

SILMAX

QUALITY AS A STANDARD

PUNTE A CANNONE

GUN DRILLS
EINLIPPENBOHRER
FORETS 1 LÈVRE



SILMAX.IT

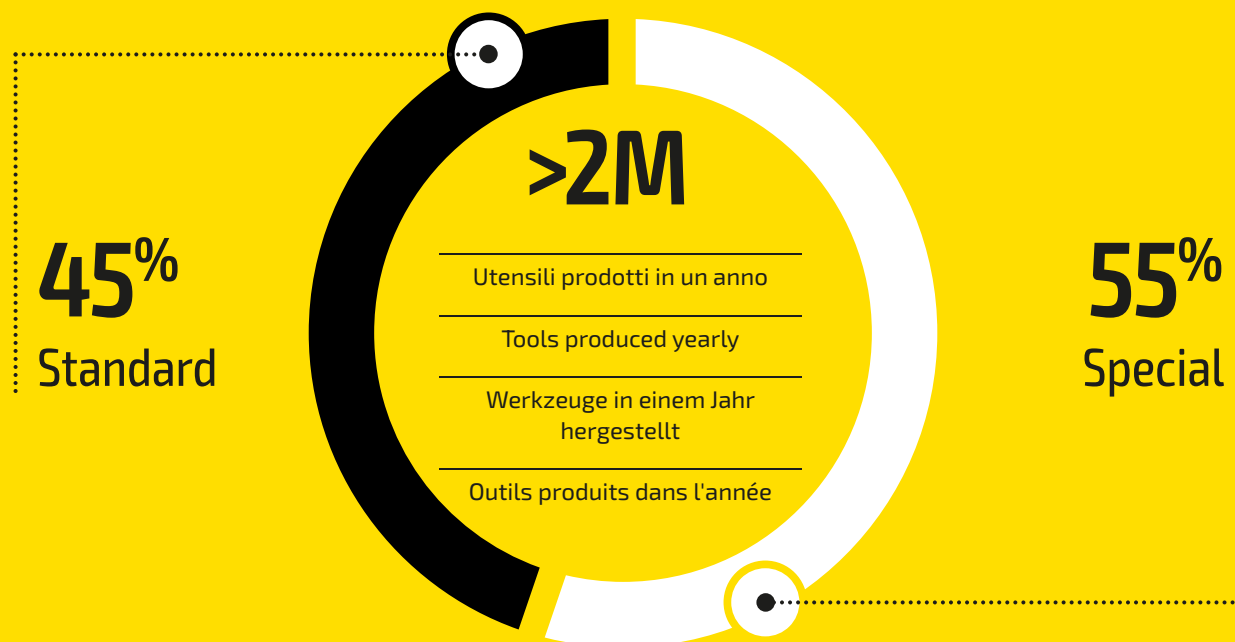
PRODOTTI SPECIALI

SPECIAL TOOLS / SPEZIELLE PRODUKTE / PRODUITS SPÉCIAUX



I NUMERI DI SILMAX

SILMAX FIGURES / SILMAX ZAHLEN / CHIFFRES SILMAX



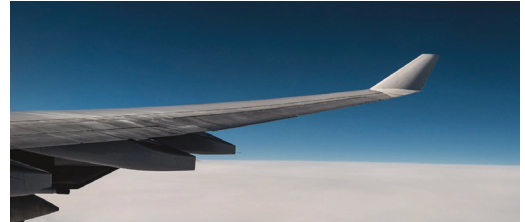
I NOSTRI MERCATI

OUR MARKETS / UNSERE MÄRKTE / LES PRINCIPAUX SECTEURS

1

Aereonautica

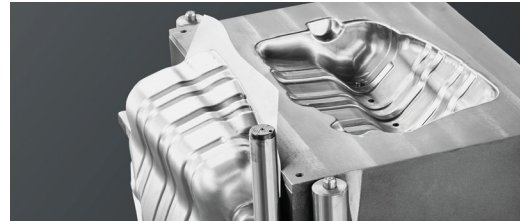
Aerospace
Luftfahrtbereich
Aéronautique



2

Stampi

Molds
Formenbau
Moules



3

Automobilistico

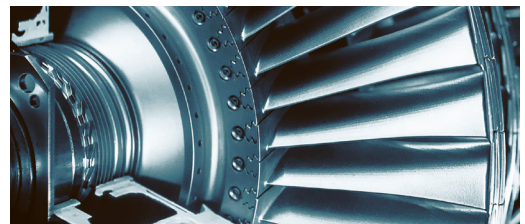
Automotive
Automobil
Automobile



4

Energia

Energy
Energie
Énergie



5

Meccanica generale

General Mechanics
Allgemeine Mechanik
Mécanique générale



6

Medicale

Medical
Medizinischer Bereich
Médical



LA FORATURA PROFONDA

DEEP DRILLING / DAS TIEFLOCHBOHREN / LE FORAGE PROFOND

La punta a cannone monotagliante risulta essere, nel campo della foratura profonda, un'ottima combinazione tra prestazione e versatilità permettendo di ottenere un'eccellente qualità superficiale del foro, mantenendo allo stesso tempo ridotte le tolleranze e la scentratura del foro stesso rispetto all'asse di foratura.

Le punte a cannone trovano impiego nei più svariati settori a partire dal medicale, automotive, aerospace, stampi e matrici, per arrivare a quello della meccanica generale. Il processo di foratura profonda con le punte a cannone non è limitato a macchine specifiche per questo tipo di processo, ma può essere applicato anche su macchine moderne di fresatura e tornitura a controllo numerico. In tutte le condizioni di utilizzo le caratteristiche di base che contraddistinguono le punte a cannone rispetto ad altre soluzioni simili rimangono pressoché invariate.

Im Bereich des Tieflochbohrens ist der **Einlippenbohrer eine hervorragende** Kombination aus Leistung und Vielseitigkeit, die eine ausgezeichnete Oberflächengüte der Bohrung ermöglicht, unter Beibehaltung geringerer Toleranzen sowie aussermittigen Bohrungen im Vergleich zur Bohrachse.

Einlippenbohrer werden unterschiedlichst eingesetzt, im medizinischen Bereich, in der Automobil- und Luftfahrtindustrie, im Formen- und allgemeinen Mechanik. Der Tiefbohrprozess mit Einlippenbohrer ist nicht auf spezielle Maschinen für diesen Prozess beschränkt, sondern kann auch bei modernen CNC-Fräs- und Drehmaschinen angewendet werden. Unter allen Einsatzbedingungen bleiben die grundlegenden Eigenschaften der Einlippenbohrer im Vergleich zu anderen ähnlichen Lösungen nahezu unverändert.

In the field of deep hole drilling, **single-flute gun drills** are an excellent combination between superior performance and versatility, allowing to obtain holes with an outstanding surface quality, while, at the same time, maintaining reduced tolerances and limited drifts of the hole around the drill axis.

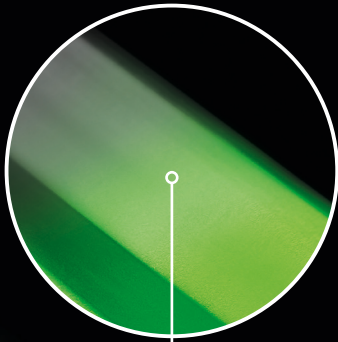
Gun drills are used in a variety of fields, including the medical, automotive, aerospace, mould & die sectors, as well as that of general mechanics. The deep hole drilling process using gun drills is not limited to specific machines for this type of process, but it can also be applied to modern CNC milling and turning machines. Under all conditions of use, the basic features that are typical of gun drills are almost unchanged compared to other similar solutions.

En matière de forage profond, **les forets à une lèvre** (forets $\frac{3}{4}$) offrent une excellente combinaison entre haute performance et versatilité, en permettant d'obtenir une exceptionnelle qualité de surface des trous et de maintenir aussi des tolérances réduites et une déviation minimale du trou par rapport à l'axe de perçage.

Les forets à une lèvre sont utilisés dans plusieurs secteurs, médical, automobile, aérospatial, moules & matrices et mécanique générale. Le processus de perçage profond avec les forets à une lèvre n'est pas limité aux machines spécifiques pour ce type de processus, mais il peut aussi être appliqué aux machines modernes de fraisage et tournage à commande numérique. Dans toutes les conditions d'utilisation, les caractéristiques de base des forets à une lèvre restent presque inchangées par rapport aux autres solutions similaires.

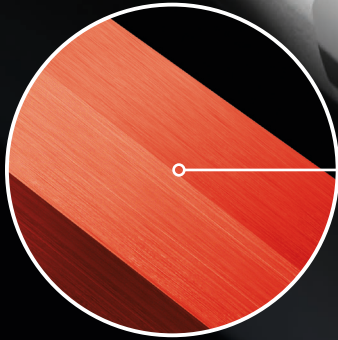
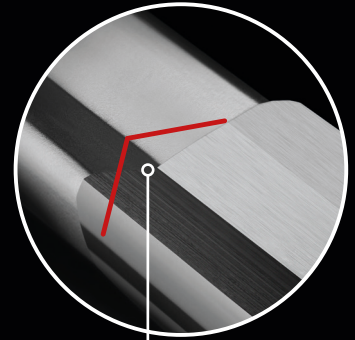
Tubo in acciaio bonificato di alta qualità

High-quality hardened and tempered steel tube
Rohr aus hochwertigem vergütetem stahl
Tube en acier trempé de haute qualité



Sede della cuspid e con forma a "V"

V-shaped head seat
Sitz des V-förmigen Hartmetallkopf
Siège de la tête de perçage en forme de V

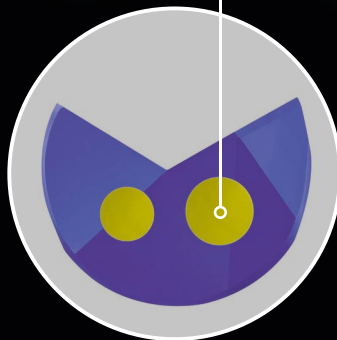


Substrato in micrograna K15 ottimale per un'ampia varietà di materiali

Micrograin k15 substrate optimal for a large variety of materials
Substrat in feinstkorn k15 optimal für eine hohe werkstoffvielfalt
Substrat micrograin k15 optimal pour une grande variété de matériaux

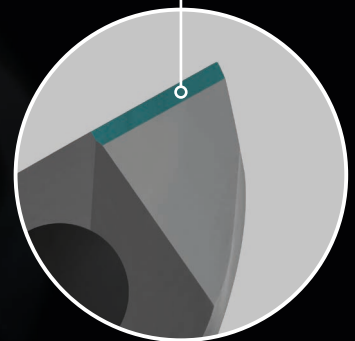
Doppio foro di refrigerante a partire dal diametro 8

Double hole for coolant starting from diameter 8
Zwei kühlmittellöcher ab durchmesser 8
Double trou liquide réfrigérant à partir du diamètre 8



Tagliente rinforzato

Reinforced cutting edge
Verstärkte schneidkante
Dents renforcé



PUNTE CANNONE MONOTAGLIENTI IN METALLO DURO INTEGRALE

L'utensile è realizzato da un unico pezzo, formato da un cilindretto in metallo duro che può essere abbinato a un codolo in acciaio saldobrasato nella parte finale dell'utensile. Questa soluzione garantisce processi particolarmente sicuri ed efficienti nonché una maggiore durata, grazie alle ridotte oscillazioni torsionali.

- Gamma diametri: 0,7 - 12,0 mm con incrementi da 1/1000 mm
- Lunghezza massima: 600 mm
- Lunghezza utile dell'utensile: 80 - 100 x D

VOLLHARTMETALL-EINLIPPENBOHRER

Das Werkzeug wird aus einem Stück gefertigt, bestehend aus einem HM-Profilstab, der mit einem am Ende des Werkzeugs gelöteten Stahlschaft kombiniert werden kann. Diese Lösung garantiert besonders sichere und effiziente Prozesse sowie eine längere Lebensdauer dank der geringen Torsionsschwingungen.

- Durchmesserbereich: 0,7 - 12,0 mm in Abstufungen von 1/1000 mm
- Maximale Länge: 600 mm
- Nützliche Werkzeuglänge: 80 - 100 x D

SOLID-CARBIDE, SINGLE-FLUTE GUN DRILLS

The tool is made of a single lump of metal, composed of a small carbide cylinder that can be matched with a brazed steel clamping sleeve in the final part of the tool. This solution ensures particularly safe and efficient processes, as well as a longer tool life, thanks to the reduced torsional oscillations.

- Diameter range: 0.7 - 12.0 mm with 1/1000 mm increases
- Maximum length: 600 mm
- Tool usable length: 80 - 100 x D

FORETS À UNE LÈVRE EN CARBURE MONOBLOC

L'outil est fabriqué à partir d'une seule pièce intégrant un petit cylindre en carbure qui peut être combiné avec un élément de serrage en acier brasé dans la partie terminale de l'outil. Cette solution garantit des processus particulièrement sûrs et efficaces et aussi une plus longue durée grâce aux réduites oscillations de torsion.

- Plage de diamètres: 0,7 - 12,0 mm avec incréments de 1/1000 mm
- Longueur maximale: 600 mm
- Longueur utile de l'outil: 80 - 100 x D



PUNTE A CANNONE MONOTAGLIENTI CON CUSPIDE SALDOBRASATA

È la soluzione più comunemente utilizzata sul mercato; realizzata con più elementi collegati tra di loro attraverso la saldobrasatura. L'utensile è composto da una cuspide in metallo duro e un corpo (stelo) e il codolo realizzati in acciaio bonificato.

È una tipologia di utensile molto versatile in quanto permette infinite personalizzazioni a livello di diametri, lunghezze e di codoli.

- Gamma diametri: 1,9 - 50,0 mm con incrementi da 1/1000 mm
- Lunghezza fino a 6000 mm
- Lunghezza utile dell'utensile: 40 - 50 x D

EINLIPPENBOHRER MIT GELÖTETEM HARTMETALLKOPF

Es ist die am häufigsten verwendete Lösung auf dem Markt; hergestellt aus mehreren Elementen, die durch Schweißlöten miteinander verbunden sind. Das Werkzeug besteht aus einem Hartmetallkopf und dem Schaft aus vergütetem Stahl.

Es ist eine sehr vielseitige Art von Werkzeug, da es unendlich viele Anpassungen auf Ebene der Durchmesser, Längen und Schäfte ermöglicht.

- Durchmesserbereich: 1,9 - 50,0 mm in Abstufungen von 1/1000 mm
- Länge bis 6000 mm
- Nutzlänge: 40 - 50 x D

SINGLE-FLUTE GUN DRILLS WITH BRAZED DRILL HEAD

It is the most commonly used solution in the market, developed with more elements brazed together. The tool is composed of a carbide drill head, a body (shank) and a clamping sleeve made of hardened and tempered steel.

It is a very versatile type of tool, as it enables an endless number of customised versions in terms of diameters, lengths and clamping sleeves.

- Diameter range: 1.9 - 50.0 mm with 1/1000 mm increases
- Length up to 6000 mm
- Usable tool length: 40 - 50 x D

FORETS À UNE LÈVRE AVEC TÊTE DE PERÇAGE BRASÉE

C'est la solution plus couramment utilisée sur le marché, réalisée avec plusieurs éléments brasés entre eux. L'outil est composé d'une tête en carbure. D'un corps (tige) et d'un élément de serrage en acier trempé.

Il s'agit d'un type d'outil très polyvalent, parce qu'il permet d'innombrables customisations en ce qui concerne diamètres, longueurs et élément de serrage.

