

New Development Carbide Materials **Neuentwicklung Hartmetall-Material** **Nuova sviluppo di materiali in metallo duro**

Advantage

CARBICUT INFINITY HSC END MILLS are made of carbide which is processed by special expensive furnaces in which after vacuum sintering Argon gas is pressed with 50 bar pressure in the high temperature of the furnace. That gives the possibility to press the carbide in the high temperature so that we have no porosity after cooling down the carbide and have a better toughness.

Vorteile

CARBICUT INFINITY HSC Schaftfräser werden aus Hartmetall gefertigt, das durch ein besonderes verfahren hergestellt wird. In einem Spezial-ofen wird in Vakuum, gesintertes Argon-Gas mit 50 bar Druck gegeben. Dadurch wird das Hartmetall bei höhere Temperatur zusammen gepreßt, sodaß es nach dem Abkühlen keine Porosität gibt und eine höhere Festigkeit gegeben ist.

Vantaggi

Le frese CARBICUT INFINITY HSC sono fatte di un Metallo Duro prodotto in fornaci speciali e molto costose dove viene sinterizzato a vuoto con l'Argon spinto ad una pressione di 50 bar. Questo dà la possibilità di pressare il metallo duro a temperature elevate in modo da evitare porosità dopo il raffreddamento e di ottenere una maggiore durezza.

Where is INFINITY HSC used?

The hard PVD coating INFINITY HSC was developed for carbide cutting tools used for hard machining. High hardness and excellent thermal and chemical stability are the outstanding qualities with which INFINITY HSC protects tools against premature wear.

Wo wird INFINITY HSC eingesetzt?

Die harte PVD-Beschichtung INFINITY wurde für Hartmetall-Schneidwerkzeuge für schwierige Bearbeitungen entwickelt. Große Härte und ausgezeichnete thermische und chemische Stabilität sind die herausragenden Eigenschaften mit denen INFINITY HSC Werkzeuge gegen vorzeitigen Verschleiß schützt.

Dove viene utilizzata la fresa INFINITY HSC?

Il forte rivestimento PVD INFINITY è stato sviluppato per utensili da taglio in Metallo Duro per lavorazioni pesanti. La gran resistenza e l'eccellente stabilità tecnica e chimica sono le caratteristiche che prevengono le frese INFINITY HSC da una precoce usura.

What advantage does INFINITY HSC offer?

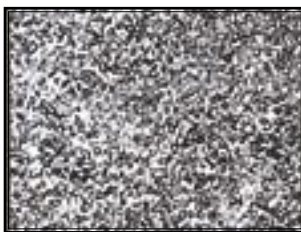
Excellent performance at dry cutting condition.
Excellent performance on hardened steel (HRC65).
Apply proper geometry for machining tough materials. Applicable on a large range of materials.
INFINITY HSC coating protects tools against premature wear, and extends tool life at extreme cutting conditions. Superior workpiece finishes.
Fast chip ejection.

Welche Vorteile bietet INFINITY HSC?

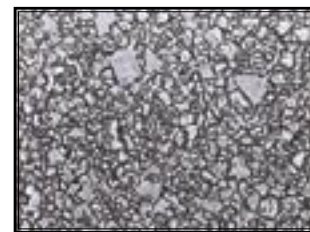
Ausgezeichnete Leistung bei Trockenbearbeitung. Ausgezeichnete Leistung bei gehärtetem stahl (HRC65).
Anwendung der richtigen Geometrie beim Bearbeiten von zähen Materialien. Anwendbar bei einer Vielzahl von Materialien. INFINITY HSC Beschichtung schützt das Werkzeug gegen vorzeitigen Verschleiß und verlängert die Standzeit bei extremen Bearbeitungsbedingungen.
Besseres Werkstück-Finish. Schneller Späne-Ausstoß.

Quali sono i vantaggi delle INFINITY HSC?

Prestazioni eccellenti in condizioni di lavorazione a secco, su acciai temprati (HRC65). Geometria appropriata per lavorare su materiali duri. Applicabile ad una vasta gamma di materiali. Il rivestimento INFINITY protegge l'utensile da un'usura precoce e permette maggiori tempi di contatto in condizioni di lavoro estreme. Migliore finitura del pezzo lavorato, evacuazione del truciolo più veloce.



INFINITY Carbide Grain Structure
Carbide Grain size = $0 < 0.5 \mu\text{m}$ Consistent
Struttura del grano del Metallo Duro
INFINITY consistenza $0 < 0.5 \mu\text{m}$ - Misura del Grano



General Carbide Grain Structure
Struttura di un comune grano di Metallo Duro

INFINITY Hartmetall-Korn-Struktur
Hartmetall-Korn-Größe = $0 < 0.5 \mu\text{m}$ Konsistent

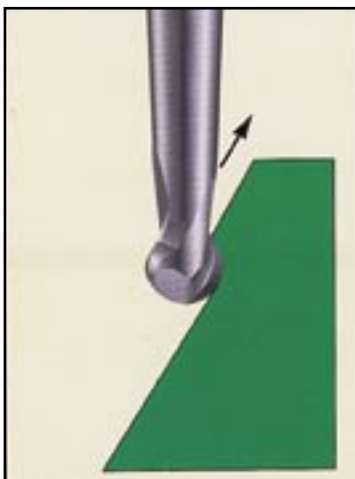
Allgemeine Hartmetall-Korn-Struktur

Dry cutting and high speed cutting Trocken und Hochgeschwindigkeitsbearbeitungen Lavorazioni a secco ad alta velocità

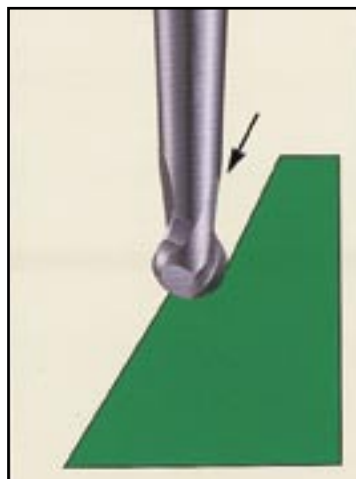
Useful Field Area / Geeignete Verwendungsgebiete / Campi di applicazione

- Die & Mold making, Turbine manufacturing and Aircraft Industry, etc.
Vorrichtungsbau, Turbinenherstellung, Luftfahrtindustrie, etc.
Costruzione di stampi, produzione di turbine e industria aeronautica, ecc.
- Difficult 3-D Forms.
Schwierige 3-D Formen.
Difficili lavorazioni 3-D
- Profiling of up to HRC 65 high hardened steels and Alloy steels, Nickelbase alloys, Titanium alloys.
Profilfräsen von bis zu HRC 65 gehärtetem Stahl und Stahllegierungen Nickellegierungen, Titanlegierungen.
Copiature su acciai temprati fino a 65 HRC, leghe di acciaio, nichel e di titanio.

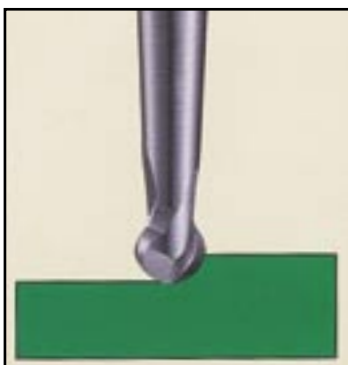
Surpassing Milling Operation / Fräsvorgang Processo di fresatura



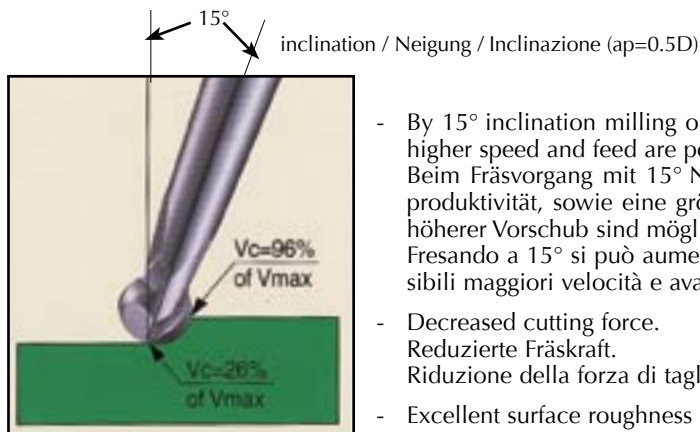
Favorable Back Drilling or Milling
Vorteilhaftes Rückwärtsfräsen
Fresatura all'indietro favorevole



Unfavorable Drilling
Unvorteilhaftes Fräsen
Fresatura sfavorevole



Unfavorable Profiling
Unvorteilhaftes Profilfräsen
Profilatura sfavorevole



Favorable Profiling
Vorteilhaftes Profilfräsen
Profilatura favorevole

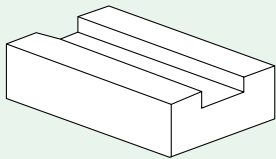
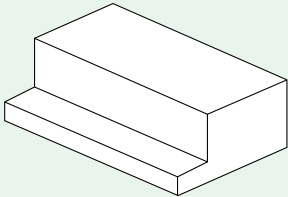
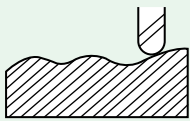
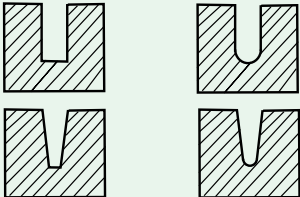
Characteristics / Eigenschaften / Caratteristiche

- Ultra micro grain carbide which increases both toughness and hardness.
Ultra micro grain Vollhartmetall, erhöht sowohl Zähigkeit wie auch Härte.
Super Micro grana di Metallo Duro che migliora la durezza e la resistenza.
- CARBICUT's unique INFINITY coating suitable for dry cutting and high speed cutting.
CARBICUT's einzigartige INFINITY-Beschichtung, geeignet zum Trockenfräsen und HSC-Fräsen.
Il rivestimento INFINITY, è adatto sia alle lavorazioni a secco che ad alta velocità.
- Outstanding tool geometry and sphere shape ball enables more increased tool life and higher speed and feed operation.
Aussergewöhnliche Werkzeug-Geometrie und Kugelform ergeben eine längere Standzeit sowie eine höhere Geschwindigkeit und Vorschubbewegung.
L'insolita geometria della fresa e il profilo sferico permettono una durata maggiore e maggiori velocità e avanzamenti.

- Operating angle $14^\circ \sim 16^\circ$, higher speed and feed are possible by decreasing cutting resistance at the cutting edges contacting the workpiece.
Bearbeitungswinkel $14^\circ \sim 16^\circ$, höhere Geschwindigkeit und Vorschubbewegung sind möglich durch geringeren Fräswiderstand an der Schneidkante des Werkstückes.
Angolo $14^\circ \sim 16^\circ$, maggiori velocità e avanzamenti sono possibili grazie a minori resistenze sui taglienti a contatto con il pezzo.
- Excellent surface roughness and higher milling process.
Ausgezeichnete Oberflächengüte und grösseren Fräsvorgang.
Eccellente superficie e migliori processi di fresatura.
- Enable milling with higher speed and feed when Back Milling.
Ermöglicht Fräsen mit grösseren Geschwindigkeit und höherem Vorschub beim Rückwärtsfräsen.
Fresando all'indietro sono possibili alte velocità e grandi avanzamenti.

- By 15° inclination milling operation, more productivity and higher speed and feed are possible.
Beim Fräsvorgang mit 15° Neigung ergibt sich eine höhere Produktivität, sowie eine grössere Geschwindigkeit und ein höherer Vorschub sind möglich.
Fresando a 15° si può aumentare la produttività e sono possibili maggiori velocità e avanzamenti.
- Decreased cutting force.
Reduzierte Fräskraft.
Riduzione della forza di taglio.
- Excellent surface roughness and brightness.
Ausgezeichnete Oberflächengüte und Glanz.
Superfici eccellenti e lucide.

INFINITY HSC END MILL CHECK POINT INFINITY HSC VOLLHARTMETALL FRÄSER INDICE FRESE METALLO DURO INFINITY HSC

OPERATION LAVORAZIONE	WORKPIECE LAVORAZIONE	END MILL TIPOLOGIA FRESA	SUITABLE END MILL FRESA IDONEA	MATERIAL GROUP GRUPPO MATERIALI
SLOTTING DAL PIENO		SQUARE PIATTA	PRHSC2P PRHSC2PL PRHSC4P PRHSC4PL	1, 2, 3, 4, 5 6, 7, 8, 10
		ROUGHING SGROSSATURA	PRHSC4SG PRHSC4SG-INOX	
		CORNER RADIUS TORICA	PRHSC2T PRHSC3T PRHSC4T	
SIDE CUTTING SPALLAMENTO		SQUARE PIATTA	PRHSC2P PRHSC2PL PRHSC4P PRHSC4PL PRHSC4PPE PRHSC4PLPE PRHSC6P PRHSC6PL	1, 2, 3, 4, 5, 6, 7, 9, 10
		ROUGHING SGROSSATURA	PRHSC4SG PRHSC4SG-INOX	1, 2, 3, 4, 5 6, 7, 8, 9, 10
		CORNER RADIUS TORICA	PRHSC2T PRHSC3T PRHSC4T PRHSC4TPE PRHSC4TLPE PRHSC6T	1, 2, 3 4, 5, 6 7, 9, 10
		BALL SFERICA	PRHSC2S PRHSC2SL PRHSC2SS PRHSC4S PRHSC4SS PRHSC2SC PRHSC2SP PRHSC2SH	1, 2, 3 4, 6, 7
PROFILING COPIATURA		CORNER RADIUS TORICA	PRHSC2TN	
		BALL SFERICA	PRHSC2SH	7, 8
RIB PROCESSING NERVATURE		SQUARE PIATTA	PRHSC2PN	1, 2, 3 4, 6, 7
		BALL SFERICA	PRHSC2SN	
		TAPER SQUARE CONICA	PRHSC4C	
		TAPERBALL CONICA SFERICA	PRHSC4CS	

MATERIAL GROUP GRUPPO MATERIALI	WORK MATERIAL	WERKSTOFF	MATERIALE DA LAVORARE	SUITABLE END MILL FRESA IDONEA
1	CAST IRON	GUSS	GHISA	INFINITY HSC
2	NON-ALLOYED STEELS	UNLEGIERTE STÄHLE	ACCIAI NON LEGATI	"
3	ALLOY STEELSI	LEGIERTE STÄHLE	ACCIAI LEGATI	"
4	HEAT RESISTANT STEELS	HITZEBESTÄNDIGE STÄHLE	ACCIAI REFRATTARI	"
5	STAINLESS STEELS	ROSTFREIE STÄHLE	ACCIAI INOSSIDABILI	INFINITY - INFINITY HSC
6	45 ~ 55 HRc	45 ~ 55 HRc	45 ~ 55 HRc	INFINITY HSC
7	55 ~ 60 HRc	55 ~ 60 HRc	55 ~ 60 HRc	"
8	60 ~ 65 HRc	60 ~ 65 HRc	60 ~ 65 HRc	"
9	TITANIUM ALLOYS	TITAN	TITANIO	INFINITY - INFINITY HSC
10	INCONEL & NIMONIC	INCONEL & NIMONIC	INCONEL & NIMONIC	INFINITY - INFINITY HSC

If you need INFINITY mills for stainless steels, titanium alloys inconel & nimonic see pages 31, 41 and 42.
Se cercate le frese INFINITY per lavorazioni acciai inox, titanio, inconel, nimonic vedi pag. 31, 41 e 42.

2 Flute, short length
2 Schneiden, kurz
2 Taglienti corte



Series PRHSC2P:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2P-00,4	0.4	3	0.8	40
PRHSC2P-00,5	0.5	3	1	40
PRHSC2P-00,6	0.6	3	1.2	40
PRHSC2P-00,7	0.7	3	1.4	40
PRHSC2P-00,8	0.8	3	1.6	40
PRHSC2P-00,9	0.9	3	2	40
PRHSC2P-01,0	1.0	4	2.5	40
PRHSC2P-01,1	1.1	4	2.5	40
PRHSC2P-01,2	1.2	4	4	40
PRHSC2P-01,3	1.3	4	4	40
PRHSC2P-01,4	1.4	4	4	40
PRHSC2P-01,5	1.5	4	4	40
PRHSC2P-02,0	2.0	4	6	40
PRHSC2P-02,5	2.5	4	8	40
PRHSC2P-03,0	3.0	6	8	40
PRHSC2P-03,5	3.5	6	10	45
PRHSC2P-04,0	4.0	6	11	45
PRHSC2P-04,5	4.5	6	11	45
PRHSC2P-05,0	5.0	6	13	50
PRHSC2P-05,5	5.5	6	13	50
PRHSC2P-06,0	6.0	6	13	50
PRHSC2P-06,5	6.5	8	16	60
PRHSC2P-07,0	7.0	8	16	60
PRHSC2P-07,5	7.5	8	16	60
PRHSC2P-08,0	8.0	8	19	60
PRHSC2P-08,5	8.5	10	19	70
PRHSC2P-09,0	9.0	10	19	70
PRHSC2P-09,5	9.5	10	19	70
PRHSC2P-10,0	10.0	10	22	70
PRHSC2P-10,5	10.5	12	22	75
PRHSC2P-11,0	11.0	12	22	75
PRHSC2P-11,5	11.5	12	22	75
PRHSC2P-12,0	12.0	12	26	75
PRHSC2P-13,0	13.0	12	26	85
PRHSC2P-14,0	14.0	14	26	85
PRHSC2P-15,0	15.0	16	26	90
PRHSC2P-16,0	16.0	16	32	100
PRHSC2P-17,0	17.0	16	32	100
PRHSC2P-18,0	18.0	18	32	100
PRHSC2P-19,0	19.0	20	32	100
PRHSC2P-20,0	20.0	20	38	105
PRHSC2P-22,0	22.0	10	38	105
PRHSC2P-24,0	24.0	25	45	120
PRHSC2P-25,0	25.0	25	45	120

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

2 Flute, long length
2 Schneiden, lang
2 Taglienti lunghe

Series PRHSC2PL:
 Straight Shank
 Glatter Zylinderschaft
 Gambo cilindrico



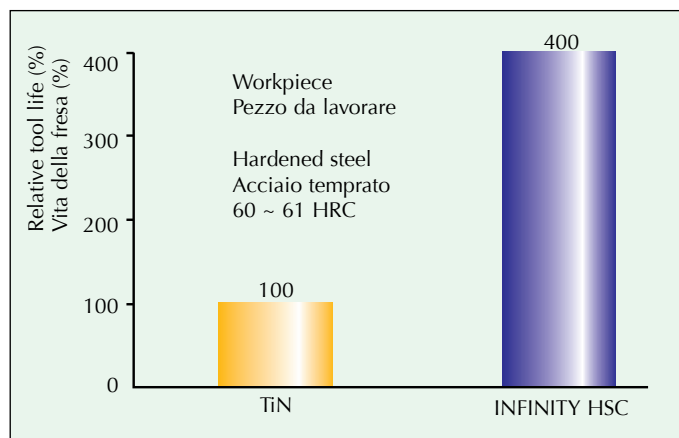
CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2PL-02,0	2.0	4	8	40
PRHSC2PL-03,0	3.0	6	12	50
PRHSC2PL-04,0	4.0	6	15	50
PRHSC2PL-05,0	5.0	6	20	60
PRHSC2PL-06,0	6.0	6	20	60
PRHSC2PL-08,0	8.0	8	25	70
PRHSC2PL-10,0	10.0	10	30	90
PRHSC2PL-12,0	12.0	12	30	90
PRHSC2PL-14,0	14.0	16	40	110
PRHSC2PL-16,0	16.0	16	50	110
PRHSC2PL-18,0	18.0	20	50	110
PRHSC2PL-20,0	20.0	20	55	110
PRHSC2PL-25,0	25.0	25	75	140

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm	von 1 bis 3 from 1 to 3 da 1 a 3 über 3 bis 6 over 3 to 6 da 3 a 6 über 6 bis 10 over 6 to 10 da 6 a 10	-14 -28 0 -8 0 -9
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm	über 10 bis 18 over 10 to 18 da 10 a 18 über 18 bis 30 over 18 to 30 da 18 a 30	-32 -59 0 -11 0 -13



2 Flute end Mills for rib processing
2 Schneiden, für kleinste Rippe
2 Taglienti piane per nervature



Serie PRHSC2PN:

Straight Shank

Glattem Zylinderschaft

Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	SHANK DIAMETER DIAMETRO GAMBO d_2 (h6)	LENGTH OF CUT LUNGH. TAGLIENTE l_1	EFFECTIVE LENGHT LUNGH. EFFETTIVA l_2	OVERALL LENGHT LUNGH. TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
* PRHSC2PN0402	0,4	4	0,6	2	45	0,37
* PRHSC2PN0403	0,4	4	0,6	3	45	0,37
* PRHSC2PN0404	0,4	4	0,6	4	45	0,37
* PRHSC2PN0405	0,4	4	0,6	5	45	0,37
* PRHSC2PN0502	0,5	4	0,7	2	45	0,45
* PRHSC2PN0504	0,5	4	0,7	4	45	0,45
* PRHSC2PN0506	0,5	4	0,7	6	45	0,45
* PRHSC2PN0508	0,5	4	0,7	8	45	0,45
* PRHSC2PN0602	0,6	4	0,9	2	45	0,55
* PRHSC2PN0604	0,6	4	0,9	4	45	0,55
* PRHSC2PN0606	0,6	4	0,9	6	45	0,55
* PRHSC2PN0608	0,6	4	0,9	8	45	0,55
* PRHSC2PN0610	0,6	4	0,9	10	45	0,55
* PRHSC2PN0702	0,7	4	1	2	45	0,65
* PRHSC2PN0703	0,7	4	1	3	45	0,65
* PRHSC2PN0704	0,7	4	1	4	45	0,65
* PRHSC2PN0706	0,7	4	1	6	45	0,65
* PRHSC2PN0708	0,7	4	1	8	45	0,65
* PRHSC2PN0710	0,7	4	1	10	45	0,65
* PRHSC2PN0804	0,8	4	1,2	4	45	0,75
PRHSC2PN0806	0,8	4	1,2	6	45	0,75
PRHSC2PN0808	0,8	4	1,2	8	45	0,75
* PRHSC2PN0810	0,8	4	1,2	10	45	0,75
* PRHSC2PN0812	0,8	4	1,2	12	45	0,75
* PRHSC2PN0906	0,9	4	1,35	6	45	0,85
* PRHSC2PN0908	0,9	4	1,35	8	45	0,85
* PRHSC2PN0910	0,9	4	1,35	10	45	0,85
* PRHSC2PN0915	0,9	4	1,35	15	50	0,85
* PRHSC2PN1004	1,0	4	1,5	4	45	0,97
PRHSC2PN1006	1,0	4	1,5	6	45	0,97
PRHSC2PN1008	1,0	4	1,5	8	45	0,95
* PRHSC2PN1010	1,0	4	1,5	10	45	0,95
PRHSC2PN1012	1,0	4	1,5	12	45	0,93
* PRHSC2PN1016	1,0	4	1,5	16	50	0,93
* PRHSC2PN1020	1,0	4	1,5	20	55	0,93

* Nuovi Articoli

2 Flute end Mills for rib processing
2 Schneiden, für kleinste Rippe
2 Taglienti piane per nervature



Serie PRHSC2PN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	SHANK DIAMETER DIAMETRO GAMBO d_2 (h6)	LENGTH OF CUT LUNGH. TAGLIENTE l_1	EFFECTIVE LENGHT LUNGH. EFFETTIVA l_2	OVERALL LENGHT LUNGH. TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
* PRHSC2PN1206	1,2	4	1,8	6	45	1,17
PRHSC2PN1208	1,2	4	1,8	8	45	1,15
* PRHSC2PN1210	1,2	4	1,8	10	45	1,15
PRHSC2PN1212	1,2	4	1,8	12	45	1,13
* PRHSC2PN1216	1,2	4	1,8	16	50	1,13
* PRHSC2PN1406	1,4	4	2,1	6	45	1,35
* PRHSC2PN1408	1,4	4	2,1	8	45	1,35
* PRHSC2PN1410	1,4	4	2,1	10	45	1,35
PRHSC2PN1412	1,4	4	2,1	12	45	1,33
* PRHSC2PN1414	1,4	4	2,1	14	50	1,33
* PRHSC2PN1416	1,4	4	2,1	16	50	1,31
* PRHSC2PN1422	1,4	4	2,1	22	55	1,31
* PRHSC2PN1506	1,5	4	2,3	6	45	1,47
PRHSC2PN1508	1,5	4	2,3	8	45	1,45
PRHSC2PN1510	1,5	4	2,3	10	45	1,45
PRHSC2PN1512	1,5	4	2,3	12	45	1,43
* PRHSC2PN1514	1,5	4	2,3	14	50	1,43
PRHSC2PN1516	1,5	4	2,3	16	50	1,41
* PRHSC2PN1518	1,5	4	2,3	18	55	1,41
* PRHSC2PN1520	1,5	4	2,3	20	55	1,41
* PRHSC2PN1606	1,6	4	2,4	6	45	1,57
* PRHSC2PN1608	1,6	4	2,4	8	45	1,55
* PRHSC2PN1610	1,6	4	2,4	10	45	1,55
PRHSC2PN1612	1,6	4	2,4	12	45	1,53
* PRHSC2PN1614	1,6	4	2,4	14	50	1,53
* PRHSC2PN1616	1,6	4	2,4	16	50	1,53
* PRHSC2PN1618	1,6	4	2,4	18	55	1,53
* PRHSC2PN1620	1,6	4	2,4	20	55	1,53
* PRHSC2PN1626	1,6	4	2,4	26	60	1,53
* PRHSC2PN1806	1,8	4	2,7	6	45	1,77
* PRHSC2PN1808	1,8	4	2,7	8	45	1,75
* PRHSC2PN1810	1,8	4	2,7	10	45	1,75
PRHSC2PN1812	1,8	4	2,7	12	45	1,73
* PRHSC2PN1814	1,8	4	2,7	14	50	1,73
* PRHSC2PN1816	1,8	4	2,7	16	50	1,71
* PRHSC2PN1818	1,8	4	2,7	18	55	1,71
* PRHSC2PN1820	1,8	4	2,7	20	55	1,69
* PRHSC2PN1825	1,8	4	2,7	25	60	1,69

* Nuovi Articoli

2 Flute end Mills for rib processing
2 Schneiden, für kleinste Rippe
2 Taglienti piane per nervature



Serie PRHSC2PN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	SHANK DIAMETER DIAMETRO GAMBO d_2 (h6)	LENGTH OF CUT LUNGH. TAGLIENTE l_1	EFFECTIVE LENGTH LUNGH. EFFETTIVA l_2	OVERALL LENGTH LUNGH. TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
* PRHSC2PN2006	2,0	4	3,0	6	45	1,97
* PRHSC2PN2008	2,0	4	3,0	8	45	1,95
* PRHSC2PN2010	2,0	4	3,0	10	45	1,95
PRHSC2PN2012	2,0	4	3,0	12	45	1,93
* PRHSC2PN2014	2,0	4	3,0	14	50	1,93
PRHSC2PN2016	2,0	4	3,0	16	50	1,91
* PRHSC2PN2018	2,0	4	3,0	18	55	1,91
* PRHSC2PN2020	2,0	4	3,0	20	55	1,89
* PRHSC2PN2025	2,0	4	3,0	25	60	1,89
* PRHSC2PN2030	2,0	4	3,0	30	70	1,89
* PRHSC2PN2508	2,5	4	3,7	8	45	2,40
* PRHSC2PN2510	2,5	4	3,7	10	45	2,40
PRHSC2PN2512	2,5	4	3,7	12	45	2,40
* PRHSC2PN2514	2,5	4	3,7	14	50	2,40
PRHSC2PN2516	2,5	4	3,7	16	55	2,40
* PRHSC2PN2518	2,5	4	3,7	18	55	2,40
* PRHSC2PN2520	2,5	4	3,7	20	60	2,40
* PRHSC2PN2525	2,5	4	3,7	25	70	2,40
* PRHSC2PN2530	2,5	4	3,7	30	80	2,40
* PRHSC2PN3008	3,0	6	4,5	8	45	2,85
* PRHSC2PN3010	3,0	6	4,5	10	45	2,85
* PRHSC2PN3012	3,0	6	4,5	12	45	2,85
PRHSC2PN3014	3,0	6	4,5	14	50	2,85
* PRHSC2PN3016	3,0	6	4,5	16	55	2,85
PRHSC2PN3018	3,0	6	4,5	18	55	2,85
* PRHSC2PN3020	3,0	6	4,5	20	60	2,85
* PRHSC2PN3025	3,0	6	4,5	25	65	2,85
* PRHSC2PN3030	3,0	6	4,5	30	70	2,85
* PRHSC2PN3035	3,0	6	4,5	35	80	2,85
* PRHSC2PN3040	3,0	6	4,5	40	90	2,85
* PRHSC2PN4012	4,0	6	6	12	50	3,8
* PRHSC2PN4016	4,0	6	6	16	60	3,8
* PRHSC2PN4020	4,0	6	6	20	60	3,8
* PRHSC2PN4025	4,0	6	6	25	70	3,8
* PRHSC2PN4030	4,0	6	6	30	70	3,8
* PRHSC2PN4035	4,0	6	6	35	80	3,8
* PRHSC2PN4040	4,0	6	6	40	90	3,8
* PRHSC2PN4045	4,0	6	6	45	90	3,8
* PRHSC2PN4050	4,0	6	6	50	100	3,8

* Nuovi Articoli

2 Flute end Mills for rib processing
2 Schneiden, für kleinste Rippe
2 Taglienti plane per nervature



Serie PRHSC2PN:

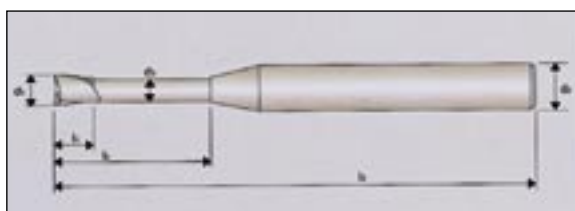
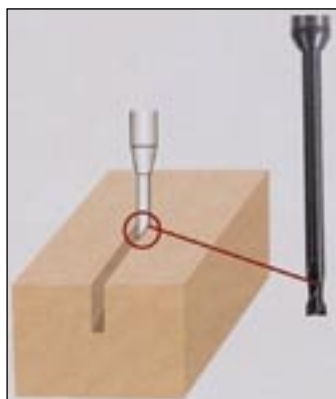
Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	SHANK DIAMETER DIAMETRO GAMBO d_2 (h6)	LENGTH OF CUT LUNGH. TAGLIENTE l_1	EFFECTIVE LENGHT LUNGH. EFFETTIVA l_2	OVERALL LENGHT LUNGH. TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
* PRHSC2PN5016	5,0	6	7,5	16	60	4,80
* PRHSC2PN5020	5,0	6	7,5	20	60	4,80
* PRHSC2PN5025	5,0	6	7,5	25	70	4,80
* PRHSC2PN5030	5,0	6	7,5	30	80	4,80
* PRHSC2PN5035	5,0	6	7,5	35	80	4,80
* PRHSC2PN5040	5,0	6	7,5	40	80	4,80
* PRHSC2PN5050	5,0	6	7,5	50	110	4,80
* PRHSC2PN6020	6,0	6	9	20	80	5,80
* PRHSC2PN6030	6,0	6	9	30	90	5,80
* PRHSC2PN6040	6,0	6	9	40	100	5,80
* PRHSC2PN6050	6,0	6	9	50	110	5,80

* Nuovi Articoli

Tolleranza diametro fresa	0 -0.015
Tolleranza diametro gambo	0 -0.008



* SPEED & FEED DATA - SEE PAGE 106
 * PER I PARAMETRI DI TAGLIO VEDERE PAG. 106

4 Flute, short length
4 Schneiden, kurz
4 Taglienti corte



Series PRHSC4P:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC4P-02,0	2.0	4	6	40
PRHSC4P-02,5	2.5	4	8	40
PRHSC4P-03,0	3.0	6	8	45
PRHSC4P-03,5	3.5	6	10	45
PRHSC4P-04,0	4.0	6	11	45
PRHSC4P-04,5	4.5	6	11	45
PRHSC4P-05,0	5.0	6	13	50
PRHSC4P-05,5	5.5	6	13	50
PRHSC4P-06,0	6.0	6	13	50
PRHSC4P-06,5	6.5	8	16	60
PRHSC4P-07,0	7.0	8	16	60
PRHSC4P-07,5	7.5	8	16	60
PRHSC4P-08,0	8.0	8	19	60
PRHSC4P-08,5	8.5	10	19	70
PRHSC4P-09,0	9.0	10	19	70
PRHSC4P-09,5	9.5	10	19	70
PRHSC4P-10,0	10.0	10	22	70
PRHSC4P-10,5	10.5	12	22	75
PRHSC4P-11,0	11.0	12	22	75
PRHSC4P-12,0	12.0	12	26	75
PRHSC4P-13,0	13.0	12	26	75
PRHSC4P-14,0	14.0	14	26	85
PRHSC4P-15,0	15.0	16	26	90
PRHSC4P-16,0	16.0	16	32	100
PRHSC4P-17,0	17.0	16	32	100
PRHSC4P-18,0	18.0	18	32	100
PRHSC4P-20,0	20.0	20	38	105
PRHSC4P-22,0	22.0	20	38	105
PRHSC4P-24,0	24.0	25	45	120
PRHSC4P-25,0	25.0	25	45	120

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm	von 1 bis 3 from 1 to 3 da 1 a 3	-14 0 -6
	über 3 bis 6 over 3 to 6 da 3 a 6	-20 0 -8
	über 6 bis 10 over 6 to 10 da 6 a 10	-25 0 -9
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm	über 10 bis 18 over 10 to 18 da 10 a 18	-32 0 -11
	über 18 bis 30 over 18 to 30 da 18 a 30	-40 0 -13

4 Flute, Long length 4 Schneiden, lang 4 Taglienti lunghe

Series PRHSC4PL:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico



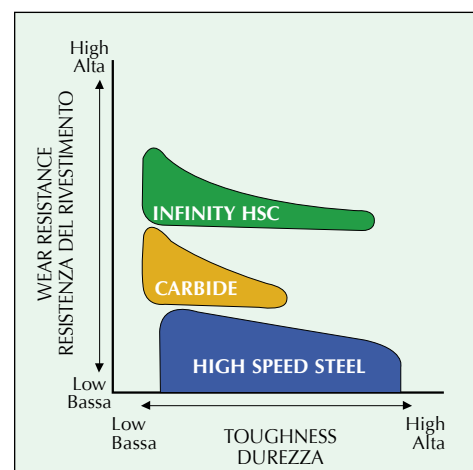
CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC4PL-02,0	2.0	4	8	40
PRHSC4PL-03,0	3.0	6	12	50
PRHSC4PL-04,0	4.0	6	15	50
PRHSC4PL-05,0	5.0	6	20	60
PRHSC4PL-06,0	6.0	6	20	60
PRHSC4PL-08,0	8.0	8	25	70
PRHSC4PL-10,0	10.0	10	30	90
PRHSC4PL-12,0	12.0	12	30	90
PRHSC4PL-14,0	14.0	16	40	110
PRHSC4PL-16,0	16.0	16	50	110
PRHSC4PL-18,0	18.0	20	50	110
PRHSC4PL-20,0	20.0	20	55	110
PRHSC4PL-25,0	25.0	25	75	140

TOLERANCES ACCORDING TO DIN 7160 & 7161

TOLERANZEN NACH DIN 7160 & 7161

TOLLERANZE SECONDO NORME DIN 7160 & 7161

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14	0
über 3 bis 6 over 3 to 6 da 3 a 6	-28	-6
über 6 bis 10 over 6 to 10 da 6 a 10	-20	0
über 10 bis 18 over 10 to 18 da 10 a 18	-38	-8
über 6 bis 10 over 6 to 10 da 6 a 10	-25	0
über 10 bis 18 over 10 to 18 da 10 a 18	-47	-9
über 18 bis 30 over 18 to 30 da 18 a 30	-32	0
über 18 bis 30 over 18 to 30 da 18 a 30	-59	-11
über 18 bis 30 over 18 to 30 da 18 a 30	-40	0
über 18 bis 30 over 18 to 30 da 18 a 30	-73	-13



