 1 |
| 3,50 | 265 | 180 | 0012100350100 | 1 |
| 4,00 | 280 | 190 | 0012100400100 | 1 |
| 4,20 | 280 | 190 | 0012100420100 | 1 |
| 4,50 | 295 | 200 | 0012100450100 | 1 |
| 5,00 | 315 | 210 | 0012100500100 | 1 |
| 5,50 | 330 | 225 | 0012100550100 | 1 |
| 6,00 | 330 | 225 | 0012100600100 | 1 |
| 6,20 | 350 | 235 | 0012100620100 | 1 |
| 6,50 | 350 | 235 | 0012100650100 | 1 |
| 6,80 | 370 | 235 | 0012100680100 | 1 |
| 7,00 | 370 | 250 | 0012100700100 | 1 |
| 7,50 | 370 | 250 | 0012100750100 | 1 |
| 8,00 | 390 | 265 | 0012100800100 | 1 |
| 8,50 | 390 | 265 | 0012100850100 | 1 |
| 9,00 | 410 | 280 | 0012100900100 | 1 |
| 9,50 | 410 | 280 | 0012100950100 | 1 |
| 10,00 | 430 | 295 | 0012101000100 | 1 |
| 10,50 | 430 | 295 | 0012101050100 | 1 |
| 11,00 | 430 | 310 | 0012101100100 | 1 |
| 11,50 | 455 | 310 | 0012101150100 | 1 |
| 12,00 | 480 | 330 | 0012101200100 | 1 |
| 12,50 | 480 | 330 | 0012101250100 | 1 |
| 13,00 | 480 | 330 | 0012101300100 | 1 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Für unser umfangreiches Sortiment an HSS- und VHM-Werkzeugen fordern Sie bitte den MAYKESTAG-Katalog an!
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D HSS Fassadenbohrer

E HSS facade drills

ES Brocas HSS para fachadas

Einsatzbereich:

Spezialbohrer zum Bohren von allen üblichen Metallwerkstoffen sowie Hohlprofile aus Stahl, Kunststoff und Aluminium. Die kurze Spiralnut verhindert das Aufreiben der Bohrung bei Hohlprofilen. Speziell geeignet für Fassadenbau, Montage von Solar Photovoltaik Anlagen etc.

Range of application:

Special drill for drilling of all common metal materials and hollow profiles made of steel, plastics and aluminium. The short spiral flute prevents the reaming of the hole in hollow profiles. Especially suitable for facade construction, installation of solar photovoltaics systems, etc.

Ámbito de aplicación:

Broca especial para perforar todos los materiales metálicos habituales, así como perfiles huecos de acero, plástico y aluminio. La ranura en espiral corta impide que el orificio se escarie en perfiles huecos. Especialmente adecuada para la construcción de fachadas, el montaje de instalaciones de paneles solares fotovoltaicos, etc.



Präzise
Precise
Preciso



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Bruchstabil
Break-resistant
Resistente a la rotura



120°
HSS

WN

Cu
Ms
Ni
Zn

Alu

Kreuzanschliff
Split Point
AC

Oberfläche: dampfangelassen
Surface: steam tempered
Superficie: templado al vapor



Gewerbepack
Industrial packing
Paquete industrial

Länge / Length / Longitud: 150/30 mm

| d1 mm | l1 mm | l2 mm | Code 123 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 4,00 | 150 | 30 | 0012300400100 | 5 |
| 4,50 | 150 | 30 | 0012300450100 | 5 |
| 5,00 | 150 | 30 | 0012300500100 | 5 |
| 5,30 | 150 | 30 | 0012300530100 | 5 |
| 5,50 | 150 | 30 | 0012300550100 | 5 |
| 5,70 | 150 | 30 | 0012300570100 | 5 |
| 5,80 | 150 | 30 | 0012300580100 | 5 |

Länge / Length / Longitud: 180/30 mm

| d1 mm | l1 mm | l2 mm | Code 124 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 5,30 | 180 | 30 | 0012400530100 | 5 |
| 5,70 | 180 | 30 | 0012400570100 | 5 |
| 5,80 | 180 | 30 | 0012400580100 | 5 |
| 5,90 | 180 | 30 | 0012400590100 | 5 |

Gewerbepack
Industrial packing
Paquete industrial

Länge / Length / Longitud: 200/30 mm

| d1 mm | l1 mm | l2 mm | Code 125 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 4,50 | 200 | 30 | 0012500450100 | 5 |
| 5,00 | 200 | 30 | 0012500500100 | 5 |
| 5,30 | 200 | 30 | 0012500530100 | 5 |
| 5,50 | 200 | 30 | 0012500550100 | 5 |
| 5,70 | 200 | 30 | 0012500570100 | 5 |
| 5,80 | 200 | 30 | 0012500580100 | 5 |
| 5,90 | 200 | 30 | 0012500590100 | 5 |
| 6,20 | 200 | 30 | 0012500620100 | 5 |
| 6,80 | 200 | 30 | 0012500680100 | 5 |
| 7,00 | 200 | 30 | 0012500700100 | 5 |

Länge / Length / Longitud: 225/30 mm

| d1 mm | l1 mm | l2 mm | Code 126 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 6,80 | 225 | 30 | 0012600680100 | 5 |
| 7,00 | 225 | 30 | 0012600700100 | 5 |
| 7,20 | 225 | 30 | 0012600720100 | 5 |
| 7,40 | 225 | 30 | 0012600740100 | 5 |

Länge / Length / Longitud: 300/30 mm

| d1 mm | l1 mm | l2 mm | Code 127 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 5,00 | 300 | 30 | 0012700500100 | 5 |
| 5,50 | 300 | 30 | 0012700550100 | 5 |
| 5,70 | 300 | 30 | 0012700570100 | 5 |
| 5,80 | 300 | 30 | 0012700580100 | 5 |
| 6,80 | 300 | 30 | 0012700680100 | 5 |
| 7,00 | 300 | 30 | 0012700700100 | 5 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

**① HSS Cobalt
Schweisspunktbohrer**

Einsatzbereich:

Spezialbohrer für Karoseriespengler. Zum einfachen Aufbohren von Schweißpunkten.

**② HSS Cobalt
spotweld drills**

Range of application:

This high performance Spot Weld Drill possesses the ability to remove a spot weld without destroying the deeper sheet metal.

**③ Broca para puntos de soldadura
HSS Cobalt**

Ámbito de aplicación:

Broca especial para hojalateros. Para el taladrado sencillo de puntos de soldado.



Präzise
Precise
Preciso



Bruchstabil
Break-resistant
Resistente a la rotura



Industriequalität
Industrial quality
Calidad industrial



Kreuzanschliff
Split Point
E

Oberfläche: blank
Surface: bright
Superficie: brillante



Einzelverpackung
Single pack
Embalaje individual



Einzelverpackung
Single packing
Embalaje individual



TiN

Hohe Performance,
lange Standzeit
High performance,
long durability
Rendimiento elevado,
duración prolongada

Länge / Length / Longitud: 80/38 mm

blank / bright / brillante

blank / bright / brillante

TiN

| d1 mm | l1 mm | l2 mm | Code 130 Art.-Nr. | Inh. Cont. | Code 330 Art.-Nr. | Inh. Cont. | Code 336 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|----------------------|---------------|----------------------|---------------|
| 6,00 | 80 | 38 | 0013000600100 | 1 10 | 0033000600100 | 1 10 | 0033600600100 | 1 10 |
| 8,00 | 80 | 38 | 0013000800100 | 1 10 | 0033000800100 | 1 10 | 0033600800100 | 1 10 |

D HSS Spiralbohrer mit Morsekegel, DIN 345 RN

Einsatzbereich:

Hochleistungsbohrer zum Bohren von legierten und unlegierten Stählen und Stahlguss, Grauguss, Temperguss, Kupferlegierungen, Neusilber, Graphit, Sintereisen.

E HSS morse taper shank drills, DIN 345 RN

Range of application:

Premium quality twist drills for drilling steel and steel castings, alloy and plain carbon, grey iron castings, copper-alloys, nickel-silver, graphite and similar materials.

ES Broca espiral HSS con cono Morse, DIN 345 RN

Ámbito de aplicación:

Broca espiral afilada con precisión, calidad industrial para el taladrado de aceros aleados y no aleados, hierro fundido gris, fundición maleable, aleaciones de cobre, alpaca, grafito, hierro sinterizado.



Industriequalität
Industrial quality
Calidad industrial



Bruchstabil
Break-resistant
Resistente a la rotura



Präzise
Precise
Preciso



Oberfläche: dampfangelassen
Surface: steam tempered
Superficie: templada al vapor



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 202 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 5,00 | 133 | 52 | 0020200500100 | 1 |
| 5,50 | 138 | 57 | 0020200550100 | 1 |
| 6,00 | 138 | 57 | 0020200600100 | 1 |
| 6,50 | 144 | 63 | 0020200650100 | 1 |
| 7,00 | 150 | 69 | 0020200700100 | 1 |
| 7,50 | 150 | 69 | 0020200750100 | 1 |
| 8,00 | 156 | 75 | 0020200800100 | 1 |
| 8,50 | 156 | 75 | 0020200850100 | 1 |
| 9,00 | 162 | 81 | 0020200900100 | 1 |
| 9,50 | 162 | 81 | 0020200950100 | 1 |
| 9,80 | 168 | 87 | 0020200980100 | 1 |
| 10,00 | 168 | 87 | 0020201000100 | 1 |
| 10,20 | 168 | 87 | 0020201020100 | 1 |
| 10,25 | 168 | 87 | 0020201025100 | 1 |
| 10,50 | 168 | 87 | 0020201050100 | 1 |
| 10,75 | 175 | 94 | 0020201075100 | 1 |
| 11,00 | 175 | 94 | 0020201100100 | 1 |
| 11,25 | 175 | 94 | 0020201125100 | 1 |
| 11,50 | 175 | 94 | 0020201150100 | 1 |
| 11,75 | 175 | 94 | 0020201175100 | 1 |
| 12,00 | 182 | 101 | 0020201200100 | 1 |
| 12,25 | 182 | 101 | 0020201225100 | 1 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 202 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 12,50 | 182 | 101 | 0020201250100 | 1 |
| 12,75 | 182 | 101 | 0020201275100 | 1 |
| 13,00 | 182 | 101 | 0020201300100 | 1 |
| 13,25 | 189 | 108 | 0020201325100 | 1 |
| 13,50 | 189 | 108 | 0020201350100 | 1 |
| 13,75 | 189 | 108 | 0020201375100 | 1 |
| 14,00 | 189 | 108 | 0020201400100 | 1 |
| 14,25 | 212 | 114 | 0020201425100 | 1 |
| 14,50 | 212 | 114 | 0020201450100 | 1 |
| 14,75 | 212 | 114 | 0020201475100 | 1 |
| 15,00 | 212 | 114 | 0020201500100 | 1 |
| 15,25 | 218 | 120 | 0020201525100 | 1 |
| 15,50 | 218 | 120 | 0020201550100 | 1 |
| 15,75 | 218 | 120 | 0020201575100 | 1 |
| 16,00 | 218 | 120 | 0020201600100 | 1 |
| 16,25 | 223 | 125 | 0020201625100 | 1 |
| 16,50 | 223 | 125 | 0020201650100 | 1 |
| 16,75 | 223 | 125 | 0020201675100 | 1 |
| 17,00 | 223 | 125 | 0020201700100 | 1 |
| 17,25 | 228 | 130 | 0020201725100 | 1 |
| 17,50 | 228 | 130 | 0020201750100 | 1 |
| 17,75 | 228 | 130 | 0020201775100 | 1 |
| 18,00 | 228 | 130 | 0020201800100 | 1 |
| 18,25 | 233 | 135 | 0020201825100 | 1 |
| 18,50 | 233 | 135 | 0020201850100 | 1 |
| 18,75 | 233 | 135 | 0020201875100 | 1 |
| 19,00 | 233 | 135 | 0020201900100 | 1 |
| 19,25 | 238 | 140 | 0020201925100 | 1 |
| 19,50 | 238 | 140 | 0020201950100 | 1 |
| 19,75 | 238 | 140 | 0020201975100 | 1 |
| 20,00 | 238 | 140 | 0020202000100 | 1 |
| 20,25 | 243 | 145 | 0020202025100 | 1 |
| 20,50 | 243 | 145 | 0020202050100 | 1 |
| 20,75 | 243 | 145 | 0020202075100 | 1 |
| 21,00 | 243 | 145 | 0020202100100 | 1 |
| 21,25 | 248 | 150 | 0020202125100 | 1 |
| 21,50 | 248 | 150 | 0020202150100 | 1 |
| 21,75 | 248 | 150 | 0020202175100 | 1 |
| 22,00 | 248 | 150 | 0020202200100 | 1 |
| 22,25 | 248 | 150 | 0020202225100 | 1 |
| 22,50 | 253 | 155 | 0020202250100 | 1 |
| 22,75 | 253 | 155 | 0020202275100 | 1 |
| 23,00 | 253 | 155 | 0020202300100 | 1 |
| 23,50 | 276 | 155 | 0020202350100 | 1 |
| 23,75 | 281 | 160 | 0020202375100 | 1 |
| 24,00 | 281 | 160 | 0020202400100 | 1 |
| 24,50 | 281 | 160 | 0020202450100 | 1 |
| 24,75 | 281 | 160 | 0020202475100 | 1 |
| 25,00 | 281 | 160 | 0020202500100 | 1 |
| 25,25 | 286 | 165 | 0020202525100 | 1 |
| 25,50 | 286 | 165 | 0020202550100 | 1 |
| 25,75 | 286 | 165 | 0020202575100 | 1 |
| 26,00 | 286 | 165 | 0020202600100 | 1 |
| 26,50 | 286 | 165 | 0020202650100 | 1 |
| 27,00 | 291 | 170 | 0020202700100 | 1 |
| 27,50 | 291 | 170 | 0020202750100 | 1 |

Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 202 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 27,75 | 291 | 170 | 0020202775100 | 1 |
| 28,00 | 291 | 170 | 0020202800100 | 1 |
| 28,25 | 296 | 175 | 0020202825100 | 1 |
| 28,50 | 296 | 175 | 0020202850100 | 1 |
| 28,75 | 296 | 175 | 0020202875100 | 1 |
| 29,00 | 296 | 175 | 0020202900100 | 1 |
| 29,50 | 296 | 175 | 0020202950100 | 1 |
| 29,75 | 296 | 175 | 0020202975100 | 1 |
| 30,00 | 296 | 175 | 0020203000100 | 1 |
| 30,25 | 301 | 180 | 0020203025100 | 1 |
| 30,50 | 301 | 180 | 0020203050100 | 1 |
| 31,00 | 301 | 180 | 0020203100100 | 1 |
| 31,50 | 301 | 180 | 0020203150100 | 1 |
| 31,75 | 301 | 185 | 0020203175100 | 1 |
| 32,00 | 334 | 185 | 0020203200100 | 1 |
| 32,50 | 334 | 185 | 0020203250100 | 1 |
| 33,00 | 334 | 185 | 0020203300100 | 1 |
| 33,50 | 334 | 185 | 0020203350100 | 1 |
| 34,00 | 339 | 190 | 0020203400100 | 1 |
| 34,50 | 339 | 190 | 0020203450100 | 1 |
| 35,00 | 339 | 190 | 0020203500100 | 1 |
| 35,50 | 339 | 190 | 0020203550100 | 1 |
| 36,00 | 344 | 195 | 0020203600100 | 1 |
| 36,50 | 344 | 195 | 0020203650100 | 1 |
| 37,00 | 344 | 195 | 0020203700100 | 1 |
| 37,50 | 344 | 195 | 0020203750100 | 1 |
| 38,00 | 349 | 200 | 0020203800100 | 1 |
| 38,50 | 349 | 200 | 0020203850100 | 1 |
| 39,00 | 349 | 200 | 0020203900100 | 1 |
| 39,50 | 349 | 200 | 0020203950100 | 1 |
| 40,00 | 349 | 200 | 0020204000100 | 1 |
| 40,50 | 354 | 205 | 0020204050100 | 1 |
| 41,00 | 354 | 205 | 0020204100100 | 1 |
| 41,50 | 354 | 205 | 0020204150100 | 1 |
| 42,00 | 354 | 205 | 0020204200100 | 1 |
| 42,50 | 354 | 205 | 0020204250100 | 1 |
| 43,00 | 359 | 210 | 0020204300100 | 1 |
| 44,00 | 359 | 210 | 0020204400100 | 1 |
| 45,00 | 359 | 210 | 0020204500100 | 1 |
| 46,00 | 364 | 215 | 0020204600100 | 1 |
| 47,00 | 364 | 215 | 0020204700100 | 1 |
| 48,00 | 369 | 220 | 0020204800100 | 1 |
| 49,00 | 369 | 220 | 0020204900100 | 1 |
| 50,00 | 369 | 220 | 0020205000100 | 1 |
| 51,00 | 412 | 225 | 0020205100100 | 1 |
| 52,00 | 412 | 225 | 0020205200100 | 1 |
| 53,00 | 412 | 225 | 0020205300100 | 1 |
| 54,00 | 417 | 230 | 0020205400100 | 1 |
| 55,00 | 417 | 230 | 0020205500100 | 1 |
| 56,00 | 417 | 230 | 0020205600100 | 1 |
| 57,00 | 422 | 235 | 0020205700100 | 1 |
| 58,00 | 422 | 235 | 0020205800100 | 1 |
| 59,00 | 422 | 235 | 0020205900100 | 1 |
| 60,00 | 422 | 235 | 0020206000100 | 1 |
| 65,00 | 432 | 245 | 0020206500100 | 1 |
| 70,00 | 437 | 250 | 0020207000100 | 1 |



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Für unser umfangreiches Sortiment an HSS- und VHM-Werkzeugen fordern Sie bitte den MAYKESTAG-Katalog an!

For our extensive range of HSS and solid carbide cutting tools please request the MAYKESTAG catalogue!

Si desea consultar la gama completa de herramientas HSS y VHM, solicite nuestro catálogo de MAYKESTAG.

Anschliff Form A > Ø 16,0 bis Ø 40,00 mm, Anschliff Form AC ≤ Ø 16,0 mm / Point shape form A > Ø 16,0 to Ø 40,00 mm, Point shape form AC ≤ Ø 16,0 mm
Punta afilada forma A > Ø 16,0 a Ø 40,00 mm, Punta afilada forma AC ≤ Ø 16,0 mm

D Drehzahlen und Vorschübe

E Spindle speeds and feeds

ES Velocidades y avances

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

n: Drehzahl U/min
f: Vorschub mm/U








n: Spindle speed rpm
f: Feed mm/rev

n: Velocidad r.p.m.
f: Avance mm/giro

MAYKESTAG



Code 100, 101, 111, 121, 123-127, 202, 501, 601

| Ø mm |  | |  | |  | |  | |  | |  | |  | |
|-------------------------------------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|
| | n | f | n | f | n | f | n | f | n | f | n | f | n | f |
| 1.0 | 9549 | 0,03 | 7958 | 0,02 | 7003 | 0,01 | 6366 | 0,02 | 14324 | 0,02 | 14324 | 0,02 | 4775 | 0,04 |
| 1.5 | 6366 | 0,04 | 5305 | 0,02 | 4669 | 0,01 | 4244 | 0,03 | 9549 | 0,04 | 9549 | 0,04 | 3183 | 0,04 |
| 2.0 | 4775 | 0,05 | 3979 | 0,03 | 3501 | 0,02 | 3183 | 0,04 | 7162 | 0,05 | 7162 | 0,05 | 2387 | 0,05 |
| 2.5 | 3820 | 0,06 | 3183 | 0,04 | 2801 | 0,03 | 2546 | 0,05 | 5730 | 0,06 | 5730 | 0,06 | 1910 | 0,06 |
| 3.0 | 3183 | 0,07 | 2653 | 0,04 | 2334 | 0,03 | 2122 | 0,06 | 4775 | 0,08 | 4775 | 0,08 | 1592 | 0,06 |
| 3.2 | 2984 | 0,08 | 2487 | 0,05 | 2188 | 0,04 | 1989 | 0,06 | 4476 | 0,08 | 4476 | 0,08 | 1492 | 0,06 |
| 3.5 | 2728 | 0,09 | 2274 | 0,05 | 2001 | 0,04 | 1819 | 0,07 | 4093 | 0,09 | 4093 | 0,09 | 1364 | 0,07 |
| 4.0 | 2387 | 0,10 | 1989 | 0,06 | 1751 | 0,05 | 1592 | 0,08 | 3581 | 0,11 | 3581 | 0,11 | 1194 | 0,07 |
| 4.5 | 2122 | 0,11 | 1768 | 0,06 | 1556 | 0,05 | 1415 | 0,09 | 3183 | 0,12 | 3183 | 0,12 | 1061 | 0,08 |
| 4.8 | 1989 | 0,12 | 1658 | 0,07 | 1459 | 0,06 | 1326 | 0,10 | 2984 | 0,13 | 2984 | 0,13 | 995 | 0,08 |
| 5.0 | 1910 | 0,12 | 1592 | 0,07 | 1401 | 0,06 | 1273 | 0,10 | 2865 | 0,14 | 2865 | 0,14 | 955 | 0,08 |
| 5.5 | 1736 | 0,13 | 1447 | 0,08 | 1273 | 0,07 | 1157 | 0,11 | 2604 | 0,15 | 2604 | 0,15 | 868 | 0,09 |
| 6.0 | 1592 | 0,15 | 1326 | 0,08 | 1167 | 0,07 | 1061 | 0,12 | 2387 | 0,15 | 2387 | 0,15 | 796 | 0,10 |
| 6.5 | 1469 | 0,16 | 1224 | 0,09 | 1077 | 0,08 | 979 | 0,13 | 2204 | 0,16 | 2204 | 0,16 | 735 | 0,11 |
| 7.0 | 1364 | 0,17 | 1137 | 0,09 | 1000 | 0,08 | 909 | 0,14 | 2046 | 0,17 | 2046 | 0,17 | 682 | 0,12 |
| 7.5 | 1273 | 0,19 | 1061 | 0,10 | 934 | 0,09 | 849 | 0,15 | 1910 | 0,17 | 1910 | 0,17 | 637 | 0,13 |
| 8.0 | 1194 | 0,20 | 995 | 0,10 | 875 | 0,09 | 796 | 0,16 | 1790 | 0,18 | 1790 | 0,18 | 597 | 0,14 |
| 9.0 | 1061 | 0,21 | 884 | 0,11 | 778 | 0,10 | 707 | 0,17 | 1592 | 0,19 | 1592 | 0,19 | 531 | 0,16 |
| 10.0 | 955 | 0,23 | 796 | 0,13 | 700 | 0,11 | 637 | 0,18 | 1432 | 0,20 | 1432 | 0,20 | 477 | 0,17 |
| 12.0 | 796 | 0,25 | 663 | 0,16 | 584 | 0,14 | 531 | 0,20 | 1194 | 0,22 | 1194 | 0,22 | 398 | 0,20 |
| 14.0 | 682 | 0,28 | 568 | 0,18 | 500 | 0,16 | 455 | 0,23 | 1023 | 0,26 | 1023 | 0,26 | 341 | 0,23 |
| 16.0 | 597 | 0,30 | 497 | 0,20 | 438 | 0,18 | 398 | 0,25 | 895 | 0,30 | 895 | 0,30 | 298 | 0,25 |
| 18.0 | 531 | 0,32 | 442 | 0,21 | 389 | 0,19 | 354 | 0,27 | 796 | 0,32 | 796 | 0,32 | 265 | 0,26 |
| 20.0 | 477 | 0,35 | 398 | 0,22 | 350 | 0,20 | 318 | 0,28 | 716 | 0,35 | 716 | 0,35 | 239 | 0,27 |
| Kühlung Coolant Refrigeración | E | | E | | E | | T/D/E | | E/O | | E | | E/W/A | |

E: Emulsion | Emulsion | emulsión, O: Öl | Oil | aceite, T: trocken | dry | seco, D: Druckluft | compressed air | aire comprimido, W: Wasser | Water | agua, A: Luft | Air | Aire

D Drehzahlen und Vorschübe

E Spindle speeds and feeds

ES Velocidades y avances

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

n: Drehzahl U/min
f: Vorschub mm/U

n: Spindle speed rpm
f: Feed mm/rev

n: Velocidad r.p.m.
f: Avance mm/giro

HSS Cobalt



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Code 130, 183, 330, 336, 607, 611, 613, 623, 638, 655, 656, 663, 901, 904, 906, 907, 921

| Ø mm | <400 N/mm ² | | <850 N/mm ² | | <1.100 N/mm ² | | <1.300 N/mm ² | | GRAUGUSS CAST IRON GISHA GRIGIA | | Ti | | Cu Ms Ni Zn | | Alu | | 304 316 | | | |
|-------------------------------------|------------------------|------|------------------------|------|--------------------------|------|--------------------------|------|---------------------------------------|------|-------|------|----------------------|------|-------|------|---------|------|-------|------|
| | n | f | n | f | n | f | n | f | n | f | n | f | n | f | n | f | n | f | | |
| 1,0 | 9549 | 0,03 | 7958 | 0,02 | 7003 | 0,01 | 3183 | 0,01 | 3820 | 0,01 | 6366 | 0,02 | 1751 | 0,01 | 14324 | 0,02 | 14324 | 0,02 | 4775 | 0,04 |
| 1,5 | 6366 | 0,04 | 5305 | 0,02 | 4669 | 0,01 | 2122 | 0,02 | 2546 | 0,02 | 4244 | 0,03 | 1167 | 0,02 | 9549 | 0,04 | 9549 | 0,04 | 3183 | 0,04 |
| 2,0 | 4775 | 0,05 | 3979 | 0,03 | 3501 | 0,02 | 1592 | 0,02 | 1910 | 0,02 | 3183 | 0,04 | 875 | 0,02 | 7162 | 0,05 | 7162 | 0,05 | 2387 | 0,05 |
| 2,5 | 3820 | 0,06 | 3183 | 0,04 | 2801 | 0,03 | 1273 | 0,03 | 1528 | 0,03 | 2546 | 0,05 | 700 | 0,03 | 5730 | 0,06 | 5730 | 0,06 | 1910 | 0,06 |
| 3,0 | 3183 | 0,07 | 2653 | 0,04 | 2334 | 0,03 | 1061 | 0,03 | 1273 | 0,03 | 2122 | 0,06 | 584 | 0,03 | 4775 | 0,08 | 4775 | 0,08 | 1592 | 0,06 |
| 3,2 | 2984 | 0,08 | 2487 | 0,05 | 2188 | 0,04 | 995 | 0,03 | 1194 | 0,03 | 1989 | 0,06 | 547 | 0,03 | 4476 | 0,08 | 4476 | 0,08 | 1492 | 0,06 |
| 3,5 | 2728 | 0,09 | 2274 | 0,05 | 2001 | 0,04 | 909 | 0,04 | 1091 | 0,04 | 1819 | 0,07 | 500 | 0,04 | 4093 | 0,09 | 4093 | 0,09 | 1364 | 0,07 |
| 4,0 | 2387 | 0,10 | 1989 | 0,06 | 1751 | 0,05 | 796 | 0,04 | 955 | 0,04 | 1592 | 0,08 | 438 | 0,04 | 3581 | 0,11 | 3581 | 0,11 | 1194 | 0,07 |
| 4,5 | 2122 | 0,11 | 1768 | 0,06 | 1556 | 0,05 | 707 | 0,05 | 849 | 0,05 | 1415 | 0,09 | 389 | 0,05 | 3183 | 0,12 | 3183 | 0,12 | 1061 | 0,08 |
| 4,8 | 1989 | 0,12 | 1658 | 0,07 | 1459 | 0,06 | 663 | 0,05 | 796 | 0,05 | 1326 | 0,10 | 365 | 0,05 | 2984 | 0,13 | 2984 | 0,13 | 995 | 0,08 |
| 5,0 | 1910 | 0,12 | 1592 | 0,07 | 1401 | 0,06 | 637 | 0,05 | 764 | 0,05 | 1273 | 0,10 | 350 | 0,05 | 2865 | 0,14 | 2865 | 0,14 | 955 | 0,08 |
| 5,5 | 1736 | 0,13 | 1447 | 0,08 | 1273 | 0,07 | 579 | 0,06 | 694 | 0,06 | 1157 | 0,11 | 318 | 0,06 | 2604 | 0,15 | 2604 | 0,15 | 868 | 0,09 |
| 6,0 | 1592 | 0,15 | 1326 | 0,08 | 1167 | 0,07 | 531 | 0,06 | 637 | 0,06 | 1061 | 0,12 | 292 | 0,06 | 2387 | 0,15 | 2387 | 0,15 | 796 | 0,10 |
| 6,5 | 1469 | 0,16 | 1224 | 0,09 | 1077 | 0,08 | 490 | 0,07 | 588 | 0,07 | 979 | 0,13 | 269 | 0,07 | 2204 | 0,16 | 2204 | 0,16 | 735 | 0,11 |
| 7,0 | 1364 | 0,17 | 1137 | 0,09 | 1000 | 0,08 | 455 | 0,07 | 546 | 0,07 | 909 | 0,14 | 250 | 0,07 | 2046 | 0,17 | 2046 | 0,17 | 682 | 0,12 |
| 7,5 | 1273 | 0,19 | 1061 | 0,10 | 934 | 0,09 | 424 | 0,08 | 509 | 0,08 | 849 | 0,15 | 233 | 0,08 | 1910 | 0,17 | 1910 | 0,17 | 637 | 0,13 |
| 8,0 | 1194 | 0,20 | 995 | 0,10 | 875 | 0,09 | 398 | 0,08 | 477 | 0,08 | 796 | 0,16 | 219 | 0,08 | 1790 | 0,18 | 1790 | 0,18 | 597 | 0,14 |
| 9,0 | 1061 | 0,21 | 884 | 0,11 | 778 | 0,10 | 354 | 0,09 | 424 | 0,09 | 707 | 0,17 | 195 | 0,09 | 1592 | 0,19 | 1592 | 0,19 | 531 | 0,16 |
| 10,0 | 955 | 0,23 | 796 | 0,13 | 700 | 0,11 | 318 | 0,10 | 382 | 0,10 | 637 | 0,18 | 175 | 0,10 | 1432 | 0,20 | 1432 | 0,20 | 477 | 0,17 |
| 12,0 | 796 | 0,25 | 663 | 0,16 | 584 | 0,14 | 265 | 0,12 | 318 | 0,12 | 531 | 0,20 | 146 | 0,12 | 1194 | 0,22 | 1194 | 0,22 | 398 | 0,20 |
| 14,0 | 682 | 0,28 | 568 | 0,18 | 500 | 0,16 | 227 | 0,13 | 273 | 0,13 | 455 | 0,23 | 125 | 0,13 | 1023 | 0,26 | 1023 | 0,26 | 341 | 0,23 |
| 16,0 | 597 | 0,30 | 497 | 0,20 | 438 | 0,18 | 199 | 0,14 | 239 | 0,14 | 398 | 0,25 | 109 | 0,14 | 895 | 0,30 | 895 | 0,30 | 298 | 0,25 |
| 18,0 | 531 | 0,32 | 442 | 0,21 | 389 | 0,19 | 177 | 0,15 | 212 | 0,15 | 354 | 0,27 | 97 | 0,15 | 796 | 0,32 | 796 | 0,32 | 265 | 0,26 |
| 20,0 | 477 | 0,35 | 398 | 0,22 | 350 | 0,20 | 159 | 0,16 | 191 | 0,16 | 318 | 0,28 | 88 | 0,16 | 716 | 0,35 | 716 | 0,35 | 239 | 0,27 |
| Kühlung Coolant Refrigeración | E | | E | | E | | E/O | | E | | T/D/E | | O | | E/O | | E | | E/W/A | |

E: Emulsion | Emulsion | emulsión, O: Öl | Oil | aceite, T: trocken | dry | seco, D: Druckluft | compressed air | aire comprimido, W: Wasser | Water | agua, A: Luft | Air | Aire

D Drehzahlen und Vorschübe

E Spindle speeds and feeds

ES Velocidades y avances

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

n: Drehzahl U/min
f: Vorschub mm/U








n: Spindle speed rpm
f: Feed mm/rev

n: Velocidad r.p.m.
f: Avance mm/giro

PRO / HSS Super



Code 181, 301, 311, 321, 331, 371, 528, 551, 951, 952, 954

| Ø mm |  | |  | |  | |  | |  | |  | |  | |
|-------------------------------------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|
| | n | f | n | f | n | f | n | f | n | f | n | f | n | f |
| 1,0 | 7003 | 0,03 | 6048 | 0,02 | 5411 | 0,01 | 4775 | 0,02 | 10823 | 0,02 | 10823 | 0,02 | 4775 | 0,04 |
| 1,5 | 4669 | 0,04 | 4032 | 0,02 | 3608 | 0,01 | 3183 | 0,03 | 7215 | 0,04 | 7215 | 0,04 | 3183 | 0,04 |
| 2,0 | 3501 | 0,05 | 3024 | 0,03 | 2706 | 0,02 | 2387 | 0,04 | 5411 | 0,05 | 5411 | 0,05 | 2387 | 0,05 |
| 2,5 | 2801 | 0,06 | 2419 | 0,04 | 2165 | 0,03 | 1910 | 0,05 | 4329 | 0,06 | 4329 | 0,06 | 1910 | 0,06 |
| 3,0 | 2334 | 0,07 | 2016 | 0,04 | 1804 | 0,03 | 1592 | 0,06 | 3608 | 0,08 | 3608 | 0,08 | 1592 | 0,06 |
| 3,2 | 2188 | 0,08 | 1890 | 0,05 | 1691 | 0,04 | 1492 | 0,06 | 3382 | 0,08 | 3382 | 0,08 | 1492 | 0,06 |
| 3,5 | 2001 | 0,09 | 1728 | 0,05 | 1546 | 0,04 | 1364 | 0,07 | 3092 | 0,09 | 3092 | 0,09 | 1364 | 0,07 |
| 4,0 | 1751 | 0,10 | 1512 | 0,06 | 1353 | 0,05 | 1194 | 0,08 | 2706 | 0,11 | 2706 | 0,11 | 1194 | 0,07 |
| 4,5 | 1556 | 0,11 | 1344 | 0,06 | 1203 | 0,05 | 1061 | 0,09 | 2405 | 0,12 | 2405 | 0,12 | 1061 | 0,08 |
| 4,8 | 1459 | 0,12 | 1260 | 0,07 | 1127 | 0,06 | 995 | 0,10 | 2255 | 0,13 | 2255 | 0,13 | 995 | 0,08 |
| 5,0 | 1401 | 0,12 | 1210 | 0,07 | 1082 | 0,06 | 955 | 0,10 | 2165 | 0,14 | 2165 | 0,14 | 955 | 0,08 |
| 5,5 | 1273 | 0,13 | 1100 | 0,08 | 984 | 0,07 | 868 | 0,11 | 1968 | 0,15 | 1968 | 0,15 | 868 | 0,09 |
| 6,0 | 1167 | 0,15 | 1008 | 0,08 | 902 | 0,07 | 796 | 0,12 | 1804 | 0,15 | 1804 | 0,15 | 796 | 0,10 |
| 6,5 | 1077 | 0,16 | 930 | 0,09 | 833 | 0,08 | 735 | 0,13 | 1665 | 0,16 | 1665 | 0,16 | 735 | 0,11 |
| 7,0 | 1000 | 0,17 | 864 | 0,09 | 773 | 0,08 | 682 | 0,14 | 1546 | 0,17 | 1546 | 0,17 | 682 | 0,12 |
| 7,5 | 934 | 0,19 | 806 | 0,10 | 722 | 0,09 | 637 | 0,15 | 1443 | 0,17 | 1443 | 0,17 | 637 | 0,13 |
| 8,0 | 875 | 0,20 | 756 | 0,10 | 676 | 0,09 | 597 | 0,16 | 1353 | 0,18 | 1353 | 0,18 | 597 | 0,14 |
| 9,0 | 778 | 0,21 | 672 | 0,11 | 601 | 0,10 | 531 | 0,17 | 1203 | 0,19 | 1203 | 0,19 | 531 | 0,16 |
| 10,0 | 700 | 0,23 | 605 | 0,13 | 541 | 0,11 | 477 | 0,18 | 1082 | 0,20 | 1082 | 0,20 | 477 | 0,17 |
| 12,0 | 584 | 0,25 | 504 | 0,16 | 451 | 0,14 | 398 | 0,20 | 902 | 0,22 | 902 | 0,22 | 398 | 0,20 |
| 14,0 | 500 | 0,28 | 432 | 0,18 | 387 | 0,16 | 341 | 0,23 | 773 | 0,26 | 773 | 0,26 | 341 | 0,23 |
| 16,0 | 438 | 0,30 | 378 | 0,20 | 338 | 0,18 | 298 | 0,25 | 676 | 0,30 | 676 | 0,30 | 298 | 0,25 |
| 18,0 | 389 | 0,32 | 336 | 0,21 | 301 | 0,19 | 265 | 0,27 | 601 | 0,32 | 601 | 0,32 | 265 | 0,26 |
| 20,0 | 350 | 0,35 | 302 | 0,22 | 271 | 0,20 | 239 | 0,28 | 541 | 0,35 | 541 | 0,35 | 239 | 0,27 |
| Kühlung Coolant Refrigeración | E | | E | | E | | T/D/E | | E/O | | E | | E/W/A | |

E: Emulsion | Emulsion | emulsión, O: Öl | Oil | aceite, T: trocken | dry | seco, D: Druckluft | compressed air | aire comprimido, W: Wasser | Water | agua, A: Luft | Air | Aire