- Plage de diamètres: 1,9 - 50,0 mm avec incréments de 1/1000 mm
- Longueur maximale 6000 mm
- Longueur utile de l'outil: 40 - 50 x D



PUNTE A CANNONE

GUN DRILLS / EINLIPPENBOHRE /
FORETS 1 LÈVRE

Codice
Code

Ø
(Dmm)


Z

UTENSILI STANDARD

STANDARD TOOLS / STANDARDWERZEUGE / OUTILS STANDARD



Punte per centri di lavoro

Drills for machining centres / Bohrer für Bearbeitungszentren /
Forets pour centres d'usinage

	5001	3,0 ÷ 36,0	1
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Punte per macchine per foratura profonda

Drills for deep-hole drilling machines / Bohrer für Maschinen zur
Tieflochbohrung / Forets pour machines de forage profond

	5002	3,0 ÷ 36,0	1
	5003	8,0 ÷ 12,0	1

PARTE TECNICA

TECHNICAL SECTION / TECHNISCHER TEIL / SECTION TECHNIQUE

ACCESSORI

ACCESSORIES / ZUBEHÖR / ACCESSOIRES



Bussole antivibranti
ANTI-VIBRANT DRILLING BUSHES
SCHWINGUNGSDÄMPFENDE BUCHSEN
CANONS DE PERÇAGE ANTI-VIBRATIONS



Dischi di tenuta in Vulkollan
VULKOLLAN SEALING DISCS
DICHTSCHEIBEN IN VULKOLLAN
DISQUES D'ÉTANCHÉITÉ VULKOLLAN

UTENSILI SPECIALI

SPECIAL TOOLS / SONDERWERKZEUGE / OUTILS SPÉCIAUX

SERVIZIO DI RIAFFILATURA E RIGENERAZIONE

RE-SHARPENING AND REGENERATION SERVICE / SERVICE FÜR NACHSCHLIFF
UND REGENERATION / SERVICE DE RÉAFFÛTAGE ET RÉGÉNÉRATION



P
Acciaio
Steel
Stahl
Acier

H
Acciaio Temprato
Hardened Steel
Gehärteter Stahl
Acier trempé

K
Ghisa
Cast Iron
Gusseisen
Fonte

M
Acciaio Inox
Stainless Steel
Edelstahl
Acier Inoxydable

S
HRSA - Titanio
HRSA - Titanium
HRSA - Titan
HRSA - Titane

N
Metalli non ferrosi
Non-ferrous metals
NE-Metalle
Matières non
ferreuses

O
NON ISO
Not ISO
Keine ISO
Pas d'ISO

Pagina
Page
Seite
Page

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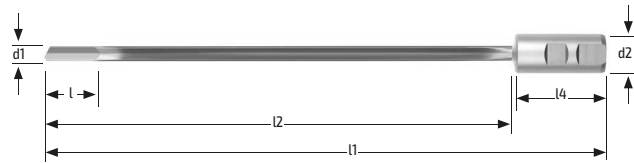
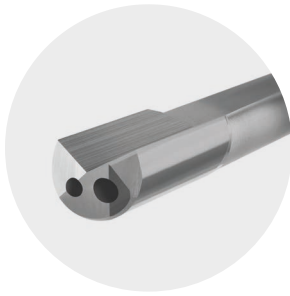
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PUNTE PER CENTRI DI LAVORO

DRILLS FOR MACHINING CENTRES / BOHRER FÜR BEARBEITUNGSZENTREN
FORETS POUR CENTRES D'USINAGE

5001

Punte a cannone monotaglianti con cuspidi in metallo duro saldobrasata per centri di lavoro
Single-lip brazed gun drills with carbide head for machining centres
Einlappenbohrer für Bearbeitungszentren
Forets 1 lèvre brasés avec une tête en carbure pour centres d'usinage



d1 h5	d2 h6	l	l2	l4	l1		Stock
3,0	16	20	150	48	200	PCS50010001	●
3,0	16	20	200	48	250	PCS50010002	●
3,0	16	20	250	48	300	PCS50010003	●
4,0	16	23	150	48	200	PCS50010004	●
4,0	16	23	200	48	250	PCS50010005	●
4,0	16	23	250	48	300	PCS50010006	●
4,0	16	23	300	48	350	PCS50010007	●
4,0	16	23	350	48	400	PCS50010008	●
5,0	16	27	150	48	200	PCS50010009	●
5,0	16	27	200	48	250	PCS50010010	●
5,0	16	27	250	48	300	PCS50010011	●
5,0	16	27	300	48	350	PCS50010012	●
5,0	16	27	350	48	400	PCS50010013	●
5,0	16	27	400	48	450	PCS50010014	●
6,0	25	33	142	56	200	PCS50010015	●
6,0	25	33	192	56	250	PCS50010016	●
6,0	25	33	242	56	300	PCS50010017	●
6,0	25	33	292	56	350	PCS50010018	●
6,0	25	33	342	56	400	PCS50010019	●
6,0	25	33	392	56	450	PCS50010020	●
6,0	25	33	442	56	500	PCS50010021	●
6,5	25	33	142	56	200	PCS50010022	●
6,5	25	33	242	56	300	PCS50010023	●
6,5	25	33	342	56	400	PCS50010024	●
7,0	25	33	142	56	200	PCS50010025	●
7,0	25	33	242	56	300	PCS50010026	●

P

Acciaio
Steel
Stahl
Acier

H

Acciaio Temprato
Hardened Steel
Gehärteter Stahl
Acier trempé

K

Ghisa
Cast Iron
Gusseisen
Fonte

M

Acciaio Inox
Stainless Steel
Edelstahl
Acier Inoxydable

S

HRSA - Titanio
HRSA - Titanium
HRSA - Titan
HRSA - Titane

N

Metalli non ferrosi
Non-ferrous metals
NE-Metalle
Matières non ferreuses

O

NON ISO
Not ISO
Keine ISO
Pas d'ISO

● **Disponibilità pronta consegna**
Availability for prompt delivery

● **Consegna 5 giorni data ordine**
Delivery 5 days order date

○ **Disponibilità su richiesta**
Availability on request

d1 h5	d2 h6	l	l2	l4	l1		Stock
7,0	25	33	342	56	400	PCS50010027	●
8,0	25	37	142	56	200	PCS50010028	●
8,0	25	37	192	56	250	PCS50010029	●
8,0	25	37	242	56	300	PCS50010030	●
8,0	25	37	292	56	350	PCS50010031	●
8,0	25	37	342	56	400	PCS50010032	●
8,0	25	37	392	56	450	PCS50010033	●
8,0	25	37	442	56	500	PCS50010034	●
8,0	25	37	492	56	550	PCS50010035	●
8,0	25	37	542	56	600	PCS50010036	●
8,0	25	37	592	56	650	PCS50010037	●
8,0	25	37	642	56	700	PCS50010038	●
8,5	25	37	242	56	300	PCS50010039	●
8,5	25	37	342	56	400	PCS50010040	●
8,5	25	37	442	56	500	PCS50010041	●
8,5	25	37	542	56	600	PCS50010042	●
9,0	25	37	142	56	200	PCS50010043	●
9,0	25	37	192	56	250	PCS50010044	●
9,0	25	37	242	56	300	PCS50010045	●
9,0	25	37	292	56	350	PCS50010046	●
9,0	25	37	342	56	400	PCS50010047	●
9,0	25	37	392	56	450	PCS50010048	●
9,0	25	37	442	56	500	PCS50010049	●
9,0	25	37	492	56	550	PCS50010050	●
9,0	25	37	542	56	600	PCS50010051	●
9,0	25	37	592	56	650	PCS50010052	●
9,0	25	37	642	56	700	PCS50010053	●
10,0	25	37	142	56	200	PCS50010054	●
10,0	25	37	192	56	250	PCS50010055	●
10,0	25	37	242	56	300	PCS50010056	●
10,0	25	37	292	56	350	PCS50010057	●
10,0	25	37	342	56	400	PCS50010058	●
10,0	25	37	392	56	450	PCS50010059	●
10,0	25	37	442	56	500	PCS50010060	●
10,0	25	37	492	56	550	PCS50010061	●
10,0	25	37	542	56	600	PCS50010062	●
10,0	25	37	592	56	650	PCS50010063	●
10,0	25	37	642	56	700	PCS50010064	●
10,0	25	37	742	56	800	PCS50010065	●
11,0	25	37	142	56	200	PCS50010066	●
11,0	25	37	192	56	250	PCS50010067	●
11,0	25	37	242	56	300	PCS50010068	●
11,0	25	37	292	56	350	PCS50010069	●
11,0	25	37	342	56	400	PCS50010070	●
11,0	25	37	392	56	450	PCS50010071	●
11,0	25	37	442	56	500	PCS50010072	●
11,0	25	37	492	56	550	PCS50010073	●
11,0	25	37	542	56	600	PCS50010074	●
11,0	25	37	592	56	650	PCS50010075	●
11,0	25	37	642	56	700	PCS50010076	●
11,0	25	37	742	56	800	PCS50010077	●
12,0	25	42	142	56	200	PCS50010078	●
12,0	25	42	192	56	250	PCS50010079	●
12,0	25	42	242	56	300	PCS50010080	●
12,0	25	42	292	56	350	PCS50010081	●
12,0	25	42	342	56	400	PCS50010082	●

5001

Punte a cannone monotaglianti con cuspidi in metallo duro saldobrasata per centri di lavoro
 Single-lip brazed gun drills with carbide head for machining centres
 Einlippenbohrer für Bearbeitungszentren
 Forets 1 lèvre brasés avec une tête en carbure pour centres d'usinage

d1 h5	d2 h6	l	l2	l4	l1		Stock
12,0	25	42	392	56	450	PCS50010083	●
12,0	25	42	442	56	500	PCS50010084	●
12,0	25	42	492	56	550	PCS50010085	●
12,0	25	42	542	56	600	PCS50010086	●
12,0	25	42	592	56	650	PCS50010087	●
12,0	25	42	642	56	700	PCS50010088	●
12,0	25	42	742	56	800	PCS50010089	●
13,0	25	42	242	56	300	PCS50010090	●
13,0	25	42	342	56	400	PCS50010091	●
13,0	25	42	442	56	500	PCS50010092	●
13,0	25	42	542	56	600	PCS50010093	●
14,0	25	42	242	56	300	PCS50010094	●
14,0	25	42	292	56	350	PCS50010095	●
14,0	25	42	342	56	400	PCS50010096	●
14,0	25	42	392	56	450	PCS50010097	●
14,0	25	42	442	56	500	PCS50010098	●
14,0	25	42	492	56	550	PCS50010099	●
14,0	25	42	542	56	600	PCS50010100	●
14,0	25	42	592	56	650	PCS50010101	●
14,0	25	42	642	56	700	PCS50010102	●
14,0	25	42	742	56	800	PCS50010103	●
15,0	25	40	242	56	300	PCS50010104	●
15,0	25	40	292	56	350	PCS50010105	●
15,0	25	40	342	56	400	PCS50010106	●
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15,0	25	40	442	56	500	PCS50010108	●
15,0	25	40	492	56	550	PCS50010109	●
15,0	25	40	542	56	600	PCS50010110	●
15,0	25	40	592	56	650	PCS50010111	●
15,0	25	40	642	56	700	PCS50010112	●
15,0	25	40	742	56	800	PCS50010113	●
16,0	25	40	242	56	300	PCS50010114	●
16,0	25	40	292	56	350	PCS50010115	●
16,0	25	40	342	56	400	PCS50010116	●
16,0	25	40	392	56	450	PCS50010117	●
16,0	25	40	442	56	500	PCS50010118	●
16,0	25	40	492	56	550	PCS50010119	●
16,0	25	40	542	56	600	PCS50010120	●
16,0	25	40	592	56	650	PCS50010121	●
16,0	25	40	642	56	700	PCS50010122	●
16,0	25	40	742	56	800	PCS50010123	●
17,0	25	40	242	56	300	PCS50010124	●
17,0	25	40	342	56	400	PCS50010125	●
17,0	25	40	442	56	500	PCS50010126	●
17,0	25	40	542	56	600	PCS50010127	●
17,0	25	40	742	56	800	PCS50010128	●
18,0	25	45	242	56	300	PCS50010129	●
18,0	25	45	342	56	400	PCS50010130	●
18,0	25	45	442	56	500	PCS50010131	●
18,0	25	45	542	56	600	PCS50010132	●
18,0	25	45	642	56	700	PCS50010133	●
18,0	25	45	742	56	800	PCS50010134	●
19,0	25	45	242	56	300	PCS50010135	●
19,0	25	45	342	56	400	PCS50010136	●
19,0	25	45	442	56	500	PCS50010137	●
19,0	25	45	542	56	600	PCS50010138	●

5001

Punte a cannone monotalgenti con cuspidi in metallo duro saldobrasata per centri di lavoro
 Single-lip brazed gun drills with carbide head for machining centres
 Einlippenbohrer für Bearbeitungszentren
 Forets 1 lèvre brasés avec une tête en carbure pour centres d'usinage

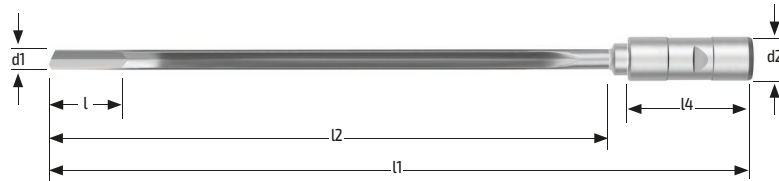
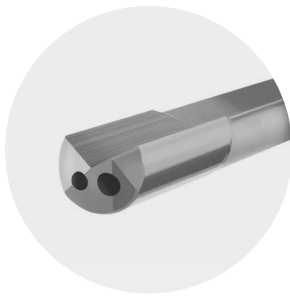
d1 h5	d2 h6	l	l2	l4	l1		Stock
19,0	25	45	642	56	700	PCS50010139	●
19,0	25	45	742	56	800	PCS50010140	●
20,0	32	45	238	60	300	PCS50010141	●
20,0	32	45	338	60	400	PCS50010142	●
20,0	32	45	438	60	500	PCS50010143	●
20,0	32	45	538	60	600	PCS50010144	●
20,0	32	45	638	60	700	PCS50010145	●
20,0	32	45	738	60	800	PCS50010146	●
21,0	32	50	338	60	400	PCS50010147	●
21,0	32	50	438	60	500	PCS50010148	●
21,0	32	50	538	60	600	PCS50010149	●
22,0	32	50	338	60	400	PCS50010150	●
22,0	32	50	438	60	500	PCS50010151	●
22,0	32	50	538	60	600	PCS50010152	●
22,0	32	50	638	60	700	PCS50010153	●
22,0	32	50	738	60	800	PCS50010154	●
23,0	32	55	338	60	400	PCS50010155	●
23,0	32	55	538	60	600	PCS50010156	●
24,0	32	55	338	60	400	PCS50010157	●
24,0	32	55	438	60	500	PCS50010158	●
24,0	32	55	538	60	600	PCS50010159	●
24,0	32	55	638	60	700	PCS50010160	●
24,0	32	55	738	60	800	PCS50010161	●
25,0	32	55	308	60	400	PCS50010162	●
25,0	32	55	408	60	500	PCS50010163	●
25,0	32	55	508	60	600	PCS50010164	●
25,0	32	55	608	60	700	PCS50010165	●
25,0	32	55	708	60	800	PCS50010166	●
26,0	32	65	308	60	400	PCS50010167	●
26,0	32	65	508	60	600	PCS50010168	●
26,0	32	65	708	60	800	PCS50010169	●
27,0	32	65	308	60	400	PCS50010170	●
27,0	32	65	508	60	600	PCS50010171	●
27,0	32	65	708	60	800	PCS50010172	●
28,0	32	65	308	60	400	PCS50010173	●
28,0	32	65	508	60	600	PCS50010174	●
28,0	32	65	708	60	800	PCS50010175	●
30,0	32	65	301	60	400	PCS50010176	●
30,0	32	65	501	60	600	PCS50010177	●
30,0	32	65	701	60	800	PCS50010178	●
32,0	32	65	301	60	400	PCS50010179	●
32,0	32	65	501	60	600	PCS50010180	●
32,0	32	65	701	60	800	PCS50010181	●
33,0	32	75	301	60	400	PCS50010182	●
33,0	32	75	501	60	600	PCS50010183	●
33,0	32	75	701	60	800	PCS50010184	●
34,0	32	75	301	60	400	PCS50010185	●
34,0	32	75	501	60	600	PCS50010186	●
34,0	32	75	701	60	800	PCS50010187	●
35,0	32	75	301	60	400	PCS50010188	●
35,0	32	75	501	60	600	PCS50010189	●
35,0	32	75	701	60	800	PCS50010190	●
36,0	32	75	301	60	400	PCS50010191	●
36,0	32	75	501	60	600	PCS50010192	●
36,0	32	75	701	60	800	PCS50010193	●