4 Flute, short length
4 Schneiden, kurz
4 Tagli, corte PRHSC4PPE


Series PRHSC4PPE:

Straight Shank

Glattem Zylinderschaft

Gambo cilindrico

CODE No. CODICE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIANTE LENGHT OF CUT	OVERALL LENGHT LUNGH.TOTALE
*PRHSC4PPE-03,0	3	6	7	54
*PRHSC4PPE-04,0	4	6	8	54
*PRHSC4PPE-05,0	5	6	10	54
*PRHSC4PPE-06,0	6	6	10	54
*PRHSC4PPE-08,0	8	8	12	58
*PRHSC4PPE-10,0	10	10	14	66
*PRHSC4PPE-12,0	12	12	16	73
*PRHSC4PPE-14,0	14	14	18	75
*PRHSC4PPE-16,0	16	16	22	82
*PRHSC4PPE-18,0	18	18	24	84
*PRHSC4PPE-20,0	20	20	26	92

* Nuovi Articoli

4 Flute, corner radius, short
4 Schneiden, Eckenradius, kurz
4 Tagli, corte, toriche PRHSC4TPE



Series PRHSC4TPE:

Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIANTE LENGHT OF CUT	OVERALL LENGHT LUNGH.TOTALE	RADIUS RAGGIO R
*PRHSC4TPE-03,0	3	6	7	54	0,3
*PRHSC4TPE-04,0	4	6	8	54	0,3
*PRHSC4TPE-05,0	5	6	10	54	0,3
*PRHSC4TPE-06,0	6	6	10	54	0,4
*PRHSC4TPE-08,0	8	8	12	58	0,4
*PRHSC4TPE-10,0	10	10	14	66	0,4
*PRHSC4TPE-12,0	12	12	16	73	0,7
*PRHSC4TPE-14,0	14	14	18	75	0,7
*PRHSC4TPE-16,0	16	16	22	82	1
*PRHSC4TPE-18,0	18	18	24	84	1
*PRHSC4TPE-20,0	20	20	26	92	1

* Nuovi Articoli

4 Flute, long length
4 Schneiden, lang
4 Tagli, lunghe PRHSC4PLPE



Series PRHSC4PLPE:
 Straight Shank
Glatter Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIANTE LENGHT OF CUT	OVERALL LENGHT LUNGH.TOTALE
*PRHSC4PLPE-03,0	3	6	8	57
*PRHSC4PLPE-04,0	4	6	11	57
*PRHSC4PLPE-05,0	5	6	13	57
*PRHSC4PLPE-06,0	6	6	13	57
*PRHSC4PLPE-08,0	8	8	19	63
*PRHSC4PLPE-10,0	10	10	22	72
*PRHSC4PLPE-12,0	12	12	26	83
*PRHSC4PLPE-14,0	14	14	26	83
*PRHSC4PLPE-16,0	16	16	32	92
*PRHSC4PLPE-18,0	18	18	32	92
*PRHSC4PLPE-20,0	20	20	38	104
*PRHSC4PLPE-25,0	25	25	38	104

* Nuovi Articoli

4 Flute, corner radius, long length
4 Schneiden, Eckenradius, lang
4 Tagli, lunghe, toriche PRHSC4TLPE



Series PRHSC4TLPE:

Straight Shank

Glatter Zylinderschaft

Gambo cilindrico



CODE No. CODICE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIANTE LENGHT OF CUT	OVERALL LENGTH LUNGH.TOTALE	RADIUS RAGGIO R
*PRHSC4TLPE-03,0	3	6	8	57	0,3
*PRHSC4TLPE-04,0	4	6	11	57	0,3
*PRHSC4TLPE-05,0	5	6	13	57	0,3
*PRHSC4TLPE-06,0	6	6	13	57	0,4
*PRHSC4TLPE-08,0	8	8	19	63	0,4
*PRHSC4TLPE-10,0	10	10	22	72	0,4
*PRHSC4TLPE-12,0	12	12	26	83	0,7
*PRHSC4TLPE-14,0	14	14	26	83	0,7
*PRHSC4TLPE-16,0	16	16	32	92	1
*PRHSC4TLPE-18,0	18	18	32	92	1
*PRHSC4TLPE-20,0	20	20	38	104	1
*PRHSC4TLPE-25,0	25	25	38	104	1

* Nuovi Articoli

6, 8 Flute, 45° helix, Long length
6, 8 Schneiden, 45° Rechtsspirale, lang
6, 8 Taglienti, elica 45°, lunghe



Series PRHSC6P:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

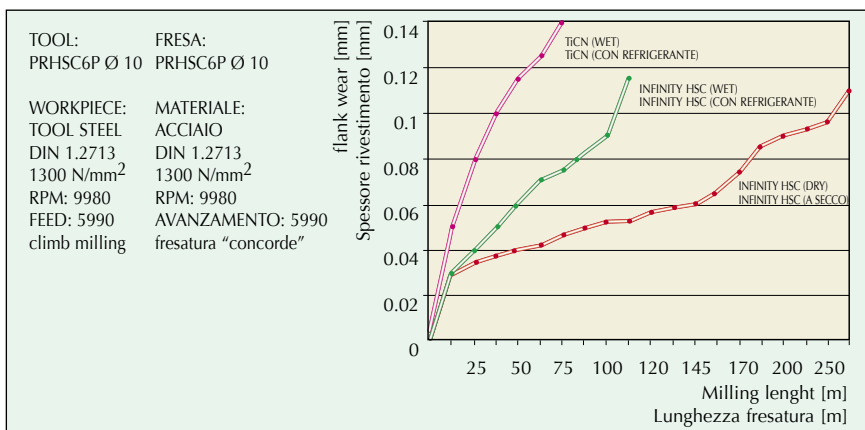
CODE No. CODICE	MILL DIAMETER FRESA e8	SHANK DIAMETER GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIENTI
PRHSC6P-06,0	6.0	6	13	57	6
PRHSC6P-07,0	7.0	8	16	63	6
PRHSC6P-08,0	8.0	8	19	63	6
PRHSC6P-09,0	9.0	10	19	72	6
PRHSC6P-10,0	10.0	10	22	72	6
PRHSC6P-12,0	12.0	12	26	83	6
PRHSC6P-14,0	14.0	14	26	83	6
PRHSC6P-16,0	16.0	16	32	92	6
PRHSC6P-18,0	18.0	18	32	92	8
PRHSC6P-20,0	20.0	20	38	104	8
PRHSC6P-25,0	25.0	25	44	104	8

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm	von 1 bis 3 from 1 to 3 da 1 a 3	-14 0 -6
	über 3 bis 6 over 3 to 6 da 3 a 6	-20 0 -8
	über 6 bis 10 over 6 to 10 da 6 a 10	-25 0 -9
	über 10 bis 18 over 10 to 18 da 10 a 18	-32 0 -11
	über 18 bis 30 over 18 to 30 da 18 a 30	-40 0 -13



* SPEED & FEED DATA - SEE PAGE 101
 * PER I PARAMETRI DI TAGLIO VEDERE PAG. 101

6 Flute, 45° helix, extra long length
6 Schneiden, 45° Rechtsspirale, extra lang
6 Taglienti, elica 45°, extra lunghe

Series PRHSC6PL:

Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIENTI
PRHSC6PL-06,0	6.0	6	26	70	6
PRHSC6PL-08,0	8.0	8	36	90	6
PRHSC6PL-10,0	10.0	10	46	100	6
PRHSC6PL-12,0	12.0	12	56	110	6
PRHSC6PL-16,0	16.0	16	66	130	6
PRHSC6PL-20,0	20.0	20	76	140	6
PRHSC6PL-25,0	25.0	25	92	180	6

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14	0
über 3 bis 6 over 3 to 6 da 3 a 6	-28	-6
über 6 bis 10 over 6 to 10 da 6 a 10	-20	0
über 10 bis 18 over 10 to 18 da 10 a 18	-38	-8
über 18 bis 30 over 18 to 30 da 18 a 30	-25	0
	-47	-9
	-32	0
	-59	-11
	-40	0
	-73	-13

2 Flute, ball nose, long length
2 Schneiden, Stirnradius, lang
2 Taglienti, sferiche, lunghe



Series PRHSC2S:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

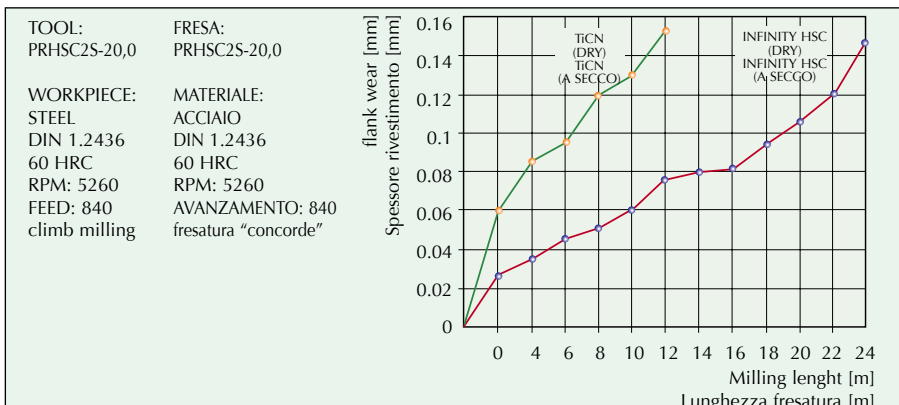
CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2S-00,6	0.6	3	1.1	40
PRHSC2S-00,7	0.7	3	1.5	40
PRHSC2S-00,8	0.8	3	2	40
PRHSC2S-00,9	0.9	3	2.2	40
PRHSC2S-01,0	1.0	4	2.5	50
PRHSC2S-01,1	1.1	3	3	40
PRHSC2S-01,2	1.2	4	3	50
PRHSC2S-01,3	1.3	3	3.5	40
PRHSC2S-01,4	1.4	3	3.5	40
PRHSC2S-01,5	1.5	4	4	50
PRHSC2S-02,0	2.0	6	5	50
PRHSC2S-03,0	3.0	6	8	60
PRHSC2S-04,0	4.0	6	8	70
PRHSC2S-05,0	5.0	6	10	80
PRHSC2S-06,0	6.0	6	12	90
PRHSC2S-07,0	7.0	8	14	90
PRHSC2S-08,0	8.0	8	14	100
PRHSC2S-09,0	9.0	10	18	100
PRHSC2S-10,0	10.0	10	18	100
PRHSC2S-12,0	12.0	12	22	110
PRHSC2S-14,0	14.0	14	26	110
PRHSC2S-16,0	16.0	16	30	140
PRHSC2S-18,0	18.0	18	34	140
PRHSC2S-20,0	20.0	20	38	160
PRHSC2S-25,0	25.0	25	50	180

TOLERANCES ACCORDING TO DIN 7160 & 7161

TOLERANZEN NACH DIN 7160 & 7161

TOLLERANZE SECONDO NORME DIN 7160 & 7161

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm	von 1 bis 3 from 1 to 3 da 1 a 3	0 -6
	über 3 bis 6 over 3 to 6 da 3 a 6	0 -8
	über 6 bis 10 over 6 to 10 da 6 a 10	0 -9
	über 10 bis 18 over 10 to 18 da 10 a 18	0 -11
	über 18 bis 30 over 18 to 30 da 18 a 30	0 -13



* SPEED & FEED DATA - SEE PAGE 102-103
 * PER I PARAMETRI DI TAGLIO VEDERE PAG. 102-103

2 Flute, ball nose, long reach
2 Schneiden, Stirnradius, lang reach
2 Taglienti, sferiche, extra lunghe

Series PRHSC2SL:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2SL-02,0	2.0	3	6	80
PRHSC2SL-03,0	3.0	3	8	100
PRHSC2SL-04,0	4.0	4	8	100
PRHSC2SL-05,0	5.0	6	10	120
PRHSC2SL-06,0	6.0	6	10	120
PRHSC2SL-08,0	8.0	8	14	140
PRHSC2SL-10,0	10.0	10	18	180
PRHSC2SL-12,0	12.0	12	22	200
PRHSC2SL-16,0	16.0	16	30	250
PRHSC2SL-20,0	20.0	20	38	250

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14	0
über 3 bis 6 over 3 to 6 da 3 a 6	-28	-6
über 6 bis 10 over 6 to 10 da 6 a 10	-20	0
über 10 bis 18 over 10 to 18 da 10 a 18	-38	-8
über 18 bis 30 over 18 to 30 da 18 a 30	-25	0
	-47	-9
	-32	0
	-59	-11
	-40	0
	-73	-13

2 Flute, ball nose, short length
2 Schneiden, stirnradius, kurz
2 Taglienti, sferiche, corte



Series PRHSC2SC:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2SC-01,0	1.0	3	3	38
PRHSC2SC-01,2	1.2	3	3	38
PRHSC2SC-01,5	1.5	3	3	38
PRHSC2SC-02,0	2.0	6	3	50
PRHSC2SC-03,0	3.0	6	4	50
PRHSC2SC-04,0	4.0	6	5	54
PRHSC2SC-05,0	5.0	6	6	54
PRHSC2SC-06,0	6.0	6	7	54
PRHSC2SC-07,0	7.0	8	8	58
PRHSC2SC-08,0	8.0	8	9	58
PRHSC2SC-09,0	9.0	10	10	66
PRHSC2SC-10,0	10.0	10	11	66
PRHSC2SC-12,0	12.0	12	12	73
PRHSC2SC-14,0	14.0	14	14	75
PRHSC2SC-16,0	16.0	16	16	82
PRHSC2SC-18,0	18.0	18	18	84
PRHSC2SC-20,0	20.0	20	20	92
PRHSC2SC-25,0	25.0	25	25	104

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

2 Flute, high precision ball nose, stub length
2 Schneiden, präziser stirnradius, extra kurz
2 Taglienti sferiche ultraprecise, corte

Series PRHSC2SP:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2SP-01,0	1.0	4	1	50
PRHSC2SP-01,2	1.2	4	1.2	50
PRHSC2SP-01,5	1.5	4	1.5	50
PRHSC2SP-02,0	2.0	6	2	50
PRHSC2SP-03,0	3.0	6	3	60
PRHSC2SP-04,0	4.0	6	4	70
PRHSC2SP-05,0	5.0	6	5	80
PRHSC2SP-06,0	6.0	6	6	90
PRHSC2SP-07,0	7.0	8	7	90
PRHSC2SP-08,0	8.0	8	8	100
PRHSC2SP-09,0	9.0	10	9	100
PRHSC2SP-10,0	10.0	10	10	100
PRHSC2SP-12,0	12.0	12	12	110
PRHSC2SP-14,0	14.0	14	14	110
PRHSC2SP-16,0	16.0	16	16	140
PRHSC2SP-18,0	18.0	18	18	140
PRHSC2SP-20,0	20.0	20	20	160
PRHSC2SP-25,0	25.0	25	25	180

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

2 Flute, ball nose, stub length for over HRC55
2 Schneiden, stirnradius, extra kurz für über HRC55
2 Taglienti sferiche, corte, oltre HRC55



Series PRHSC2SH:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2SH-01,0	1.0	4	1	50
PRHSC2SH-01,2	1.2	4	1.2	50
PRHSC2SH-01,5	1.5	4	1.5	50
PRHSC2SH-02,0	2.0	6	2	50
PRHSC2SH-03,0	3.0	6	3	60
PRHSC2SH-04,0	4.0	6	4	70
PRHSC2SH-05,0	5.0	6	5	80
PRHSC2SH-06,0	6.0	6	6	90
PRHSC2SH-07,0	7.0	8	7	90
PRHSC2SH-08,0	8.0	8	8	100
PRHSC2SH-09,0	9.0	10	9	100
PRHSC2SH-10,0	10.0	10	10	100
PRHSC2SH-12,0	12.0	12	12	110
PRHSC2SH-14,0	14.0	14	14	110
PRHSC2SH-16,0	16.0	16	16	140
PRHSC2SH-18,0	18.0	18	18	140
PRHSC2SH-20,0	20.0	20	20	160
PRHSC2SH-25,0	25.0	25	25	180

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

2 Flute, ball nose for rib processing
2 Schneiden, Stirnradius, für kleinste Rippe
2 Taglienti sferiche per nervature



Serie PRHSC2SN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	SHANK DIAMETER DIAMETRO GAMBO d_2 (h6)	LENGTH OF CUT LUNGH. TAGLIANTE l_1	EFFECTIVE LENGHT LUNGH. EFFETTIVA l_2	OVERALL LENGHT LUNGH. TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
* PRHSC2SN0401	0,4	4	0,6	1	45	0,36
* PRHSC2SN0402	0,4	4	0,6	2	45	0,36
* PRHSC2SN0403	0,4	4	0,6	3	45	0,36
* PRHSC2SN0502	0,5	4	0,7	2	45	0,45
* PRHSC2SN0504	0,5	4	0,7	4	45	0,45
* PRHSC2SN0506	0,5	4	0,7	6	45	0,45
* PRHSC2SN0508	0,5	4	0,7	8	45	0,45
* PRHSC2SN0602	0,6	4	0,9	2	45	0,55
* PRHSC2SN0604	0,6	4	0,9	4	45	0,55
PRHSC2SN0606	0,6	4	0,9	6	45	0,55
* PRHSC2SN0608	0,6	4	0,9	8	45	0,55
* PRHSC2SN0802	0,8	4	1,2	2	45	0,75
* PRHSC2SN0804	0,8	4	1,2	4	45	0,75
PRHSC2SN0806	0,8	4	1,2	6	45	0,75
PRHSC2SN0808	0,8	4	1,2	8	45	0,75
* PRHSC2SN0810	0,8	4	1,2	10	45	0,75
* PRHSC2SN1003	1,0	4	1,5	3	45	0,97
* PRHSC2SN1004	1,0	4	1,5	4	45	0,97
* PRHSC2SN1005	1,0	4	1,5	5	45	0,97
PRHSC2SN1006	1,0	4	1,5	6	45	0,97
* PRHSC2SN1007	1,0	4	1,5	7	45	0,95
PRHSC2SN1008	1,0	4	1,5	8	45	0,95
* PRHSC2SN1009	1,0	4	1,5	9	45	0,95
* PRHSC2SN1010	1,0	4	1,5	10	45	0,95
PRHSC2SN1012	1,0	4	1,5	12	45	0,93
* PRHSC2SN1014	1,0	4	1,5	14	50	0,93
* PRHSC2SN1016	1,0	4	1,5	16	50	0,93
* PRHSC2SN1020	1,0	4	1,5	20	55	0,93
PRHSC2SN1208	1,2	4	1,8	8	45	1,17
PRHSC2SN1212	1,2	4	1,8	12	45	1,13
* PRHSC2SN1408	1,4	4	2,1	8	45	1,35
PRHSC2SN1412	1,4	4	2,1	12	45	1,33
* PRHSC2SN1416	1,4	4	2,1	16	50	1,31
* PRHSC2SN1506	1,5	4	2,3	6	45	1,47
PRHSC2SN1508	1,5	4	2,3	8	45	1,45
* PRHSC2SN1510	1,5	4	2,3	10	45	1,45
PRHSC2SN1512	1,5	4	2,3	12	45	1,43
PRHSC2SN1516	1,5	4	2,3	16	50	1,41
* PRHSC2SN1520	1,5	4	2,3	20	55	1,39
* PRHSC2SN1608	1,6	4	2,4	8	45	1,55
* PRHSC2SN1612	1,6	4	2,4	12	5	1,53
PRHSC2SN1616	1,6	4	2,4	16	50	1,51
* PRHSC2SN1620	1,6	4	2,4	20	55	1,49

* Nuovi Articoli

2 Flute, ball nose for rib processing
2 Schneiden, Stirnradius, für kleinste Rippe
2 Taglienti sferiche per nervature



Serie PRHSC2SN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	SHANK DIAMETER DIAMETRO GAMBO d_2 (h6)	LENGTH OF CUT LUNGH. TAGLIENTE l_1	EFFECTIVE LENGTH LUNGH. EFFETTIVA l_2	OVERALL LENGTH LUNGH. TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
* PRHSC2SN1808	1,8	4	2,7	8	45	1,75
* PRHSC2SN1812	1,8	4	2,7	12	45	1,73
PRHSC2SN1816	1,8	4	2,7	16	50	1,71
* PRHSC2SN1820	1,8	4	2,7	20	55	1,69
* PRHSC2SN2004	2,0	4	3,0	4	45	1,97
* PRHSC2SN2006	2,0	4	3,0	6	45	1,97
PRHSC2SN2008	2,0	4	3,0	8	45	1,95
* PRHSC2SN2010	2,0	4	3,0	10	45	1,93
* PRHSC2SN2012	2,0	4	3,0	12	50	1,93
* PRHSC2SN2014	2,0	4	3,0	14	50	1,93
PRHSC2SN2016	2,0	4	3,0	16	50	1,91
PRHSC2SN2020	2,0	4	3,0	20	55	1,89
* PRHSC2SN2022	2,0	4	3,0	22	60	1,89
* PRHSC2SN2025	2,0	4	3,0	25	60	1,89
* PRHSC2SN2030	2,0	4	3,0	30	70	1,89
* PRHSC2SN3008	3,0	6	4,5	8	50	2,85
* PRHSC2SN3010	3,0	6	4,5	10	50	2,85
* PRHSC2SN3012	3,0	6	4,5	12	50	2,85
PRHSC2SN3016	3,0	6	4,5	16	55	2,85
PRHSC2SN3020	3,0	6	4,5	20	60	2,85
* PRHSC2SN3025	3,0	6	4,5	25	65	2,85
* PRHSC2SN3030	3,0	6	4,5	30	70	2,85
* PRHSC2SN3035	3,0	6	4,5	35	80	2,85
* PRHSC2SN4010	4,0	6	6,0	10	60	3,85
* PRHSC2SN4012	4,0	6	6,0	12	60	3,85
PRHSC2SN4016	4,0	6	6,0	16	60	3,85
PRHSC2SN4020	4,0	6	6,0	20	65	3,85
* PRHSC2SN4025	4,0	6	6,0	25	70	3,85
* PRHSC2SN4030	4,0	6	6,0	30	70	3,85
* PRHSC2SN4035	4,0	6	6,0	35	80	3,85
* PRHSC2SN4040	4,0	6	6,0	40	90	3,85
* PRHSC2SN4045	4,0	6	6,0	45	90	3,85
* PRHSC2SN4050	4,0	6	6,0	50	100	3,85
* PRHSC2SN5016	5,0	6	7,5	16	60	4,80
* PRHSC2SN5020	5,0	6	7,5	20	60	4,80
* PRHSC2SN5025	5,0	6	7,5	25	70	4,80
* PRHSC2SN5030	5,0	6	7,5	30	80	4,80
* PRHSC2SN5035	5,0	6	7,5	35	80	4,80
* PRHSC2SN6020	6,0	6	9	20	80	5,80
* PRHSC2SN6030	6,0	6	9	30	90	5,80
* PRHSC2SN6040	6,0	6	9	40	100	5,80
* PRHSC2SN6050	6,0	6	9	50	110	5,80

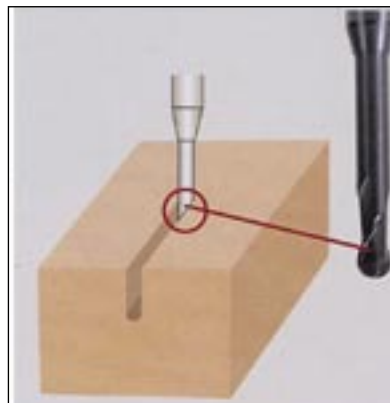
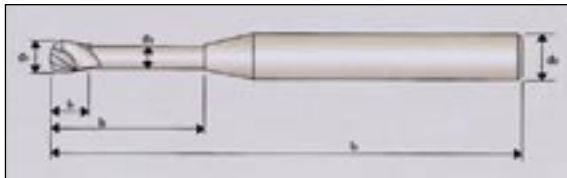
* Nuovi Articoli

2 Flute, ball nose for rib processing
2 Schneiden, stirnradius, für kleinste rippe
2 Taglienti sferiche per nervature

Series PRHSC2SN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



Diametro fresa	0.6	0.8 ~ 3.0	4.0
Tolleranza diametro fresa	-0.014 -0.028		-0.020 -0.038
Tolleranza diametro gambo	-0 -0.006	-0 -0.008	



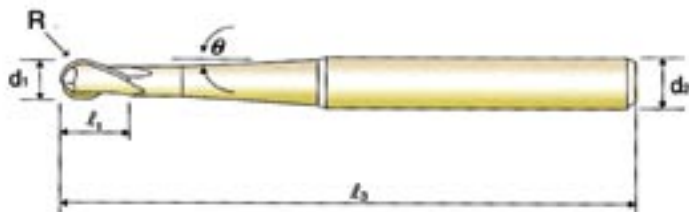
2 Flute, ball nose end mill with taper neck
2 Schneiden, stirnradius mit konisch abgesetzten shaftteil
2 Taglienti sferiche per nervature profonde



Series PRHSC2ST:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA $\varnothing d_1$	SHANK DIAMETER DIAMETRO GAMBO $\varnothing d_2$	LENGTH OF CUT LUNGHEZZA TAGLIANTE l_1	OVERALL LENGTH LUNGHEZZA TOTALE l_2	NECK TAPER ANGLE ANGOLO PARTE SCARICATA θ	RADIUS OF BALL NOSE RAGGIO R
PRHSC2ST-01,13	1.0	6	2	60	1° 30'	0.5
PRHSC2ST-01,50	1.0	6	2	60	5°	0.5
PRHSC2ST-01,30	1.0	6	2	80	3°	0.5
PRHSC2ST-02,13	2.0	6	4	60	1° 30'	1
PRHSC2ST-02,50	2.0	6	4	60	5°	1
PRHSC2ST-02,30	2.0	6	4	80	3°	1
PRHSC2ST-03,30	3.0	6	6	70	3°	1.5
PRHSC2ST-03,13	3.0	6	6	90	1° 30'	1.5
PRHSC2ST-04,30	4.0	6	8	70	3°	2
PRHSC2ST-04,13	4.0	6	8	90	1° 30'	2
PRHSC2ST-05,30	5.0	8	10	90	3°	2.5
PRHSC2ST-05,13	5.0	8	10	110	1° 30'	2.5
PRHSC2ST-06,30	6.0	8	12	90	3°	3
PRHSC2ST-06,13	6.0	8	12	110	1° 30'	3
PRHSC2ST-08,30	8.0	10	14	100	3°	4
PRHSC2ST-08,13	8.0	10	14	120	1° 30'	4
PRHSC2ST-10,30	10.0	12	18	110	3°	5
PRHSC2ST-10,13	10.0	12	18	130	1° 30'	5
PRHSC2ST-12,30	12.0	16	22	140	3°	6
PRHSC2ST-12,13	12.0	16	22	160	1° 30'	6

Tolleranza diametro fresa	$d_1 < 6$	$\begin{matrix} 0 \\ -0.028 \end{matrix}$
	$d_1 > 6$	$\begin{matrix} 0 \\ -0.038 \end{matrix}$
Tolleranza diametro gambo	h6	



2 Flute, INFINITY HSC carbide long length ball nose end mills, sphere type

2 Schneiden, INFINITY HSC Vollhartmetall Radiuschaffräser, lang, Sphäre Typ

2 Taglienti, INFINITY HSC metallo duro sferiche, lunghe 220°

Series PRHSC2SS:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

Helix angle: $\approx 30^\circ$
 Elica: $\approx 30^\circ$
 Shank: DIN 6535 HA
 (plain shank)
 Gambo: DIN 6535 HA
 (cilindrico)
 R.H Helix & R. H Cut
 Elica e taglio destro
 INFINITY coating
 Rivestimento INFINITY



UNIT: mm / UNITÀ DI MISURA: mm

CODE No. CODICE	d ₁ h9	r ±0.01	d ₃	l ₂	l ₃	l ₁	d ₂ h6
PRHSC2SS-03,0	3	1.5	2.5	2.3	30	80	6
PRHSC2SS-04,0	4	2	3.3	3.1	30	80	6
PRHSC2SS-05,0	5	2.5	4.1	3.9	38	80	6
PRHSC2SS-06,0	6	3	4.7	4.9	28	100	6
PRHSC2SS-08,0	8	4	6.5	6.3	33	100	8
PRHSC2SS-10,0	10	5	8.2	7.9	40	100	10
PRHSC2SS-12,0	12	6	9.8	9.5	49	100	12
PRHSC2SS-16,0	16	8	13.4	12.4	59	150	16

4 Flute, ball nose, long length
4 Schneiden, Stirnradius, lang
4 Taglienti, sferiche lunghe



Series PRHSC4S:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC4S-01,0	1.0	4	2.5	50
PRHSC4S-01,5	1.5	4	3	50
PRHSC4S-02,0	2.0	6	4	50
PRHSC4S-03,0	3.0	6	8	60
PRHSC4S-04,0	4.0	6	8	70
PRHSC4S-05,0	5.0	6	10	80
PRHSC4S-06,0	6.0	6	12	90
PRHSC4S-07,0	7.0	8	14	90
PRHSC4S-08,0	8.0	8	14	100
PRHSC4S-09,0	9.0	10	18	100
PRHSC4S-10,0	10.0	10	18	100
PRHSC4S-12,0	12.0	12	22	110
PRHSC4S-14,0	14.0	14	26	110
PRHSC4S-16,0	16.0	16	30	140
PRHSC4S-18,0	18.0	18	34	140
PRHSC4S-20,0	20.0	20	38	160
PRHSC4S-25,0	25.0	25	50	180

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

4 Flute, INFINITY HSC carbide long length ball nose end mills, sphere type

4 Schneiden, INFINITY HSC Vollhartmetall Radiusschafffräser, lang, Kugel Typ

4 Taglienti, metallo duro INFINITY HSC, lunghe sferiche, 220°

Series PRHSC4SS:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

Helix angle: $\approx 30^\circ$
 Elica: $\approx 30^\circ$
 Shank: DIN 6535 HA
 (plain shank)
 Gambo: DIN 6535 HA
 (gambo cilindrico)
 R.H Helix & R. H Cut
 Elica e tagliente destro
 INFINITY coating
 Rivestimento INFINITY



UNIT: mm / UNITÀ DI MISURA: mm

CODE No. CODICE	d ₁ h9	r ±0.01	d ₃	l ₂	l ₃	l ₁	d ₂ h6
PRHSC4SS-05,0	5	2.5	4.1	3.9	38	80	6
PRHSC4SS-06,0	6	3	4.7	4.9	28	100	6
PRHSC4SS-08,0	8	4	6.5	6.3	33	100	8
PRHSC4SS-10,0	10	5	8.2	7.9	40	100	10
PRHSC4SS-12,0	12	6	9.8	9.5	49	100	12
PRHSC4SS-16,0	16	8	13.4	12.4	59	150	16

Multi. Flute, roughing, long length
Multi. Schneiden, Schruppfräser, lang
Multi. Taglienti, a sgrossare, lunghe



Series PRHSC4SG:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico "WELDON"

CODE No. CODICE WELDON	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIENTI
PRHSC4SG-05	5.0	6	13	57	3
PRHSC4SG-06	6.0	6	16	57	3
PRHSC4SG-07	7.0	8	16	63	3
PRHSC4SG-08	8.0	8	16	63	3
PRHSC4SG-09	9.0	10	19	72	4
PRHSC4SG-10	10.0	10	22	72	4
PRHSC4SG-12	12.0	12	26	83	4
PRHSC4SG-14	14.0	14	26	83	4
PRHSC4SG-16	16.0	16	32	92	4
PRHSC4SG-18	18.0	18	32	92	4
PRHSC4SG-20	20.0	20	38	104	4
PRHSC4SG-25	25.0	25	45	121	5

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

Multi. Flute, roughing, long length for stainless steel
Multi. Schneiden, Schruppfräser, lang
Multi. Taglienti, a sgrossare, lunghe per Inox



Series PRHSC4SG-INOX:

Straight Shank

Glatter Zylinderschaft

Gambo cilindrico "WELDON"



CODE No. CODICE WELDON	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	NECK LENGTH LUNGHEZZA SCARICO	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIENTI
PRHSC4SG-04-INOX	4.0	6	11	-	57	3
PRHSC4SG-05-INOX	5.0	6	13	-	57	4
PRHSC4SG-06-INOX	6.0	6	16	-	63	4
PRHSC4SG-07-INOX	7.0	8	16	-	63	4
PRHSC4SG-08-INOX	8.0	8	16	-	63	4
PRHSC4SG-09-INOX	9.0	10	13	-	72	4
PRHSC4SG-10-INOX	10.0	10	22	31	72	4
PRHSC4SG-12-INOX	12.0	12	26	37	83	4
PRHSC4SG-14-INOX	14.0	14	26	-	83	4
PRHSC4SG-16-INOX	16.0	16	32	51	100	5
PRHSC4SG-20-INOX	20.0	20	38	59	110	6
PRHSC4SG-25-INOX	25.0	25	45	-	121	6

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	- 14 - 28	0 - 6
über 3 bis 6 over 3 to 6 da 3 a 6	- 20 - 38	0 - 8
über 6 bis 10 over 6 to 10 da 6 a 10	- 25 - 47	0 - 9
über 10 bis 18 over 10 to 18 da 10 a 18	- 32 - 59	0 - 11
über 18 bis 30 over 18 to 30 da 18 a 30	- 40 - 73	0 - 13

2 Flute, corner radius, for rib processing
2 Schneiden, Eckenradius, für Kleinste Rippe
2 Frese 2 tagli toriche scaricate



Series PRHSC2TN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	LENGTH OF CUT LUNGH. TAGLIANTE l_1	EFFECTIVE LENGTH LUNGH. EFFETTIVA l_2	OVERALL LENGTH LUNGH. TOTALE l_3	RADIUS RAGGIO R	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
PRHSC2TN-0501-005	0.5	0.7	1.5	50	0.05	0.45
PRHSC2TN-0503-005	0.5	0.7	3	50	0.05	0.45
PRHSC2TN-0602-005	0.6	0.9	2	50	0.05	0.55
PRHSC2TN-0604-005	0.6	0.9	4	50	0.05	0.55
PRHSC2TN-0802-005	0.8	1.2	2.5	50	0.05	0.75
PRHSC2TN-0805-005	0.8	1.2	5	50	0.05	0.75
PRHSC2TN-1003-010	1	1.5	3	50	0.1	0.95
PRHSC2TN-1006-010	1	1.5	6	50	0.1	0.95
PRHSC2TN-1012-010	1	1.5	12	50	0.1	0.95
PRHSC2TN-1004-020	1	1.5	4	50	0.2	0.95
PRHSC2TN-1008-020	1	1.5	8	50	0.2	0.95
PRHSC2TN-1012-020	1	1.5	12	50	0.2	0.95
PRHSC2TN-1004-030	1	1.5	4	50	0.3	0.95
PRHSC2TN-1008-030	1	1.5	8	50	0.3	0.95
PRHSC2TN-1012-030	1	1.5	12	50	0.3	0.95
PRHSC2TN-1204-010	1.2	1.8	4	50	0.1	1.15
PRHSC2TN-1208-010	1.2	1.8	8	50	0.1	1.15
PRHSC2TN-1505-015	1.5	2.2	5	50	0.15	1.4
PRHSC2TN-1510-015	1.5	2.2	10	50	0.15	1.4
PRHSC2TN-1506-030	1.5	2.2	6	50	0.3	1.4
PRHSC2TN-1512-030	1.5	2.2	12	50	0.3	1.4
PRHSC2TN-1518-030	1.5	2.2	18	60	0.3	1.4
PRHSC2TN-1506-050	1.5	2.2	6	50	0.5	1.4
PRHSC2TN-1512-050	1.5	2.2	12	50	0.5	1.4
PRHSC2TN-1518-050	1.5	2.2	18	60	0.5	1.4

2 Flute, corner radius, for rib processing
2 Schneiden, Eckenradius, für Kleinste Rippe
2 Frese 2 tagli toriche scaricate