D Drehzahlen und Vorschübe

E Spindle speeds and feeds

ES Velocidades y avances

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

n: Drehzahl U/min
f: Vorschub mm/U

n: Spindle speed rpm
f: Feed mm/rev








n: Velocidad r.p.m.
f: Avance mm/giro

HSS Sprint / Sprint Master



Metall- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable

Code 618, 626, 631, 640, 642, 648, 654, 734

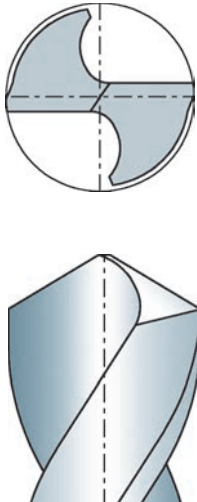
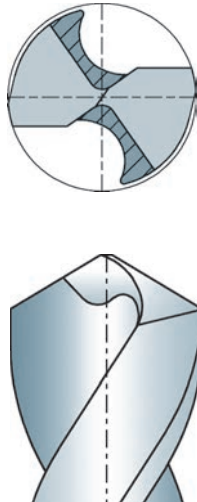
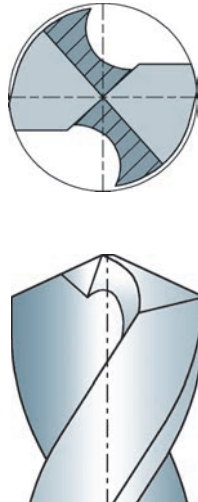
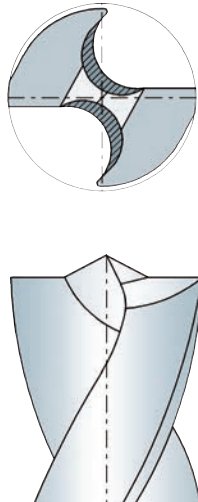
| Ø mm |  | |  | |  | |  | |  | |  | |  | |
|-------------------------------------|---|------|---|------|---|------|---|------|---|------|---|------|---|------|
| | n | f | n | f | n | f | n | f | n | f | n | f | n | f |
| 1,0 | 7003 | 0,03 | 6048 | 0,02 | 5411 | 0,01 | 4775 | 0,02 | 10823 | 0,02 | 10823 | 0,02 | 4775 | 0,04 |
| 1,5 | 4669 | 0,04 | 4032 | 0,02 | 3608 | 0,01 | 3183 | 0,03 | 7215 | 0,04 | 7215 | 0,04 | 3183 | 0,04 |
| 2,0 | 3501 | 0,05 | 3024 | 0,03 | 2706 | 0,02 | 2387 | 0,04 | 5411 | 0,05 | 5411 | 0,05 | 2387 | 0,05 |
| 2,5 | 2801 | 0,06 | 2419 | 0,04 | 2165 | 0,03 | 1910 | 0,05 | 4329 | 0,06 | 4329 | 0,06 | 1910 | 0,06 |
| 3,0 | 2334 | 0,07 | 2016 | 0,04 | 1804 | 0,03 | 1592 | 0,06 | 3608 | 0,08 | 3608 | 0,08 | 1592 | 0,06 |
| 3,2 | 2188 | 0,08 | 1890 | 0,05 | 1691 | 0,04 | 1492 | 0,06 | 3382 | 0,08 | 3382 | 0,08 | 1492 | 0,06 |
| 3,5 | 2001 | 0,09 | 1728 | 0,05 | 1546 | 0,04 | 1364 | 0,07 | 3092 | 0,09 | 3092 | 0,09 | 1364 | 0,07 |
| 4,0 | 1751 | 0,10 | 1512 | 0,06 | 1353 | 0,05 | 1194 | 0,08 | 2706 | 0,11 | 2706 | 0,11 | 1194 | 0,07 |
| 4,5 | 1556 | 0,11 | 1344 | 0,06 | 1203 | 0,05 | 1061 | 0,09 | 2405 | 0,12 | 2405 | 0,12 | 1061 | 0,08 |
| 4,8 | 1459 | 0,12 | 1260 | 0,07 | 1127 | 0,06 | 995 | 0,10 | 2255 | 0,13 | 2255 | 0,13 | 995 | 0,08 |
| 5,0 | 1401 | 0,12 | 1210 | 0,07 | 1082 | 0,06 | 955 | 0,10 | 2165 | 0,14 | 2165 | 0,14 | 955 | 0,08 |
| 5,5 | 1273 | 0,13 | 1100 | 0,08 | 984 | 0,07 | 868 | 0,11 | 1968 | 0,15 | 1968 | 0,15 | 868 | 0,09 |
| 6,0 | 1167 | 0,15 | 1008 | 0,08 | 902 | 0,07 | 796 | 0,12 | 1804 | 0,15 | 1804 | 0,15 | 796 | 0,10 |
| 6,5 | 1077 | 0,16 | 930 | 0,09 | 833 | 0,08 | 735 | 0,13 | 1665 | 0,16 | 1665 | 0,16 | 735 | 0,11 |
| 7,0 | 1000 | 0,17 | 864 | 0,09 | 773 | 0,08 | 682 | 0,14 | 1546 | 0,17 | 1546 | 0,17 | 682 | 0,12 |
| 7,5 | 934 | 0,19 | 806 | 0,10 | 722 | 0,09 | 637 | 0,15 | 1443 | 0,17 | 1443 | 0,17 | 637 | 0,13 |
| 8,0 | 875 | 0,20 | 756 | 0,10 | 676 | 0,09 | 597 | 0,16 | 1353 | 0,18 | 1353 | 0,18 | 597 | 0,14 |
| 9,0 | 778 | 0,21 | 672 | 0,11 | 601 | 0,10 | 531 | 0,17 | 1203 | 0,19 | 1203 | 0,19 | 531 | 0,16 |
| 10,0 | 700 | 0,23 | 605 | 0,13 | 541 | 0,11 | 477 | 0,18 | 1082 | 0,20 | 1082 | 0,20 | 477 | 0,17 |
| 12,0 | 584 | 0,25 | 504 | 0,16 | 451 | 0,14 | 398 | 0,20 | 902 | 0,22 | 902 | 0,22 | 398 | 0,20 |
| 14,0 | 500 | 0,28 | 432 | 0,18 | 387 | 0,16 | 341 | 0,23 | 773 | 0,26 | 773 | 0,26 | 341 | 0,23 |
| 16,0 | 438 | 0,30 | 378 | 0,20 | 338 | 0,18 | 298 | 0,25 | 676 | 0,30 | 676 | 0,30 | 298 | 0,25 |
| 18,0 | 389 | 0,32 | 336 | 0,21 | 301 | 0,19 | 265 | 0,27 | 601 | 0,32 | 601 | 0,32 | 265 | 0,26 |
| 20,0 | 350 | 0,35 | 302 | 0,22 | 271 | 0,20 | 239 | 0,28 | 541 | 0,35 | 541 | 0,35 | 239 | 0,27 |
| Kühlung Coolant Refrigeración | E | | E | | E | | T/D/E | | E/O | | E | | E/W/A | |

E: Emulsion | Emulsion | emulsión, O: Öl | Oil | aceite, T: trocken | dry | seco, D: Druckluft | compressed air | aire comprimido, W: Wasser | Water | agua, A: Luft | Air | Aire

① Spitzenanschliffe

② Point shapes

③ Puntas afiladas

| | | | |
|--|---|---|--|
|  |  |  |  |
| <p>Kegelmantelanschliff, 118° Universeller Anschliff für viele Bohrarbeiten in Stahl- und Eisenwerkstoffen, Nichteisenmetallen, Kunststoffen und sonstigen Werkstoffen.</p> <p>Relieved cone, 118° <i>Universal point-shape for a lot of drilling applications in steel and iron, non ferritic-materials, plastics and other materials.</i></p> <p>Punta afilada con superficie cónica, 118° <i>Punta afilada universal para diversos trabajos de perforación en materiales de acero y hierro, metales no férricos, plásticos y otros materiales.</i></p> | <p>Kreuzanschliff AC, 118° bzw. 130° Spezialanschliff für alle gängigen HSS Industriebohrer. Sehr gute Zentrierung und verbesserte Leistung durch die reduzierte Querschneide.</p> <p>Split Point AC, 118° or 130° <i>Special point-shape for all common industrial drill bits. Very good centering and improved performance by the reduced cross-cutting.</i></p> <p>Punta afilada en cruz AC, 118° o 130° <i>Punta afilada especial para todas las brocas industriales más frecuentes. Centrado excepcional y rendimiento mejorado gracias a la reducción del corte transversal.</i></p> | <p>Kreuzanschliff C, 130°/135° Spezialanschliff für HSS Co5 Industriebohrer für die Zerspaltung von besonders zähen und harten Werkstoffen sowie nichtrostenden und Sonderwerkstoffen. Optimale Zentrierung und reduzierte Vorschubkraft durch maximale Querschneidenreduktion.</p> <p>Split Point C, 130°/135° <i>Special point-shape for HSS Co5 industrial drill bits for the machining of particularly tough and hard materials as well as stainless steel and special materials. Optimal centering and reduced feed force by maximum cross-cutting reduction.</i></p> <p>Punta afilada en cruz C, 130°/135° <i>Punta afilada especial para brocas industriales HSS Co5 para el virutaje de materiales especialmente blandos y duros, así como materiales inoxidables y especiales. Centrado óptimo y reducción de la fuerza de avance gracias a la reducción del corte transversal.</i></p> | <p>Zentrierspitze, Anschliff E, 180° Spezialanschliff für Schweißpunktbohrer.</p> <p>Centering Point-Shape E, 180° <i>Special point-shape for spot weld drills.</i></p> <p>Punta de centrado, punta afilada, tipo E, 180° <i>Punta afilada especial para brocas para puntos de soldadura.</i></p> |



Metal- und Edelstahlbohrer
Metal drills and stainless steel drills
broca para metal y broca de acero inoxidable



HOLZBOHRER





















































🇪 DRILLS FOR
WOOD

🇪S BROCAS PARA
MADERA

Übersicht

Overview

Resumen

| |  |  |  |  |  |  |
|--|---|---|--|---|---|---|
| Norm / Estándar | WN | WN | WN | | | WN |
| Name / Nombre | HSS Cobalt | Profi Holz | Profi Holz | Holz | Form Lewis | SHARP SHARK |
| Schneidstoff / Cutting material / Material de corte | HSS-Co5 | HSS | HSS | CV | CV | CV |
| Sonderanschliff / Special point shape / Punta afilada especial | B | C | B | B | | |
| Schaft / Shank / Eje |  |  |  |  |  |  |
| Ø mm | 3,00 - 20,00 | 3,00 - 12,00 | 3,00 - 10,00 | 1,00 - 20,00 | 4,00 - 32,00 | 15,00 - 50,00 |
| Code / Código | 633 | 620 | 622 | 616 | 216, 226, 228 | 239 |
| Seite / Page / Página | 194 | 197 | 198 | 200 | 202 | 205 |
| Geeignet für / Suitable for / Adecuada para | | | | | | |
|  Weichholz Soft wood Madera blanda |  |  |  |  |  |  |
|  Hartholz Hard wood Madera dura |  |  |  |  |  |  |
|  Holz geleimt Flooring timbers Madera encolada |  |  |  |  |  |  |
|  Spanplatte Chipboard Tabla de madera aglomerada |  |  |  |  |  |  |
|  Resopal Laminated Chipboard Resopal |  |  |  |  | |  |
|  Kunststoffe Plastics Plástico |  |  |  | | | |

Übersicht

Overview

Resumen

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| WN | WN | WN | WN | |
| Forstnerbohrer | BESCHLAGBOHRER | Holzbohrer | Holzbohrer | Flachfräsbohrer |
| CV | Hartmetall | CV | CV | CV |
|  |  |  |  |  |
| 10,00 - 50,00 | 30,00 - 35,00 | 8,00 - 30,00 | 10,00 - 22,00 | 6,00 - 40,00 |
| 236 | 235 | 55, 65, 75 | 56, 66 | 234, 237-238 |
| 206 | 207 | 208 | 210 | 211 |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| |  | | | |



Holzbohrer
wood drills
brocas para madera

**① HSS Cobalt
Maschinen-Holzspiralbohrer**

② HSS Cobalt dowel drills

**③ Broca espiral HSS Cobalt
para madera**

Einsatzbereich:

5% kobaltlegierter Spiralbohrer mit sehr hoher thermischer Belastbarkeit. Hitzebeständig bis 650 °C. Zum Bohren von Weich- und Harthölzern, Spanplatten, Hartfaserplatten, zum Dübelbohren.

Range of application:

5% cobalt-alloyed jobber drills with high heat resistant up to 650 °C. For drilling in soft and hard wood, in chipboards, fibreboards, for drilling dowel holes.

Ámbito de aplicación:

Broca espiral HSS con 5% de aleación de cobalto y muy alta clasificación térmica. Termoestable hasta 650 °C. Adecuada para perforar maderas blandas y duras, tablas de madera aglomerada, tableros duros tratados, para perforar agujeros para espigas.



Hitzebeständig
Heat resistant
Termoestable



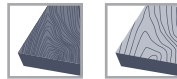
Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



HSS
Co5



Form
C
Oberfläche: blank
Surface: bright
Superficie: brillante



Einzelverpackung
Single pack
Embalaje individual





| d1 mm | l1 mm | l2 mm | d2 mm | Code 633 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|----|
| 3,00 | 61 | 33 | | 0063300300100 | 1 | 10 |
| 4,00 | 75 | 43 | | 0063300400100 | 1 | 10 |
| 5,00 | 86 | 52 | | 0063300500100 | 1 | 10 |
| 6,00 | 93 | 57 | | 0063300600100 | 1 | 10 |
| 7,00 | 109 | 69 | | 0063300700100 | 1 | 10 |
| 8,00 | 117 | 75 | | 0063300800100 | 1 | 10 |
| 9,00 | 125 | 81 | | 0063300900100 | 1 | 10 |
| 10,00 | 133 | 87 | | 0063301000100 | 1 | 10 |
| 11,00 | 142 | 94 | 9,50 | 0063301100100 | 1 | 10 |
| 12,00 | 151 | 101 | 9,50 | 0063301200100 | 1 | 10 |
| 14,00 | 160 | 108 | 9,50 | 0063301400100 | 1 | 10 |
| 16,00 | 178 | 120 | 9,50 | 0063301600100 | 1 | 10 |
| 18,00 | 178 | 120 | 9,50 | 0063301800100 | 1 | 10 |
| 20,00 | 178 | 120 | 9,50 | 0063302000100 | 1 | 10 |

Form C Ø 5 mm, Form B < Ø 5 & ≥ 14 mm / Forma C Ø 5 mm, Forma B < Ø 5 & ≥ 14 mm

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| HSS Cobalt PCTM 5 | | HSS Cobalt PCTM 8 | |
|---|---|---|---|
|  |  |  |  |
| 5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0063300005100 | | 8-tlg. / 8-pcs. / 8-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0063300008100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HSS Cobalt | | HSS Cobalt | |
| Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 3,00 / 4,00 / 5,00 / 10,00 | 1 |
| | | Ø 6,00 / 8,00 | 2 |



Holzbohrer
wood drills
brocas para madera

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



PROFI HOLZ



Extra scharfe Schneiden

Äußerst präzise
Schneideeigenschaften dank
der messerartig geschliffenen
Vorschneiden

Extra sharp cutting edges

Extremely precise cutting performance
thanks to the knife-edge ground pre-
cutting edges

Filos especialmente afilados

Excepcionales y precisas propiedades de
corte gracias a los filos afilados como
un cuchillo

Hitzebeständig

Bohrungen bis 450° sind möglich

Heat resistant

Drilling up to 450° is possible

Termoestable

Posibilidad de perforaciones de hasta
450°

Exakte Bohrungen

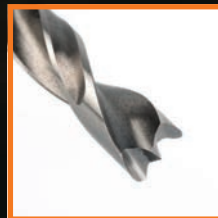
Die Doppelfase ermöglicht exakte
Führung ohne Durchrutschen

Precise drilling

The double chamfer enables exact
guidance without slipping

Perforaciones exactas

La doble fase permite una dirección
exacta sin que se deslice



alpen *drill better.*

D HSS Maschinen-Holzspiralbohrer

E HSS dowel drills

ES Brocas para madera HSS

Einsatzbereich:

Hitzebeständig bis 450° C. Zum Bohren von Weich- und Harthölzern, Spanplatten, Hartfaserplatten, zum Dübellochbohren.

Range of application:

Heat resistant up to 450° C. For drilling in soft and hard wood, in chipboards, fibreboards, for drilling dowel holes.

Ámbito de aplicación:

Termoestable hasta 450 °C. Adecuada para perforar maderas blandas y duras, tablas de madera aglomerada, tableros duros tratados, para perforar agujeros para espigas.



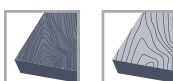
Hitzebeständig
Heat resistant
Termoestable



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Oberfläche: blank
Surface: bright
Superficie: brillante



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | d2 mm | Code 620 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|----|
| 3,00 | 61 | 33 | | 0062000300100 | 1 | 10 |
| 4,00 | 75 | 43 | | 0062000400100 | 1 | 10 |
| 5,00 | 86 | 52 | | 0062000500100 | 1 | 10 |
| 6,00 | 93 | 57 | | 0062000600100 | 1 | 10 |
| 8,00 | 117 | 75 | | 0062000800100 | 1 | 10 |
| 10,00 | 133 | 87 | | 0062001000100 | 1 | 10 |
| 12,00 | 151 | 101 | 9,50 | 0062001200100 | 1 | 10 |



Holzbohrer
wood drills
brocas para madera

Form C Ø 5 mm, Form B < Ø 5 mm / Forma C Ø 5 mm, Forma B < Ø 5 mm

① HSS Maschinen-Holzspiralbohrer mit 1/4"-Sechskantschaft

② HSS dowel drills with 1/4"-hexagonal shank

③ Brocas para madera HSS con eje hexagonal 1/4"

Einsatzbereich:

Wie Code 620, zusätzlich passend für jeden Standard-Akkuschrauber und Universal-Halter (Bithalter) durch genormtes Schaftprofil. Spannung auch in konventionellen Bohrfuttern - kein Durchrutschen durch Sechskantschaft.

Range of application:

Same as code 620, additionally suitable for any standard cordless drill thanks to its standardized shank profile. Suitable for all universal holders (bit holders). Can also be clamped in conventional drill chucks - no slipping owing to the hexagonal shank.

Ámbito de aplicación:

Igual que el código 620, apta además para todos los destornilladores a batería estándar y soportes universales (soporte de broca) gracias a su perfil de eje normativo.



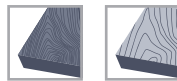
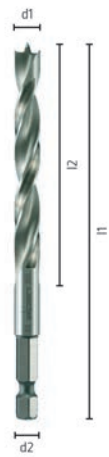
Hitzebeständig
Heat resistant
Termoestable



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Oberfläche: blank
Surface: bright
Superficie: brillante



Einzelverpackung
Single pack
Embalaje individual







| d1 mm | l1 mm | l2 mm | d2 | Code 622 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|------|----------------------|---------------|----|
| 3,00 | 74 | 33 | 1/4" | 0062200300100 | 1 | 10 |
| 4,00 | 88 | 43 | 1/4" | 0062200400100 | 1 | 10 |
| 5,00 | 100 | 52 | 1/4" | 0062200500100 | 1 | 10 |
| 6,00 | 107 | 57 | 1/4" | 0062200600100 | 1 | 10 |
| 8,00 | 117 | 75 | 1/4" | 0062200800100 | 1 | 10 |
| 10,00 | 133 | 87 | 1/4" | 0062201000100 | 1 | 10 |

Schaft nach DIN 3126, Form E6.3, ISO 1173 / Shank DIN 3126, Form E6.3, ISO 1173 / Eje según DIN 3126, forma E6.3, ISO 1173
Form C Ø 5 mm, Form B < Ø 5 mm / Forma C Ø 5 mm, Forma B < Ø 5 mm

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| Profi Holz PTM 5 | | Profi Holz PTM 8 | | Profi Holz ATM 4 | |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| 5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000600114100 | | 8-tlg. / 8-pcs. / 8-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000600093100 | | 4-tlg. / 4-pcs. / 4-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000603002100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Profi Holz | | Profi Holz | | Profi Holz | |
| Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 3,00 / 4,00 / 5,00 / 10,00 | 1 | Ø 3,00 / 4,00 / 5,00 / 6,00 | 1 |
| | | Ø 6,00 / 8,00 | 2 | | |



Holzbohrer
wood drills
brocas para madera

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

① CV Maschinen-Holzspiralbohrer ② CV machine dowel drills

③ Brocas espirales para madera CV

Einsatzbereich:

Hitzebeständig bis 250° C. Zum Bohren von Weich- und Harthölzern, Spanplatten, Hartfaserplatten, zum Dübellochbohren.

Range of application:

Heat resistant up to 250° C. For drilling in soft and hard wood, in chipboards, fibreboards, for drilling dowel holes.

Ámbito de aplicación:

Termoestable hasta 250 °C. Adecuada para perforar maderas blandas y duras, tablas de madera aglomerada, tableros duros tratados, para perforar agujeros para espigas.



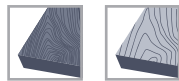
Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



CV



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial








Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | d2 mm | Code 616 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|----|
| 1,00 | 61 | 33 | 3,00 | 0061600100100 | 2 | 10 |
| 2,00 | 61 | 33 | 3,00 | 0061600200100 | 2 | 10 |
| 3,00 | 61 | 33 | | 0061600300100 | 1 | 10 |
| 4,00 | 75 | 43 | | 0061600400100 | 1 | 10 |
| 5,00 | 86 | 52 | | 0061600500100 | 1 | 10 |
| 6,00 | 93 | 57 | | 0061600600100 | 1 | 10 |
| 7,00 | 109 | 69 | | 0061600700100 | 1 | 10 |
| 8,00 | 117 | 75 | | 0061600800100 | 1 | 10 |
| 9,00 | 125 | 81 | | 0061600900100 | 1 | 10 |
| 10,00 | 133 | 87 | | 0061601000100 | 1 | 10 |
| 11,00 | 142 | 84 | 9,50 | 0061601100100 | 1 | 10 |
| 12,00 | 151 | 101 | 9,50 | 0061601200100 | 1 | 10 |
| 13,00 | 151 | 101 | 9,50 | 0061601300100 | 1 | 10 |
| 14,00 | 160 | 108 | 9,50 | 0061601400100 | 1 | 8 |
| 15,00 | 169 | 114 | 9,50 | 0061601500100 | 1 | 8 |
| 16,00 | 178 | 120 | 9,50 | 0061601600100 | 1 | 8 |
| 18,00 | 178 | 120 | 9,50 | 0061601800100 | 1 | 8 |
| 20,00 | 178 | 120 | 9,50 | 0061602000100 | 1 | 8 |

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| Holz TM 5 | | Holz TM 8 | | KIT SET 30 | |
|---|--|---|--|---|--|
|  | |  | |  | |
| 5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000600112100 | | 8-tlg. / 8-pcs. / 8-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000600092100 | | 30-tlg. / 30-pcs. / 30-unid. Set Art.-Nr. 0000800230100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Holz | | Holz | | Holz | |
| Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | Ø 3,00-10,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 |
| | | | | HSS Super | |
| | | | | Ø 2,50 / 3,20 | |
| | | | | Long Life | |
| | | | | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | |
| | | | | Sprint Master | |
| | | | | Ø 3,00 / 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | |
| | | | | Wera | |
| | | | | 4 Bits sortiert / 4 Bits sorted / 4 brocas surtidas | |
| Combiset TM 9 | | Combiset Master SET 16 | | | |
|  | |  | | | |
| 9-tlg. / 9-pcs. / 9-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0000802102100 | | 16-tlg. / 16-pcs. / 16-unid. Set Art.-Nr. 0000811003100 | | | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | |
| Holz | | Holz | | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | |
| Long Life | | Long Life | | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 4,00 / 5,00 / 6,00 / 8,00 / 10,00 | 1 | | |
| Sprint Master | | Sprint Master | | | |
| Ø 5,00 / 6,00 / 8,00 | 1 | Ø 2,00 / 3,00 / 4,00 / 5,00 / 6,00 / 8,00 | 1 | | |



Holzbohrer
wood drills
brocas para madera

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

**CV Schlangenbohrer
„Form Lewis“**

Einsatzbereich:

Zum Bohren von Kanthölzern und dicken Pfosten.

**CV auger bit
“Form Lewis”**

Range of application:

For drilling in square timbers and wood-jamb.

**Broca salomónica CV
“Forma Lewis”**

Ámbito de aplicación:

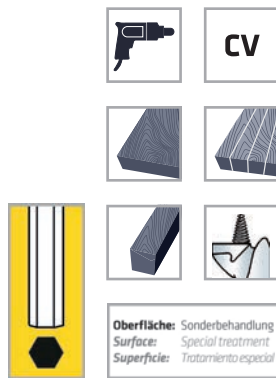
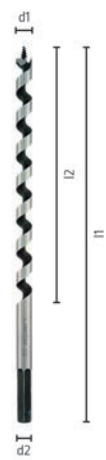
Para perforar maderas escuadradas y vigas gruesas.



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Einzelverpackung
Single pack
Embalaje individual

NEW


| d1 mm | l1 mm | l2 mm | d2 mm | Code 216 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|----------------------|---------------|---|
| 4,00 | 180 | 100 | | 0021600400100 | 1 | 1 |
| 5,00 | 235 | 160 | | 0021600500100 | 1 | 1 |
| 6,00 | 235 | 160 | | 0021600600100 | 1 | 1 |
| 8,00 | 235 | 160 | 7,00 | 0021600800100 | 1 | 1 |
| 10,00 | 235 | 160 | 9,00 | 0021601000100 | 1 | 1 |
| 12,00 | 235 | 160 | 11,00 | 0021601200100 | 1 | 1 |
| 14,00 | 235 | 160 | 13,00 | 0021601400100 | 1 | 1 |
| 15,00 | 235 | 160 | 13,00 | 0021601500100 | 1 | 1 |
| 16,00 | 235 | 160 | 13,00 | 0021601600100 | 1 | 1 |
| 18,00 | 235 | 160 | 13,00 | 0021601800100 | 1 | 1 |
| 20,00 | 235 | 160 | 13,00 | 0021602000100 | 1 | 1 |
| 22,00 | 235 | 160 | 13,00 | 0021602200100 | 1 | 1 |
| 24,00 | 235 | 160 | 13,00 | 0021602400100 | 1 | 1 |
| 25,00 | 235 | 160 | 13,00 | 0021602500100 | 1 | 1 |
| 26,00 | 235 | 160 | 13,00 | 0021602600100 | 1 | 1 |
| 28,00 | 235 | 160 | 13,00 | 0021602800100 | 1 | 1 |
| 30,00 | 235 | 160 | 13,00 | 0021603000100 | 1 | 1 |
| 32,00 | 235 | 160 | 13,00 | 0021603200100 | 1 | 1 |

Einzelverpackung
Single pack
Embalaje individual

Länge / Length / Longitud: 460/380 mm

| d1 mm | l1 mm | l2 mm | d2 mm | Code 226 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|----------|----------------------|---------------|--|
| 8,00 | 460 | 380 | 7,00 | 0022600800100 | 1 | 1 |
| 10,00 | 460 | 380 | 9,00 | 0022601000100 | 1 | 1 |
| 12,00 | 460 | 380 | 11,00 | 0022601200100 | 1 | 1 |
| 14,00 | 460 | 380 | 12,00 | 0022601400100 | 1 | 1 |
| 16,00 | 460 | 380 | 12,00 | 0022601600100 | 1 | 1 |
| 18,00 | 460 | 380 | 12,00 | 0022601800100 | 1 | 1 |
| 20,00 | 460 | 380 | 12,00 | 0022602000100 | 1 | 1 |
| 22,00 | 460 | 380 | 12,00 | 0022602200100 | 1 | 1 |
| 24,00 | 460 | 380 | 12,00 | 0022602400100 | 1 | 1 |
| 25,00 | 460 | 380 | 12,00 | 0022602500100 | 1 | 1 |
| 26,00 | 460 | 380 | 12,00 | 0022602600100 | 1 | 1 |
| 28,00 | 460 | 380 | 12,00 | 0022602800100 | 1 | 1 |
| 30,00 | 460 | 380 | 12,00 | 0022603000100 | 1 | 1 |
| 32,00 | 460 | 380 | 12,00 | 0022603200100 | 1 | 1 |

Länge / Length / Longitud: 600/530 mm

| d1 mm | l1 mm | l2 mm | d2 mm | Code 228 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|----------|----------------------|---------------|---|
| 10,00 | 600 | 530 | 9,00 | 0022801000100 | 1 | 1 |
| 12,00 | 600 | 530 | 11,00 | 0022801200100 | 1 | 1 |
| 14,00 | 600 | 530 | 12,00 | 0022801400100 | 1 | 1 |
| 16,00 | 600 | 530 | 12,00 | 0022801600100 | 1 | 1 |
| 18,00 | 600 | 530 | 12,00 | 0022801800100 | 1 | 1 |
| 20,00 | 600 | 530 | 12,00 | 0022802000100 | 1 | 1 |
| 22,00 | 600 | 530 | 12,00 | 0022802200100 | 1 | 1 |
| 24,00 | 600 | 530 | 12,00 | 0022802400100 | 1 | 1 |
| 26,00 | 600 | 530 | 12,00 | 0022802600100 | 1 | 1 |
| 28,00 | 600 | 530 | 12,00 | 0022802800100 | 1 | 1 |
| 30,00 | 600 | 530 | 12,00 | 0022803000100 | 1 | 1 |
| 32,00 | 600 | 530 | 12,00 | 0022803200100 | 1 | 1 |






Holzbohrer
wood drills
brocas para madera

Sechskantschaft ≥ Ø 8,0 mm / Hexagonal shank ≥ Ø 8,0 mm / Eje hexagonal ≥ Ø 8,0 mm

① Kassetten, Sets

② Cassettes, sets

③ Cajas, juegos

| Form Lewis Holzkassette 6 | | | Form Lewis Holzkassette 6 | | | Form Lewis Holzkassette 6 | | |
|---|----------|---|---|----------|---|---|----------|---|
|  | | |  | | |  | | |
| <p>6-tlg. / 6-pcs. / 6-unid. Holzkassette / Wood cassette / Caja de madera Art.-Nr. 0021600006100</p> | | | <p>6-tlg. / 6-pcs. / 6-unid. Holzkassette / Wood cassette / Caja de madera Art.-Nr. 0022600006100</p> | | | <p>6-tlg. / 6-pcs. / 6-unid. Holzkassette / Wood cassette / Caja de madera Art.-Nr. 0028000006100</p> | | |
| Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | l1 mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Form Lewis | | | Form Lewis | | | Form Lewis | | |
| Ø 6,00 / 8,00 / 10,00 / 12,00 / 14,00 / 16,00 | 235 | 1 | Ø 12,00 / 14,00 / 16,00 / 18,00 / 20,00 / 22,00 | 460 | 1 | Ø 12,00 / 14,00 / 16,00 / 18,00 / 20,00 / 22,00 | 600 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Maschinen-Forstnerbohrer mit 3-Flächenschaft „SHARP SHARK“

Einsatzbereich:

Extrem scharfe Schneiden geben dem Werkzeug präzise Schneideigenschaften sowie eine extrem hohe Standzeit. Zum Bohren von Weich- und Harthölzern, Spanplatten und Hartfaserplatten.



Präzise
Precise
Preciso



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados

E Machine forstner bit with 3-surface shank “SHARP SHARK”

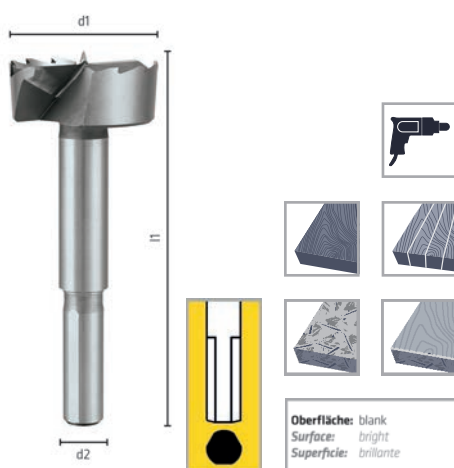
Range of application:

For drilling hard and soft woods, chip and fibreboards. Extreme sharp edges provide optimum performance and prolonged life.

ES Broca fresadora para madera para máquinas con eje de 3 caras “SHARP SHARK”

Ámbito de aplicación:

Filos extremadamente cortantes en el borde confieren a esta herramienta características de corte muy precisas, así como un tiempo de uso extremadamente prolongado. Para perforar maderas blandas y duras, tablas de madera aglomerada y tableros duros tratados.



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

Länge / Length / Longitud: 90 mm

| d1 mm | l1 mm | d2 mm | Code 239 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------------------|---------------|---|
| 15,00 | 90 | 8,00 | 0023901500100 | 1 | 1 |
| 16,00 | 90 | 8,00 | 0023901600100 | 1 | 1 |
| 18,00 | 90 | 8,00 | 0023901800100 | 1 | 1 |
| 20,00 | 90 | 8,00 | 0023902000100 | 1 | 1 |
| 22,00 | 90 | 8,00 | 0023902200100 | 1 | 1 |
| 24,00 | 90 | 8,00 | 0023902400100 | 1 | 1 |
| 25,00 | 90 | 8,00 | 0023902500100 | 1 | 1 |
| 26,00 | 90 | 8,00 | 0023902600100 | 1 | 1 |
| 28,00 | 90 | 10,00 | 0023902800100 | 1 | 1 |
| 30,00 | 90 | 10,00 | 0023903000100 | 1 | 1 |
| 32,00 | 90 | 10,00 | 0023903200100 | 1 | 1 |
| 35,00 | 90 | 10,00 | 0023903500100 | 1 | 1 |
| 40,00 | 90 | 10,00 | 0023904000100 | 1 | 1 |
| 45,00 | 90 | 10,00 | 0023904500100 | 1 | 1 |
| 50,00 | 90 | 10,00 | 0023905000100 | 1 | 1 |

SHARP SHARK Holzkassette 5



5-tlg. / 5-pcs. / 5-unid.
Holzkassette / Wood cassette / Caja de madera
Art.-Nr. 0023900005100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---|---|
| SHARP SHARK | |
| Ø 15,00 / 20,00 / 25,00 / 30,00 / 35,00 | 1 |



Holzbohrer
wood drills
brocas para madera

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

① Maschinen-Forstnerbohrer

⑤ Machine forstner bit

⑤ Broca fresadora para madera para máquinas

Einsatzbereich:

Zum Bohren von Weich- und Harthölzern, Spanplatten und Hartfaserplatten.

Range of application:

For drilling in soft and hard wood, in chip-boards and fibreboards.

Ámbito de aplicación:

Para perforar maderas blandas y duras, tablas de madera aglomerada y tableros duros tratados.



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

Länge / Length / Longitud: 90 mm

| d1 mm | l1 mm | d2 mm | Code 236 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------------------|---------------|---|
| 10,00 | 90 | 8,00 | 0023601000100 | 1 | 1 |
| 12,00 | 90 | 8,00 | 0023601200100 | 1 | 1 |
| 14,00 | 90 | 8,00 | 0023601400100 | 1 | 1 |
| 15,00 | 90 | 8,00 | 0023601500100 | 1 | 1 |
| 16,00 | 90 | 8,00 | 0023601600100 | 1 | 1 |
| 18,00 | 90 | 8,00 | 0023601800100 | 1 | 1 |
| 20,00 | 90 | 8,00 | 0023602000100 | 1 | 1 |
| 22,00 | 90 | 10,00 | 0023602200100 | 1 | 1 |
| 24,00 | 90 | 10,00 | 0023602400100 | 1 | 1 |
| 25,00 | 90 | 10,00 | 0023602500100 | 1 | 1 |
| 26,00 | 90 | 10,00 | 0023602600100 | 1 | 1 |
| 28,00 | 90 | 10,00 | 0023602800100 | 1 | 1 |
| 30,00 | 90 | 10,00 | 0023603000100 | 1 | 1 |
| 32,00 | 90 | 10,00 | 0023603200100 | 1 | 1 |
| 35,00 | 90 | 10,00 | 0023603500100 | 1 | 1 |
| 40,00 | 90 | 10,00 | 0023604000100 | 1 | 1 |
| 45,00 | 90 | 10,00 | 0023604500100 | 1 | 1 |
| 50,00 | 90 | 10,00 | 0023605000100 | 1 | 1 |

D Hartmetallbestückter
Beschlagbohrer für
Einbohrbänder

Einsatzbereich:

Zum Bohren von Harthölzer, Spanplatten und Hartfaserplatten. Einsatz nur mit Bohrständen.

E TCT drill bits for cantilever
hinges

Range of application:

For drilling in hard wood, in chipboards and fibreboards. Use with drill stand only.

ES Broca para herrajes revestida de
carburo metálico para brocas
individuales

Ámbito de aplicación:

Para perforar maderas duras, tablas de madera aglomerada y tableros duros tratados. Solo emplear con un soporte para taladradora.



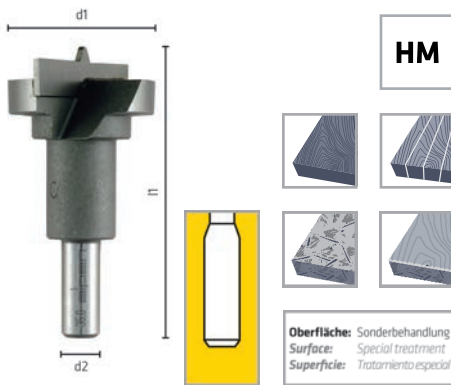
Verschleissfest
Wear-resistant
Resistente al desgaste



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

Länge / Length / Longitud: 57 mm

| d1 mm | l1 mm | d2 mm | Code 235 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------------------|---------------|---|
| 30,00 | 57 | 8,00 | 0023503000100 | 1 | 1 |
| 35,00 | 57 | 10,00 | 0023503500100 | 1 | 1 |



Holzbohrer
wood drills
brocas para madera

① Maschinen-Schalungsbohrer

② Machine cavity wood drills

③ Broca para encofrados a máquina

Einsatzbereich:

Zum Bohren in Schalungen im Baubereich sowie von Brettern, Balken, Dielen und Platten aus Weich- und Hartholz u. ä.

Range of application:

For drilling through cavities in the building industry, also for drilling blanks, beams, joists and panels made of soft and hard wood.

Ámbito de aplicación:

Para perforar en encofrados en el sector de la construcción, así como para tablones, vigas, tablas de suelo y losas de madera y blanda y dura, etc.



Bruchstabil
Break-resistant
Resistente a la rotura



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



CV

118°

Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial




Einzelverpackung
Single pack
Embalaje individual

Länge / Length / Longitud: 400/120 mm


| d1 mm | l1 mm | l2 mm | d2 mm | Code 55 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|---------------------|---------------|---|
| 8,00 | 400 | 120 | 6,00 | 0005500800100 | 1 | 1 |
| 10,00 | 400 | 120 | 8,00 | 0005501000100 | 1 | 1 |
| 12,00 | 400 | 120 | 8,00 | 0005501200100 | 1 | 1 |
| 14,00 | 400 | 120 | 8,00 | 0005501400100 | 1 | 1 |
| 16,00 | 400 | 120 | 10,00 | 0005501600100 | 1 | 1 |
| 18,00 | 400 | 120 | 10,00 | 0005501800100 | 1 | 1 |
| 20,00 | 400 | 120 | 10,00 | 0005502000100 | 1 | 1 |
| 22,00 | 400 | 120 | 10,00 | 0005502200100 | 1 | 1 |
| 24,00 | 400 | 120 | 11,00 | 0005502400100 | 1 | 1 |
| 26,00 | 400 | 120 | 11,00 | 0005502600100 | 1 | 1 |

Einzelverpackung
Single pack
Embalaje individual

Länge / Length / Longitud: 600/120 mm

| d1 mm | l1 mm | l2 mm | d2 mm | Code 65 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|----------|---------------------|---------------|--|
| 8,00 | 600 | 120 | 6,00 | 0006500800100 | 1 | 1 |
| 10,00 | 600 | 120 | 8,00 | 0006501000100 | 1 | 1 |
| 12,00 | 600 | 120 | 8,00 | 0006501200100 | 1 | 1 |
| 14,00 | 600 | 120 | 8,00 | 0006501400100 | 1 | 1 |
| 16,00 | 600 | 120 | 10,00 | 0006501600100 | 1 | 1 |
| 18,00 | 600 | 120 | 10,00 | 0006501800100 | 1 | 1 |
| 20,00 | 600 | 120 | 10,00 | 0006502000100 | 1 | 1 |
| 22,00 | 600 | 120 | 10,00 | 0006502200100 | 1 | 1 |
| 24,00 | 600 | 120 | 11,00 | 0006502400100 | 1 | 1 |
| 26,00 | 600 | 120 | 11,00 | 0006502600100 | 1 | 1 |
| 30,00 | 600 | 120 | 11,00 | 0006503000100 | 1 | 1 |

Länge / Length / Longitud: 800/120 mm

| d1 mm | l1 mm | l2 mm | d2 mm | Code 75 Art.-Nr. | Inh. Cont. |  |
|----------|----------|----------|----------|---------------------|---------------|--|
| 10,00 | 800 | 120 | 8,00 | 0007501000100 | 1 | 1 |
| 12,00 | 800 | 120 | 8,00 | 0007501200100 | 1 | 1 |
| 14,00 | 800 | 120 | 8,00 | 0007501400100 | 1 | 1 |
| 16,00 | 800 | 120 | 10,00 | 0007501600100 | 1 | 1 |
| 18,00 | 800 | 120 | 10,00 | 0007501800100 | 1 | 1 |
| 20,00 | 800 | 120 | 10,00 | 0007502000100 | 1 | 1 |



Holzbohrer
wood drills
brocas para madera

1 Maschinen-Schalungsbohrer mit SDS-plus Aufnahme

E Machine cavity wood drills with SDS-plus shank

ES Broca para encofrados para máquinas con toma SDS-plus

Einsatzbereich:

Zum Bohren in Schalungen im Baubereich sowie von Brettern, Balken, Dielen und Platten aus Weich- und Hartholz u. ä.

Range of application:

For drilling through cavities in the building industry, also for drilling blanks, beams, joists and panels made of soft and hard wood.

Ámbito de aplicación:

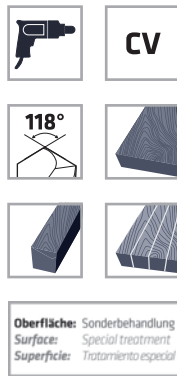
Para perforar en encofrados en el sector de la construcción, así como para tablones, vigas, tablas de suelo y losas de madera y blanda y dura, etc.