PUNTE PER MACCHINE PER FORATURA PROFONDA

DRILLS FOR DEEP-HOLE DRILLING / BOHRER FÜR MASCHINEN ZUR TIEFLONCHBOHRUNG / FORETS POUR MACHINES DE PERÇAGE PROFOND

5002

Punte a cannone monotalgenti con cuspidi in metallo duro saldobrasata per foratrici
 Single-lip brazed gun drills with carbide head for drilling machines
 Einlippenbohrer für Tiefbohrmaschinen
 Forets 1 lèvre brasés avec une tête en carbure pour machines de perçage



d1 h5	d2 h6	l	l2	l4	l1		Stock
3,0	10	20	350	40	400	PCS50020001	●
3,0	10	20	450	40	500	PCS50020002	●
3,0	10	20	550	40	600	PCS50020003	●
4,0	10	23	650	40	700	PCS50020004	●
4,0	10	23	750	40	800	PCS50020005	●
4,0	10	23	850	40	900	PCS50020006	●
5,0	10	27	650	40	700	PCS50020007	●
5,0	10	27	750	40	800	PCS50020008	●
5,0	10	27	850	40	900	PCS50020009	●
5,0	10	27	950	40	1000	PCS50020010	●
6,0	25	33	700	70	800	PCS50020011	●
6,0	25	33	800	70	900	PCS50020012	●
6,0	25	33	900	70	1000	PCS50020013	●
6,0	25	33	1000	70	1100	PCS50020014	●
6,0	25	33	1100	70	1200	PCS50020015	●
6,0	25	33	1200	70	1300	PCS50020016	●
6,0	25	33	1350	70	1450	PCS50020017	●
6,5	25	33	700	70	800	PCS50020018	●
6,5	25	33	900	70	1000	PCS50020019	●
6,5	25	33	1100	70	1200	PCS50020020	●
6,5	25	33	1350	70	1450	PCS50020021	●
7,0	25	33	700	70	800	PCS50020022	●
7,0	25	33	900	70	1000	PCS50020023	●
7,0	25	33	1100	70	1200	PCS50020024	●
7,0	25	33	1350	70	1450	PCS50020025	●
8,0	25	37	700	70	800	PCS50020026	●

P

Acciaio
Steel
Stahl
Acier

H

Acciaio Temprato
Hardened Steel
Gehärteter Stahl
Acier trempé

K

Ghisa
Cast Iron
Gusseisen
Fonte

M

Acciaio Inox
Stainless Steel
Edelstahl
Acier Inoxydable

S

HRSA - Titanio
HRSA - Titanium
HRSA - Titan
HRSA - Titane

N

Metalli non ferrosi
Non-ferrous metals
NE-Metalle
Matières non ferreuses

O

NON ISO
Not ISO
Keine ISO
Pas d'ISO

● **Disponibilità pronta consegna**
Availability for prompt delivery

● **Consegna 5 giorni data ordine**
Delivery 5 days order date

○ **Disponibilità su richiesta**
Availability on request

d1 h5	d2 h6	l	l2	l4	l1		Stock
8,0	25	37	800	70	900	PCS50020027	●
8,0	25	37	900	70	1000	PCS50020028	●
8,0	25	37	1000	70	1100	PCS50020029	●
8,0	25	37	1100	70	1200	PCS50020030	●
8,0	25	37	1200	70	1300	PCS50020031	●
8,0	25	37	1350	70	1450	PCS50020032	●
8,0	25	37	1550	70	1650	PCS50020033	●
8,0	25	37	1600	70	1700	PCS50020034	●
8,0	25	37	1700	70	1800	PCS50020035	●
8,0	25	37	1900	70	2000	PCS50020036	●
8,5	25	37	700	70	800	PCS50020037	●
8,5	25	37	900	70	1000	PCS50020038	●
8,5	25	37	1100	70	1200	PCS50020039	●
8,5	25	37	1200	70	1300	PCS50020196	●
8,5	25	37	1350	70	1450	PCS50020040	●
8,5	25	37	1550	70	1650	PCS50020197	●
9,0	25	37	700	70	800	PCS50020041	●
9,0	25	37	800	70	900	PCS50020042	●
9,0	25	37	900	70	1000	PCS50020043	●
9,0	25	37	1000	70	1100	PCS50020044	●
9,0	25	37	1100	70	1200	PCS50020045	●
9,0	25	37	1200	70	1300	PCS50020046	●
9,0	25	37	1350	70	1450	PCS50020047	●
9,0	25	37	1550	70	1650	PCS50020048	●
9,0	25	37	1600	70	1700	PCS50020049	●
9,0	25	37	1700	70	1800	PCS50020050	●
9,0	25	37	1900	70	2000	PCS50020051	●
9,0	25	37	2100	70	2200	PCS50020193	●
10,0	25	37	700	70	800	PCS50020052	●
10,0	25	37	800	70	900	PCS50020053	●
10,0	25	37	900	70	1000	PCS50020054	●
10,0	25	37	1000	70	1100	PCS50020055	●
10,0	25	37	1100	70	1200	PCS50020056	●
10,0	25	37	1200	70	1300	PCS50020057	●
10,0	25	37	1350	70	1450	PCS50020058	●
10,0	25	37	1550	70	1650	PCS50020059	●
10,0	25	37	1600	70	1700	PCS50020060	●
10,0	25	37	1700	70	1800	PCS50020061	●
10,0	25	37	1900	70	2000	PCS50020062	●
10,0	25	37	2100	70	2200	PCS50020195	●
11,0	25	37	700	70	800	PCS50020063	●
11,0	25	37	800	70	900	PCS50020064	●
11,0	25	37	900	70	1000	PCS50020065	●
11,0	25	37	1000	70	1100	PCS50020066	●
11,0	25	37	1100	70	1200	PCS50020067	●
11,0	25	37	1200	70	1300	PCS50020068	●
11,0	25	37	1350	70	1450	PCS50020069	●
11,0	25	37	1550	70	1650	PCS50020070	●
11,0	25	37	1600	70	1700	PCS50020071	●
11,0	25	37	1700	70	1800	PCS50020072	●
11,0	25	37	1900	70	2000	PCS50020073	●
11,0	25	37	2100	70	2200	PCS50020074	●
11,5	25	42	700	70	800	PCS50020075	●
11,5	25	42	900	70	1000	PCS50020076	●
11,5	25	42	1100	70	1200	PCS50020077	●
11,5	25	42	1350	70	1450	PCS50020078	●
11,5	25	42	1550	70	1650	PCS50020079	●
11,5	25	42	1900	70	2000	PCS50020080	●

5002

Punte a cannone monotaglianti con cuspidi in metallo duro saldobrasata per foratrici
 Single-lip brazed gun drills with carbide head for drilling machines
 Einlippenbohrer für Tiefbohrmaschinen
 Forets 1 lèvre brasés avec une tête en carbure pour machines de perçage

d1 h5	d2 h6	l	l2	l4	l1		Stock
12,0	25	42	700	70	800	PCS50020081	●
12,0	25	42	800	70	900	PCS50020082	●
12,0	25	42	900	70	1000	PCS50020083	●
12,0	25	42	1000	70	1100	PCS50020084	●
12,0	25	42	1100	70	1200	PCS50020085	●
12,0	25	42	1200	70	1300	PCS50020086	●
12,0	25	42	1350	70	1450	PCS50020087	●
12,0	25	42	1550	70	1650	PCS50020088	●
12,0	25	42	1600	70	1700	PCS50020089	●
12,0	25	42	1700	70	1800	PCS50020090	●
12,0	25	42	1800	70	1900	PCS50020091	●
12,0	25	42	1900	70	2000	PCS50020092	●
12,0	25	42	2100	70	2200	PCS50020093	●
13,0	25	42	1350	70	1450	PCS50020094	●
13,0	25	42	1550	70	1650	PCS50020095	●
13,0	25	42	1900	70	2000	PCS50020096	●
14,0	25	42	900	70	1000	PCS50020097	●
14,0	25	42	1000	70	1100	PCS50020098	●
14,0	25	42	1100	70	1200	PCS50020099	●
14,0	25	42	1200	70	1300	PCS50020100	●
14,0	25	42	1350	70	1450	PCS50020101	●
14,0	25	42	1550	70	1650	PCS50020102	●
14,0	25	42	1600	70	1700	PCS50020103	●
14,0	25	42	1700	70	1800	PCS50020104	●
14,0	25	42	1800	70	1900	PCS50020105	●
14,0	25	42	1900	70	2000	PCS50020106	●
14,0	25	42	2100	70	2200	PCS50020107	●
15,0	25	40	900	70	1000	PCS50020108	●
15,0	25	40	1000	70	1100	PCS50020109	●
15,0	25	40	1100	70	1200	PCS50020110	●
15,0	25	40	1200	70	1300	PCS50020111	●
15,0	25	40	1350	70	1450	PCS50020112	●
15,0	25	40	1550	70	1650	PCS50020113	●
15,0	25	40	1600	70	1700	PCS50020114	●
15,0	25	40	1700	70	1800	PCS50020115	●
15,0	25	40	1800	70	1900	PCS50020116	●
15,0	25	40	1900	70	2000	PCS50020117	●
15,0	25	40	2100	70	2200	PCS50020118	●
16,0	25	40	900	70	1000	PCS50020119	●
16,0	25	40	1000	70	1100	PCS50020120	●
16,0	25	40	1100	70	1200	PCS50020121	●
16,0	25	40	1200	70	1300	PCS50020122	●
16,0	25	40	1350	70	1450	PCS50020123	●
16,0	25	40	1550	70	1650	PCS50020124	●
16,0	25	40	1600	70	1700	PCS50020125	●
16,0	25	40	1700	70	1800	PCS50020126	●
16,0	25	40	1800	70	1900	PCS50020127	●
16,0	25	40	1900	70	2000	PCS50020128	●
16,0	25	40	2100	70	2200	PCS50020129	●
16,5	25	40	2100	70	2200	PCS50020194	●
17,0	25	40	1350	70	1450	PCS50020130	●
17,0	25	40	1550	70	1650	PCS50020131	●
17,0	25	40	1700	70	1800	PCS50020132	●
17,0	25	40	1900	70	2000	PCS50020133	●
18,0	25	45	1350	70	1450	PCS50020134	●
18,0	25	45	1550	70	1650	PCS50020135	●

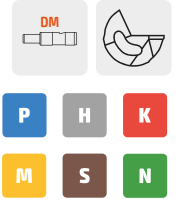
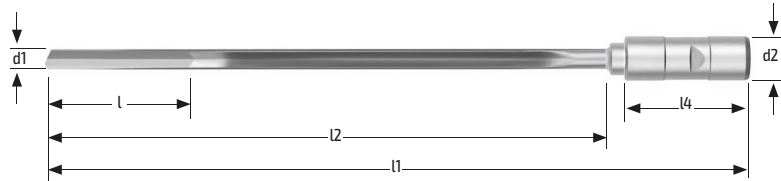
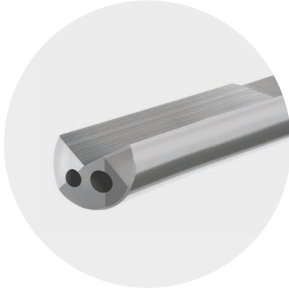
5002

Punte a cannone monotalgenti con cuspidi in metallo duro saldobrasata per foratrici
 Single-lip brazed gun drills with carbide head for drilling machines
 Einlippenbohrer für Tiefbohrmaschinen
 Forets 1 lèvre brasés avec une tête en carbure pour machines de perçage

d1 h5	d2 h6	l	l2	l4	l1		Stock
18,0	25	45	1700	70	1800	PCS50020136	●
18,0	25	45	1900	70	2000	PCS50020137	●
18,0	25	45	2100	70	2200	PCS50020138	●
19,0	25	45	1350	70	1450	PCS50020139	●
19,0	25	45	1550	70	1650	PCS50020140	●
19,0	25	45	1700	70	1800	PCS50020141	●
19,0	25	45	1900	70	2000	PCS50020142	●
19,0	25	45	2100	70	2200	PCS50020143	●
20,0	25	45	1330	70	1450	PCS50020144	●
20,0	25	45	1530	70	1650	PCS50020145	●
20,0	25	45	1680	70	1800	PCS50020146	●
20,0	25	45	1880	70	2000	PCS50020147	●
21,0	25	50	1330	70	1450	PCS50020148	●
21,0	25	50	1530	70	1650	PCS50020149	●
21,0	25	50	1880	70	2000	PCS50020150	●
22,0	25	50	1330	70	1450	PCS50020151	●
22,0	25	50	1530	70	1650	PCS50020152	●
22,0	25	50	1880	70	2000	PCS50020153	●
23,0	25	55	1330	70	1450	PCS50020154	●
23,0	25	55	1530	70	1650	PCS50020155	●
23,0	25	55	1880	70	2000	PCS50020156	●
24,0	25	55	1330	70	1450	PCS50020157	●
24,0	25	55	1530	70	1650	PCS50020158	●
24,0	25	55	1880	70	2000	PCS50020159	●
25,0	25	55	1330	70	1450	PCS50020160	●
25,0	25	55	1530	70	1650	PCS50020161	●
25,0	25	55	1880	70	2000	PCS50020162	●
26,0	25	65	1330	70	1450	PCS50020163	●
26,0	25	65	1530	70	1650	PCS50020164	●
26,0	25	65	1880	70	2000	PCS50020165	●
27,0	25	65	1330	70	1450	PCS50020166	●
27,0	25	65	1530	70	1650	PCS50020167	●
27,0	25	65	1880	70	2000	PCS50020168	●
28,0	25	65	1330	70	1450	PCS50020169	●
28,0	25	65	1530	70	1650	PCS50020170	●
28,0	25	65	1880	70	2000	PCS50020171	●
29,0	25	65	1330	70	1450	PCS50020172	●
29,0	25	65	1530	70	1650	PCS50020173	●
29,0	25	65	1880	70	2000	PCS50020174	●
30,0	25	65	1330	70	1450	PCS50020175	●
30,0	25	65	1530	70	1650	PCS50020176	●
30,0	25	65	1880	70	2000	PCS50020177	●
32,0	25	65	1330	70	1450	PCS50020178	●
32,0	25	65	1530	70	1650	PCS50020179	●
32,0	25	65	1880	70	2000	PCS50020180	●
33,0	25	75	1330	70	1450	PCS50020181	●
33,0	25	75	1530	70	1650	PCS50020182	●
33,0	25	75	1880	70	2000	PCS50020183	●
34,0	25	75	1330	70	1450	PCS50020184	●
34,0	25	75	1530	70	1650	PCS50020185	●
34,0	25	75	1880	70	2000	PCS50020186	●
35,0	25	75	1330	70	1450	PCS50020187	●
35,0	25	75	1530	70	1650	PCS50020188	●
35,0	25	75	1880	70	2000	PCS50020189	●
36,0	25	75	1330	70	1450	PCS50020190	●
36,0	25	75	1530	70	1650	PCS50020191	●
36,0	25	75	1880	70	2000	PCS50020192	●

5003

Punte a cannone monotaglianti con cuspidi LUNGA in metallo duro saldobrasata per foratrici
 Single-lip brazed gun drills with LONG carbide head for drilling machines
 Einlappenbohrer mit LANGEM Bohrkopf für Tiefbohrmaschinen
 Forets 1 lèvre brasés avec une tête LONGUE en carbure pour machines de perçage



d1	d2	l	l2	l4	l1		Stock
H5	h6						
8,0	25	70	1350	70	1450	PCS50030001	●
8,0	25	70	1550	70	1650	PCS50030002	●
8,0	25	70	1900	70	2000	PCS50030003	●
9,0	25	70	1350	70	1450	PCS50030013	●
10,0	25	70	1350	70	1450	PCS50030004	●
10,0	25	70	1550	70	1650	PCS50030005	●
10,0	25	70	1900	70	2000	PCS50030006	●
11,0	25	70	1350	70	1450	PCS50030007	●
11,0	25	70	1550	70	1650	PCS50030008	●
11,0	25	70	1900	70	2000	PCS50030009	●
12,0	25	80	1350	70	1450	PCS50030010	●
12,0	25	80	1550	70	1650	PCS50030011	●
12,0	25	80	1900	70	2000	PCS50030012	●