Series PRHSC2TN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo Cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA d_1	LENGTH OF CUT LUNGH. TAGLIANTE l_1	EFFECTIVE LENGTH LUNGH. EFFETTIVA l_2	OVERALL LENGTH LUNGH. TOTALE l_3	RADIUS RAGGIO R	NECK DIAMETER DIAMETRO PARTE SCARICATA d_3
PRHSC2TN-2006-015	2	2.2	6	50	0.15	1.9
PRHSC2TN-2012-015	2	2.2	12	50	0.15	1.9
PRHSC2TN-2008-030	2	2.2	8	50	0.3	1.9
PRHSC2TN-2016-030	2	2.2	16	60	0.3	1.9
PRHSC2TN-2024-030	2	2.2	24	70	0.3	1.9
PRHSC2TN-2008-050	2	2.2	8	50	0.5	1.9
PRHSC2TN-2016-050	2	2.2	16	60	0.5	1.9
PRHSC2TN-2024-050	2	2.2	24	70	0.5	1.9
PRHSC2TN-2520-030	2.5	3.7	20	60	0.3	2.4
PRHSC2TN-2530-030	2.5	3.7	30	70	0.3	2.4
PRHSC2TN-2520-050	2.5	3.7	20	60	0.5	2.4
PRHSC2TN-2530-050	2.5	3.7	30	70	0.5	2.4
PRHSC2TN-3012-030	3	4.5	12	50	0.3	2.8
PRHSC2TN-3024-030	3	4.5	24	70	0.3	2.8
PRHSC2TN-3036-030	3	4.5	36	80	0.3	2.8
PRHSC2TN-3012-050	3	4.5	12	50	0.3	2.8
PRHSC2TN-3024-050	3	4.5	24	70	0.5	2.8
PRHSC2TN-3036-050	3	4.5	36	80	0.5	2.8
PRHSC2TN-3012-100	3	4.5	12	50	0.5	2.8
PRHSC2TN-3024-100	3	4.5	24	70	1	2.8
PRHSC2TN-3036-100	3	4.5	36	80	1	2.8
PRHSC2TN-4016-030	4	6	16	60	1	2.8
PRHSC2TN-4032-030	4	6	32	70	0.3	3.8
PRHSC2TN-4016-050	4	6	16	60	0.3	3.8
PRHSC2TN-4032-050	4	6	32	70	0.5	3.8
PRHSC2TN-4016-100	4	6	16	60	0.5	3.8
PRHSC2TN-4032-100	4	6	32	70	1	3.8

2 Flute, corner radius, long length
2 Schneiden, Eckenradius, lang
2 Taglienti, toriche, lunghe



Series PRHSC2T:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC2T-02,0X0,3	2 X R0.3	4	6	50
PRHSC2T-02,5X0,3	2.5 X R0.3	4	8	50
PRHSC2T-03,0X0,3	3 X R0.3	6	12	50
PRHSC2T-04,0X0,5	4 X R0.5	6	15	50
PRHSC2T-04,0X1,0	4 X R1	6	15	50
PRHSC2T-05,0X0,5	5 X R0.5	6	20	60
PRHSC2T-05,0X1,0	5 X R1	6	20	60
PRHSC2T-06,0X0,5	6 X R0.5	6	20	60
PRHSC2T-06,0X1,0	6 X R1	6	20	60
PRHSC2T-08,0X0,5	8 X R0.5	8	25	70
PRHSC2T-08,0X1,0	8 X R1	8	25	70
PRHSC2T-08,0X1,5	8 X R1.5	8	25	70
PRHSC2T-08,0X2,0	8 X R2	8	25	70
PRHSC2T-10,0X0,5	10 X R0.5	10	30	90
PRHSC2T-10,0X1,0	10 X R1	10	30	90
PRHSC2T-10,0X1,5	10 X R1.5	10	30	90
PRHSC2T-10,0X2,0	10 X R2	10	30	90
PRHSC2T-12,0X0,5	12 X R0.5	12	30	90
PRHSC2T-12,0X1,0	12 X R1	12	30	90
PRHSC2T-12,0X1,5	12 X R1.5	12	30	90
PRHSC2T-12,0X2,0	12 X R2	12	30	90

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm	von 1 bis 3 from 1 to 3 da 1 a 3	0 -6
	über 3 bis 6 over 3 to 6 da 3 a 6	0 -8
	über 6 bis 10 over 6 to 10 da 6 a 10	0 -9
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm	über 10 bis 18 over 10 to 18 da 10 a 18	0 -11
	über 18 bis 30 over 18 to 30 da 18 a 30	0 -13

3 Flute, corner radius, long length
3 Schneiden, Eckenradius, lang
3 Taglienti, toriche, lunghe

Series PRHSC3T:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC3T-04,0X0,5	4 X R0.5	6	15	50
PRHSC3T-04,0X1,0	4 X R1	6	15	50
PRHSC3T-06,0X0,5	6 X R0.5	6	20	60
PRHSC3T-06,0X1,0	6 X R1	6	20	60
PRHSC3T-08,0X0,5	8 X R0.5	8	25	70
PRHSC3T-08,0X1,0	8 X R1	8	25	70
PRHSC3T-10,0X0,5	10 X R0.5	10	30	90
PRHSC3T-10,0X1,0	10 X R1	10	30	90

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14	0
über 3 bis 6 over 3 to 6 da 3 a 6	-28	-6
über 6 bis 10 over 6 to 10 da 6 a 10	-20	0
über 10 bis 18 over 10 to 18 da 10 a 18	-38	-8
über 18 bis 30 over 18 to 30 da 18 a 30	-25	0
	-47	-9
	-32	0
	-59	-11
	-40	0
	-73	-13

4 Flute, corner radius, long length
4 Schneiden, Eckenradius, lang
4 Taglienti, toriche, lunghe



Serie PRHSC4T:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	RAGGIO RADIUS R	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIANTE LENGHT OF CUT	OVERALL LENGHT LUNGH. TOTALE
* PRHSC4T-03X03	0,3	3,0	6	12	50
* PRHSC4T-04X03	0,3	4,0	6	15	50
* PRHSC4T-04X05	0,5	4,0	6	15	50
* PRHSC4T-05X03	0,3	5,0	6	20	60
* PRHSC4T-05X05	0,5	5,0	6	20	60
* PRHSC4T-06X03	0,3	6,0	6	20	60
PRHSC4T-06X05	0,5	6,0	6	20	60
PRHSC4T-06X10	1,0	6,0	6	20	60
* PRHSC4T-08X03	0,3	8,0	8	25	70
PRHSC4T-08X05	0,5	8,0	8	25	70
PRHSC4T-08X10	1,0	8,0	8	25	70
PRHSC4T-08X15	1,5	8,0	8	25	70
PRHSC4T-08X20	2,0	8,0	8	25	70
* PRHSC4T-10X03	0,3	10,0	10	30	90
PRHSC4T-10X05	0,5	10,0	10	30	90
PRHSC4T-10X10	1,0	10,0	10	30	90
PRHSC4T-10X15	1,5	10,0	10	30	90
PRHSC4T-10X20	2,0	10,0	10	30	90
PRHSC4T-12X05	0,5	12,0	12	30	90
PRHSC4T-12X10	1,0	12,0	12	30	90
PRHSC4T-12X15	1,5	12,0	12	30	90
PRHSC4T-12X20	2,0	12,0	12	30	90
* PRHSC4T-16X05	0,5	16,0	16	50	110
* PRHSC4T-16X10	1,0	16,0	16	50	110
* PRHSC4T-16X15	1,5	16,0	16	50	110
* PRHSC4T-16X20	2,0	16,0	16	50	110
* PRHSC4T-20X05	0,5	20,0	20	55	110
* PRHSC4T-20X10	1,0	20,0	20	55	110
* PRHSC4T-20X15	1,5	20,0	20	55	110
* PRHSC4T-20X20	2,0	20,0	20	55	110

* Nuovi Articoli

4 Flute, 45° helix, corner radius, extra long shank
4 Schneiden, 45° rechsspirale, extra lang
4 Taglienti, elica 45°, toriche, gambo extralungo

Series PRHSC4TM:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	R RADIUS RAGGIO
PRHSC4TM-10,05	10.0	8	15	130	0,5
PRHSC4TM-10,10	10.0	8	15	130	1
PRHSC4TM-12,05	12.0	10	18	150	0,5
PRHSC4TM-12,10	12.0	10	18	150	1
PRHSC4TM-14,05	14.0	12	21	160	0,5
PRHSC4TM-14,10	14.0	12	21	160	1
PRHSC4TM-18,05	18.0	16	27	180	0,5
PRHSC4TM-18,10	18.0	16	27	180	1
PRHSC4TM-22,05	22.0	20	33	200	0,5
PRHSC4TM-22,10	22.0	20	33	200	1

Tolleranza diametro fresa e8	0 -0.02
Tolleranza diametro gambo	h6

6 Flute, 45° helix, corner radius, long length
6 Schneiden, 45° Rechtsspirale, Eckenradius, lang
6 Tagliente, elica 45°, toriche, lunghe



Series PRHSC6T:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIENTI
PRHSC6T-06,0X0,5	6 X R0.5	6	13	70	6
PRHSC6T-08,0X0,5	8 X R0.5	8	19	90	6
PRHSC6T-10,0X0,5	10 X R0.5	10	22	100	6
PRHSC6T-10,0X1,0	10 X R1.0	10	22	100	6
PRHSC6T-12,0X0,5	12 X R0.5	12	26	110	6
PRHSC6T-12,0X1,0	12 X R1.0	12	26	110	6
PRHSC6T-16,0X1,0	16 X R1.0	16	32	130	6
PRHSC6T-16,0X1,5	16 X R1.5	16	32	130	6
PRHSC6T-20,0X1,0	20 X R1.0	20	38	140	6
PRHSC6T-20,0X1,5	20 X R1.5	20	38	140	6
PRHSC6T-20,0X2,0	20 X R2.0	20	38	140	6

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

6 Flute, Short, 45° Corner Radius, Stub cut length
6 Schneiden, 45° Rechtsspirale, eckenradius, extra kurz
6 Tagliente, Elica destra 45°, toriche, extra corte

Series PRHSC6TC:
 Straight Shank
 Glatttem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIENTI
PRHSC6TC-06,05	6.0 x R0.5	6	6	50	0.5
PRHSC6TC-08,05	8.0 x R0.5	8	8	60	0.5
PRHSC6TC-10,10	10.0 x R1.0	10	10	70	1
PRHSC6TC-12,10	12.0 x R1.0	12	12	75	1

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

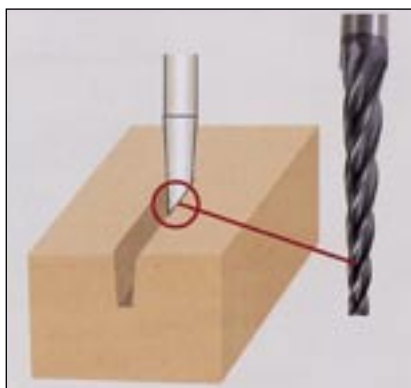
4 Flute, taper for rib processing
4 Schneiden, stirnradius, für kleinste rippe
4 Taglienti coniche per nervature



Series PRHSC4C:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	TAPER ANGLE CONICITÀ	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC4C10,030	1.0	4	8	30'	45
PRHSC4C10,031	1.0	4	12	30'	45
PRHSC4C10,100	1.0	4	8	1°	45
PRHSC4C10,101	1.0	4	12	1°	45
PRHSC4C10,130	1.0	4	8	1° 30'	45
PRHSC4C10,131	1.0	4	12	1° 30'	45
PRHSC4C10,200	1.0	4	8	2°	45
PRHSC4C10,201	1.0	4	12	2°	45
PRHSC4C12,030	1.2	4	8	30'	45
PRHSC4C12,031	1.2	4	12	30'	45
PRHSC4C12,100	1.2	4	8	1°	45
PRHSC4C12,101	1.2	4	12	1°	45
PRHSC4C12,130	1.2	4	8	1° 30'	45
PRHSC4C12,131	1.2	4	12	1° 30'	45
PRHSC4C12,200	1.2	4	8	2°	45
PRHSC4C12,201	1.2	4	12	2°	45
PRHSC4C15,030	1.5	4	8	30'	45
PRHSC4C15,031	1.5	4	12	30'	45
PRHSC4C15,032	1.5	4	16	30'	50
PRHSC4C15,100	1.5	4	8	1°	45

Tolleranza diametro fresa	0 - 0.015
Tolleranza conicità	± 5'
Tolleranza diametro gambo	0 - 0.008



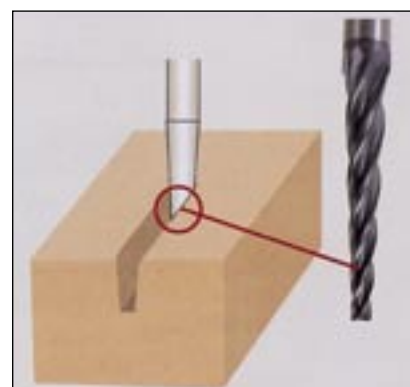
4 Flute, taper for rib processing
4 Schneiden, stirnradius, für kleinste rippe
4 Taglienti coniche per nervature

Series PRHSC4C:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER FRESA e8	SHANK DIAMETER GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	TAPER ANGLE CONICITÀ	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC4C15,101	1.5	4	12	1°	45
PRHSC4C15,102	1.5	4	16	1°	50
PRHSC4C15,130	1.5	4	8	1° 30'	45
PRHSC4C15,131	1.5	4	12	1° 30'	45
PRHSC4C15,132	1.5	4	16	1° 30'	50
PRHSC4C15,200	1.5	4	8	2°	45
PRHSC4C15,201	1.5	4	12	2°	45
PRHSC4C15,202	1.5	4	16	2°	50
PRHSC4C20,031	2.0	4	12	30'	45
PRHSC4C20,032	2.0	4	16	30'	50
PRHSC4C20,101	2.0	4	12	1°	45
PRHSC4C20,102	2.0	4	16	1°	50
PRHSC4C20,131	2.0	4	12	1° 30'	45
PRHSC4C20,132	2.0	4	16	1° 30'	50
PRHSC4C20,201	2.0	4	12	2°	45
PRHSC4C20,202	2.0	4	16	2°	50

Tolleranza diametro fresa	0 -0.015
Tolleranza conicità	± 5'
Tolleranza diametro gambo	0 -0.008



4 Flute, taper ball nose for rib processing
4 Schneiden, konisch stirnradius für kleinste rippe
4 Taglienti sferiche, coniche per nervature



Series PRHSC4CS:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	TAPER ANGLE CONICITÀ	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC4CS10,030	1.0	4	8	30'	45
PRHSC4CS10,031	1.0	4	12	30'	45
PRHSC4CS10,100	1.0	4	8	1°	45
PRHSC4CS10,101	1.0	4	12	1°	45
PRHSC4CS10,130	1.0	4	8	1° 30'	45
PRHSC4CS10,131	1.0	4	12	1° 30'	45
PRHSC4CS10,200	1.0	4	8	2°	45
PRHSC4CS10,201	1.0	4	12	2°	45
PRHSC4CS12,030	1.2	4	8	30'	45
PRHSC4CS12,031	1.2	4	12	30'	45
PRHSC4CS12,100	1.2	4	8	1°	45
PRHSC4CS12,101	1.2	4	12	1°	45
PRHSC4CS12,130	1.2	4	8	1° 30'	45
PRHSC4CS12,131	1.2	4	12	1° 30'	45
PRHSC4CS12,200	1.2	4	8	2°	45
PRHSC4CS12,201	1.2	4	12	2°	45
PRHSC4CS15,030	1.5	4	8	30'	45
PRHSC4CS15,031	1.5	4	12	30'	45
PRHSC4CS15,032	1.5	4	16	30'	50
PRHSC4CS15,100	1.5	4	8	1°	45

Tolleranza diametro fresa	0 -0.015
Tolleranza conicità	± 5'
Tolleranza diametro gambo	0 -0.008



4 Flute, taper ball nose for rib processing
4 Schneiden, konisch stirnradius, für kleinste rippe
4 Taglienti sferiche, coniche per nervature

Series PRHSC4CS:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

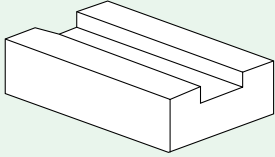
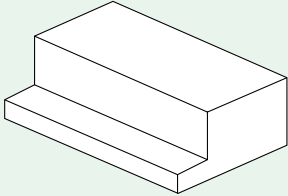
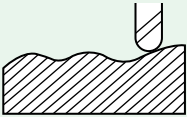


CODE No. CODICE	MILL DIAMETER DIAMETRO FRESE e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	TAPER ANGLE CONICITÀ	OVERALL LENGTH LUNGHEZZA TOTALE
PRHSC4CS15,101	1.5	4	12	1°	45
PRHSC4CS15,102	1.5	4	16	1°	50
PRHSC4CS15,130	1.5	4	8	1° 30'	45
PRHSC4CS15,131	1.5	4	12	1° 30'	45
PRHSC4CS15,132	1.5	4	16	1° 30'	50
PRHSC4CS15,200	1.5	4	8	2°	45
PRHSC4CS15,201	1.5	4	12	2°	45
PRHSC4CS15,202	1.5	4	16	2°	50
PRHSC4CS20,031	2.0	4	12	30'	45
PRHSC4CS20,032	2.0	4	16	30'	50
PRHSC4CS20,101	2.0	4	12	1°	45
PRHSC4CS20,102	2.0	4	16	1°	50
PRHSC4CS20,131	2.0	4	12	1° 30'	45
PRHSC4CS20,132	2.0	4	16	1° 30'	50
PRHSC4CS20,201	2.0	4	12	2°	45
PRHSC4CS20,202	2.0	4	16	2°	50

Tolleranza diametro fresa	0 -0.015
Tolleranza conicità	± 5'
Tolleranza diametro gambo	0 -0.008



INFINITY END MILL CHECK POINT INFINITY VOLLHARTMETALL FRÄSER INDICE FRESE METALLO DURO INFINITY

OPERATION LAVORAZIONE	WORKPIECE LAVORAZIONE	END MILL TYPE TIPOLOGIA FRESA	No. of FLUTE NUMERO TAGLIENTI	SUITABLE END MILL FRESA IDONEA	MATERIAL GROUP GRUPPO MATERIALI
SLOTING DAL PIENO		SQUARE PIATTE	2	PR2000 PR2000L	A, B, C, D E, F, H, I, J
			3	PR3000 PR3000F	
			4	PR4000 PR4000L PR4000SG	
			6	PR6000L	D, F, G
			2	PR2000W PR2000WT PR2000WD PR3000WSG PR3000WSGL	B, H, K,
SIDE CUTTING SPALLAMENTO		SQUARE PIATTE	2	PR2000 PR2000L	A, B, C, D E, F, H, I, J
			3	PR3000	
			4	PR4000 PR4000L	
			2	PR2000W PR2000WT PR2000WD PR3000WSG PR3000WSGL	B, H, K,
PROFILING PROFILATURA COPIATURA		BALL SFERICA	2	PR2000S PR2000SL	A, B, C, D E, F, H, I, J
			4	PR4000S	
				PR2000WS PR3000WS	B, H, K

A: Recommended / Empfohlen / Raccomandata

A: Possible / Verwendbar / Possibile

MATERIAL GROUP GRUPPO MATERIALI	WORK MATERIAL	WERKSTOFF	MATERIALE DA LAVORARE
A	CAST IRON	GUSS	GHISA
B	NON-ALLOYED STEELS	UNLEGIERTE STÄHLE	ACCIAI NON LEGATI
C	ALLOY STEELS	LEGIERTE STÄHLE	ACCIAI LEGATI
D	HEAT RESISTANT STEELS	HITZEBESTÄNDIGE STÄHLE	ACCIAI REFRATTARI
E	STAINLESS STEELS	ROSTFREIE STÄHLE	ACCIAI INOSSIDABILI
F	45 ~ 55 HRc	45 ~ 55 HRc	45 ~ 55 HRc
G	55 HRc <	55 HRc <	55 HRc <
H	COPPER	KUPFER	RAME
I	TITANIUM ALLOYS	TITAN	TITANIO
J	INCONEL & NIMONIC	INCONEL & NIMONIC	INCONEL & NIMONIC
K	ALUMINUM	ALUMINUM	ALLUMINIO

2 Flute, Short Length
2 Schneiden, kurz
2 Taglienti, corte

Series PR2000 / PR2000 XTREME:

Straight Shank
 Glatter Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA h10	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000-01,0	1.0	4.0	3.0	40.0
PR2000-01,5	1.5	4.0	4.5	40.0
PR2000-02,0	2.0	2.0	8.0	32.0
PR2000-02,5	2.5	2.5	8.0	32.0
PR2000-03,0	3.0	3.0	12.0	32.0
PR2000-03,5	3.5	3.5	12.0	32.0
PR2000-04,0	4.0	4.0	12.0	40.0
PR2000-04,5	4.5	4.5	14.0	50.0
PR2000-05,0	5.0	5.0	14.0	50.0
PR2000-05,5	5.5	5.5	16.0	50.0
PR2000-06,0	6.0	6.0	16.0	50.0
PR2000-07,0	7.0	7.0	20.0	60.0
PR2000-08,0	8.0	8.0	20.0	60.0
PR2000-09,0	9.0	9.0	20.0	60.0
PR2000-10,0	10.0	10.0	22.0	70.0
PR2000-12,0	12.0	12.0	22.0	70.0
PR2000-14,0	14.0	14.0	25.0	75.0
PR2000-16,0	16.0	16.0	25.0	75.0
PR2000-20,0	20.0	20.0	32.0	100.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	0 -40	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	0 -48	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	0 -58	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	0 -70	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	0 -84	0 -13

2 Flute, Extra Long Length
2 Schneiden, Extra lang
2 Taglienti, extra lunghe



Series PR2000L / PR2000L XTREME:
 Straight Shank
Glatter Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA h10	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000L-03,0	3.0	3.0	30.0	75.0
PR2000L-04,0	4.0	4.0	30.0	75.0
PR2000L-05,0	5.0	5.0	40.0	100.0
PR2000L-06,0	6.0	6.0	50.0	150.0
PR2000L-08,0	8.0	8.0	50.0	150.0
PR2000L-10,0	10.0	10.0	60.0	150.0
PR2000L-12,0	12.0	12.0	75.0	150.0
PR2000L-14,0	14.0	14.0	65.0	150.0
PR2000L-16,0	16.0	16.0	65.0	150.0
PR2000L-18,0	18.0	18.0	65.0	150.0
PR2000L-20,0	20.0	20.0	65.0	150.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	0 -40	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	0 -48	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	0 -58	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	0 -70	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	0 -84	0 -13



3 Flute, Short Length
3 Schneiden, kurz
3 Taglienti, corte

Series PR3000 / PR3000 XTREME:

Straight Shank

Glatter Zylinderschaft

Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA h10	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR3000-02,0	2.0	2.0	8.0	32.0
PR3000-02,5	2.5	2.5	8.0	32.0
PR3000-03,0	3.0	3.0	12.0	32.0
PR3000-03,5	3.5	3.5	12.0	32.0
PR3000-04,0	4.0	4.0	12.0	40.0
PR3000-04,5	4.5	4.5	14.0	50.0
PR3000-05,0	5.0	5.0	14.0	50.0
PR3000-05,5	5.5	5.5	16.0	50.0
PR3000-06,0	6.0	6.0	16.0	50.0
PR3000-07,0	7.0	7.0	20.0	60.0
PR3000-08,0	8.0	8.0	20.0	60.0
PR3000-09,0	9.0	9.0	20.0	60.0
PR3000-10,0	10.0	10.0	22.0	70.0
PR3000-12,0	12.0	12.0	22.0	70.0
PR3000-14,0	14.0	14.0	25.0	75.0
PR3000-16,0	16.0	16.0	25.0	75.0
PR3000-20,0	20.0	20.0	32.0	100.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	0 -40	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	0 -48	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	0 -58	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	0 -70	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	0 -84	0 -13

3 Flute, 50° helix, short length
3 Schneiden, 50° Rechtsspirale, kurz
3 Taglienti 50° corte, rivestite TiAlN



Serie PR3000F:
 Straight Shank
 Glatter Zylinderschaft
 Gambo cilindrico

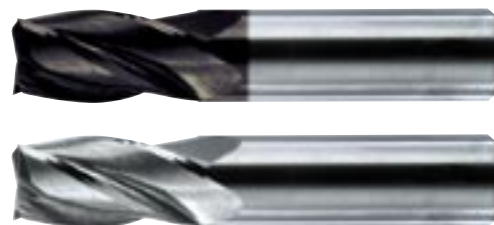
CODE No. CODICE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIENTE LENGHT OF CUT	OVERALL LENGHT LUNGH.TOTALE	NUMERO TAGLIANTI NO. OF FLUTE
* PR3000F-03,0T	3,0	6	7	57	3
* PR3000F-03,5T	3,5	6	7	57	3
* PR3000F-04,0T	4,0	6	8	57	3
* PR3000F-04,5T	4,5	6	8	57	3
* PR3000F-05,0T	5,0	6	10	57	3
* PR3000F-06,0T	6,0	6	10	57	3
* PR3000F-07,0T	7,0	8	13	63	3
* PR3000F-08,0T	8,0	8	16	63	3
* PR3000F-09,0T	9,0	10	16	72	3
* PR3000F-10,0T	10,0	10	19	72	3
* PR3000F-12,0T	12,0	12	22	83	3
* PR3000F-14,0T	14,0	14	22	83	3
* PR3000F-16,0T	16,0	16	26	92	3
* PR3000F-18,0T	18,0	18	26	92	3
* PR3000F-20,0T	20,0	20	32	104	3

* Nuovi Articoli

4 Flute, Short Length
4 Schneiden, kurz
4 Taglienti, corte

Series PR4000 / PR4000 XTREME:

Straight Shank
Glatter Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA h10	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR4000-02,0	2.0	2.0	8.0	32.0
PR4000-02,5	2.5	2.5	8.0	32.0
PR4000-03,0	3.0	3.0	12.0	32.0
PR4000-03,5	3.5	3.5	12.0	32.0
PR4000-04,0	4.0	4.0	12.0	40.0
PR4000-04,5	4.5	4.5	14.0	50.0
PR4000-05,0	5.0	5.0	14.0	50.0
PR4000-05,5	5.5	5.5	16.0	50.0
PR4000-06,0	6.0	6.0	16.0	50.0
PR4000-07,0	7.0	7.0	20.0	60.0
PR4000-08,0	8.0	8.0	20.0	60.0
PR4000-09,0	9.0	9.0	20.0	60.0
PR4000-10,0	10.0	10.0	22.0	70.0
PR4000-12,0	12.0	12.0	22.0	70.0
PR4000-14,0	14.0	14.0	25.0	75.0
PR4000-16,0	16.0	16.0	25.0	75.0
PR4000-20,0	20.0	20.0	32.0	100.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	0 -40	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	0 -48	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	0 -58	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	0 -70	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	0 -84	0 -13

4 Flute, Extra Long Length
4 Schneiden, Extra lang
4 Taglienti, extra lunghe



Series PR4000L / PR4000L XTREME:
 Straight Shank
Glatter Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA h10	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR4000L-03,0	3.0	3.0	30.0	75.0
PR4000L-04,0	4.0	4.0	30.0	75.0
PR4000L-05,0	5.0	5.0	40.0	100.0
PR4000L-06,0	6.0	6.0	50.0	150.0
PR4000L-08,0	8.0	8.0	50.0	150.0
PR4000L-10,0	10.0	10.0	60.0	150.0
PR4000L-12,0	12.0	12.0	75.0	150.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	0	0
über 3 bis 6 over 3 to 6 da 3 a 6	-40	-6
über 6 bis 10 over 6 to 10 da 6 a 10	0	0
über 10 bis 18 over 10 to 18 da 10 a 18	-48	-8
über 18 bis 30 over 18 to 30 da 18 a 30	0	0
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm		
über 10 bis 18 over 10 to 18 da 10 a 18	-58	-9
über 18 bis 30 over 18 to 30 da 18 a 30	-70	-11
	0	0
	-84	-13



6 Flute, for finishing
6 Schneiden, für schlichten
6 Tagli per finitura, rivestite TiAlN



Serie PR6000L XTREME:

Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIENTE LENGHT OF CUT	OVERALL LENGHT LUNGH.TOTALE	NUMERO TAGLIENTI NO. OF FLUTE
* PR6000L-06,0T	6,0	6	13	57	6
* PR6000L-08,0T	8,0	8	19	63	6
* PR6000L-10,0T	10,0	10	22	72	6
* PR6000L-12,0T	12,0	12	26	83	6
* PR6000L-16,0T	16,0	16	32	92	6
* PR6000L-20,0T	20,0	20	38	104	8

* Nuovi Articoli

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

2 Flute, Ball Nose, Short Length
2 Schneiden, Stirnradius, kurz
2 Taglienti, sferiche, corte

Series PR2000S / PR2000S XTREME:

Straight Shank

Glatter Zylinderschaft

Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000S-03,0	3.0	6.0	4.0	48.0
PR2000S-04,0	4.0	6.0	6.0	50.0
PR2000S-05,0	5.0	6.0	7.0	51.0
PR2000S-06,0	6.0	6.0	7.0	51.0
PR2000S-08,0	8.0	8.0	9.0	59.0
PR2000S-10,0	10.0	10.0	10.0	60.0
PR2000S-12,0	12.0	12.0	14.0	71.0
PR2000S-14,0	14.0	14.0	14.0	71.0
PR2000S-16,0	16.0	16.0	16.0	76.0
PR2000S-18,0	18.0	18.0	18.0	76.0
PR2000S-20,0	20.0	20.0	20.0	82.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14	0
über 3 bis 6 over 3 to 6 da 3 a 6	-28	-6
über 6 bis 10 over 6 to 10 da 6 a 10	-20	0
über 10 bis 18 over 10 to 18 da 10 a 18	-38	-8
über 18 bis 30 over 18 to 30 da 18 a 30	-25	0
	-47	-9
	-32	0
	-59	-11
	-40	0
	-73	-13



2 Flute, Ball Nose, Extra Long Length
2 Schneiden, Stirnradius, Extra lang
2 Taglienti, sferiche, extra lunghe

Series PR2000SL / PR2000SL XTREME:

Straight Shank

Glatter Zylinderschaft

Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000SL-03	3.0	3.0	30.0	75.0
PR2000SL-04	4.0	4.0	30.0	75.0
PR2000SL-05	5.0	5.0	40.0	100.0
PR2000SL-06	6.0	6.0	50.0	150.0
PR2000SL-08	8.0	8.0	50.0	150.0
PR2000SL-10	10.0	10.0	60.0	150.0
PR2000SL-12	12.0	12.0	75.0	150.0
PR2000SL-14	14.0	14.0	75.0	150.0
PR2000SL-16	16.0	16.0	75.0	150.0
PR2000SL-18	18.0	18.0	75.0	150.0
PR2000SL-20	20.0	20.0	75.0	150.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	0 -40	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	0 -48	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	0 -58	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	0 -70	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	0 -84	0 -13

4 Flute, Ball Nose, Short Length
4 Schneiden, Stirnradius, kurz
4 Taglienti, sferiche, corte



Series PR4000S / PR4000S XTREME:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR4000S-02,0	2.0	6.0	4.0	48.0
PR4000S-03,0	3.0	6.0	4.0	48.0
PR4000S-04,0	4.0	6.0	6.0	50.0
PR4000S-05,0	5.0	6.0	7.0	51.0
PR4000S-06,0	6.0	6.0	7.0	51.0
PR4000S-08,0	8.0	8.0	9.0	59.0
PR4000S-10,0	10.0	10.0	10.0	60.0
PR4000S-12,0	12.0	12.0	14.0	71.0
PR4000S-14,0	14.0	14.0	14.0	71.0
PR4000S-16,0	16.0	16.0	16.0	76.0
PR4000S-18,0	18.0	18.0	18.0	76.0
PR4000S-20,0	20.0	20.0	20.0	82.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm	von 1 bis 3 from 1 to 3 da 1 a 3	0 -6
	über 3 bis 6 over 3 to 6 da 3 a 6	0 -8
	über 6 bis 10 over 6 to 10 da 6 a 10	0 -9
	über 10 bis 18 over 10 to 18 da 10 a 18	0 -11
	über 18 bis 30 over 18 to 30 da 18 a 30	0 -13



Multi flute, roughing, long length
Multi Schneiden, Schruppfraser, lang
Multi taglienti, a sgrossare, lunghe



Serie PR4000SG:

Straight Shank

Glatten Zylinderschaft

Gambo cilindrico "WELDON"



CODE No. CODICE	DIAMETRO FRESA MILL DIAMETER e8	DIAMETRO GAMBO SHANK DIAMETER h6	LUNGH. TAGLIENTE LENGHT OF CUT	OVERALL LENGHT LUNGH.TOTALE	NUMERO TAGLIENTI NO. OF FLUTE
* PR4000SG-06,0T	6,0	6	16	57	3
* PR4000SG-08,0T	8,0	8	19	63	3
* PR4000SG-10,0T	10,0	10	22	72	4
* PR4000SG-12,0T	12,0	12	26	83	4
* PR4000SG-16,0T	16,0	16	32	92	4
* PR4000SG-20,0T	20,0	20	38	104	4
* PR4000SG-25,0T	25,0	25	45	121	5

* Nuovi Articoli

3 & 4 Flute, 50° high helix, INFINITY End Mills
3 & 4 Schneiden, 50° Rechtsspirale, INFINITY Schruppfräser
3-4 Taglienti, elica 50°, frese INFINITY, a sgrossare



Series PR5000:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIENTI
PR5000-06,0	6.0	6	13	50	3
PR5000-08,0	8.0	8	19	60	3
PR5000-10,0	10.0	10	22	70	3
PR5000-12,0	12.0	12	25	75	3
PR5000-16,0	16.0	16	32	90	3
PR5000-18,0	18.0	18	32	90	3
PR5000-20,0	20.0	20	38	100	4
PR5000-25,0	25.0	25	45	120	4

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	-20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	-25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	-32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	-40 -73	0 -13

- * Excellent performance on Stainless Steel, Titanium, Inconel.
- * Prestazioni eccellenti su Acciai Inossidabili, Titanio, Inconel.
- * High Chemical Stability prevents built-up edge micro cracks and crater wear.
- * Alta stabilità chimica previene microrotture e danni al rivestimento.
- * Superior workpiece finishes.
- * Finitura eccellente della superfice

Multi. Flute, 30° helix, roughing, short length INFINITY
Multi. Schneiden, 30° Rechtsspirale, Schruppfräser, kurz INFINITY
Multi. Tagliente, elica 30°, sgrossare, corte, INFINITY

Series PR6000:
 Straight Shank
 Glatter Zylinderschaft
 Gambo cilindrico



CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE	NO. OF FLUTE NUMERO TAGLIANTI
PR6000-06,0	6.0	6	7	54	3
PR6000-07,0	7.0	8	8	58	3
PR6000-08,0	8.0	8	9	58	3
PR6000-09,0	9.0	10	13	66	4
PR6000-10,0	10.0	10	14	66	4
PR6000-12,0	12.0	12	16	73	4
PR6000-14,0	14.0	14	18	75	4
PR6000-16,0	16.0	16	22	82	4
PR6000-18,0	18.0	18	24	84	4
PR6000-20,0	20.0	20	26	92	4
PR6000-25,0	25.0	25	25	110	5

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	-14	0
über 3 bis 6 over 3 to 6 da 3 a 6	-28	-6
über 6 bis 10 over 6 to 10 da 6 a 10	-20	0
über 10 bis 18 over 10 to 18 da 10 a 18	-38	-8
über 18 bis 30 over 18 to 30 da 18 a 30	-25	0
	-47	-9
	-32	0
	-59	-11
	-40	0
	-73	-13

2 Flute, 45° HELIX, Long Length, for Aluminum
2 Schneiden, 45° Rechtsspirale, lang, für Alu
2 Taglienti, Elica 45°, lunghe per alluminio



Series PR2000W / PR2000W TiCN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA h10	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000W-03,0	3.0	6.0	8.0	57.0
PR2000W-04,0	4.0	6.0	11.0	57.0
PR2000W-05,0	5.0	6.0	13.0	57.0
PR2000W-06,0	6.0	6.0	13.0	57.0
PR2000W-08,0	8.0	8.0	19.0	63.0
PR2000W-10,0	10.0	10.0	22.0	72.0
PR2000W-12,0	12.0	12.0	26.0	83.0
PR2000W-14,0	14.0	14.0	26.0	83.0
PR2000W-16,0	16.0	16.0	32.0	92.0
PR2000W-18,0	18.0	18.0	32.0	92.0
PR2000W-20,0	20.0	20.0	38.0	104.0

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	0 -40	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	0 -48	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	0 -58	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	0 -70	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	0 -84	0 -13
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm		



2 Flute, corner radius for aluminum, TiCN coated
2 Schneiden, eckenradius für aluminium, TiCN-beschichtete
2 Taglienti, toriche per alluminio, rivestite TiCN

Series PR2000WT:
 Plain Shank
 Glattem Zylinderschaft
 Gambo cilindrico



Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000WT-04	4.0 X R0.3	6	5	50
PR2000WT-06	6.0 X R0.5	6	8	60
PR2000WT-08	8.0 X R0.6	8	10	70
PR2000WT-10	10.0 X R0.8	10	12	80
PR2000WT-12	12.0 X R1.0	12	14	90
PR2000WT-16	16.0 X R1.3	16	18	100
PR2000WT-20	20.0 X R1.6	20	24	100

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	40 -73	0 -13

Excellent cutting qualities on stainless steel, Aluminum, copper.
 Eccellente su acciai inossidabili, alluminio, rame.