Bruchstabil
Break-resistant
Resistente a la rotura



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados



Oberfläche: Sonderbehandlung
Surface: Special treatment
Superficie: Tratamiento especial



Einzelverpackung
Single pack
Embalaje individual

Länge / Length / Longitud: 400/120 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 56 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|---------------------|---------------|---|
| 10,00 | 400 | 120 | SDS-plus | 0005601000100 | 1 | 1 |
| 12,00 | 400 | 120 | SDS-plus | 0005601200100 | 1 | 1 |
| 14,00 | 400 | 120 | SDS-plus | 0005601400100 | 1 | 1 |
| 16,00 | 400 | 120 | SDS-plus | 0005601600100 | 1 | 1 |
| 18,00 | 400 | 120 | SDS-plus | 0005601800100 | 1 | 1 |
| 20,00 | 400 | 120 | SDS-plus | 0005602000100 | 1 | 1 |
| 22,00 | 400 | 120 | SDS-plus | 0005602200100 | 1 | 1 |

Länge / Length / Longitud: 600/120 mm

| d1 mm | l1 mm | l2 mm | d2 | Code 66 Art.-Nr. | Inh. Cont. | |
|----------|----------|----------|----------|---------------------|---------------|---|
| 10,00 | 600 | 120 | SDS-plus | 0006601000100 | 1 | 1 |
| 12,00 | 600 | 120 | SDS-plus | 0006601200100 | 1 | 1 |
| 14,00 | 600 | 120 | SDS-plus | 0006601400100 | 1 | 1 |
| 16,00 | 600 | 120 | SDS-plus | 0006601600100 | 1 | 1 |
| 18,00 | 600 | 120 | SDS-plus | 0006601800100 | 1 | 1 |
| 20,00 | 600 | 120 | SDS-plus | 0006602000100 | 1 | 1 |
| 22,00 | 600 | 120 | SDS-plus | 0006602200100 | 1 | 1 |

D Flachfräsbohrer

E Flat wood bit

ES Broca fresadora plana

Einsatzbereich:

Schneller und exakter Schnitt, punktgenaues Anbohren. Zum Bohren in Weich- und Hartholz, Spanplatten und Balken.

Range of application:

Fast and precise cut, spot precision drilling. For drilling in soft and hard wood, chipboards and beams.

Ámbito de aplicación:

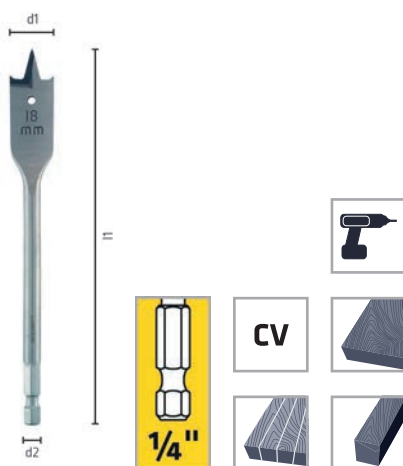
Corte rápido y exacto, perforación precisa. Para perforar maderas blandas y duras, tablas de madera aglomerada y vigas.



Punktgenaues Anbohren
Highly accurate centering
Perforación de gran precisión



Scharfe Schneiden
Sharp cutting edges
Filos bien afilados




Einzelverpackung
Single pack
Embalaje individual


Länge / Length / Longitud: 152 mm


| d1 mm | l1 mm | d2 | Code 237 Art.-Nr. | Inh. Cont. | |
|----------|----------|------|----------------------|---------------|----|
| 6,00 | 152 | 1/4" | 0023700600100 | 1 | 10 |
| 8,00 | 152 | 1/4" | 0023700800100 | 1 | 10 |
| 10,00 | 152 | 1/4" | 0023701000100 | 1 | 10 |
| 12,00 | 152 | 1/4" | 0023701200100 | 1 | 10 |
| 13,00 | 152 | 1/4" | 0023701300100 | 1 | 10 |
| 14,00 | 152 | 1/4" | 0023701400100 | 1 | 10 |
| 16,00 | 152 | 1/4" | 0023701600100 | 1 | 10 |
| 17,00 | 152 | 1/4" | 0023701700100 | 1 | 10 |
| 18,00 | 152 | 1/4" | 0023701800100 | 1 | 10 |
| 19,00 | 152 | 1/4" | 0023701900100 | 1 | 10 |
| 20,00 | 152 | 1/4" | 0023702000100 | 1 | 10 |
| 22,00 | 152 | 1/4" | 0023702200100 | 1 | 10 |
| 24,00 | 152 | 1/4" | 0023702400100 | 1 | 10 |
| 25,00 | 152 | 1/4" | 0023702500100 | 1 | 10 |
| 26,00 | 152 | 1/4" | 0023702600100 | 1 | 10 |
| 28,00 | 152 | 1/4" | 0023702800100 | 1 | 10 |
| 30,00 | 152 | 1/4" | 0023703000100 | 1 | 10 |
| 32,00 | 152 | 1/4" | 0023703200100 | 1 | 10 |
| 35,00 | 152 | 1/4" | 0023703500100 | 1 | 10 |
| 38,00 | 152 | 1/4" | 0023703800100 | 1 | 10 |
| 40,00 | 152 | 1/4" | 0023704000100 | 1 | 10 |



Holzbohrer
wood drills
brocas para madera

| Länge / Length / Longitud: 400 mm | | | Einzelverpackung <i>Single pack Embalaje individual</i> | | |
|-----------------------------------|----------|------|--|---------------|---|
| d1 mm | l1 mm | d2 | Code 238 Art.-Nr. | Inh. Cont. |  |
| 6,00 | 400 | 1/4" | 0023800600100 | 1 | 10 |
| 8,00 | 400 | 1/4" | 0023800800100 | 1 | 10 |
| 10,00 | 400 | 1/4" | 0023801000100 | 1 | 10 |
| 12,00 | 400 | 1/4" | 0023801200100 | 1 | 10 |
| 13,00 | 400 | 1/4" | 0023801300100 | 1 | 10 |
| 14,00 | 400 | 1/4" | 0023801400100 | 1 | 10 |
| 16,00 | 400 | 1/4" | 0023801600100 | 1 | 10 |
| 17,00 | 400 | 1/4" | 0023801700100 | 1 | 10 |
| 18,00 | 400 | 1/4" | 0023801800100 | 1 | 10 |
| 20,00 | 400 | 1/4" | 0023802000100 | 1 | 10 |
| 22,00 | 400 | 1/4" | 0023802200100 | 1 | 10 |
| 24,00 | 400 | 1/4" | 0023802400100 | 1 | 10 |
| 25,00 | 400 | 1/4" | 0023802500100 | 1 | 10 |
| 26,00 | 400 | 1/4" | 0023802600100 | 1 | 10 |
| 28,00 | 400 | 1/4" | 0023802800100 | 1 | 10 |
| 30,00 | 400 | 1/4" | 0023803000100 | 1 | 10 |
| 32,00 | 400 | 1/4" | 0023803200100 | 1 | 10 |
| 35,00 | 400 | 1/4" | 0023803500100 | 1 | 10 |
| 38,00 | 400 | 1/4" | 0023803800100 | 1 | 10 |
| 40,00 | 400 | 1/4" | 0023804000100 | 1 | 10 |

| Einzelverpackung <i>Single pack / Embalaje individual</i> | | | Code 234 Art.-Nr. | Inh. Cont. |  |
|---|--|--|----------------------|---------------|---|
| Zentrumsbohrer verstellbar bis ø 45 mm <i>Center bit adjustable up to ø 45 mm Broca de centrar ajustable hasta ø 45 mm</i> | | | 0023404000100 | 1 | 10 |

| Zubehör <i>Accessory / Accesorios</i> | | | Code 237 Art.-Nr. | Inh. Cont. |  |
|--|--|--|----------------------|---------------|---|
| Verlängerung Flachfräsbohrer 300 mm <i>Extension flat drill file rasp 300 mm Prolongación de broca fresadora plana 300 mm</i> | | | 0023709999100 | 1 | 10 |







Schaft nach DIN 3126, Form E6.3, ISO 1173 / Shank DIN 3126, Form E6.3, ISO 1173 / Eje según DIN 3126, forma E6.3, ISO 1173

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| Flachfräsbohrer BOX 5 | | Flachfräsbohrer PLT 3 | |
|---|---|---|---|
|  |  |  |  |
| 5-tlg. / 5-pcs. / 5-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0023700015100 | | 3-tlg. / 3-pcs. / 3-unid. Einzelverpackung / Single pack / Embalaje individual Art.-Nr. 0023700003100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Flachfräsbohrer Ø 16,00 / 18,00 / 20,00 / 22,00 / 24,00 | 1 | Flachfräsbohrer Ø 16,00 / 18,00 / 20,00 | 1 |



Holzbohrer
wood drills
brocas para madera

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Drehzahlen

E Spindle speeds

ES Velocidades

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.






HSS Cobalt Holz






Profi Holz



Code 633

Code 620, 622

| Ø mm |      | | | | |
|---------|---|------|------|------|------|
| | U/min. rpm r.p.m. | | | | |
| 3 | 3800 | 2850 | 2500 | 2100 | 2300 |
| 4 | 2900 | 2150 | 1850 | 1600 | 1750 |
| 5 | 2350 | 1700 | 1500 | 1300 | 1400 |
| 6 | 1950 | 1450 | 1250 | 1100 | 1170 |
| 7 | 1650 | 1250 | 1100 | 900 | 1000 |
| 8 | 1450 | 1050 | 950 | 800 | 880 |
| 9 | 1300 | 950 | 850 | 700 | 780 |
| 10 | 1160 | 850 | 750 | 650 | 700 |
| 11 | 1050 | 780 | 680 | 580 | 650 |
| 12 | 970 | 700 | 620 | 530 | 580 |
| 14 | 830 | 600 | 530 | 450 | 500 |
| 16 | 730 | 550 | 470 | 400 | 440 |
| 18 | 650 | 480 | 420 | 350 | 400 |
| 20 | 580 | 430 | 370 | 320 | 350 |

| Ø mm |      | | | | |
|---------|--|------|------|------|------|
| | U/min. rpm r.p.m. | | | | |
| 3 | 3000 | 2700 | 2300 | 1900 | 2300 |
| 4 | 2800 | 2000 | 1800 | 1400 | 1750 |
| 5 | 2200 | 1600 | 1400 | 1150 | 1400 |
| 6 | 1900 | 1300 | 1150 | 950 | 1170 |
| 8 | 1400 | 1000 | 900 | 700 | 880 |
| 10 | 1100 | 800 | 700 | 550 | 700 |
| 12 | 900 | 650 | 600 | 500 | 580 |

Holz



Code 616

| Ø mm | U/min. rpm r.p.m. | | | |
|---------|-----------------------|----------|----------|-----------|
| | Wood | Softwood | Hardwood | Composite |
| 1 | 2700 | 2300 | 1900 | 1600 |
| 2 | 2700 | 2300 | 1900 | 1600 |
| 3 | 2700 | 2300 | 1900 | 1600 |
| 4 | 2000 | 1800 | 1400 | 1200 |
| 5 | 1600 | 1400 | 1100 | 1000 |
| 6 | 1300 | 1200 | 1000 | 800 |
| 7 | 1200 | 1000 | 800 | 700 |
| 8 | 1000 | 900 | 700 | 600 |
| 9 | 900 | 800 | 600 | 550 |
| 10 | 800 | 700 | 600 | 500 |
| 11 | 700 | 650 | 550 | 450 |
| 12 | 650 | 600 | 500 | 400 |
| 13 | 600 | 550 | 450 | 350 |
| 14 | 550 | 500 | 400 | 350 |
| 15 | 550 | 450 | 400 | 300 |
| 16 | 500 | 450 | 350 | 300 |
| 18 | 450 | 400 | 300 | 250 |
| 20 | 400 | 350 | 250 | 200 |

Schlangenbohrer / Auger bit / Broca salomónica "Form Lewis"



Code 216, 226, 228

| Ø mm | U/min. rpm r.p.m. | | | |
|---------|-----------------------|----------|----------|-----------|
| | Wood | Softwood | Hardwood | Composite |
| 4 | 1000 | 800 | 800 | 800 |
| 5 | 1000 | 800 | 800 | 800 |
| 6 | 1000 | 800 | 800 | 800 |
| 8 | 1000 | 750 | 750 | 600 |
| 10 | 1000 | 600 | 600 | 450 |
| 12 | 1000 | 500 | 500 | 400 |
| 14 | 900 | 450 | 450 | 350 |
| 15 | 850 | 400 | 400 | 300 |
| 16 | 800 | 400 | 400 | 300 |
| 18 | 700 | 350 | 350 | 250 |
| 20 | 650 | 300 | 300 | 250 |
| 22 | 600 | 300 | 300 | 200 |
| 24 | 550 | 250 | 250 | 200 |
| 25 | 500 | 250 | 250 | 200 |
| 26 | 500 | 250 | 250 | 200 |
| 28 | 450 | 200 | 200 | 150 |
| 30 | 400 | 200 | 200 | 150 |
| 32 | 400 | 200 | 200 | 150 |



Holzbohrer
wood drills
brocas para madera

D Drehzahlen

E Spindle speeds

ES Velocidades

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

Forstnerbohrer / Forstner Bit / Broca fresadora para madera „Sharp Shark“

Beschlagbohrer / Drill bits for cantilever hinges / Broca para herrajes






| Code 236, 239 | | | | |
|---------------|-----------------------|------|------|------|
| Ø mm | | | | |
| | U/min. rpm r.p.m. | | | |
| 10 | 2400 | 1800 | 1400 | 1100 |
| 12 | 2400 | 1500 | 1200 | 950 |
| 14 | 2150 | 1300 | 1050 | 850 |
| 15 | 2050 | 1200 | 950 | 800 |
| 16 | 1950 | 1150 | 900 | 750 |
| 18 | 1800 | 1050 | 850 | 650 |
| 20 | 1650 | 950 | 750 | 600 |
| 22 | 1550 | 850 | 700 | 550 |
| 24 | 1450 | 800 | 650 | 500 |
| 25 | 1400 | 750 | 600 | 500 |
| 26 | 1350 | 750 | 600 | 450 |
| 28 | 1300 | 700 | 550 | 450 |
| 30 | 1250 | 650 | 550 | 400 |
| 32 | 1200 | 600 | 500 | 400 |
| 35 | 1100 | 550 | 450 | 350 |
| 40 | 1000 | 500 | 400 | 300 |
| 45 | 900 | 450 | 350 | 300 |
| 50 | 850 | 400 | 300 | 250 |

| Code 235 | | | | |
|----------|-----------------------|-----|-----|-----|
| Ø mm | | | | |
| | U/min. rpm r.p.m. | | | |
| 30 | 1400 | 800 | 650 | 550 |
| 35 | 1200 | 700 | 550 | 450 |

Schalungsbohrer / Cavity wood drills / Broca para encofrados







Code 055, 056, 065, 066, 075

| Ø mm | U/min. rpm r.p.m. | | |
|---------|---|---|---|
| |  |  |  |
| 8 | 1400 | 1000 | 900 |
| 10 | 1100 | 800 | 700 |
| 12 | 900 | 650 | 600 |
| 14 | 800 | 600 | 500 |
| 16 | 700 | 500 | 450 |
| 18 | 600 | 450 | 400 |
| 20 | 550 | 400 | 350 |
| 22 | 500 | 350 | 300 |
| 24 | 450 | 350 | 300 |
| 26 | 400 | 300 | 300 |
| 28 | 400 | 300 | 250 |
| 30 | 350 | 250 | 250 |

Flachfräsbohrer / Flat wood bit / Broca fresadora plana



Code 237, 238, 234

| Ø mm | U/min. rpm r.p.m. | | | |
|---------|--|---|---|---|
| |  |  |  |  |
| 6 | 1700 | 1000 | 800 | 650 |
| 8 | 1450 | 900 | 700 | 550 |
| 10 | 1300 | 750 | 600 | 500 |
| 12 | 1150 | 700 | 550 | 450 |
| 13 | 1100 | 650 | 550 | 400 |
| 14 | 1050 | 650 | 500 | 400 |
| 16 | 1000 | 600 | 450 | 400 |
| 17 | 950 | 550 | 450 | 350 |
| 18 | 900 | 550 | 450 | 350 |
| 19 | 900 | 550 | 450 | 350 |
| 20 | 850 | 500 | 400 | 350 |
| 22 | 800 | 500 | 400 | 300 |
| 24 | 800 | 500 | 400 | 300 |
| 25 | 750 | 450 | 350 | 300 |
| 26 | 700 | 450 | 350 | 300 |
| 28 | 700 | 400 | 350 | 300 |
| 30 | 700 | 400 | 350 | 250 |
| 32 | 650 | 400 | 300 | 250 |
| 35 | 650 | 400 | 300 | 250 |
| 38 | 600 | 350 | 300 | 250 |
| 40 | 600 | 350 | 300 | 200 |



Holzbohrer
wood drills
brocas para madera



HARTMETALL WERKZEUGE

// VOLLHARTMETALL-BOHRER, VOLLHARTMETALL-SENKER,
HARTMETALL-FRÄSSTIFTE



E *TUNGSTEN CARBIDE TOOLS*

- // SOLID CARBIDE DRILLS
- // SOLID CARBIDE COUNTERSINKS
- // TUNGSTEN CARBIDE ROTARY BURRS

ES *HERRAMIENTAS DE METAL DURO*

- // BROCAS DE METAL DURO Y MACIZO
- // BROCAS AVELLADORAS DE METAL DURO Y MACIZO
- // PUNTAS DE AVELLANDO DE METAL DURO

Übersicht

Overview

Resumen

| | DIN 6539 | | DIN 338 | |
|---|---|---|---|---|
|  |  |  |  | |
| Norm / Estándar | DIN 6539 | | DIN 338 | |
| Name / Nombre | VHM Bohrer | VHM Bohrer | VHM Bohrer | VHM Bohrer |
| Typ / Type / Tipo | N | N | N | N |
| Bohrtiefe / Depth of drilling / Profundidad de perforación | 3xD | 3xD | 5xD | 5xD |
| Schneidstoff / Cutting material / Material de corte | VHM | VHM | VHM | VHM |
| Beschichtung / Coating / Recubrimiento | | ALUNIT® | | ALUNIT® |
| Spitzenwinkel / Lip angle / Ángulo de la punta | 118° | 118° | 118° | 118° |
| Schaft / Shank / Eje |  |  |  |  |
| Ø mm | 0,50 - 20,00 | 0,50 - 14,00 | 1,00 - 16,00 | 1,00 - 16,00 |
| Code / Código | 6146 | 6147 | 6156 | 6157 |
| Seite / Page / Página | 225 | 225 | 228 | 228 |
| Geeignet für / Suitable for / Adecuada para | | | | |
|  Allgemeine Baustähle Structural steels Aceros de construcción generales |  |  |  |  |
|  Automatenstähle Free cutting steels Aceros de corte fácil |  |  |  |  |
|  Unlegierte Vergütungsstähle Unalloyed heat treatable steels Aceros para bonifi car no aleados |  |  |  |  |
|  Legierte Vergütungsstähle Alloyed heat treatable steels Aceros para bonifi car aleados |  |  |  |  |
|  Rostfreie Stähle Stainless steels Aceros inoxidable |  |  |  |  |
|  Grauguss, Temperguss Grey cast iron, malleable cast iron Hierro fundido gris, fundición maleable |  |  |  |  |
|  Titan- und Titanlegierungen Titanium and titanium alloys Titanio y aleaciones de titanio |  |  |  |  |
|  Kupfer, Messing Copper, brass Cobre, latón |  |  |  |  |
|  Aluminium Aluminio Aluminio |  |  |  |  |
|  Kunststoffe Plastics Plásticos |  |  |  |  |

Übersicht

Overview

Resumen

| | | | |
|---|---|--|---|
|  |  |  |  |
| DIN 335 | | DIN 335 | |
| VHM Senker | VHM Senker | VHM Senker | VHM Senker |
| VHM | VHM | VHM | VHM |
| | ALUNIT® | | ALUNIT® |
| 90° | 90° | 90° | 90° |
|  |  |  |  |
| 5,30 - 31,00 | 5,30 - 31,00 | 5,30 - 31,00 | 5,30 - 31,00 |
| 6530 | 6637 | 6405 | 6407 |
| 232 | 232 | 233 | 233 |
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Hartmetall Werkzeuge
 Tungsten carbide tools
 herramientas de metal duro

Übersicht

Overview












































Resumen

| |  |  |  |  |  |  |
|---|---|---|--|---|---|---|
| Typ / Type / Tipo DIN | ZYA | ZYA-S | WRC | SPG | WKN | SKM |
| Typ / Type / Tipo ISO | A | A-S | C | G | N | M |
| Schneidstoff / Cutting material / Material de corte | Hartmetall | Hartmetall | Hartmetall | Hartmetall | Hartmetall | Hartmetall |
| Stirnverzahnung / Front cut / Dentado frontal | ja / yes / si | | | | | |
| Schaft / Shank / Eje |  |  |  |  |  |  |
| Ø mm | 2,00 - 20,00 | 2,00 - 20,00 | 3,00 - 20,00 | 3,00 - 16,00 | 3,00 - 12,00 | 3,00 - 16,00 |
| Code / Código | 7770 - 7778 | 7782 - 7789 | 7790 - 7799 | 7800 - 7809 | 7813 - 7816 | 7833 - 7837 |
| Seite / Page / Página | 234 | 236 | 238 | 240 | 242 | 244 |
| Zahnung / Cut / Dentado | | | | | | |
|  0 | INOX |  | |  |  | |
|  1A | Aluminium Aluminium Aluminio |  |  |  |  | |
|  2 | | |  |  | | |
|  3 | DIN MY |  |  |  |  |  |
|  4 | Diamant Diamond Diamante |  |  |  |  |  |
|  6 | DIN MX |  |  |  |  |  |
|  6 TiN | DIN MX |  |  |  |  |  |
|  9 | SPECIAL STEEL | |  |  |  | |

Übersicht

Overview

Resumen

| | | | | | | |
|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |
| KSK | KSJ | TRE | KUD | RBF | KEL | B |
| K | J | E | D | F | L | H |
| Hartmetall | Hartmetall | Hartmetall | Hartmetall | Hartmetall | Hartmetall | Hartmetall |
|  |  |  |  |  |  |  |
| 3,00 - 20,00 | 3,00 - 16,00 | 3,00 - 16,00 | 2,50 - 20,00 | 3,00 - 20,00 | 3,00 - 16,00 | 6,00 - 16,00 |
| 7843, 7846 | 7853, 7856 | 7863, 7864, 7866 | 7873 - 7878 | 7880 - 7889 | 7890 - 7899 | 7903, 7904, 7906 |
| 246 | 248 | 250 | 252 | 254 | 256 | 258 |
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Hartmetall Werkzeuge
 Tungsten carbide tools
 herramientas de metal duro



MAYKESTAG *INSIDE*



Äußerst präzise und genau

Der Mehrflächenanschliff bewirkt optimalen Spanbruch, hohe Zentriergenauigkeit und geringe Schnittkräfte

Extremely precise and accurate

The multi faced point shapes results in optimum chip flow, high centering accuracy and low cutting forces

Especialmente precisa y exacta

El afilado para varias superficies logra una rotura de las virutas óptima, una elevada precisión del centrado y una menor fuerza de corte

Schnelle Bohrung

Hohe Schnittgeschwindigkeit und Vorschübe

Fast drilling

High cutting speeds and feeds

Perforación rápida

Velocidad de corte y avance elevados

Geeignet für schwer zerspanbare Materialien

Selbst hochfester Stahl lässt sich exakt bohren

Suitable for difficult-to-machine materials

Even heat resistant steel can be drilled precisely

Apto para materiales difícilmente mecanizables

Permite la perforación exacta incluso del acero más resistente



alpen *drill better.*

D Vollhartmetall-Spiralbohrer, extra kurz, DIN 6539

Einsatzbereich:

Besonders geeignet zum Bohren von hochfesten Stählen, Cr-Ni-Stählen, Hartguss, Grauguss, Stahlguss, Mn-Hartstahl, Bronze, Aluminium mit hohem Siliziumanteil und anderen schwer zerspanbaren Werkstoffen (beschichtete Ausführung).

E Solid carbide stub drills, short series, DIN 6539

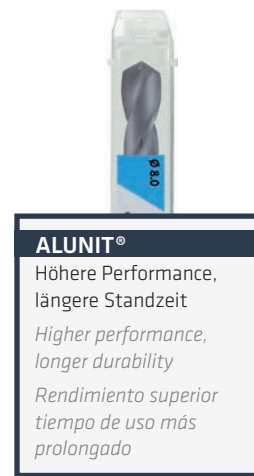
Range of application:

Especially suitable for drilling heat resistant steels, Cr-Ni steels, high carbon steel castings, grey cast iron, cast steels, manganese steels, bronze, aluminium with high percentage silicon and other difficult-to-machine materials (coated design).

ES Broca espiral de metal duro y macizo, extra corta, DIN 6539

Ámbito de aplicación:

Especialmente adecuada para el taladrado de aceros de alta resistencia, aceros al cromo-níquel, fundición blanca, hierro fundido gris, fundición de acero, acero duro con manganeso, bronce, aluminio con contenido elevado de silicio y otros materiales difícilmente mecanizables con virutaje (diseño recubierto).



Einzelverpackung
Single packing
Embalaje individual

Einzelverpackung
Single packing
Embalaje individual

| d1 mm | l1 mm | l2 mm | blank / bright / brillante | | ALUNIT® | |
|----------|----------|----------|----------------------------|---------------|-----------------------|---------------|
| | | | Code 6146 Art.-Nr. | Inh. Cont. | Code 6147 Art.-Nr. | Inh. Cont. |
| 0,50 | 26 | 6 | 0614600050100 | 1 | 0614700050100 | 1 |
| 0,60 | 26 | 6 | 0614600060100 | 1 | 0614700060100 | 1 |
| 0,70 | 26 | 6 | 0614600070100 | 1 | 0614700070100 | 1 |
| 0,80 | 26 | 6 | 0614600080100 | 1 | 0614700080100 | 1 |
| 0,90 | 26 | 6 | 0614600090100 | 1 | 0614700090100 | 1 |
| 1,00 | 26 | 6 | 0614600100100 | 1 | 0614700100100 | 1 |
| 1,10 | 28 | 7 | 0614600110100 | 1 | 0614700110100 | 1 |
| 1,20 | 30 | 8 | 0614600120100 | 1 | 0614700120100 | 1 |
| 1,30 | 30 | 8 | 0614600130100 | 1 | 0614700130100 | 1 |
| 1,40 | 32 | 9 | 0614600140100 | 1 | 0614700140100 | 1 |
| 1,50 | 32 | 9 | 0614600150100 | 1 | 0614700150100 | 1 |
| 1,60 | 34 | 10 | 0614600160100 | 1 | 0614700160100 | 1 |
| 1,70 | 34 | 10 | 0614600170100 | 1 | 0614700170100 | 1 |
| 1,80 | 36 | 11 | 0614600180100 | 1 | 0614700180100 | 1 |
| 1,90 | 36 | 11 | 0614600190100 | 1 | 0614700190100 | 1 |
| 2,00 | 38 | 12 | 0614600200100 | 1 | 0614700200100 | 1 |
| 2,10 | 38 | 12 | 0614600210100 | 1 | 0614700210100 | 1 |
| 2,20 | 40 | 13 | 0614600220100 | 1 | 0614700220100 | 1 |
| 2,30 | 40 | 13 | 0614600230100 | 1 | 0614700230100 | 1 |
| 2,40 | 43 | 14 | 0614600240100 | 1 | 0614700240100 | 1 |
| 2,50 | 43 | 14 | 0614600250100 | 1 | 0614700250100 | 1 |
| 2,60 | 43 | 14 | 0614600260100 | 1 | 0614700260100 | 1 |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro

| | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | |
|----------|----------|----------|---|---------------|---|---------------|
| | | | blank / bright / brillante | | ALUNIT® | |
| d1 mm | l1 mm | l2 mm | Code 6146 Art.-Nr. | Inh. Cont. | Code 6147 Art.-Nr. | Inh. Cont. |
| 2,70 | 46 | 16 | 0614600270100 | 1 | 0614700270100 | 1 |
| 2,80 | 46 | 16 | 0614600280100 | 1 | 0614700280100 | 1 |
| 2,90 | 46 | 16 | 0614600290100 | 1 | 0614700290100 | 1 |
| 3,00 | 46 | 16 | 0614600300100 | 1 | 0614700300100 | 1 |
| 3,10 | 49 | 18 | 0614600310100 | 1 | 0614700310100 | 1 |
| 3,20 | 49 | 18 | 0614600320100 | 1 | 0614700320100 | 1 |
| 3,30 | 49 | 18 | 0614600330100 | 1 | 0614700330100 | 1 |
| 3,40 | 52 | 20 | 0614600340100 | 1 | 0614700340100 | 1 |
| 3,50 | 52 | 20 | 0614600350100 | 1 | 0614700350100 | 1 |
| 3,60 | 52 | 20 | 0614600360100 | 1 | 0614700360100 | 1 |
| 3,70 | 52 | 20 | 0614600370100 | 1 | 0614700370100 | 1 |
| 3,80 | 55 | 22 | 0614600380100 | 1 | 0614700380100 | 1 |
| 3,90 | 55 | 22 | 0614600390100 | 1 | 0614700390100 | 1 |
| 4,00 | 55 | 22 | 0614600400100 | 1 | 0614700400100 | 1 |
| 4,10 | 55 | 22 | 0614600410100 | 1 | 0614700410100 | 1 |
| 4,20 | 55 | 22 | 0614600420100 | 1 | 0614700420100 | 1 |
| 4,30 | 58 | 24 | 0614600430100 | 1 | 0614700430100 | 1 |
| 4,40 | 58 | 24 | 0614600440100 | 1 | 0614700440100 | 1 |
| 4,50 | 58 | 24 | 0614600450100 | 1 | 0614700450100 | 1 |
| 4,60 | 58 | 24 | 0614600460100 | 1 | 0614700460100 | 1 |
| 4,70 | 58 | 24 | 0614600470100 | 1 | 0614700470100 | 1 |
| 4,80 | 62 | 26 | 0614600480100 | 1 | 0614700480100 | 1 |
| 4,90 | 62 | 26 | 0614600490100 | 1 | 0614700490100 | 1 |
| 5,00 | 62 | 26 | 0614600500100 | 1 | 0614700500100 | 1 |
| 5,10 | 62 | 26 | 0614600510100 | 1 | 0614700510100 | 1 |
| 5,20 | 62 | 26 | 0614600520100 | 1 | 0614700520100 | 1 |
| 5,30 | 62 | 26 | 0614600530100 | 1 | 0614700530100 | 1 |
| 5,40 | 66 | 28 | 0614600540100 | 1 | 0614700540100 | 1 |
| 5,50 | 66 | 28 | 0614600550100 | 1 | 0614700550100 | 1 |
| 5,60 | 66 | 28 | 0614600560100 | 1 | 0614700560100 | 1 |
| 5,70 | 66 | 28 | 0614600570100 | 1 | 0614700570100 | 1 |
| 5,80 | 66 | 28 | 0614600580100 | 1 | 0614700580100 | 1 |
| 5,90 | 66 | 28 | 0614600590100 | 1 | 0614700590100 | 1 |
| 6,00 | 66 | 28 | 0614600600100 | 1 | 0614700600100 | 1 |
| 6,10 | 70 | 31 | 0614600610100 | 1 | 0614700610100 | 1 |
| 6,20 | 70 | 31 | 0614600620100 | 1 | 0614700620100 | 1 |
| 6,30 | 70 | 31 | 0614600630100 | 1 | 0614700630100 | 1 |
| 6,40 | 70 | 31 | 0614600640100 | 1 | 0614700640100 | 1 |
| 6,50 | 70 | 31 | 0614600650100 | 1 | 0614700650100 | 1 |
| 6,60 | 70 | 31 | 0614600660100 | 1 | 0614700660100 | 1 |
| 6,70 | 70 | 31 | 0614600670100 | 1 | 0614700670100 | 1 |
| 6,80 | 74 | 34 | 0614600680100 | 1 | 0614700680100 | 1 |
| 6,90 | 74 | 34 | 0614600690100 | 1 | 0614700690100 | 1 |
| 7,00 | 74 | 34 | 0614600700100 | 1 | 0614700700100 | 1 |
| 7,10 | 74 | 34 | 0614600710100 | 1 | 0614700710100 | 1 |
| 7,20 | 74 | 34 | 0614600720100 | 1 | 0614700720100 | 1 |
| 7,30 | 74 | 34 | 0614600730100 | 1 | 0614700730100 | 1 |
| 7,40 | 74 | 34 | 0614600740100 | 1 | 0614700740100 | 1 |
| 7,50 | 74 | 34 | 0614600750100 | 1 | 0614700750100 | 1 |
| 7,60 | 79 | 36 | 0614600760100 | 1 | 0614700760100 | 1 |
| 7,70 | 79 | 36 | 0614600770100 | 1 | 0614700770100 | 1 |
| 7,80 | 79 | 36 | 0614600780100 | 1 | 0614700780100 | 1 |
| 7,90 | 79 | 36 | 0614600790100 | 1 | 0614700790100 | 1 |
| 8,00 | 79 | 37 | 0614600800100 | 1 | 0614700800100 | 1 |
| 8,10 | 79 | 36 | 0614600810100 | 1 | 0614700810100 | 1 |
| 8,20 | 79 | 36 | 0614600820100 | 1 | 0614700820100 | 1 |

| | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | |
|----------|----------|----------|---|---------------|---|---------------|
| | | | blank / bright / brillante | | ALUNIT® | |
| d1 mm | l1 mm | l2 mm | Code 6146 Art.-Nr. | Inh. Cont. | Code 6147 Art.-Nr. | Inh. Cont. |
| 8,30 | 79 | 36 | 0614600830100 | 1 | 0614700830100 | 1 |
| 8,40 | 79 | 36 | 0614600840100 | 1 | 0614700840100 | 1 |
| 8,50 | 79 | 37 | 0614600850100 | 1 | 0614700850100 | 1 |
| 8,60 | 84 | 40 | 0614600860100 | 1 | 0614700860100 | 1 |
| 8,70 | 84 | 40 | 0614600870100 | 1 | 0614700870100 | 1 |
| 8,80 | 84 | 40 | 0614600880100 | 1 | 0614700880100 | 1 |
| 8,90 | 84 | 40 | 0614600890100 | 1 | 0614700890100 | 1 |
| 9,00 | 84 | 40 | 0614600900100 | 1 | 0614700900100 | 1 |
| 9,10 | 84 | 40 | 0614600910100 | 1 | 0614700910100 | 1 |
| 9,20 | 84 | 40 | 0614600920100 | 1 | 0614700920100 | 1 |
| 9,30 | 84 | 40 | 0614600930100 | 1 | 0614700930100 | 1 |
| 9,40 | 84 | 40 | 0614600940100 | 1 | 0614700940100 | 1 |
| 9,50 | 84 | 40 | 0614600950100 | 1 | 0614700950100 | 1 |
| 9,60 | 89 | 43 | 0614600960100 | 1 | 0614700960100 | 1 |
| 9,70 | 89 | 43 | 0614600970100 | 1 | 0614700970100 | 1 |
| 9,80 | 89 | 43 | 0614600980100 | 1 | 0614700980100 | 1 |
| 9,90 | 89 | 43 | 0614600990100 | 1 | 0614700990100 | 1 |
| 10,00 | 89 | 43 | 0614601000100 | 1 | 0614701000100 | 1 |
| 10,20 | 89 | 43 | 0614601020100 | 1 | 0614701020100 | 1 |
| 10,50 | 89 | 43 | 0614601050100 | 1 | 0614701050100 | 1 |
| 10,80 | 95 | 47 | 0614601080100 | 1 | 0614701080100 | 1 |
| 11,00 | 95 | 47 | 0614601100100 | 1 | 0614701100100 | 1 |
| 11,50 | 95 | 47 | 0614601150100 | 1 | 0614701150100 | 1 |
| 12,00 | 102 | 51 | 0614601200100 | 1 | 0614701200100 | 1 |
| 12,50 | 102 | 51 | 0614601250100 | 1 | 0614701250100 | 1 |
| 13,00 | 102 | 51 | 0614601300100 | 1 | 0614701300100 | 1 |
| 13,50 | 107 | 54 | 0614601350100 | 1 | 0614701350100 | 1 |
| 14,00 | 107 | 54 | 0614601400100 | 1 | 0614701400100 | 1 |
| 14,50 | 111 | 56 | 0614601450100 | 1 | | |
| 15,00 | 111 | 56 | 0614601500100 | 1 | | |
| 15,50 | 115 | 58 | 0614601550100 | 1 | | |
| 16,00 | 115 | 58 | 0614601600100 | 1 | | |
| 16,50 | 119 | 60 | 0614601650100 | 1 | | |
| 17,00 | 119 | 60 | 0614601700100 | 1 | | |
| 17,50 | 123 | 62 | 0614601750100 | 1 | | |
| 18,00 | 123 | 62 | 0614601800100 | 1 | | |
| 18,50 | 127 | 64 | 0614601850100 | 1 | | |
| 19,00 | 127 | 64 | 0614601900100 | 1 | | |
| 19,50 | 131 | 66 | 0614601950100 | 1 | | |
| 20,00 | 131 | 66 | 0614602000100 | 1 | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro

≤ Ø 2,90 mm 4-Flächenanschliff / ≥ Ø 3,00 mm 6-Flächenanschliff
 ≤ Ø 2,90 mm 4-faced point shape / ≥ Ø 3,00 mm 6-faced point shape
 ≤ Ø 2,90 mm 4-Punta afi lada cuádruple / ≥ Ø 3,00 mm 6-Punta afi lada cuádruple

① Vollhartmetall-Spiralbohrer, lang, DIN 338

Einsatzbereich:

Besonders geeignet zum Bohren von hochfesten Stählen, Cr-Ni-Stählen, Hartguss, Grauguss, Stahlguss, Mn-Hartstahl, Bronze, Aluminium mit hohem Siliziumanteil und anderen schwer zerspanbaren Werkstoffen (beschichtete Ausführung).

② Solid carbide jobber drills, long series, DIN 338

Range of application:

Especially suitable for drilling heat resistant steels, Cr-Ni steels, high carbon steel castings, grey cast iron, cast steels, manganese steels, bronze, aluminium with high percentage silicon and other difficult-to-machine materials (coated design).