P

Acciaio
Steel
Stahl
Acier

H

Acciaio Temprato
Hardened Steel
Gehärteter Stahl
Acier trempé

K

Ghisa
Cast Iron
Gusseisen
Fonte

M

Acciaio Inox
Stainless Steel
Edelstahl
Acier Inoxydable

S

HRSA - Titanio
HRSA - Titanium
HRSA - Titan
HRSA - Titane

N

Metalli non ferrosi
Non-ferrous metals
NE-Metalle
Matières non ferreuses

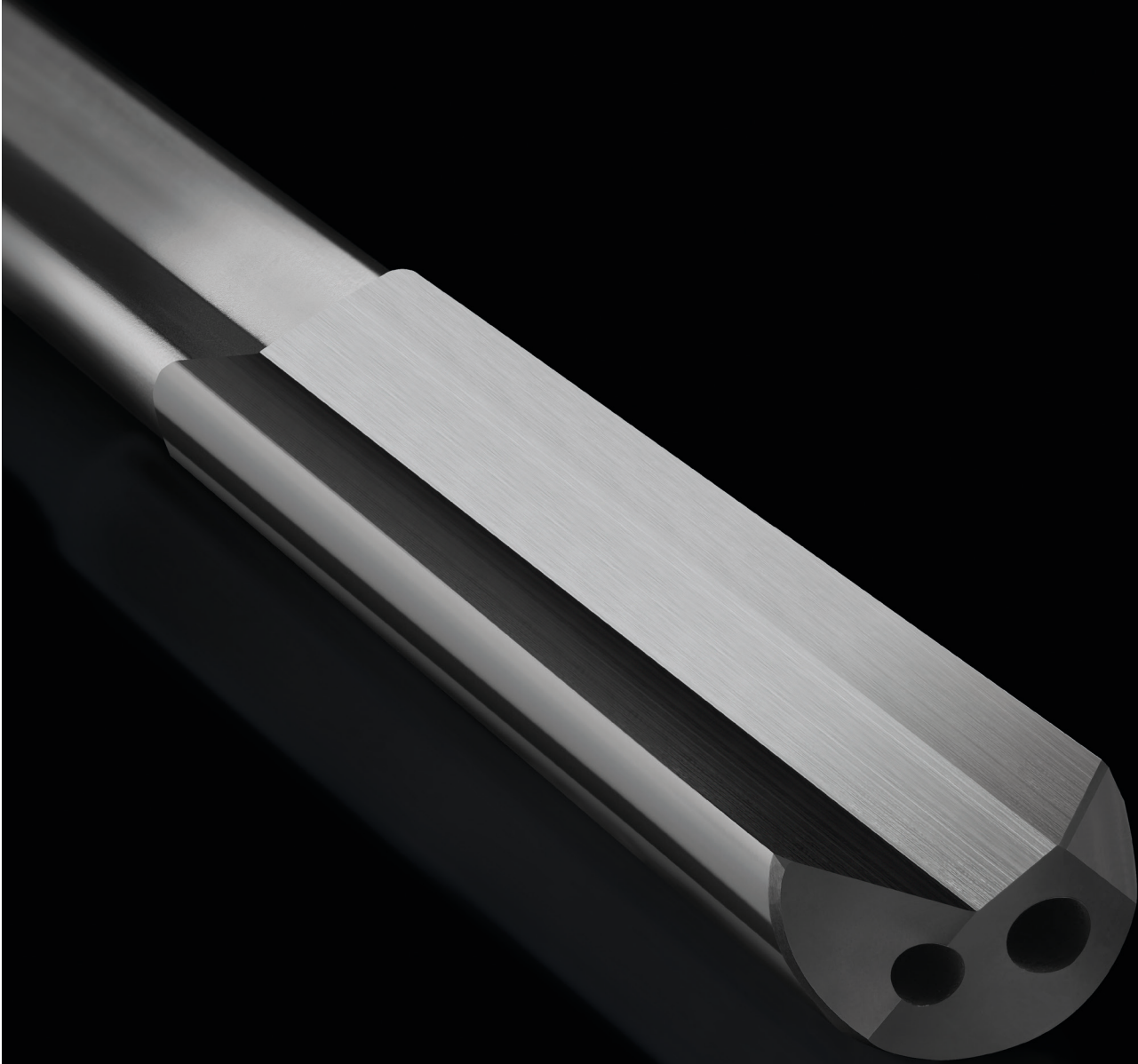
O

NON ISO
Not ISO
Keine ISO
Pas d'ISO

● **Disponibilità pronta consegna**
Availability for prompt delivery

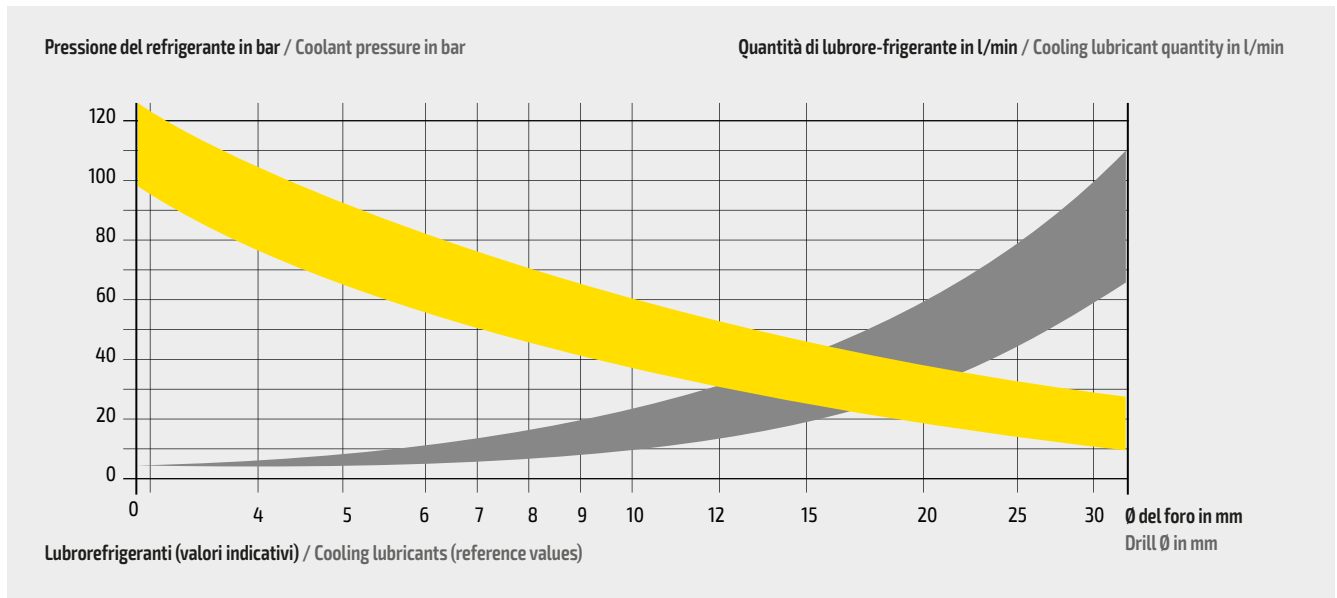
● **Consegna 5 giorni data ordine**
Delivery 5 days order date

○ **Disponibilità su richiesta**
Availability on request



LUBROREFRIGERANTI

COOLING LUBRICANTS / KÜHLSCHMIERSTOFFE /
LUBRIFIANTS-RÉFRIGÉRANTS



Indicazioni di massima su una corretta scelta dei prodotti da utilizzare e i valori ottimali di utilizzo.

Il lubrorefrigerante è una delle parti fondamentali nell'utilizzo di punte a cannone: un'accurata scelta e una corretta gestione possono portare notevoli benefici in termini di resa e di prestazione dell'utensile. È consigliato applicare anche una filtrazione performante in quanto parte fondamentale anche essa per un'ottimale gestione dell'intero processo di foratura profonda.

Condizioni richieste per foratura ottimale: olio intero oppure in alternativa acqua emulsionata con concentrazione al 10-12%. In entrambi i casi è preferibile utilizzare prodotti con additivi specifici per foratura profonda.

Punte saldobrasate
Viscosità: 10 - 20 mm²/s
Efficienza filtro: 10 - 20 µm

Punte HM
Viscosità: 7 - 10 mm²/s per diametri 0,8 - 2,0
10 - 12 mm²/s per diametri 2,0 - 12,0
Efficienza filtro: 5 - 10 µm

Guidelines for an appropriate choice of the products to be used and their optimal values of use.

A cooling lubricant is one of the most important elements in the use of gun drills: an accurate choice and a correct management can bring considerable advantages in terms of tool yield and performance. The application of a well-performing filtration system is also recommended, as it is also fundamental for an optimal management of the whole process of deep-hole drilling.

Conditions required for an optimal drilling: neat oil or emulsified water with a concentration of 10-12%. In both cases, it is preferable to use products with specific additives for deep-hole drilling.

Brazed drill
Viscosity: 10 - 20 mm²/s
Filter efficiency: 10 - 20 µm

Carbide drills
Viscosity: 7 - 10 mm²/s for diameters 0.8 - 2.0
10 - 12 mm²/s for diameters 2.0 - 12.0
Filter efficiency: 5 - 10 µm

Allgemeine Hinweise zur richtigen Auswahl der zu verwendenden Produkte und der optimalen Einsatzwerte.

Der Kühlschmierstoff ist einer der wichtigsten Teile bei der Verwendung von Einlippenbohrern: eine sorgfältige Auswahl und eine ordnungsgemäße Handhabung können erhebliche Vorteile in Bezug auf Leistung und Performance des Werkzeugs bringen. Es wird auch empfohlen eine leistungsstarke Filtration anzuwenden, da diese wesentlicher Bestandteil für ein optimales Management des gesamten Tiefbohrprozesses ist.

Erforderliche Bedingungen für optimales Bohren: vollöl oder als Alternative emulgiertes Wasser mit einer Konzentration von 10-12%. In beiden Fällen ist es besser Produkte mit spezifischen Zusatzstoffen für das Tieflochbohren zu verwenden.

Gelötete Einlippenbohrer
Viskosität: 10 - 20 mm²/s
Filtereffizienz: 10 - 20 µm

Hartmetall Einlippenbohrer
Viskosität: 7 - 10 mm²/s für Durchmesser 0,8 - 2,0
10 - 12 mm²/s für Durchmesser 2,0 - 12,0
Filtereffizienz: 5 - 10 µm

Indications générales pour un bon choix des produits à utiliser et leurs valeurs optimales d'utilisation.

Les liquides lubrifiants-réfrigérants sont un des éléments fondamentaux pour l'utilisation des forets à une lèvre: un choix judicieux et une gestion appropriée peuvent apporter de grands avantages en termes de rendement et performance de l'outil. Il est recommandé d'appliquer un système de filtration performante, qui est aussi une partie essentielle pour une gestion optimale du processus complet de perçage profond.

Conditions nécessaires pour un forage optimal: huile entière ou eau émulsifiée en concentration de 10-12%. Dans les deux cas, il est préférable d'utiliser des additifs spécifiques pour forage profond.

Forets brasés
Viscosité: 10 - 20 mm²/s
Efficacité du filtre: 10 - 20 µm.

Forets en carbure
Viscosité: 7 - 10 mm²/s pour diamètres 0,8 - 2,0
10 - 12 mm²/s pour diamètres 2,0 - 12,0
Efficacité du filtre: 5 - 10 µm

FINITURA SUPERFICIALE

SURFACE FINISH / OBERFLÄCHENGÜTE / FINITION DE SURFACE

Grazie alla sua particolare geometria la punta a cannone permette di ottenere qualità della finitura superficiale del foro molto elevata. Tale risultato può essere ulteriormente migliorato attraverso l'utilizzo delle geometrie costruttivi particolari. Nella tabella sono indicati valori ottenibili utilizzando l'utensile con la geometria standard.

Thanks to its peculiar geometry, a gun drill enables to achieve a very high quality with regard to surface finish of the hole. This outcome can further be improved by using specific construction geometries. The table shows values that can be obtained by using a tool with a standard geometry.

Dank seiner besonderen Geometrie ermöglicht der Lippenbohrer einen sehr hohen Qualitätsstandard der Oberflächengüte der Bohrung. Dieses Ergebnis kann durch die Verwendung besonderer Konstruktionsgeometrien weiter verbessert werden. In der Tabelle sind Werte aufgeführt, die mit dem Werkzeug mit der Standardgeometrie erzielt werden können.

Grâce à leur géométrie spécifique, les forets à une lèvre permettent d'obtenir une très haute qualité de finition de la surface du trou. Ce résultat peut être encore amélioré en utilisant des géométries de construction particulières. Le tableau montre les valeurs qui peuvent être obtenues en utilisant l'outil à géométrie standard.

	Tolleranza Tolerance	Foratura elicoidale Twist drilling	Alesatura Reaming	Brocciatura Broaching	Levigatura Honing	Foratura profonda Deep hole drilling	Rugosità media aritmetica Ra Arithmetical mean roughness Ra
							µm
>	N12	-	-	-	-	-	50
	N11	-	-	-	-	-	25
	N10	•	-	-	-	-	12,5
>>	N9	•	-	-	-	-	6,30
	N8	•	•	•	-	-	3,20
	N7	-	•	•	•	-	1,60
>>>	N6	-	•	•	•	•	0,80
	N5	-	•	•	•	•	0,40
	N4	-	•	-	•	•	0,20
>>>>	N3	-	-	-	•	•	0,10
	N2	-	-	-	•	-	0,05
	N1	-	-	-	-	-	0,025

Qualità della finitura superficiale (valori indicativi) / Surface quality (reference values)

SCENTRATURA DEL FORO

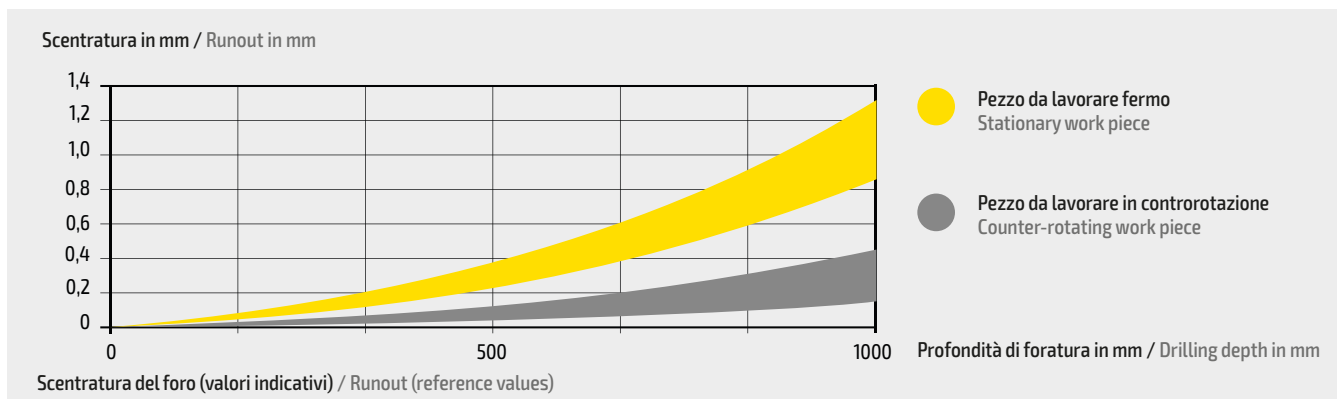
HOLE RUNOUT / BOHRUNGSVERLAUF / DÉVIATION DU TROU

Valori indicativi delle scentrature del foro nelle condizioni di foratura profonda su macchine con bussola guida.

Approximate runout values under deep-hole drilling conditions on machines with drill bush.