Increased tool life and higher cutting accuracy.
 Accresce la durata della fresa e la qualità del taglio.

2 Flute, ball nose for aluminum, TiCN coated
2 Schneiden, stirnradius für aluminium, TiCN-beschichtete
2 Taglienti, sferiche per alluminio, rivestite TiCN



R: ± 0.01 mm

Series PR2000WS:

Plain Shank

Glatter Zylinderschaft

Gambo cilindrico

Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA ± 0.02	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000WS-06	6.0	6	5.5	55
PR2000WS-08	8.0	8	7	65
PR2000WS-10	10.0	10	8.5	75
PR2000WS-12	12.0	12	10.5	75
PR2000WS-16	16.0	16	14	90
PR2000WS-20	20.0	20	17	100

Mill Dia. Tolerance Tolleranza diametro fresa	± 0.02
Shank Dia. Tolerance Tolleranza diametro gambo	h6

Excellent cutting qualities on stainless steel, Aluminum, copper.
 Eccellente su acciai inossidabili, alluminio, rame.

Increased tool life and higher cutting accuracy.
 Accresce la durata della fresa e la qualità del taglio.

3 Flute, ball nose for aluminum, TiCN coated
3 Schneiden, stirnradius für aluminium, TiCN-Beschichtete
3 Taglienti, sferiche per alluminio, rivestite TiCN

Series PR3000WS:
 Plain Shank
 Glattem Zylinderschaft
 Gambo cilindrico



Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR3000WS-02,0	2.0	6	3	60
PR3000WS-02,5	2.5	6	4	60
PR3000WS-03,0	3.0	6	4.5	60
PR3000WS-03,5	3.5	6	5	65
PR3000WS-04,0	4.0	6	6	65
PR3000WS-05,0	5.0	6	7.5	65
PR3000WS-06,0	6.0	6	9	75
PR3000WS-08,0	8.0	8	12	75
PR3000WS-10,0	10.0	10	15	80
PR3000WS-12,0	12.0	12	18	90
PR3000WS-16,0	16.0	16	24	100

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6	
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm	von 1 bis 3 from 1 to 3 da 1 a 3	14 -28	0 -6
	über 3 bis 6 over 3 to 6 da 3 a 6	20 -38	0 -8
	über 6 bis 10 over 6 to 10 da 6 a 10	25 -47	0 -9
Nennmaßbereich in mm Nominal-Diameter in mm Diametro Nominale in mm	über 10 bis 18 over 10 to 18 da 10 a 18	32 -59	0 -11
	über 18 bis 30 over 18 to 30 da 18 a 30	40 -73	0 -13

Excellent cutting qualities on stainless steel, Aluminum, copper.
 Eccellente su acciai inossidabili, alluminio, rame.

Increased tool life and higher cutting accuracy.
 Accresce la durata della fresa e la qualità del taglio.



2 Flute, 45° helix for aluminum, diamond coated
2 Schneiden, 45° rechtsspirale für aluminium, diamant-beschichtete
2 Taglienti, per alluminio, rivestita diamante



Series PR2000WD:
 Plain Shank
 Glattem Zylinderschaft
 Gambo cilindrico

Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000WD-01,0	1.0	3	3	40
PR2000WD-01,5	1.5	4	4	40
PR2000WD-02,0	2.0	4	6	40
PR2000WD-02,5	2.5	4	8	40
PR2000WD-03,0	3.0	6	8	45
PR2000WD-03,5	3.5	6	10	45
PR2000WD-04,0	4.0	6	11	45
PR2000WD-04,5	4.5	6	11	50
PR2000WD-05,0	5.0	6	13	50
PR2000WD-05,5	5.5	6	13	50
PR2000WD-06,0	6.0	6	13	50
PR2000WD-07,0	7.0	8	16	60
PR2000WD-08,0	8.0	8	19	60
PR2000WD-09,0	9.0	10	19	70
PR2000WD-10,0	10.0	10	22	70
PR2000WD-11,0	11.0	12	22	75
PR2000WD-12,0	12.0	12	26	75
PR2000WD-16,0	16.0	16	32	90
PR2000WD-20,0	20.0	20	38	100

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	14 - 28	0 - 6
über 3 bis 6 over 3 to 6 da 3 a 6	20 - 38	0 - 8
über 6 bis 10 over 6 to 10 da 6 a 10	25 - 47	0 - 9
über 10 bis 20 over 10 to 18 da 10 a 18	32 - 59	0 - 11

Designed for the machining aluminum and its alloys, nonferrous materials.
 Per lavorazione di Alluminio e delle rispettive leghe e materiali non ferrosi.

Infinity's newly developed diamond film coating increases the tool life surprisingly due to Hv4,500-5,500 high hardness of diamonds film.

Il nuovo rivestimento al diamante accresce la durata della fresa grazie alla pellicola di diamante con durezza Hv4,500-5,500

Maximum-stock removal, chip ejection, stability.
 Massima asportazione, evacuazione truciolo, stabilità.



2 Flute, for aluminum, diamond coated
2 Schneiden, für aluminium, diamant-beschichtete
2 Taglienti, per alluminio, rivestita diamante

Series PR2000WTD:
 Plain Shank
 Glattem Zylinderschaft
 Gambo cilindrico



Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA h10	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	LUNGHEZZA SCARICATA GAMBO LENGTH BELOW SHANK	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000WTD-02	2.0 x R0.2	3	3	6	40
PR2000WTD-03	3.0 x R0.2	3	4	8	40
PR2000WTD-04	4.0 x R0.2	4	5	12	50
PR2000WTD-05	5.0 x R0.2	5	8	14	50
PR2000WTD-06	6.0 x R0.2	6	8	18	65
PR2000WTD-08	8.0 x R0.2	8	10	22	70
PR2000WTD-10	10.0 x R0.2	10	14	28	80
PR2000WTD-12	12.0 x R0.2	12	16	35	90
PR2000WTD-16	16.0 x R0.2	16	20	40	90
PR2000WTD-20	20.0 x R0.2	20	25	50	100

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	h10	h6
Toleranzwerte in µm		
Tolerance range in µm		
Tolleranze in µm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	0 -40	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	0 -48	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	0 -58	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	0 -70	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	0 -84	0 -13

Designed for the machining aluminum and its alloys, nonferrous materials.
 Per lavorazione di Alluminio e delle rispettive leghe e materiali non ferrosi.

Infinity's newly developed diamond film coating increases the tool life surprisingly due to Hv4,500-5,500 high hardness of diamonds film.

Il nuovo rivestimento al diamante accresce la durata della fresa grazie alla pellicola di diamante con durezza Hv4,500-5,500

Maximum-stock removal, chip ejection, stability.
 Massima asportazione, evacuazione truciolo, stabilità.

3 Flute, short, roughing end mill for aluminum, TiAlN coated
3 Schneiden, kurz, schruppfräser für aluminium, TiAlN-Beschichtete
3 Taglienti, corte a sgrossare, per alluminio, rivestite TiAlN



Series PR3000WSG:
 Flat Shank
 Glattem Zylinderschaft
 Gambo cilindrico "WELDON"

Unit : mm

CODE No. CODICE WELDON	MILL DIAMETER DIAMETRO FRESA js12	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR3000WSG-12	12.0	12	26	83
PR3000WSG-14	14.0	12	26	83
PR3000WSG-16	16.0	16	32	92
PR3000WSG-18	18.0	16	32	92
PR3000WSG-20	20.0	20	38	104
PR3000WSG-22	22.0	20	38	104
PR3000WSG-25	25.0	25	45	121
PR3000WSG-28	28.0	25	45	121
PR3000WSG-32	32.0	32	53	133

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	js12	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	± 50	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	± 60	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	± 75	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	± 90	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	± 105	0 -13
über 30 bis 50 over 30 to 50 da 30 a 50	± 125	0 -16

Maximum stock removal rates at High Speed Condition.
 Massima asportazione lavorando ad alta velocità.

Reduces vibrations and improves surface roughness
 Riduce le vibrazioni e migliora la qualità della superficie



3 Flute, long, roughing end mill for aluminum, TiAlN coated
3 Schneiden, lang, schruppfräser für aluminium, TiAlN-Beschichtete
3 Taglienti, lunghe a sgrossare per alluminio rivestite TiAlN

Series PR3000WSGL:

Flat Shank

Glattem Zylinderschaft

Gambo cilindrico "WELDON"



Unit : mm

CODE No. CODICE WELDON	MILL DIAMETER DIAMETRO FRESA js12	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR3000WSGL-12	12.0	12	53	110
PR3000WSGL-14	14.0	12	53	110
PR3000WSGL-16	16.0	16	63	123
PR3000WSGL-18	18.0	16	63	123
PR3000WSGL-20	20.0	20	75	141
PR3000WSGL-22	22.0	20	75	141
PR3000WSGL-25	25.0	25	90	166
PR3000WSGL-28	28.0	25	90	166
PR3000WSGL-32	32.0	32	106	186

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	js12	h6
Toleranzwerte in µm Tolerance range in µm Tolleranze in µm		
von 1 bis 3 from 1 to 3 da 1 a 3	± 50	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	± 60	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	± 75	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	± 90	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	± 105	0 -13
über 30 bis 50 over 30 to 50 da 30 a 50	± 125	0 -16

Maximum stock removal rates at High Speed Condition.
Massima asportazione lavorando ad alta velocità.

Reduces vibrations and improves surface roughness
Riduce le vibrazioni e migliora la qualità della superficie



3 Flute, corner radius for graphite, short length, diamond coated
3 Schneiden, eckenradius für graphit, kurz, diamant-beschichtete
3 taglienti, toriche per grafite, corte, rivestite al diamante



Series PR3000G:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIENTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR3000G-02	2.0 x R0.15	3	6	40
PR3000G-03	3.0 x R0.15	3	12	40
PR3000G-04	4.0 x R0.2	4	14	50
PR3000G-05	5.0 x R0.3	5	16	50
PR3000G-06	6.0 x R0.3	6	20	65
PR3000G-08	8.0 x R0.5	8	20	65
PR3000G-10	10.0 x R0.5	10	25	75
PR3000G-12	12.0 x R0.5	12	25	75

MILL DIA. TOLERANCE TOLLERANZA DIAMETRO FRESA		SHANK DIA. TOLERANCE TOLLERANZA DEL GAMBO
DIAMETER DIAMETRO	TOLERANCE TOLLERANZA	
from 2 to 6	-0.010 -0.050	h6
over 6 to 12	-0 -0.060	

Designed for the machining graphite, reinforced plastic, high silicon aluminum alloys.
 Per la lavorazione della grafite, plastica rinforzata, leghe di alluminio con alto contenuto di silicio.

Infinity's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.

Il nuovo rivestimento al diamante Infinity permette buoni risultati nella lavorazione di metalli non ferrosi e materiali non metallici.



3 Flute, corner radius for graphite, long length, diamond coated
3 Schneiden, eckenradius für graphit, lang, diamant-beschichtete
3 Taglienti, toriche per grafite, lunghe, rivestite al diamante

Series PR3000GL:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA e8	SHANK DIAMETER DIAMETRO GAMBO h6	LENGTH OF CUT LUNGHEZZA TAGLIANTE	OVERALL LENGTH LUNGHEZZA TOTALE
PR3000GL-02,0	2.0 x R0.15	3	9	60
PR3000GL-03,0	3.0 x R0.15	3	30	60
PR3000GL-04,0	4.0 x R0.2	4	30	60
PR3000GL-05,0	5.0 x R0.3	5	35	70
PR3000GL-06,0	6.0 x R0.3	6	40	100
PR3000GL-08,0	8.0 x R0.5	8	40	100
PR3000GL-10,0	10.0 x R0.5	10	40	100
PR3000GL-12,0	12.0 x R0.5	12	45	100

MILL DIA. TOLERANCE TOLLERANZA DIAMETRO FRESA		SHANK DIA. TOLERANCE TOLLERANZA DEL GAMBO
DIAMETER DIAMETRO	TOLERANCE TOLLERANZA	
from 2 to 6	-0.010 -0.050	h6
over 6 to 12	-0 -0.060	

Designed for the machining graphite, reinforced plastic, high silicon aluminum alloys.
 Per la lavorazione della grafite, plastica rinforzata, leghe di alluminio con alto contenuto di silicio.

Infinity's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.

Il nuovo rivestimento al diamante Infinity permette buoni risultati nella lavorazione di metalli non ferrosi e materiali non metallici.

2 Flute, long length for graphite, diamond coated
2 Schneiden, lang für graphit, diamant-beschichtete
2 Taglienti, lunghe per grafite, rivestite al diamante



Series PR2000GL:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

Unit : mm

CODE No. CODICE	MILL DIAMETER FRESA	SHANK DIAMETER GAMBO	LENGTH OF CUT LUNGHEZZA TAGLIENTE	LENGTH BELOW SHANK LUNGHEZZA SCARICATA	OVERALL LENGTH LUNGHEZZA TOTALE
PR2000GL-00,5	0.5	3	1	2	40
PR2000GL-00,6	0.6	3	2	3	40
PR2000GL-00,7	0.7	3	2	4	40
PR2000GL-00,8	0.8	3	2	5	40
PR2000GL-00,9	0.9	3	2	6	40
PR2000GL-01,0	1.0	4	3	8	75
PR2000GL-01,5	1.5	4	4	10	75
PR2000GL-02,0	2.0	4	6	16	100
PR2000GL-02,5	2.5	4	8	20	100
PR2000GL-03,0	3.0	6	8	30	100
PR2000GL-03,5	3.5	6	10	35	100
PR2000GL-04,0	4.0	6	20	40	100
PR2000GL-05,0	5.0	6	25	50	125
PR2000GL-06,0	6.0	6	30	60	140
PR2000GL-07,0	7.0	6	35	70	140
PR2000GL-08,0	8.0	8	40	80	150
PR2000GL-09,0	9.0	8	45	80	150
PR2000GL-10,0	10.0	10	50	80	150
PR2000GL-11,0	11.0	10	50	80	150
PR2000GL-12,0	12.0	12	55	80	150

MILL DIA. TOLERANCE TOLLERANZA DIAMETRO FRESA		SHANK DIA. TOLERANCE TOLLERANZA DEL GAMBO
DIAMETER DIAMETRO	TOLERANCE TOLLERANZA	
from 0.5 to 3	-0.014 -0.028	h6
over 3 to 6	-0.020 -0.038	
over 6 to 10	-0.025 -0.047	
over 10 to 12	-0.032 -0.059	

Designed for the machining graphite, reinforced plastic, high silicon aluminum alloys.
 Per la lavorazione della grafite, plastica rinforzata, leghe di alluminio con alto contenuto di silicio.

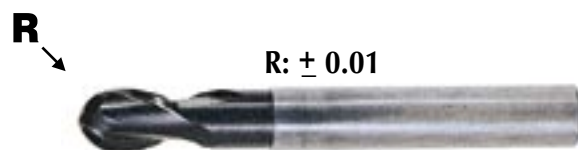
Infinity's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.

Il nuovo rivestimento al diamante Infinity permette buoni risultati nella lavorazione di metalli non ferrosi e materiali non metallici.



2 Flute, ball nose for graphite, short length, diamond coated
2 Schneiden, stirnradius für graphit, kurz, diamant-beschichtete
2 Taglienti, sferiche per grafite, corte, rivestite al diamante

Series PR2000GS:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA $\varnothing d_1 (e_8)$	SHANK DIAMETER DIAMETRO GAMBO $\varnothing d_2 (h_6)$	LENGTH OF CUT LUNGHEZZA TAGLIANTE l_1	LENGHT BELOW SHANK LUNGHEZZA SCARICATA l_2	OVERALL LENGHT LUNGHEZZA TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA $\varnothing d_3$
PR2000GS-02,0	2.0	6	3	5	60	1.9
PR2000GS-02,5	2.5	6	4	6	60	2.4
PR2000GS-03,0	3.0	6	4.5	6.5	60	2.8
PR2000GS-03,5	3.5	6	5	7	65	3.2
PR2000GS-04,0	4.0	6	6	8	65	3.7
PR2000GS-05,0	5.0	6	7.5	10	65	4.6
PR2000GS-06,0	6.0	6	9	12	75	5.6
PR2000GS-08,0	8.0	8	12	25	75	7.4
PR2000GS-10,0	10.0	10	15	30	80	9.4
PR2000GS-12,0	12.0	12	18	36	90	11.54

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

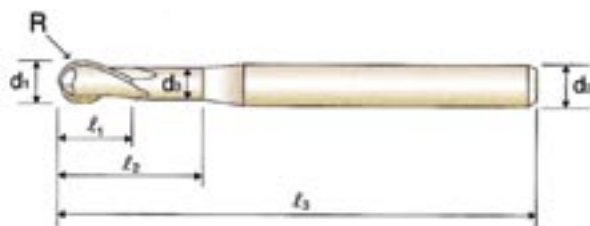
**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in μm		
Tolerance range in μm		
Tolleranze in μm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	40 -73	0 -13

Designed for the machining graphite, reinforced plastic, high silicon aluminum alloys.
 Per la lavorazione della grafite, plastica rinforzata, leghe di alluminio con alto contenuto di silicio.

Infinity's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.
 Il nuovo rivestimento al diamante Infinity permette buoni risultati nella lavorazione di metalli non ferrosi e materiali non metallici.



2 Flute, ball nose for graphite, long reach diamond coated
2 Schneiden, stirnradius für graphit, lang reach, diamant-beschichtete
2 Taglienti, sferiche per grafite, extra lunghe, per nervature rivestite al diamante



Series PR2000GSN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA $\varnothing d_1 (e_8)$	SHANK DIAMETER DIAMETRO GAMBO $\varnothing d_2 (h_6)$	LENGTH OF CUT LUNGHEZZA TAGLIANTE l_1	LENGHT BELOW SHANK LUNGHEZZA SCARICATA l_2	OVERALL LENGHT LUNGHEZZA TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA $\varnothing d_3$
PR2000GSN-02	2.0	4	10	20	100	1.95
PR2000GSN-03	3.0	4	15	25	100	2.9
PR2000GSN-04	4.0	4	20	30	100	3.9
PR2000GSN-05	5.0	6	30	50	120	4.9
PR2000GSN-06	6.0	6	30	50	150	5.5
PR2000GSN-07	7.0	6	30	—	150	—
PR2000GSN-08	8.0	8	40	60	150	7.5
PR2000GSN-09	9.0	8	40	—	150	—
PR2000GSN-10	10.0	10	50	70	180	9.5
PR2000GSN-12	12.0	12	55	75	200	11.5

TOLERANCES ACCORDING TO DIN 7160 & 7161

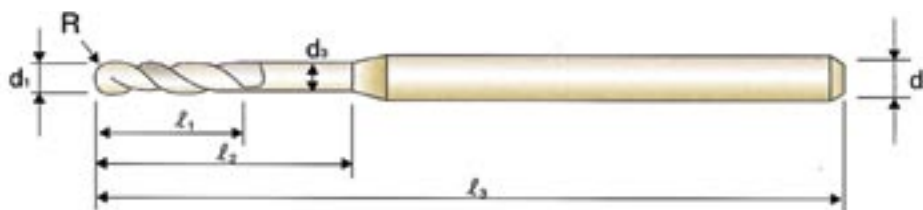
TOLERANZEN NACH DIN 7160 & 7161

TOLLERANZE SECONDO NORME DIN 7160 & 7161

	e8	h6
Toleranzwerte in μm		
Tolerance range in μm		
Tolleranze in μm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	40 -73	0 -13

Designed for the machining graphite, reinforced plastic, high silicon aluminum alloys.
 Per la lavorazione della grafite, plastica rinforzata, leghe di alluminio con alto contenuto di silicio.

Infinity's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.
 Il nuovo rivestimento al diamante Infinity permette buoni risultati nella lavorazione di metalli non ferrosi e materiali non metallici.



* SPEED & FEED DATA - SEE PAGE 130
 * PER I PARAMETRI DI TAGLIO VEDERE PAG. 130

2 Flute, ball nose for graphite, long length, diamond coated
2 Schneiden, stirnradius für graphit, lang, diamant-beschichtete
2 Taglienti, sferiche per grafite, lunghe, rivestite al diamante

Series PR2000GSL:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico



Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA $\varnothing d_1 (e_8)$	SHANK DIAMETER DIAMETRO GAMBO $\varnothing d_2 (h_6)$	LENGTH OF CUT LUNGHEZZA TAGLIANTE l_1	LENGHT BELOW SHANK LUNGHEZZA SCARICATA l_2	OVERALL LENGHT LUNGHEZZA TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA $\varnothing d_3$
PR2000GSL-02	2.0	4	10	20	80	1.95
PR2000GSL-03	3.0	4	15	25	80	2.9
PR2000GSL-04	4.0	4	20	30	80	3.9
PR2000GSL-05	5.0	6	30	50	100	4.9
PR2000GSL-06	6.0	6	30	50	100	5.5
PR2000GSL-07	7.0	6	30	—	100	—
PR2000GSL-08	8.0	8	40	60	110	7.5
PR2000GSL-09	9.0	8	40	—	110	—
PR2000GSL-10	10.0	10	50	70	120	9.5
PR2000GSL-12	12.0	12	55	75	130	11.5

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**

	e8	h6
Toleranzwerte in μm		
Tolerance range in μm		
Tolleranze in μm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	40 -73	0 -13

Designed for the machining graphite, reinforced plastic, high silicon aluminum alloys.
 Per la lavorazione della grafite, plastica rinforzata, leghe di alluminio con alto contenuto di silicio.

Infinity's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.

Il nuovo rivestimento al diamante Infinity permette buoni risultati nella lavorazione di metalli non ferrosi e materiali non metallici.



3 Flute, ball nose for graphite, short length, diamond coated
3 Schneiden, stirnradius für graphit, kurz, diamant-beschichtete
3 Taglienti, sferiche per grafite, corte, rivestite al diamante



Series PR3000GSN:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

Unit : mm

CODE No. CODICE	MILL DIAMETER DIAMETRO FRESA $\varnothing d_1 (e_8)$	SHANK DIAMETER DIAMETRO GAMBO $\varnothing d_2 (h_6)$	LENGTH OF CUT LUNGHEZZA TAGLIENTE l_1	LENGHT BELOW SHANK LUNGHEZZA SCARICATA l_2	OVERALL LENGHT LUNGHEZZA TOTALE l_3	NECK DIAMETER DIAMETRO PARTE SCARICATA $\varnothing d_3$
PR3000GSN-02,0	2.0	6	3	5	60	1.9
PR3000GSN-02,5	2.5	6	4	6	60	2.4
PR3000GSN-03,0	3.0	6	4.5	6.5	60	2.8
PR3000GSN-03,5	3.5	6	5	7	65	3.2
PR3000GSN-04,0	4.0	6	6	8	65	3.7
PR3000GSN-05,0	5.0	6	7.5	10	65	4.6
PR3000GSN-06,0	6.0	6	9	12	75	5.6
PR3000GSN-08,0	8.0	8	12	25	75	7.4
PR3000GSN-10,0	10.0	10	15	30	80	9.4
PR3000GSN-12,0	12.0	12	18	36	90	11.4

**TOLERANCES ACCORDING
TO DIN 7160 & 7161**

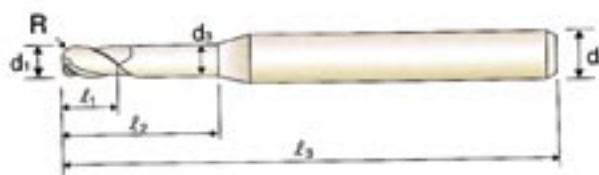
**TOLERANZEN NACH
DIN 7160 & 7161**

**TOLLERANZE SECONDO
NORME DIN 7160 & 7161**












	e8	h6
Toleranzwerte in μm		
Tolerance range in μm		
Tolleranze in μm		
Nennmaßbereich in mm		
Nominal-Diameter in mm		
Diametro Nominale in mm		
von 1 bis 3 from 1 to 3 da 1 a 3	14 -28	0 -6
über 3 bis 6 over 3 to 6 da 3 a 6	20 -38	0 -8
über 6 bis 10 over 6 to 10 da 6 a 10	25 -47	0 -9
über 10 bis 18 over 10 to 18 da 10 a 18	32 -59	0 -11
über 18 bis 30 over 18 to 30 da 18 a 30	40 -73	0 -13

Designed for the machining graphite, reinforced plastic, high silicon aluminum alloys.
 Per la lavorazione della grafite, plastica rinforzata, leghe di alluminio con alto contenuto di silicio.

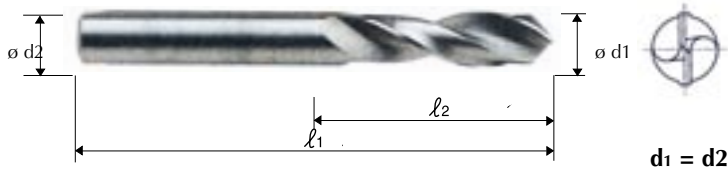
Infinity's newly developed diamond film coating allows a good result for the machining non-ferrous metals and non-metallic materials.
 Il nuovo rivestimento al diamante Infinity permette buoni risultati nella lavorazione di metalli non ferrosi e materiali non metallici.



INFINITY CARBIDE DRILLS AND ASP CHECK POINT INFINITY VOLLHARTMETALL UND ASP BOHRER INDICE PUNTE METALLO DURO E ASP INFINITY

	DIN 6539 VHM CARBIDE	
	Carbide Drills STUB Vollhartmetall Spiralbohrer EXTRA KURZ Punte elicoidali INFINITY in metallo duro SERIE EXTRA CORTE	59-60
	DIN 338 VHM CARBIDE	
	Carbide INFINITY JOBBER Vollhartmetall - INFINITY - Spiralbohrer KURZE Punte INFINITY in metallo duro SERIE CORTA	61
	DIN 6539 VHM CARBIDE 3 X D	
	Carbide INFINITY Drills STUB SERIES Vollhartmetall - INFINITY - Spiralbohrer EXTRA KURZ Punte INFINITY in metallo duro SERIE EXTRA CORTA	59-60
	DIN 6537 VHM CARBIDE 3 X D	
	Carbide INFINITY Drills STUB SERIES Vollhartmetall - INFINITY - Spiralbohrer EXTRA KURZ Punte INFINITY in metallo duro SERIE EXTRA CORTA	64-65
	DIN 6537 VHM CARBIDE 5 X D	
	Carbide INFINITY Drills SHORT SERIES Vollhartmetall - INFINITY - Spiralbohrer KURZE Punte INFINITY in metallo duro SERIE CORTA	66-67
	DIN 6537 VHM CARBIDE 3 X D	
	Carbide INFINITY Drills with Coolant Holes STUB SERIES Vollhartmetall - INFINITY - Hochleistungsbohrer EXTRA KURZ Punte INFINITY in metallo duro con fori per il refrigerante SERIE EXTRA CORTA	68-69
	DIN 6537 VHM CARBIDE 5 X D	
	Carbide INFINITY Drills with Coolant Holes LONG SERIES Vollhartmetall - INFINITY - Hochleistungsbohrer LANGE Punte INFINITY in metallo duro con fori per il refrigerante SERIE LUNGA	70-71
	DIN 6537 VHM CARBIDE 8 X D	
	Carbide INFINITY Drills with Coolant Holes EXTRA LONG SERIES Vollhartmetall - INFINITY - Hochleistungsbohrer EXTRA LANGE Punte INFINITY in metallo duro con fori per il refrigerante SERIE EXTRA LUNGA	72-73
	DIN 6537 VHM CARBIDE 12 X D	
	Carbide INFINITY Drills with Coolant Holes EXTRA LONG SERIES Vollhartmetall - INFINITY - Hochleistungsbohrer EXTRA LANGE Punte INFINITY in metallo duro con fori per il refrigerante SERIE EXTRA LUNGA	72-73
	ASP 3 X D	
	Powder steel INFINITY Drills STUB SERIES Pulver stahl - INFINITY - Spiralbohrer EXTRA KURZ Punte elicoidali INFINITY in acciaio sinterizzato SERIE EXTRA CORTA	74-76
	ASP 5 X D	
	Powder steel INFINITY Drills SHORT SERIES Pulver stahl - INFINITY - Spiralbohrer KURZE Punte elicoidali INFINITY in acciaio sinterizzato SERIE CORTA	77-79

Carbide Drills stub Vollhartmetall Spiralbohrer extra kurz Punte elicoidali INFINITY in metallo duro extra corte



Series PRPED:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico

DIN 6539
VHM CARBIDE
VHM METALLO DURO
EXTRA KURZ - STUB
SERIE EXTRA CORTE

$d_1 = d_2$

CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPED-02,0	2.0	38	12
PRPED-02,1	2.1	38	12
PRPED-02,2	2.2	40	13
PRPED-02,3	2.3	40	13
PRPED-02,4	2.4	43	14
PRPED-02,5	2.5	43	14
PRPED-02,6	2.6	43	14
PRPED-02,7	2.7	46	16
PRPED-02,8	2.8	46	16
PRPED-02,9	2.9	46	16
PRPED-03,0	3.0	46	16
PRPED-03,1	3.1	49	18
PRPED-03,2	3.2	49	18
PRPED-03,3	3.3	49	18
PRPED-03,4	3.4	52	20
PRPED-03,5	3.5	52	20
PRPED-03,6	3.6	52	20
PRPED-03,7	3.7	52	20
PRPED-03,8	3.8	52	20
PRPED-03,9	3.9	55	22
PRPED-04,0	4.0	55	22
PRPED-04,1	4.1	55	22
PRPED-04,2	4.2	55	22
PRPED-04,3	4.3	58	24
PRPED-04,4	4.4	58	24
PRPED-04,5	4.5	58	24
PRPED-04,6	4.6	58	24

CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPED-04,7	4.7	58	24
PRPED-04,8	4.8	62	26
PRPED-04,9	4.9	62	26
PRPED-05,0	5.0	62	26
PRPED-05,1	5.1	62	26
PRPED-05,2	5.2	62	26
PRPED-05,3	5.3	62	26
PRPED-05,4	5.4	66	28
PRPED-05,5	5.5	66	28
PRPED-05,6	5.6	66	28
PRPED-05,7	5.7	66	28
PRPED-05,8	5.8	66	28
PRPED-05,9	5.9	66	28
PRPED-06,0	6.0	66	28
PRPED-06,1	6.1	70	31
PRPED-06,2	6.2	70	31
PRPED-06,3	6.3	70	31
PRPED-06,4	6.4	70	31
PRPED-06,5	6.5	70	31
PRPED-06,6	6.6	70	31
PRPED-06,7	6.7	70	31
PRPED-06,8	6.8	74	34
PRPED-06,9	6.9	74	34
PRPED-07,0	7.0	74	34
PRPED-07,1	7.1	74	34
PRPED-07,2	7.2	74	34
PRPED-07,3	7.3	74	34

Design and technical specifications

Helix angle: 30°

Point angle: 118°

Dia. Tolerance $\varnothing d_1$: h7

Shank tolerance $\varnothing d_2$: h6

Cutting condition - page 132

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 118°

Tolleranza $\varnothing d_1$: h7

Tolleranza gambo $\varnothing d_2$: h6

Parametri di taglio - pag. 132

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

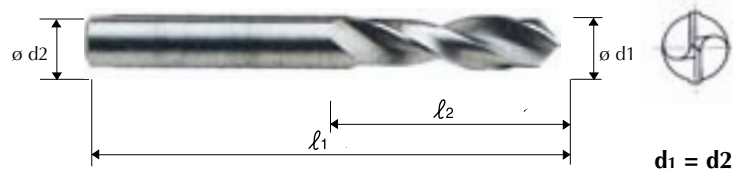
Carbide Drills sub

Vollhartmetall Spiralbohrer extra kurz

Punte elicoidali INFINITY in metallo duro extra corte

Series PRPED:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico

DIN 6539
VHM CARBIDE
VHM METALLO DURO
EXTRA KURZ - STUB
SERIE EXTRA CORTE



CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPED-07,4	7.4	74	34
PRPED-07,5	7.5	74	34
PRPED-07,6	7.6	79	37
PRPED-07,7	7.7	79	37
PRPED-07,8	7.8	79	37
PRPED-07,9	7.9	79	37
PRPED-08,0	8.0	79	37
PRPED-08,1	8.1	79	37
PRPED-08,2	8.2	79	37
PRPED-08,3	8.3	79	37
PRPED-08,4	8.4	79	37
PRPED-08,5	8.5	79	37
PRPED-08,6	8.6	84	40
PRPED-08,7	8.7	84	40
PRPED-08,8	8.8	84	40
PRPED-08,9	8.9	84	40
PRPED-09,0	9.0	84	40

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPED-09,1	9.1	84	40
PRPED-09,2	9.2	84	40
PRPED-09,3	9.3	84	40
PRPED-09,4	9.4	84	40
PRPED-09,5	9.5	84	40
PRPED-09,6	9.6	89	43
PRPED-09,7	9.7	89	43
PRPED-09,8	9.8	89	43
PRPED-09,9	9.9	89	43
PRPED-10,0	10.0	89	43
PRPED-10,2	10.2	89	43
PRPED-10,5	10.5	89	43
PRPED-11,0	11.0	95	57
PRPED-11,5	11.5	95	57
PRPED-12,0	12.0	102	51
PRPED-13,0	13.0	102	51

Design and technical specifications

Helix angle: 30°

Point angle: 118°

Dia. Tolerance ø d₁ : h7

Shank tolerance ø d₂ : h6

Cutting condition - page 132

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 118°

Tolleranza ø d₁ : h7

Tolleranza gambo ø d₂ : h6

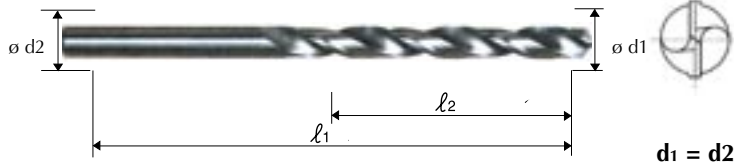
Parametri di taglio - pag. 132

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Carbide Drills jobber Vollhartmetall Spiralbohrer kurz Punte elicoidali INFINITY in metallo duro corte



Series PRPCD:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico

DIN 338
VHM CARBIDE
VHM METALLO DURO
KURZE - JOBBER
SERIE CORTA

CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPCD-02,0	2.0	49	24
PRPCD-02,1	2.1	49	24
PRPCD-02,2	2.2	53	27
PRPCD-02,3	2.3	53	27
PRPCD-02,4	2.4	57	30
PRPCD-02,5	2.5	57	30
PRPCD-02,6	2.6	57	30
PRPCD-02,7	2.7	61	33
PRPCD-02,8	2.8	61	33
PRPCD-02,9	2.9	61	33
PRPCD-03,0	3.0	61	33
PRPCD-03,1	3.1	65	36
PRPCD-03,2	3.2	65	36
PRPCD-03,3	3.3	65	36
PRPCD-03,4	3.4	70	39
PRPCD-03,5	3.5	70	39
PRPCD-03,6	3.6	70	39
PRPCD-03,7	3.7	70	39
PRPCD-03,8	3.8	75	43
PRPCD-03,9	3.9	75	43
PRPCD-04,0	4.0	75	43
PRPCD-04,1	4.1	75	43
PRPCD-04,2	4.2	75	43
PRPCD-04,3	4.3	80	47
PRPCD-04,4	4.4	80	47
PRPCD-04,5	4.5	80	47

CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPCD-04,6	4.6	80	47
PRPCD-04,7	4.7	80	47
PRPCD-04,8	4.8	86	52
PRPCD-04,9	4.9	86	52
PRPCD-05,0	5.0	86	52
PRPCD-05,1	5.1	86	52
PRPCD-05,2	5.2	86	52
PRPCD-05,3	5.3	86	52
PRPCD-05,4	5.4	93	57
PRPCD-05,5	5.5	93	57
PRPCD-05,6	5.6	93	57
PRPCD-05,7	5.7	93	57
PRPCD-05,8	5.8	93	57
PRPCD-05,9	5.9	93	57
PRPCD-06,0	6.0	93	57
PRPCD-06,1	6.1	101	63
PRPCD-06,2	6.2	101	63
PRPCD-06,3	6.3	101	63
PRPCD-06,4	6.4	101	63
PRPCD-06,5	6.5	101	63
PRPCD-06,8	6.8	109	69
PRPCD-07,0	7.0	109	69
PRPCD-08,0	8.0	117	75
PRPCD-08,5	8.5	117	75
PRPCD-10,0	10.0	133	87
PRPCD-10,2	10.2	133	87

Design and technical specifications

Helix angle: 30°

Point angle: 118°

Dia. Tolerance $\varnothing d_1$: h7

Shank tolerance $\varnothing d_2$: h6

Cutting condition - page 132

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 118°

Tolleranza $\varnothing d_1$: h7

Tolleranza gambo $\varnothing d_2$: h6

Parametri di taglio - pag. 132

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

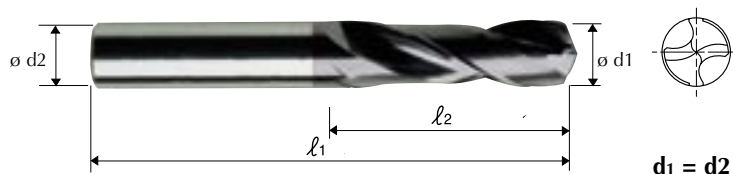
Carbide INFINITY Drills

Vollhartmetall - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in metallo duro

Series PRP3D:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

DIN 6539
 VHM CARBIDE 3 X D
 VHM METALLO DURO 3 X D
 EXTRA KURZ - STUB SERIES
 SERIE EXTRA CORTA



CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRP3D-03,0	3.0	46	16
PRP3D-03,1	3.1	49	18
PRP3D-03,2	3.2	49	18
PRP3D-03,3	3.3	49	18
PRP3D-03,4	3.4	52	20
PRP3D-03,5	3.5	52	20
PRP3D-03,6	3.6	52	20
PRP3D-03,7	3.7	52	20
PRP3D-03,8	3.8	55	22
PRP3D-03,9	3.9	55	22
PRP3D-04,0	4.0	55	22
PRP3D-04,1	4.1	55	22
PRP3D-04,2	4.2	55	22
PRP3D-04,3	4.3	58	24
PRP3D-04,4	4.4	58	24
PRP3D-04,5	4.5	58	24
PRP3D-04,6	4.6	58	24
PRP3D-04,7	4.7	58	24
PRP3D-04,8	4.8	62	26
PRP3D-04,9	4.9	62	26
PRP3D-05,0	5.0	62	26
PRP3D-05,1	5.1	62	26
PRP3D-05,2	5.2	62	26
PRP3D-05,3	5.3	62	26
PRP3D-05,4	5.4	66	28
PRP3D-05,5	5.5	66	28
PRP3D-05,6	5.6	66	28

CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRP3D-05,7	5.7	66	28
PRP3D-05,8	5.8	66	28
PRP3D-05,9	5.9	66	28
PRP3D-06,0	6.0	66	28
PRP3D-06,1	6.1	70	31
PRP3D-06,2	6.2	70	31
PRP3D-06,3	6.3	70	31
PRP3D-06,4	6.4	70	31
PRP3D-06,5	6.5	70	31
PRP3D-06,6	6.6	70	31
PRP3D-06,7	6.7	70	31
PRP3D-06,8	6.8	74	34
PRP3D-06,9	6.9	74	34
PRP3D-07,0	7.0	74	34
PRP3D-07,1	7.1	74	34
PRP3D-07,2	7.2	74	34
PRP3D-07,3	7.3	74	34
PRP3D-07,4	7.4	74	34
PRP3D-07,5	7.5	74	34
PRP3D-07,6	7.6	79	37
PRP3D-07,7	7.7	79	37
PRP3D-07,8	7.8	79	37
PRP3D-07,9	7.9	79	37
PRP3D-08,0	8.0	79	37
PRP3D-08,1	8.1	79	37
PRP3D-08,2	8.2	79	37
PRP3D-08,3	8.3	79	37

Design and technical specifications

Helix angle: 30°
 Point angle: 140°
 Dia. Tolerance $\varnothing d_1$: h7
 Shank tolerance $\varnothing d_2$: h6
 Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°
 Punta: 140°
 Tolleranza $\varnothing d_1$: h7
 Tolleranza gambo $\varnothing d_2$: h6
 Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
 - Zentrierbohrung wird nicht benötigt.
 Exzellente Positionierbarkeit
 - Keine Führungsbuchse notwendig
 - Gute Spanabfuhr
 - Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
 Excellent positioning - bush is not necessary
 Special design - reaming is not required
 - good chip removal
 - powerful drilling

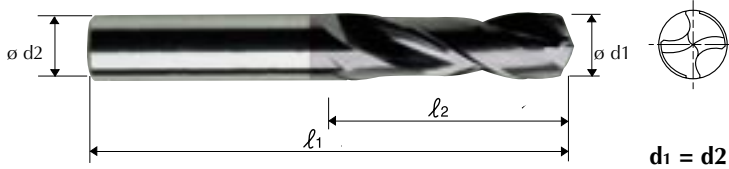
Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
 - non necessitano foratura di centraggi
 eccellente posizionamento
 - non sono necessarie bussole guida
 - buona evacuazione del truciolo
 - facili e efficaci forature

Carbide INFINITY Drills

Vollhartmetall - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in metallo duro



Series PRP3D:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico

DIN 6539
VHM CARBIDE 3 X D
VHM METALLO DURO 3 X D
EXTRA KURZ - STUB SERIES

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRP3D-08,4	8.4	79	37
PRP3D-08,5	8.5	79	37
PRP3D-08,6	8.6	84	40
PRP3D-08,7	8.7	84	40
PRP3D-08,8	8.8	84	40
PRP3D-08,9	8.9	84	40
PRP3D-09,0	9.0	84	40
PRP3D-09,1	9.1	84	40
PRP3D-09,2	9.2	84	40
PRP3D-09,3	9.3	84	40
PRP3D-09,4	9.4	84	40
PRP3D-09,5	9.5	84	40
PRP3D-09,6	9.6	89	43
PRP3D-09,7	9.7	89	43
PRP3D-09,8	9.8	89	43
PRP3D-09,9	9.9	89	43
PRP3D-10,0	10.0	89	43
PRP3D-10,2	10.2	89	43
PRP3D-10,5	10.5	89	43

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRP3D-11,0	11.0	95	47
PRP3D-11,5	11.5	95	47
PRP3D-12,0	12.0	102	51
PRP3D-13,0	13.0	102	51
PRP3D-13,5	13.5	107	54
PRP3D-14,0	14.0	107	54
PRP3D-14,5	14.5	111	56
PRP3D-15,0	15.0	111	56
PRP3D-15,5	15.5	115	58
PRP3D-16,0	16.0	115	58
PRP3D-16,5	16.5	119	60
PRP3D-17,0	17.0	119	60
PRP3D-17,5	17.5	123	62
PRP3D-18,0	18.0	123	62
PRP3D-18,5	18.5	127	64
PRP3D-19,0	19.0	127	64
PRP3D-19,5	19.5	131	66
PRP3D-20,0	20.0	131	66

Design and technical specifications

Helix angle: 30°
Point angle: 140°
Dia. Tolerance ø d₁ : h7
Shank tolerance ø d₂ : h6
Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°
Punta: 140°
Tolleranza ø d₁ : h7
Tolleranza gambo ø d₂ : h6
Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile:
Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.
Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
Excellent positioning - bush is not necessary
Special design - reaming is not required
- good chip removal
- powerful drilling

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi:
auto centranti
- non necessitano foratura di centraggi
eccellente posizionamento
- non sono necessarie bussole guida
- buona evacuazione del truciolo
- facili e efficaci forature

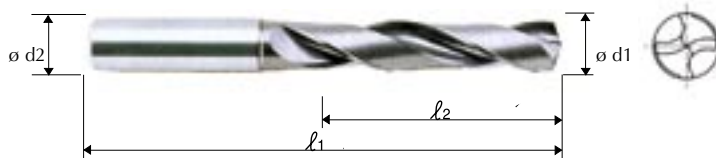
Carbide INFINITY Drills

Vollhartmetall - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in metallo duro

Series PRP3DM:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico

DIN 6537
VHM CARBIDE 3 X D
VHM METALLO DURO 3 X D
EXTRA KURZ - STUB SERIES
SERIE EXTRA CORTA



CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP3DM-03,0	3.0	6.0	62	20
PRP3DM-03,1	3.1	6.0	62	20
PRP3DM-03,2	3.2	6.0	62	20
PRP3DM-03,3	3.3	6.0	62	20
PRP3DM-03,4	3.4	6.0	62	20
PRP3DM-03,5	3.5	6.0	62	20
PRP3DM-03,6	3.6	6.0	62	20
PRP3DM-03,7	3.7	6.0	62	20
PRP3DM-03,8	3.8	6.0	66	24
PRP3DM-03,9	3.9	6.0	66	24
PRP3DM-04,0	4.0	6.0	66	24
PRP3DM-04,1	4.1	6.0	66	24
PRP3DM-04,2	4.2	6.0	66	24
PRP3DM-04,3	4.3	6.0	66	24
PRP3DM-04,4	4.4	6.0	66	24
PRP3DM-04,5	4.5	6.0	66	24
PRP3DM-04,6	4.6	6.0	66	24
PRP3DM-04,7	4.7	6.0	66	24
PRP3DM-04,8	4.8	6.0	66	28
PRP3DM-04,9	4.9	6.0	66	28
PRP3DM-05,0	5.0	6.0	66	28
PRP3DM-05,1	5.1	6.0	66	28
PRP3DM-05,2	5.2	6.0	66	28
PRP3DM-05,3	5.3	6.0	66	28
PRP3DM-05,4	5.4	6.0	66	28
PRP3DM-05,5	5.5	6.0	66	28
PRP3DM-05,6	5.6	6.0	66	28
PRP3DM-05,7	5.7	6.0	66	28
PRP3DM-05,8	5.8	6.0	66	28

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP3DM-05,9	5.9	6.0	66	28
PRP3DM-06,0	6.0	6.0	66	28
PRP3DM-06,1	6.1	8.0	79	34
PRP3DM-06,2	6.2	8.0	79	34
PRP3DM-06,3	6.3	8.0	79	34
PRP3DM-06,4	6.4	8.0	79	34
PRP3DM-06,5	6.5	8.0	79	34
PRP3DM-06,6	6.6	8.0	79	34
PRP3DM-06,7	6.7	8.0	79	34
PRP3DM-06,8	6.8	8.0	79	34
PRP3DM-06,9	6.9	8.0	79	34
PRP3DM-07,0	7.0	8.0	79	34
PRP3DM-07,1	7.1	8.0	79	41
PRP3DM-07,2	7.2	8.0	79	41
PRP3DM-07,3	7.3	8.0	79	41
PRP3DM-07,4	7.4	8.0	79	41
PRP3DM-07,5	7.5	8.0	79	41
PRP3DM-07,6	7.6	8.0	79	41
PRP3DM-07,7	7.7	8.0	79	41
PRP3DM-07,8	7.8	8.0	79	41
PRP3DM-07,9	7.9	8.0	79	41
PRP3DM-08,0	8.0	8.0	79	41
PRP3DM-08,1	8.1	10.0	89	47
PRP3DM-08,2	8.2	10.0	89	47
PRP3DM-08,3	8.3	10.0	89	47
PRP3DM-08,4	8.4	10.0	89	47
PRP3DM-08,5	8.5	10.0	89	47
PRP3DM-08,6	8.6	10.0	89	47
PRP3DM-08,7	8.7	10.0	89	47

- The TIN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°
Point angle: 140°
Dia. Tolerance ø d₁ : m 7
Shank tolerance ø d₂ : h6
Plain shank: DIN 6535-HA
Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°
Punta: 140°
Tolleranza ø d₁ : m7
Tolleranza gambo ø d₂ : h6
Gambo cilindrico: DIN 6535-HA
Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.
Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig
Spezielles Design
- Räumen ist nicht notwendig
- Güte Spanabfuhr
- Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
Excellent positioning - bush is not necessary
Special design - reaming is not required
- good chip removal
- powerful drilling

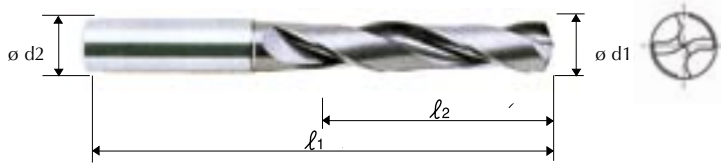
Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
- non necessitano foratura di centraggi
eccellente posizionamento
- non sono necessarie bussole guida
- buona evacuazione del truciolo
- facili e efficaci forature

Carbide INFINITY Drills

Vollhartmetall - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in metallo duro



Series PRP3DM:
Straight Shank
Glatter Zylinderschaft
Gambo cilindrico

DIN 6537
VHM CARBIDE 3 X D
VHM METALLO DURO 3 X D
EXTRA KURZ - STUB SERIES
SERIE EXTRA CORTA

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	1 mm	2 mm
PRP3DM-08,8	8.8	10.0	89	47
PRP3DM-08,9	8.9	10.0	89	47
PRP3DM-09,0	9.0	10.0	89	47
PRP3DM-09,1	9.1	10.0	89	47
PRP3DM-09,2	9.2	10.0	89	47
PRP3DM-09,3	9.3	10.0	89	47
PRP3DM-09,4	9.4	10.0	89	47
PRP3DM-09,5	9.5	10.0	89	47
PRP3DM-09,6	9.6	10.0	89	47
PRP3DM-09,7	9.7	10.0	89	47
PRP3DM-09,8	9.8	10.0	89	47
PRP3DM-09,9	9.9	10.0	89	47
PRP3DM-10,0	10.0	10.0	89	47
PRP3DM-10,1	10.1	12.0	102	55
PRP3DM-10,2	10.2	12.0	102	55
PRP3DM-10,3	10.3	12.0	102	55
PRP3DM-10,4	10.4	12.0	102	55
PRP3DM-10,5	10.5	12.0	102	55
PRP3DM-10,6	10.6	12.0	102	55
PRP3DM-10,7	10.7	12.0	102	55
PRP3DM-10,8	10.8	12.0	102	55
PRP3DM-10,9	10.9	12.0	102	55
PRP3DM-11,0	11.0	12.0	102	55
PRP3DM-11,1	11.1	12.0	102	55
PRP3DM-11,2	11.2	12.0	102	55
PRP3DM-11,3	11.3	12.0	102	55
PRP3DM-11,4	11.4	12.0	102	55
PRP3DM-11,5	11.5	12.0	102	55
PRP3DM-11,6	11.6	12.0	102	55

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	1 mm	2 mm
PRP3DM-11,7	11.7	12.0	102	55
PRP3DM-11,8	11.8	12.0	102	55
PRP3DM-11,9	11.9	12.0	102	55
PRP3DM-12,0	12.0	12.0	102	55
PRP3DM-12,3	12.3	14.0	107	60
PRP3DM-12,5	12.5	14.0	107	60
PRP3DM-12,8	12.8	14.0	107	60
PRP3DM-13,0	13.0	14.0	107	60
PRP3DM-13,5	13.5	14.0	107	60
PRP3DM-13,8	13.8	14.0	107	60
PRP3DM-14,0	14.0	14.0	107	60
PRP3DM-14,5	14.5	16.0	115	65
PRP3DM-14,8	14.8	16.0	115	65
PRP3DM-15,0	15.0	16.0	115	65
PRP3DM-15,5	15.5	16.0	115	65
PRP3DM-15,8	15.8	16.0	115	65
PRP3DM-16,0	16.0	16.0	115	65
PRP3DM-16,5	16.5	18.0	123	73
PRP3DM-16,8	16.8	18.0	123	73
PRP3DM-17,0	17.0	18.0	123	73
PRP3DM-17,5	17.5	18.0	123	73
PRP3DM-17,8	17.8	18.0	123	73
PRP3DM-18,0	18.0	18.0	123	73
PRP3DM-18,5	18.5	20.0	131	79
PRP3DM-19,0	19.0	20.0	131	79
PRP3DM-19,5	19.5	20.0	131	79
PRP3DM-19,8	19.8	20.0	131	79
PRP3DM-20,0	20.0	20.0	131	79

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°

Point angle: 140°

Dia. Tolerance ø d₁ : m7

Shank tolerance ø d₂ : h6

Plain shank: DIN 6535-HA

Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 140°

Tolleranza ø d₁ : m7

Tolleranza gambo ø d₂ : h6

Gambo cilindrico: DIN 6535-HA

Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.
Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig
Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
Excellent positioning - bush is not necessary
Special design - reaming is not required
- good chip removal
- powerful drilling

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
- non necessitano foratura di centraggi
eccellente posizionamento
- non sono necessarie bussole guida
- buona evacuazione del truciolo
- facili e efficaci forature

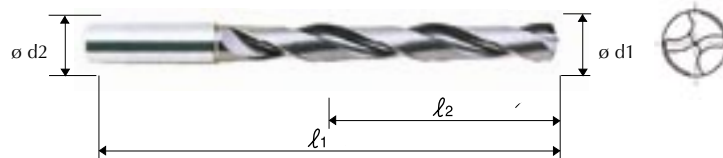
Carbide INFINITY Drills

Vollhartmetall - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in metallo duro

Series PRP5DM:
 Straight Shank
 Glatter Zylinderschaft
 Gambo cilindrico

DIN 6537
 VHM CARBIDE 5 X D
 VHM METALLO DURO 5 X D
 KURZE - SHORT SERIES
 SERIE CORTA



CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP5DM-03,0	3.0	6.0	66	28
PRP5DM-03,1	3.1	6.0	66	28
PRP5DM-03,2	3.2	6.0	66	28
PRP5DM-03,3	3.3	6.0	66	28
PRP5DM-03,4	3.4	6.0	66	28
PRP5DM-03,5	3.5	6.0	66	28
PRP5DM-03,6	3.6	6.0	66	28
PRP5DM-03,7	3.7	6.0	66	28
PRP5DM-03,8	3.8	6.0	74	36
PRP5DM-03,9	3.9	6.0	74	36
PRP5DM-04,0	4.0	6.0	74	36
PRP5DM-04,1	4.1	6.0	74	36
PRP5DM-04,2	4.2	6.0	74	36
PRP5DM-04,3	4.3	6.0	74	36
PRP5DM-04,4	4.4	6.0	74	36
PRP5DM-04,5	4.5	6.0	74	36
PRP5DM-04,6	4.6	6.0	74	36
PRP5DM-04,7	4.7	6.0	74	36
PRP5DM-04,8	4.8	6.0	82	44
PRP5DM-04,9	4.9	6.0	82	44
PRP5DM-05,0	5.0	6.0	82	44
PRP5DM-05,1	5.1	6.0	82	44
PRP5DM-05,2	5.2	6.0	82	44
PRP5DM-05,3	5.3	6.0	82	44
PRP5DM-05,4	5.4	6.0	82	44
PRP5DM-05,5	5.5	6.0	82	44
PRP5DM-05,6	5.6	6.0	82	44
PRP5DM-05,7	5.7	6.0	82	44
PRP5DM-05,8	5.8	6.0	82	44

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP5DM-05,9	5.9	6.0	82	44
PRP5DM-06,0	6.0	6.0	82	44
PRP5DM-06,1	6.1	8.0	91	53
PRP5DM-06,2	6.2	8.0	91	53
PRP5DM-06,3	6.3	8.0	91	53
PRP5DM-06,4	6.4	8.0	91	53
PRP5DM-06,5	6.5	8.0	91	53
PRP5DM-06,6	6.6	8.0	91	53
PRP5DM-06,7	6.7	8.0	91	53
PRP5DM-06,8	6.8	8.0	91	53
PRP5DM-06,9	6.9	8.0	91	53
PRP5DM-07,0	7.0	8.0	91	53
PRP5DM-07,1	7.1	8.0	91	53
PRP5DM-07,2	7.2	8.0	91	53
PRP5DM-07,3	7.3	8.0	91	53
PRP5DM-07,4	7.4	8.0	91	53
PRP5DM-07,5	7.5	8.0	91	53
PRP5DM-07,6	7.6	8.0	91	53
PRP5DM-07,7	7.7	8.0	91	53
PRP5DM-07,8	7.8	8.0	91	53
PRP5DM-07,9	7.9	8.0	91	53
PRP5DM-08,0	8.0	8.0	91	53
PRP5DM-08,1	8.1	10.0	103	61
PRP5DM-08,2	8.2	10.0	103	61
PRP5DM-08,3	8.3	10.0	103	61
PRP5DM-08,4	8.4	10.0	103	61
PRP5DM-08,5	8.5	10.0	103	61
PRP5DM-08,6	8.6	10.0	103	61
PRP5DM-08,7	8.7	10.0	103	61

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°

Point angle: 140°

Dia. Tolerance ø d₁ : m7

Shank tolerance ø d₂ : h6

Plain shank: DIN 6535-HA

Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 140°

Tolleranza ø d₁ : m7

Tolleranza gambo ø d₂ : h6

Gambo cilindrico: DIN 6535-HA

Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile:
 Selbst zentrierend
 - Zentrierbohrung wird nicht benötigt.
 Exzellente Positionierbarkeit
 - Keine Führungsbuchse notwendig
 Spezielles Design
 - Räumen ist nicht notwendig
 - Güte Spanabfuhr
 - Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage:
 Self centering - center drilling is not required
 Excellent positioning - bush is not necessary
 Special design - reaming is not required
 - good chip removal
 - powerful drilling

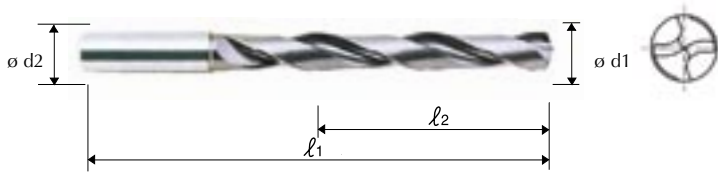
Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi:
 - non necessitano foratura di centraggi
 eccellente posizionamento
 - non sono necessarie bussole guida
 - buona evacuazione del truciolo
 - facili e efficaci forature

Carbide INFINITY Drills

Vollhartmetall - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in metallo duro



Series PRP5DM:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico

DIN 6537
VHM CARBIDE 5 X D
VHM METALLO DURO 5 X D
KURZE - SHORT SERIES
SERIE CORTA

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	1 mm	2 mm
PRP5DM-08,8	8.8	10.0	103	61
PRP5DM-08,9	8.9	10.0	103	61
PRP5DM-09,0	9.0	10.0	103	61
PRP5DM-09,1	9.1	10.0	103	61
PRP5DM-09,2	9.2	10.0	103	61
PRP5DM-09,3	9.3	10.0	103	61
PRP5DM-09,4	9.4	10.0	103	61
PRP5DM-09,5	9.5	10.0	103	61
PRP5DM-09,6	9.6	10.0	103	61
PRP5DM-09,7	9.7	10.0	103	61
PRP5DM-09,8	9.8	10.0	103	61
PRP5DM-09,9	9.9	10.0	103	61
PRP5DM-10,0	10.0	10.0	103	61
PRP5DM-10,1	10.1	12.0	118	71
PRP5DM-10,2	10.2	12.0	118	71
PRP5DM-10,3	10.3	12.0	118	71
PRP5DM-10,4	10.4	12.0	118	71
PRP5DM-10,5	10.5	12.0	118	71
PRP5DM-10,6	10.6	12.0	118	71
PRP5DM-10,7	10.7	12.0	118	71
PRP5DM-10,8	10.8	12.0	118	71
PRP5DM-10,9	10.9	12.0	118	71
PRP5DM-11,0	11.0	12.0	118	71
PRP5DM-11,1	11.1	12.0	118	71
PRP5DM-11,2	11.2	12.0	118	71
PRP5DM-11,3	11.3	12.0	118	71
PRP5DM-11,4	11.4	12.0	118	71
PRP5DM-11,5	11.5	12.0	118	71
PRP5DM-11,6	11.6	12.0	118	71

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	1 mm	2 mm
PRP5DM-11,7	11.7	12.0	118	71
PRP5DM-11,8	11.8	12.0	118	71
PRP5DM-11,9	11.9	12.0	118	71
PRP5DM-12,0	12.0	12.0	118	71
PRP5DM-12,3	12.3	14.0	124	77
PRP5DM-12,5	12.5	14.0	124	77
PRP5DM-12,8	12.8	14.0	124	77
PRP5DM-13,0	13.0	14.0	124	77
PRP5DM-13,5	13.5	14.0	124	77
PRP5DM-13,8	13.8	14.0	124	77
PRP5DM-14,0	14.0	14.0	124	77
PRP5DM-14,5	14.5	16.0	133	83
PRP5DM-14,8	14.8	16.0	133	83
PRP5DM-15,0	15.0	16.0	133	83
PRP5DM-15,5	15.5	16.0	133	83
PRP5DM-15,8	15.8	16.0	133	83
PRP5DM-16,0	16.0	16.0	133	83
PRP5DM-16,5	16.5	18.0	143	93
PRP5DM-16,8	16.8	18.0	143	93
PRP5DM-17,0	17.0	18.0	143	93
PRP5DM-17,5	17.5	18.0	143	93
PRP5DM-17,8	17.8	18.0	143	93
PRP5DM-18,0	18.0	18.0	143	93
PRP5DM-18,5	18.5	20.0	153	101
PRP5DM-19,0	19.0	20.0	153	101
PRP5DM-19,5	19.5	20.0	153	101
PRP5DM-19,8	19.8	20.0	153	101
PRP5DM-20,0	20.0	20.0	153	101

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°

Point angle: 140°

Dia. Tolerance ø d₁ : m7

Shank tolerance ø d₂ : h6

Plain shank: DIN 6535-HA

Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 140°

Tolleranza ø d₁ : m7

Tolleranza gambo ø d₂ : h6

Gambo cilindrico: DIN 6535-HA

Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.
Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig
Spezielles Design
- Räumen is nich notwendig
- Güte Spanabfuhr
- Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
Excellent positioning - bush is not necessary
Special design - reaming is not required
- good chip removal
- powerful drilling

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi:
- non necessitano foratura di centraggi
eccellente posizionamento
- non sono necessarie bussole guida
- buona evacuazione del truciolo
- facili e efficaci forature

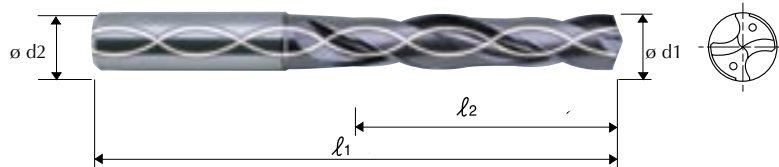
Carbide INFINITY Drills with Coolant Holes

Vollhartmetall - INFINITY - Hochleistungsbohrer

Punte elicoidali INFINITY in metallo duro con fori per passaggio refrigerante

Series PRP3DF:
 Straight Shank
Glatter Zylinderschaft
 Gambo cilindrico

DIN 6537
VHM CARBIDE 3 X D
VHM METALLO DURO 3 X D
KURZE - SHORT SERIES
SERIE CORTA



CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP3DF-03,0	3.0	6.0	62	20
PRP3DF-03,1	3.1	6.0	62	20
PRP3DF-03,2	3.2	6.0	62	20
PRP3DF-03,3	3.3	6.0	62	20
PRP3DF-03,4	3.4	6.0	62	20
PRP3DF-03,5	3.5	6.0	62	20
PRP3DF-03,6	3.6	6.0	62	20
PRP3DF-03,7	3.7	6.0	62	20
PRP3DF-03,8	3.8	6.0	66	24
PRP3DF-03,9	3.9	6.0	66	24
PRP3DF-04,0	4.0	6.0	66	24
PRP3DF-04,1	4.1	6.0	66	24
PRP3DF-04,2	4.2	6.0	66	24
PRP3DF-04,3	4.3	6.0	66	24
PRP3DF-04,4	4.4	6.0	66	24
PRP3DF-04,5	4.5	6.0	66	24
PRP3DF-04,6	4.6	6.0	66	24
PRP3DF-04,7	4.7	6.0	66	24
PRP3DF-04,8	4.8	6.0	66	28
PRP3DF-04,9	4.9	6.0	66	28
PRP3DF-05,0	5.0	6.0	66	28
PRP3DF-05,1	5.1	6.0	66	28
PRP3DF-05,2	5.2	6.0	66	28
PRP3DF-05,3	5.3	6.0	66	28
PRP3DF-05,4	5.4	6.0	66	28
PRP3DF-05,5	5.5	6.0	66	28
PRP3DF-05,6	5.6	6.0	66	28
PRP3DF-05,7	5.7	6.0	66	28
PRP3DF-05,8	5.8	6.0	66	28

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP3DF-05,9	5.9	6.0	66	28
PRP3DF-06,0	6.0	6.0	66	28
PRP3DF-06,1	6.1	8.0	79	34
PRP3DF-06,2	6.2	8.0	79	34
PRP3DF-06,3	6.3	8.0	79	34
PRP3DF-06,4	6.4	8.0	79	34
PRP3DF-06,5	6.5	8.0	79	34
PRP3DF-06,6	6.6	8.0	79	34
PRP3DF-06,7	6.7	8.0	79	34
PRP3DF-06,8	6.8	8.0	79	34
PRP3DF-06,9	6.9	8.0	79	34
PRP3DF-07,0	7.0	8.0	79	34
PRP3DF-07,1	7.1	8.0	79	41
PRP3DF-07,2	7.2	8.0	79	41
PRP3DF-07,3	7.3	8.0	79	41
PRP3DF-07,4	7.4	8.0	79	41
PRP3DF-07,5	7.5	8.0	79	41
PRP3DF-07,6	7.6	8.0	79	41
PRP3DF-07,7	7.7	8.0	79	41
PRP3DF-07,8	7.8	8.0	79	41
PRP3DF-07,9	7.9	8.0	79	41
PRP3DF-08,0	8.0	8.0	79	41
PRP3DF-08,1	8.1	10.0	89	47
PRP3DF-08,2	8.2	10.0	89	47
PRP3DF-08,3	8.3	10.0	89	47
PRP3DF-08,4	8.4	10.0	89	47
PRP3DF-08,5	8.5	10.0	89	47
PRP3DF-08,6	8.6	10.0	89	47
PRP3DF-08,7	8.7	10.0	89	47

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°
 Point angle: 140°
 Dia. Tolerance ø d₁ : m7
 Shank tolerance ø d₂ : h6
 Plain shank: DIN 6535-HA
 Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Èlica: 30°
 Punta: 140°
 Tolleranza ø d₁ : m7
 Tolleranza gambo ø d₂ : h6
 Gambo cilindrico: DIN 6535-HA
 Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

- Vorteile:**
- Selbst zentrierend
 - Zentrierbohrung wird nicht benötigt.
 - Exzellente Positionierbarkeit
 - Keine Führungsbuchse notwendig
 - Gute Spanabfuhr
 - Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage:**
- Self centering - center drilling is not required
 - Excellent positioning - bush is not necessary
 - Special design
 - reaming is not required
 - good chip removal
 - powerful drilling

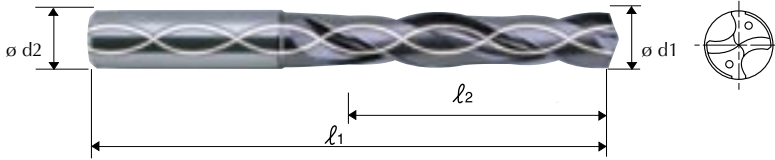
Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

- Vantaggi:**
- non necessitano foratura di centraggi
 - eccellente posizionamento
 - non sono necessarie bussole guida
 - buona evacuazione del truciolo
 - facili e efficaci forature

Carbide INFINITY Drills with Coolant Holes

Vollhartmetall - INFINITY - Hochleistungsbohrer

Punte elicoidali INFINITY in metallo duro con fori per passaggio refrigerante



Series PRP3DF:

Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

DIN 6537
 VHM CARBIDE 3 X D
 VHM METALLO DURO 3 X D
 KURZE - SHORT SERIES
 SERIE CORTA

CODE No. CODICE	$\varnothing d_1$ mm	$\varnothing d_2$ mm	l_1 mm	l_2 mm
PRP3DF-08,8	8.8	10.0	89	47
PRP3DF-08,9	8.9	10.0	89	47
PRP3DF-09,0	9.0	10.0	89	47
PRP3DF-09,1	9.1	10.0	89	47
PRP3DF-09,2	9.2	10.0	89	47
PRP3DF-09,3	9.3	10.0	89	47
PRP3DF-09,4	9.4	10.0	89	47
PRP3DF-09,5	9.5	10.0	89	47
PRP3DF-09,6	9.6	10.0	89	47
PRP3DF-09,7	9.7	10.0	89	47
PRP3DF-09,8	9.8	10.0	89	47
PRP3DF-09,9	9.9	10.0	89	47
PRP3DF-10,0	10.0	10.0	89	47
PRP3DF-10,1	10.1	12.0	102	55
PRP3DF-10,2	10.2	12.0	102	55
PRP3DF-10,3	10.3	12.0	102	55
PRP3DF-10,4	10.4	12.0	102	55
PRP3DF-10,5	10.5	12.0	102	55
PRP3DF-10,6	10.6	12.0	102	55
PRP3DF-10,7	10.7	12.0	102	55
PRP3DF-10,8	10.8	12.0	102	55
PRP3DF-10,9	10.9	12.0	102	55
PRP3DF-11,0	11.0	12.0	102	55
PRP3DF-11,1	11.1	12.0	102	55
PRP3DF-11,2	11.2	12.0	102	55
PRP3DF-11,3	11.3	12.0	102	55
PRP3DF-11,4	11.4	12.0	102	55
PRP3DF-11,5	11.5	12.0	102	55

CODE No. CODICE	$\varnothing d_1$ mm	$\varnothing d_2$ mm	l_1 mm	l_2 mm
PRP3DF-11,6	11.6	12.0	102	55
PRP3DF-11,7	11.7	12.0	102	55
PRP3DF-11,8	11.8	12.0	102	55
PRP3DF-11,9	11.9	12.0	102	55
PRP3DF-12,0	12.0	12.0	102	55
PRP3DF-12,5	12.5	14.0	107	60
PRP3DF-13,0	13.0	14.0	107	60
PRP3DF-13,5	13.5	14.0	107	60
PRP3DF-14,0	14.0	14.0	107	60
PRP3DF-14,5	14.5	16.0	115	65
PRP3DF-15,0	15.0	16.0	115	65
PRP3DF-15,5	15.5	16.0	115	65
PRP3DF-16,0	16.0	16.0	115	65
PRP3DF-16,5	16.5	18.0	123	73
PRP3DF-17,0	17.0	18.0	123	73
PRP3DF-17,5	17.5	18.0	123	73
PRP3DF-18,0	18.0	18.0	123	73
PRP3DF-18,5	18.5	20.0	131	79
PRP3DF-19,0	19.0	20.0	131	79
PRP3DF-19,5	19.5	20.0	131	79
PRP3DF-20,0	20.0	20.0	131	79

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE.