③ Broca espiral de metal duro y macizo, larga, DIN 338

Ámbito de aplicación:

Especialmente adecuada para el taladrado de aceros de alta resistencia, aceros al cromo-níquel, fundición blanca, hierro fundido gris, fundición de acero, acero duro con manganeso, bronce, aluminio con contenido elevado de silicio y otros materiales difícilmente mecanizables con virutaje (diseño recubierto).

| | | | | <p>Einzelverpackung Single packing Embalaje individual</p> | | <p>Einzelverpackung Single packing Embalaje individual</p> | |
|----------|----------|----------|----------|--|---------------|--|---------------|
| | | | | blank / bright / brillante | | ALUNIT® | |
| d1 mm | l1 mm | l2 mm | d2 mm | Code 6156 Art.-Nr. | Inh. Cont. | Code 6157 Art.-Nr. | Inh. Cont. |
| 1,00 | 34 | 12 | | 0615600100100 | 1 | 0615700100100 | 1 |
| 1,10 | 36 | 14 | | 0615600110100 | 1 | 0615700110100 | 1 |
| 1,20 | 38 | 16 | | 0615600120100 | 1 | 0615700120100 | 1 |
| 1,30 | 38 | 16 | | 0615600130100 | 1 | 0615700130100 | 1 |
| 1,40 | 40 | 18 | | 0615600140100 | 1 | 0615700140100 | 1 |
| 1,50 | 40 | 18 | | 0615600150100 | 1 | 0615700150100 | 1 |
| 1,60 | 43 | 20 | | 0615600160100 | 1 | 0615700160100 | 1 |
| 1,70 | 43 | 20 | | 0615600170100 | 1 | 0615700170100 | 1 |
| 1,80 | 46 | 22 | | 0615600180100 | 1 | 0615700180100 | 1 |
| 1,90 | 46 | 22 | | 0615600190100 | 1 | 0615700190100 | 1 |
| 2,00 | 49 | 24 | | 0615600200100 | 1 | 0615700200100 | 1 |
| 2,10 | 49 | 24 | | 0615600210100 | 1 | 0615700210100 | 1 |
| 2,20 | 53 | 27 | | 0615600220100 | 1 | 0615700220100 | 1 |
| 2,30 | 53 | 27 | | 0615600230100 | 1 | 0615700230100 | 1 |
| 2,40 | 57 | 30 | | 0615600240100 | 1 | 0615700240100 | 1 |
| 2,50 | 57 | 30 | | 0615600250100 | 1 | 0615700250100 | 1 |
| 2,60 | 57 | 30 | | 0615600260100 | 1 | 0615700260100 | 1 |
| 2,70 | 61 | 33 | | 0615600270100 | 1 | 0615700270100 | 1 |
| 2,80 | 61 | 33 | | 0615600280100 | 1 | 0615700280100 | 1 |
| 2,90 | 61 | 33 | | 0615600290100 | 1 | 0615700290100 | 1 |
| 3,00 | 61 | 33 | | 0615600300100 | 1 | 0615700300100 | 1 |
| 3,10 | 65 | 36 | | 0615600310100 | 1 | 0615700310100 | 1 |

| | | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | |
|----------|----------|----------|----------|---|---------------|---|---------------|
| | | | | blank / bright / brillante | | ALUNIT® | |
| d1 mm | l1 mm | l2 mm | d2 mm | Code 6156 Art.-Nr. | Inh. Cont. | Code 6157 Art.-Nr. | Inh. Cont. |
| 3,20 | 65 | 36 | | 0615600320100 | 1 | 0615700320100 | 1 |
| 3,30 | 65 | 36 | | 0615600330100 | 1 | 0615700330100 | 1 |
| 3,40 | 70 | 39 | | 0615600340100 | 1 | 0615700340100 | 1 |
| 3,50 | 70 | 39 | | 0615600350100 | 1 | 0615700350100 | 1 |
| 3,60 | 70 | 39 | | 0615600360100 | 1 | 0615700360100 | 1 |
| 3,70 | 70 | 39 | | 0615600370100 | 1 | 0615700370100 | 1 |
| 3,80 | 75 | 43 | | 0615600380100 | 1 | 0615700380100 | 1 |
| 3,90 | 75 | 43 | | 0615600390100 | 1 | 0615700390100 | 1 |
| 4,00 | 75 | 43 | | 0615600400100 | 1 | 0615700400100 | 1 |
| 4,10 | 75 | 43 | | 0615600410100 | 1 | 0615700410100 | 1 |
| 4,20 | 75 | 43 | | 0615600420100 | 1 | 0615700420100 | 1 |
| 4,30 | 80 | 47 | | 0615600430100 | 1 | 0615700430100 | 1 |
| 4,40 | 80 | 47 | | 0615600440100 | 1 | 0615700440100 | 1 |
| 4,50 | 80 | 47 | | 0615600450100 | 1 | 0615700450100 | 1 |
| 4,60 | 80 | 47 | | 0615600460100 | 1 | 0615700460100 | 1 |
| 4,70 | 80 | 47 | | 0615600470100 | 1 | 0615700470100 | 1 |
| 4,80 | 86 | 52 | | 0615600480100 | 1 | 0615700480100 | 1 |
| 4,90 | 86 | 52 | | 0615600490100 | 1 | 0615700490100 | 1 |
| 5,00 | 86 | 52 | | 0615600500100 | 1 | 0615700500100 | 1 |
| 5,10 | 86 | 52 | | 0615600510100 | 1 | 0615700510100 | 1 |
| 5,20 | 86 | 52 | | 0615600520100 | 1 | 0615700520100 | 1 |
| 5,30 | 86 | 52 | | 0615600530100 | 1 | 0615700530100 | 1 |
| 5,40 | 93 | 57 | | 0615600540100 | 1 | 0615700540100 | 1 |
| 5,50 | 93 | 57 | | 0615600550100 | 1 | 0615700550100 | 1 |
| 5,60 | 93 | 57 | | 0615600560100 | 1 | 0615700560100 | 1 |
| 5,70 | 93 | 57 | | 0615600570100 | 1 | 0615700570100 | 1 |
| 5,80 | 93 | 57 | | 0615600580100 | 1 | 0615700580100 | 1 |
| 5,90 | 93 | 57 | | 0615600590100 | 1 | 0615700590100 | 1 |
| 6,00 | 93 | 57 | | 0615600600100 | 1 | 0615700600100 | 1 |
| 6,10 | 101 | 63 | | 0615600610100 | 1 | 0615700610100 | 1 |
| 6,20 | 101 | 63 | | 0615600620100 | 1 | 0615700620100 | 1 |
| 6,30 | 101 | 63 | | 0615600630100 | 1 | 0615700630100 | 1 |
| 6,40 | 101 | 63 | | 0615600640100 | 1 | 0615700640100 | 1 |
| 6,50 | 101 | 63 | | 0615600650100 | 1 | 0615700650100 | 1 |
| 6,60 | 101 | 63 | | 0615600660100 | 1 | 0615700660100 | 1 |
| 6,70 | 101 | 63 | | 0615600670100 | 1 | 0615700670100 | 1 |
| 6,80 | 109 | 69 | | 0615600680100 | 1 | 0615700680100 | 1 |
| 6,90 | 109 | 69 | | 0615600690100 | 1 | 0615700690100 | 1 |
| 7,00 | 109 | 69 | | 0615600700100 | 1 | 0615700700100 | 1 |
| 7,10 | 109 | 69 | | 0615600710100 | 1 | 0615700710100 | 1 |
| 7,20 | 109 | 69 | | 0615600720100 | 1 | 0615700720100 | 1 |
| 7,30 | 109 | 69 | | 0615600730100 | 1 | 0615700730100 | 1 |
| 7,40 | 109 | 69 | | 0615600740100 | 1 | 0615700740100 | 1 |
| 7,50 | 109 | 69 | | 0615600750100 | 1 | 0615700750100 | 1 |
| 7,60 | 117 | 75 | | 0615600760100 | 1 | 0615700760100 | 1 |
| 7,70 | 117 | 75 | | 0615600770100 | 1 | 0615700770100 | 1 |
| 7,80 | 117 | 75 | | 0615600780100 | 1 | 0615700780100 | 1 |
| 7,90 | 117 | 75 | | 0615600790100 | 1 | 0615700790100 | 1 |
| 8,00 | 117 | 75 | | 0615600800100 | 1 | 0615700800100 | 1 |
| 8,10 | 117 | 75 | | 0615600810100 | 1 | 0615700810100 | 1 |
| 8,20 | 117 | 75 | | 0615600820100 | 1 | 0615700820100 | 1 |
| 8,30 | 117 | 75 | | 0615600830100 | 1 | 0615700830100 | 1 |
| 8,40 | 117 | 75 | | 0615600840100 | 1 | 0615700840100 | 1 |
| 8,50 | 117 | 75 | | 0615600850100 | 1 | 0615700850100 | 1 |
| 8,60 | 125 | 81 | | 0615600860100 | 1 | 0615700860100 | 1 |
| 8,70 | 125 | 81 | | 0615600870100 | 1 | 0615700870100 | 1 |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro

| | | | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | | Einzelverpackung <i>Single packing</i> <i>Embalaje individual</i> | |
|----------|----------|----------|----------|---|---------------|---|---------------|
| | | | | blank / bright / brillante | | ALUNIT® | |
| d1 mm | l1 mm | l2 mm | d2 mm | Code 6156 Art.-Nr. | Inh. Cont. | Code 6157 Art.-Nr. | Inh. Cont. |
| 8,80 | 125 | 81 | | 0615600880100 | 1 | 0615700880100 | 1 |
| 8,90 | 125 | 81 | | 0615600890100 | 1 | 0615700890100 | 1 |
| 9,00 | 125 | 81 | | 0615600900100 | 1 | 0615700900100 | 1 |
| 9,10 | 125 | 81 | | 0615600910100 | 1 | 0615700910100 | 1 |
| 9,20 | 125 | 81 | | 0615600920100 | 1 | 0615700920100 | 1 |
| 9,30 | 125 | 81 | | 0615600930100 | 1 | 0615700930100 | 1 |
| 9,40 | 125 | 81 | | 0615600940100 | 1 | 0615700940100 | 1 |
| 9,50 | 125 | 81 | | 0615600950100 | 1 | 0615700950100 | 1 |
| 9,60 | 133 | 87 | | 0615600960100 | 1 | 0615700960100 | 1 |
| 9,70 | 133 | 87 | | 0615600970100 | 1 | 0615700970100 | 1 |
| 9,80 | 133 | 87 | | 0615600980100 | 1 | 0615700980100 | 1 |
| 9,90 | 133 | 87 | | 0615600990100 | 1 | 0615700990100 | 1 |
| 10,00 | 133 | 87 | | 0615601000100 | 1 | 0615701000100 | 1 |
| 10,20 | 133 | 87 | | 0615601020100 | 1 | 0615701020100 | 1 |
| 10,50 | 133 | 87 | | 0615601050100 | 1 | 0615701050100 | 1 |
| 10,80 | 142 | 94 | | 0615601080100 | 1 | 0615701080100 | 1 |
| 11,00 | 142 | 94 | | 0615601100100 | 1 | 0615701100100 | 1 |
| 11,50 | 142 | 94 | | 0615601150100 | 1 | 0615701150100 | 1 |
| 12,00 | 151 | 101 | | 0615601200100 | 1 | 0615701200100 | 1 |
| 12,50 | 151 | 101 | | 0615601250100 | 1 | 0615701250100 | 1 |
| 13,00 | 151 | 101 | | 0615601300100 | 1 | 0615701300100 | 1 |
| 13,50 | 160 | 108 | | 0615601350100 | 1 | 0615701350100 | 1 |
| 14,00 | 160 | 108 | | 0615601400100 | 1 | 0615701400100 | 1 |
| 14,50 | 169 | 114 | | 0615601450100 | 1 | 0615701450100 | 1 |
| 15,00 | 169 | 114 | | 0615601500100 | 1 | 0615701500100 | 1 |
| 15,50 | 178 | 120 | | 0615601550100 | 1 | 0615701550100 | 1 |
| 16,00 | 178 | 120 | | 0615601600100 | 1 | 0615701600100 | 1 |

≤ Ø 2,90 mm 4-Flächenanschliff / ≥ Ø 3,00 mm 6-Flächenanschliff
 ≤ Ø 2,90 mm 4-faced point shape / ≥ Ø 3,00 mm 6-faced point shape
 ≤ Ø 2,90 mm 4-Punta afi lada cuádruple / ≥ Ø 3,00 mm 6-Punta afi lada cuádruple



MAYKESTAG INSIDE



Perfekte Ergebnisse

Beste Ergebnisse garantiert durch die ungleich geteilten Schneiden und den optimalen Hinterschliff

Perfect results

Best results guaranteed by the unequally divided cutting edges and the optimal relief

Resultados perfectos

Los mejores resultados garantizados gracias a los filos de cortes desiguales y al talón óptimo

Ruhiger Lauf

Rattermarken werden vermieden

Smooth running

Avoiding chatter marks

Funcionamiento silencioso

Evita el rayado transversal

Leicht nachschärfbar

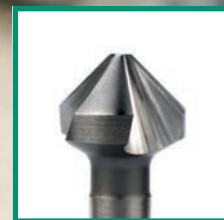
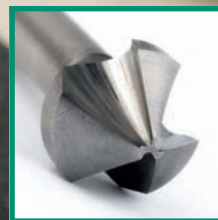
Aufgrund des radialen Hinterschliffs

Easy to re-sharpen

Due to the radial back taper

Reafilado sencillo

gracias al talón radial

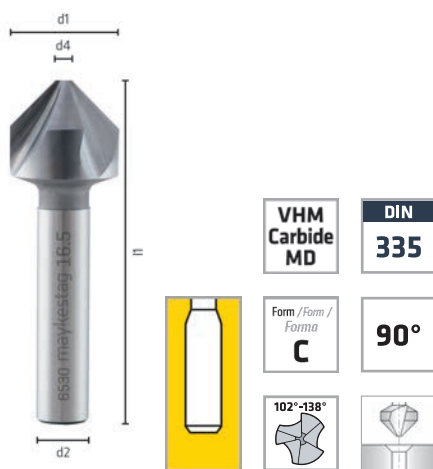


alpen *drill better.*

1 Vollhartmetall-Kegelsenker
ungleiche Teilung
DIN 335 C, 90°

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart und weich. Universell einsetzbares Entgrat- und Senkwerkzeug für Bohrungen aller Art. Sehr gute Schneideigenschaften durch ungleichgeteilte Schneiden. Verringerung der Vorschubkraft und Ratterbildung an der Senkoberfläche durch reduzierte Axial- und Radialkraft.



E Solid carbide countersinks
different partition
DIN 335 C, 90°

Range of application:

For ferrous and non-ferrous metals, synthetic materials soft and hard. Universal deburring and sink tool for all kind of borings. Excellent cutting features guarantee a smooth surface by unequally divided cutting edges. Reduction of feed force and chatter marks on the countersinking surface due to reduced axial and radial force.

ES Avellanador cónico de metal
duro y macizo división irregular
DIN 335 C, 90°

Ámbito de aplicación:

Para todos los metales E y NE y plásticos duros y blandos. Herramienta para desbarbar y avellanar de aplicación universal para agujeros de todo tipo. Excelentes características de corte, por corte desigual dividida. Reducción del avance y de vibración en la superficie avellanada gracias a las fuerzas axiales y radiales reducidas.



Einzelverpackung
Single packing
Embalaje individual



ALUNIT®
Höhere Performance,
längere Standzeit
Higher performance,
longer durability
Rendimiento superior
tiempo de uso más
prolongado

Einzelverpackung
Single packing
Embalaje individual

| | | | | | blank / bright / brillante | ALUNIT® | | |
|-------|------|------------------|----|---|----------------------------|---------|---------------|-------|
| d1 | d4 | d2 _{hs} | l1 | Z | Code 6530 | Inh. | Code 6637 | Inh. |
| mm | mm | mm | mm | | Art.-Nr. | Cont. | Art.-Nr. | Cont. |
| 5,30 | 1,00 | 4,00 | 40 | 3 | 0653000530100 | 1 | 0663700530100 | 1 |
| 6,30 | 1,50 | 5,00 | 45 | 3 | 0653000630100 | 1 | 0663700630100 | 1 |
| 8,30 | 2,00 | 6,00 | 50 | 3 | 0653000830100 | 1 | 0663700830100 | 1 |
| 10,40 | 2,50 | 6,00 | 50 | 3 | 0653001040100 | 1 | 0663701040100 | 1 |
| 12,40 | 2,80 | 8,00 | 56 | 3 | 0653001240100 | 1 | 0663701240100 | 1 |
| 14,40 | 2,90 | 8,00 | 56 | 3 | 0653001440100 | 1 | 0663701440100 | 1 |
| 16,50 | 3,20 | 10,00 | 60 | 3 | 0653001650100 | 1 | 0663701650100 | 1 |
| 19,50 | 3,50 | 10,00 | 63 | 3 | 0653001950100 | 1 | 0663701950100 | 1 |
| 20,50 | 3,50 | 10,00 | 63 | 3 | 0653002050100 | 1 | 0663702050100 | 1 |
| 25,00 | 3,80 | 10,00 | 67 | 3 | 0653002500100 | 1 | 0663702500100 | 1 |
| 31,00 | 4,20 | 12,00 | 71 | 3 | 0653003100100 | 1 | 0663703100100 | 1 |

Ø 5,30 VHM / solid carbide / metal duro y macizo

Ø 6,30–31,00 nur VHM-Kopf / only solid carbide cutting part / solo cabezal de metal duro y macizo

D Vollhartmetall-Kegelsenker
DIN 335 C, 90°

Einsatzbereich:

Zum ratterfreien Senken und Entgraten von Stählen, hochfesten Stählen, Grauguss, VA-Werkstoffen sowie siliziumhaltigen Aluminium-Legierungen.

E Solid carbide countersinks
DIN 335 C, 90°

Range of application:

For countersinking and deburring of steels with medium/high tensile strength, cast iron, stainless steels as well as silicium containing aluminium alloys.

ES Avellanador cónico de metal duro y macizo
DIN 335 C, 90°

Ámbito de aplicación:

Para el avellanado y el desbarbado sin vibraciones de aceros, aceros de alta resistencia, hierro fundido gris, materiales VA, así como aleaciones de aluminio con contenido de silicio.

| | | | | | <p>Einzelverpackung Single packing Embalaje individual</p> | | <p>Einzelverpackung Single packing Embalaje individual</p> | |
|----------|----------|------------------------|----------|---|--|---------------|--|---------------|
| | | | | | <p>blank / bright / brillante</p> | | <p>ALUNIT®</p> | |
| d1 mm | d4 mm | d2 _{h9} mm | l1 mm | Z | Code 6405 Art.-Nr. | Inh. Cont. | Code 6407 Art.-Nr. | Inh. Cont. |
| 5,30 | 1,00 | 6,00 | 45 | 3 | 0640500530100 | 1 | 0640700530100 | 1 |
| 6,30 | 1,50 | 6,00 | 45 | 3 | 0640500630100 | 1 | 0640700630100 | 1 |
| 8,30 | 2,00 | 6,00 | 50 | 3 | 0640500830100 | 1 | 0640700830100 | 1 |
| 10,40 | 2,50 | 8,00 | 50 | 3 | 0640501040100 | 1 | 0640701040100 | 1 |
| 12,40 | 2,80 | 8,00 | 56 | 3 | 0640501240100 | 1 | 0640701240100 | 1 |
| 14,40 | 3,00 | 8,00 | 56 | 3 | 0640501440100 | 1 | 0640701440100 | 1 |
| 16,50 | 3,20 | 10,00 | 60 | 3 | 0640501650100 | 1 | 0640701650100 | 1 |
| 19,50 | 3,50 | 10,00 | 63 | 3 | 0640501950100 | 1 | 0640701950100 | 1 |
| 20,50 | 3,50 | 10,00 | 63 | 3 | 0640502050100 | 1 | 0640702050100 | 1 |
| 25,00 | 3,80 | 10,00 | 67 | 3 | 0640502500100 | 1 | 0640702500100 | 1 |
| 31,00 | 4,20 | 12,00 | 71 | 3 | 0640503100100 | 1 | 0640703100100 | 1 |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro

Ø 5,30 VHM / solid carbide / metal duro y macizo
Ø 6,30–31,00 nur VHM-Kopf / only solid carbide cutting part / solo cabezal de metal duro y macizo

① Hartmetall-Frässtifte, Zylinder, ohne Stirnverzahnung

② Tungsten carbide rotary burrs, cylindrical, without front cut

③ Puntas de avellanado de metal duro, cilíndricas, sin dentado frontal



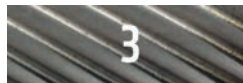
INOX



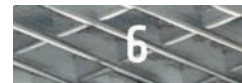
Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



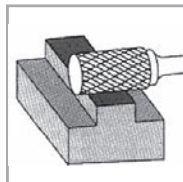
DIN MY



DIN MX



DIN
ZYA
ISO
A



INOX
Herausragende Fräseleistung bei Edelstahl/Niro
Outstanding milling performance in stainless steel
Rendimiento de fresado excelente en acero inoxidable/ acero niro

Einzelverpackung
Single packing
Embalaje individual



* Einzelverpackung mit SB
Single packaging with tag
Embalaje individual con gancho para autoservicio



| | | | | 0 | 1A | 2 | 3 |
|-------|------|----|----|-----------------------|-----------------------|---|-----------------------|
| d1 | d2 | l1 | l2 | Code 7770 Art.-Nr. | Code 7778 Art.-Nr. | | Code 7773 Art.-Nr. |
| mm | mm | mm | mm | | | | |
| 2,00 | 3,00 | 38 | 10 | | | | 0777303102100 |
| 3,00 | 3,00 | 38 | 10 | | | | 0777303103100 |
| 3,00 | 3,00 | 50 | 14 | | | | 0777303303100 |
| 3,00 | 3,00 | 65 | 14 | | | | 0777303104100 |
| 4,00 | 3,00 | 40 | 10 | | | | 0777303106100 |
| 4,00 | 6,00 | 50 | 14 | | | | 0777306106100 |
| 6,00 | 3,00 | 43 | 13 | | | | 0777306108100 |
| 6,00 | 6,00 | 50 | 16 | 0777006106100 | 0777806106100 | | 0777306110100 |
| 8,00 | 6,00 | 65 | 20 | 0777006108100 | | | 0777306112100 |
| 10,00 | 6,00 | 58 | 13 | | | | 0777306116100 |
| 10,00 | 6,00 | 65 | 20 | 0777006110100 | 0777806110100 | | 0777306120100 |
| 12,00 | 6,00 | 70 | 25 | 0777006112100 | 0777806112100 | | |
| 12,00 | 8,00 | 70 | 25 | | | | |
| 16,00 | 6,00 | 70 | 25 | | | | |
| 20,00 | 6,00 | 70 | 25 | | | | |





DIN MX



SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.




Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie - hoher Materialabtrag

Aggressive geometry - high chip removal

Geometría agresiva - alta remoción de material

| | | | |  |  |  |  |
|----------|----------|----------|----------|---|---|---|---|
| d1 mm | d2 mm | l1 mm | l2 mm | Code 7774 Art.-Nr. | Code 7776 Art.-Nr. | Code 7777 Art.-Nr. | |
| 2,00 | 3,00 | 38 | 10 | | 0777603102100 | | |
| 3,00 | 3,00 | 38 | 10 | 0777403103100 | 0777603103100 | 0777703103100 | |
| 3,00 | 3,00 | 50 | 14 | | 0777603203100 | | |
| 3,00 | 3,00 | 65 | 14 | | 0777603303100 | | |
| 4,00 | 3,00 | 40 | 10 | | 0777603104100 | | |
| 4,00 | 6,00 | 50 | 14 | 0777406104100 | 0777606104100 | | |
| 6,00 | 3,00 | 43 | 13 | 0777403106100 | 0777603106100 | | |
| 6,00 | 6,00 | 50 | 16 | 0777406106100 | 0777606106100 * | 0777706106100 | |
| 8,00 | 6,00 | 65 | 20 | 0777406108100 | 0777606108100 | 0777706108100 | |
| 10,00 | 6,00 | 58 | 13 | | 0777606310100 | | |
| 10,00 | 6,00 | 65 | 20 | 0777406110100 | 0777606110100 * | 0777706110100 | |
| 12,00 | 6,00 | 70 | 25 | 0777406112100 | 0777606112100 * | 0777706112100 | |
| 12,00 | 8,00 | 70 | 25 | | 0777608112100 | | |
| 16,00 | 6,00 | 70 | 25 | 0777406116100 | 0777606116100 | | |
| 20,00 | 6,00 | 70 | 25 | | | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



- ① Hartmetall-Frässtifte, Zylinder, mit Stirnverzahnung
- ② Tungsten carbide rotary burrs, cylindrical, with front cut
- ③ Puntas de avellanado de metal duro, cilíndricas, con dentado frontal



INOX



2



4

Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



3

DIN MY



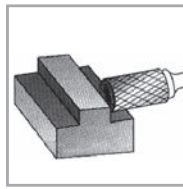
6

DIN MX



DIN
ZYA-S

ISO
A-S



INOX
Herausragende Fräseleistung bei Edelstahl/Niro
Outstanding milling performance in stainless steel
Rendimiento de fresado excelente en acero inoxidable/ acero niro

Einzelverpackung
Single packing
Embalaje individual

* Einzelverpackung mit SB
Single packaging with tag
Embalaje individual con gancho para autoservicio



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|---------------|
| | | | | Code 7788 Art.-Nr. | Code 7782 Art.-Nr. | Code 7783 Art.-Nr. | |
| 2,00 | 3,00 | 38 | 10 | | | | 0778303102100 |
| 2,00 | 3,00 | 50 | 10 | | | | 0778303103100 |
| 3,00 | 3,00 | 38 | 14 | | | | 0778303203100 |
| 3,00 | 3,00 | 50 | 14 | | | | 0778303403100 |
| 3,00 | 3,00 | 75 | 14 | | | | 0778306104100 |
| 4,00 | 6,00 | 50 | 14 | | | | 0778303106100 |
| 6,00 | 3,00 | 43 | 13 | | | | 0778306106100 |
| 6,00 | 6,00 | 50 | 16 | | | 0778206106100 | 0778306106100 |
| 8,00 | 6,00 | 65 | 20 | | | 0778206108100 | 0778306108100 |
| 10,00 | 6,00 | 58 | 13 | | | | 0778306110100 |
| 10,00 | 6,00 | 65 | 20 | | 0778806110100 | 0778206110100 | 0778306110100 |
| 12,00 | 6,00 | 70 | 25 | | 0778806112100 * | 0778206112100 | 0778306112100 |
| 16,00 | 6,00 | 70 | 25 | | | | 0778306116100 |
| 20,00 | 8,00 | 70 | 25 | | | | |





DIN MX



SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.




Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie - hoher Materialabtrag

Aggressive geometry - high chip removal

Geometría agresiva - alta remoción de material

| | | | |  |  |  |  |
|----------|----------|----------|----------|---|---|--|---|
| d1 mm | d2 mm | l1 mm | l2 mm | Code 7784 Art.-Nr. | Code 7786 Art.-Nr. | Code 7787 Art.-Nr. | Code 7789 Art.-Nr. |
| 2,00 | 3,00 | 38 | 10 | | | | |
| 2,00 | 3,00 | 50 | 10 | 0778403202100 | | | |
| 3,00 | 3,00 | 38 | 14 | 0778403103100 | 0778603103100 | 0778703103100 | |
| 3,00 | 3,00 | 50 | 14 | 0778403203100 | 0778603203100 | | |
| 3,00 | 3,00 | 75 | 14 | 0778403403100 | | | |
| 4,00 | 6,00 | 50 | 14 | 0778406104100 | 0778606104100 | | |
| 6,00 | 3,00 | 43 | 13 | 0778403106100 | 0778603106100 | | |
| 6,00 | 6,00 | 50 | 16 | 0778406106100 | 0778606106100 * | 0778706106100 | 0778906106100 |
| 8,00 | 6,00 | 65 | 20 | 0778406108100 | 0778606108100 | 0778706108100 | 0778906108100 |
| 10,00 | 6,00 | 58 | 13 | | 0778606210100 | | |
| 10,00 | 6,00 | 65 | 20 | 0778406110100 | 0778606110100 * | 0778706110100 | 0778906110100 |
| 12,00 | 6,00 | 70 | 25 | | 0778606112100 * | 0778706112100 | 0778906112100 |
| 16,00 | 6,00 | 70 | 25 | 0778406116100 | 0778606116100 | | |
| 20,00 | 8,00 | 70 | 25 | 0778408120100 | | | |



Hartmetall Werkzeuge
 Tungsten carbide tools
 herramientas de metal duro



① Hartmetall-Frässtifte, Walzenrund

② Tungsten carbide rotary burrs, ball nose

③ Puntas de avellanado de metal duro esferocilíndricas



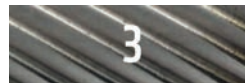
INOX



Diamant
Diamond
Diamante



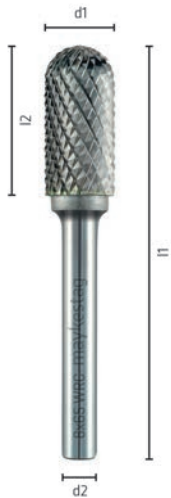
Aluminium
Aluminium
Aluminio



DIN MY

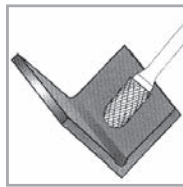


DIN MX



DIN
WRC

ISO
C



INOX

Herausragende Fräseleistung bei Edelstahl/Niro

Outstanding milling performance in stainless steel

Rendimiento de fresado excelente en acero inoxidable/ acero niro

Einzelverpackung
Single packing
Embalaje individual



* Einzelverpackung mit SB
Single packaging with tag
Embalaje individual con gancho para autoservicio



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | Code 7790 Art.-Nr. | Code 7798 Art.-Nr. | Code 7792 Art.-Nr. | Code 7793 Art.-Nr. |
| 3,00 | 3,00 | 38 | 14 | | | | 779303103100 |
| 3,00 | 3,00 | 50 | 14 | | | | 779303203100 |
| 4,00 | 3,00 | 40 | 10 | | | | 779303104100 |
| 4,00 | 6,00 | 50 | 14 | | | | 779306104100 |
| 5,00 | 3,00 | 42 | 12 | | | | |
| 6,00 | 3,00 | 43 | 14 | | | | 779303106100 |
| 6,00 | 6,00 | 50 | 14 | 0779006106100 | | 0779206106100 | 779306106100 |
| 6,00 | 6,00 | 150 | 16 | | | | 779306206100 |
| 8,00 | 6,00 | 65 | 20 | 0779006108100 | 0779806108100 | 0779206108100 | 779306108100 |
| 10,00 | 6,00 | 65 | 20 | 0779006110100 | 0779806110100 | 0779206110100 | 779306110100 |
| 10,00 | 6,00 | 70 | 25 | | | | |
| 10,00 | 6,00 | 150 | 20 | | | | |
| 12,00 | 6,00 | 70 | 25 | 0779006112100 | 0779806112100 | 0779206112100 | 779306112100 |
| 12,00 | 6,00 | 150 | 25 | | | | |
| 12,00 | 8,00 | 70 | 25 | | | | |
| 16,00 | 6,00 | 70 | 25 | | | | 779306116100 |
| 20,00 | 6,00 | 70 | 25 | | | | |





6 TiN

DIN MX



9

SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie -
hoher Materialabtrag

*Aggressive geometry -
high chip removal*

*Geometría agresiva
- alta remoción de
material*

| d1 mm | d2 mm | l1 mm | l2 mm | | | | |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | | | Code 7794 Art.-Nr. | Code 7796 Art.-Nr. | Code 7797 Art.-Nr. | Code 7799 Art.-Nr. |
| 3,00 | 3,00 | 38 | 14 | 0779403103100 | 0779603103100 | 0779703103100 | |
| 3,00 | 3,00 | 50 | 14 | | 0779603203100 | | |
| 4,00 | 3,00 | 40 | 10 | 0779403104100 | 0779603104100 | | |
| 4,00 | 6,00 | 50 | 14 | | 0779606104100 | | |
| 5,00 | 3,00 | 42 | 12 | 0779403105100 | | | |
| 6,00 | 3,00 | 43 | 14 | 0779403106100 | 0779603106100 | | |
| 6,00 | 6,00 | 50 | 14 | 0779406106100 | | 0779706106100 | 0779906106100 |
| 6,00 | 6,00 | 150 | 16 | 0779406206100 | 0779606206100 | | |
| 8,00 | 6,00 | 65 | 20 | 0779406108100 | 0779606108100 | 0779706108100 | 0779906108100 |
| 10,00 | 6,00 | 65 | 20 | 0779406110100 | 0779606110100 * | 0779706110100 | 0779906110100 |
| 10,00 | 6,00 | 70 | 25 | | 0779606310100 | | |
| 10,00 | 6,00 | 150 | 20 | 0779406210100 | | | |
| 12,00 | 6,00 | 70 | 25 | 0779406112100 | 0779606112100 * | 0779706112100 | 0779906112100 |
| 12,00 | 6,00 | 150 | 25 | 0779406212100 | | | |
| 12,00 | 8,00 | 70 | 25 | | 0779608112100 | | |
| 16,00 | 6,00 | 70 | 25 | 0779406116100 | 0779606116100 | | |
| 20,00 | 6,00 | 70 | 25 | 0779406120100 | | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



① Hartmetall-Frässtifte, Spitzbogen

② Tungsten carbide rotary burrs, arc pointed nose

③ Puntas de avellanado de metal duro, angulares ojivales



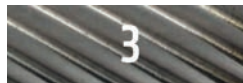
INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



DIN MY

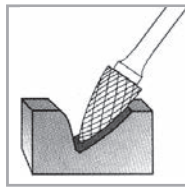


DIN MX



DIN
SPG

ISO
G



INOX

Herausragende Fräseleistung bei Edelstahl/Niro
Outstanding milling performance in stainless steel
Rendimiento de fresado excelente en acero inoxidable/ acero niro

Einzelverpackung
Single packing
Embalaje individual

* Einzelverpackung mit SB
Single packaging with tag
Embalaje individual con gancho para autoservicio



| | | | | 0 | 1A | 2 | 3 |
|-------|------|----|----|-----------------------|-----------------------|---|-----------------------|
| d1 | d2 | l1 | l2 | Code 7800 Art.-Nr. | Code 7808 Art.-Nr. | | Code 7803 Art.-Nr. |
| mm | mm | mm | mm | | | | |
| 3,00 | 3,00 | 38 | 12 | | | | 0780303103100 |
| 4,00 | 3,00 | 40 | 10 | | | | 0780303104100 |
| 4,00 | 6,00 | 50 | 14 | | | | |
| 6,00 | 3,00 | 43 | 13 | | | | 0780303106100 |
| 6,00 | 6,00 | 50 | 16 | 0780006106100 | | | 0780306106100 |
| 8,00 | 6,00 | 65 | 20 | 0780006108100 | | | 0780306108100 |
| 10,00 | 6,00 | 65 | 20 | 0780006110100 | 0780806110100 | | 0780306110100 |
| 12,00 | 6,00 | 70 | 25 | 0780006112100 | 0780806112100 | | 0780306112100 |
| 12,00 | 6,00 | 75 | 25 | | | | |
| 12,00 | 8,00 | 70 | 25 | | | | |
| 16,00 | 6,00 | 75 | 30 | | | | 0780306116100 |
| 16,00 | 8,00 | 75 | 30 | | | | |

NEW





DIN MX



SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.



Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie - hoher Materialabtrag

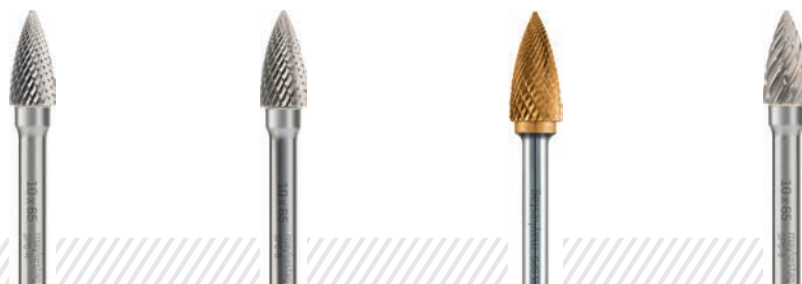
Aggressive geometry - high chip removal

Geometría agresiva - alta remoción de material

| | | | |  |  |  |  |
|----------|----------|----------|----------|---|---|--|---|
| d1 mm | d2 mm | l1 mm | l2 mm | Code 7804 Art.-Nr. | Code 7806 Art.-Nr. | Code 7807 Art.-Nr. | Code 7809 Art.-Nr. |
| 3,00 | 3,00 | 38 | 12 | 0780403103100 | 0780603103100 | 0780703103100 | |
| 4,00 | 3,00 | 40 | 10 | | | | |
| 4,00 | 6,00 | 50 | 14 | | 0780606104100 | | |
| 6,00 | 3,00 | 43 | 13 | 0780403106100 | | | |
| 6,00 | 6,00 | 50 | 16 | 0780406106100 | 0780606106100 * | 0780706106100 | 0780906106100 |
| 8,00 | 6,00 | 65 | 20 | 0780406108100 | 0780606108100 | | 0780906108100 |
| 10,00 | 6,00 | 65 | 20 | 0780406110100 | 0780606110100 | 0780706110100 | 0780906110100 |
| 12,00 | 6,00 | 70 | 25 | 0780406112100 | 0780606112100 * | 0780706112100 | 0780906112100 |
| 12,00 | 6,00 | 75 | 25 | | 0780606212100 | | |
| 12,00 | 8,00 | 70 | 25 | | 0780608112100 | | |
| 16,00 | 6,00 | 75 | 30 | 0780406116100 | 0780606116100 | | |
| 16,00 | 8,00 | 75 | 30 | | 0780608116100 | | |



Hartmetall Werkzeuge
 Tungsten carbide tools
 herramientas de metal duro



① Hartmetall-Frässtifte, Winkel, ohne Stirnverzahnung

② Tungsten carbide rotary burrs, inverted cone, without front cut

③ Puntas de avellanado de metal duro, angulares, sin dentado frontal



INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



DIN MY



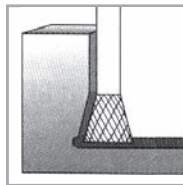
DIN MX

Einzelverpackung
Single packing
Embalaje individual



DIN
WKN

ISO
N



INOX

Herausragende Fräseleistung bei Edelstahl/Niro

Outstanding milling performance in stainless steel

Rendimiento de fresado excelente en acero inoxidable/ acero niro



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 | Code 7813 Art.-Nr. |
|----------|----------|----------|----------|---|----|---|---|-----------------------|
| | | | | | | | | |
| 3,00 | 3,00 | 38 | 3 | | | | | 0781303103100 |
| 6,00 | 3,00 | 36 | 6 | | | | | 0781303106100 |
| 8,00 | 6,00 | 53 | 8 | | | | | 0781306108100 |
| 10,00 | 6,00 | 55 | 10 | | | | | |
| 12,00 | 6,00 | 57 | 12 | | | | | 0781306112100 |





6 TiN

DIN MX



9

SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie -
hoher Materialabtrag

*Aggressive geometry -
high chip removal*

*Geometría agresiva
- alta remoción de
material*

| d1 mm | d2 mm | l1 mm | l2 mm | Zahnung | | | |
|----------|----------|----------|----------|-----------------------|---------------|-------|---|
| | | | | 4 | 6 | 6 TiN | 9 |
| | | | | Code 7816 Art.-Nr. | | | |
| 3,00 | 3,00 | 38 | 3 | | 0781603103100 | | |
| 6,00 | 3,00 | 36 | 6 | | 0781603106100 | | |
| 8,00 | 6,00 | 53 | 8 | | 0781606108100 | | |
| 10,00 | 6,00 | 55 | 10 | | 0781606110100 | | |
| 12,00 | 6,00 | 57 | 12 | | 0781606112100 | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



① Hartmetall-Frässtifte, Spitzkegel

② Tungsten carbide rotary burrs, conical pointed nose

③ Puntas de avellanado de metal duro, cónicas puntiagudas



INOX



Diamant
Diamond
Diamante



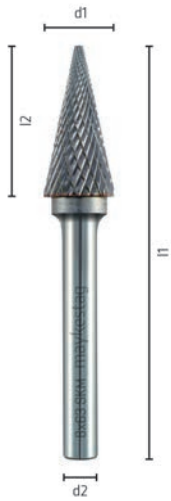
Aluminium
Aluminium
Aluminio



DIN MY

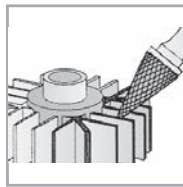


DIN MX



DIN
SKM

ISO
M



INOX

Herausragende Fräseleistung bei Edelstahl/Niro

Outstanding milling performance in stainless steel

Rendimiento de fresado excelente en acero inoxidable/ acero niro

Einzelverpackung
Single packing
Embalaje individual



* Einzelverpackung mit SB
Single packaging with tag
Embalaje individual con gancho para autoservicio



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|------------------|------------------|------------------|-----------------------|
| | | | | Code Art.-Nr. | Code Art.-Nr. | Code Art.-Nr. | Code 7833 Art.-Nr. |
| 3,00 | 3,00 | 38 | 12 | | | | 0783303103100 |
| 3,00 | 3,00 | 50 | 12 | | | | 0783303203100 |
| 4,00 | 3,00 | 40 | 10 | | | | 0783303104100 |
| 6,00 | 3,00 | 43 | 13 | | | | 0783303106100 |
| 6,00 | 6,00 | 50 | 16 | | | | 0783306106100 |
| 8,00 | 6,00 | 63 | 18 | | | | 0783306108100 |
| 10,00 | 6,00 | 65 | 20 | | | | 0783306110100 |
| 12,00 | 6,00 | 70 | 25 | | | | 0783306112100 |
| 16,00 | 6,00 | 70 | 25 | | | | 0783306116100 |