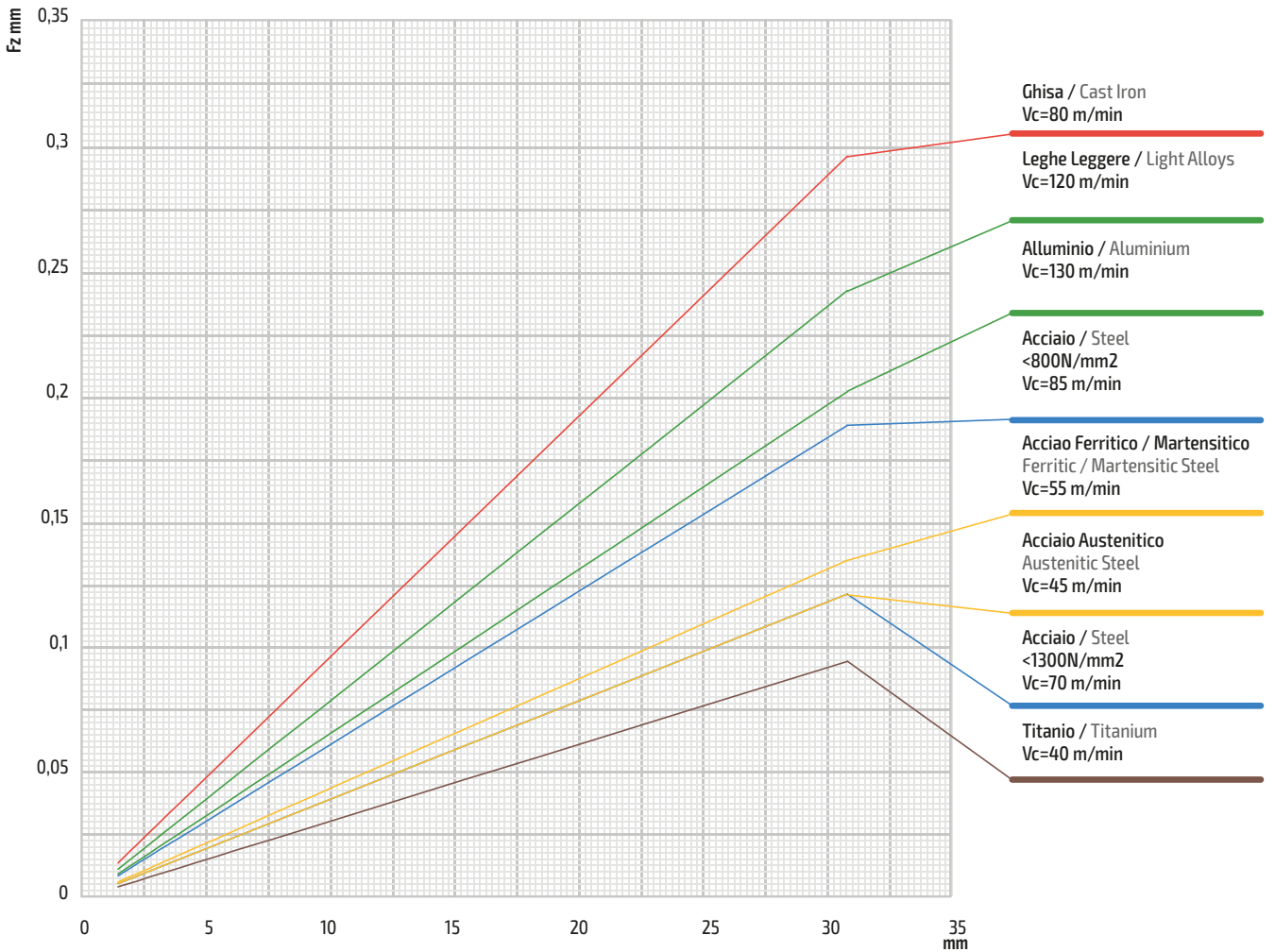
Richtwerte für aussermittige Bohrungen bei Tieflochbohrungen auf Maschinen mit Führungsbuchsen.

Valeurs indicatives des déviations du trou dans des conditions de forage profond sur des machines avec canon de guidage.



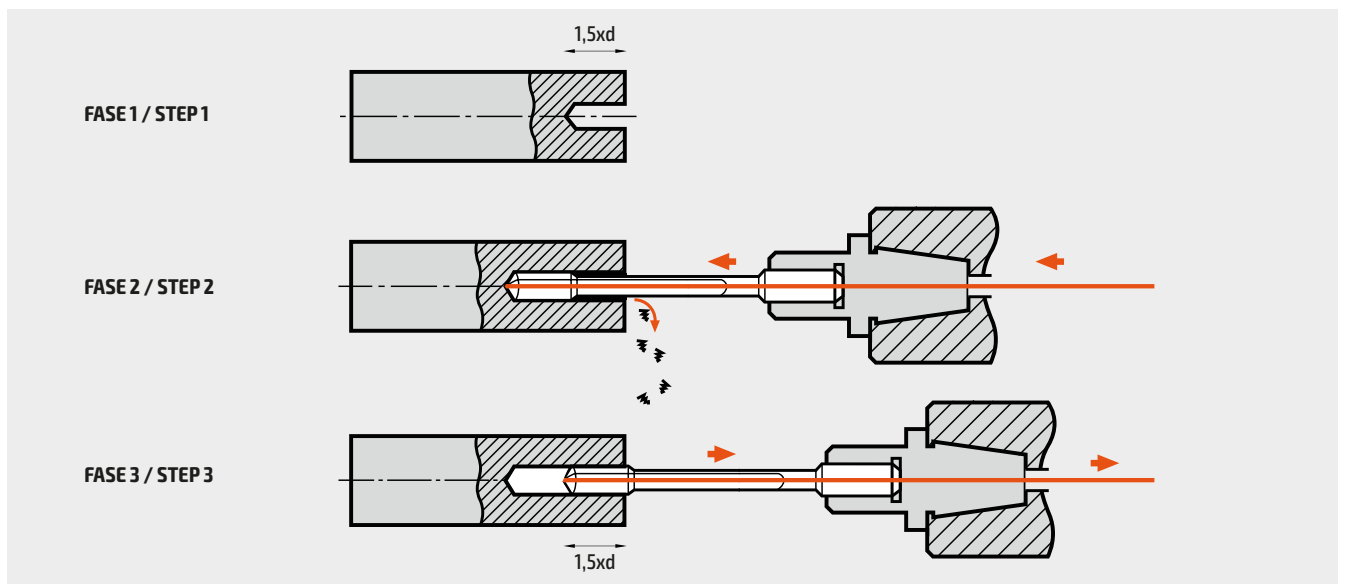
PARAMETRI DI LAVORO PER PUNTE A CANNONE SALDOBRASATE

Working parameters for brazed gun drills / Arbeitsparameter für gelötete Einlippenbohrer / Paramètres d'usinage pour forets à une lèvre brasés

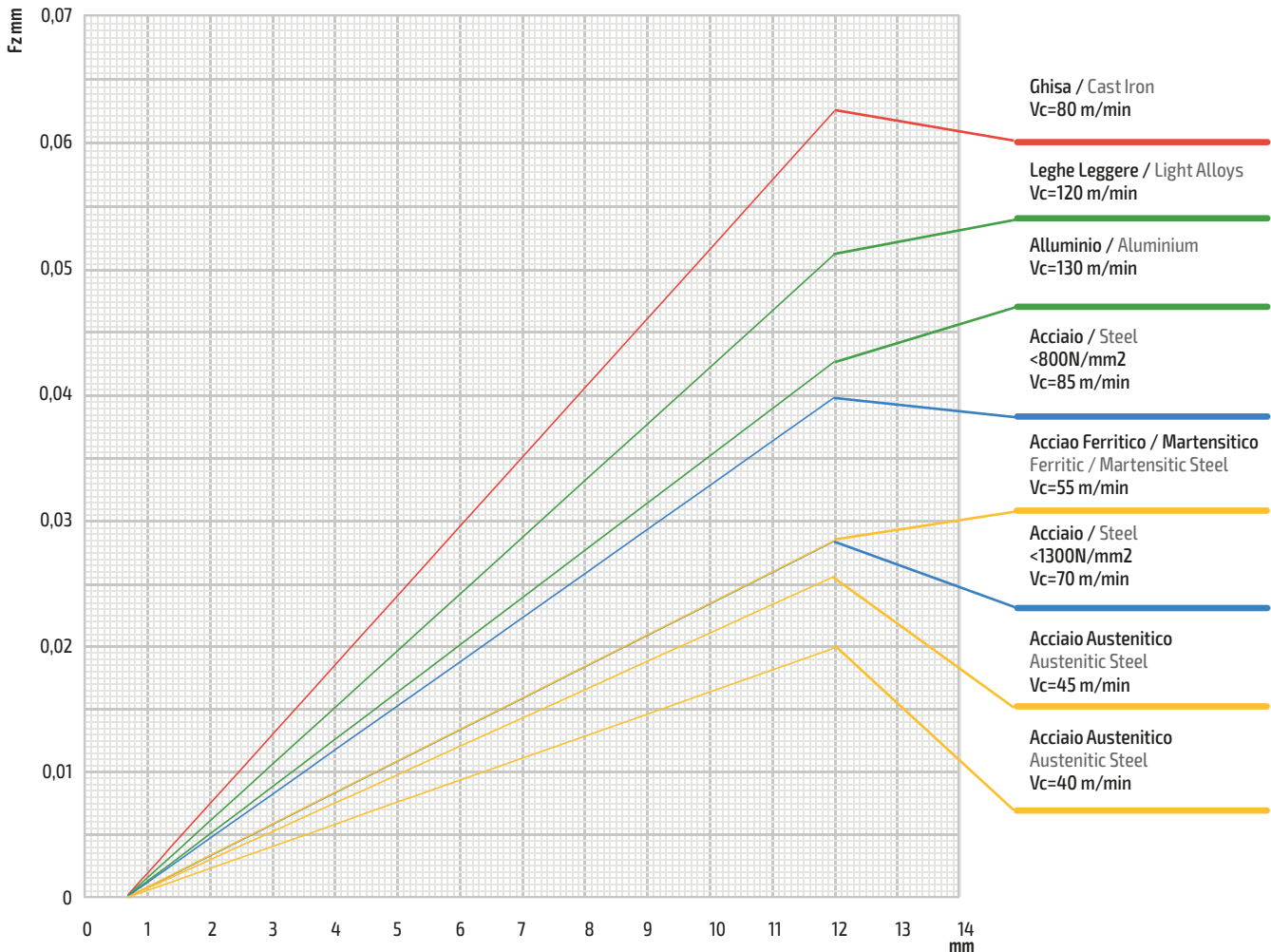


FASE DI LAVORO 1 | FORATURA CON PUNTA PILOTA

Step 1 | Drilling with pilot drill



PARAMETRI DI LAVORO PER PUNTE A CANNONE IN METALLO DURO

 Working parameters for carbide gun drills / Arbeitsparameter für vollhartmetalllippenbohrer /
 Paramètres d'usage pour forets à une lèvre en carbure


Fase 1 Esecuzione preforo.
 Si consiglia l'utilizzo delle punte in metallo duro Silmax art. 3031A.
 Profondità preforo richiesta 1.5xD.

Fase 2 Entrata nel preforo e ciclo di foratura.
 Entrare con la punta a cannone con rotazione mandrino in senso antiorario con massimo 100 giri/minuto e F 1000 mm/min. Posizionarsi a +5 mm rispetto alla fine del preforo e accendere il refrigerante. Invertire il senso di rotazione ed eseguire il ciclo di foratura con i parametri di lavoro.

Fase 3 Uscita dal foro.
 A fine ciclo arretrare con l'utensile al punto di partenza con F5000 mm/min, invertire la rotazione e uscire con 100 giri/min ed F1000 mm/min.

Step 1 Execution of pilot holes.
 We recommend the use of Silmax carbide drills Art. 3031A.
 Depth required for pilot hole: 1.5 x D.

Step 2 Entry into pilot holes and drilling cycle.
 Enter with gun drill on spindle rotating in the counter-clockwise direction at a maximum of 100 rpm and F 1000mm/min.
 Set up at +5mm from the end of pilot hole and start coolant. Reverse the direction of rotation and execute drilling cycle according to working parameters.

Step 3 Exit from hole.
 At the end of the cycle, move tool back to the starting point at F5000 mm/min, reverse rotation and exit at 100 rpm and F1000 mm/min.

Phase 1 Ausführung der Anbohrungen.
 Wir empfehlen die Verwendung von Hartmetallbohrern Silmax art. 3031A.
 Erforderliche Bohrtiefe 1.5xD.

Phase 2 Eintritt in die Anbohrung und Bohrzyklus
 Mit Einlippenbohrer mit Spindelrotation gegen den Uhrzeigersinn mit maximal 100 U/min und F 1000 mm/min eintreten. Sich bei +5mm zum Ende der Anbohrung positionieren und das Kühlmittel einschalten. Drehrichtung umkehren und Bohrzyklus mit Arbeitsparametern durchführen.

Phase 3 Austritt aus der Bohrung.
 Am Zyklus-ende das Werkzeug mit F5000 mm/min bis zum Ausgangspunkt herausziehen, die Rotation umkehren und mit 100 U/min und F1000 mm/min herausfahren.

Étape 1 Exécution du trou pilote.
 Il est recommandé d'utiliser des forets Silmax en carbure art. 3031A. Profondeur requise pour le trou pilote: 1,5 x D.

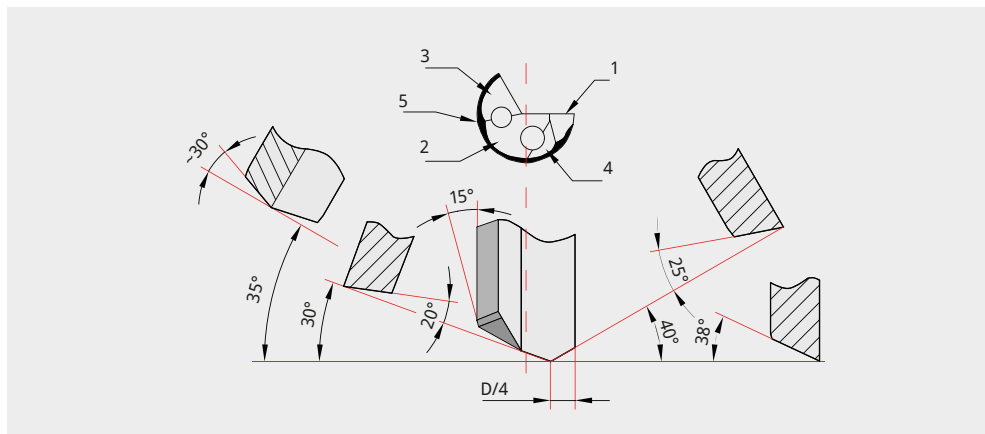
Étape 2 Entrée dans le trou pilote et cycle de perçage.
 Faire entrer le foret à une lèvre avec mandrin tournant dans le sens antihoraire sans dépasser un maximum de 100 tr/min et F 1000 mm/min. Se positionner à + 5 mm par rapport à la fin du trou pilote et allumer le réfrigérant. Inverser le sens de rotation et exécuter le cycle de forage selon les paramètres d'usage.

Étape 3 Sortie du trou.
 À la fin du cycle, faire reculer l'outil au point de départ à F5000 mm/min, inverser la rotation et sortir à 100 tr/min et F1000 mm/min.

GEOMETRIA DEI TAGLIENTI

CUTTING-EDGE GEOMETRY / SCHNEIDENGEOMETRIE / GÉOMÉTRIE DE COUPE

Fase Step	Asse A Axis A	Asse B Axis B	Asse C Axis C	Dimensione Measure	Nota Comment
1	40°	+25°	+12°	> D/4	-
2	+30°	+20°	-7°	D/4	-
3	+35°	+20°	+55°	-	-
4	0°	+38°	0°	-	-
5	-	-	-	-	Ruotare leggermente l'utensile sul perimetro senza danneggiare lo smusso di guida. Twist the single-lip drill lightly around the circumference without damaging the guide chamfer.