Design and technical specifications

Helix angle: 30°
 Point angle: 140°
 Dia. Tolerance $\varnothing d_1$: m7
 Shank tolerance $\varnothing d_2$: h6
 Plain shank: DIN 6535-HA
 Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°
 Punta: 140°
 Tolleranza $\varnothing d_1$: m7
 Tolleranza gambo $\varnothing d_2$: h6
 Gambo cilindrico: DIN 6535-HA
 Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
 - Zentrierbohrung wird nicht benötigt.
 Exzellente Positionierbarkeit
 - Keine Führungsbuchse notwendig
 - Gute Spanabfuhr
 - Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
 Excellent positioning - bush is not necessary
 Special design - reaming is not required
 - good chip removal
 - powerful drilling

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
 - non necessitano foratura di centraggi
 eccellente posizionamento
 - non sono necessarie bussole guida
 - buona evacuazione del truciolo
 - facili e efficaci forature

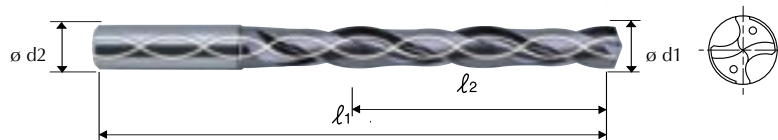
Carbide INFINITY Drills with Coolant Holes

Vollhartmetall - INFINITY - Hochleistungsbohrer

Punte elicoidali INFINITY in metallo duro con fori per passaggio refrigerante

Series PRP5DF:
 Straight Shank
 Glatter Zylinderschaft
 Gambo cilindrico

DIN 6537
VHM CARBIDE 5 X D
VHM METALLO DURO 5 X D
LANGE - LONG SERIES
SERIE LUNGA



CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP5DF-03,0	3.0	6.0	66	28
PRP5DF-03,1	3.1	6.0	66	28
PRP5DF-03,2	3.2	6.0	66	28
PRP5DF-03,3	3.3	6.0	66	28
PRP5DF-03,4	3.4	6.0	66	28
PRP5DF-03,5	3.5	6.0	66	28
PRP5DF-03,6	3.6	6.0	66	28
PRP5DF-03,7	3.7	6.0	66	28
PRP5DF-03,8	3.8	6.0	74	36
PRP5DF-03,9	3.9	6.0	74	36
PRP5DF-04,0	4.0	6.0	74	36
PRP5DF-04,1	4.1	6.0	74	36
PRP5DF-04,2	4.2	6.0	74	36
PRP5DF-04,3	4.3	6.0	74	36
PRP5DF-04,4	4.4	6.0	74	36
PRP5DF-04,5	4.5	6.0	74	36
PRP5DF-04,6	4.6	6.0	74	36
PRP5DF-04,7	4.7	6.0	7	36
PRP5DF-04,8	4.8	6.0	82	44
PRP5DF-04,9	4.9	6.0	82	44
PRP5DF-05,0	5.0	6.0	82	44
PRP5DF-05,1	5.1	6.0	82	44
PRP5DF-05,2	5.2	6.0	82	44
PRP5DF-05,3	5.3	6.0	82	44
PRP5DF-05,4	5.4	6.0	82	44
PRP5DF-05,5	5.5	6.0	82	44
PRP5DF-05,6	5.6	6.0	82	44
PRP5DF-05,7	5.7	6.0	82	44
PRP5DF-05,8	5.8	6.0	82	44
PRP5DF-05,9	5.9	6.0	82	44

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP5DF-06,0	6.0	6.0	82	44
PRP5DF-06,1	6.1	8.0	91	53
PRP5DF-06,2	6.2	8.0	91	53
PRP5DF-06,3	6.3	8.0	91	53
PRP5DF-06,4	6.4	8.0	91	53
PRP5DF-06,5	6.5	8.0	91	53
PRP5DF-06,6	6.6	8.0	91	53
PRP5DF-06,7	6.7	8.0	91	53
PRP5DF-06,8	6.8	8.0	91	53
PRP5DF-06,9	6.9	8.0	91	53
PRP5DF-07,0	7.0	8.0	91	53
PRP5DF-07,1	7.1	8.0	91	53
PRP5DF-07,2	7.2	8.0	91	53
PRP5DF-07,3	7.3	8.0	91	53
PRP5DF-07,4	7.4	8.0	91	53
PRP5DF-07,5	7.5	8.0	91	53
PRP5DF-07,6	7.6	8.0	91	53
PRP5DF-07,7	7.7	8.0	91	44
PRP5DF-07,8	7.8	8.0	91	44
PRP5DF-07,9	7.9	8.0	91	44
PRP5DF-08,0	8.0	8.0	91	44
PRP5DF-08,1	8.1	10.0	103	61
PRP5DF-08,2	8.2	10.0	103	61
PRP5DF-08,3	8.3	10.0	103	61
PRP5DF-08,4	8.4	10.0	103	61
PRP5DF-08,5	8.5	10.0	103	61
PRP5DF-08,6	8.6	10.0	103	61
PRP5DF-08,7	8.7	10.0	103	61
PRP5DF-08,8	8.8	10.0	103	61
PRP5DF-08,9	8.9	10.0	103	61

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°

Point angle: 140°

Dia. Tolerance ø d₁ : m7

Shank tolerance ø d₂ : h6

Plain shank: DIN 6535-HA

Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 140°

Tolleranza ø d₁ : m7

Tolleranza gambo ø d₂ : h6

Gambo cilindrico: DIN 6535-HA

Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

- Vorteile:**
- Selbst zentrierend
 - Zentrierbohrung wird nicht benötigt.
 - Exzellente Positionierbarkeit
 - Keine Führungsbuchse notwendig
 - Gute Spanabfuhr
 - Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage:**
- Self centering - center drilling is not required
 - Excellent positioning - bush is not necessary
 - Special design - reaming is not required
 - good chip removal
 - powerful drilling

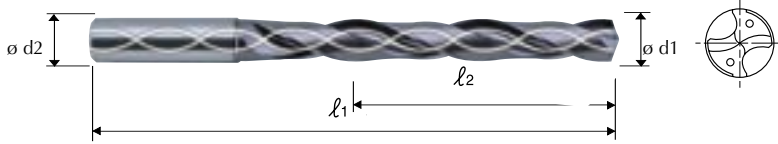
Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

- Vantaggi:**
- auto centranti
 - non necessitano foratura di centraggi
 - eccellente posizionamento
 - non sono necessarie bussole guida
 - buona evacuazione del truciolo
 - facili e efficaci forature

Carbide INFINITY Drills with Coolant Holes

Vollhartmetall - INFINITY - Hochleistungsbohrer

Punte elicoidali INFINITY in metallo duro con fori per passaggio refrigerante



Series PRP5DF:
Straight Shank
Glatter Zylinderschaft
Gambo cilindrico

DIN 6537
VHM CARBIDE 5 X D
VHM METALLO DURO 5 X D
LANGE - LONG SERIES
SERIE LUNGA

CODE No. CODICE	$\varnothing d_1$ mm	$\varnothing d_2$ mm	l_1 mm	l_2 mm
PRP5DF-09,0	9.0	10.0	103	61
PRP5DF-09,1	9.1	10.0	103	61
PRP5DF-09,2	9.2	10.0	103	61
PRP5DF-09,3	9.3	10.0	103	61
PRP5DF-09,4	9.4	10.0	103	61
PRP5DF-09,5	9.5	10.0	103	61
PRP5DF-09,6	9.6	10.0	103	61
PRP5DF-09,7	9.7	10.0	103	61
PRP5DF-09,8	9.8	10.0	103	61
PRP5DF-09,9	9.9	10.0	103	61
PRP5DF-10,0	10.0	10.0	103	61
PRP5DF-10,1	10.1	12.0	118	71
PRP5DF-10,2	10.2	12.0	118	71
PRP5DF-10,3	10.3	12.0	118	71
PRP5DF-10,4	10.4	12.0	118	71
PRP5DF-10,5	10.5	12.0	118	71
PRP5DF-10,6	10.6	12.0	118	71
PRP5DF-10,7	10.7	12.0	118	71
PRP5DF-10,8	10.8	12.0	118	71
PRP5DF-10,9	10.9	12.0	118	71
PRP5DF-11,0	11.0	12.0	118	71
PRP5DF-11,1	11.1	12.0	118	71
PRP5DF-11,2	11.2	12.0	118	71
PRP5DF-11,3	11.3	12.0	118	71
PRP5DF-11,4	11.4	12.0	118	71
PRP5DF-11,5	11.5	12.0	118	71
PRP5DF-11,6	11.6	12.0	118	71

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°

Point angle: 140°

Dia. Tolerance $\varnothing d_1$: m7

Shank tolerance $\varnothing d_2$: h6

Plain shank: DIN 6535-HA

Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 140°

Tolleranza $\varnothing d_1$: m7

Tolleranza gambo $\varnothing d_2$: h6

Gambo cilindrico: DIN 6535-HA

Rivestimento: TiAlN

Parametri di taglio - pag. 133

CODE No. CODICE	$\varnothing d_1$ mm	$\varnothing d_2$ mm	l_1 mm	l_2 mm
PRP5DF-11,7	11.7	12.0	118	71
PRP5DF-11,8	11.8	12.0	118	71
PRP5DF-11,9	11.9	12.0	118	71
PRP5DF-12,0	12.0	12.0	118	71
PRP5DF-12,5	12.5	14.0	124	77
PRP5DF-13,0	13.0	14.0	124	77
PRP5DF-13,5	13.5	14.0	124	77
PRP5DF-14,0	14.0	14.0	124	77
PRP5DF-14,5	14.5	16.0	133	83
PRP5DF-15,0	15.0	16.0	133	83
PRP5DF-15,5	15.5	16.0	133	83
PRP5DF-16,0	16.0	16.0	133	83
PRP5DF-16,5	16.5	18.0	143	93
PRP5DF-17,0	17.0	18.0	143	93
PRP5DF-17,5	17.5	18.0	143	93
PRP5DF-18,0	18.0	18.0	143	93
PRP5DF-18,5	18.5	20.0	213	101
PRP5DF-19,0	19.0	20.0	213	101
PRP5DF-19,5	19.5	20.0	213	101
PRP5DF-20,0	20.0	20.0	213	101

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.
Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
Excellent positioning - bush is not necessary
Special design - reaming is not required
- good chip removal
- powerful drilling

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
- non necessitano foratura di centraggi
eccellente posizionamento
- non sono necessarie bussole guida
- buona evacuazione del truciolo
- facili e efficaci forature

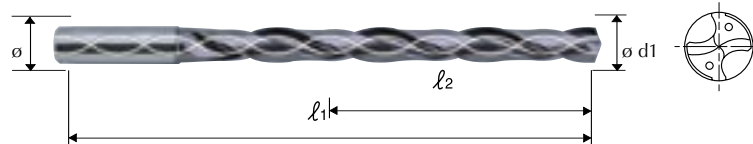
Carbide INFINITY Drills with Coolant Holes

Vollhartmetall - INFINITY - Hochleistungsbohrer

Punte elicoidali INFINITY in metallo duro con fori per passaggio refrigerante

Series PRP8DF:
 Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

DIN 6537
 VHM CARBIDE 8 X D
 VHM METALLO DURO 8 X D
 EXTRA LANGE
 EXTRA LONG SERIES
 SERIE EXTRA LUNGA



CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP8DF-03,0	3.0	6.0	72	34
PRP8DF-03,1	3.1	6.0	72	34
PRP8DF-03,2	3.2	6.0	72	34
PRP8DF-03,3	3.3	6.0	72	34
PRP8DF-03,4	3.4	6.0	72	34
PRP8DF-03,5	3.5	6.0	72	34
PRP8DF-03,6	3.6	6.0	72	34
PRP8DF-03,7	3.7	6.0	72	34
PRP8DF-03,8	3.8	6.0	81	43
PRP8DF-03,9	3.9	6.0	81	43
PRP8DF-04,0	4.0	6.0	81	43
PRP8DF-04,1	4.1	6.0	81	43
PRP8DF-04,2	4.2	6.0	81	43
PRP8DF-04,3	4.3	6.0	81	43
PRP8DF-04,4	4.4	6.0	81	43
PRP8DF-04,5	4.5	6.0	81	43
PRP8DF-04,6	4.6	6.0	81	43
PRP8DF-04,7	4.7	6.0	81	43
PRP8DF-04,8	4.8	6.0	95	57
PRP8DF-04,9	4.9	6.0	95	57
PRP8DF-05,0	5.0	6.0	95	57
PRP8DF-05,1	5.1	6.0	95	57
PRP8DF-05,2	5.2	6.0	95	57
PRP8DF-05,3	5.3	6.0	95	57
PRP8DF-05,4	5.4	6.0	95	57
PRP8DF-05,5	5.5	6.0	95	57
PRP8DF-05,6	5.6	6.0	95	57

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP8DF-05,7	5.7	6.0	95	57
PRP8DF-05,8	5.8	6.0	95	57
PRP8DF-05,9	5.9	6.0	95	57
PRP8DF-06,0	6.0	6.0	95	57
PRP8DF-06,1	6.1	8.0	114	76
PRP8DF-06,2	6.2	8.0	114	76
PRP8DF-06,3	6.3	8.0	114	76
PRP8DF-06,4	6.4	8.0	114	76
PRP8DF-06,5	6.5	8.0	114	76
PRP8DF-06,6	6.6	8.0	114	76
PRP8DF-06,7	6.7	8.0	114	76
PRP8DF-06,8	6.8	8.0	114	76
PRP8DF-06,9	6.9	8.0	114	76
PRP8DF-07,0	7.0	8.0	114	76
PRP8DF-07,1	7.1	8.0	114	76
PRP8DF-07,2	7.2	8.0	114	76
PRP8DF-07,3	7.3	8.0	114	76
PRP8DF-07,4	7.4	8.0	114	76
PRP8DF-07,5	7.5	8.0	114	76
PRP8DF-07,6	7.6	8.0	114	76
PRP8DF-07,7	7.7	8.0	114	76
PRP8DF-07,8	7.8	8.0	114	76
PRP8DF-07,9	7.9	8.0	114	76
PRP8DF-08,0	8.0	8.0	114	76
PRP8DF-08,1	8.1	10.0	142	95
PRP8DF-08,2	8.2	10.0	142	95
PRP8DF-08,3	8.3	10.0	142	95

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°
 Point angle: 140°
 Dia. Tolerance ø d₁ : m7
 Shank tolerance ø d₂ : h6
 Plain shank: DIN 6535-HA
 Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°
 Punta: 140°
 Tolleranza ø d₁ : m7
 Tolleranza gambo ø d₂ : h6
 Gambo cilindrico: DIN 6535-HA
 Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
 - Zentrierbohrung wird nicht benötigt.
 Exzellente Positionierbarkeit
 - Keine Führungsbuchse notwendig
 - Gute Spanabfuhr
 - Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
 Excellent positioning - bush is not necessary
 Special design - reaming is not required
 - good chip removal
 - powerful drilling

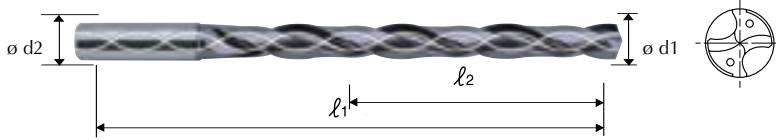
Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
 - non necessitano foratura di centraggi
 eccellente posizionamento
 - non sono necessarie bussole guida
 - buona evacuazione del truciolo
 - facili e efficaci forature

Carbide INFINITY Drills with Coolant Holes

Vollhartmetall - INFINITY - Hochleistungsbohrer

Punte elicoidali INFINITY in metallo duro con fori per passaggio refrigerante



Series PRP8DF:
Straight Shank
Glattem Zylinderschaft
Gambo cilindrico

DIN 6537
VHM CARBIDE 8 X D
VHM METALLO DURO 8 X D
EXTRA LANGE
EXTRA LONG SERIES
SERIE EXTRA LUNGA

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP8DF-08,4	8.4	10.0	142	95
PRP8DF-08,5	8.5	10.0	142	95
PRP8DF-08,6	8.6	10.0	142	95
PRP8DF-08,7	8.7	10.0	142	95
PRP8DF-08,8	8.8	10.0	142	95
PRP8DF-08,9	8.9	10.0	142	95
PRP8DF-09,0	9.0	10.0	142	95
PRP8DF-09,1	9.1	10.0	142	95
PRP8DF-09,2	9.2	10.0	142	95
PRP8DF-09,3	9.3	10.0	142	95
PRP8DF-09,4	9.4	10.0	142	95
PRP8DF-09,5	9.5	10.0	142	95
PRP8DF-09,6	9.6	10.0	142	95
PRP8DF-09,7	9.7	10.0	142	95
PRP8DF-09,8	9.8	10.0	142	95
PRP8DF-09,9	9.9	10.0	142	95
PRP8DF-10,0	10.0	10.0	142	95
PRP8DF-10,1	10.1	12.0	162	114
PRP8DF-10,2	10.2	12.0	162	114

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP8DF-10,3	10.3	12	162	114
PRP8DF-10,4	10.4	12	162	114
PRP8DF-10,5	10.5	12	162	114
PRP8DF-10,6	10.6	12	162	114
PRP8DF-10,7	10.7	12	162	114
PRP8DF-10,8	10.8	12	162	114
PRP8DF-10,9	10.9	12	162	114
PRP8DF-11,0	11.0	12	162	114
PRP8DF-11,1	11.1	12	162	114
PRP8DF-11,2	11.2	12	162	114
PRP8DF-11,3	11.3	12	162	114
PRP8DF-11,4	11.4	12	162	114
PRP8DF-11,5	11.5	12	162	114
PRP8DF-11,6	11.6	12	162	114
PRP8DF-11,7	11.7	12	162	114
PRP8DF-11,8	11.8	12	162	114
PRP8DF-11,9	11.9	12	162	114
PRP8DF-12,0	12.0	12	162	114

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°

Point angle: 140°

Dia. Tolerance ø d₁ : m7

Shank tolerance ø d₂ : h6

Plain shank: DIN 6535-HA

Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 140°

Tolleranza ø d₁ : m7

Tolleranza gambo ø d₂ : h6

Plain shank DIN 6535-HA

Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.
Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
Excellent positioning - bush is not necessary
Special design - reaming is not required
- good chip removal
- powerful drilling

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
- non necessitano foratura di centraggi
eccellente posizionamento
- non sono necessarie bussole guida
- buona evacuazione del truciolo
- Facili e efficaci forature

Carbide INFINITY Drills with Coolant Holes

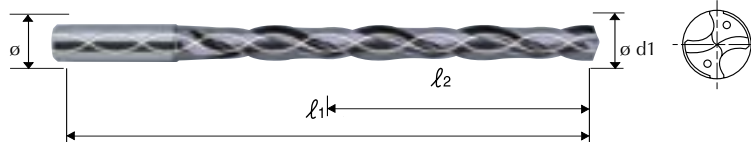
Vollhartmetall - INFINITY - Hochleistungsbohrer

Punte elicoidali INFINITY in metallo duro con fori per passaggio refrigerante



Series PRP12DF:
Straight Shank
Glatter Zylinderschaft
Gambo cilindrico

DIN 6537
VHM CARBIDE 12 X D
VHM METALLO DURO 12 X D
EXTRA LANGE
EXTRA LONG SERIES
SERIE EXTRA LUNGA



CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP12DF-04,0	4.0	6.0	102	64
PRP12DF-04,2	4.2	6.0	102	64
PRP12DF-04,3	4.3	6.0	102	64
PRP12DF-04,5	4.5	6.0	102	64
PRP12DF-05,0	5.0	6.0	116	78
PRP12DF-05,5	5.5	6.0	116	78
PRP12DF-06,0	6.0	6.0	116	78
PRP12DF-06,5	6.5	8.0	146	108
PRP12DF-06,8	6.8	8.0	146	108
PRP12DF-07,0	7.0	8.0	146	108
PRP12DF-07,5	7.5	8.0	146	108
PRP12DF-08,0	8.0	8.0	146	108

CODE No. CODICE	ø d ₁ mm	ø d ₂ mm	l ₁ mm	l ₂ mm
PRP12DF-08,5	8.5	10.0	162	120
PRP12DF-09,0	9.0	10.0	162	120
PRP12DF-09,5	9.5	10.0	162	120
PRP12DF-10,0	10.0	10.0	162	120
PRP12DF-10,2	10.2	12.0	204	156
PRP12DF-10,5	10.5	12.0	204	156
PRP12DF-11,0	11.0	12.0	204	156
PRP12DF-11,5	11.5	12.0	204	156
PRP12DF-12,0	12.0	12.0	204	156

- The TiN-COATING, TiCN-COATING and HARD LUBE-COATING is available on your request.
- A richiesta disponibili i rivestimenti : TiN, TiCN e HARDLUBE

Design and technical specifications

Helix angle: 30°

Point angle: 140°

Dia. Tolerance ø d₁ : m7

Shank tolerance ø d₂ : h6

Plain shank: DIN 6535-HA

Coating: TiAlN

Cutting condition - page 133

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 140°

Tolleranza ø d₁ : m7

Tolleranza gambo ø d₂ : h6

Gambo cilindrico: DIN 6535-HA

Rivestimento: TiAlN

Parametri di taglio - pag. 133

Verwendung: Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

Vorteile: Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.
Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren

Application: Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

Advantage: Self centering - center drilling is not required
Excellent positioning - bush is not necessary
Special design - reaming is not required
- good chip removal
- powerful drilling

Applicazioni: Per forare acciai in genere, ghisa dura e temperata, metalli non ferrosi leggeri e pesanti, plastiche abrasive.

Vantaggi: auto centranti
- non necessitano foratura di centraggi
eccellente posizionamento
- non sono necessarie bussole guida
- buona evacuazione del truciolo
- facili e efficaci forature

Powder Steel INFINITY Drills

Pulver Stahl - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in acciaio sinterizzato

Series PRPPME:

Straight Shank

Glatter Zylinderschaft

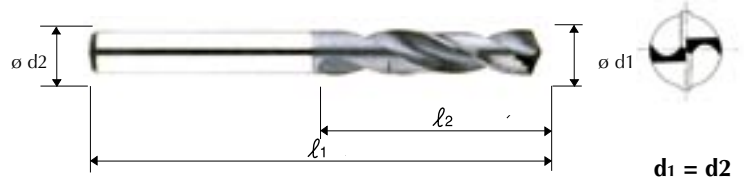
Gambo cilindrico

ASP 3 X D

ASP 3 X D

EXTRA KURZ - STUB SERIES

SERIE EXTRA CORTA



CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPME-02,0	2.0	44	12
PRPPME-02,1	2.1	44	12
PRPPME-02,2	2.2	45	13
PRPPME-02,3	2.3	45	13
PRPPME-02,4	2.4	46	14
PRPPME-02,5	2.5	46	14
PRPPME-02,6	2.6	46	14
PRPPME-02,7	2.7	48	16
PRPPME-02,8	2.8	48	16
PRPPME-02,9	2.9	48	16
PRPPME-03,0	3.0	48	16
PRPPME-03,1	3.1	50	18
PRPPME-03,2	3.2	50	18
PRPPME-03,3	3.3	50	18
PRPPME-03,4	3.4	52	20
PRPPME-03,5	3.5	52	20
PRPPME-03,6	3.6	52	20
PRPPME-03,7	3.7	52	20
PRPPME-03,8	3.8	64	22
PRPPME-03,9	3.9	64	22
PRPPME-04,0	4.0	64	22
PRPPME-04,1	4.1	66	22
PRPPME-04,2	4.2	66	22
PRPPME-04,3	4.3	68	24

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPME-04,4	4.4	68	24
PRPPME-04,5	4.6	68	24
PRPPME-04,6	4.6	68	24
PRPPME-04,7	4.7	68	24
PRPPME-04,8	4.8	70	26
PRPPME-04,9	4.9	70	26
PRPPME-05,0	5.0	70	26
PRPPME-05,1	5.1	70	26
PRPPME-05,2	5.2	70	26
PRPPME-05,3	5.3	70	26
PRPPME-05,4	5.4	72	28
PRPPME-05,5	5.5	72	28
PRPPME-05,6	5.6	72	28
PRPPME-05,7	5.7	72	28
PRPPME-05,8	5.8	72	28
PRPPME-05,9	5.9	72	28
PRPPME-06,0	6.0	72	28
PRPPME-06,1	6.1	75	31
PRPPME-06,2	6.2	75	31
PRPPME-06,3	6.3	75	31
PRPPME-06,4	6.4	75	31
PRPPME-06,5	6.5	75	31
PRPPME-06,6	6.6	75	31
PRPPME-06,7	6.7	75	31

Design and technical specifications

Helix angle: 30°

Point angle: 135°

Dia. Tolerance ø d₁ : h7

Shank tolerance ø d₂ : h7

Coating: TiN - CrN

Cutting condition - page 134

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 135°

Tolleranza ø d₁ : h7

Tolleranza gambo ø d₂ : h7

Rivestimento: TiN - CrN

Parametri di taglio - pag. 134

Verwendung: Der extra kurze Bohrer ist geeignet fuer Hochgeschwindigkeitsbohrungen, praezises Positionieren und Durchmesser. Sehr nuetzlich bei Materialien von Karbon- und rostfreiem Stahl bis zu Aluminium.

Application: SHORT series - high speed drilling, precise positioning and high accuracy. Designed for general materials, carbon steels, alloy steels, stainless steels and aluminium.

Applicazioni: Serie corta- per forature ad alta velocità, preciso posizionamento e precisione del foro molto accurata. Studiata per tutti i materiali comuni, acciaio al carbonio, acciaio legato, acciaio inox e alluminio.

Powder Steel INFINITY Drills

Pulver Stahl - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in acciaio sinterizzato

Series PRPPME:

Straight Shank

Glatter Zylinderschaft

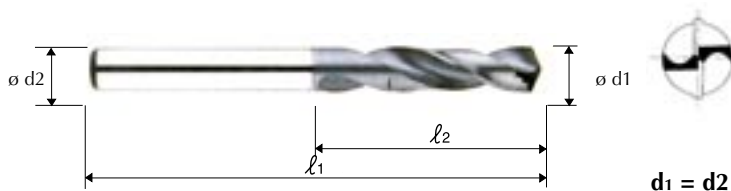
Gambo cilindrico

ASP 3 X D

ASP 3 X D

EXTRA KURZ - STUB SERIES

SERIE EXTRA CORTA



CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPPME-06,8	6.8	78	34
PRPPME-06,9	6.9	78	34
PRPPME-07,0	7.0	78	34
PRPPME-07,1	7.1	78	34
PRPPME-07,2	7.2	78	34
PRPPME-07,3	7.3	78	34
PRPPME-07,4	7.4	78	34
PRPPME-07,5	7.5	78	34
PRPPME-07,6	7.6	81	37
PRPPME-07,7	7.7	81	37
PRPPME-07,8	7.8	81	37
PRPPME-07,9	7.9	81	37
PRPPME-08,0	8.0	81	37
PRPPME-08,1	8.1	87	37
PRPPME-08,2	8.2	87	37
PRPPME-08,3	8.3	87	37
PRPPME-08,4	8.4	87	37
PRPPME-08,5	8.5	87	37
PRPPME-08,6	8.6	90	40
PRPPME-08,7	8.7	90	40
PRPPME-08,8	8.8	90	40
PRPPME-08,9	8.9	90	40
PRPPME-09,0	9.0	90	40
PRPPME-09,1	9.1	90	40

CODE No. CODICE	$\varnothing d_1$ mm	l_1 mm	l_2 mm
PRPPME-09,2	9.2	90	40
PRPPME-09,3	9.3	90	40
PRPPME-09,4	9.4	90	40
PRPPME-09,5	9.5	90	40
PRPPME-09,6	9.6	93	43
PRPPME-09,7	9.7	93	43
PRPPME-09,8	9.8	93	43
PRPPME-09,9	9.9	93	43
PRPPME-10,0	10.0	93	43
PRPPME-10,1	10.1	100	43
PRPPME-10,2	10.2	100	43
PRPPME-10,3	10.3	100	43
PRPPME-10,4	10.4	100	43
PRPPME-10,5	10.5	100	43
PRPPME-10,6	10.6	100	43
PRPPME-10,7	10.7	104	47
PRPPME-10,8	10.8	104	47
PRPPME-10,9	10.9	104	47
PRPPME-11,0	11.0	104	47
PRPPME-11,1	11.1	104	47
PRPPME-11,2	11.2	104	47
PRPPME-11,3	11.3	104	47
PRPPME-11,4	11.4	104	47
PRPPME-11,5	11.5	104	47

Design and technical specifications

Helix angle: 30°

Point angle: 135°

Dia. Tolerance $\varnothing d_1$: h7

Shank tolerance $\varnothing d_2$: h7

Coating: TiN - CrN

Cutting condition - page 134

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 135°

Tolleranza $\varnothing d_1$: h7

Tolleranza gambo $\varnothing d_2$: h7

Rivestimento: TiN - CrN

Parametri di taglio - pag. 134

Verwendung: Der extra kurze Bohrer ist geeignet fuer Hochgeschwindigkeitsbohrungen, praezises Positionieren und Durchmesser. Sehr nuetzlich bei Materialien von Karbon- und rostfreiem Stahl bis zu Aluminium.

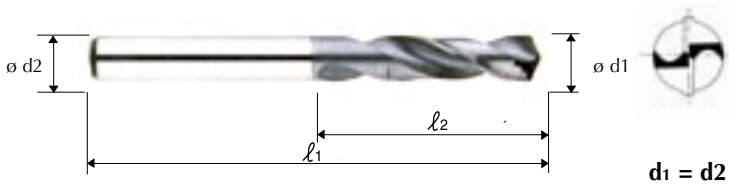
Application: SHORT series - high speed drilling, precise positioning and high accuracy. Designed for general materials, carbon steels, alloy steels, stainless steels and aluminium.

Applicazioni: Serie corta- per forature ad alta velocità, preciso posizionamento e precisione del foro molto accurata. Studiata per tutti i materiali comuni, acciaio al carbonio, acciaio legato, acciaio inox e alluminio.

Powder Steel INFINITY Drills

Pulver Stahl - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in acciaio sinterizzato



Series PRPPME:

Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

ASP 3 X D
 ASP 3 X D
 EXTRA KURZ - STUB SERIES
 SERIE EXTRA CORTA

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPME-11,6	11.6	104	47
PRPPME-11,7	11.7	104	47
PRPPME-11,8	11.8	104	47
PRPPME-11,9	11.9	108	51
PRPPME-12,0	12.0	108	51
PRPPME-12,1	12.1	108	51
PRPPME-12,2	12.2	108	51
PRPPME-12,3	12.3	108	51
PRPPME-12,4	12.4	108	51
PRPPME-12,5	12.5	108	51
PRPPME-12,6	12.6	108	51
PRPPME-12,7	12.7	108	51
PRPPME-12,8	12.8	108	51
PRPPME-12,9	12.9	108	51
PRPPME-13,0	13.0	108	51

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPME-13,5	13.5	132	72
PRPPME-14,0	14.0	132	72
PRPPME-14,5	14.5	136	76
PRPPME-15,0	15.0	142	76
PRPPME-15,5	15.5	146	80
PRPPME-16,0	16.0	146	80
PRPPME-16,5	16.5	150	84
PRPPME-17,0	17.0	150	84
PRPPME-17,5	17.5	153	87
PRPPME-18,0	18.0	153	87
PRPPME-18,5	18.5	156	90
PRPPME-19,0	19.0	164	90
PRPPME-19,5	19.5	168	94
PRPPME-20,0	20.0	168	94

Design and technical specifications

Helix angle: 30°

Point angle: 135°

Dia. Tolerance ø d₁ : h7

Shank tolerance ø d₂ : h7

Coating: TiN - CrN

Cutting condition - page 134

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 135°

Tolleranza ø d₁ : h7

Tolleranza gambo ø d₂ : h7

Rivestimento: TiN - CrN

Parametri di taglio - pag. 134

Verwendung: Der extra kurze Bohrer ist geeignet fuer Hochgeschwindigkeitsbohrungen, praezises Positionieren und Durchmesser. Sehr nuetzlich bei Materialien von Karbon-und rostfreiem Stahl bis zu Aluminium.

Application: SHORT series - high speed drilling, precise positioning and high accuracy.
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 Studiata per tutti i materiali comuni, acciaio al carbonio, acciaio legato, acciaio inox e alluminio.

Powder Steel INFINITY Drills

Pulver Stahl - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in acciaio sinterizzato

Series PRPPMC:

Straight Shank

Glatter Zylinderschaft

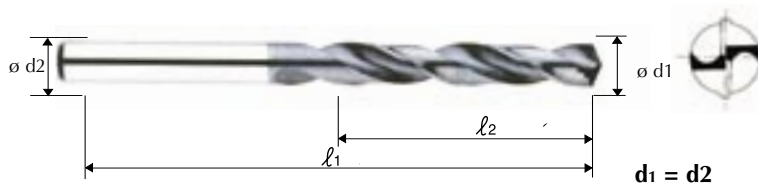
Gambo cilindrico

ASP 5 X D

ASP 5 X D

KURZE - SHORT SERIES

SERIE CORTA



CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPMC-02,0	2.0	56	24
PRPPMC-02,1	2.1	56	24
PRPPMC-02,2	2.2	56	25
PRPPMC-02,3	2.3	56	25
PRPPMC-02,4	2.4	61	30
PRPPMC-02,5	2.5	61	30
PRPPMC-02,6	2.6	61	30
PRPPMC-02,7	2.7	64	33
PRPPMC-02,8	2.8	64	33
PRPPMC-02,9	2.9	64	33
PRPPMC-03,0	3.0	64	33
PRPPMC-03,1	3.1	68	36
PRPPMC-03,2	3.2	68	36
PRPPMC-03,3	3.3	68	36
PRPPMC-03,4	3.4	71	39
PRPPMC-03,5	3.5	71	39
PRPPMC-03,6	3.6	71	39
PRPPMC-03,7	3.7	71	39
PRPPMC-03,8	3.8	75	43
PRPPMC-03,9	3.9	75	43
PRPPMC-04,0	4.0	75	43
PRPPMC-04,1	4.1	85	43
PRPPMC-04,2	4.2	85	43
PRPPMC-04,3	4.3	89	57

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPMC-04,4	4.4	89	47
PRPPMC-04,5	4.6	89	47
PRPPMC-04,6	4.6	89	47
PRPPMC-04,7	4.7	89	47
PRPPMC-04,8	4.8	94	52
PRPPMC-04,9	4.9	94	52
PRPPMC-05,0	5.0	94	52
PRPPMC-05,1	5.1	94	52
PRPPMC-05,2	5.2	94	52
PRPPMC-05,3	5.3	94	52
PRPPMC-05,4	5.4	99	57
PRPPMC-05,5	5.5	99	57
PRPPMC-05,6	5.6	99	57
PRPPMC-05,7	5.7	99	57
PRPPMC-05,8	5.8	99	57
PRPPMC-05,9	5.9	99	57
PRPPMC-06,0	6.0	99	57
PRPPMC-06,1	6.1	107	63
PRPPMC-06,2	6.2	107	63
PRPPMC-06,3	6.3	107	63
PRPPMC-06,4	6.4	107	63
PRPPMC-06,5	6.5	107	63
PRPPMC-06,6	6.6	107	63
PRPPMC-06,7	6.7	107	63

Design and technical specifications

Helix angle: 30°

Point angle: 135°

Dia. Tolerance ø d₁ : h7

Shank tolerance ø d₂ : h7

Coating: TiN - CrN

Cutting condition - page 134

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 135°

Tolleranza ø d₁ : h7

Tolleranza gambo ø d₂ : h7

Rivestimento: TiN - CrN

Parametri di taglio - pag. 134

Verwendung: Der kurze Bohrer ist geeignet fuer Hochgeschwindigkeitsbohrungen, praezises Positionieren und Durchmesser. Sehr nuetzlich bei Materialien von Karbon-und rostfreiem Stahl bis zu Aluminium.