6 TiN

DIN MX



9

SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie - hoher Materialabtrag

Aggressive geometry - high chip removal

Geometría agresiva - alta remoción de material

| d1 mm | d2 mm | l1 mm | l2 mm | 4 | | 6 | | 6 TiN | | 9 | |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|------------------|-------|--|---|--|
| | | | | Code 7834 Art.-Nr. | Code 7836 Art.-Nr. | Code 7837 Art.-Nr. | Code Art.-Nr. | | | | |
| 3,00 | 3,00 | 38 | 12 | 0783403103100 | 0783603103100 | 0783703103100 | | | | | |
| 3,00 | 3,00 | 50 | 12 | | | | | | | | |
| 4,00 | 3,00 | 40 | 10 | | | | | | | | |
| 6,00 | 3,00 | 43 | 13 | 0783403106100 | 0783603106100 | | | | | | |
| 6,00 | 6,00 | 50 | 16 | 0783406106100 | 0783606106100 * | 0783706106100 | | | | | |
| 8,00 | 6,00 | 63 | 18 | 0783406108100 | 0783606108100 | 0783706108100 | | | | | |
| 10,00 | 6,00 | 65 | 20 | 0783406110100 | 0783606110100 * | 0783706110100 | | | | | |
| 12,00 | 6,00 | 70 | 25 | 0783406112100 | 0783606112100 * | 0783706112100 | | | | | |
| 16,00 | 6,00 | 70 | 25 | 0783406116100 | 0783606116100 | | | | | | |



Hartmetall Werkzeuge
 Tungsten carbide tools
 herramientas de metal duro



① Hartmetall-Frässtifte,
Konus 90°

② Tungsten carbide rotary burrs,
cone 90°

③ Puntas de avellanado de metal
duro, cono de 90°



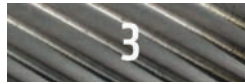
INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



DIN MY



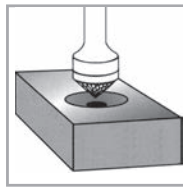
DIN MX

Einzelverpackung
Single packing
Embalaje individual



DIN
KSK

ISO
K



INOX

Herausragende Fräseleistung
bei Edelstahl/Niro

*Outstanding milling
performance in stainless
steel*

*Rendimiento de fresado
excelente en acero inoxidable/
acero niro*



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|-----------------------|----|---|---------------|
| | | | | Code 7843 Art.-Nr. | | | |
| 3,00 | 3,00 | 38 | 2 | | | | 0784303103100 |
| 4,00 | 6,00 | 50 | 3 | | | | 0784306104100 |
| 5,00 | 3,00 | 34 | 4 | | | | 0784303105100 |
| 6,00 | 6,00 | 50 | 5 | | | | 0784306106100 |
| 8,00 | 6,00 | 53 | 8 | | | | 0784306108100 |
| 10,00 | 6,00 | 55 | 10 | | | | 0784306110100 |
| 12,00 | 6,00 | 57 | 12 | | | | 0784306112100 |
| 16,00 | 6,00 | 61 | 16 | | | | 0784306116100 |
| 20,00 | 6,00 | 65 | 20 | | | | 0784306120100 |





6 TiN

DIN MX



9

SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie -
hoher Materialabtrag

*Aggressive geometry -
high chip removal*

*Geometría agresiva
- alta remoción de
material*

| d1 mm | d2 mm | l1 mm | l2 mm | | | | |
|----------|----------|----------|----------|--|-----------------------|--|--|
| | | | | | Code 7846 Art.-Nr. | | |
| 3,00 | 3,00 | 38 | 2 | | | | |
| 4,00 | 6,00 | 50 | 3 | | | | |
| 5,00 | 3,00 | 34 | 4 | | | | |
| 6,00 | 6,00 | 50 | 5 | | | | |
| 8,00 | 6,00 | 53 | 8 | | | | |
| 10,00 | 6,00 | 55 | 10 | | 0784606110100 | | |
| 12,00 | 6,00 | 57 | 12 | | 0784606112100 | | |
| 16,00 | 6,00 | 61 | 16 | | | | |
| 20,00 | 6,00 | 65 | 20 | | | | |



Hartmetall Werkzeuge
Herramientas de metal duro



① Hartmetall-Frässtifte,
Konus 60°

② Tungsten carbide rotary burrs,
cone 60°

③ Puntas de avellanado de metal
duro, cono de 60°



INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



DIN MY



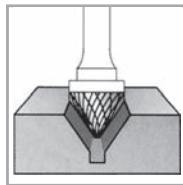
DIN MX

Einzelverpackung
Single packing
Embalaje individual



DIN
KSJ

ISO
J



INOX

Herausragende Fräseleistung
bei Edelstahl/Niro

*Outstanding milling
performance in stainless
steel*

*Rendimiento de fresado
excelente en acero inoxidable/
acero niro*



| d1 | d2 | l1 | l2 | 0 | 1A | 2 | 3 | Code 7853 Art.-Nr. |
|-------|------|----|----|---|----|---|---|-----------------------|
| mm | mm | mm | mm | | | | | |
| 3,00 | 3,00 | 38 | 3 | | | | | 0785303103100 |
| 4,00 | 6,00 | 50 | 4 | | | | | 0785306104100 |
| 6,00 | 6,00 | 50 | 6 | | | | | 0785306106100 |
| 10,00 | 6,00 | 55 | 10 | | | | | 0785306110100 |
| 12,00 | 6,00 | 57 | 12 | | | | | 0785306112100 |
| 16,00 | 6,00 | 61 | 16 | | | | | 0785306116100 |





6 TiN

DIN MX



9

SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie -
hoher Materialabtrag

*Aggressive geometry -
high chip removal*

*Geometría agresiva
- alta remoción de
material*

| d1 mm | d2 mm | l1 mm | l2 mm | Zahnung | | | |
|----------|----------|----------|----------|-----------------------|---------------|-------|---|
| | | | | 4 | 6 | 6 TiN | 9 |
| | | | | Code 7856 Art.-Nr. | | | |
| 3,00 | 3,00 | 38 | 3 | | | | |
| 4,00 | 6,00 | 50 | 4 | | | | |
| 6,00 | 6,00 | 50 | 6 | | 0785606106100 | | |
| 10,00 | 6,00 | 55 | 10 | | 0785606112100 | | |
| 12,00 | 6,00 | 57 | 12 | | 0785606116100 | | |
| 16,00 | 6,00 | 61 | 16 | | | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



① Hartmetall-Frässtifte, Tropfen

② Tungsten carbide rotary burrs, oval

③ Puntas de avellanado de metal duro, lágrima



INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio

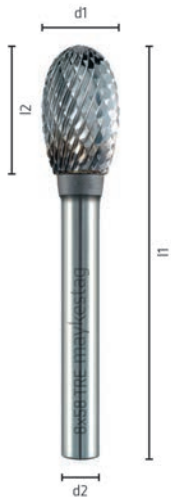


DIN MY



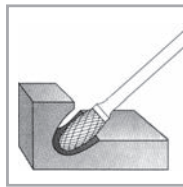
DIN MX

Einzelverpackung
Single packing
Embalaje individual



DIN
TRE

ISO
E



INOX

Herausragende Fräseleistung bei Edelstahl/Niro

Outstanding milling performance in stainless steel

Rendimiento de fresado excelente en acero inoxidable/ acero niro



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 | Code 7863 Art.-Nr. |
|----------|----------|----------|----------|---|----|---|---|-----------------------|
| | | | | | | | | |
| 3,00 | 3,00 | 38 | 6 | | | | | 0786303103100 |
| 4,00 | 3,00 | 36 | 6 | | | | | 0786303104100 |
| 4,00 | 6,00 | 50 | 6 | | | | | |
| 6,00 | 3,00 | 40 | 10 | | | | | 0786303106100 |
| 6,00 | 6,00 | 50 | 10 | | | | | 0786306106100 |
| 8,00 | 6,00 | 58 | 13 | | | | | 0786306108100 |
| 10,00 | 6,00 | 61 | 16 | | | | | 0786306110100 |
| 12,00 | 6,00 | 65 | 20 | | | | | 0786306112100 |
| 16,00 | 6,00 | 70 | 25 | | | | | 0786306116100 |





6 TiN

DIN MX



9

SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie -
hoher Materialabtrag

*Aggressive geometry -
high chip removal*

*Geometría agresiva
- alta remoción de
material*

| d1 mm | d2 mm | l1 mm | l2 mm | 4 | | 6 | | 6 TiN | | 9 | |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|--|
| | | | | Code 7864 Art.-Nr. | Code 7866 Art.-Nr. | Code 7864 Art.-Nr. | Code 7866 Art.-Nr. | Code 7864 Art.-Nr. | Code 7866 Art.-Nr. | | |
| 3,00 | 3,00 | 38 | 6 | 0786403103100 | 0786603103100 | | | | | | |
| 4,00 | 3,00 | 36 | 6 | | 0786603104100 | | | | | | |
| 4,00 | 6,00 | 50 | 6 | | 0786606104100 | | | | | | |
| 6,00 | 3,00 | 40 | 10 | 0786403106100 | 0786603106100 | | | | | | |
| 6,00 | 6,00 | 50 | 10 | 0786406106100 | 0786606106100 | | | | | | |
| 8,00 | 6,00 | 58 | 13 | 0786406108100 | 0786606108100 | | | | | | |
| 10,00 | 6,00 | 61 | 16 | 0786406110100 | 0786606110100 | | | | | | |
| 12,00 | 6,00 | 65 | 20 | 0786406112100 | 0786606112100 | | | | | | |
| 16,00 | 6,00 | 70 | 25 | 0786406116100 | 0786606116100 | | | | | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



① Hartmetall-Frässtifte, Kugel

② Tungsten carbide rotary burrs, spherical

③ Puntas de avellanado de metal duro, cónicas



INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



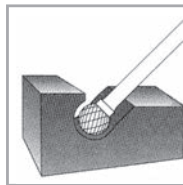
DIN MY



DIN MX



DIN
KUD
ISO
D



INOX

Herausragende Fräseleistung bei Edelstahl/Niro

Outstanding milling performance in stainless steel

Rendimiento de fresado excelente en acero inoxidable/ acero niro

Einzelverpackung
Single packing
Embalaje individual



* Einzelverpackung mit SB
Single packaging with tag
Embalaje individual con gancho para autoservicio



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|-----------------------|----|---|-----------------------|
| | | | | Code 7878 Art.-Nr. | | | Code 7873 Art.-Nr. |
| 2,50 | 3,00 | 38 | 2 | | | | 0787303125100 |
| 3,00 | 3,00 | 33 | 2,5 | | | | 0787303103100 |
| 3,00 | 3,00 | 38 | 2,5 | | | | |
| 4,00 | 3,00 | 33 | 3 | | | | 0787303104100 |
| 4,00 | 6,00 | 50 | 3 | | | | 0787306104100 |
| 5,00 | 3,00 | 34 | 4 | | | | 0787303105100 |
| 6,00 | 3,00 | 35 | 5 | | | | 0787303106100 |
| 6,00 | 6,00 | 50 | 5 | | | | 0787306106100 |
| 8,00 | 6,00 | 52 | 7 | | | | 0787306108100 |
| 10,00 | 6,00 | 54 | 9 | 0787806110100 | | | 0787306110100 |
| 10,00 | 6,00 | 150 | 9 | | | | |
| 12,00 | 6,00 | 55 | 10 | 0787806112100 | | | 0787306112100 |
| 12,00 | 6,00 | 150 | 10 | | | | |
| 16,00 | 6,00 | 59 | 14 | | | | 0787306116100 |
| 16,00 | 8,00 | 59 | 14 | | | | 0787308116100 |
| 20,00 | 6,00 | 63 | 18 | | | | 0787306120100 |





DIN MX



SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie - hoher Materialabtrag

Aggressive geometry - high chip removal

Geometría agresiva - alta remoción de material

| | | | |  |  |  |  |
|----------|----------|----------|----------|---|---|--|---|
| d1 mm | d2 mm | l1 mm | l2 mm | Code 7874 Art.-Nr. | Code 7876 Art.-Nr. | Code 7877 Art.-Nr. | |
| 2,50 | 3,00 | 38 | 2 | | | 0787703125100 | |
| 3,00 | 3,00 | 33 | 2,5 | 0787403103100 | 0787603103100 | | |
| 3,00 | 3,00 | 38 | 2,5 | | | 0787703103100 | |
| 4,00 | 3,00 | 33 | 3 | 0787403104100 | | | |
| 4,00 | 6,00 | 50 | 3 | 0787406104100 | 0787606104100 | | |
| 5,00 | 3,00 | 34 | 4 | | | | |
| 6,00 | 3,00 | 35 | 5 | 0787403106100 | 0787603106100 | | |
| 6,00 | 6,00 | 50 | 5 | 0787406106100 | 0787606106100 | 0787706106100 | |
| 8,00 | 6,00 | 52 | 7 | 0787406108100 | 0787606108100 | 0787706108100 | |
| 10,00 | 6,00 | 54 | 9 | 0787406110100 | 0787606110100 * | 0787706110100 | |
| 10,00 | 6,00 | 150 | 9 | | 0787606210100 | | |
| 12,00 | 6,00 | 55 | 10 | 0787406112100 | 0787606112100 * | | |
| 12,00 | 6,00 | 150 | 10 | | 0787606212100 | | |
| 16,00 | 6,00 | 59 | 14 | 0787406116100 | 0787606116100 | | |
| 16,00 | 8,00 | 59 | 14 | | | | |
| 20,00 | 6,00 | 63 | 18 | 0787406120100 | 0787606120100 | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



① Hartmetall-Frässtifte, Rundbogen

② Tungsten carbide rotary burrs, arc round nose

③ Puntas de avellanado de metal duro, arco circular



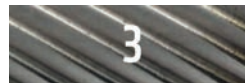
INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio



DIN MY

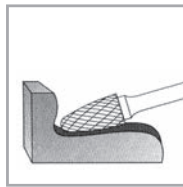


DIN MX



DIN
RBF

ISO
F



INOX

Herausragende Fräseleistung bei Edelstahl/Niro
Outstanding milling performance in stainless steel
Rendimiento de fresado excelente en acero inoxidable/ acero niro

Einzelverpackung
Single packing
Embalaje individual

* Einzelverpackung mit SB
Single packaging with tag
Embalaje individual con gancho para autoservicio

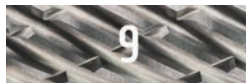


| | | | | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|-----------------------|
| d1 mm | d2 mm | l1 mm | l2 mm | Code 7880 Art.-Nr. | Code 7888 Art.-Nr. | Code 7882 Art.-Nr. | Code 7883 Art.-Nr. |
| 3,00 | 3,00 | 38 | 12 | | | | 0788303103100 |
| 4,00 | 3,00 | 40 | 10 | | | | 0788303104100 |
| 6,00 | 3,00 | 43 | 13 | | | | 0788303106100 |
| 6,00 | 6,00 | 50 | 18 | 0788006106100 | | 0788206106100 | 0788306106100 |
| 6,00 | 6,00 | 150 | 13 | | | | |
| 8,00 | 6,00 | 63 | 18 | 0788006108100 | | 0788206108100 | 0788306108100 |
| 10,00 | 6,00 | 65 | 20 | 0788006110100 | 0788806110100 | 0788206110100 | 0788306110100 |
| 10,00 | 6,00 | 150 | 20 | | | | |
| 12,00 | 6,00 | 70 | 25 | 0788006112100 | 0788806112100 | 0788206112100 | 0788306112100 |
| 12,00 | 6,00 | 150 | 25 | | | | |
| 12,00 | 8,00 | 70 | 25 | | | | |
| 16,00 | 6,00 | 75 | 30 | | 0788806116100 | | 0788306116100 |
| 20,00 | 6,00 | 75 | 30 | | | | |





DIN MX



SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie - hoher Materialabtrag

Aggressive geometry - high chip removal

Geometría agresiva - alta remoción de material

| | | | |  |  |  |  |
|----------|----------|----------|----------|---|---|--|---|
| d1 mm | d2 mm | l1 mm | l2 mm | Code 7884 Art.-Nr. | Code 7886 Art.-Nr. | Code 7887 Art.-Nr. | Code 7889 Art.-Nr. |
| 3,00 | 3,00 | 38 | 12 | 0788403103100 | 0788603103100 | | |
| 4,00 | 3,00 | 40 | 10 | | | | |
| 6,00 | 3,00 | 43 | 13 | 0788403106100 | 0788603106100 | | |
| 6,00 | 6,00 | 50 | 18 | 0788406106100 | 0788606106100 * | | 0788906106100 |
| 6,00 | 6,00 | 150 | 13 | 0788406206100 | | | |
| 8,00 | 6,00 | 63 | 18 | 0788406108100 | 0788606108100 | 0788706108100 | 0788906108100 |
| 10,00 | 6,00 | 65 | 20 | 0788406110100 | | 0788706110100 | 0788906110100 |
| 10,00 | 6,00 | 150 | 20 | 0788406210100 | | | |
| 12,00 | 6,00 | 70 | 25 | 0788406112100 | 0788606112100 * | 0788706112100 | 0788906112100 |
| 12,00 | 6,00 | 150 | 25 | 0788406212100 | | | |
| 12,00 | 8,00 | 70 | 25 | | 0788608112100 | | |
| 16,00 | 6,00 | 75 | 30 | 0788406116100 | 0788606116100 | | |
| 20,00 | 6,00 | 75 | 30 | | 0788606120100 | | |



Hartmetall Werkzeuge
 Tungsten carbide tools
 herramientas de metal duro



① Hartmetall-Frässtifte, Rundkegel

② Tungsten carbide rotary burrs, conical round nose

③ Puntas de avellanado de metal duro, cónico circular



INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio

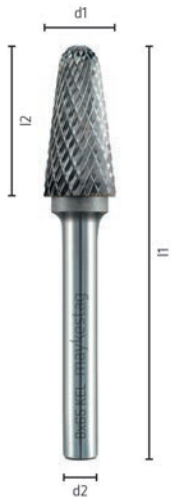


DIN MY



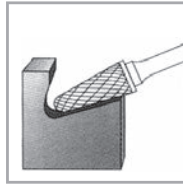
DIN MX

Einzelverpackung
Single packing
Embalaje individual



DIN
KEL

ISO
L



INOX

Herausragende Fräseleistung bei Edelstahl/Niro

Outstanding milling performance in stainless steel

Rendimiento de fresado excelente en acero inoxidable/ acero niro



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|---------------|
| | | | | Code 7890 Art.-Nr. | Code 7898 Art.-Nr. | Code 7893 Art.-Nr. | |
| 3,00 | 3,00 | 38 | 14 | | | | 0789303103100 |
| 4,00 | 3,00 | 44 | 14 | | | | 0789303104100 |
| 4,00 | 6,00 | 50 | 16 | | | | |
| 6,00 | 3,00 | 48 | 18 | | | | 0789303106100 |
| 6,00 | 6,00 | 50 | 20 | | | | 0789306106100 |
| 8,00 | 6,00 | 65 | 20 | 0789006108100 | | | 0789306108100 |
| 10,00 | 6,00 | 65 | 20 | 0789006110100 | 0789806110100 | | 0789306110100 |
| 12,00 | 6,00 | 70 | 25 | 0789006112100 | 0789806112100 | | 0789306112100 |
| 12,00 | 6,00 | 75 | 30 | | | | |
| 16,00 | 6,00 | 75 | 30 | | 0789806116100 | | 0789306116100 |





6 TiN

DIN MX



9

SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie -
hoher Materialabtrag

*Aggressive geometry -
high chip removal*

*Geometría agresiva
- alta remoción de
material*

| d1 mm | d2 mm | l1 mm | l2 mm | 4 | | 6 | | 6 TiN | | 9 | |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|---------------|--|
| | | | | Code 7894 Art.-Nr. | Code 7896 Art.-Nr. | Code 7894 Art.-Nr. | Code 7896 Art.-Nr. | Code 7899 Art.-Nr. | | | |
| 3,00 | 3,00 | 38 | 14 | 0789403103100 | 0789603103100 | | | | | | |
| 4,00 | 3,00 | 44 | 14 | | 0789603104100 | | | | | | |
| 4,00 | 6,00 | 50 | 16 | | 0789606104100 | | | | | | |
| 6,00 | 3,00 | 48 | 18 | 0789403106100 | | | | | | | |
| 6,00 | 6,00 | 50 | 20 | 0789406106100 | 0789606106100 | | | | | | |
| 8,00 | 6,00 | 65 | 20 | 0789406108100 | 0789606108100 | | | | | | |
| 10,00 | 6,00 | 65 | 20 | 0789406110100 | 0789606110100 | | | | | 0789906110100 | |
| 12,00 | 6,00 | 70 | 25 | 0789406112100 | 0789606112100 | | | | | 0789906112100 | |
| 12,00 | 6,00 | 75 | 30 | | 0789606312100 | | | | | | |
| 16,00 | 6,00 | 75 | 30 | 0789406116100 | 0789606116100 | | | | | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



① Hartmetall-Frässtifte,
Flamme

② Tungsten carbide rotary burrs,
flame

③ Puntas de avellanado de metal
duro, llama



INOX



Diamant
Diamond
Diamante



Aluminium
Aluminium
Aluminio

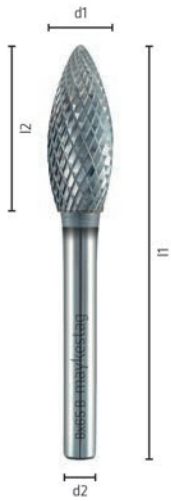


DIN MY



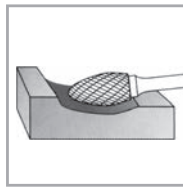
DIN MX

Einzelverpackung
Single packing
Embalaje individual



DIN
B

ISO
H



INOX

Herausragende Fräseleistung
bei Edelstahl/Niro

*Outstanding milling
performance in stainless
steel*

*Rendimiento de fresado
excelente en acero inoxidable/
acero niro*



| d1 mm | d2 mm | l1 mm | l2 mm | 0 | 1A | 2 | 3 |
|----------|----------|----------|----------|---|----|---|-----------------------|
| 6,00 | 6,00 | 57 | 20 | | | | Code 7903 Art.-Nr. |
| 8,00 | 6,00 | 65 | 20 | | | | 0790306108100 |
| 10,00 | 6,00 | 70 | 25 | | | | 0790306110100 |
| 12,00 | 6,00 | 75 | 30 | | | | 0790306112100 |
| 16,00 | 6,00 | 77 | 32 | | | | |





DIN MX



SPECIAL STEEL

Nähere Informationen zu den einzelnen Zahnungen siehe Seite 261.

Detailed information about the different cuts see on page 261.

Consulte en la página 261 información más detallada sobre todos los dentados.

SPECIAL STEEL

Aggressive Geometrie -
hoher Materialabtrag

*Aggressive geometry -
high chip removal*

*Geometría agresiva
- alta remoción de
material*

| d1 mm | d2 mm | l1 mm | l2 mm | 4 | | 6 | | 6 TiN | | 9 | |
|----------|----------|----------|----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|--|
| | | | | Code 7904 Art.-Nr. | Code 7906 Art.-Nr. | Code 7904 Art.-Nr. | Code 7906 Art.-Nr. | Code 7904 Art.-Nr. | Code 7906 Art.-Nr. | | |
| 6,00 | 6,00 | 57 | 20 | | 0790606106100 | | | | | | |
| 8,00 | 6,00 | 65 | 20 | 0790406108100 | 0790606108100 | | | | | | |
| 10,00 | 6,00 | 70 | 25 | 0790406110100 | 0790606110100 | | | | | | |
| 12,00 | 6,00 | 75 | 30 | 0790406112100 | 0790606112100 | | | | | | |
| 16,00 | 6,00 | 77 | 32 | 0790406116100 | 0790606116100 | | | | | | |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



🇩🇪 Kassetten, Sets

🇪🇸 Cassettes, sets

🇪🇸 Cajas, juegos

| Hartmetall-Frässtifteset, Zahnung 6 BOX 3 <i>Tungsten carbide rotary burrs set, Cut 6 BOX 3 Juego de puntas de avellanado de metal duro, dentado 6 BOX 3</i> | | Hartmetall-Frässtifteset, Zahnung 6 BOX 10 <i>Tungsten carbide rotary burrs set, Cut 6 BOX 10 Juego de puntas de avellanado de metal duro, dentado 6 BOX 10</i> | | Hartmetall-Set Frässtifte/Senker BOX 5 <i>Tungsten carbide set rotary burrs/countersinks BOX 5 Juego de puntas de avellanado/avellanadores cónicos de metal duro BOX 5</i> | |
|---|---|--|---|---|---|
|  | |  | |  | |
| 3-tlg. / 3-pcs. / 3-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0776000003100 | | 10-tlg. / 10-pcs. / 10-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0776000005100 | | 5-tlg. / 5-pcs. / 5-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 0776000002100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| HM-Frässtift | | HM-Frässtift | | HM-Frässtift | |
| Ø 10 x 65 mm, ZYA-S | 1 | Ø 6 x 50 mm / 12 x 70 mm, ZYA-S | 1 | Ø 10x65, ZYA-S | 1 |
| Ø 10 x 65 mm, WRC | 1 | Ø 10 x 54 mm / 12 x 55 mm, KUD | 1 | Ø 10x65, WRC | 1 |
| Ø 10 x 65 mm, SPG | 1 | Ø 6 x 50 mm / 12 x 70 mm, WRC | 1 | Ø 10x65, SPG | 1 |
| | | Ø 6 x 50 mm / 12 x 70 mm, RBF | 1 | MAYKESTAG | |
| | | Ø 6 x 50 mm / 10 x 65 mm, SPG | 1 | HSS Cobalt Kegelsenker Ø 10,40 / 12,40 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Beschreibung der Verzahnungen

E Description of cuts

ES Descripción de los dentados

| | | | |
|---|---|---|--|
| | | | |
| <p>Zahnung 0 (INOX): Herausragende Fräsleistung bei Edelstahl sowie ferritischen, austenitischen und martensitischen Materialien.</p> <p>Cut 0 (INOX): <i>Outstanding milling performance in stainless steel as well as ferritic, austenitic and martensitic materials.</i></p> <p>Dentado 0 (INOX): <i>Rendimiento de fresado excelente de acero inoxidable y de los materiales ferríticos, austeníticos y martensíticos.</i></p> | <p>Zahnung 1A (Aluminium) Für Aluminium und Aluminiumlegierungen sowie Kunststoffe.</p> <p>Cut 1A (aluminium): <i>Suitable for aluminium and aluminium alloys as well as plastics.</i></p> <p>Dentado 1A (aluminio): <i>Para aluminio y aleaciones de aluminio, así como plástico.</i></p> | <p>Zahnung 2 Für Stähle hoher Festigkeit, Inox, Stahlguss, Schweißnähte und Messing.</p> <p>Cut 2: <i>Suitable for steels with high tensile strength, inox, cast steels, welding seams and brass</i></p> <p>Dentado 2: <i>Para aceros de alta resistencia, acero inoxidable, fundición de acero, soldaduras y latón.</i></p> | <p>Zahnung 3 (DIN MY): Für allgemeine Arbeiten wie Entgraten, Fasen, Kantenbrechen mit sauberer Oberfläche. Für Stähle mit hoher Festigkeit, Schweißnähte.</p> <p>Cut 3 (DIN MY): <i>For general purposes such as deburring, chamfering and smoothing edges with clean surface. Suitable for steels with high tensile strength and welding seams.</i></p> <p>Dentado 3 (DIN MY): <i>Para trabajos generales como desbarbado, biselado, redondeado de cantos con superficies limpia. Para aceros de alta resistencia, soldaduras</i></p> |

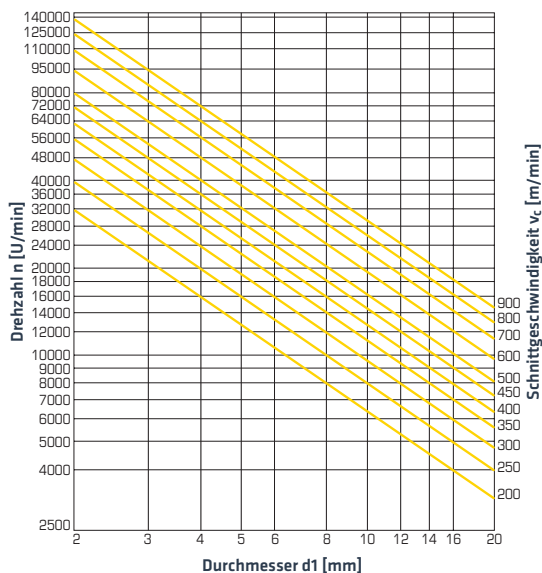
| | | |
|--|---|---|
| | | |
| <p>Zahnung 4 (Diamant): Hohe Oberflächengüte für gehärtete Stähle, Schweißnähte hoher Festigkeit.</p> <p>Cut 4 (diamond): <i>Suitable for hardened steels with excellent surface quality and welding seams with high tensile strength.</i></p> <p>Dentado 4 (diamante): <i>Acabado superficial excelente para aceros templados, soldaduras de alta resistencia.</i></p> | <p>Zahnung 6 (DIN MX): Mit dieser Universalverzahnung werden auch bei härtesten Werkstoffen und Schweißnähten glatte Oberflächen erzielt, ideal für den Werkzeug- und Formenbau.</p> <p>Cut 6 (DIN MX): <i>With this universal cutting profile even hardest materials and welding seams can be machined with best finishing quality. Ideal for the tool and mould industry</i></p> <p>Dentado 6 (DIN MX): <i>Con este dentado universal se logran superficies lisas con los materiales más duros y soldaduras, ideal para la fabricación de herramientas y moldes.</i></p> | <p>Zahnung 9 (SPECIAL STEEL): Speziell entwickelte Geometrie für Stahl- und Gusseisenanwendungen. Hervorragende Zerspanungsleistung und hoher Materialabtrag.</p> <p>Cut 9 (SPECIAL STEEL): <i>Special designed geometry for steel and cast iron applications. Excellent cutting performance and high chip removal.</i></p> <p>Dentado 9 (SPECIAL STEEL): <i>Geometría especialmente diseñada para aplicaciones de acero y acero de fundición. Rendimiento de arranque de virutas excelente y alta remoción de material.</i></p> |



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro

① Anwendung der Zahnungen, Schnittwertempfehlung

| Werkstoffgruppen | | Bearbeitung | Zahnung | Schnittgeschwindigkeit v_c (m/min) | |
|---------------------------------------|--|---|------------------|--------------------------------------|-----------|
| Stahl- und Stahlgusswerkstoffe | ungehärtete, nicht vergütete Stähle < 1.200 N/mm ² (< 35 HRC) | Baustähle, Kohlenstoffstähle, Werkzeugstähle, unlegierte Stähle, Einsatzstähle, Stahlguss | Grobe Zerspanung | 2 | 500-700 |
| | | | | 6 TiN | 450-600 |
| | | | 6 | 450-600 | |
| | | | 9 | 850-1.100 | |
| | gehärtete, vergütete Stähle > 1.200 N/mm ² (> 35 HRC) | Werkzeugstähle, Vergütungsstähle, legierte Stähle, Stahlguss | Grobe Zerspanung | 3,4 | 500-600 |
| | | | | 2 | 250-350 |
| | | | 6 TiN | 250-350 | |
| | | | 6 | 250-350 | |
| Feine Zerspanung | 9 | 550-800 | | | |
| | 3,4 | 350-450 | | | |
| Inox | rost- und säurebeständige Stähle | austenitisch und ferritisch | Grobe Zerspanung | 0 | 550-800 |
| | | | | 2 | 300-400 |
| | | | | 6 TiN | 250-350 |
| | | | Feine Zerspanung | 6 | 250-350 |
| | | | | 3,4 | 350-450 |
| | | | | 2 | 350-450 |
| NE-Metalle | weiche NE-Metalle | Alu-Legierungen, Messing, Zink, Kupfer | Grobe Zerspanung | 1A | 600-900 |
| | | | | 2 | 500-700 |
| | | | Feine Zerspanung | 6 TiN | 400-600 |
| | | | | 2 | 800-900 |
| | harte NE-Metalle | Titan, Titanlegierungen, Bronze, Alu-Legierungen mit hohem Si-Anteil | Grobe Zerspanung | 2 | 250-350 |
| | | | | 6,6 TiN | 250-450 |
| | | | Feine Zerspanung | 3,4 | 350-450 |
| | | | | 2 | 350-450 |
| | hochwarmfeste Werkstoffe | Nickelbasislegierungen, Ni-Co Legierungen | Grobe Zerspanung | 2 | 300-450 |
| | | | | 6 | 300-450 |
| Feine Zerspanung | | | 3,4 | 350-500 | |
| | | | 2 | 350-500 | |
| Gusseisenwerkstoffe | | Grauguss, Sphäroguss | Grobe Zerspanung | 6 TiN | 600-800 |
| | | | | 2 | 500-700 |
| | | | | 3 | 450-600 |
| | | | | 6 | 450-600 |
| | | | Feine Zerspanung | 9 | 850-1.100 |
| | | | | 3,4 | 500-600 |
| Kunststoffe | | faserverstärkte Kunststoffe, thermoplastische Kunststoffe, Hartgummi | Grobe Zerspanung | 1A | 500-900 |
| | | | | 6 TiN | 500-900 |
| | | | Feine Zerspanung | 2 | 500-900 |



Einsatzempfehlungen:

Verwenden Sie nach Möglichkeit die Höchstwerte.

Ausnahmen:

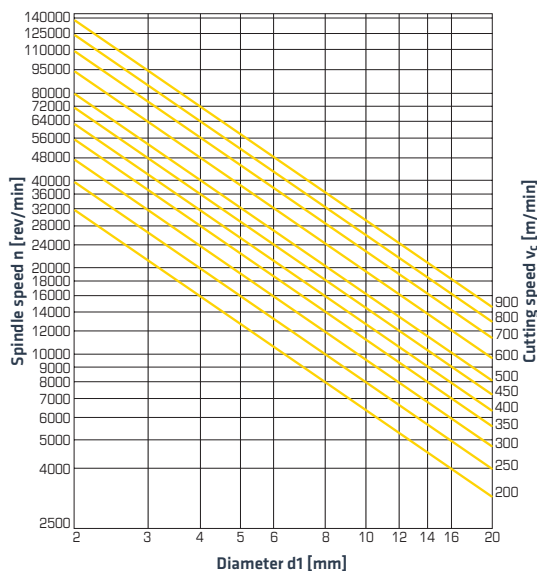
- Senkarbeiten mit allseitiger Umschlingung des Frässtiftes, Drehzahl < 3000 U/min möglich.
- Stationärer Einsatz, Drehzahl < 3000 U/min möglich.
- Werkstoffe mit schlechter Wärmeleitfähigkeit, Drehzahl senken, um Blaufärbung des Frässtiftes zu vermeiden.

Sicherheitshinweise:

Augenschutz benutzen! Je härter der Werkstoff, desto feiner die Zahnung wählen. Nur schlagfreie Spannfutter verwenden!

E Application of different cuts, recommended cutting conditions

| Material groups | | | Machining | Cut | Cutting speed v_c (m/min) |
|-------------------------------|--|---|---------------|---------|-----------------------------|
| Steels and cast steels | non-hardened, non heat treatable steels < 1.200 N/mm ² (< 35 HRC) | Structural steels, carbon steels, tool steels, unalloyed steels, case hardening steels, cast steels | Rough cutting | 2 | 500-700 |
| | | | | 6 TiN | 450-600 |
| | | | | 6 | 450-600 |
| | | | | 9 | 850-1.100 |
| | hardened, heat treatable steels > 1.200 N/mm ² (> 35 HRC) | Tool steels, heat treatable steels, alloyed steels, cast steels | Rough cutting | 3,4 | 500-600 |
| | | | | 2 | 250-350 |
| | | | | 6 TiN | 250-350 |
| | | | | 6 | 250-350 |
| Inox | stainless and acid-resistant steels | austenitic and ferritic | Rough cutting | 9 | 550-800 |
| | | | | 3,4 | 350-450 |
| Non-ferrous metals | soft non-ferrous metals | Alu-alloys, brass, zinc, copper | Rough cutting | 2 | 300-400 |
| | | | | 6 TiN | 250-350 |
| | | | | 6 | 250-350 |
| | | | Fine cutting | 3,4 | 350-450 |
| | | | | 2 | 800-900 |
| | | | | 6 TiN | 400-600 |
| | hard non-ferrous metals | Titanium and Ti-alloys, bronze, Alu-alloys with high Si-content | Rough cutting | 2 | 250-350 |
| | | | | 6,6 TiN | 250-450 |
| | | | | 3,4 | 350-450 |
| | high-temperature materials | Ni-alloys, Ni-Co alloys | Rough cutting | 2 | 300-450 |
| | | | | 6 | 300-450 |
| | | | | 3,4 | 350-500 |
| Cast iron | | Grey cast iron, spheroidal cast iron | Rough cutting | 6 TiN | 600-800 |
| | | | | 2 | 500-700 |
| | | | | 3 | 450-600 |
| | | | | 6 | 450-600 |
| | | | Fine cutting | 9 | 850-1.100 |
| | | | | 3,4 | 500-600 |
| Plastics | | fibre-reinforced plastics, thermoplastics, hard plastics | Rough cutting | 1A | 500-900 |
| | | | | 6 TiN | 500-900 |
| | | | Fine cutting | 2 | 500-900 |



Hints for use:
If possible use the highest values.

- Exceptions:**
- Counterboring with totally engagement of the rotary burr, recommended spindle speed < 3000 rpm.
 - Stationary use, recommended spindle speed < 3000 rpm.
 - Materials with bad heat conductivity, reduce spindle speed to avoid superheating of the rotary burr.

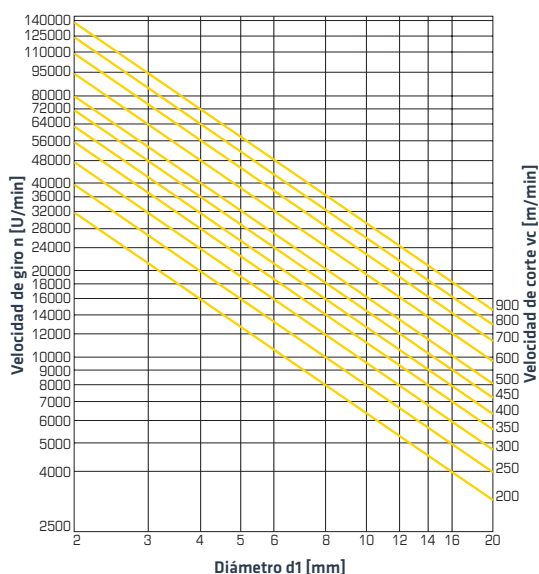
Safety hints:
Use eye-protection! The harder the material use the more finely tooth. Use only chucks free from chatter!



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro

ES **Aplicación de dentados,
velocidades recomendadas**

| Materiales | | Procesamiento | Dentado | Velocidades V _c (m/min) | | | |
|----------------------------------|---|---|--|------------------------------------|------------|---------|---------|
| Acero, fundición de acero | Acero no templado, no tratado < 1200 N/mm ² (< 35 HRC) | Acero de construcción, acero carbonizado, acero para herramientas, acero no aleado, acero cementado, fundición de acero | Desbarbado | 2 | 500-700 | | |
| | | | | 6 TiN | 450-600 | | |
| | | | | 6 | 450-600 | | |
| | | | | 9 | 850-1.100 | | |
| | Acero templado, tratado > 1.200 N/mm ² (> 35 HRC) | Acero para herramientas, acero tratado, acero aleado, fundición de acero | Desbarbado | Acabado | 3,4 | 500-600 | |
| | | | | | Desbarbado | 2 | 250-350 |
| | | | | | | 6 TiN | 250-350 |
| | | | | | | 6 | 250-350 |
| 9 | 550-800 | | | | | | |
| Acero inoxidable | Acero inoxidable y acero resistente a los ácidos | Acero austenítico, acero ferrítico | Desbarbado | 0 | 550-800 | | |
| | | | | 2 | 300-400 | | |
| | | | | 6 TiN | 250-350 | | |
| | | | | 6 | 250-350 | | |
| | | | Acabado | 3,4 | 350-450 | | |
| | | | | Desbarbado | 1A | 600-900 | |
| | | | | | 2 | 500-700 | |
| | | | | | 6 TiN | 400-600 | |
| Acabado | 2 | 800-900 | | | | | |
| | Desbarbado | 2 | 250-350 | | | | |
| | | 6,6 TiN | 250-450 | | | | |
| | | 3,4 | 350-450 | | | | |
| Acabado | Desbarbado | 2 | 300-450 | | | | |
| | | 6 | 300-450 | | | | |
| | Acabado | 3,4 | 350-500 | | | | |
| | | Hierro | Hierro fundido gris, fundición nodular | Desbarbado | 6 TiN | 600-800 | |
| 2 | 500-700 | | | | | | |
| 3 | 450-600 | | | | | | |
| 6 | 450-600 | | | | | | |
| Acabado | 9 | | | 850-1.100 | | | |
| | 3,4 | | | 500-600 | | | |
| | Desbarbado | | | 1A | 500-900 | | |
| | | | | 6 TiN | 500-900 | | |
| Acabado | 2 | 500-900 | | | | | |



Aplicación:

Usar, si es posible, los valores más elevados.