Affilatura standard per punte a cannone monotaglienti fino a 5 mm

Standard grind section for single-lip drills up to 5 mm

Standard-Anschliff für Einlippenbohrer bis 5 mm

Affûtage standard de foret 1 lèvre avec diamètre jusqu'à 5 mm

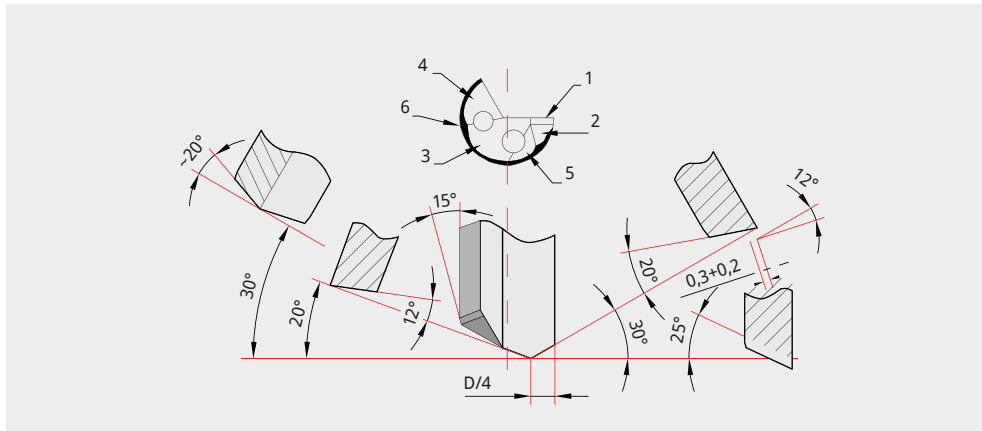
La geometria standard Silmax è stata appositamente studiata per permettere di forare un ampio spettro di materiali con risultati ottimali. Tuttavia nelle situazioni particolari come per esempio materiali a truciolo lungo o difficilmente truciolabili, siamo in grado di realizzare soluzioni specifiche di geometria intervenendo su

forma e affilatura oppure con eventuale creazione del romitruciolo sul filo tagliente. Nelle fasi di riaffilatura dell'utensile si consiglia di rispettare le indicazioni riportate nelle tabelle presenti. Un utensile accuratamente affilato sarà sempre al massimo delle prestazioni.

Silmax standard geometry has been expressly studied to drill a large spectrum of materials with excellent results. However, in particular situations, such as for example long-chipping or difficult-to-machine materials, we are able to develop specific geometry

solutions by modifying shape or grind section or creating a chip-breaker on the cutting edge. When re-grinding a tool, we recommend following the guidelines specified in the related tables. An accurately ground tool will always achieve the maximum performances.

Fase Step	Asse A Axis A	Asse B Axis B	Asse C Axis C	Dimensione Measure	Nota Comment
1	-30°	+12°	+5°	> D/4	Regolare l'asse C in modo tale che durante la fase di lavoro 2 lo smusso sia parallelo all'angolo di spoglia superiore. La larghezza dello smusso è uguale alla larghezza dello smusso di rettifica in tondo. Set Axis C such that the chamfer during the second pass is parallel to the chip face. The width of the chamfer is the same as that of the circular grinding chamfer.
2	-30°	+20°	+6,5°	Smusso Chamfer 0,3...0,5	
3	+20°	+12°	-5°	D/4	-
4	+30°	+12°	+55°	-	-
5	0°	+25°	-5°	-	-
6	-	-	-	-	Ruotare leggermente l'utensile sul perimetro senza danneggiare lo smusso di guida. Twist the single-lip drill lightly around the circumference without damaging the guide chamfer.



Affilatura standard per punte a cannone monotaglienti con diametro da 5 a 30 mm

Standard grind section for single-lip drills with Ø = 5 to 30 mm

Standard-Anschliff für Einlippenbohrer mit D = 5 bis 30 mm

Affûtage standard de foret 1 lèvre, avec D = 5 à 30 mm

Die Silmax-Standardgeometrie wurde speziell entwickelt, um Bohrungen bei einem breiten Spektrum an Materialien mit optimalen Ergebnissen vorzunehmen. In besonderen Situationen, wie zum Beispiel bei langen Spänen oder schwer zerspanbaren Werkstoffen, sind wir jedoch in der Lage geometrische Sonderlösungen zu realisieren,

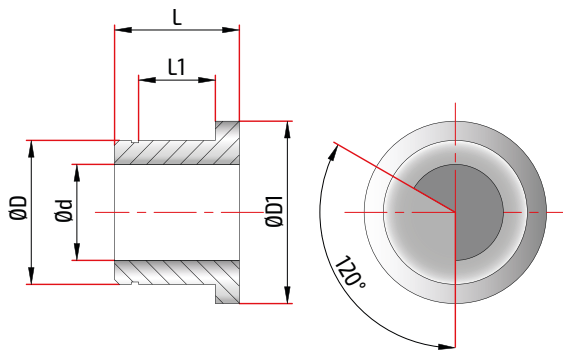
indem wir auf Form und Anschliff einwirken oder mit der eventuellen Schaffung von Spanbrechern an der Schneidkante. Beim Nachschleifen des Werkzeuges wird empfohlen die Angaben in den Tabellen zu beachten. Ein sorgfältig geschliffenes Werkzeug wird immer eine maximale Leistung erzielen.

La géométrie standard Silmax a été spécialement conçue pour permettre de perçage une large gamme de matériaux avec des résultats optimaux. Toutefois, dans des situations particulières comme par exemple les matériaux générant des copeaux longs et difficiles à fragmenter, nous sommes à même de fabriquer des solutions de géométrie

spécifiques en intervenant sur forme et affûtage, parfois aussi avec brise-copeaux sur l'arête de coupe. Dans les phases d'affûtage, nous vous conseillons de suivre les indications figurant sur les relatifs tableaux. Un outil affûté soigneusement sera toujours au maximum de ses performances.

BUSSOLE ANTIVIBRANTI

ANTI-VIBRANT DRILLING BUSHES / SCHWINGUNGSDÄMPFENDE
BUCHSEN / CANONS DE PERÇAGE ANTI-VIBRATIONS



5.0



Bussole antivibranti in gomma
versione standard
Anti-vibration drilling bushes
standard version

5.1



Bussole antivibranti in gomma
versione rinforzata
Anti-vibration drilling bushes
reinforced version

Codice / Code	D mm	D1 mm	L mm	L1 mm
5200 / 5201	20	26	20	12
5300 / 5301	30	38	26	16
5450 / 5451	45	50	26	16

Diametro punta Drilling diameter mm	Diametro tubo Tube diameter d mm	5200	Stock	5201	Stock	5300	Stock	5301	Stock	5450	Stock	5451	Stock
2,00 - 2,09	1,90	PCA52000001	●	PCA52010001	●	-	-	-	-	-	-	-	-
2,10 - 2,19	2,00	PCA52000002	●	PCA52010002	●	-	-	-	-	-	-	-	-
2,20 - 2,29	2,10	PCA52000003	●	PCA52010003	●	-	-	-	-	-	-	-	-
2,30 - 2,39	2,20	PCA52000004	●	PCA52010004	●	-	-	-	-	-	-	-	-
2,40 - 2,49	2,30	PCA52000005	●	PCA52010005	●	-	-	-	-	-	-	-	-
2,50 - 2,59	2,40	PCA52000006	●	PCA52010006	●	-	-	-	-	-	-	-	-
2,60 - 2,69	2,50	PCA52000007	●	PCA52010007	●	-	-	-	-	-	-	-	-
2,70 - 2,79	2,60	PCA52000008	●	PCA52010008	●	-	-	-	-	-	-	-	-
2,80 - 2,89	2,70	PCA52000009	●	PCA52010009	●	-	-	-	-	-	-	-	-
2,90 - 3,09	2,80	PCA52000010	●	PCA52010010	●	PCA53000001	●	PCA53010001	●	-	-	-	-
3,10 - 3,35	3,00	PCA52000011	●	PCA52010011	●	PCA53000002	●	PCA53010002	●	PCA54500001	●	-	-
3,36 - 3,45	3,20	PCA52000012	●	PCA52010012	●	PCA53000003	●	PCA53010003	●	PCA54500002	●	-	-
3,46 - 3,55	3,30	PCA52000013	●	PCA52010013	●	PCA53000004	●	PCA53010004	●	PCA54500003	●	-	-
3,56 - 3,79	3,40	PCA52000014	●	PCA52010014	●	PCA53000005	●	PCA53010005	●	PCA54500004	●	-	-
3,80 - 3,95	3,60	PCA52000015	●	PCA52010015	●	PCA53000006	●	PCA53010006	●	PCA54500005	●	-	-
3,96 - 4,25	3,75	PCA52000016	●	PCA52010016	●	PCA53000007	●	PCA53010007	●	PCA54500006	●	-	-
4,26 - 4,49	4,00	PCA52000017	●	PCA52010017	●	PCA53000008	●	PCA53010008	●	PCA54500007	●	-	-
4,50 - 4,74	4,25	PCA52000018	●	PCA52010018	●	PCA53000009	●	PCA53010009	●	PCA54500008	●	-	-
4,75 - 4,99	4,50	PCA52000019	●	PCA52010019	●	PCA53000010	●	PCA53010010	●	PCA54500009	●	-	-
5,00 - 5,24	4,75	PCA52000020	●	PCA52010020	●	PCA53000011	●	PCA53010011	●	PCA54500010	●	-	-
5,25 - 5,49	5,00	PCA52000021	●	PCA52010021	●	PCA53000012	●	PCA53010012	●	PCA54500011	●	-	-
5,50 - 5,74	5,25	PCA52000022	●	PCA52010022	●	PCA53000013	●	PCA53010013	●	PCA54500012	●	-	-
5,75 - 5,99	5,50	PCA52000023	●	PCA52010023	●	PCA53000014	●	PCA53010014	●	PCA54500013	●	-	-
6,00 - 6,24	5,75	PCA52000024	●	PCA52010024	●	PCA53000015	●	PCA53010015	●	PCA54500014	●	-	-
6,25 - 6,44	6,00	PCA52000025	●	PCA52010025	●	PCA53000016	●	PCA53010016	●	PCA54500015	●	-	-
6,45 - 6,74	6,20	PCA52000026	●	PCA52010026	●	PCA53000017	●	PCA53010017	●	PCA54500016	●	-	-
6,75 - 6,99	6,50	PCA52000027	●	PCA52010027	●	PCA53000018	●	PCA53010018	●	PCA54500017	●	-	-
7,00 - 7,29	6,70	PCA52000028	●	PCA52010028	●	PCA53000019	●	PCA53010019	●	PCA54500018	●	-	-
7,30 - 7,59	7,00	PCA52000029	●	PCA52010029	●	PCA53000020	●	PCA53010020	●	PCA54500019	●	-	-
7,60 - 7,79	7,30	PCA52000030	●	PCA52010030	●	PCA53000021	●	PCA53010021	●	PCA54500020	●	-	-

● Disponibilità pronta consegna
Availability for prompt delivery

● Consegna 5 giorni data ordine
Delivery 5 days order date

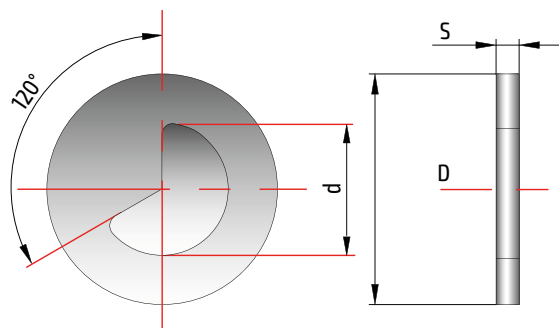
○ Disponibilità su richiesta
Availability on request

Diametro punta Drilling diameter mm	Diametro tubo Tube diameter d mm	5200	Stock	5201	Stock	5300	Stock	5301	Stock	5450	Stock	5451	Stock
7,80 - 7,99	7,50	PCA52000031	●	PCA52010031	●	PCA53000022	●	PCA53010022	●	PCA54500021	●	-	-
8,00 - 8,29	7,70	PCA52000032	●	PCA52010032	●	PCA53000023	●	PCA53010023	●	PCA54500022	●	-	-
8,30 - 8,69	8,00	PCA52000033	●	PCA52010033	●	PCA53000024	●	PCA53010024	●	PCA54500023	●	-	-
8,70 - 8,99	8,40	PCA52000034	●	PCA52010034	●	PCA53000025	●	PCA53010025	●	PCA54500024	●	-	-
9,00 - 9,29	8,70	PCA52000035	●	PCA52010035	●	PCA53000026	●	PCA53010026	●	PCA54500025	●	-	-
9,30 - 9,69	9,00	PCA52000036	●	PCA52010036	●	PCA53000027	●	PCA53010027	●	PCA54500026	●	-	-
9,70 - 9,99	9,40	PCA52000037	●	PCA52010037	●	PCA53000028	●	PCA53010028	●	PCA54500027	●	-	-
10,00 - 10,29	9,70	PCA52000038	●	PCA52010038	●	PCA53000029	●	PCA53010029	●	PCA54500028	●	-	-
10,30 - 10,79	10,00	PCA52000039	●	PCA52010039	●	PCA53000030	●	PCA53010030	●	PCA54500029	●	-	-
10,80 - 11,29	10,50	PCA52000040	●	PCA52010040	●	PCA53000031	●	PCA53010031	●	PCA54500030	●	-	-
11,30 - 11,79	11,00	PCA52000041	●	PCA52010041	●	PCA53000032	●	PCA53010032	●	PCA54500031	●	-	-
11,80 - 12,39	11,50	PCA52000042	●	PCA52010042	●	PCA53000033	●	PCA53010033	●	PCA54500032	●	-	-
12,40 - 12,89	12,00	PCA52000043	●	PCA52010043	●	PCA53000034	●	PCA53010034	●	PCA54500033	●	-	-
12,90 - 13,39	12,50	-	-	-	-	PCA53000035	●	PCA53010035	●	PCA54500034	●	-	-
13,40 - 13,89	13,00	-	-	-	-	PCA53000036	●	PCA53010036	●	PCA54500035	●	-	-
13,90 - 14,39	13,50	-	-	-	-	PCA53000037	●	PCA53010037	●	PCA54500036	●	-	-
14,40 - 14,89	14,00	-	-	-	-	PCA53000038	●	PCA53010038	●	PCA54500037	●	-	-
14,90 - 15,39	14,50	-	-	-	-	PCA53000039	●	PCA53010039	●	PCA54500038	●	-	-
15,40 - 15,89	15,00	-	-	-	-	PCA53000040	●	PCA53010040	●	PCA54500039	●	-	-
15,90 - 16,39	15,50	-	-	-	-	PCA53000041	●	PCA53010041	●	PCA54500040	●	-	-
16,40 - 16,89	16,00	-	-	-	-	PCA53000042	●	PCA53010042	●	PCA54500041	●	-	-
16,90 - 17,39	16,50	-	-	-	-	PCA53000043	●	PCA53010043	●	PCA54500042	●	-	-
17,40 - 17,89	17,00	-	-	-	-	PCA53000044	●	PCA53010044	●	PCA54500043	●	-	-
17,90 - 18,39	17,50	-	-	-	-	PCA53000045	●	PCA53010045	●	PCA54500044	●	-	-
18,40 - 19,80	18,00	-	-	-	-	PCA53000046	●	PCA53010046	●	PCA54500045	●	-	-
19,51 - 20,50	19,00	-	-	-	-	PCA53000047	●	PCA53010047	●	PCA54500046	●	-	-
20,51 - 21,50	20,00	-	-	-	-	PCA53000048	●	PCA53010048	●	PCA54500047	●	PCA54510047	●
21,51 - 22,60	21,00	-	-	-	-	PCA53000049	●	PCA53010049	●	PCA54500048	●	PCA54510048	●
22,61 - 23,60	22,00	-	-	-	-	PCA53000050	●	PCA53010050	●	PCA54500049	●	PCA54510049	●
23,61 - 24,60	23,00	-	-	-	-	PCA53000051	●	PCA53010051	●	PCA54500050	●	PCA54510050	●
24,61 - 25,60	24,00	-	-	-	-	PCA53000052	●	PCA53010052	●	PCA54500051	●	PCA54510051	●
25,61 - 26,60	25,00	-	-	-	-	-	-	-	-	PCA54500052	●	PCA54510052	●
26,61 - 27,60	26,00	-	-	-	-	-	-	-	-	PCA54500053	●	PCA54510053	●
27,61 - 28,60	27,00	-	-	-	-	-	-	-	-	PCA54500054	●	PCA54510054	●
28,61 - 29,60	28,00	-	-	-	-	-	-	-	-	PCA54500055	●	PCA54510055	●
29,61 - 30,60	29,00	-	-	-	-	-	-	-	-	PCA54500056	●	PCA54510056	●
30,61 - 32,60	30,00	-	-	-	-	-	-	-	-	PCA54500057	●	PCA54510057	●
32,61 - 34,69	32,00	-	-	-	-	-	-	-	-	PCA54500058	●	PCA54510058	●
34,70 - 36,69	34,00	-	-	-	-	-	-	-	-	PCA54500059	●	PCA54510059	●
36,70 - 38,69	36,00	-	-	-	-	-	-	-	-	PCA54500060	●	PCA54510060	●