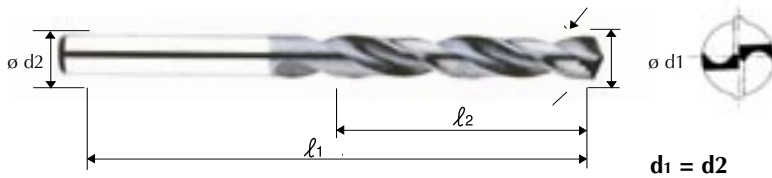
Application: SHORT series - high speed drilling, precise positioning and high accuracy.
Designed for general materials, carbon steels, alloy steels, stainless steels and aluminium.

Applicazioni: Serie corta- per forature ad alta velocità, preciso posizionamento e precisione del foro molto accurata.
Studiata per tutti i materiali comuni, acciaio al carbonio, acciaio legato, acciaio inox e alluminio.

Powder Steel INFINITY Drills

Pulver stahl - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in acciaio sinterizzato



Series PRPPMC:

Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

ASP 5 X D
 ASP 5 X D
 KURZE - SHORT SERIES
 SERIE CORTA

$$d_1 = d_2$$

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPMC-06,8	6.8	113	69
PRPPMC-06,9	6.9	113	69
PRPPMC-07,0	7.0	113	69
PRPPMC-07,1	7.1	113	69
PRPPMC-07,2	7.2	113	69
PRPPMC-07,3	7.3	113	69
PRPPMC-07,4	7.4	113	69
PRPPMC-07,5	7.5	113	69
PRPPMC-07,6	7.6	119	75
PRPPMC-07,7	7.7	119	75
PRPPMC-07,8	7.8	119	75
PRPPMC-07,9	7.9	119	75
PRPPMC-08,0	8.0	119	75
PRPPMC-08,1	8.1	125	75
PRPPMC-08,2	8.2	125	75
PRPPMC-08,3	8.3	125	75
PRPPMC-08,4	8.4	125	75
PRPPMC-08,5	8.5	125	75
PRPPMC-08,6	8.6	131	81
PRPPMC-08,7	8.7	131	81
PRPPMC-08,8	8.8	131	81
PRPPMC-08,9	8.9	131	81
PRPPMC-09,0	9.0	131	81
PRPPMC-09,1	9.1	131	81

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPMC-09,2	9.2	131	81
PRPPMC-09,3	9.3	131	81
PRPPMC-09,4	9.4	131	81
PRPPMC-09,5	9.5	131	81
PRPPMC-09,6	9.6	137	87
PRPPMC-09,7	9.7	137	87
PRPPMC-09,8	9.8	137	87
PRPPMC-09,9	9.9	137	87
PRPPMC-10,0	10.0	137	87
PRPPMC-10,1	10.1	144	87
PRPPMC-10,2	10.2	144	87
PRPPMC-10,3	10.3	144	87
PRPPMC-10,4	10.4	144	87
PRPPMC-10,5	10.5	144	87
PRPPMC-10,6	10.6	144	87
PRPPMC-10,7	10.7	151	94
PRPPMC-10,8	10.8	151	94
PRPPMC-10,9	10.9	151	94
PRPPMC-11,0	11.0	151	94
PRPPMC-11,1	11.1	151	94
PRPPMC-11,2	11.2	151	94
PRPPMC-11,3	11.3	151	94
PRPPMC-11,4	11.4	151	94
PRPPMC-11,5	11.5	151	94

Design and technical specifications

Helix angle: 30°
 Point angle: 135°
 Dia. Tolerance ø d₁ : h7
 Shank tolerance ø d₂ : h7
 Coating: TiN - CrN

Cutting condition - page 134

Specifiche tecniche e dimensioni

Elica: 30°
 Punta: 135°
 Tolleranza ø d₁ : h7
 Tolleranza gambo ø d₂ : h7
 Rivestimento: TiN - CrN

Parametri di taglio - pag. 134

Verwendung: Der kurze Bohrer ist geeignet fuer Hochgeschwindigkeitsbohrungen, praezises Positionieren und Durchmesser. Sehr nuetzlich bei Materialien von Karbon-und rostfreiem Stahl bis zu Aluminium.

Application: SHORT series - high speed drilling, precise positioning and high accuracy.
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 Studiata per tutti i materiali comuni, acciaio al carbonio, acciaio legato, acciaio inox e alluminio.

Powder steel INFINITY Drills

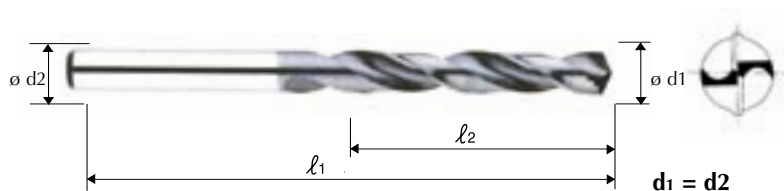
Pulver stahl - INFINITY - Spiralbohrer

Punte elicoidali INFINITY in acciaio sinterizzato

Series PRPPMC:

Straight Shank
 Glattem Zylinderschaft
 Gambo cilindrico

ASP 5 X D
 ASP 5 X D
 KURZE - SHORT SERIES
 SERIE CORTA



CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPMC-11,6	11.6	151	94
PRPPMC-11,7	11.7	151	94
PRPPMC-11,8	11.8	151	94
PRPPMC-11,9	11.9	158	101
PRPPMC-12,0	12.0	158	101
PRPPMC-12,1	12.1	158	101
PRPPMC-12,2	12.2	158	101
PRPPMC-12,3	12.3	158	101
PRPPMC-12,4	12.4	158	101
PRPPMC-12,5	12.5	158	101
PRPPMC-12,6	12.6	158	101
PRPPMC-12,7	12.7	158	101
PRPPMC-12,8	12.8	158	101
PRPPMC-12,9	12.9	158	101
PRPPMC-13,0	13.0	158	101
PRPPMC-13,5	13.5	168	108
PRPPMC-14,0	14.0	168	108
PRPPMC-14,5	14.5	173	114
PRPPMC-15,0	15.0	180	114
PRPPMC-15,5	15.5	185	120
PRPPMC-16,0	16.0	185	120
PRPPMC-16,5	16.5	189	125
PRPPMC-17,0	17.0	189	125
PRPPMC-17,5	17.5	194	130
PRPPMC-18,0	18.0	194	130
PRPPMC-18,5	18.5	196	135
PRPPMC-19,0	19.0	206	135

CODE No. CODICE	ø d ₁ mm	l ₁ mm	l ₂ mm
PRPPMC-19,5	19.5	210	140
PRPPMC-20,0	20.0	210	140
PRPPMC-20,5	20.5	214	145
PRPPMC-21,0	21.0	214	145
PRPPMC-21,5	21.5	218	150
PRPPMC-22,0	22.0	218	150
PRPPMC-22,5	22.5	223	155
PRPPMC-23,0	23.0	223	155
PRPPMC-23,5	23.5	223	155
PRPPMC-24,0	24.0	237	160
PRPPMC-24,5	24.5	237	160
PRPPMC-25,0	25.0	241	165
PRPPMC-25,5	25.5	241	165
PRPPMC-26,0	26.0	241	165
PRPPMC-26,5	26.5	241	165
PRPPMC-27,0	27.0	245	170
PRPPMC-27,5	27.5	245	170
PRPPMC-28,0	28.0	245	170
PRPPMC-28,5	28.5	248	175
PRPPMC-29,0	29.0	248	175
PRPPMC-29,5	29.5	248	175
PRPPMC-30,0	30.0	248	175
PRPPMC-30,5	30.5	252	180
PRPPMC-31,0	31.0	252	180
PRPPMC-31,5	31.5	252	180
PRPPMC-32,0	32.0	255	185

Design and technical specifications

Helix angle: 30°

Point angle: 135°

Dia. Tolerance ø d₁ : h7

Shank tolerance ø d₂ : h7

Coating: TiN - CrN

Cutting condition - page 134

Specifiche tecniche e dimensioni

Elica: 30°

Punta: 135°

Tolleranza ø d₁ : h7

Tolleranza gambo ø d₂ : h7

Rivestimento: TiN - CrN

Parametri di taglio - pag. 134

Verwendung: Der kurze Bohrer ist geeignet fuer Hochgeschwindigkeitsbohrungen, praezises Positionieren und Durchmesser. Sehr nuetzlich bei Materialien von Karbon-und rostfreiem Stahl bis zu Aluminium.

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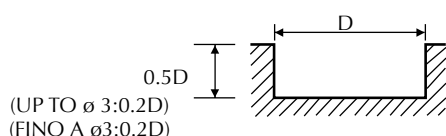
***Speed & Feed Data and
Characteristics
Schnittwerte und Eigenheiten
Parametri di taglio
e dati tecnici***

***INFINITY HSC end Mills for high speed cutting
INFINITY HSC fräser für Hochgeschwindigkeit
Frese INFINITY HSC
per lavorazioni ad alta velocità***

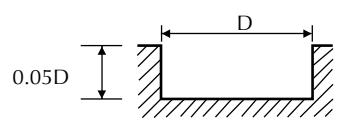
2 Flute, short, slotting 2 Taglienti corte, lavorazione dal pieno

PRHSC2P

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		STAINLESS STEELS ACCIAI INOSSIDABILI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
2	11560	190	7560	120	6300	90	5040	35		
3	8920	210	5560	140	4620	120	3360	40	1900	40
4	7560	300	4620	180	3880	150	2940	40	1480	40
5	6300	320	3780	190	3160	160	2320	50	1260	40
6	5560	350	3360	220	2840	180	2000	55	1100	40
8	4200	380	2520	200	2100	180	1680	75	840	40
10	3260	330	2000	160	1680	160	1360	60	680	35
12	2740	280	1680	130	1360	130	1160	55	560	35
16	2200	220	1360	110	1060	110	900	40	440	20
20	1680	170	1060	80	840	80	680	30	320	20
25	1360	130	840	70	680	60	540	20	260	15



0.5D
(UP TO ø 3:0.2D)
(FINO A ø3:0.2D)



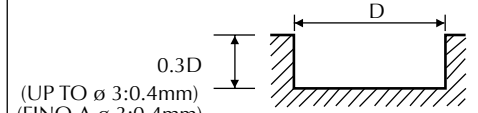
0.05D

FEED = mm/min
AVANZAMENTO = mm/min

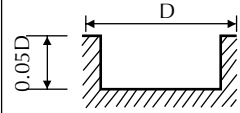
2 Flute, long, slotting 2 Taglienti lunghe, lavorazione dal pieno

PRHSC2PL

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		STAINLESS STEELS ACCIAI INOSSIDABILI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC45		HRC45 ~ HRC55	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1500N/mm ²		1500 ~ 2000N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
2	6300	60	5040	50	3150	25
3	4410	70	3570	60	2200	30
4	3570	85	2840	70	1790	35
5	3050	105	2420	85	1580	40
6	2630	125	2100	105	1370	50
8	2000	135	1580	105	1050	50
10	1680	135	1370	105	840	50
12	1370	105	1160	95	700	40
16	1160	95	890	75	560	35
20	840	70	680	50	420	25



0.3D
(UP TO ø 3:0.4mm)
(FINO A ø 3:0.4mm)



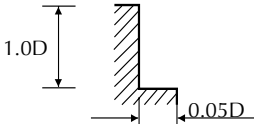
0.05D

FEED = mm/min
AVANZAMENTO = mm/min

4 Flute, short, side cutting 4 Taglienti corte, spallamenti

PRHSC4P

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		STAINLESS STEELS ACCIAI INOSSIDABILI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
2	11560	280	7560	170	6300	140	5040	50		
3	8920	320	5560	200	4620	170	3360	60	1900	60
4	7560	570	4620	350	3880	280	2940	60	1480	60
5	6300	600	3780	360	3160	300	2320	70	1260	60
6	5560	660	3360	410	2840	330	2000	80	1100	60
8	4200	710	2520	380	2100	350	1680	110	840	60
10	3260	610	2000	300	1680	300	1360	90	680	50
12	2740	520	1680	250	1360	240	1160	80	560	50
16	2200	410	1360	200	1060	200	900	60	440	30
20	1680	320	1060	160	840	150	680	40	320	30
25	1360	250	840	130	680	120	540	30	260	20

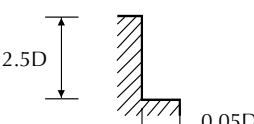


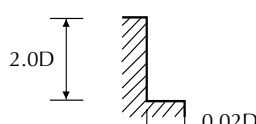
FEED = mm/min
AVANZAMENTO = mm/min

4 Flute, long, side cutting 4 Taglienti lunga, spallamenti

PRHSC4PL

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		STAINLESS STEELS ACCIAI INOSSIDABILI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS	~HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
STRENGTH	~1000N/mm ²		1000 ~ 1500N/mm ²		1500 ~ 2000N/mm ²		2000N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
2	6300	100	5040	80	3150	45		
3	4410	115	3570	100	2200	55	1890	30
4	3570	140	2840	115	1790	60	1470	35
5	3050	180	2420	140	1580	70	1260	40
6	2630	215	2100	180	1370	90	1160	50
8	2000	230	1580	180	1050	90	840	50
10	1680	230	1370	180	840	90	670	50
12	1370	180	1160	160	700	70	560	40
16	1160	160	890	125	560	60	440	35
20	840	115	680	90	420	45	340	25





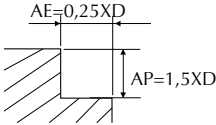
FEED = mm/min
AVANZAMENTO = mm/min

Parametri di taglio per frese ad alto volume di asportazione

FRESATURA IN SPALLAMENTO

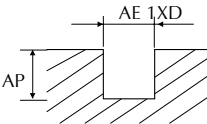
PRHSC4PPE, PRHSC4PLPE, PRHSC4TLPE

MATERIAL MATERIALE	ACCIAI DOLCI ACC. DA COSTR.		ACCIAI LEGATI		ACCIAI ALTAMENTE LEGATI		ACCIAI INOSSIDABILE	
HARDNESS/DUREZZA	≤ 30HRc		30÷40HRc		40÷50HRc			
STRENGTH/FORZA	≤ 500N/mm ²		1000N/mm ²		1000~1200N/mm ²			
DIAMETRI	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	12.000	950	9.500	600	7.500	500	5.800	550
4	9.500	1.100	7.200	600	5.500	500	4.400	550
5	7.600	1.200	5.700	600	4.500	500	3.500	600
6	6.400	1.300	4.800	650	3.700	600	3.000	600
8	4.700	1.320	3.600	720	2.800	650	2.200	650
10	3.800	1.100	2.900	800	2.250	700	1.750	500
12	3.200	1.200	2.400	900	1.850	700	1.500	500
16	2.400	1.300	1.800	900	1.400	750	1.100	550
20	1.900	1.300	1.400	900	1.100	650	900	550



FRESATURA DAL PIENO

MATERIAL MATERIALE	ACCIAI DOLCI ACC. DA COSTR.		ACCIAI LEGATI		ACCIAI ALTAMENTE LEGATI		ACCIAI INOSSIDABILE	
HARDNESS/DUREZZA	≤ 30HRc		30÷40HRc		40÷50HRc			
STRENGTH/FORZA	≤ 500N/mm ²		1000N/mm ²		1000~1200N/mm ²			
DIAMETRI	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	10.600	600	8.500	400	7.400	320	5.800	250
4	8.000	650	6.400	420	5.500	350	4.800	280
5	6.400	700	5.000	430	4.500	400	3.500	320
6	5.300	750	4.300	450	3.700	400	2.900	350
8	4.000	780	3.200	500	2.800	450	2.200	400
10	3.200	800	2.500	550	2.250	500	1.750	450
12	2.650	850	2.150	600	1.850	520	1.450	480
16	2.000	800	1.600	640	1.400	580	1.100	500
20	1.600	800	1.250	680	1.100	600	880	530

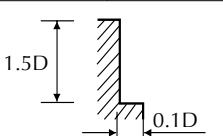
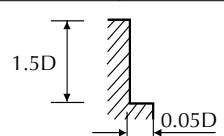
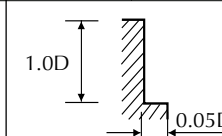
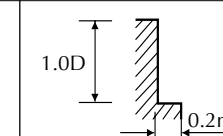


ACC. DOLCI ACC. LEGATI AP=0,5XD
 ACC. ALT. LEGATI AP=0,3XD
 ACC. INOX AP=0,3XD

N.B. SU ACCIAI INOX È CONSIGLIABILE L'UTILIZZO DI EMULSIONANTE

6, 8 Flute, 45° helix, long, side cutting
6, 8 Taglienti elica 45°, lunga, spallamenti

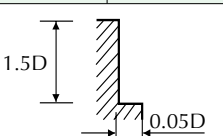
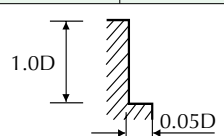
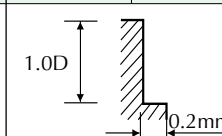
PRHSC6P

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc30		HRc30 ~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1750N/mm ²		1750 ~ 2080N/mm ²		2080N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	5560	2000	3880	1370	1580	210	1100	130
8	4200	2000	2940	1370	1160	210	840	130
10	3260	2000	2320	1370	1000	210	680	130
12	2840	1680	2000	1160	840	180	560	110
16	2100	1260	1480	880	640	130	420	70
20	1680	1010	1160	690	500	110	320	60
25	1500	900	1100	600	430	90	260	50
								

FEED = mm/min
 AVANZAMENTO = mm/min

6, 8 Flute, 45° helix, long, side cutting for "HSC"
6, 8 Taglienti elica 45°, lunga, spallamenti per alta velocità

PRHSC6P (HIGH SPEED CUTTING / PER ALTA VELOCITÀ)

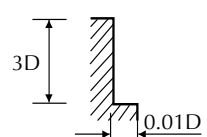
MATERIAL MATERIALE	HEAT RESISTANT STEELS HARDENED STEELS ACCIAI REFRATTARI ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH/FORZA	~1750N/mm ²		1750 ~ 2080N/mm ²		2080N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	16800	6090	8400	3050	4200	1470
8	12600	6090	6300	3050	3160	1470
10	9980	5990	5040	3050	2520	1470
12	8400	5040	4200	2520	2100	1260
16	6300	3780	3160	1890	1580	950
20	5040	3050	2520	1470	1260	760
25	4500	2700	2200	1300	1120	670
						

FEED = mm/min
 AVANZAMENTO = mm/min

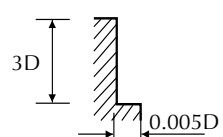
6 Flute, 45° helix, extra long, side cutting 6 Taglienti, elica 45°, extra lunga, spallamenti

PRHSC6PL

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS ACCIAI LEGATI E NON		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc40		HRc40 ~ HRc50		HRc50 ~ HRc60		HRc60 ~ HRc65	
STRENGTH/FORZA	~1250N/mm ²		1250 ~ 1750N/mm ²		1750 ~ 2080N/mm ²		2080N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	2230	470	1670	350	1390	250	1110	200
8	1670	450	1250	330	1050	240	840	180
10	1330	440	1000	300	840	230	680	160
12	1110	400	840	270	590	210	560	150
16	840	330	630	230	530	170	420	130
20	670	280	500	200	420	150	320	120
25	540	240	400	170	340	130	270	95



3D
0.01D



3D
0.005D

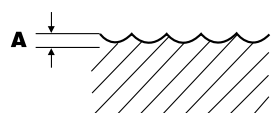
FEED = mm/min
AVANZAMENTO = mm/min

2 Flute, ball nose, long 2 Taglienti, sferica, lunga

PRHSC2S, PRHSC2SC, PRHSC2SP

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOY STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc40		HRc40 ~ HRc50		HRc50 ~ HRc60	
STRENGTH/FORZA	~1250N/mm ²		1250 ~ 1750N/mm ²		1750 ~ 2080N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	15760	250	12720	200	5800	90
1.5	15760	350	12140	270	5320	120
2	15760	530	11560	320	4840	110
2.5	14400	750	10700	490	4680	150
3	13100	680	10000	460	4520	150
4	10500	740	8400	530	4200	180
5	9140	820	7300	580	3680	180
6	7780	840	6300	630	3160	190
8	5260	950	4420	660	2100	190
10	4620	1020	3780	710	1780	190
12	3780	900	2940	660	1360	190
16	2740	920	2320	650	1160	190
20	2100	840	1900	630	840	190

A: D1 ~ D6 = 0.2 mm
D8 ~ D20 = 0.3 mm



A

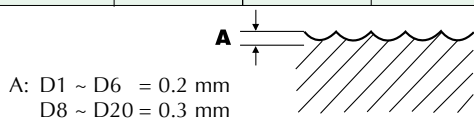
FEED = mm/min
AVANZAMENTO = mm/min

2 flute, ball nose, long 2 Taglienti, sferica, lunga

PRHSC2S, PRHSC2SC, PRHSC2SP

(HIGH SPEED CUTTING / PER ALTA VELOCITÀ)

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC45		HRC45 ~ HRC65	
STRENGTH/FORZA	~1500N/mm ²		1500N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	25000	650	25000	400
1.5	23000	700	23000	430
2	21000	740	21000	470
2.5	21000	880	19000	490
3	21000	1000	17000	520
4	21000	1470	13660	580
5	21000	1800	1200	600
6	21000	2310	10500	630
8	15760	2840	7880	740
10	13660	3050	6300	840
12	10500	2630	5260	840
16	8200	2630	3780	710
20	6300	2520	2940	530



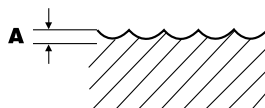
FEED = mm/min
AVANZAMENTO = mm/min

2 Flute, ball nose, long reach / 2 Taglienti, sferica, extra lunga

PRHSC2SL

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOY STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	12600	200	10180	160	4640	70
1.5	12600	280	9710	220	4250	95
2	12600	420	9250	260	3870	90
2.5	11520	600	8560	390	3740	120
3	10500	540	8000	370	3620	120
4	8400	590	6720	420	3360	140
5	7310	660	5840	460	2940	140
6	6220	670	5040	500	2530	150
8	4210	760	3540	530	1680	150
10	3700	820	3020	570	1420	150
12	3020	720	2350	530	1090	150
16	2190	740	1860	520	930	150
20	1680	670	1520	500	670	150

A: D1 ~ D6 = 0.2 mm
D8 ~ D20 = 0.3 mm



FEED = mm/min
AVANZAMENTO = mm/min

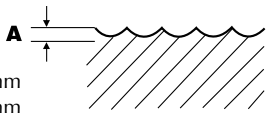
2 Flute, ball nose, long reach
2 Taglienti, sferica, extra lunga

PRHSC2SL

(HIGH SPEED CUTTING/PER ALTA VELOCITÀ)

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc45		HRc45 ~ HRc65	
STRENGTH/FORZA	~1500N/mm ²		1500N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	20000	520	20000	320
1.5	18400	560	18400	340
2	16800	790	16800	380
2.5	16800	700	15200	390
3	16800	800	13600	420
4	16800	1180	10930	460
5	16800	1440	9600	480
6	16800	1850	8400	500
8	12610	2270	6300	590
10	10930	2440	5040	670
12	8400	2100	4210	670
16	6560	2100	3020	770
20	5040	2020	2350	420

A: D1 ~ D6 = 0.2 mm
D8 ~ D20 = 0.3 mm

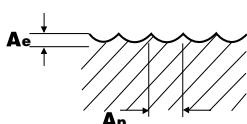


FEED = mm/min
 AVANZAMENTO = mm/min

2 Flute, ball nose for over HRC55

2 Taglienti sferiche, corte per oltre HRC 55

PRHSC2SH

MATERIAL MATERIALE	HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	HRC45~HRC50		HRC50 ~ HRC55		HRC55 ~ HRC60		HRC60 ~ HRC65	
STRENGTH/FORZA	1500~1750N/mm ²		1750 ~ 2000N/mm ²		2000 ~ 2080N/mm ²		2080N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	20000	460	20000	400	20000	350	20000	240
1.5	16300	640	16100	580	16000	570	14200	360
2	14500	800	14200	740	13850	760	11300	465
2.5	13400	950	13000	890	12600	920	9600	560
3	12700	1100	12300	1050	11800	1000	8400	660
4	10600	1100	10300	1050	9800	1000	6650	650
5	9400	1100	9050	1050	8600	950	5600	680
6	8600	1150	8250	1100	7850	950	4850	700
8	7000	1050	6700	1000	6350	950	3800	650
10	6050	1000	5800	960	5450	900	3200	620
12	5450	1000	5200	960	4900	900	2750	610
16	4350	870	4150	830	3900	820	2150	265
20	3500	690	3300	650	3150	630	1700	220
		Ae: D1~D4 = 0.05xD D5~D8 = 0.25mm D8~D20= 0.30mm		Ap: D1~D20 = 0.1xD				

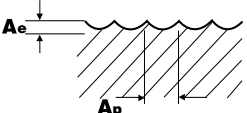
FEED = mm/min
AVANZAMENTO = mm/min

2 Flute, ball nose for over HRC55

2 Taglienti sferiche, corte per oltre HRC 55

PRHSC2SH

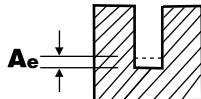
(HIGH SPEED CUTTING / PER ALTA VELOCITÀ)

MATERIAL MATERIALE	ALLOY STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	HRC45~HRC50		HRC50~HRC55		HRC55 ~ HRC65	
STRENGTH/FORZA	1500~1750N/mm ²		1750 ~ 2000N/mm ²		2000 ~ 2080N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	20000	770	20000	700	20000	410
1.5	16300	1050	16100	980	16000	580
2	14500	1300	14200	1230	13850	700
2.5	13400	1500	13000	1430	12600	780
3	12700	1750	12300	1670	11800	860
4	10600	1700	10300	1620	9800	780
5	9400	1650	9050	1570	8600	750
6	8600	1750	8250	1670	7850	700
8	7000	1550	6700	1460	6350	650
10	6050	1450	5800	1360	5450	620
12	5450	1420	5200	1330	4900	610
16	4350	1230	4150	1130	3900	265
20	3500	1000	3300	900	3150	220
		Ae: D1~D4 = 0.05xD D5~D8 = 0.25mm D8~D20= 0.30mm Ap: D1~D20 = 0.05xD				

FEED = mm/min - AVANZAMENTO = mm/min

2 Flute for rib processing 2 Taglienti per nervature

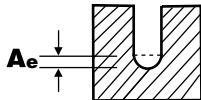
PRHSC2PN

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA			ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI TERMORESISTENTI			HARDENED STEELS ACCIAI TEMPRATI		
HARDNESS/DUREZZA	~HRC30			HRC30 ~ HRC45			HRC45 ~ HRC55		
STRENGTH/FORZA	~1000N/mm ²			1000 ~ 1500N/mm ²			1500 ~ 2000N/mm ²		
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)	FEED AVANZAMENTO	RPM GIRI/min.	Ae (mm)	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)
0.8	27000~35000	190~420	0.014~0.035	19500~24500	60~240	0.014~0.035	12500~14800	35~95	0.007~0.015
1	22500~28000	190~540	0.045~0.090	15700~20000	95~300	0.045~0.090	10000~12500	50~100	0.009~0.018
1.2	18500~23500	190~600	0.055~0.100	13000~16500	95~300	0.055~0.100	8300~10500	50~100	0.010~0.022
1.4	16000~20000	190~600	0.062~0.125	11500~14000	95~300	0.062~0.125	7200~9000	50~100	0.012~0.025
1.5	14500~18500	190~600	0.070~0.135	10500~13500	95~300	0.070~0.135	6700~8200	50~100	0.014~0.028
1.6	14000~18000	190~600	0.075~0.145	10200~12800	95~300	0.075~0.145	6400~8000	50~100	0.015~0.030
1.8	13000~16500	190~600	0.080~0.160	9200~11500	95~300	0.080~0.160	5700~7200	50~100	0.016~0.032
2	12000~14500	190~600	0.090~0.180	8300~10500	95~300	0.090~0.180	5300~6600	50~100	0.018~0.035
2.5	9500~12000	190~600	0.112~0.235	6700~8500	95~300	0.112~0.235	4300~5300	50~100	0.022~0.045
3	8000~10000	190~600	0.135~0.270	5500~7000	95~300	0.135~0.270	3500~4400	50~100	0.028~0.055
			(Depth of Cut per one pass) (Profondità di passata)						

FEED = mm/min
AVANZAMENTO = mm/min

2 Flute, ball nose for rib processing 2 Taglienti sferiche per nervature

PRHSC2SN

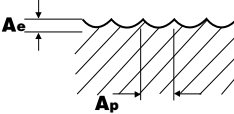
MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA			ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI TERMORESISTENTI			HARDENED STEELS ACCIAI TEMPRATI		
HARDNESS/DUREZZA	~HRC30			HRC30 ~ HRC45			HRC45 ~ HRC55		
STRENGTH/FORZA	~1000N/mm ²			1000 ~ 1500N/mm ²			1500 ~ 2000N/mm ²		
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)	FEED AVANZAMENTO	RPM GIRI/min.	Ae (mm)	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)
0.6	30000~40000	400~600	0.010~0.020	25000~30000	100~300	0.010~0.020	13000~16500	25~60	0.005~0.010
0.8	27000~35000	190~420	0.014~0.035	19500~24500	60~240	0.014~0.035	12500~14800	35~95	0.007~0.015
1	22500~28000	190~540	0.045~0.090	15700~20000	95~300	0.045~0.090	10000~12500	50~100	0.009~0.018
1.2	18500~23500	190~600	0.055~0.100	13000~16500	95~300	0.055~0.100	8300~10500	50~100	0.010~0.022
1.4	16000~20000	190~600	0.062~0.125	11500~14000	95~300	0.062~0.125	7200~9000	50~100	0.012~0.025
1.5	14500~18500	190~600	0.070~0.135	10500~13500	95~300	0.070~0.135	6700~8200	50~100	0.014~0.028
1.6	14000~18000	190~600	0.075~0.145	10200~12800	95~300	0.075~0.145	6400~8000	50~100	0.015~0.030
1.8	13000~16500	190~600	0.080~0.160	9200~11500	95~300	0.080~0.160	5700~7200	50~100	0.016~0.032
2	12000~14500	190~600	0.090~0.180	8300~10500	95~300	0.090~0.180	5300~6600	50~100	0.018~0.035
3	8000~10000	190~600	0.135~0.270	5500~7000	95~300	0.135~0.270	3500~4400	50~100	0.028~0.055
4	6500~8500	190~600	0.135~0.360	4500~6000	95~300	0.180~0.360	3000~3800	50~100	0.035~0.070
			(Depth of Cut per one pass) (Profondità di passata)						

FEED = mm/min
AVANZAMENTO = mm/min

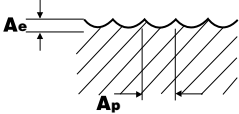
2 Flute, ball nose with taper neck 2 Taglienti sferiche per nervature profonde

PRHSC2ST

MATERIAL MATERIALE	ALLOY STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	HRC30~HRC40		HRC40~HRC50		HRC50 ~ HRC55	
STRENGTH/FORZA	1000~1250N/mm ²		1250N/mm ² ~ 1750N/		1750N/mm ² ~ 2000N/	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	10180	160	16000	370	16000	320
2	9250	260	11500	640	11300	590
3	8000	370	10200	880	9800	850
4	6720	420	8500	880	8200	850
5	5840	460	7500	880	7200	850
6	5040	500	6900	920	6500	880
8	3540	530	5600	840	5300	800
10	3020	570	4850	800	4650	770
12	2350	530	4350	800	4150	770



Ae: D1~D6 = 0.2mm
D8~D12=0.3mm
Ap: 0.2xD



Ae: D1~D4 = 0.05xD
D5~D8 = 0.25mm
D10~D12=0.30mm
Ap: 0.1xD

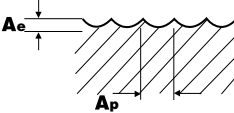
FEED = mm/min
AVANZAMENTO = mm/min

2 Flute, ball nose with taper neck 2 Taglienti sferiche per nervature profonde

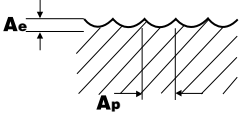
PRHSC2ST

(HIGH SPEED CUTTING / PER ALTA VELOCITÀ)

MATERIAL MATERIALE	ALLOY STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC45		HRC40~HRC50		HRC50 ~ HRC55	
STRENGTH/FORZA	1500N/mm ²		1250N/mm ² ~ 1750N/		1750N/mm ² ~ 2000N/	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	20000	520	16000	620	16000	550
2	16800	590	11500	850	11400	980
3	16800	800	10200	1400	9800	1300
4	16800	1180	8500	1350	8200	1300
5	16800	1440	7500	1320	7200	1250
6	16800	1850	6900	1400	6600	1350
8	12610	2270	5600	1250	5300	1150
10	10930	2440	4850	1150	4600	1100
12	8400	2100	4350	1130	4150	1050



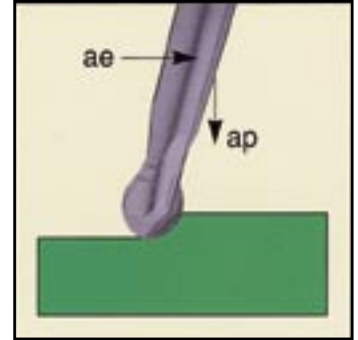
Ae: D1~D6 = 0.2mm
D8~D12=0.3mm
Ap: 0.05xD



Ae: D1~D4 = 0.05xD
D5~D8 = 0.25mm
D10~D20=0.30mm
Ap: 0.05xD

FEED = mm/min
AVANZAMENTO = mm/min

2 Flute, INFINITY HSC solid carbide long length ball nose end mills
2 Schneiden, INFINITY HSC Vollhartmetall Radiuschafffräser, lang
2 Taglienti, INFINITY HSC metallo duro lunga, sferica



$\Rightarrow ae = 0.05 \times d1$
 $\Rightarrow ap = 0.02 \times d1$

PRHSC2SS

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	35000	2800	33000	2600	12000	900
4	26000	2300	25000	2200	9000	800
5	21000	2100	20000	2000	7000	700
6	17000	1900	16000	1800	6000	650
8	13000	1700	12000	1600	4500	550
10	10500	1450	10000	1400	3500	500
12	9000	1400	8000	1300	3000	400
16	6000	1200	5500	1100	2000	450

RPM = rev./min - GIRI/min.
 FEED = mm/min - AVANZAMENTO = mm/min

PRHSC2SS

(HIGH SPEED CUTTING / ALTA VELOCITÀ)

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRc30		HRc30 ~ HRc40		HRc45 ~ HRc65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	47000	3700	44000	3500	17000	1400
4	35000	3200	33000	3000	13000	1200
5	28000	2800	27000	2600	10000	1100
6	23000	2600	22000	2400	8000	950
8	18000	2300	17000	2100	6000	850
10	14000	2000	13000	1900	5000	750
12	12000	1800	11000	1800	4000	700
16	9000	1600	8000	1500	3300	600

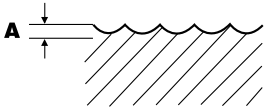
RPM = rev./min - GIRI/min.
 FEED = mm/min - AVANZAMENTO = mm/min

4 Flute, ball nose, long 4 Taglienti, sferica, lunga

PRHSC4S

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOY STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	15760	380	12720	300	5800	130
1.5	15760	530	12140	410	5320	180
2	15760	800	11560	480	4840	160
3	13100	1020	10000	690	4520	220
4	10500	1110	8400	800	4200	270
5	9140	1230	7300	870	3680	270
6	7780	1260	6300	950	3160	280
8	5260	1430	4420	990	2100	280
10	4620	1530	3780	1070	1780	280
12	3780	1350	2940	990	1360	280
16	2740	1380	2320	980	1160	280
20	2100	1260	1900	950	840	280

A: D1 ~ D6 = 0.2 mm
D8 ~ D20 = 0.3 mm



FEED = mm/min
AVANZAMENTO = mm/min

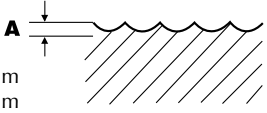
4 Flute, ball nose, long 4 Taglienti, sferica lunga

PRHSC4S

(HIGH SPEED CUTTING / PER ALTA VELOCITÀ)