Excepciones:

- Trabajos de avellanado en todo el perímetro, velocidad posible < 3000.
- Procesamiento fijo, velocidad posible < 3000.
- Materiales con mala conducción térmica, reducir la velocidad para evitar que las puntas de avellanado adquieran un color azul.

Normas de seguridad:

Usar gafas de protección. Para materiales muy tenaces, elegir un dentado fino, no emplear mordazas de sujeción.

D Drehzahlen und Vorschübe

E Spindle speeds and feeds

ES Velocidades y avances

Die angegebenen Schnittwertempfehlungen beziehen sich auf Standardanwendungen.

The recommended cutting data refer to standard applications.

Las recomendaciones indicadas de los valores de corte se refieren a aplicaciones estándar.

n: Drehzahl U/min
f: Vorschub mm/U

n: Spindle speed rpm
f: Feed mm/rev

n: Velocidad r.p.m.
f: Avance mm/giro

Vollhartmetall-Spiralbohrer / Solid carbide drills / Brocas espirales de metal duro y macizo



| Ø mm | Code 6147 | | Code 6146 | | Code 6157 | | Code 6156 | | Cu Ms Ni Zn | | Alu | | Ti | | GRAUGUSS CAST IRON GISHA GRIGIA | |
|-------------------------------------|-----------|------|-----------|------|-----------|------|-----------|------|----------------------|------|-------|------|-------|------|---------------------------------------|------|
| | n | f | n | f | n | f | n | f | n | f | n | f | n | f | n | f |
| 0,5 | 20000 | 0,02 | 20000 | 0,02 | 20000 | 0,01 | 20000 | 0,01 | 19099 | 0,01 | 20000 | 0,01 | 19099 | 0,01 | 20000 | 0,02 |
| 1,0 | 20000 | 0,03 | 19099 | 0,03 | 19099 | 0,02 | 17507 | 0,02 | 9549 | 0,02 | 20000 | 0,02 | 9549 | 0,02 | 20000 | 0,03 |
| 2,0 | 11141 | 0,04 | 9549 | 0,04 | 9549 | 0,03 | 8754 | 0,03 | 4775 | 0,03 | 11141 | 0,03 | 4775 | 0,03 | 20000 | 0,04 |
| 3,0 | 7427 | 0,07 | 6366 | 0,07 | 6366 | 0,06 | 5836 | 0,06 | 3183 | 0,06 | 7427 | 0,06 | 3183 | 0,06 | 14854 | 0,07 |
| 4,0 | 5570 | 0,09 | 4775 | 0,09 | 4775 | 0,08 | 4377 | 0,08 | 2387 | 0,08 | 5570 | 0,08 | 2387 | 0,07 | 11141 | 0,09 |
| 5,0 | 4456 | 0,11 | 3820 | 0,11 | 3820 | 0,10 | 3501 | 0,10 | 1910 | 0,10 | 4456 | 0,10 | 1910 | 0,09 | 8913 | 0,11 |
| 6,0 | 3714 | 0,12 | 3183 | 0,12 | 3183 | 0,11 | 2918 | 0,11 | 1592 | 0,11 | 3714 | 0,11 | 1592 | 0,10 | 7427 | 0,12 |
| 7,0 | 3183 | 0,13 | 2728 | 0,13 | 2728 | 0,12 | 2501 | 0,12 | 1364 | 0,12 | 3183 | 0,12 | 1364 | 0,11 | 6366 | 0,13 |
| 8,0 | 2785 | 0,15 | 2387 | 0,15 | 2387 | 0,13 | 2188 | 0,13 | 1194 | 0,13 | 2785 | 0,13 | 1194 | 0,12 | 5570 | 0,15 |
| 9,0 | 2476 | 0,16 | 2122 | 0,16 | 2122 | 0,14 | 1945 | 0,14 | 1061 | 0,14 | 2476 | 0,14 | 1061 | 0,13 | 4951 | 0,16 |
| 10,0 | 2228 | 0,17 | 1910 | 0,17 | 1910 | 0,15 | 1751 | 0,15 | 955 | 0,15 | 2228 | 0,15 | 955 | 0,14 | 4456 | 0,17 |
| 11,0 | 2026 | 0,18 | 1736 | 0,18 | 1736 | 0,16 | 1592 | 0,16 | 868 | 0,16 | 2026 | 0,16 | 868 | 0,15 | 4051 | 0,18 |
| 12,0 | 1857 | 0,20 | 1592 | 0,20 | 1592 | 0,17 | 1459 | 0,17 | 796 | 0,17 | 1857 | 0,17 | 796 | 0,16 | 3714 | 0,20 |
| 13,0 | 1714 | 0,21 | 1469 | 0,21 | 1469 | 0,19 | 1347 | 0,19 | 735 | 0,19 | 1714 | 0,19 | 735 | 0,17 | 3428 | 0,21 |
| 14,0 | 1592 | 0,23 | 1364 | 0,23 | 1364 | 0,20 | 1251 | 0,20 | 682 | 0,20 | 1592 | 0,20 | 682 | 0,18 | 3183 | 0,23 |
| 15,0 | 1485 | 0,24 | 1273 | 0,24 | 1273 | 0,21 | 1167 | 0,21 | 637 | 0,21 | 1485 | 0,21 | 637 | 0,19 | 2971 | 0,24 |
| 16,0 | 1393 | 0,25 | 1194 | 0,25 | 1194 | 0,22 | 1094 | 0,22 | 597 | 0,22 | 1393 | 0,22 | 597 | 0,20 | 2785 | 0,25 |
| 17,0 | 1311 | 0,26 | 1123 | 0,26 | 1123 | 0,23 | 1030 | 0,23 | 562 | 0,23 | 1311 | 0,23 | 562 | 0,21 | 2621 | 0,26 |
| 18,0 | 1238 | 0,26 | 1061 | 0,26 | 1061 | 0,23 | 973 | 0,23 | 531 | 0,23 | 1238 | 0,23 | 531 | 0,21 | 2476 | 0,26 |
| 19,0 | 1173 | 0,27 | 1005 | 0,27 | 1005 | 0,24 | 921 | 0,24 | 503 | 0,24 | 1173 | 0,24 | 503 | 0,22 | 2345 | 0,27 |
| 20,0 | 1114 | 0,28 | 955 | 0,28 | 955 | 0,25 | 875 | 0,25 | 477 | 0,25 | 1114 | 0,25 | 477 | 0,23 | 2228 | 0,28 |
| Kühlung Coolant Refrigeración | E | E | E | E | E | E | E | E | T/E | E | E | E | E | E | E | T/A |

E: Emulsion | Emulsion | emulsión, O: Öl | Oil | aceite, T: trocken | dry | seco, D: Druckluft | compressed air | aire comprimido, W: Wasser | Water | agua, A: Luft | Air | aire



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro

Vollhartmetall-Kegelsenker, DIN 335 C, 90° / Solid carbide countersinks, DIN 335 C, 90° / Avellanador cónico de metal duro y macizo, DIN 335 C, 90°



| Ø mm | Code 6637 | | Code 6530 | | Code 6407 | | Code 6405 | | Cu Ms Ni Zn | Alu | Ti | GRAUGUSS CAST IRON GISHA GRIGIA | | | | | | | | |
|--|-----------|------|-----------|------|-----------|------|-----------|------|----------------------|------|------|---------------------------------------|-----|------|------|------|------|------|------|------|
| | n | f | n | f | n | f | n | f | | | | | | | | | | | | |
| 5,3 | 3604 | 0,07 | 3003 | 0,05 | 2703 | 0,05 | 1081 | 0,04 | 961 | 0,05 | 1501 | 0,07 | 961 | 0,05 | 4504 | 0,09 | 4504 | 0,09 | 2402 | 0,11 |
| 5,8 | 3293 | 0,08 | 2744 | 0,06 | 2470 | 0,06 | 988 | 0,04 | 878 | 0,05 | 1372 | 0,07 | 878 | 0,05 | 4116 | 0,10 | 4116 | 0,10 | 2195 | 0,12 |
| 6,3 | 3032 | 0,08 | 2526 | 0,06 | 2274 | 0,06 | 909 | 0,04 | 808 | 0,05 | 1263 | 0,07 | 808 | 0,05 | 3789 | 0,10 | 3789 | 0,10 | 2021 | 0,12 |
| 7,3 | 2616 | 0,09 | 2180 | 0,07 | 1962 | 0,07 | 785 | 0,04 | 698 | 0,05 | 1090 | 0,07 | 698 | 0,05 | 3270 | 0,11 | 3270 | 0,11 | 1744 | 0,13 |
| 8,3 | 2301 | 0,09 | 1918 | 0,07 | 1726 | 0,07 | 690 | 0,05 | 614 | 0,06 | 959 | 0,08 | 614 | 0,06 | 2876 | 0,11 | 2876 | 0,11 | 1534 | 0,13 |
| 9,4 | 2032 | 0,10 | 1693 | 0,08 | 1524 | 0,08 | 610 | 0,05 | 542 | 0,06 | 847 | 0,08 | 542 | 0,06 | 2540 | 0,12 | 2540 | 0,12 | 1355 | 0,14 |
| 10,4 | 1836 | 0,10 | 1530 | 0,08 | 1377 | 0,08 | 551 | 0,05 | 490 | 0,06 | 765 | 0,08 | 490 | 0,06 | 2296 | 0,12 | 2296 | 0,12 | 1224 | 0,14 |
| 12,4 | 1540 | 0,11 | 1284 | 0,09 | 1155 | 0,09 | 462 | 0,06 | 411 | 0,06 | 642 | 0,10 | 411 | 0,06 | 1925 | 0,13 | 1925 | 0,13 | 1027 | 0,16 |
| 13,4 | 1425 | 0,11 | 1188 | 0,09 | 1069 | 0,09 | 428 | 0,07 | 380 | 0,07 | 594 | 0,10 | 380 | 0,07 | 1782 | 0,13 | 1782 | 0,13 | 950 | 0,16 |
| 14,4 | 1326 | 0,12 | 1105 | 0,10 | 995 | 0,10 | 398 | 0,07 | 354 | 0,07 | 553 | 0,11 | 354 | 0,07 | 1658 | 0,14 | 1658 | 0,14 | 884 | 0,17 |
| 16,5 | 1157 | 0,12 | 965 | 0,10 | 868 | 0,10 | 347 | 0,08 | 309 | 0,07 | 482 | 0,12 | 309 | 0,07 | 1447 | 0,14 | 1447 | 0,14 | 772 | 0,18 |
| 19,5 | 979 | 0,14 | 816 | 0,12 | 735 | 0,12 | 294 | 0,09 | 261 | 0,08 | 408 | 0,15 | 261 | 0,08 | 1224 | 0,17 | 1224 | 0,17 | 653 | 0,20 |
| 20,5 | 932 | 0,14 | 776 | 0,12 | 699 | 0,12 | 279 | 0,09 | 248 | 0,08 | 388 | 0,16 | 248 | 0,08 | 1165 | 0,18 | 1165 | 0,18 | 621 | 0,20 |
| 25,0 | 764 | 0,18 | 637 | 0,14 | 573 | 0,14 | 229 | 0,10 | 204 | 0,09 | 318 | 0,20 | 204 | 0,09 | 955 | 0,22 | 955 | 0,22 | 509 | 0,24 |
| 31,0 | 616 | 0,20 | 513 | 0,16 | 462 | 0,16 | 185 | 0,11 | 164 | 0,10 | 257 | 0,22 | 164 | 0,10 | 770 | 0,24 | 770 | 0,24 | 411 | 0,27 |
| Kühlung Coolant Refrigeración | E | | E | | E | | E | | E | | E | | E | | E | | E | | T | |

E: Emulsion | Emulsion | emulsión, O: Öl | Oil | aceite, T: trocken | dry | seco, D: Druckluft | compressed air | aire comprimido, W: Wasser | Water | agua, A: Luft | Air | aire



Hartmetall Werkzeuge
Tungsten carbide tools
herramientas de metal duro



GEWINDEWERKZEUGE

// GEWINDEBOHRER UND SCHNEIDEISEN, SENKWERKZEUGE,
SCHÄLWERKZEUGE



E TAPS AND DIES

- // TAPS AND DIES
- // COUNTERSINKS
- // CONECUT

ES HERRAMIENTAS PARA ROSCAR

- // MACHOS Y TERRAJAS
- // HERRAMIENTAS PARA AVELLANAR
- // HERRAMIENTAS PARA ESCARPAR

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| |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|
| Norm / Estándar | DIN 352 | DIN 352 | DIN 5157 | DIN 352 | DIN 1814 | | | |
| Gewindeart / Type of thread / Tipo de rosca | M | M | G | M | M + G | M | M | M |
| Typ / Type / Tipo | | | | | | | | |
| Schneidstoff / Cutting material / Material de corte | HSS-Co5 | HSS | HSS | HSS | | | | |
| Toleranz / Tolerance / Tolerancia | ISO 2 6H | ISO 2 6H | | ISO 2 6H | | | | |
| Anschnitt / Chamfer / Sección | C | C | C | A | | | | |
| Drallwinkel / Spiral angle / Inclinación de hélice | | | | | | | | |
| Beschichtung / Coating / Recubrimiento | | | | | | | | |
| Schaft / Shank / Eje |  |  |  |  |  |  |  |  |
| Ø mm | M 3 - M 10 | M 2 - M 12 | G1/8" - G1/2" | M 2 - M 12 | Nr. 1 1/2 + 3 | 3,00 - 12,00 | 3,00 - 18,00 | M 5 - M 20 |
| Code / Código | 717 | 707 | 706 | 708 | 712, 5430 | 713 | 902 | 701 |
| Seite / Page / Página | 274 | 275 | 276 | 277 | 278 | 278 | 278 | 278 |
| Geeignet für / Suitable for / Adecuada para | | | | | | | | |
|  Allgemeine Baustähle Structural steels Aceros de construcción generales |  |  |  |  | | | | |
|  Automatenstähle Free cutting steels Aceros de corte fácil |  |  |  |  | | | | |
|  Unlegierte Vergütungsstähle Unalloyed heat treatable steels Aceros para bonifi car no aleados |  | | | | | | | |
|  Legierte Vergütungsstähle Alloyed heat treatable steels Aceros para bonifi car aleados |  | | | | | | | |
|  Rostfreie Stähle Stainless steels Aceros inoxidables |  | | | | | | | |
|  Grauguss, Temperguss Grey cast iron, malleable cast iron Hiero fundido gris, fundición maleable |  |  |  |  | | | | |
|  Kupfer, Messing Copper, brass Cobre, latón |  |  |  |  | | | | |
|  Aluminium Aluminio Aluminio |  |  |  |  | | | | |
|  Kunststoffe Plastics Plásticos |  |  |  |  | | | | |

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|------------|--------------|-------------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|
| | | | | | | | | | | |
| WN | DIN EN 22568 | DIN 371 / DIN 376 | | | | WN | WN | DIN 334 | DIN 335 | DIN 335 |
| M | M + G | M | M | M | M | M | M | | | |
| | | | | | | | | 60° | 90° | 90° |
| HSS | | HSS-Co5 | HSS-Co5 | HSS | HSS | HSS | HSS | HSS-Co5 | HSS-Co5 | HSS-Co5 |
| 6g | | ISO 2 6H | ISO 2 6H | ISO 2 6H | ISO 2 6H | ISO 2 6H | ISO 2 6H | | | |
| | | B | C | B | C | A | A | | | |
| | | | 35° | | 35° | | | | | |
| | | | | | | | | | | ALUNIT® |
| | | | | | | | | | | |
| M 2 - M 12 | Nr. 4 | M 3 - M 12 | M 3 - M 12 | M 3 - M 12 | M 3 - M 12 | M 3 - M 10 | M 3 - M 10 | 6,30 - 25,00 | 6,30 - 31,00 | 6,30 - 31,00 |
| 710 | 711 | 704 | 714 | 709 | 719 | 702 | 703 | 2270 | 2390 | 2397 |
| 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 288 |
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Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

Übersicht

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| | | | | | | | | |
|---------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
| | | | | | | | | |
| 90° | 90° | | | | | | | |
| HSS-Co5 | HSS | HSS | HSS-Co5 | HSS-Co5 | HSS | HSS-Co5 | HSS-Co5 | HSS |
| | | | | TiN | | | TiN | TiN |
| | | | | | | | | |
| 10,00 - 35,00 | 6,30 - 20,50 | 4,00 - 37,00 | 4,00 - 37,00 | 6,00 - 37,00 | 3,00 - 61,00 | 3,5 - 30,00 | 3,5 - 30,00 | 6,00 - 8,00 |
| 2291 | 720 | 722 | 726 | 728 | 721 | 723 | 725 | 721 |
| 301 | 302 | 303 | 303 | 303 | 305 | 305 | 305 | 307 |
| | | | | | | | | |
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Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

1 HSS Cobalt Handgewindebohrer-Satz, gerade genutet, für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Für Durchgangs- und Grundgewinde, besonders geeignet für rost- und säurebeständige Stähle sowie legierte und unlegierte Stähle bis ca. 1.000 N/mm², Stahlguss, Temperguss, Messing, Aluminium und Kupfer.

E HSS Cobalt hand taps set, straight fluted, for metric ISO-threads DIN 13

Range of application:

For through hole and blind hole threads, especially suitable for stainless and acid-resistant steels as well as alloyed and unalloyed steels up to appr. 1.000 N/mm², cast steels, malleable cast iron, brass, aluminium and copper.

ES Juego de machos para roscar manualmente HSS Cobalt, con ranura recta, para rosca ISO métrica DIN 13

Ámbito de aplicación:

Para roscas pasantes y roscas ciegas, especialmente adecuada para aceros aleados y no aleados hasta aprox. 1000 N/mm², así como fundición de acero, fundición maleable, latón, aluminio y cobre.



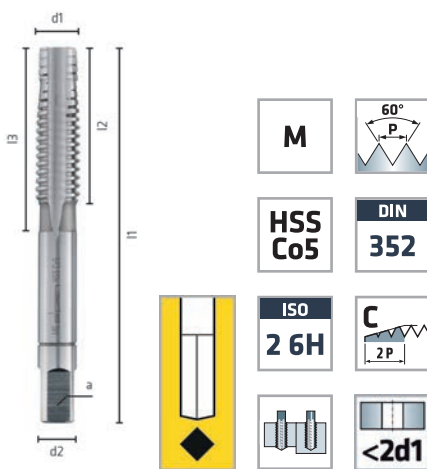
Industriequalität
Industrial quality
Calidad industrial




Präzise
Precise
Preciso



Verschleißfest
Wear-resistant
Resistente al desgaste



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm |  | Code 717 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|---|----------------------|---------------|
| M 3 | 0,5 | 40 | 12 | 2,7 | Ø 2,5 mm | 0071700300100 | 3 |
| M 4 | 0,7 | 45 | 14 | 3,4 | Ø 3,3 mm | 0071700400100 | 3 |
| M 5 | 0,8 | 50 | 16 | 4,9 | Ø 4,2 mm | 0071700500100 | 3 |
| M 6 | 1 | 50 | 18 | 4,9 | Ø 5 mm | 0071700600100 | 3 |
| M 8 | 1,25 | 56 | 18 | 4,9 | Ø 6,8 mm | 0071700800100 | 3 |
| M 10 | 1,5 | 70 | 23 | 5,5 | Ø 8,5 mm | 0071701000100 | 3 |

* Satz bestehend aus je 1 Stk. Vor-, Mittel- und Fertigschneider

* Set consisting 1 pc. each pilot, middle and finishing cutter

* Juego compuesto por 1 unid. de precortador, macho intermedio y macho acabador



D HSS Handgewindebohrer-Satz, gerade genutet, für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Für Durchgangs- und Grundgewinde, geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm², Stahlguss, Temperguss, Messing, Aluminium und Kupfer.

E HSS hand taps set, straight fluted, for metric ISO-threads DIN 13

Range of application:

For through hole and blind hole threads, suitable for alloyed and unalloyed steels up to appr. 850 N/mm², cast steels, malleable cast iron, brass, aluminium and copper.

ES Juego de machos para roscar manualmente HSS, con ranura recta, para rosca ISO métrica DIN 13

Ámbito de aplicación:

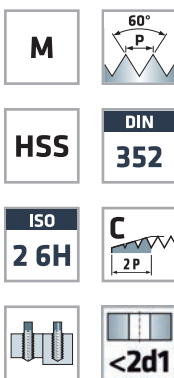
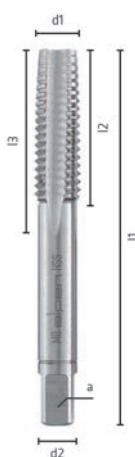
Para roscas pasantes y roscas ciegas, adecuada para aceros aleados y no aleados hasta aprox. 850 N/mm², así como fundición de acero, fundición maleable, latón, aluminio y cobre.




Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm |  | Code 707 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|---|----------------------|---------------|
| M 2 | 0,4 | 36 | 8 | 2,1 | Ø 1,6 mm | 0070700200100 | 3 |
| M 3 | 0,5 | 40 | 11 | 2,7 | Ø 2,5 mm | 0070700300100 | 3 |
| M 4 | 0,7 | 45 | 13 | 3,4 | Ø 3,3 mm | 0070700400100 | 3 |
| M 5 | 0,8 | 50 | 16 | 4,9 | Ø 4,2 mm | 0070700500100 | 3 |
| M 6 | 1 | 50 | 19 | 4,9 | Ø 5 mm | 0070700600100 | 3 |
| M 8 | 1,25 | 56 | 22 | 4,9 | Ø 6,8 mm | 0070700800100 | 3 |
| M 10 | 1,5 | 70 | 24 | 5,5 | Ø 8,5 mm | 0070701000100 | 3 |
| M 12 | 1,75 | 75 | 29 | 7 | Ø 10,2 mm | 0070701200100 | 3 |



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

* Satz bestehend aus je 1 Stk. Vor-, Mittel- und Fertigschneider

* Set consisting 1 pc. each pilot, middle and finishing cutter

* Juego compuesto por 1 unid. de precortador, macho intermedio y macho acabador



① HSS Handgewindebohrer-Satz, gerade genutet, für Whitworth-Rohrgewinde DIN ISO 228

Einsatzbereich:

Für Durchgangs- und Grundgewinde, geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm², Stahlguss, Temperguss, Messing, Aluminium und Kupfer.

② HSS hand taps set, straight fluted, for Whitworth pipe threads DIN ISO 228

Range of application:

For through hole and blind hole threads, suitable for alloyed and unalloyed steels up to appr. 850 N/mm², cast steels, malleable cast iron, brass, aluminium and copper.

③ Juego de machos para roscar manualmente HSS, con ranura recta, para rosca para tubos Whitworth DIN ISO 228

Ámbito de aplicación:

Para roscas pasantes y roscas ciegas, adecuada para aceros aleados y no aleados hasta aprox. 850 N/mm², así como fundición de acero, fundición maleable, latón, aluminio y cobre.



Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste



G


HSS



<2d1



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm |  | Code 706 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|---|----------------------|---------------|
| G 1/8" | 28 | 63 | 20 | 5,5 | Ø 8,8 mm | 0070601600100 | 2 |
| G 1/4" | 19 | 70 | 22 | 9 | Ø 11,8 mm | 0070602000100 | 2 |
| G 3/8" | 19 | 70 | 22 | 9 | Ø 15,25 mm | 0070602400100 | 2 |
| G 1/2" | 14 | 80 | 22 | 12 | Ø 19 mm | 0070602800100 | 2 |

* Satz bestehend aus je 1 Stk. Vor- und Fertigschneider

* Set consisting 1 pc. each pilot and finishing cutter

* Juego compuesto por 1 unid. de precortador y macho acabador



D HSS Einschnitt-Gewindebohrer, gerade genutet, für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Für Durchgangsgewinde, geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm², Stahlguss, Temperguss, Messing, Aluminium und Kupfer.



Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste

E HSS single cut taps, straight fluted, for metric ISO-threads DIN 13

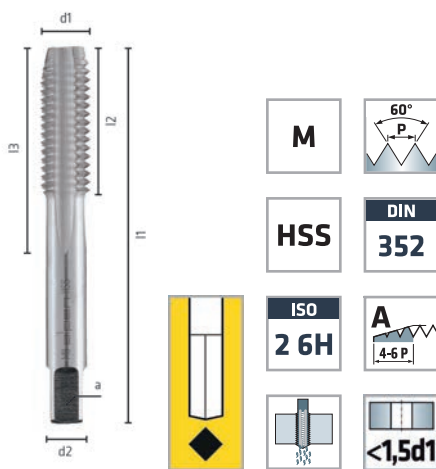
Range of application:

For through hole threads, suitable for alloyed and unalloyed steels up to appr. 850 N/mm², cast steels, malleable cast iron, brass, aluminium and copper.


ES Macho de corte HSS, con ranura recta, para rosca ISO métrica DIN 13

Ámbito de aplicación:

Para roscas pasantes, adecuada para aceros aleados y no aleados hasta aprox. 850 N/mm², así como fundición de acero, fundición maleable, latón, aluminio y cobre.



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm |  | Code 708 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|---|----------------------|---------------|
| M 2 | 0,4 | 36 | 8 | 2,1 | Ø 1,6 mm | 0070800200100 | 1 |
| M 3 | 0,5 | 40 | 11 | 2,7 | Ø 2,5 mm | 0070800300100 | 1 |
| M 4 | 0,7 | 45 | 13 | 3,4 | Ø 3,3 mm | 0070800400100 | 1 |
| M 5 | 0,8 | 48 | 16 | 4,9 | Ø 4,2 mm | 0070800500100 | 1 |
| M 6 | 1 | 50 | 19 | 4,9 | Ø 5 mm | 0070800600100 | 1 |
| M 8 | 1,25 | 56 | 22 | 4,9 | Ø 6,8 mm | 0070800800100 | 1 |
| M 10 | 1,5 | 70 | 24 | 5,5 | Ø 8,5 mm | 0070801000100 | 1 |
| M 12 | 1,75 | 75 | 29 | 7 | Ø 10,2 mm | 0070801200100 | 1 |

HSS-G Gewindebohrersatz, 16-tlg., Einschnittgewindebohrer



16-tlg. / 16-pcs. / 16-unid.
Kunststoffkassette / Plastic cassette / Caja de plástico
Art.-Nr. 0070800016100

| Inhalt Contents / Contenido | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|--|---|
| Einschnitt-Gewindebohrer Single cut taps / Machos de corte, M3-M12 | 1 |
| Schneideisen / Dies / Terrajas, M3-M12 | 1 |
| Schneideisenhalter / Die stocks / Portaterrajas, Nr. 4 | 1 |
| Windeisen / Tap wrenches / Giramachos Nr. 1 ½ | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① Windeisen, Werkzeughalter und Schraubenausdrehersatz

② Tap wrenches, tool holder and screw-remover set

③ Giramachos, portaherramientas y juego de extractores de tornillos



Einzelverpackung
Single pack
Embalaje individual



| Windeisen Nr. 11/2 Tap wrenches Giramachos | l1 mm | Code 712 Art.-Nr. | Inh. Cont. |
|--|----------|-----------------------|---------------|
| M2 - M12 | 180 | 0071200015100 | 1 |
| Windeisen Nr. 3 Tap wrenches Giramachos | l1 mm | Code 5430 Art.-Nr. | Inh. Cont. |
| G 1/8" - G 1/2" | 380 | 0543000030100 | 1 |
| Werkzeughalter mit Knarre Tool holder with ratchet Portaherramientas con trinquete | l1 mm | Code 713 Art.-Nr. | Inh. Cont. |
| M3 - M10, Größe 1 / Size 1 / Tamaño 1 | 85 | 0071300001100 | 1 |
| M5 - M12, Größe 2 / Size 2 / Tamaño 2 | 100 | 0071300002100 | 1 |
| Schraubenausdrehersatz Screw-remover set Juego de extractores de tornillos | | Code 902 Art.-Nr. | Inh. Cont. |
| M3 - M18, 5-tlg. / 5 pcs / 5 unid. | | 0000902002100 | 5 |
| Schraubenausdreher Screw-remover Juego de extractores de tornillos | l1 mm | Code 701 Art.-Nr. | Inh. Cont. |
| Größe 1 / Size 1 / Tamaño 1 | 60 | 0070100001100 | 1 |
| Größe 2 / Size 2 / Tamaño 2 | 68 | 0070100002100 | 1 |
| Größe 3 / Size 3 / Tamaño 3 | 75 | 0070100003100 | 1 |
| Größe 4 / Size 4 / Tamaño 4 | 82 | 0070100004100 | 1 |
| Größe 5 / Size 5 / Tamaño 5 | 90 | 0070100005100 | 1 |

Schraubenausdrehersatz BOX 5



5-tlg. / 5-pcs. / 5-unid.
Kunststoffbox / Plastic box / Caja de plástico
Art.-Nr. 0000902003100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|------------------------|---|
| Schraubenausdrehersatz | |
| Ø M5-M20 | 1 |

⁽¹⁾ Stück je Abmessung
⁽¹⁾ Pieces each dimension
⁽¹⁾ Piezas por diámetro

D HSS Schneideisen für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm².

E HSS dies for metric ISO-threads DIN 13

Range of application:

Suitable for alloyed and unalloyed steels up to appr. 850 N/mm².

ES Terrajas HSS para rosca ISO métrica, DIN 13

Ámbito de aplicación:

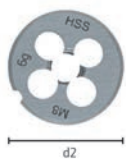
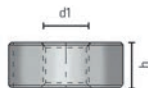
Adecuada para aceros aleados y no aleados con una resistencia a la extensión de 850 N/mm².



Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste



M

HSS

WN

ISO 6g

SB-Aufhänger
Plastic tag
Gancho para autoservicio



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | d2 mm | h mm | Code 710 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|---------|----------------------|---------------|
| M 2 | 0,4 | 25,00 | 9 | 0071000200100 | 1 |
| M 3 | 0,5 | 25,00 | 9 | 0071000300100 | 1 |
| M 4 | 0,7 | 25,00 | 9 | 0071000400100 | 1 |
| M 5 | 0,8 | 25,00 | 9 | 0071000500100 | 1 |
| M 6 | 1 | 25,00 | 9 | 0071000600100 | 1 |
| M 8 | 1,25 | 25,00 | 9 | 0071000800100 | 1 |
| M 10 | 1,5 | 25,00 | 9 | 0071001000100 | 1 |
| M 12 | 1,75 | 25,00 | 9 | 0071001200100 | 1 |

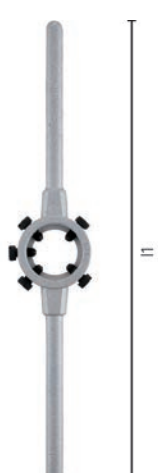


Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① **Schneideisenhalter für runde Schneideisen DIN 223**


② **Die stocks for round dies DIN 223**

③ **Portaterrajas para terrajas redondas DIN 223**





DIN EN 22568

SB-Aufhänger
Plastic tag
Gancho para autoservicio



Einzelverpackung
Single pack
Embalaje individual

| Nr. N.º | d2 mm | h mm |  |  | Code 711 Art.-Nr. | Inh. Cont. |
|------------|----------|---------|---|---|----------------------|---------------|
| 4 | 25,00 | 9 | M8 | M2-M12 (Code 710) | 0071102509100 | 1 |

HSS-G Gewindebohrersatz

HSS-G DIN Gewindebohrersatz



16-tlg. / 16-pcs. / 16-unid.
Kunststoffkassette / Plastic cassette / Caja de plástico
Art.-Nr. 0070800016100

37-tlg. / 37-pcs. / 37-unid.
Stahlblechkassette / Metal cassette / Caja de metal
Art.-Nr. 0070800031100

| Inhalt Contents / Contenido | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Inhalt Contents / Contenido | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|--|---|--|---|
| Einschnitt-Gewindebohrer / Single cut taps / Machos de corte, M3-M12 | 1 | Gewindebohrer / Taps / Machos para roscar M3-M12 | 1 |
| Schneideisen / Dies / Terrajas, M3-M12 | 1 | Schneideisen / Dies / Terrajas, M3-M12 | 1 |
| Schneideisenhalter / Die stocks / Portaterrajas, Nr. 4 | 1 | Schneideisenhalter / Die stocks / Portaterrajas, Nr. 2, 3, 4, 5, 7 | 1 |
| Windeisen / Tap wrenches / Giramachos Nr. 1 ½ | 1 | Windeisen / Tap wrenches / Giramachos Nr. 1, 2 | 1 |
| | | Schraubendreher / Screwdriver / Destornillador | 1 |
| | | Gewindelehre / Gauge / Calibrador de roscas | 1 |

d2 = Angaben von Schneideisen
d2 = Data of dies
d2 = Datos de las terrajas

⁽¹⁾ Stück je Abmessung
⁽¹⁾ Pieces each dimension
⁽¹⁾ Piezas por diámetro

D HSS Cobalt Maschinengewindebohrer, gerade genutet, für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Für Durchgangsgewinde, besonders geeignet für rost- und säurebeständige Stähle sowie legierte und unlegierte Stähle bis ca. 1.000 N/mm².

E HSS Cobalt machine taps, straight fluted, for metric ISO-threads DIN 13

Range of application:

For through hole threads, especially suitable for stainless and acid-resistant steels as well as alloyed and unalloyed steels up to appr. 1.000 N/mm².

ES Macho para roscar a máquina HSS Cobalt, con ranura recta, para rosca ISO métrica, DIN 13

Ámbito de aplicación:

Para roscas pasantes, especialmente adecuada para aceros resistentes a los ácidos y la corrosión, así como para aceros aleados y no aleados hasta aprox. 1000 N/mm².



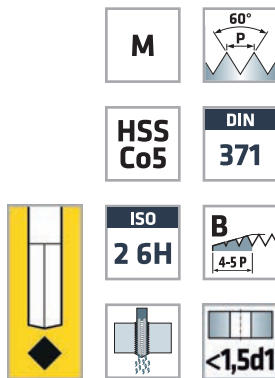
Industriequalität
Industrial quality
Calidad industrial



Präzise
Precise
Preciso



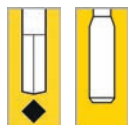
Verschleißfest
Wear-resistant
Resistente al desgaste



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm | | Code 704 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|-----------|----------------------|---------------|
| M 3 | 0,5 | 56 | 11 | 2,7 | Ø 2,5 mm | 0070400300100 | 1 |
| M 4 | 0,7 | 63 | 13 | 3,4 | Ø 3,3 mm | 0070400400100 | 1 |
| M 5 | 0,8 | 70 | 16 | 4,9 | Ø 4,2 mm | 0070400500100 | 1 |
| M 6 | 1 | 80 | 19 | 4,9 | Ø 5 mm | 0070400600100 | 1 |
| M 8 | 1,25 | 90 | 22 | 6,2 | Ø 6,8 mm | 0070400800100 | 1 |
| M 10 | 1,5 | 100 | 24 | 8 | Ø 8,5 mm | 0070401000100 | 1 |
| M 12 | 1,75 | 110 | 29 | 7 | Ø 10,2 mm | 0070401200100 | 1 |

HSS-E DIN Maschinengewindebohrersatz KM 14



14-tlg. / 14-pcs. / 14-unid.
Metallkassette / Metal cassette / Caja de metal
Art.-Nr. 0070800014100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---|---|
| HSS Cobalt | |
| Ø 2,50 / 3,30 / 4,20 / 5,00 / 6,80 / 8,50 / 10,20 | 1 |
| Ø M3-M12 | 1 |

M3 - M10 = DIN 371 / M12 = DIN 376

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

1 HSS Cobalt Maschinengewindebohrer, spiral-genutet, für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Für Grundgewinde, besonders geeignet für rost- und säurebeständige Stähle sowie legierte und unlegierte Stähle bis ca. 1.000 N/mm².

E HSS Cobalt machine taps, spiral fluted, for metric ISO-threads DIN 13

Range of application:

For blind hole threads, especially suitable for stainless and acid-resistant steels as well as alloyed and unalloyed steels up to appr. 1.000 N/mm².

ES Macho para roscar a máquina HSS Cobalt, con ranura en espiral, para rosca ISO métrica, DIN 13

Ámbito de aplicación:

Para roscas ciegas, especialmente adecuada para aceros resistentes a los ácidos y la corrosión, así como para aceros aleados y no aleados hasta aprox. 1000 N/mm².



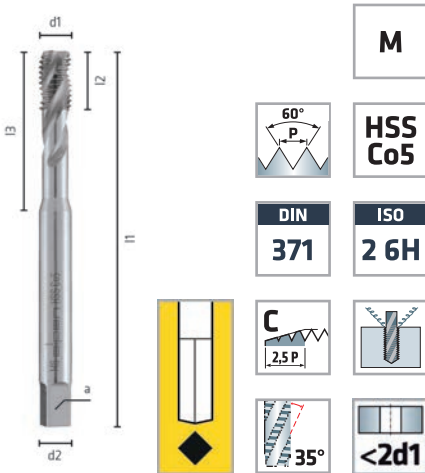
Industriequalität
Industrial quality
Calidad industrial




Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm |  | Code 714 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|---|----------------------|---------------|
| M 3 | 0,5 | 56 | 6 | 2,7 | Ø 2,5 mm | 0071400300100 | 1 |
| M 4 | 0,7 | 63 | 7 | 3,4 | Ø 3,3 mm | 0071400400100 | 1 |
| M 5 | 0,8 | 70 | 8 | 4,9 | Ø 4,2 mm | 0071400500100 | 1 |
| M 6 | 1 | 80 | 10 | 4,9 | Ø 5 mm | 0071400600100 | 1 |
| M 8 | 1,25 | 90 | 14 | 6,2 | Ø 6,8 mm | 0071400800100 | 1 |
| M 10 | 1,5 | 100 | 16 | 8 | Ø 8,5 mm | 0071401000100 | 1 |
| M 12 | 1,75 | 110 | 18 | 7 | Ø 10,2 mm | 0071401200100 | 1 |

M3 - M10 = DIN 371 / M12 = DIN 376

D HSS Maschinengewindebohrer, gerade genutet, für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Maschinengewindebohrer mit Schälanschnitt für Durchgangsgewinde, geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm², Temperguss, Sphäroguss, Zinklegierungen, Zinkdruckguss sowie Messing (langspanend).



Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste

E HSS machine taps, straight fluted, for metric ISO-threads DIN 13

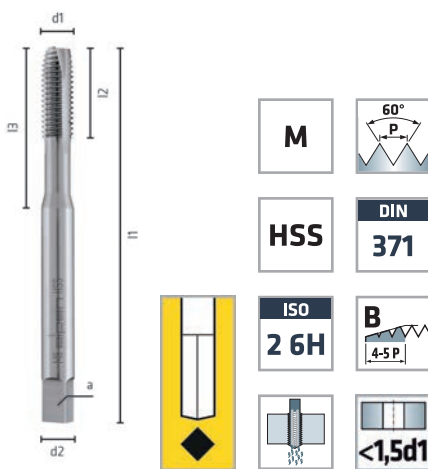
Range of application:

Machine taps with spiral point for through hole threads, suitable for alloyed and unalloyed steels up to appr. 850 N/mm², malleable cast iron, spheroidal graphite, zinc alloys, zinc die castings as well as brass (long chipping).