Notes

DISCHI DI TENUTA IN VULKOLLAN

VULKOLLAN SEALING DISCS / DICHTSCHEIBEN IN VULKOLLAN /
DISQUES D'ÉTANCHÉITÉ VULKOLLAN



Codice / Code	D mm	S mm
5520	20	4
5532	32	4
5540	40	4
5590	90	4

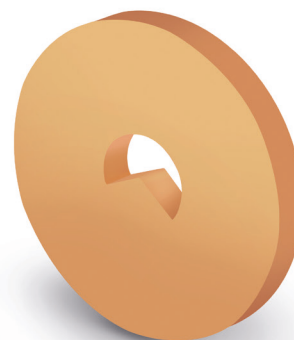
Diametro punta Drilling diameter mm	Diametro tubo Tube diameter d mm	5520	Stock	5532	Stock	5540	Stock	5590	Stock
2,000 - 2,399	1,9	PCA55200001	●	-	-	-	-	-	●
2,400 - 2,899	2,3	PCA55200002	●	-	-	-	-	-	●
2,900 - 3,599	2,8	PCA55200003	●	-	-	-	-	-	●
3,600 - 3,999	3,4	PCA55200004	◐	-	-	-	-	-	◐
4,000 - 4,399	3,8	PCA55200005	●	PCA55320001	●	-	-	-	●
4,400 - 4,799	4,2	PCA55200006	●	PCA55320002	◐	-	-	-	●
4,800 - 5,249	4,6	PCA55200007	●	PCA55320003	●	-	-	-	●
5,250 - 5,649	5,0	PCA55200008	◐	PCA55320004	◐	-	-	-	◐
5,650 - 5,999	5,4	PCA55200009	●	PCA55320005	◐	-	-	-	●
6,000 - 6,499	5,8	PCA55200010	●	PCA55320006	●	PCA55400001	●	-	●
6,500 - 7,099	6,2	-	-	PCA55320007	●	PCA55400002	●	-	-
7,100 - 7,699	6,8	-	-	PCA55320008	◐	PCA55400003	◐	-	-
7,700 - 8,299	7,4	-	-	PCA55320009	●	PCA55400004	●	-	-
8,300 - 8,999	8,0	-	-	PCA55320010	●	PCA55400005	●	-	-
9,000 - 9,699	8,6	-	-	PCA55320011	●	PCA55400006	●	-	-
9,700 - 10,299	9,3	-	-	PCA55320012	●	PCA55400007	●	-	-
10,300 - 10,999	9,9	-	-	PCA55320013	◐	PCA55400008	◐	-	-
11,000 - 11,699	10,6	-	-	PCA55320014	●	PCA55400009	●	-	-
11,700 - 12,499	11,3	-	-	PCA55320015	●	PCA55400010	●	-	-
12,450 - 13,449	12,0	-	-	PCA55320016	●	PCA55400011	●	-	-
13,450 - 14,449	13,0	-	-	PCA55320017	●	PCA55400012	●	-	-
14,450 - 15,599	14,0	-	-	PCA55320018	●	PCA55400013	●	-	-
15,600 - 17,199	15,0	-	-	PCA55320019	●	PCA55400014	●	-	-
17,200 - 18,799	16,6	-	-	PCA55320020	●	PCA55400015	●	-	-
18,800 - 19,799	18,2	-	-	PCA55320021	●	PCA55400016	●	-	-
19,800 - 20,799	19,0	-	-	PCA55320022	●	PCA55400017	●	-	-
20,800 - 21,799	20,0	-	-	-	-	PCA55400018	●	-	-
21,800 - 22,799	21,0	-	-	-	-	PCA55400019	●	-	-

● Disponibilità pronta consegna
Availability for prompt delivery

◐ Consegna 5 giorni data ordine
Delivery 5 days order date

○ Disponibilità su richiesta
Availability on request

Diametro punta Drilling diameter mm	Diametro tubo Tube diameter d mm	5520	Stock	5532	Stock	5540	Stock	5590	Stock
22,800 - 23,799	22,0	-	-	-	-	PCA55400020	●	-	-
23,800 - 24,799	23,0	-	-	-	-	PCA55400021	●	-	-
24,800 - 25,999	24,0	-	-	-	-	PCA55400022	●	-	-
26,000 - 26,999	25,0	-	-	-	-	PCA55400023	●	PCA55900001	○
27,000 - 27,999	26,0	-	-	-	-	PCA55400024	●	PCA55900002	○
28,000 - 28,999	27,0	-	-	-	-	PCA55400025	●	PCA55900003	○
29,000 - 29,999	28,0	-	-	-	-	PCA55400026	●	PCA55900004	○
30,000 - 30,999	29,0	-	-	-	-	PCA55400027	●	PCA55900005	○
31,000 - 31,999	30,0	-	-	-	-	PCA55400028	●	PCA55900006	○
32,000 - 32,999	31,0	-	-	-	-	-	-	PCA55900007	○
33,000 - 34,999	32,0	-	-	-	-	-	-	PCA55900008	○
35,000 - 36,999	34,0	-	-	-	-	-	-	PCA55900009	○
37,000 - 38,999	36,0	-	-	-	-	-	-	PCA55900010	○
39,000 - 43,999	38,0	-	-	-	-	-	-	PCA55900011	○
44,000 - 46,999	42,0	-	-	-	-	-	-	PCA55900012	○
47,000 - 49,999	45,0	-	-	-	-	-	-	PCA55900013	○
50,000 - 55,999	48,0	-	-	-	-	-	-	PCA55900014	○



PUNTE A CANNONE SPECIALI

SPECIAL GUN DRILLS / SONDERLIPPENBOHRER / FORETS 1 LÈVRE SPÉCIAUX

Oltre alle soluzioni standard, **Silmax è in grado di realizzare anche soluzioni speciali** adatte alle vostre esigenze, partendo dal materiale da lavorare e delle specifiche condizioni di foratura.

Tali soluzioni includono la realizzazione delle geometrie specifiche, delle punte a gradino oppure di utensili per allargatura, con possibilità di abbinare il tutto ad uno dei tanti rivestimenti che effettuiamo all'interno dell'azienda.

Tutti gli utensili possono essere rivestiti internamente da Silmax.

Neben den Standardlösungen ist **Silmax in der Lage aus dem zu bearbeitenden Material und den spezifischen** Bohrbedingungen auch Sonderlösungen zu realisieren, die besser auf Ihre Bedürfnisse zugeschnitten sind.

Diese Lösungen umfassen die Realisierung von Sondergeometrien, Stufenbohrern oder Aufbohrern, mit der Möglichkeit alles mit den zur Verfügung stehenden Beschichtungen zu kombinieren, die innerhalb unserer Werke angefertigt werden.

Alle Werkzeuge können intern von Silmax beschichtet werden.

In addition to standard solutions, **Silmax can also develop special solutions** to meet your requirements, in consideration of the material to be machined and the particular drilling conditions.

These solutions include the creation of specific geometries, step drills or reaming tools, with possibility of combining them with one of the numerous coatings we make in-house.

All tools can be coated in-house by Silmax.

Outre les solutions standard, **Silmax développe aussi des outils spéciaux** les mieux adaptés à vos exigences, à partir du matériau à percer et en considérant les conditions spécifiques de perçage.

Ces solutions incluent la création de géométries spécifiques, de forets étagés ou d'outils pour alésage, avec possibilité de les combiner avec un de nombreux revêtements que Silmax peut réaliser en interne.

Tous les outils peuvent être revêtus en interne par Silmax.

SILFAST SERVICE

SILFAST SERVICE / SILFAST SERVICE /
SILFAST SERVICE



Ai propri clienti Silmax offre la possibilità di **avere utensili speciali in tempi rapidi, 7 giorni dall'ordine**, per le punte monotaglianti saldobrasate con la cuspide nella versione standard e senza rivestimento.

Diametri disponibili:

- 2,5 - 13,5 nello step di 0,1 mm
- Lunghezza massima: 1500 mm totali compreso il codolo.

Tipologia di codolo: vedi tabella a pagina 36.

Quantità: Fino a un massimo di 5 pezzi per singolo diametro richiesto.

Il servizio prevede un supplemento di prezzo rispetto alla produzione con tempi di consegna standard. Per tutti gli altri diametri fuori dal questo range sono previsti tempi di consegna standard.

Silmax bietet seinen Kunden die Möglichkeit **Sonderwerkzeug in kurzer Zeit zu bekommen, 7 Tage nach Bestellung**, für Einlippenbohrer mit schweißgelötetem Wechselkopf in der Standardausführung und ohne Beschichtung.

Erhältliche Durchmesser:

- 2,5 - 13,5 im 0,1-mm-Abstufung
- Max. Länge: insgesamt 1500 mm einschließlich Schaft

Schafttyp: Siehe Tabelle auf Seite 36.

Menge: Bis zu 5 Stück pro bestelltem Durchmesser.

Der Service beinhaltet einen Preisaufschlag gegenüber der Produktion mit Standardlieferzeiten. Alle anderen Durchmesser außerhalb dieses Bereiches haben Standardlieferzeiten.

Silmax offers its customers the possibility to have **special tools with fast delivery time, 7 days from order receipt**, for single-flute, brazed drills, with standard drill head and without coating.

Available diameters:

- 2,5 - 13,5 in 0,1 mm steps.
- Maximum length: 1500 mm including clamping sleeve.

Typology of clamping sleeve: see table on page 36.

Quantity: up to a maximum of 5 pieces for each single diameter required.

The service entails an extra charge compared to products with standard delivery time. For all other diameters that are not included in this range, delivery times are standard.

Silmax offre à ses clients la possibilité d'avoir des **outils spéciaux en délais rapides, 7 jours après la réception de la commande**, en ce qui concerne les forets 1 lèvre brasés avec tête de perçage en version standard et sans revêtement.

Diamètres disponibles:

- 2,5 - 13,5 par pas de 0,1 mm
- Longueur maximale: 1500 mm incluant la élément de serrage

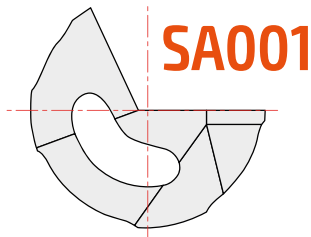
Typologie de élément de serrage: voir tableau à page 36.

Quantité: jusqu'au maximum de 5 pièces pour chaque diamètre commandé.

Le service prévoit un supplément de prix par rapport aux produits avec délais de livraison standard. Pour tous les autres diamètres hors de cette gamme, les délais de livraison sont standard.

FORME PERIMETRALI STANDARD

STANDARD CONTOUR SHAPES / STANDARD UMFANGSFORMEN /
FORMES DE CONTOUR STANDARD



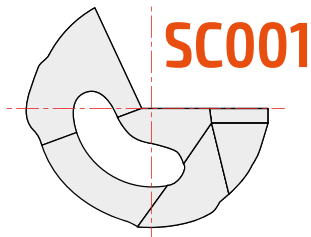
SA001

Prima scelta per punte a cuspidi lunga con geometria perimetrale ottimizzata per forature in condizioni sfavorevoli quali intersezioni e situazioni di scarsa presenza del lubrificante.

First choice for drills with long drill head and optimised contour geometry for drilling under difficult conditions, such as intersections and situations where cooling lubricant is insufficient.

Erste Wahl für Einlippenbohrer mit langer Kopfführung und optimierter Umfangsform für Bohrungen unter ungünstigen Bedingungen wie Vorhandensein von Schnittpunkten oder Mangel an Kühlschmierstoff.

Premier choix pour forets à tête de perçage longue avec des géométries de contour pour perçage dans des conditions difficiles, telles que des intersections et en cas de quantité insuffisante de lubrifiant-réfrigérant.



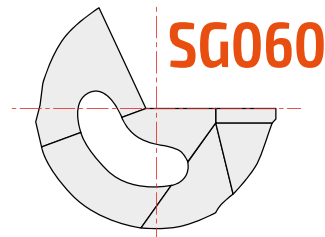
SC001

Geometria speciale studiata appositamente per forature dove è richiesta massima precisione e qualità di finitura superficiale. Disponibile su richiesta.

Special geometry specifically studied for drilling when high precision and high-quality surface finish are required. Available on request.

Sondergeometrie eigens für Bohrungen entwickelt, bei denen höchste Präzision und hohe Oberflächengüte gefordert sind. Erhältlich auf Anfrage.

Géométrie spéciale conçue pour le forage de haute précision et haute qualité de finition de surface. Disponible sur demande.



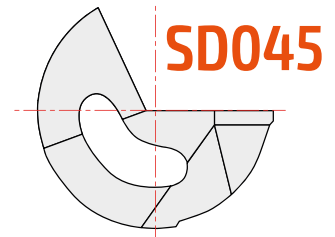
SG060

Geometria standard adatta per le forature su maggior parte dei materiali.

Standard geometry suitable for drilling most materials.

Standardgeometrie geeignet für Bohrungen der meisten Werkstoffe.

Géométrie standard adaptée à forer la plupart des matériaux.



SD045

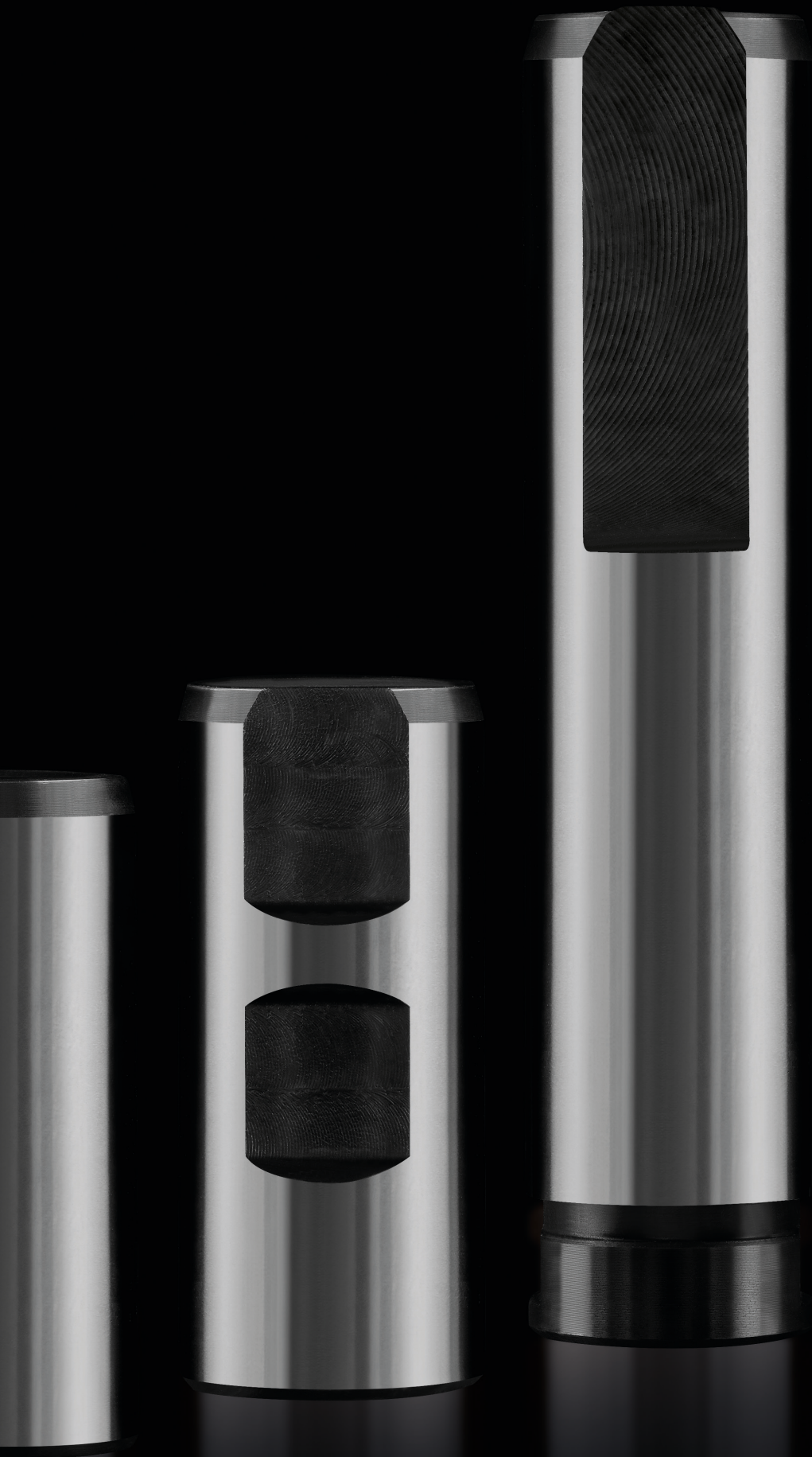
Geometria specifica studiata per materiali dolci, es. ghisa grigia, grafite, etc. nelle condizioni in cui è indispensabile mantenere le tolleranze di foratura ristrette. Disponibile su richiesta.