ES Macho para roscar a máquina HSS, con ranura recta, para rosca ISO métrica, DIN 13

Ámbito de aplicación:

Macho para roscar a máquina con corte inicial helicoidal para roscas pasantes, adecuada para aceros aleados y no aleados hasta aprox. 850 N/mm², así como fundición maleable, fundición nodular, aleaciones de cinc, cinc moldeado a presión y latón (de viruta larga).



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm |  | Code 709 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|---|----------------------|---------------|
| M 3 | 0,5 | 56 | 11 | 2,7 | Ø 2,5 mm | 0070900300100 | 1 |
| M 4 | 0,7 | 63 | 13 | 3,4 | Ø 3,3 mm | 0070900400100 | 1 |
| M 5 | 0,8 | 70 | 16 | 4,9 | Ø 4,2 mm | 0070900500100 | 1 |
| M 6 | 1 | 80 | 19 | 4,9 | Ø 5 mm | 0070900600100 | 1 |
| M 8 | 1,25 | 90 | 22 | 6,2 | Ø 6,8 mm | 0070900800100 | 1 |
| M 10 | 1,5 | 100 | 24 | 8 | Ø 8,5 mm | 0070901000100 | 1 |
| M 12 | 1,75 | 110 | 29 | 7 | Ø 10,2 mm | 0070901200100 | 1 |

M3 - M10 = DIN 371 / M12 = DIN 376



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

1 HSS Maschinengewindebohrer, spiral-genutet, für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Für Grundgewinde, geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm², Temperguss, Sphäroguss, Zinklegierungen, Zinkdruckguss sowie Messing (langspanend).

2 HSS machine taps, spiral fluted, for metric ISO-threads DIN 13

Range of application:

For blind hole threads, suitable for alloyed and unalloyed steels up to appr. 850 N/mm², malleable cast iron, spheroidal graphite, zinc alloys, zinc die castings as well as brass (long chipping).

3 Macho para roscar a máquina HSS, con ranura en espiral, para rosca ISO métrica, DIN 13

Ámbito de aplicación:

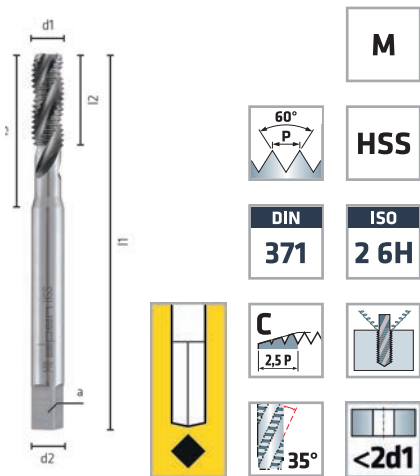
Para roscas ciegas, adecuada para aceros aleados y no aleados hasta aprox. 850 N/mm², así como fundición maleable, fundición nodular, aleaciones de cinc, cinc moldeado a presión y latón (de viruta larga).




Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | a _{h12} mm |  | Code 719 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|------------------------|---|----------------------|---------------|
| M 3 | 0,5 | 56 | 6 | 2,7 | Ø 2,5 mm | 0071900300100 | 1 |
| M 4 | 0,7 | 63 | 7 | 3,4 | Ø 3,3 mm | 0071900400100 | 1 |
| M 5 | 0,8 | 70 | 8 | 4,9 | Ø 4,2 mm | 0071900500100 | 1 |
| M 6 | 1 | 80 | 10 | 4,9 | Ø 5 mm | 0071900600100 | 1 |
| M 8 | 1,25 | 90 | 14 | 6,2 | Ø 6,8 mm | 0071900800100 | 1 |
| M 10 | 1,5 | 100 | 16 | 8 | Ø 8,5 mm | 0071901000100 | 1 |
| M 12 | 1,75 | 110 | 18 | 7 | Ø 10,2 mm | 0071901200100 | 1 |

M3 - M10 = DIN 371 / M12 = DIN 376

D HSS Einschnittgewindebohrer mit 1/4"-Sechskantschaft für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Für Durchgangsgewinde, geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm², Stahlguss, Temperguss, Messing, Aluminium und Kupfer.

E HSS single cut taps with 1/4" hexagonal shank for metric ISO-threads DIN 13

Range of application:

For through hole threads, suitable for alloyed and unalloyed steels up to appr. 850 N/mm², cast steels, malleable cast iron, brass, aluminium and copper.

ES Machos de corte HSS con eje hexagonal 1/4" para roscas ISO métricas DIN 13

Ámbito de aplicación:

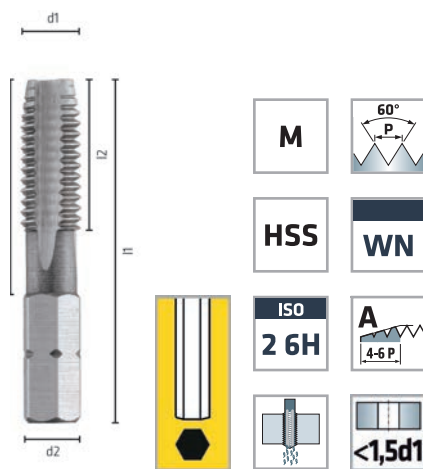
Para roscas pasantes, adecuada para aceros aleados y no aleados hasta aprox. 850 N/mm², así como fundición de acero, fundición maleable, latón, aluminio y cobre.




Präzise
Precise
Preciso



Verschleissfest
Wear-resistant
Resistente al desgaste



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm |  | Code 702 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|---|----------------------|---------------|
| M 3 | 0,5 | 33 | 11 | Ø 2,5 mm | 0070200300100 | 1 |
| M 4 | 0,7 | 35 | 12 | Ø 3,3 mm | 0070200400100 | 1 |
| M 5 | 0,8 | 36 | 15 | Ø 4,2 mm | 0070200500100 | 1 |
| M 6 | 1 | 39 | 18 | Ø 5 mm | 0070200600100 | 1 |
| M 8 | 1,25 | 40 | 19 | Ø 6,8 mm | 0070200800100 | 1 |
| M 10 | 1,5 | 41 | 21 | Ø 8,5 mm | 0070201000100 | 1 |



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① HSS Kombigewindebohrer mit 1/4"-Sechskantschaft für metrisches ISO-Gewinde DIN 13

Einsatzbereich:

Zum Bohren, Gewindeschneiden und Senken. Für Durchgangsgewinde, geeignet für legierte und unlegierte Stähle bis ca. 850 N/mm².

② HSS combination taps with 1/4" hexagonal shank for metric ISO-threads DIN 13

Range of application:

For drilling, tapping and countersinking. For through hole threads, suitable for alloyed and unalloyed steels up to appr. 850 N/mm².

③ Machos para roscar combinados HSS con eje hexagonal 1/4" para roscas ISO métricas DIN 13

Ámbito de aplicación:

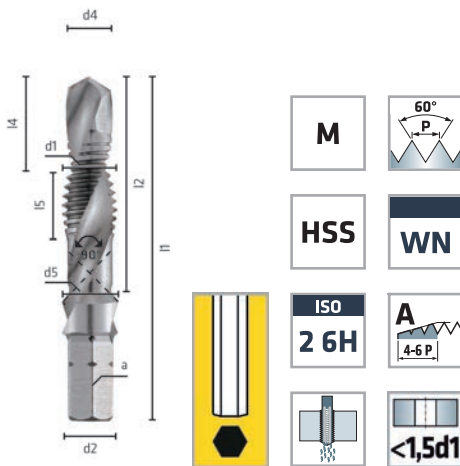
Para taladrar, roscar y avellanar. Para roscas pasantes, adecuada para aceros aleados y no aleados hasta aprox. 850 N/mm².



Verschleissfest
Wear-resistant
Resistente al desgaste



Präzise
Precise
Preciso



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | P mm | l1 mm | l2 mm | | Code 703 Art.-Nr. | Inh. Cont. |
|----------|---------|----------|----------|----------|----------------------|---------------|
| M 3 | 0,5 | 36 | 24 | Ø 2,5 mm | 0070300300100 | 1 |
| M 4 | 0,7 | 39 | 27 | Ø 3,3 mm | 0070300400100 | 1 |
| M 5 | 0,8 | 41 | 29 | Ø 4,2 mm | 0070300500100 | 1 |
| M 6 | 1 | 44 | 32 | Ø 5 mm | 0070300600100 | 1 |
| M 8 | 1,25 | 50 | 38 | Ø 6,8 mm | 0070300800100 | 1 |
| M 10 | 1,5 | 59 | 47 | Ø 8,5 mm | 0070301000100 | 1 |

Schaft nach DIN 3126, Form C6.3, ISO 1173
Shank DIN 3126, Form C6.3, ISO 1173
Eje según DIN 3126, forma C6.3, ISO 1173

**HSS Cobalt Kegelsenker
ungleiche Teilung
DIN 334 C, 60°**

**E HSS Cobalt countersinks
different partition
DIN 334 C, 60°**

**ES Avellanador cónico HSS Cobalto,
división irregular,
DIN 334 C, 60°**

Einsatzbereich:

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart und weich. Universell einsetzbares Entgrat- und Senkwerkzeug für Bohrungen aller Art. Sehr gute Schneideigenschaften durch ungleichgeteilte Schneiden.

Range of application:

For ferrous and non-ferrous metals, synthetic materials soft and hard. Universal deburring and sink tool for all kind of borings. Excellent cutting features guarantee a smooth surface by unequally divided cutting edges. Reduction of feed force and chatter marks on the countersinking surface due to reduced axial and radial force.

Ámbito de aplicación:

Para todos los metales E y NE y plásticos duros y blandos. Herramienta para desbarbar y avellanar de aplicación universal para agujeros de todo tipo. Excelentes características de corte, por corte desigual dividida.



Hitzebeständig
Heat resistant
Termoestable



Präzise
Precise
Preciso



Industriequalität
Industrial quality
Calidad industrial



Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio

| d1 mm | d4 mm | | d2 _{h9} mm | l1 mm | Z | Code 2270 Art.-Nr. | Inh. Cont. |
|----------|----------|------|------------------------|----------|---|-----------------------|---------------|
| 6,30 | 1,60 | M 3 | 5,00 | 45 | 3 | 0227000630100 | 1 |
| 8,00 | 2,00 | M 4 | 6,00 | 50 | 3 | 0227000800100 | 1 |
| 10,00 | 2,50 | M 5 | 6,00 | 50 | 3 | 0227001000100 | 1 |
| 12,50 | 3,20 | M 6 | 8,00 | 56 | 3 | 0227001250100 | 1 |
| 16,00 | 4,00 | M 8 | 10,00 | 63 | 3 | 0227001600100 | 1 |
| 20,00 | 5,00 | M 10 | 10,00 | 67 | 3 | 0227002000100 | 1 |
| 25,00 | 6,30 | M 12 | 10,00 | 71 | 3 | 0227002500100 | 1 |



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① HSS Cobalt Kegelsenker, ungleiche Teilung DIN 335 C, 90°

② HSS Cobalt countersinks, different partition DIN 335 C, 90°

③ Avellanador cónico HSS Cobalto, división irregular, DIN 335 C, 90°

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart und weich. Universell einsetzbares Entgrat- und Senkwerkzeug für Bohrungen aller Art. Sehr gute Schneideigenschaften durch ungleichgeteilte Schneiden.

Range of application:

For ferrous and non-ferrous metals, synthetic materials soft and hard. Universal deburring and sink tool for all kind of borings. Excellent cutting features guarantee a smooth surface by unequally divided cutting edges. Reduction of feed force and chatter marks on the countersinking surface due to reduced axial and radial force.

Ámbito de aplicación:

Para todos los metales E y NE y plásticos duros y blandos. Herramienta para desbarbar y avellanar de aplicación universal para agujeros de todo tipo. Excelentes características de corte, por corte desigual dividida.



Hitzebeständig
Heat resistant
Termoestable



Präzise
Precise
Preciso



Industriequalität
Industrial quality
Calidad industrial



Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio



ALUNIT®
Höhere Performance,
längere Standzeit
Higher performance,
longer durability
Rendimiento superior
tiempo de uso más
prolongado






Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio

| | | | | | | | blank / bright / brillante | ALUNIT® | |
|-------|------|------|------------------|----|---|---------------|----------------------------|---------------|-------|
| d1 | d4 | | d2 _{h9} | l1 | Z | Code 2390 | Inh. | Code 2397 | Inh. |
| mm | mm | | mm | mm | | Art.-Nr. | Cont. | Art.-Nr. | Cont. |
| 6,30 | 1,50 | M 3 | 5,00 | 45 | 3 | 0239000630100 | 1 | 0239700630100 | 1 |
| 8,30 | 2,00 | M 4 | 6,00 | 50 | 3 | 0239000830100 | 1 | 0239700830100 | 1 |
| 10,40 | 2,50 | M 5 | 6,00 | 50 | 3 | 0239001040100 | 1 | 0239701040100 | 1 |
| 12,40 | 2,80 | M 6 | 8,00 | 56 | 3 | 0239001240100 | 1 | 0239701240100 | 1 |
| 16,50 | 3,20 | M 8 | 10,00 | 60 | 3 | 0239001650100 | 1 | 0239701650100 | 1 |
| 20,50 | 3,50 | M 10 | 10,00 | 63 | 3 | 0239002050100 | 1 | 0239702050100 | 1 |
| 25,00 | 3,80 | M 12 | 10,00 | 67 | 3 | 0239002500100 | 1 | 0239702500100 | 1 |
| 31,00 | 4,20 | | 12,00 | 71 | 3 | 0239003100100 | 1 | 0239703100100 | 1 |

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| <p>HSS Cobalt Kegelsenker-Satz KM 4</p>  <p>4-tlg. / 4-pcs. / 4-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 023900004100</p> | | <p>HSS Cobalt Kegelsenker-Satz KP 5</p>  <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 023900005100</p> | | <p>HSS Cobalt Kegelsenker-Satz KM 4</p>  <p>4-tlg. / 4-pcs. / 4-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 023970004100</p> | |
|--|---|---|---|--|---|
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| MAYKESTAG | | MAYKESTAG | | MAYKESTAG | |
| Ø 10,40 / 16,50 / 20,50 / 25,00 | 1 | Ø 6,30 / 10,40 / 16,50 / 20,50 / 25,00 | 1 | Ø 10,40 / 16,50 / 20,50 / 25,00 | 1 |
| <p>HSS Cobalt Kegelsenker-Satz KP 5</p>  <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 023970005100</p> | | <p>Hartmetall-Set Frässtifte/Senker BOX 5</p>  <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffbox / Plastic box / Caja de plástico Art.-Nr. 077600002100</p> | | | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | | |
| MAYKESTAG | | HM-Frässtift | | | |
| Ø 6,30 / 10,40 / 16,50 / 20,50 / 25,00 | 1 | Ø 10x65, ZYA-S | 1 | | |
| | | Ø 10x65, WRC | 1 | | |
| | | Ø 10x65, SPG | 1 | | |
| | | MAYKESTAG | | | |
| | | HSS Cobalt Kegelsenker Ø 10,40 / 12,40 | 1 | | |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① HSS Cobalt Kegelsenker, 3-Flächenschaft, ungleiche Teilung, DIN 335 C, 90°

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart und weich. Universell einsetzbares Entgrat- und Senkwerkzeug für Bohrungen aller Art. Sehr gute Schneideigenschaften durch ungleichgeteilte Schneiden.

② HSS Cobalt countersinks, 3-surface shank, different partition, DIN 335 C, 90°

Range of application:

For ferrous and non-ferrous metals, synthetic materials soft and hard. Universal deburring and sink tool for all kind of borings. Excellent cutting features guarantee a smooth surface by unequally divided cutting edges.

③ Avellanador cónico HSS Cobalto, eje de 3 caras, división irregular, DIN 335 C, 90°

Ámbito de aplicación:

Para todos los metales E y NE y plásticos duros y blandos. Herramienta para desbarbar y avellanar de aplicación universal para agujeros de todo tipo. Excelentes características de corte, por corte desigual dividida.



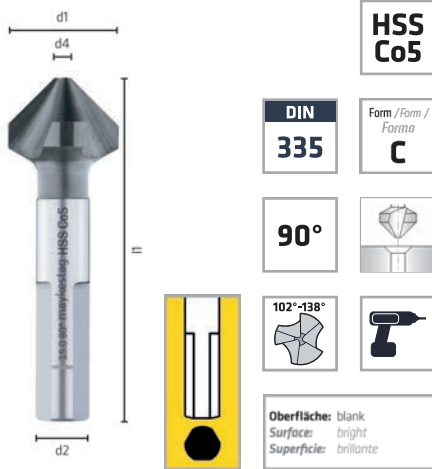
Hitzebeständig
Heat resistant
Termoestable



Präzise
Precise
Preciso



3-Flächenschaft
3-surface shank
3 caras



Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio



ALUNIT®
Höhere Performance, längere Standzeit
Higher performance, longer durability
Rendimiento superior tiempo de uso más prolongado









Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio

| blank / bright / brillante | | | | | | | ALUNIT® | | |
|----------------------------|----------|------|------------------------|----------|---|-----------------------|---------------|-----------------------|---------------|
| d1 mm | d4 mm | | d2 _{h9} mm | l1 mm | Z | Code 2380 Art.-Nr. | Inh. Cont. | Code 2387 Art.-Nr. | Inh. Cont. |
| 6,30 | 1,50 | M 3 | 5,00 | 45 | 3 | 0238000630100 | 1 | 0238700630100 | 1 |
| 8,30 | 2,00 | M 4 | 6,00 | 50 | 3 | 0238000830100 | 1 | 0238700830100 | 1 |
| 10,40 | 2,50 | M 5 | 6,00 | 50 | 3 | 0238001040100 | 1 | 0238701040100 | 1 |
| 12,40 | 2,80 | M 6 | 8,00 | 56 | 3 | 0238001240100 | 1 | 0238701240100 | 1 |
| 16,50 | 3,20 | M 8 | 10,00 | 60 | 3 | 0238001650100 | 1 | 0238701650100 | 1 |
| 20,50 | 3,50 | M 10 | 10,00 | 63 | 3 | 0238002050100 | 1 | 0238702050100 | 1 |
| 25,00 | 3,80 | M 12 | 10,00 | 67 | 3 | 0238002500100 | 1 | 0238702500100 | 1 |
| 31,00 | 4,20 | | 12,00 | 71 | 3 | 0238003100100 | 1 | 0238703100100 | 1 |

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| | | | | | |
|--|----------------------------|---|----------------------------|---|----------------------------|
| <p>HSS Cobalt Kegelsenker-Satz KM 4</p>   | | <p>HSS Cobalt Kegelsenker-Satz KP 5</p>   | | <p>HSS Cobalt Kegelsenker-Satz KM 4</p>   | |
| <p>4-tlg. / 4-pcs. / 4-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0238000004100</p> | | <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0238000005100</p> | | <p>4-tlg. / 4-pcs. / 4-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0238700004100</p> | |
| Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ | Ø | Stk. ⁽¹⁾ |
| mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ | mm | pc. ⁽¹⁾ |
| MAYKESTAG | | MAYKESTAG | | MAYKESTAG | |
| Ø 10,40 / 16,50 / 20,50 / 25,00 | 1 | Ø 6,30 / 10,40 / 16,50 / 20,50 / 25,00 | 1 | Ø 10,40 / 16,50 / 20,50 / 25,00 | 1 |
| <p>HSS Cobalt Kegelsenker-Satz KP 5</p>   | | | | | |
| <p>5-tlg. / 5-pcs. / 5-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0238700005100</p> | | | | | |
| Ø | Stk. ⁽¹⁾ | | | | |
| mm | pc. ⁽¹⁾ | | | | |
| MAYKESTAG | | | | | |
| Ø 6,30 / 10,40 / 16,50 / 20,50 / 25,00 | 1 | | | | |



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

HSS Cobalt Kegelsenker lang, ungleiche Teilung DIN 335 C, 90°

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart und weich. Universell einsetzbares Entgrat- und Senkwerkzeug für Bohrungen aller Art. Sehr gute Schneideigenschaften durch ungleichgeteilte Schneiden.



Hitzebeständig
Heat resistant
Termoestable



Präzise
Precise
Preciso



Industriequalität
Industrial quality
Calidad industrial

E HSS Cobalt countersinks long series, different partition DIN 335 C, 90°

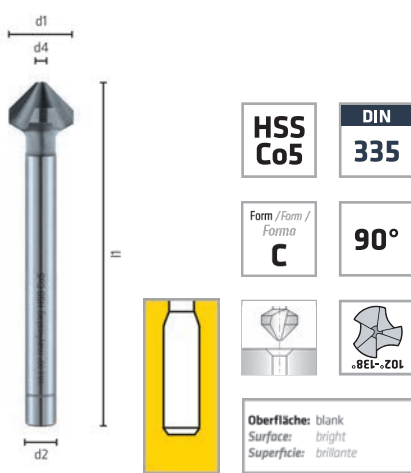
Range of application:

For ferrous and non-ferrous metals, synthetic materials soft and hard. Universal deburring and sink tool for all kind of borings. Excellent cutting features guarantee a smooth surface by unequally divided cutting edges. Reduction of feed force and chatter marks on the countersinking surface due to reduced axial and radial force.

ES Avellanador cónico HSS Cobalto, larga, división irregular, DIN 335 C, 90°

Ámbito de aplicación:

Para todos los metales E y NE y plásticos duros y blandos. Herramienta para desbarbar y avellanar de aplicación universal para agujeros de todo tipo. Excelentes características de corte, por corte desigual dividida.



Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio



ALUNIT®
Höhere Performance, längere Standzeit
Higher performance, longer durability
Rendimiento superior tiempo de uso más prolongado





Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio

| | | | | | | | blank / bright / brillante | ALUNIT® | |
|-------|------|-----|------------------|-----|---|---------------|----------------------------|---------------|-------|
| d1 | d4 | | d2 _{h9} | l1 | Z | Code 2340 | Inh. | Code 2347 | Inh. |
| mm | mm | | mm | mm | | Art.-Nr. | Cont. | Art.-Nr. | Cont. |
| 6,30 | 1,50 | M3 | 5,00 | 104 | 3 | 0234000630100 | 1 | 0234700630100 | 1 |
| 8,30 | 2,00 | M4 | 6,00 | 105 | 3 | 0234000830100 | 1 | 0234700830100 | 1 |
| 10,40 | 2,50 | M5 | 6,00 | 107 | 3 | 0234001040100 | 1 | 0234701040100 | 1 |
| 12,40 | 2,80 | M6 | 8,00 | 108 | 3 | 0234001240100 | 1 | 0234701240100 | 1 |
| 16,50 | 3,20 | M8 | 10,00 | 111 | 3 | 0234001650100 | 1 | 0234701650100 | 1 |
| 20,50 | 3,50 | M10 | 10,00 | 114 | 3 | 0234002050100 | 1 | 0234702050100 | 1 |
| 25,00 | 3,80 | M12 | 10,00 | 118 | 3 | 0234002500100 | 1 | 0234702500100 | 1 |
| 31,00 | 4,20 | M16 | 12,00 | 140 | 3 | 0234003100100 | 1 | 0234703100100 | 1 |

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| HSS Co5 Kegelsenker-Satz, 6-tlg. | | HSS Co5 Kegelsenker-Satz, 6-tlg. | |
|---|---|---|--|
|  |  |  |  |
| 6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0234000006100 | | 6-tlg. / 6-pcs. / 6-unid. Kunststoffkassette / Plastic cassette / Caja de plástico Art.-Nr. 0234700006100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| MAYKESTAG | | MAYKESTAG | |
| Ø 6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 | 1 | Ø 6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 | 1 |






Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Kassetten, Sets

E Cassettes, sets

ES Cajas, juegos

| HSS Cobalt Kegelsenker-Satz KM 4 | | HSS Cobalt Kegelsenker-Satz KM 6 | | HSS Cobalt Kegelsenker-Satz KM 4 | |
|--|---|--|---|--|---|
|  | |  | |  | |
| 4-tlg. / 4-pcs. / 4-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0229000004100 | | 6-tlg. / 6-pcs. / 6-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0229000096100 | | 4-tlg. / 4-pcs. / 4-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0229700004100 | |
| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| MAYKESTAG | | MAYKESTAG | | MAYKESTAG | |
| Ø 10,40 / 16,50 / 20,50 / 25,00 | 1 | Ø 6,30 / 8,30 / 10,40 / 12,40 / 16,50 / 20,50 | 1 | Ø 10,40 / 16,50 / 20,50 / 25,00 | 1 |



Gewinde-, Senk- und Schälwerkzeuge
 Taps, dies, countersinks and conecut
 herramientas para roscar, avellanar y escarpar

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



SINK HERO



Beste Performance

Dank des optimalen Hinterschliffs

Best performance

Due to the optimal relief

El mejor rendimiento

Gracias al talón óptimo

Herausragende Ergebnisse

Präzise Bohrleistungen sorgen für ein perfektes Senkbild

Outstanding results

Precise drilling performance ensures a perfect surface

Resultados excelentes

Las potencias de perforación precisas crean una imagen perforada perfecta

Ruhiger Lauf

Rattermarken werden vermieden

Smooth running

Avoiding chatter marks

Funcionamiento tranquilo

prevención de marcas por vibraciones



alpen *drill better.*

D HSS Kegelsenker,
ungleiche Teilung,
DIN 335 C, 90°

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart und weich. Universell einsetzbares Entgrat- und Senkwerkzeug für Bohrungen aller Art. Sehr gute Schneideigenschaften durch ungleichgeteilte Schneiden. Verringerung der Vorschubkraft und Ratterbildung an der Senkoberfläche durch reduzierte Axial- und Radialkraft.



Hitzebeständig
Heat resistant
Termoestable



Präzise
Precise
Preciso



Industriequalität
Industrial quality
Calidad industrial

E HSS countersinks,
different partition,
DIN 335 C, 90°

Range of application:

For ferrous and non-ferrous metals, synthetic materials soft and hard. Universal deburring and sink tool for all kind of borings. Excellent cutting features guarantee a smooth surface by unequally divided cutting edges. Reduction of feed force and chatter marks on the countersinking surface due to reduced axial and radial force.

ES Avellanador cónico HSS,
división irregular,
DIN 335 C, 90°

Ámbito de aplicación:

Para todos los metales E y NE y plásticos duros y blandos. Herramienta para desbarbar y avellanar de aplicación universal para agujeros de todo tipo. Excelentes características de corte, por corte desigual dividida. Reducción del avance y de vibración en la superficie avellanada gracias a las fuerzas axiales y radiales reducidas.

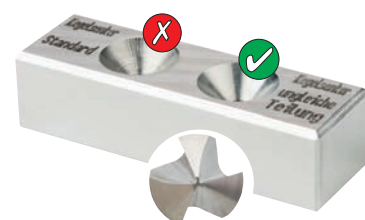


Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio

| d1 mm | d4 mm | | d2 _{h9} mm | l1 mm | Z | Code 2320 Art.-Nr. | Inh. Cont. |
|----------|----------|------|------------------------|----------|---|-----------------------|---------------|
| 6,30 | 1,50 | M 3 | 5,00 | 45 | 0 | 0232000630100 | 1 |
| 8,30 | 2,00 | M 4 | 6,00 | 50 | 0 | 0232000830100 | 1 |
| 10,40 | 2,50 | M 5 | 6,00 | 50 | 0 | 0232001040100 | 1 |
| 12,40 | 2,80 | M 6 | 8,00 | 56 | 0 | 0232001240100 | 1 |
| 16,50 | 3,20 | M 8 | 10,00 | 60 | 0 | 0232001650100 | 1 |
| 20,50 | 3,50 | M 10 | 10,00 | 63 | 0 | 0232002050100 | 1 |
| 25,00 | 3,80 | M 12 | 10,00 | 67 | 0 | 0232002500100 | 1 |
| 31,00 | 4,20 | | 12,00 | 71 | 0 | 0232003100100 | 1 |

**Standard
Kegelsenker**
Standard
countersink
Avellanador
cónico estándar

**mit ungleicher
Teilung**
with different
partition
con división
irregular



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① Kassetten, Sets

Ⓔ Cassettes, sets

Ⓔ Cajas, juegos

HSS Kegelsenker-Satz KP 3



3-tlg. / 3-pcs. / 3-unid.
Kunststoffbox / Plastic box / Caja de plástico
Art.-Nr. 0232000003100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|-------------------------|---|
| Sink Hero | |
| Ø 12,40 / 16,50 / 20,50 | 1 |

HSS Kegelsenker-Satz KM 6



6-tlg. / 6-pcs. / 6-unid.
Metallkassette / Metal cassette / Caja de metal
Art.-Nr. 0232000006100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---|---|
| Sink Hero | |
| Ø 6,30 / 8,30 / 10,40 / 12,40 / 16,50 / 20,50 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

**D HSS Kegelsenker,
DIN 335 C, 90°**

**E HSS countersinks,
DIN 335 C, 90°**

**ES Avellanador cónico HSS,
DIN 335 C, 90°**

Einsatzbereich:

Für alle E- und NE-Metalle, Kunststoffe hart und weich. Universell einsetzbares Entgrat- und Senkwerkzeug für Bohrungen aller Art. Sehr gute Schneideigenschaften ohne "Rat-termarken", durch radialen Hinterschliff leicht nachschärfbar an der Spanfläche.

Range of application:

For ferrous and non-ferrous metals, synthetic materials soft and hard. Universal deburring and sink tool for all kind of borings. Excellent cutting features guarantee a smooth surface without burrs; profile relief facilitates an easy regrind.

Ámbito de aplicación:

Para todos los metales E y NE y plásticos duros y blandos. Herramienta para desbarbar y avellanar de aplicación universal para agujeros de todo tipo. Excelentes características de corte sin "rayado transversal", fácil reaflado de la superficie de deslizamiento gracias al talón radial.



Hitzebeständig
Heat resistant
Termoestable



Präzise
Precise
Preciso



Industriequalität
Industrial quality
Calidad industrial



Einzelverpackung mit Aufhänger
Single pack with tag
Embalaje individual con gancho para autoservicio

| d1 mm | d4 mm | | d2 _{h9} mm | l1 mm | Z | Code 2292 Art.-Nr. | Inh. Cont. |
|----------|----------|------|------------------------|----------|---|-----------------------|---------------|
| 6,30 | 1,50 | M 3 | 5,00 | 45 | 3 | 0229200630100 | 1 |
| 8,30 | 2,00 | M 4 | 6,00 | 50 | 3 | 0229200830100 | 1 |
| 10,40 | 2,50 | M 5 | 6,00 | 50 | 3 | 0229201040100 | 1 |
| 12,40 | 2,80 | M 6 | 8,00 | 56 | 3 | 0229201240100 | 1 |
| 16,50 | 3,20 | M 8 | 10,00 | 60 | 3 | 0229201650100 | 1 |
| 20,50 | 3,50 | M 10 | 10,00 | 63 | 3 | 0229202050100 | 1 |
| 25,00 | 3,80 | M 12 | 10,00 | 67 | 3 | 0229202500100 | 1 |



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conical
herramientas para roscar, avellanar y escarpar

① Kassetten, Sets

Ⓔ Cassettes, sets

Ⓔ Cajas, juegos

HSS Kegelsenker-Satz KM 3



3-tlg. / 3-pcs. / 3-unid.
Kunststoffbox / Plastic box / Caja de plástico
Art.-Nr. 0229200003100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|-------------------------|---|
| HSS Kegelsenker | |
| Ø 12,40 / 16,50 / 20,50 | 1 |

HSS Kegelsenker-Satz KM 6



6-tlg. / 6-pcs. / 6-unid.
Metallkassette / Metal cassette / Caja de metal
Art.-Nr. 0229200096100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---|---|
| HSS Kegelsenker | |
| Ø 6,30 / 8,30 / 10,40 / 12,40 / 16,50 / 20,50 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D HSS Cobalt Entgratsenker mit Querlochbohrung

Einsatzbereich:

Die günstige Schneidengeometrie ergibt einen leichten schälenden Schnitt. Die Späne werden in Schafrichtung abgeführt und können die Senkung nicht beschädigen. Zum leichten und ratterfreien Entgraten von Bohrungen. Besonders geeignet für weiche langspanende Werkstoffe.



Verschleissfest
Wear-resistant
Resistente al desgaste



Präzise
Precise
Preciso

E HSS Cobalt slotted countersink hole type

Range of application:

Countersink and deburring tool with through hole which is ideal for long chip materials, such as aluminium and very effective on both hard and softwoods. Spoil is removed through centre of cutter to prevent damage to tool.

ES Broca avellanadora para desbarbar HSS Cobalt con taladro para agujeros transversales

Ámbito de aplicación:

La geometría de corte idónea facilita un corte escarpado. Las virutas se eliminan en la dirección del eje y no pueden causar daños en el avellanado. Para el desbarbado de agujeros fácil y sin vibraciones. Especialmente adecuada para materiales blandos de virutas largas.



HSS Co5

90°



Oberfläche: blank
Surface: bright
Superficie: brillante



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

| Größe Size / Tamaño | d1 mm | d2 mm | Bereich / Range Intervalo Ø mm | Code 2291 Art.-Nr. | Inh. Cont. |
|------------------------|----------|----------|-----------------------------------|-----------------------|---------------|
| 1 | 10,00 | 6 | 2-5 | 0229101000100 | 1 |
| 2 | 14,00 | 8 | 5-10 | 0229101400100 | 1 |
| 3 | 21,00 | 10 | 10-15 | 0229102100100 | 1 |
| 4 | 28,00 | 12 | 15-20 | 0229102800100 | 1 |
| 5 | 35,00 | 15 | 20-25 | 0229103500100 | 1 |

HSS Cobalt Querlochenersatz BOX 3



3-tlg. / 3-pcs. / 3-unid.
Kunststoffbox / Plastic box / Caja de plástico
Art.-Nr. 0229100003100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|---------------------------------------|---|
| HSS Cobalt Ø 10,00 / 14,00 / 21,00 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① HSS Kegelsenker 90° mit 1/4"-Sechskantschaft

② HSS countersink 90° with 1/4" hexagonal shank

③ Avellanador cónico HSS, 90° con eje hexagonal 1/4"

Einsatzbereich:

Zum Senken, Anfasen und Entgraten, für Metall- und Kunststoffbearbeitung. Zur direkten Verwendung in Elektro-Handbohrmaschinen, Elektro-Schraubern und Akku-Maschinen mit Sechskantaufnahme oder über magnetischen Universalhalter.

Range of application:

Countersink and deburring tool suitable for either metal or synthetic materials. Manufactured with 1/4" hexagonal shank for direct use in standard chuck, cordless drills or through a magnetic bit holder.

Ámbito de aplicación:

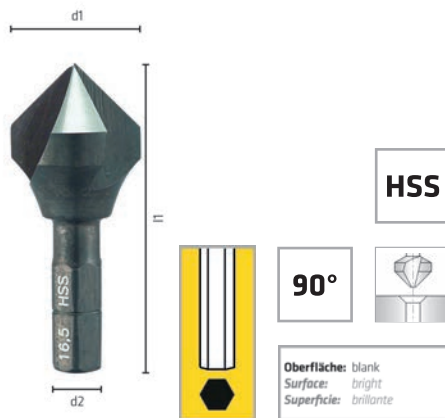
Para el avellanado, el biselado y el desbarbado, para el procesamiento de metal y plástico. Para su uso directo en taladradoras manuales eléctricas, destornilladores eléctricos y máquinas a batería con toma hexagonal o mediante soporte universal magnético.



Verschleissfest
Wear-resistant
Resistente al desgaste



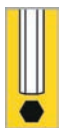
Präzise
Precise
Preciso



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

| d1 mm | | | l1 mm | Z | Code 720 Art.-Nr. | Inh. Cont. |
|----------|------|------|----------|---|----------------------|---------------|
| 6,30 | M 3 | 1/4" | 31 | 3 | 0072000630100 | 1 |
| 8,30 | M 4 | 1/4" | 31 | 3 | 0072000830100 | 1 |
| 10,40 | M 5 | 1/4" | 34 | 3 | 0072001040100 | 1 |
| 12,40 | M 6 | 1/4" | 35 | 3 | 0072001240100 | 1 |
| 16,50 | M 8 | 1/4" | 40 | 3 | 0072001650100 | 1 |
| 20,50 | M 10 | 1/4" | 41 | 3 | 0072002050100 | 1 |

HSS Senkerbitsatz BOX 3



3-tlg. / 3-pcs. / 3-unid.
Kunststoffbox / Plastic box / Caja de plástico
Art.-Nr. 0072000003100

| Ø mm | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
|-------------------------|---|
| HSS | |
| Ø 12,40 / 16,50 / 20,50 | 1 |

⁽¹⁾ Schaft nach DIN 3126, Form C6.3, ISO 1173
Shank DIN 3126, Form C6.3, ISO 1173
Eje según DIN 3126, forma C6.3, ISO 1173

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Stufenbohrer

E Step drill

ES Broca progresiva

Einsatzbereich:

Zum Bohren zylindrischer Löcher in Material bis 4 bzw. 6 mm Stärke. Bohren und Entgraten erfolgt in einem Arbeitsgang durch die schrägen Schneiden der nächstfolgenden Bohrstufe. Zur Vermeidung von Materialansatz Bohrpaste (Code 721000021) verwenden.

Range of application:

Multiple step and countersink tool for drilling and countersinking in one smooth operation. Suitable for materials with a maximum thickness of 4-6 mm, dependent on hardness. The use of cutting paste (Code 721000021) is recommended.

Ámbito de aplicación:

Para el taladrado de agujeros cilíndricos en materiales con un grosor de 4 mm a 6 mm. El taladrado y el desbarbado se realizan en una sola operación gracias a los filos oblicuos del siguiente nivel de broca. Debe utilizarse pasta para taladrar (código 721000021) para evitar las rebabas de material.



Verschleissfest
Wear-resistant
Resistente al desgaste



Präzise
Precise
Preciso



HSS Co5 TiN

HSS Co5 HSS

Oberfläche: blank
Surface: bright
Superficie: brillante



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio



TiN

Hohe Performance, lange Standzeit
High performance, long durability
Rendimiento elevado, duración prolongada

Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

| Größe Size / Tamaño | d1 - d4 mm | d2 mm | HSS | | HSS Co5 | | HSS Co5 TiN | |
|------------------------|----------------------|----------|----------------------|---------------|----------------------|---------------|----------------------|---------------|
| | | | Code 722 Art.-Nr. | Inh. Cont. | Code 726 Art.-Nr. | Inh. Cont. | Code 728 Art.-Nr. | Inh. Cont. |
| 1 | 4,00-12,00 | 6 | 0072200412100 | 1 | 0072600412100 | 1 | | |
| 2 | 4,00-20,00 | 8 | 0072201220100 | 1 | 0072600620100 | 1 | | |
| 3 | 6,00-30,00 | 10 | 0072200630100 | 1 | 0072600630100 | 1 | 0072800630100 | 1 |
| 4 | 6,00-37,00 (PG 7-29) | 10 | 0072200729100 | 1 | 0072600729100 | 1 | 0072800729100 | 1 |

Oberfläche: blank/TiN Code 728 TiN-beschichtet
Surface: bright/TiN Code 728 TiN-coated
Superficie: brillante/TiN Code 728 Recubierto con TiN



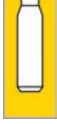
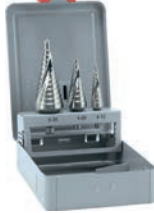


Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① Kassetten, Sets

Ⓔ Cassettes, sets

Ⓔ Cajas, juegos

| HSS Stufenbohrer KM 3 | | HSS Cobalt Stufenbohrer KM 3 | |
|---|---|---|--|
|  |  |  |  |
| <p>3-tlg. / 3-pcs. / 3-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0072200003100</p> | | <p>3-tlg. / 3-pcs. / 3-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0072600003100</p> | |
| Inhalt | Stk. ⁽¹⁾ | Inhalt | Stk. ⁽¹⁾ |
| <i>Contents / Contenido</i> | <i>pc. ⁽¹⁾</i> | <i>Contents / Contenido</i> | <i>pc. ⁽¹⁾</i> |
| Größe / Size / Tamaño: 12,00 / 20,00 / 30,00 | 1 | Größe / Size / Tamaño: 12,00 / 20,00 / 30,00 | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Blechschälbohrer

E Conecut

ES Broca cónica para chapa

Einsatzbereich:

Zum Bohren größerer Löcher in dünnes Material oder zum Aufbohren bereits vorhandener Löcher. Zum grat- und rattermarkenfreien Bohren oder Aufbohren (ohne Vorbohren) in Nirostablechen und weichen Werkstoffen. Für Hand- oder Ständerbohrmaschinen geeignet.