Specific geometry studied for soft materials, such as for example grey cast iron, graphite, etc. used when it is necessary to maintain reduced drilling tolerances. Available on request.

Sondergeometrie für weiche Materialien entwickelt, z.B. Grauguss, Graphit usw., bei denen enge Bohrtoleranzen eingehalten werden müssen. Erhältlich auf Anfrage.

Géométrie spécifique conçue pour des matériaux souples, tels que la fonte grise, le graphite, etc., surtout quand les tolérances de perçage sont restreintes. Disponible sur demande.





PANORAMICA DEI CODOLI STANDARD

RANGE OF STANDARD CLAMPING SLEEVES / SPANNELEMENT-ÜBERSICHT / GAMME DES ÉLÉMENT DE SERRAGE STANDARDS

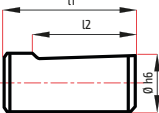
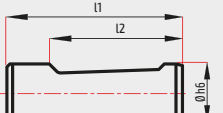
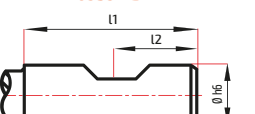
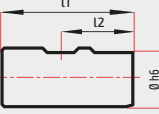
Silmax è in grado di realizzare soluzioni personalizzate partendo da disegno o dal campione fornito dal cliente.

Silmax can develop customised solutions based on a drawing or a sample supplied by customers.

Silmax ist in der Lage kundenspezifische Lösungen nach Zeichnung oder Muster des Kunden zu realisieren.

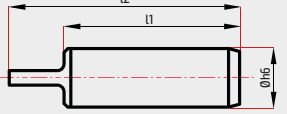
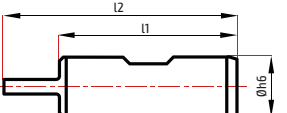
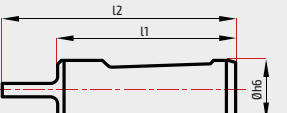
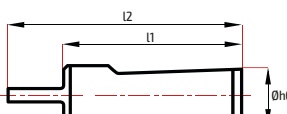
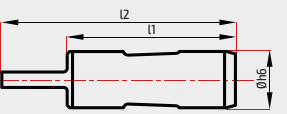
Silmax est en mesure de fabriquer de solutions customisées selon un dessin ou un échantillon fourni par le client.

Designazione Name	Figura Diagram	L1	L2	X	M	Gamma di foratura Drill range	Codice articolo Article number
∅ 10 x 40		40	46	24,3	-	1,900 - 7,099	PCD60000001
∅ 16 x 45		45	53	31	-	1,900 - 12,099	PCD60000002
∅ 16 x 50		50	58	47,5	-	1,900 - 12,099	PCD60000003
∅ 25 x 70		70	78	34	-	1,900 - 19,799	PCD60000004
∅ 10 x 40		42	55	24,3	-	7,100 - 9,999	PCD60000005
∅ 16 x 45		45	65	31	-	11,400 - 14,949	PCD60000006
∅ 16 x 50		52	75	47,5	-	11,400 - 14,949	PCD60000007
∅ 25 x 70		72	105	34	-	19,800 - 23,799	PCD60000008
∅ 25,4 x 69,8		69,8	-	57,1	-	1,900 - 19,799	PCD60000009
∅ 31,75 x 69,8		69,8	-	57,1	-	1,900 - 25,999	PCD60000010
∅ 38,1 x 69,8		69,8	-	57,1	-	1,900 - 30,999	PCD60000011
∅ 12,7 x 38,1		38,1	58	25,4	-	8,300 - 12,499	PCD60000012
∅ 19,05 x 69,8		68,9	100	44,4	-	14,95 - 18,799	PCD60000013
∅ 25,4 x 69,8		69,8	105	57,1	-	19,8 - 24,799	PCD60000014
∅ 31,75 x 69,8		69,8	100	57,1	-	26,0 - 30,999	PCD60000015
∅ 38,1 x 69,8		69,8	100	57,1	-	33,0 - 40,0	PCD60000016
∅ 10 x 68		68	-	35	M6 x 0,5	1,9 - 6,799	PCD60000017
∅ 16 x 90		90	-	37	M10 x 1	1,9 - 12,099	PCD60000018
∅ 25 x 112		112	-	45	M16 x 1,5	1,9 - 19,799	PCD60000019
∅ 10 x 68		68	81	35	M6 x 0,5	6,8 - 9,999	PCD60000020
∅ 16 x 90		90	110	37	M10 x 1	11,4 - 14,949	PCD60000021
∅ 25 x 112		112	142	45	M16 x 1,5	19,8 - 24,799	PCD60000022
∅ 10 x 40		40	-	-	-	1,9 - 6,499	PCD60000023
∅ 12 x 45		45	-	-	-	1,9 - 7,999	PCD60000024
∅ 16 x 48		48	-	-	-	1,9 - 11,399	PCD60000025
∅ 20 x 50		50	-	-	-	1,9 - 14,949	PCD60000026
∅ 25 x 56		56	-	-	-	1,9 - 19,799	PCD60000027
∅ 32 x 60		60	-	-	-	1,9 - 25,999	PCD60000028

Designazione Name	Figura Diagram	L1	L2	X	M	Gamma di foratura Drill range	Codice articolo Article number
∅ 10 x 40	 1835 E	40	28	-	-	1,9 - 7,999	PCD60000029
∅ 12 x 45		45	33	-	-	1,9 - 7,999	PCD60000030
∅ 16 x 48		48	36	-	-	1,9 - 11,399	PCD60000031
∅ 20 x 50		50	38	-	-	1,9 - 14,949	PCD60000032
∅ 25 x 56		56	44	-	-	1,9 - 19,799	PCD60000033
∅ 32 x 60		60	48	-	-	1,9 - 25,999	PCD60000034
∅ 10 x 40	 6535 HE	40	20	-	-	1,9 - 6,499	PCD60000035
∅ 12 x 45		45	22,5	-	-	1,9 - 7,999	PCD60000036
∅ 16 x 48		48	24	-	-	1,9 - 11,399	PCD60000037
∅ 20 x 50		50	25	-	-	1,9 - 14,949	PCD60000038
∅ 25 x 56		56	32	-	-	1,9 - 19,799	PCD60000039
∅ 10 x 40	 6535 HB	40	20	-	-	1,9 - 7,099	PCD60000040
∅ 12 x 45		45	22,5	-	-	1,9 - 7,999	PCD60000041
∅ 16 x 48		48	24	-	-	1,9 - 11,399	PCD60000042
∅ 20 x 50		50	25	-	-	1,9 - 14,949	PCD60000043
∅ 25 x 56	 6535 HB	56	32	-	-	1,9 - 19,799	PCD60000044
∅ 32 x 60		60	36	-	-	1,9 - 25,999	PCD60000045
∅ 40 x 70		70	40	-	-	1,9 - 29,999	PCD60000046

GAMMA CODOLI PER PUNTE IN METALLO DURO INTEGRALE

Range of clamping sleeves for solid carbide drills / Spannhülsen für Vollhartmetallbohrer /
Gamme de douilles de serrage pour forets en carbure monobloc.

Designazione Name	Figura Diagram	L1	L2	X	M	Gamma di foratura Drill range	Codice articolo Article number
4 x 34 x 46	 6535 PHA	34	46	-	-	0,500 - 5,800	PCD60000047
6 x 36 x 51		36	51	-	-	0,500 - 5,800	PCD60000048
10 x 40 x 55		40	55	-	-	0,500 - 7,000	PCD60000049
12 x 45 x 60		45	60	-	-	0,500 - 8,300	PCD60000050
16 x 48 x 63		48	63	-	-	0,500 - 10,000	PCD60000051
6 x 36 x 51	 6535 PHB	36	51	-	-	0,500 - 5,800	PCD60000052
10 x 40 x 55		40	55	-	-	0,500 - 7,000	PCD60000053
12 x 45 x 60		45	60	-	-	0,500 - 8,300	PCD60000054
16 x 48 x 63		48	63	-	-	0,500 - 10,000	PCD60000055
6 x 36 x 51	 6535 PHE	36	51	-	-	0,500 - 5,800	PCD60000056
10 x 40 x 55		40	55	-	-	0,500 - 7,000	PCD60000057
12 x 45 x 60		45	60	-	-	0,500 - 8,300	PCD60000058
16 x 48 x 63		48	63	-	-	0,500 - 10,000	PCD60000059
6 x 36 x 51	 1835 PFE	36	51	-	-	0,500 - 5,800	PCD60000060
10 x 40 x 55		40	55	-	-	0,500 - 7,000	PCD60000061
12 x 45 x 60		45	60	-	-	0,500 - 8,300	PCD60000062
16 x 48 x 63		48	63	-	-	0,500 - 10,000	PCD60000063
12,7x38,1x53	 5320 TBN	38,1	53	-	-	0,500 - 8,300	PCD60000064

SERVIZIO DI RIAFFILATURA E RIGENERAZIONE

RE-SHARPENING AND REGENERATION SERVICE / SERVICE FÜR NACHSCHLIFF UND REGENERATIONSTAN / SERVICE DE RÉAFFÛTAGE ET RÉGÉNÉRATION



Riaffilatura

A tutti i nostri clienti Silmax offre il servizio di riaffilatura delle punte a cannone sia per le geometrie standard che speciali. Questo servizio viene gestito internamente in tempi rapidi e sulle affilatrici specifiche per le punte a cannone.

Re-grinding

Silmax offers all its customers a re-grinding service for gun drills, both for standard and for special geometries. This service is carried out in-house with fast delivery time and on specific grinding machines for guns drills.

Nachschliff

Allen unseren Kunden bietet Silmax einen Service zum Nachschliff der Einlippenbohrer an, sowohl für Standard- als auch Sondergeometrien. Dieser Service wird intern und zwar in sehr kurzer Zeit geliefert und mit eigens für Lippenbohrer gedachte Schleifmaschinen.

Réaffûtage

Silmax offre à ses clients un service de réaffûtage des forets 1 lèvre, soit pour les géométries standard, soit pour les géométries spéciales. Ce service est géré en interne avec des délais de livraison rapides et sur des machines spécifiques pour les forets 1 lèvre.



Rigenerazione

Silmax propone il servizio di rigenerazione che consiste nella sostituzione della vecchia cuspidata arrivata a fine vita o rotta, recuperando gli steli già esistenti risparmiando sui costi rispetto all'acquisto dell'utensile nuovo. Il servizio è offerto sia per le punte Silmax che per le punte della concorrenza.

Regeneration

Silmax proposes a regeneration service, which consists in replacing the old drill head that is broken or at the end of its life, using the same shank and allowing cost saving compared to the purchase of a new tool. The service is offered for Silmax drills, as well as for the drills of our competitors.

Regeneration

Silmax bietet einen Regenerationservice an der darin besteht den alten abgenutzten oder kaputten Hartmetallkopf zu ersetzen und die bereits vorhandenen Schäfte zurückzugewinnen, wodurch Kosten im Vergleich zum Kauf eines neuen Werkzeugs gespart werden. Der Service wird sowohl für Silmax-Bohrer als auch für Konkurrenzbohrer angeboten.

Régénération

Silmax propose un service de régénération qui consiste à remplacer la vieille tête cassée ou en fin de vie, en récupérant la tige existante et ainsi épargnant sur les coûts par rapport à l'achat d'un nouveau outil. Le service est offert soit pour les forets Silmax, soit pour les forets de la concurrence.



Esecuzione perfetta

Esecuzione perfetta con la garanzia del produttore e collaudo effettuato su strumenti di controllo di alta precisione Zoller Genius e Walter Helicheck con emissione di certificato su richiesta.

Perfect execution

A perfect execution with the manufacturer's warranty and testing carried out with high-precision measurement instruments from Zoller Genius and Walter Helicheck, with issuing of certificate upon request.

Perfekte Ausführung

Perfekte Ausführung mit Garantie des Herstellers und Kontrolle mittels der Messmaschinen „Genius“ der Firma Zoller und „Helicheck“ der Firma Walter Maschinenbau mit Ausstellung des Zertifikates auf Anfrage.

Exécution parfaite

Exécution parfaite avec garantie du fabricant et essais sur des instruments de contrôle de haute précision Zoller Genius, Walter Helicheck et Alicona, avec certificat délivré sur demande.



Consegna rapida

Consegna rapida entro 7 giorni lavorativi dal ricevimento degli utensili per riaffilatura e rivestimento.

Fast delivery

Fast delivery within 7 working days from the receipt of the tools to be re-ground and re-coated.

Schnelle Lieferung

Schnelle Lieferung innerhalb von 7 Werktagen ab Empfang der Werkzeuge, die nachzuschleifen und zu beschichten sind.

Livraison rapide

Livraison rapide dans les 7 jours ouvrables suivant la réception des outils à réaffûter et à revêtir.

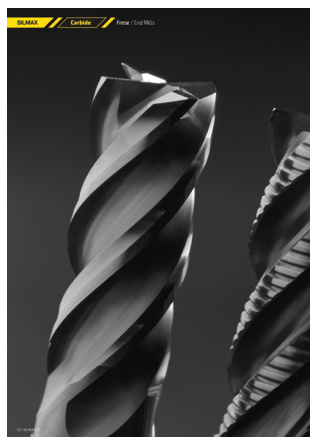


CATALOGHI SILMAX

SILMAX CATALOGUES / SILMAX-KATALOGE / CATALOGUES SILMAX



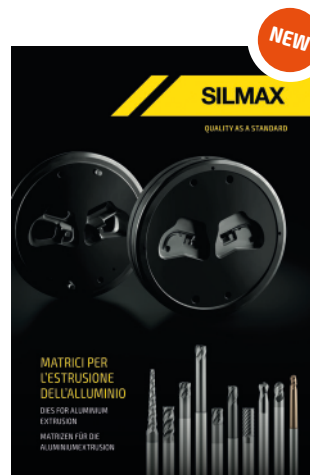
Catalogo generale
General Catalog



Alto Rendimento
High Performance



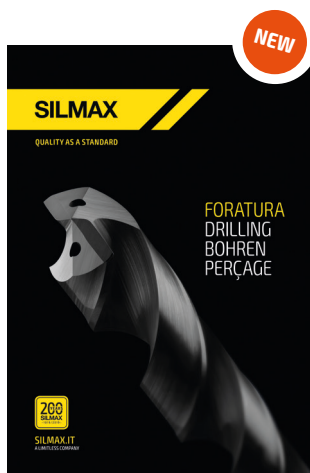
Titanio Superleghe, Acciaio Inox
Titanium Super Alloys, Stainless Steel



Matrici per l'estrusione dell'alluminio
Dies for aluminum extrusion



Stampi
Molds



Foratura
Drilling



Punte a cannone
Gun drills



Maschi
Taps



Aerospace
Aerospace



Leghe leggere
Light Alloys



Materiali compositi
Composite Materials



Silsaving
Silsaving

SERATA DEGUSTAZIONE: CÀ DU
FERRÀ - LE CINQUE TERRE FRA
CIELO E MARE - VENERDÌ 10
NOVEMBRE ORE 19.00

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11/2023

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