Range of application:

For drilling large-diameter holes in thin material or for expanding pre-cut holes. For drilling without burr or chatter marks and widening holes (without piloting) in non-rusting sheet and soft materials. Suitable for hand-held and upright drilling machines.

Ámbito de aplicación:

Para taladrar agujeros grandes en material fino o ampliar agujeros ya existentes. Para taladrar o ampliar (sin taladrado previo) agujeros sin dejar rebabas ni marcas en chapas con acero inoxidable y materiales blandos. Adecuada para taladradoras manuales o con soporte.



Verschleissfest
Wear-resistant
Resistente al desgaste



Präzise
Precise
Preciso



HSS Co5 TiN

HSS Co5 HSS

Oberfläche: blank
Surface: bright
Superficie: brillante



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio



Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio



TiN

Hohe Performance, lange Standzeit
High performance, long durability
Rendimiento elevado, duración prolongada

Drehpack mit Aufhänger
Twistpack with tag
Paquete giratorio con gancho para autoservicio

| Größe Size / Tamaño | d1 - d4 mm | d2 mm | blank / bright / brillante | | HSS Co5 | | HSS Co5 TiN | |
|------------------------|---------------|----------|----------------------------|---------------|----------------------|---------------|----------------------|---------------|
| | | | Code 721 Art.-Nr. | Inh. Cont. | Code 723 Art.-Nr. | Inh. Cont. | Code 725 Art.-Nr. | Inh. Cont. |
| 1 | 3,50 - 14,00 | 6 | 0072100314100 | 1 | 0072300314100 | 1 | 0072500314100 | 1 |
| 2 | 6,00 - 20,00 | 8 | 0072100820100 | 1 | 0072300620100 | 1 | 0072500620100 | 1 |
| 3 | 16,00 - 30,00 | 10 | 0072101630100 | 1 | 0072301630100 | 1 | 0072501630100 | 1 |
| 4 | 24,00 - 40,00 | 12 | 0072102640100 | 1 | | | | |
| 5 | 36,00 - 50,00 | 13 | 0072103650100 | 1 | | | | |
| 6 | 40,00 - 61,00 | 13 | 0072104061100 | 1 | | | | |
| L | 6,00 - 30,00 | 10 | 0072100430100 | 1 | | | | |
| 2A | 3,00 - 22,00 | 8 | 0072100522100 | 1 | | | | |
| 2A | 5,00 - 25,00 | 8 | 0007202500100 | 1 | | | | |







Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and cone-cut
herramientas para roscar, avellanar y escarpar

Oberfläche: blank/TiN Code 728 TiN-beschichtet / Surface: bright/TiN Code 728 TiN-coated / Superficie: brillante/TiN Code 728 Recubierto con TiN
Oberfläche: blank/TiN Code 725 TiN-beschichtet / Surface: bright/TiN Code 725 TiN-coated / Superficie: brillante/TiN Code 725 Recubierto con TiN

① Kassetten, Sets

Ⓔ Cassettes, sets

Ⓔ Cajas, juegos

| HSS Blechschälbohrer KM 3 | | HSS Cobalt Blechschälbohrer KM 3 | |
|---|---|---|--|
|  |  |  |  |
| <p>3-tlg. / 3-pcs. / 3-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0072100003100</p> | | <p>3-tlg. / 3-pcs. / 3-unid. Metallkassette / Metal cassette / Caja de metal Art.-Nr. 0072300003100</p> | |
| Inhalt Contents / Contenido | Stk. ⁽¹⁾ pc. ⁽¹⁾ | Inhalt Contents / Contenido | Stk. ⁽¹⁾ pc. ⁽¹⁾ |
| Größe / Size / Tamaño: 1 / 2 / 3 Ø 3,5 - 30,0 mm | 1 | Größe / Size / Tamaño: 1 / 2 / 3 Ø 3,5 - 30,0 mm | 1 |

⁽¹⁾ Stück je Abmessung / Pieces each dimension / Piezas por diámetro

D Universal-Fräsbohrer

E Drill file rasp

ES Broca fresadora universal

Einsatzbereich:

Zum Bohren und anschließendem Ausfräsen von Blech und dünnwandigem Material. Besonders bei Montagearbeiten gut geeignet, um mit diesem kleinen Bohrer größere Löcher und verschiedene Formen herzustellen.

Range of application:

For drilling and cutting holes in sheet metal and similar thin materials. Ideal for large holes and irregular shapes, manufactured in TiN coated HSS.

Ámbito de aplicación:

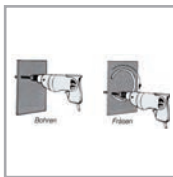
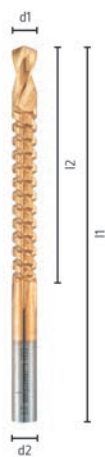
Para el taladrado y el fresado de chapas y material f. no. Especialmente adecuado en trabajos de montaje para hacer agujeros más grandes y diferentes formas con esta broca pequeña.



Verschleissfest
Wear-resistant
Resistente al desgaste



Präzise
Precise
Preciso



Oberfläche: TiN
Surface: TiN
Superficie: TiN



Einzelverpackung
Single pack
Embalaje individual

| d1 mm | l1 mm | l2 mm | Code 721 Art.-Nr. | Inh. Cont. |
|----------|----------|----------|----------------------|---------------|
| 6,00 | 89 | 57 | 0072100001100 | 1 |
| 8,00 | 93 | 57 | 0072100011100 | 1 |



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

Oberfläche: blank/TiN Code 728 TiN-beschichtet / Surface: bright/TiN Code 728 TiN-coated / Superficie: brillante/TiN Code 728 Recubierto con TiN
Oberfläche: blank/TiN Code 725 TiN-beschichtet / Surface: bright/TiN Code 725 TiN-coated / Superficie: brillante/TiN Code 725 Recubierto con TiN

D Drehzahlen

E Spindle speeds

ES Velocidades

Die angegebenen Drehzahlempfehlungen beziehen sich auf Standardanwendungen.

The recommended spindle speeds refer to standard applications.

Las recomendaciones indicadas de las velocidades se refieren a aplicaciones estándar.

n: Drehzahl U/min








n: Spindle speed rpm

n: Velocidad r.p.m.

Maschinengewindebohrer / Machine taps / Macho para roscar a máquina



Code 704, 709, 714, 719

| Ø mm |  |  |  |  |  |  |  |
|-------------------------------------|---|---|---|---|---|---|---|
| | <400 N/mm² | <850 N/mm² | <1.300 N/mm² | GRAUGUSS CAST IRON GISHA GRIGIA | Cu Ms Ni Zn | Alu | Gears |
| 3 | n 1698 | n 1698 | n 1273 | n 1061 | n 1273 | n 1910 | n 1061 |
| 4 | n 1273 | n 1273 | n 955 | n 796 | n 955 | n 1432 | n 796 |
| 5 | n 1019 | n 1019 | n 764 | n 637 | n 764 | n 1146 | n 637 |
| 6 | n 849 | n 849 | n 637 | n 531 | n 637 | n 955 | n 531 |
| 8 | n 637 | n 637 | n 477 | n 398 | n 477 | n 716 | n 398 |
| 10 | n 509 | n 509 | n 382 | n 318 | n 382 | n 573 | n 318 |
| 12 | n 424 | n 424 | n 318 | n 265 | n 318 | n 477 | n 265 |
| Kühlung Coolant Refrigeración | E/O | E/O | E/O | T | E/O | E/O | T/D |

E: Emulsion | Emulsion | emulsión, O: Öl | Oil | aceite, T: trocken | dry | seco, D: Druckluft | compressed air | aire comprimido

D Drehzahlen

E Spindle speeds

ES Velocidades

Die angegebenen Drehzahlempfehlungen beziehen sich auf Standardanwendungen. Bohren ins Volle möglich. Wir empfehlen mit Ø 4,0 bzw. Ø 6,0 mm vorzubohren.

The recommended spindle speeds refer to standard applications. Drilling into the whole material possible. We would recommend to pre-drill with Ø 4,0 or Ø 6,0 mm.

Las recomendaciones indicadas de las velocidades se refieren a aplicaciones estándar. Recomendamos pretaladrar con Ø 4,0 o 6,0 mm.

n: Drehzahl U/min

n: Spindle speed rpm

n: Velocidad r.p.m.

HSS und HSS Co5 Stufenbohrer und Blechschälbohrer / HSS and HSS Co5 step drill and conecut / Brocas progresivas y brocas cónicas para chapa HSS e HSS Co5



Code 721, 722, 723, 725, 726, 728

| Ø mm | | | | | | | | | | | | | | |
|--|---|---|---|---|--|--|---|--|---|---|---|---|---|---|
| | n | n | n | n | n | n | n | n | n | n | n | n | n | n |
| 4,0 | 1989 | 1592 | 1194 | 796 | 4377 | 2387 | 2387 | 1194 | | | | | | |
| 5,0 | 1592 | 1273 | 955 | 637 | 3501 | 1910 | 1910 | 955 | | | | | | |
| 6,0 | 1326 | 1061 | 796 | 531 | 2918 | 1592 | 1592 | 796 | | | | | | |
| 7,0 | 1137 | 909 | 682 | 455 | 2501 | 1364 | 1364 | 682 | | | | | | |
| 8,0 | 995 | 796 | 597 | 398 | 2188 | 1194 | 1194 | 597 | | | | | | |
| 9,0 | 884 | 707 | 531 | 354 | 1945 | 1061 | 1061 | 531 | | | | | | |
| 10,0 | 796 | 637 | 477 | 318 | 1751 | 955 | 955 | 477 | | | | | | |
| 11,0 | 723 | 579 | 434 | 289 | 1592 | 868 | 868 | 434 | | | | | | |
| 12,0 | 663 | 531 | 398 | 265 | 1459 | 796 | 796 | 398 | | | | | | |
| 12,5 | 637 | 509 | 382 | 255 | 1401 | 764 | 764 | 382 | | | | | | |
| 14,0 | 568 | 455 | 341 | 227 | 1251 | 682 | 682 | 341 | | | | | | |
| 15,2 | 524 | 419 | 314 | 209 | 1152 | 628 | 628 | 314 | | | | | | |
| 16,0 | 497 | 398 | 298 | 199 | 1094 | 597 | 597 | 298 | | | | | | |
| 18,0 | 442 | 354 | 265 | 177 | 973 | 531 | 531 | 265 | | | | | | |
| 18,6 | 428 | 342 | 257 | 171 | 941 | 513 | 513 | 257 | | | | | | |
| 20,0 | 398 | 318 | 239 | 159 | 875 | 477 | 477 | 239 | | | | | | |
| 20,4 | 390 | 312 | 234 | 156 | 858 | 468 | 468 | 234 | | | | | | |
| 22,0 | 362 | 289 | 217 | 145 | 796 | 434 | 434 | 217 | | | | | | |
| 24,0 | 332 | 265 | 199 | 133 | 729 | 398 | 398 | 199 | | | | | | |
| 26,0 | 306 | 245 | 184 | 122 | 673 | 367 | 367 | 184 | | | | | | |
| 28,0 | 284 | 227 | 171 | 114 | 625 | 341 | 341 | 171 | | | | | | |
| 30,0 | 265 | 212 | 159 | 106 | 584 | 318 | 318 | 159 | | | | | | |
| 34,0 | 234 | 187 | 140 | 94 | 515 | 281 | 281 | 140 | | | | | | |
| 37,0 | 215 | 172 | 129 | 86 | 473 | 258 | 258 | 129 | | | | | | |
| Kühlung Coolant Refrigeración | Bohrpaste Cutting paste Pasta para taladrar | Bohrpaste Cutting paste Pasta para taladrar | Bohrpaste Cutting paste Pasta para taladrar | Bohrpaste Cutting paste Pasta para taladrar | Druckluft compressed air aire comprimido | Druckluft compressed air aire comprimido | Bohrpaste Cutting paste Pasta para taladrar | Wasser/trocken Water/dry Agua/seco | | | | | | |

1) kurzspanend / short chipping / de viruta corta 2) langspanend / long chipping / de viruta larga



Gewinde-, Senk- und Schälwerkzeuge
Taps, dies, countersinks and conecut
herramientas para roscar, avellanar y escarpar

① Verkaufs- und Lieferbedingungen

1. Angebot, Auftrag, Preis

1.1 Die nachstehenden Verkaufs- und Lieferbedingungen gelten für alle mit uns abgeschlossenen Verträge. Anderslautende Bedingungen sind für uns nur dann bindend, wenn sie von uns schriftlich anerkannt werden. Das gilt auch für den Fall, dass ein Besteller auf seine eigenen Einkaufsbedingungen verweist. Mündliche Vereinbarungen, die für uns eine zusätzliche Verpflichtung beinhalten, sind nur dann bindend, wenn sie von uns schriftlich bestätigt werden.

1.2. Unsere Preise sind freibleibend. Die in der Preisliste angegebenen Maße entsprechen den jeweils gültigen Normen und werden bei Änderung der Normmaße entsprechend abgeändert.

1.3. Unsere Preise verstehen sich ohne die gesetzliche Mehrwertsteuer ab Werk. Verpackung, Fracht und Transportversicherungskosten gehen zu Lasten des Bestellers.

1.4. Bei einer auf elektronischem Wege bestellten Ware werden wir den Zugang der Bestellung des Kunden unverzüglich bestätigen. Die Zugangsbestätigung stellt noch keine verbindliche Annahmeerklärung der Bestellung dar; außer wenn wir dies ausdrücklich erklären. Bei auf elektronischem Wege bestellter Ware sind wir berechtigt, die Bestellung innerhalb von drei Werktagen nach Eingang bei uns anzunehmen.

2. Zahlungsziel,

Zahlungsbedingungen, Rücktritt

2.1. Unsere Rechnungen sind 30 Tage ab Rechnungsdatum netto ohne Abzug zur Zahlung fällig. Der Kaufpreis ist sofort fällig, wenn der Besteller uns gegenüber mit anderen Zahlungsverpflichtungen in Zahlungsverzug gerät. Bei Überschreitung der Zahlungsfrist werden unter Vorbehalt der Geltendmachung eines weiteren Verzugs Schadens 12% Verzugszinsen ab Verfalltag bis zum Zahlungstag in Rechnung gestellt.

2.2. Der Besteller hat ein Recht zur Aufrechnung nur, wenn seine Ansprüche rechtskräftig festgestellt wurden oder durch uns anerkannt wurden.

2.3. Bleibt der Besteller mit der Zahlung länger als 30 Tage im Rückstand, werden bei ihm Pfändungen durchgeführt oder verschlechtert sich seine Vermögenslage beträchtlich, sind wir berechtigt, von allen noch nicht erfüllten Lieferverträgen zurückzutreten oder Vorauszahlungen zu fordern.

3. Lieferung

3.1. Teillieferungen sind zulässig.

3.2. Wir sind bemüht die Lieferfristen so genau wie möglich einzuhalten. Lieferfristen sind nicht verbindlich. Fällt das Ende der Lieferfrist in die Zeit des Betriebsurlaubs, so verlängert sich die Lieferfrist um die Dauer des Betriebsurlaubs. Auf jeden Fall sind Schadenersatzansprüche oder Aufhebung des Vertrages wegen verspäteter Lieferung ausgeschlossen, wenn uns nicht krass grobe Fahrlässigkeit nachgewiesen wird.

4. Gefahrübergang

Der Versand erfolgt stets auf Rechnung und Gefahr des Bestellers. Für Beschädigungen und Verluste während des Transportes haften wir nicht. Mangels besonderer Versandvorschriften des Bestellers haben wir die Versendung auf dem nach unserem Ermessen besten Weg zu bewirken. Werden vom Besteller keine anderweitigen Vorschriften über die Versicherung gegen Transportschäden gemacht, so kann dies auf Kosten des Bestellers von uns ohne weiteres vorgenommen werden. Eine Versicherungspflicht unsererseits besteht jedoch nicht.

5. Eigentumsvorbehalt

Die gelieferte Ware bleibt unbeschadet des früheren Gefahrüberganges bis zur vollständigen Bezahlung aller aus dem Liefervertrag entstandenen Verbindlichkeiten des Bestellers unser Eigentum. Solange die Ware unser Eigentum ist, ist der Besteller nicht berechtigt, die gelieferte Ware einem Dritten zu verpfänden oder sicherungsweise zu übereignen. Droht unserem Eigentum von dritter Seite Gefahr, so sind wir unverzüglich zu benachrichtigen. Sollte ein Gerichtsvollzieher die gelieferte Ware pfänden wollen, so ist gegenüber dem Gerichtsvollzieher unser Eigentum unter Nennung unserer Firma und unserer Anschrift zu behaupten. Der Besteller hat uns alle Schäden und Kosten zu ersetzen, die durch einen Verstoß gegen diese Verpflichtungen und durch erforderliche Interventionsmaßnahmen gegen Zugriffe Dritter auf die Ware entstehen.

6. Gewährleistung, Haftungsbeschränkung und -Freistellung

6.1. Der Besteller hat eine Lieferung sofort nach Anlieferung eingehend zu untersuchen. Beanstandungen wegen unvollständiger Lieferung oder wegen entdeckter Mängel sind binnen 8 Tagen nach Empfang der einzelnen Lieferungen schriftlich anzuzeigen, andernfalls die Lieferung als vorbehaltlos angenommen gilt und auf diesbezügliche Gewährleistungs- und Schadenersatzansprüche verzichtet wird. Der Mangel ist nach Art und Umfang so deutlich zu kennzeichnen, dass wir den Grund der Beanstandung deutlich erkennen können. Der Besteller ist verpflichtet, für die einstweilige Aufbewahrung der beanstandeten

Ware zu sorgen. Im Übrigen haften wir für Mängel der Lieferung unter Ausschluss weiterer Ansprüche wie folgt: Alle diejenigen Teile sind unentgeltlich nach unserer Wahl auszubessern oder neu zu liefern, welche innerhalb von sechs Monaten, ab Lieferdatum gerechnet, nachweisbar infolge eines vor dem Gefahrübergang liegenden Umstandes, insbesondere wegen fehlerhafter Bauart, schlechter Stoffe oder mangelhafter Ausführung unbrauchbar werden bzw deren Brauchbarkeit erheblich beeinträchtigt wurde. Natürlicher Verschleiß, sachwidrige Behandlung, übermäßige Inanspruchnahme, Nachlässigkeit und Änderungen ohne unsere Genehmigung schließen eine Gewährleistung aus. Gewährleistungsansprüche können nur anerkannt werden, wenn sie unverzüglich nach Feststellung der Fehlerhaftigkeit schriftlich bei uns erhoben werden. Solche Teile müssen uns franko eingesandt werden. Das ersetzte Stück wird bei Ersatzlieferung oder Gutschrift unser Eigentum.

6.2. Außerhalb des Anwendungsbereiches des Produkthaftungsgesetzes beschränkt sich unsere Haftung auf Vorsatz und krass grobe Fahrlässigkeit. Die Haftung für schlicht grobe und leichte Fahrlässigkeit, der Ersatz von Folgeschäden und Vermögensschäden, nicht erzielten Ersparnissen, Zinsverlusten und von Schäden aus Ansprüchen Dritter gegen den Besteller sind ausgeschlossen. Ein Regress nach § 12 PHG gegen uns ist ausgeschlossen.

6.3. Wir haften nur für eigene Inhalte auf der Website unseres Online-Shops. Soweit wir mit Links den Zugang zu anderen Websites ermöglichen, sind wir für die dort enthaltenen fremden Inhalte nicht verantwortlich. Wir machen uns die fremden Inhalte nicht zu Eigen. Sofern wir Kenntnis von rechtswidrigen Inhalten auf externen Websites erhalten, werden wir den Zugang zu diesen Seiten unverzüglich sperren.

7. Abnahme, Abruf, Rückgabe

7.1. Auf Abruf gekaufte Ware ist binnen zwölf Monaten ab Bestelldatum abzunehmen. Bei nichtrechtzeitiger Abnahme sind wir berechtigt, die versandfertige Ware auf Kosten und Gefahr des Bestellers einzulagern und unter Belastung aller entstehenden Kosten als geliefert in Rechnung zu stellen. Bei Abnahmeverzug über den genannten zwölfmonatigen Zeitraum hinaus sind wir auf jeden Fall berechtigt, vom Verträge zurückzutreten und unbeschadet weitergehender Ansprüche vom Besteller eine 10%ige Stornogebühr zu begehren.

7.2. Bestellte Ware wird ausnahmslos nicht zurückgenommen. Etwaige Rücklieferungen werden daher nicht angenommen und auf Kosten und Gefahr des Bestellers zurückgeschickt.

8. Schutzrechte, Zeichnungen, Muster

Der Besteller haftet dafür, dass durch seine Vorgaben bzw. durch die Verwendung uns zu Verfügung gestellter Zeichnungen, Muster und sonstiger Ausführungsvorschriften Schutzrechte Dritter, insbesondere Marken-, Muster-, Patent- und Urheberrechte, nicht verletzt werden. Der Besteller ist verpflichtet uns diesbezüglich schad- und klaglos zu halten. Für den Verlust oder die Beschädigung von zur Verfügung gestellter Unterlagen wird keine Haftung übernommen. Eine diesbezügliche Versicherung wird nur über ausdrücklichen Auftrag und auf Kosten des Bestellers abgeschlossen.

9. Datenschutz

9.1. Mit unserer „Datenschutzinformation“ unterrichten wir unsere Kunden über: Art, Umfang und Zweck der Erhebung, Verarbeitung und Nutzung der für die Ausführung von Bestellungen sowie Abrechnungen erforderlichen personenbezogenen Daten; sein Widerspruchsrecht zur Erstellung und Verwendung seines anonymisierten Nutzungsprofils für Zwecke der Werbung und zur bedarfsgerechten Gestaltung unseres Angebotes; die Weitergabe von Daten an von uns beauftragte und zur Beachtung der gesetzlichen Datenschutzbestimmungen verpflichtete Unternehmen zum Zwecke und für die Dauer der Bonitätsprüfung sowie der Versendung der Ware; das Recht auf unentgeltliche Auskunft seiner bei uns gespeicherten personenbezogenen Daten; das Recht auf Berichtigung, Löschung und Sperrung seiner bei uns gespeicherten personenbezogenen Daten; Jede über Ziff. 1 hinausgehende Erhebung, Verarbeitung und Nutzung der personenbezogenen Daten bedarf der Einwilligung des Kunden. Der Kunde hat die Möglichkeit, diese Einwilligung vor Erklärung seiner Bestellung zu erteilen. Dem Kunden steht das Recht auf jederzeitigen Widerruf der Einwilligung mit der Wirkung für die Zukunft zu (siehe „Datenschutzrechtliche Einwilligung“).

10. Allgemeines, Erfüllungsort, Gerichtsstand, Rechtswahl

10.1. Rechtliche Unwirksamkeit eines Teiles dieser Verkaufs- und Lieferbedingungen berührt die Gültigkeit der übrigen Bestimmungen nicht. Maßgeblich ist jeweils die zum Zeitpunkt der Vertragschließung gültige Fassung der AGB.

10.2. Erfüllungsort für Lieferung und Zahlung ist ausschließlich A 5412 Puch bei Hallein, sofern sich aus der Auftragsbestätigung nichts anderes ergibt.

10.3. Salzburg ist ausschließlicher Gerichtsstand bei allen sich aus diesem Vertragsverhältnis mittelbar oder unmittelbar ergebenden Streitigkeiten.

10.4. Diese AGB und die unter diesen AGB abzuschließenden Verträge unterliegen österreichischem materiellem Recht unter Ausschluss der Verweisungsnormen und des UN-Kaufrechts (CISG).

10.5. Zwingende Rechte eines Verbrauchers nach dem Konsumentenschutzgesetz werden durch die vorgenannten Bedingungen nicht eingeschränkt.

E General sales conditions

1. Quotation, order, price

1.1. The following sales and supply terms & conditions apply to all contracts concluded with us. Any rival terms & conditions are only binding on us if they are acknowledged by us in writing. This also applies in the event that a customer refers to its own purchasing terms & conditions. Oral agreements that contain an additional obligation upon us are only binding if they are confirmed by us in writing.

1.2. Our prices are subject to amendment. The measurements given in the pricelist correspond with the relevant applicable standards and will be amended in line with a change in the standard measurements.

1.3. Our prices are deemed to be ex works and to exclude the statutory Value Added Tax. Packaging, freight and transportation insurance costs are borne by the customer.

1.4. If goods are ordered by electronic means, we will confirm access to the customer's order without delay. Confirmation of access does not yet represent a binding declaration of acceptance of the order unless we expressly declare this. With goods ordered by electronic means we are entitled to accept the order within three working days of its receipt by us.

2. Payment terms, payment conditions, withdrawal

2.1. Our invoices are due for payment 30 days net following the invoice date without deduction. The purchase price is due immediately if the customer falls into arrears with us with other payment obligations. If the payment terms are exceeded, subject to a claim for further losses due to delayed payment, 12% interest on arrears will be charged from the due date until the date of payment.

2.2. The customer has a right of setoff only if its claims have been determined by action of law or acknowledged by us.

2.3. If the customer remains in arrears for longer than 30 days, if it is subject to distraints or attachments or if its asset situation deteriorates considerably, we are entitled to withdraw from all supply contracts not yet fulfilled or to demand payment in advance.

3. Delivery

3.1. Part deliveries are permitted.

3.2. We make every effort to meet delivery times as exactly as possible. Delivery times are not binding. If the end of the delivery time falls within the period of the company holiday, the delivery time is extended by the duration of the company holiday. In any event, compensation claims or cancellation of the contract as a result of delayed delivery are excluded if they cannot be attributed to our severe gross negligence.

4. Transfer of risk

Dispatch is always at the customer's expense and risk. We are not liable for damage or losses in transit. In the absence of special dispatch instructions by the customer, we can make the dispatch by what we consider to be the best means. If the customer does not give any contrary instructions regarding insurance against damage in transit, this may be arranged by us at the customer's expense without further consent. However, we are not obliged to provide insurance cover.

5. Reservation of title

Regardless of the earlier transfer of risk, the goods delivered remain our property until full payment of all the customer's liabilities arising from the supply contract. As long as the goods are our property, the customer is not entitled to pledge the goods or assign them as security to a third party. If a third party threatens our property, we are to be informed of this without delay. If a bailiff intends to distraint the goods delivered, our ownership claims are to be put forward to the bailiff, quoting the name and address of our company. The customer must compensate us for all losses and costs that arise from breach of these obligations and for the intervention measures necessary against third party claims on the goods.

6. Guarantee, limitation of liability and release from liability

6.1. The customer must thoroughly inspect any delivery immediately upon receipt. Complaints about incomplete delivery or arising from defects discovered are to be reported in writing within 8 days following receipt of the individual deliveries, otherwise the delivery is deemed to be accepted without reservation and claims for these under the guarantee or for damage/losses are waived. The defect is to be clearly indicated as to its nature and extent so that we can clearly identify the basis of the complaint. The customer is obliged to look after the temporary storage of the goods complained about. In addition, we are liable for defects in the delivery with the exclusion of other claims, as follows: We may choose either to repair or replace free of charge all such parts that evidently become unusable or whose usability has been significantly affected as a result of a circumstance prevailing before the transfer of risk, in particular as a result of defective design, poor materials or defective work within six months counting from the delivery date. Normal wear and tear, incorrect treatment, excessive use, neglect and changes without our consent invalidate the guarantee. Guarantee claims can only be recognised if they are made to us in writing without delay after discovery of the fault. Such parts must be sent to us carriage paid. The replaced part becomes our property upon replacement delivery or issue of a credit note.

6.2. Outside the area of applicability of the Produkthaftungsgesetz (PHG, Product Liability Act) our liability is limited to deliberate act and severe gross negligence. Our liability for simple gross negligence and slight negligence, compensation for consequential loss and damage to property, savings not achieved, loss of interest and for losses arising from third party claims against the customer are excluded. Redress against us in accordance with § 12 PHG is excluded.

6.3. We are liable only for our own content on the website of our online shop. In so far as we provide access to other websites with links, we are not liable for the third party content contained therein. We do not adopt the third party content. If we become aware of illegal content on external websites, we will block access to these sites without delay.

7. Acceptance, call-off, return

7.1. Goods purchased on call-off are to be accepted within twelve months of the order date. In the event of them not being accepted on time, we are entitled to store the goods ready for dispatch at the customer's expense and risk and to invoice for them as if delivered including all costs incurred. In the event of delay in acceptance beyond the above-mentioned twelve-month period, we are in any event entitled to withdraw from the contract and to demand a 10% cancellation fee from the customer without prejudice to further claims.

7.2. Without exception, goods ordered are not taken back. Therefore returns are not accepted and they are returned at the customer's expense and risk.

8. Intellectual property rights, drawings, samples

The customer is liable for ensuring that the intellectual property rights of third parties, in particular trade mark, sample and patent rights and copyright, are not infringed by its specifications or by the use of drawings, samples and other implementation specifications provided to us. The customer is obliged to indemnify us against any losses or complaints arising from this. No liability is accepted for loss or damage to the documents provided to us. Insurance against this will only be taken out on the customer's express instruction and at its expense.

9. Data protection

9.1. With our "Data protection information" we inform our customers about: the nature, extent and purpose of the recording, processing and use of the personal data required for fulfilling orders and invoicing;

his rights to object to the production and use of his anonymised use profile for purposes of advertising and for the design of our product range in line with demand; the passing on of data to companies engaged by us and obliged to observe the statutory provisions of data protection for the purpose and duration of the creditworthiness check and the dispatch of the goods; the right to information free of charge regarding his personal data stored by us;

the right to the correction, deletion and blocking of his personal data stored by us;

Any recording, processing or use of the personal data going beyond Point 1 requires the customer's consent. The customer has an option to grant this consent before giving his order. The customer is entitled to withdraw consent at any time with future effect. (See "Data protection law consent").

10. General, place of fulfilment, place of jurisdiction, choice of law

10.1. The legal invalidity of a part of these sales and supply terms & conditions does not affect the remaining terms. It is the version of these STCs valid at the date of conclusion of the contract that applies in each case.

10.2. The place of fulfilment for delivery and payment is exclusively

A 5412 Puch bei Hallein, in so far as not stated otherwise on the order confirmation.

10.3. Salzburg is the exclusive place of jurisdiction for all disputes arising directly or indirectly from this contractual relationship.

10.4. These STCs and the contracts to be signed under these STCs are subject to Austrian property law, with the exclusion of the reference provisions of the UN Convention on Contracts for the International Sale of Goods (CISG).

10.5. Consumers' statutory rights under the Konsumentenschutzgesetz (Consumer Protection Act) are not restricted by the above-mentioned terms.

ES Condiciones de venta y entrega

1. Ofertas, pedidos, precios

1.1. Las siguientes condiciones de venta y suministro se aplican a todos los contratos celebrados con la empresa. Solo serán vinculantes otras condiciones si las hemos aceptado por escrito. Esto se aplica igualmente en el caso de que el comprador remita a sus propias condiciones de compra. Los acuerdos verbales que supongan una obligación adicional para nosotros solo serán vinculantes si los hemos confirmado previamente por escrito.

1.2. Precios sin compromiso. Los importes incluidos en la lista de precios corresponden a las normas vigentes y se modificarán de modo correspondiente al cambiar dichas normas.

1.3. Nuestros precios no incluyen el IVA vigente de fábrica. El embalaje, la carga y los costes del seguro de transportes son responsabilidad del comprador.

1.4. Los productos solicitados electrónicamente se confirmarán inmediatamente tras recibir el pedido del cliente. La confirmación de la recepción no supone una declaración vinculante de la aceptación del pedido, a menos que así lo declaramos de forma expresa. En el caso de productos solicitados electrónicamente estamos autorizados a aceptar el pedido transcurridos tres días laborales desde la recepción.

2. Periodo de pago, condiciones de pago, renuncia

2.1. El importe neto y sin deducciones de las facturas ha de pagarse en los 30 días posteriores a la fecha de la factura. El precio de venta habrá de abonarse de inmediato si el comprador incurre en demora con otras obligaciones de pago. Al superar el plazo de pago, se cargará un interés por demora del 12 %, salvo en caso de que se hagan efectivos daños por demora adicionales.

2.2. El comprador tiene derecho a una compensación solo si sus reclamaciones son jurídicamente válidas o las hemos reconocido nosotros.

2.3. Si el comprador incurre en demora del pago en más de 30 días, se procederá a iniciar un embargo o si empeora notablemente su situación financiera, tenemos derecho a renunciar a todos los contratos de suministro aún pendientes o a exigir el pago anticipado.

3. Suministro

3.1. Es posible realizar suministros parciales.

3.2. Nos esforzamos por mantener en la medida de lo posible los plazos de suministro. Los plazos de suministro no son vinculantes. Si el final del plazo de suministro coincide en el tiempo con las vacaciones de la empresa, el plazo de suministro se prolonga hasta el final de dichas vacaciones. En todo caso, se excluye el derecho a indemnizaciones o la anulación del contrato debido al retraso en el suministro si no puede demostrarse que se debe a negligencia muy grave por nuestra parte.

4. Cesión de riesgos

El envío se realiza siempre por cuenta y riesgo del comprador. No nos hacemos responsables de los daños y las pérdidas causadas por el transporte. La ausencia de instrucciones especiales de envío por parte del comprador causa que hagamos el envío según nuestro mejor parecer. Si el comprador no da ninguna instrucción en relación con el seguro para los daños originados durante el transporte, nos reservamos el derecho de transferirlo al comprador sin previo aviso. No obstante, no estamos obligados a contratar ningún seguro.

5. Reserva de propiedad

La mercancía entregada sigue siendo de nuestra propiedad hasta el pago completo de todas las obligaciones originadas por el contrato de suministro, independientemente de la cesión de riesgos anterior. Mientras la mercancía sea de nuestra propiedad, el comprador no tiene derecho a darla en prenda a terceros o transferirla como garantía. Si un tercero amenaza nuestra propiedad, debemos ser informados de inmediato. Si un agente judicial pretende embargar la mercancía suministrada, habrá de indicarse al agente judicial la propiedad y mencionar la empresa y la dirección. El comprador deberá abonarnos todos los daños y costes que se han originado por la vulneración de estas obligaciones y las medidas necesarias contra el acceso de terceros a la mercancía.

6. Garantía, limitación de responsabilidad y exención de responsabilidad

6.1. El comprador debe comprobar de inmediato el suministro tras su recepción. Las reclamaciones por la omisión de productos en el envío o deficiencias en los productos han de comunicarse por escrito en un periodo de 8 días tras la recepción de cada suministro; en caso contrario, se considera que el suministro se ha recibido correctamente y que se renuncia a cualquier reclamación de la garantía y derecho al pago de indemnizaciones. El tipo y el alcance de las deficiencias han de describirse claramente, de forma que podamos reconocer con facilidad el motivo de la reclamación. El comprador está obligado a almacenar temporalmente la mercancía objeto de la reclamación. Asimismo somos responsables de las deficiencias del suministro excluyendo los derechos siguientes: nosotros decidimos si es preciso reparar o sustituir las piezas que, en un plazo de seis meses a partir de la fecha de entrega, no puedan usarse o su uso haya resultado mermado notablemente y de forma evidente como consecuencia de una situación previa a la cesión de riesgos, en especial debido a un diseño defectuoso, materiales deficientes o fabricación incorrecta. El desgaste natural, el manejo inadecuado, el uso excesivo, la negligencia y la ejecución de modificaciones sin nuestra autorización son causa de anulación de la garantía. Solo se reconocerán los derechos de garantía si se nos ha comunicado por escrito inmediatamente después de haber detectado la deficiencia. Dichas piezas han de enviarse con los portes pagados. La pieza sustituida es de nuestra propiedad tras el envío de sustitución o tras realizar un abono en cuenta.

6.2. Fuera del ámbito de aplicación de la ley austriaca de responsabilidad por productos defectuosos, nuestra responsabilidad se limita a la culpa intencional y la culpa muy grave. No se incluye la responsabilidad por culpa grave y leve, la indemnización por daños directos y daños patrimoniales, ahorros no logrados, pérdida de intereses y daños por reclamaciones de terceros al comprador. Según el art. 12 de la ley austriaca de responsabilidad por productos defectuosos se excluyen los recursos a la empresa.

6.3. Solo nos hacemos responsables de los contenidos propios del sitio web de nuestra tienda en línea. Aunque facilitamos el acceso mediante enlaces a otros sitios web, no nos hacemos responsables del contenido ajeno de dichos sitios. No tenemos la propiedad de los contenidos ajenos. En el momento en el que tengamos conocimiento de contenidos ilegales en sitios web externos, bloquearemos de inmediato el acceso a estas páginas.

7. Aceptación, reclamación de la entrega, devolución

7.1. La mercancía adquirida a demanda debe aceptarse en un plazo de 12 meses a partir de la fecha del pedido. Si no se acepta en este plazo de tiempo, tenemos derecho a almacenar la mercancía lista para enviar por cuenta y riesgo del comprador y facturarla como si se hubiera entregado, incluyendo todos los costes derivados. En el caso de demora en la aceptación, transcurridos los doce meses antes mencionados, tenemos derecho a desistir del contrato y a demandar al comprador una tasa de cancelación del 10 % sin perjuicio de otras reclamaciones.

7.2. La mercancía pedida no podrá devolverse en ningún caso. Por dicho motivo no se aceptará ningún envío de devolución y se devolverá al comprador por su cuenta y riesgo.

8. Derechos de propiedad intelectual, diseños, muestras

El comprador es responsable de que no se infrinjan los derechos de propiedad intelectual de terceros, en especial los derechos de marcas, muestras, patentes y de autor, por sus especificaciones o el uso de diseños, muestras y otras especificaciones de ejecución puestos a nuestra disposición. El comprador está obligado a indemnizarnos por cualquier pérdida o reclamación que se derive. No nos responsabilizamos de la pérdida o el daño de los documentos que se hayan puesto a nuestra disposición. Solo se suscribirá un seguro si el comprador así lo solicita de forma expresa y a sus expensas.

9. Protección de datos

9.1. Nuestra "información sobre la protección de datos" ofrece a nuestros clientes más información acerca de:

- El tipo, el alcance y el objeto de la recopilación, el procesamiento y el uso de los datos personales necesarios para la ejecución de pedidos y facturas;
- Su derecho de oposición a la creación y uso de un perfil anónimo para publicidad y la adaptación de nuestra oferta a la demanda;
- La transmisión de datos a empresas contratadas por nosotros y obligadas a observar las disposiciones legales de la protección de datos con el objeto y la duración de la verificación de la solvencia, así como el envío de la mercancía;
- El derecho a la información gratuita acerca de sus datos personales guardados;
- El derecho a la rectificación, la eliminación y el bloqueo de los datos personales guardados;
- Es necesaria la autorización del cliente para cualquier recopilación, procesamiento y uso de los datos personales derivados del punto 1. El cliente tiene la posibilidad de conceder esta autorización antes de realizar el pedido. El cliente tiene el derecho de retirar en cualquier momento su autorización con efecto futuro (véase "Autorización conforme con el derecho de protección de datos").

10. Generalidades, lugar de ejecución, jurisdicción, legislación aplicable

10.1. La invalidez legal de una parte de estas condiciones de venta y suministro no afecta a la validez de las restantes disposiciones. Se aplica la versión de las condiciones generales de contratación vigente en el momento de la celebración del contrato.

10.2. El lugar de ejecución del suministro y el pago es únicamente A 5412 Puch en Hallein (Austria), a menos que en la confirmación del contrato se indique lo contrario.

10.3. Salzburgo es la única jurisdicción para cualquier disputa que se derive directa o indirectamente de este contrato.

10.4. Estas condiciones y los contratos celebrados según estas condiciones están sujetos al derecho austriaco, con la excepción de las normas de reenvío y la convención de las Naciones Unidas sobre los contratos de compraventa internacional (CISG).

10.5. Los derechos preceptivos de los consumidores según la ley de protección de consumidores no quedan limitados por las condiciones antes mencionadas.



Art.Nr: 0099900123100

Überreicht durch:
With the compliments of:
Recomendado por:

ÖSTERREICH

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