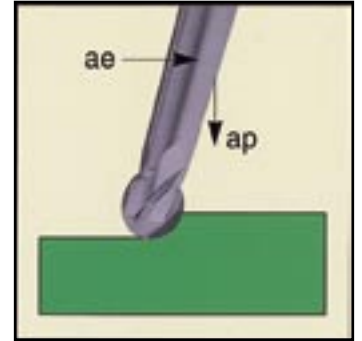
MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC45		HRC45 ~ HRC65	
STRENGTH/FORZA	~1500N/mm ²		1500N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1	25000	980	25000	600
1.5	23000	1050	23000	640
2	21000	1110	21000	700
3	21000	1500	17000	780
4	21000	2210	13660	870
5	21000	2700	12000	900
6	21000	3470	10500	940
8	15760	4260	7880	1110
10	13660	4580	6300	1260
12	10500	3950	5260	1260
16	8200	3950	3780	1060
20	6300	3780	2940	790

A: D1 ~ D6 = 0.2 mm
D8 ~ D20 = 0.3 mm



FEED = mm/min
AVANZAMENTO = mm/min

4 Flute, INFINITY HSC solid carbide long length ball nose end mills
4 Schneiden, INFINITY HSC Vollhartmetall Radiuschafffräser, lang
4 Taglienti, INFINITY HSC metallo duro, sferica lunga



⇒ $ae = 0.05 \times d1$
 ⇒ $ap = 0.02 \times d1$

PRHSC4SS

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
5	21000	4000	20000	4000	7000	1400
6	17000	4000	16000	3500	6000	1300
8	13000	3500	12000	3000	4500	1100
10	10500	3000	10000	2500	3500	1000
12	9000	2800	8000	2500	3000	950
16	6000	2800	5500	2200	2000	800

RPM = rev./min - GIRI/min.
 FEED = mm/min - AVANZAMENTO = mm/min

PRHSC4SS (HIGH SPEED CUTTING / PER ALTA VELOCITÀ)


MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC40		HRC45 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1250N/mm ²		1500N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
5	28000	5600	27000	5300	11000	2100
6	23000	5100	22000	4900	9000	1900
8	18000	4600	17000	4300	7000	1700
10	14000	3900	13000	3700	5000	1400
12	12000	3700	11000	3500	4500	1300
16	9000	3100	8000	3000	3300	1100

RPM = rev./min - GIRI/min.
 FEED = mm/min - AVANZAMENTO = mm/min

Multi. Flute, roughing, side cutting Multitaglienti. Sgrossare, spallamenti

PRHSC4SG

MATERIAL MATERIALE													
HARDNESS/DUREZZA		≤30HRc		30÷40HRc		38÷45HRc		45÷55HRc		GHISA		GHISA	
STRENGTH/FORZA		≤500N/mm ²		1000N/mm ²		1200-1400N/mm ²		1400-2000N/mm ²		≤200HB		≥200HB	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	
6	6400	540	5300	360	4200	250	2600	200	4800	340	3700	250	
8	4800	540	4000	370	3200	310	2000	200	3600	360	2800	280	
10	3800	900	3200	700	2500	500	1600	260	2900	580	2200	450	
12	3200	900	2600	650	2100	500	1400	260	2400	630	1850	450	
16	2400	800	2000	650	1600	520	1000	250	1800	580	1400	450	
20	1900	750	1600	650	1300	520	800	230	1400	560	1100	450	
25	1500	1000	1300	800	1000	600	640	260	1150	700	900	550	



FEED = mm/min
AVANZAMENTO = mm/min

Parametri frese Starmill

PRHSC2TN

MATERIAL MATERIALE										
ACCIAIO C45-2311-2343			ACCIAIO 2343-2344-IMPAX				ACCIAIO STAVAX-IMPAX			
HARDNESS/DUREZZA		≤ 43 HRC			45÷50 HRC			52÷55 HRC		
STRENGTH/FORZA										
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	Ap m/m	RPM GIRI/min.	FEED AVANZAMENTO	Ap m/m	RPM GIRI/min.	FEED AVANZAMENTO	Ap m/m	
0,5	24000	300	0,02	20000	250	0,015	18000	250	0,010	
	27000	450	0,03	24000	350	0,025	22000	350	0,015	
0,6	20000	400	0,03	18000	300	0,025	16000	300	0,015	
	24000	500	0,04	22000	400	0,035	18000	400	0,025	
0,8	16000	650	0,04	14000	450	0,03	12000	300	0,02	
	18000	750	0,05	16000	600	0,04	16000	450	0,03	
1	10000	300	0,025	8500	250	0,02	8000	150	0,015	
	14000	1000	0,07	12000	800	0,06	11500	800	0,05	
1,2	13000	900	0,05	8000	350	0,045	10000	600	0,04	
	15000	1000	0,07	11500	900	0,06	12000	800	0,05	
1,5	8000	350	0,02	7000	350	0,015	6500	250	0,015	
	13000	1100	0,08	11000	1000	0,07	10500	800	0,06	
2	7000	450	0,03	6000	450	0,015	4500	300	0,015	
	10000	1300	0,01	10000	1100	0,08	8000	1000	0,06	
2,5	5000	420	0,035	4500	350	0,025	4200	300	0,02	
	8000	900	0,1	6000	700	0,09	5500	600	0,07	
3	4000	450	0,035	3500	400	0,025	3000	320	0,01	
	7000	1450	0,012	6500	1300	0,1	5500	1000	0,08	
4	4500	800	0,1	4000	700	0,06	3500	550	0,05	
	5500	1500	0,15	5000	1200	0,1	4200	1000	0,1	

2 Flute, corner radius, long, slotting 2 Taglienti, toriche, lunghe, dal pieno

PRHSC2T

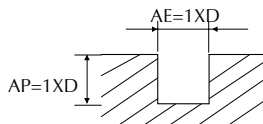
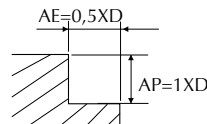
MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC45		HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1500N/mm ²		1500 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	2630	125	2100	105	1370	50	1160	35
8	2000	135	1580	105	1050	50	840	35
10	1680	135	1370	105	840	50	670	35
12	1370	105	1160	95	700	40	550	25

FEED = mm/min
AVANZAMENTO = mm/min

Parametri frese Starmill

PRHSC4SG INOX

MATERIAL MATERIALE	AISI 304		AISI 316		AISI 303		TITANIO	
HARDNESS/DUREZZA								
STRENGTH/FORZA								
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	3700	450	3450	400	4200	500	3200	400
8	2800	450	2600	400	3200	500	2400	400
10	2200	440	2000	480	2550	600	1900	450
12	1850	440	1700	480	2100	600	1600	450
16	1400	560	1300	650	1600	650	1200	600
20	1100	660	1000	720	1280	770	1000	600

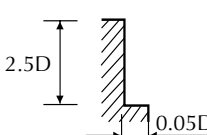
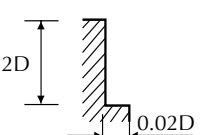
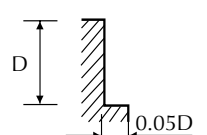
RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

3/4 Flute, corner radius, long, side cutting

3/4 Flute, toriche, lunghe spallamenti

PRHSC3T, PRHSC4T

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC45		HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1500N/mm ²		1500 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	2630	215	2100	180	1370	85	1160	50
8	2000	230	1580	180	1050	85	840	50
10	1680	230	1370	180	840	85	670	50
12	1370	180	1160	160	700	70	550	40

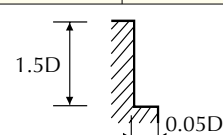
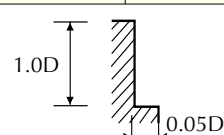
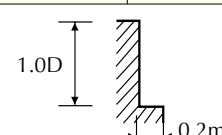
FEED = mm/min
AVANZAMENTO = mm/min

6 Flute, 45° helix, corner radius, side cutting

6 Taglienti, elica 45°, toriche, spallamenti

PRHSC6T, PRHSC6TC (HIGH SPEED CUTTING / PER ALTA VELOCITÀ)

MATERIAL MATERIALE	ALLOY STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI REFRATTARI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC50		HRC50 ~ HRC60		HRC60 ~ HRC65	
STRENGTH/FORZA	~1750N/mm ²		1750 ~ 2080N/mm ²		2080N/mm ²	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	16800	6090	8400	3050	4200	1470
8	12600	6090	6300	3050	3150	1470
10	9980	5990	5040	3050	2520	1470
12	8400	5040	4200	2520	2100	1260
16	6300	3780	3160	1890	1580	950
20	5040	3050	2520	1470	1260	760

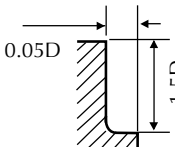




FEED = mm/min
AVANZAMENTO = mm/min

4 Flute, 45° helix, corner radius, side cutting
4 Taglienti, elica 45°, toriche corte, spallamenti

PRHSC4TM

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI TERMORESISTENTI		STAINLESS STEELS ACCIAI INOSSIDABILI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
10	7690	2000	7690	1220	5680	920	5680	740	3840	480
12	5760	2000	5760	1220	4260	920	4260	740	2880	480
14	4600	1800	4600	1220	3410	920	3410	740	2300	480
18	3850	1530	3850	1220	2840	920	2840	740	1920	480
22	3300	1300	3300	1220	2430	920	2430	740	1650	480

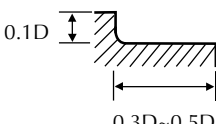


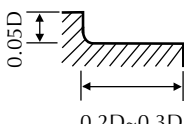
FEED = mm/min
 AVANZAMENTO = mm/min

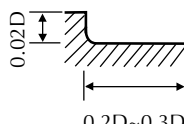
4 Flute, 45° helix, corner radius, contouring
4 Taglienti, elica 45°, toriche corte, profilatura

PRHSC4TM

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA LEGATA		ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI TERMORESISTENTI		STAINLESS STEELS ACCIAI INOSSIDABILI		HARDENED STEELS ACCIAI TEMPRATI		HARDENED STEELS ACCIAI TEMPRATI	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55		HRC55 ~ HRC65	
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1500N/mm ²				1500 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
10	7690	1150	5680	920	5680	800	5680	460	3840	290
12	5760	1150	4260	920	4260	800	4260	460	2880	290
14	4600	1150	3410	920	3410	800	3410	460	2300	290
18	3850	1150	2840	920	2840	800	2840	460	1920	290
22	3300	1150	2430	920	2430	800	2430	460	1650	290





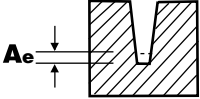


FEED = mm/min
 AVANZAMENTO = mm/min

4 Flute, taper for rib processing

4 Taglienti coniche per nervature

PRHSC4C

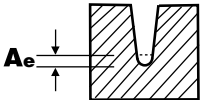
MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA			ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI TERMORESISTENTI			HARDENED STEELS ACCIAI TEMPRATI		
HARDNESS/DUREZZA	~HRC30			HRC30 ~ HRC45			HRC45 ~ HRC55		
STRENGTH/FORZA	~1000N/mm ²			1000 ~ 1500N/mm ²			1500 ~ 2000N/mm ²		
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)	FEED AVANZAMENTO	RPM GIRI/min.	Ae (mm)	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)
1	20000	700	0.020~0.040	15000	500	0.020~0.030	10000	300	0.010~0.020
1.2	16000	700	0.025~0.050	13000	500	0.025~0.040	8000	300	0.012~0.025
1.5	13000	700	0.030~0.060	10000	500	0.030~0.050	6500	300	0.015~0.030
2	10000	700	0.040~0.080	8000	500	0.040~0.060	5000	300	0.020~0.040
(Depth of Cut per one pass) (Profondità di passata) 									

FEED = mm/min
AVANZAMENTO = mm/min

4 Flute, taper ball for rib processing

4 Taglienti, sferiche coniche per nervature

PRHSC4CS

MATERIAL MATERIALE	NON-ALLOYED STEELS ALLOY STEELS CAST IRON ACCIAI LEGATI E NON GHISA			ALLOYED STEELS HEAT RESISTANT STEELS ACCIAI LEGATI ACCIAI TERMORESISTENTI			HARDENED STEELS ACCIAI TEMPRATI		
HARDNESS/DUREZZA	~HRC30			HRC30 ~ HRC45			HRC45 ~ HRC55		
STRENGTH/FORZA	~1000N/mm ²			1000 ~ 1500N/mm ²			1500 ~ 2000N/mm ²		
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)	FEED AVANZAMENTO	RPM GIRI/min.	Ae (mm)	RPM GIRI/min.	FEED AVANZAMENTO	Ae (mm)
1	20000	700	0.020~0.040	15000	500	0.020~0.030	10000	300	0.010~0.020
1.2	16000	700	0.025~0.050	13000	500	0.025~0.040	8000	300	0.012~0.025
1.5	13000	700	0.030~0.060	10000	500	0.030~0.050	6500	300	0.015~0.030
2	10000	700	0.040~0.080	8000	500	0.040~0.060	5000	300	0.020~0.040
(Depth of Cut per one pass) (Profondità di passata) 									

FEED = mm/min
AVANZAMENTO = mm/min

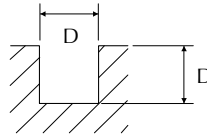
Speed & Feed Data and Characteristics
Schittwerte und Eigenheiten
Parametri di taglio e dati tecnici

INFINITY solid carbide end Mills
INFINITY Vollhartmetallfräser
Frese metallo duro INFINITY

2FL. Finish Slotting 2 Taglienti, finitura, dal pieno

PR2000 - PR2000L

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAIO AL CARBONIO ACCIAIO LEGATO ACCIAIO PER UTENSILI	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAIO AL CARBONIO ACCIAIO LEGATO ACCIAIO PER UTENSILI	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAIO AL CARBONIO ACCIAIO LEGATO ACCIAIO PER UTENSILI	ACCIAI INOSSIDABILI ACCIAI AL TITANIO	CAST IRON GHISA LEGATA	ALUMINUM ALLOYS LEGHE DI ALLUMINIO	COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI							
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30	HRC30 ~ HRC40										
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²	1000 ~ 1300N/mm ²										
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	5500	80	4800	70	4000	55	8000	65	6500	150	16000	320	12000	240
3	3700	90	3200	80	2600	60	5300	65	4200	150	11000	320	8000	240
4	2800	90	2400	80	2000	60	4000	65	3200	150	8000	320	6000	240
5	2200	90	1900	80	1600	60	3200	32	2500	150	6400	320	4800	240
6	1800	90	1600	80	1300	60	2600	65	2100	180	5300	340	4000	260
8	1400	90	1200	80	1000	60	2000	65	1600	190	4000	340	3000	260
10	1100	90	950	80	800	60	1600	65	1300	200	3200	340	2400	260
12	900	90	800	80	660	60	1300	65	1000	210	2600	340	2000	260
14	800	90	700	80	570	60	1100	65	900	220	2300	340	1700	260
16	700	100	600	85	500	75	1000	75	800	225	2000	340	1500	260
20	550	100	480	85	400	84	800	80	640	240	1600	340	1200	260

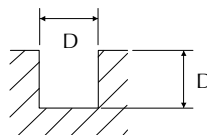


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

2FL. Finish Slotting TiAlN-COATED 2 Taglienti, finitura, dal pieno rivestite TiAlN

PR2000 XTREME - PR2000L XTREME

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAIO AL CARBONIO ACCIAIO LEGATO ACCIAIO PER UTENSILI	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAIO AL CARBONIO ACCIAIO LEGATO ACCIAIO PER UTENSILI	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAIO AL CARBONIO ACCIAIO LEGATO ACCIAIO PER UTENSILI	ACCIAI INOSSIDABILI ACCIAI AL TITANIO	CAST IRON GHISA LEGATA	ALUMINUM ALLOYS LEGHE DI ALLUMINIO	COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI							
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30	HRC30 ~ HRC40										
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²	1000 ~ 1300N/mm ²										
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	7200	100	6200	90	5200	70	10000	85	8500	200	20000	420	15000	310
3	4800	120	4200	105	3400	80	6900	85	5500	200	14000	420	10000	310
4	3640	120	3100	105	2600	80	5200	85	4200	200	10000	420	8000	310
5	2860	120	2500	105	2000	80	4200	85	3300	200	8300	420	6200	310
6	2400	120	2000	105	1700	80	3400	85	2700	230	6900	440	5200	340
8	1800	120	1500	105	1300	80	2600	85	2000	250	5200	440	4000	340
10	1400	120	1200	105	1000	80	2000	85	1700	260	4200	440	3100	340
12	1200	120	100	105	860	80	1700	85	1300	270	3400	440	2600	340
14	1000	120	900	105	740	80	1400	85	1200	280	3000	440	2200	340
16	900	130	800	110	650	100	1300	100	1000	290	2600	440	2000	340
20	720	130	620	110	520	100	1000	100	830	310	2000	440	1560	340



RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

* FEED, in long & extra long types, should be reduced by around 50%

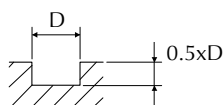
* L'avanzamento per le frese lunghe & extra lunghe dovrebbe essere ridotto del 50% circa

2FL. 45° HELIX, for aluminum 2 Taglienti, elica 45°, per alluminio

PR2000W <SLOTTING / CAVE>

MATERIAL MATERIALE	ALUMINUM NONFERROUS METALS ALLUMINIO METALLI NON FERROSI
-----------------------	---

DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO
3	10000	700
4	10000	900
5	10000	1000
6	10000	1200
8	8000	1400
10	8000	1700
12	8000	2100
14	6000	1800
16	6000	1900
18	4000	1400
20	4000	1600



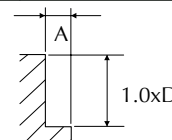
RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

PR2000W <SIDE CUTTING / SPALLAMENTO>

MATERIAL MATERIALE	ALUMINUM NONFERROUS METALS ALLUMINIO METALLI NON FERROSI
-----------------------	---

DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO
3	10000	900
4	10000	1000
5	10000	1300
6	10000	1500
8	8000	1800
10	8000	2100
12	8000	2600
14	6000	2200
16	6000	2400
18	4000	1800
20	4000	1900

A: $\phi 3 \sim \phi 10 = 0.25 \times D$
 $\phi 12 \sim \phi 20 = 0.5 \times D$



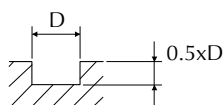
RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

2FL. 45° HELIX, for aluminum, TiCN-Coated 2 Taglienti, elica 45°, per alluminio, rivestimento TiCN

PR2000W TiCN <SLOTTING / CAVE>

MATERIAL MATERIALE	ALUMINUM NONFERROUS METALS ALLUMINIO METALLI NON FERROSI
-----------------------	---

DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO
3	13000	900
4	13000	1200
5	13000	1300
6	13000	1500
8	10000	1800
10	10000	2200
12	10000	2700
14	8000	2300
16	8000	2500
18	5000	1800
20	5000	2000



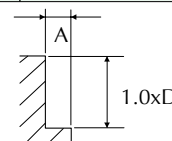
RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

PR2000W TiCN <SIDE CUTTING / SPALLAMENTO>

MATERIAL MATERIALE	ALUMINUM NONFERROUS METALS ALLUMINIO METALLI NON FERROSI
-----------------------	---

DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO
3	13000	1200
4	13000	1400
5	13000	1700
6	13000	2000
8	10000	2300
10	10000	2700
12	10000	3400
14	8000	2800
16	8000	3100
18	5000	2300
20	5000	2500

A: $\phi 3 \sim \phi 10 = 0.25 \times D$
 $\phi 12 \sim \phi 20 = 0.5 \times D$

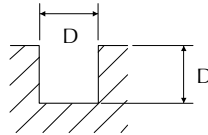


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

3FL. Finish Slotting 3 Taglienti, finitura dal pieno

PR3000

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		STAINLESS STEELS TITANIUM ALLOYS ACCIAI INOSSIDABILI LEGHE AL TITANIO		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO		COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI	
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40									
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1300N/mm ²									
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	5500	70	4800	60	4000	50	8000	55	6500	140	16000	290	12000	220
3	3700	80	3200	75	2600	55	5300	55	4200	140	11000	300	8000	220
4	2800	80	2400	75	2000	55	4000	55	3200	130	8000	290	6000	220
5	2200	80	1900	70	1600	55	3200	55	2500	135	6400	290	4800	220
6	1800	80	1600	70	1300	55	2600	60	2100	160	5300	305	4000	240
8	1400	80	1200	70	1000	55	2000	60	1600	170	4000	310	3000	230
10	1100	80	950	70	800	55	1600	60	1300	180	3200	305	2400	230
12	900	80	800	70	660	55	1300	60	1000	190	2600	300	2000	230
14	800	80	700	70	570	55	1100	60	900	200	2300	300	1700	230
16	700	80	600	75	500	65	1000	70	800	200	2000	300	1500	230
20	550	90	480	75	400	65	800	70	640	215	1600	300	1200	230

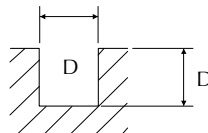


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

3FL. Finish Slotting TiAlN-COATED 3 Taglienti, finitura dal pieno, rivestite TiAlN

PR3000 XTREME

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		STAINLESS STEELS TITANIUM ALLOYS ACCIAI INOSSIDABILI LEGHE AL TITANIO		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO		COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI	
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40									
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1300N/mm ²									
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	7200	90	6200	90	5200	65	10000	70	8500	180	20000	380	15000	280
3	4800	105	4200	100	3400	70	6900	70	5500	180	14000	390	10000	280
4	3640	105	3100	100	2600	70	5200	70	4200	170	10000	380	8000	280
5	2860	105	2500	90	2000	70	4200	70	3300	180	8300	380	6200	280
6	2400	105	2000	90	1700	70	3400	80	2700	210	6900	400	5200	310
8	1800	105	1500	90	1300	70	2600	80	2000	220	5200	400	4000	300
10	1400	105	1200	90	1000	70	2000	80	1700	230	4200	400	3100	300
12	1200	105	1000	90	860	70	1700	80	1300	250	3400	390	2600	300
14	1000	105	900	90	740	70	1400	80	1200	260	3000	390	2200	300
16	900	120	800	100	650	85	1300	90	1000	260	2600	390	2000	300
20	720	120	620	100	520	85	1000	90	830	280	2000	390	1560	300



RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

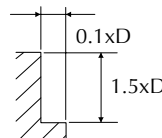
* FEED, in long & extra long types, should be reduced by around 50%

* L'avanzamento per le frese lunghe ed extra lunghe dovrebbe essere ridotto del 50%

3FL. Finish Side Cutting 3 Taglienti, finitura spallamenti

PR3000

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		STAINLESS STEELS TITANIUM ALLOYS ACCIAI INOSSIDABILI LEGHE AL TITANIO		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO		COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI	
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40									
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1300N/mm ²									
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	5500	180	4800	160	4000	120	8000	140	6500	330	16000	720	12000	540
3	3700	200	3200	170	2600	130	5300	140	4200	330	11000	690	8000	530
4	2800	200	2400	180	2000	130	4000	140	3200	340	8000	720	6000	540
5	2200	200	1900	180	1600	130	3200	140	2500	340	6400	710	4800	530
6	1800	200	1600	180	1300	130	2600	150	2100	400	5300	760	4000	580
8	1400	200	1200	180	1000	130	2000	150	1600	430	4000	760	3000	580
10	1100	200	950	180	800	130	1600	150	1300	450	3200	760	2400	580
12	900	200	800	180	660	130	1300	150	1000	470	2600	760	2000	580
14	800	200	700	180	570	130	1100	150	900	490	2300	760	1700	580
16	700	220	600	190	500	160	1000	170	800	510	2000	760	1500	580
20	550	220	480	190	400	160	800	180	640	540	1600	760	1200	580

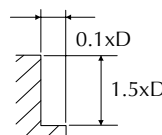


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

3FL. Finish Side Cutting, TiAlN-COATED 3 Taglienti, finitura spallamenti, rivestimento TiAlN

PR3000 XTREME

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		STAINLESS STEELS TITANIUM ALLOYS ACCIAI INOSSIDABILI LEGHE AL TITANIO		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO		COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI	
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40									
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1300N/mm ²									
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	7200	230	6200	210	5200	160	10000	180	8500	430	20000	940	15000	700
3	4800	260	4200	220	3400	170	6900	180	5500	430	14000	900	10000	690
4	3640	260	3100	230	2600	170	5200	180	4200	440	10000	940	8000	700
5	2860	260	2500	230	2000	170	4200	180	3300	440	8300	920	6200	690
6	2400	260	2000	230	1700	170	3400	200	2700	520	6900	1000	5200	750
8	1800	260	1500	230	1300	170	2600	200	2000	560	5200	1000	4000	750
10	1400	260	1200	230	1000	170	2000	200	1700	580	4200	1000	3100	750
12	1200	260	1000	230	860	170	1700	200	1300	610	3400	1000	2600	750
14	1000	260	900	230	740	170	1400	200	1200	640	3000	1000	2200	750
16	900	280	800	250	650	210	1300	220	1000	660	2600	1000	2000	750
20	720	280	620	250	520	210	1000	230	830	700	2000	1000	1560	750



RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

* FEED, in long & extra long types, should be reduced by around 50%

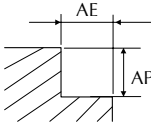
* L'avanzamento per le frese lunghe & extra lunghe dovrebbe essere ridotto del 50% circa

Parametri frese multiuso Starmill PR 3000F

SGROSSATURA IN SPALLAMENTO

PR3000F

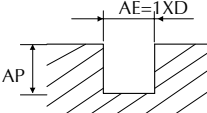
MATERIAL MATERIALE	ACCIAI AL CARBONIO ACCIAI DA COSTRUZIONE		ACCIAI LEGATI MEDIA DUREZZA		ACCIAI ALTAMENTE LEGATI ACCIAI PER UTENSILI		ACCIAI INOSSIDABILI	
HARDNESS/DUREZZA								
STRENGTH/FORZA								
DIAMETRI	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	12.740	400	10.600	300	7.430	230	5.840	180
4	9.550	500	8.000	430	5.550	280	4.380	240
5	7.600	570	6.400	460	4.460	320	3.500	260
6	6.400	650	5.300	600	3.700	370	2.900	310
8	4.800	720	4.000	650	2.800	400	2.200	370
10	3.800	720	3.200	680	2.230	420	1.750	380
12	3.200	770	2.650	700	1.850	500	1.460	400
14	2.700	800	2.280	650	1.600	500	1.250	400
16	2.400	900	2.000	600	1.400	520	1.100	450
20	1.900	900	1.600	600	1.150	520	880	450



$AP=1,5XD$
 ACCIAI NON LEG. $AE=0,3XD$
 ACCIAI INOX, ACCIAI LEG. $AE=0,2XD$

SGROSSATURA DAL PIENO

MATERIAL MATERIALE	ACCIAI DOLCI ACC. DA COSTR.		ACCIAI LEGATI		ACCIAI ALTAMENTE LEGATI		ACCIAI INOSSIDABILE	
DIAMETRI	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	9.550	220	6.300	180	4.800	150	5.800	180
4	7.200	250	4.800	180	3.600	150	4.400	180
5	5.700	260	3.800	200	2.900	150	3.500	200
6	4.800	290	3.200	240	2.400	150	2.900	220
8	3.600	320	2.400	250	1.800	150	2.200	250
10	2.900	350	1.900	280	1.450	180	1.750	260
12	2.400	420	1.600	300	1.200	200	1.500	270
14	2.050	490	1.400	300	1.050	210	1.250	290
16	1.800	540	1.200	320	900	230	1.100	330
20	1.450	600	1.000	320	700	250	880	350



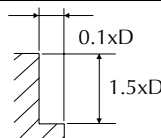
ACCIAI NON LEG. $AP=0,5XD$
 ACCIAI LEG., ACCIAI INOX $AP=0,3XD$

N.B. NELLA LAVORAZIONE DELL'ACCIAIO INOSSIDABILE È CONSIGLIATO L'USO DELL'EMULSIONANTE

4FL. Finish Side Cutting 4 Taglienti, finitura, spallamento

PR4000 - PR4000L

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		STAINLESS STEELS TITANIUM ALLOYS ACCIAI INOSSIDABILI LEGHE AL TITANIO		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO		COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI	
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40									
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1300N/mm ²									
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	5500	240	4800	210	4000	160	8000	200	6500	450	16000	960	12000	720
3	3700	270	3200	240	2600	180	5300	200	4200	450	11000	960	8000	720
4	2800	270	2400	240	2000	180	4000	200	3200	450	8000	960	6000	720
5	2200	270	1900	240	1600	180	3200	200	2500	450	6400	960	4800	720
6	1800	270	1600	240	1300	180	2600	200	2100	540	5300	1020	4000	780
8	1400	270	1200	240	1000	180	2000	200	1600	570	4000	1020	3000	780
10	1100	270	950	240	800	180	1600	200	1300	600	3200	1020	2400	780
12	900	270	800	240	860	180	1300	200	1000	630	2600	1020	2000	780
14	800	270	700	240	570	180	1100	200	900	660	2300	1020	1700	780
16	700	260	600	260	500	220	1000	225	800	680	2000	1020	1500	780
20	550	260	480	260	400	220	800	240	640	720	1600	1020	1200	780

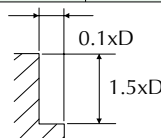


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

4FL. Finish Side Cutting, TiAlN-COATED 4 Taglienti, finitura, spallamento, rivestimento TiAlN

PR4000 XTREME - PR4000L XTREME

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		STAINLESS STEELS TITANIUM ALLOYS ACCIAI INOSSIDABILI LEGHE AL TITANIO		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO		COPPER, BRASS NON-FERROUS METALS RAME - OTTONE METALLI NON FERROSI	
HARDNESS/DUREZZA	~ HRC20		HRC20 ~ HRC30		HRC30 ~ HRC40									
STRENGTH/FORZA	500 ~ 800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1300N/mm ²									
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	7200	310	6200	270	5200	210	10000	260	8500	580	20000	1200	15000	940
3	4800	350	4200	310	3400	230	6900	260	5500	580	14000	1200	10000	940
4	3640	350	3100	310	2600	230	5200	260	4200	580	10000	1200	8000	940
5	2860	350	2500	310	2000	230	4200	260	3300	580	8300	1200	6200	940
6	2400	350	2000	310	1700	230	3400	260	2700	700	6900	1300	5200	1000
8	1800	350	1500	310	1300	230	2600	260	2000	740	5200	1300	4000	1000
10	1400	350	1200	310	1000	230	2000	260	1700	780	4200	1300	3100	1000
12	1200	350	1000	310	860	230	1700	260	1300	820	3400	1300	2600	1000
14	1000	350	900	310	740	230	1400	260	1200	860	3000	1300	2200	1000
16	900	390	800	340	650	290	1300	290	1000	880	2600	1300	2000	1000
20	720	390	620	340	520	290	1000	310	830	940	2000	1300	1560	1000



RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

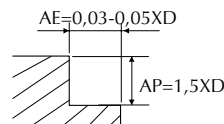
* FEED, in long & extra long types, should be reduced by around 50%

* L'avanzamento per le frese lunghe & extra lunghe dovrebbe essere ridotto del 50% circa

Parametri frese Starmill

PR6000L

MATERIAL MATERIALE	ACCIAI NON LEGATI		ACCIAI LEGATI		ACCIAI PER STAMPI		ACCIAI INOX	
HARDNESS/DUREZZA	≤ 30 HRC		30÷40 HRC		40÷50 HRC			
STRENGTH/FORZA	≤ 500N/mm ²		1000N/mm ²		1000~1200N/mm ²			
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	9000	2000	7400	1500	5300	1000	4800	900
8	6800	2500	5500	1900	4000	1200	3600	900
10	5400	2600	4500	1800	3200	1200	2900	900
12	4500	2700	3700	1800	2600	1200	2400	900
16	3400	2300	2800	1700	2000	1100	1800	900
20	2700	2600	2200	1800	1600	1400	1400	900

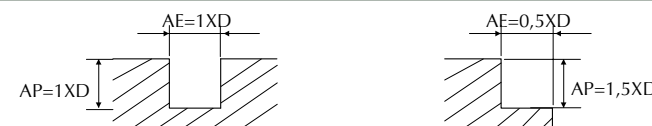


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

Parametri frese Starmill

PR4000SG

MATERIAL MATERIALE	ACCIAI NON LEGATI		ACCIAI LEGATI		GHISA		GHISA	
HARDNESS/DUREZZA	≤ 30 HRC		30÷40 HRC		≤ 200 HB		≥ 200 HB	
STRENGTH/FORZA	≤ 500 N/mm ²		1000 N/mm ²					
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	6400	750	5300	480	4800	450	3700	330
8	4800	720	4000	500	3600	480	2800	380
10	3800	900	3200	700	2900	580	2200	450
12	3200	900	2600	650	2400	630	1850	450
16	2400	800	2000	650	1800	580	1400	450
20	1900	750	1600	650	1400	560	1100	450
25	1500	1000	1300	800	1150	700	900	550

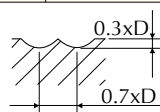


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

2FL. Ball nose 2 Taglienti sferica

PR2000S - PR2000SL

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA	~HRc30		HRc30 ~ HRc40					
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1300N/mm ²					
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
R 1.0 X 2.0	5200	90	4400	45	7300	150	21500	280
R 1.5 X 3.0	3500	100	2900	45	4900	160	14300	280
R 2.0 X 4.0	2600	100	2100	45	3600	200	10900	280
R 2.5 X 5.0	2100	105	1700	45	2900	230	8800	330
R 3.0 X 6.0	1700	100	1430	45	2400	250	7260	330
R 4.0 X 8.0	1270	95	1100	45	1800	320	5500	380
R 5.0 X 10.0	1000	95	870	45	1430	320	4300	380
R 6.0 X 12.0	870	85	730	45	1200	320	3600	440
R 7.0 X 14.0	750	85	620	45	1000	325	3000	440
R 8.0 X 16.0	650	85	540	45	920	325	2700	380
R 9.0 X 18.0	580	85	480	45	810	325	2400	380
R 10.0 X 20.0	500	85	430	45	730	290	2100	380

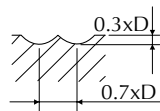


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

2FL. Ball nose, TiAlN-COATED 2 Taglienti, sferica, rivestimento TiAlN

PR2000S XTREME - PR2000SL XTREME

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CAST IRON GHISA LEGATA		ALUMINUM ALLOYS LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA	~HRc30		HRc30 ~ HRc40					
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1300N/mm ²					
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
R 1.0 X 2.0	6760	120	5700	60	9500	200	28000	360
R 1.5 X 3.0	4500	130	3800	60	6400	210	18600	360
R 2.0 X 4.0	3400	130	2700	60	4700	260	14000	360
R 2.5 X 5.0	2700	135	2200	60	3800	300	11000	430
R 3.0 X 6.0	2200	130	1860	60	3100	330	9400	430
R 4.0 X 8.0	1600	120	1400	60	2300	420	7200	490
R 5.0 X 10.0	1300	120	1100	60	1860	420	5600	490
R 6.0 X 12.0	1100	110	950	60	1600	420	4700	570
R 7.0 X 14.0	980	110	800	60	1300	420	3900	570
R 8.0 X 16.0	850	110	700	60	1200	420	3500	490
R 9.0 X 18.0	750	110	620	60	1000	420	3100	490
R 10.0 X 20.0	650	110	560	60	950	380	2700	490



RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

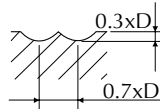
* FEED, in long & extra long types, should be reduced by around 50%

* L'avanzamento per le frese lunghe & extra lunghe dovrebbe essere ridotto del 50% circa

4FL. Ball nose 4 Taglienti, sferica

PR4000S

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CAST IRON GHISA LEGATA		ALLUMINIUM ALLOYS LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC40					
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1300N/mm ²					
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
R 1.0 X 2.0	5200	140	4400	70	7300	230	21500	420
R 1.5 X 3.0	3500	150	2900	70	4900	240	14300	420
R 2.0 X 4.0	2600	150	2100	70	3600	300	10900	420
R 2.5 X 5.0	2100	160	1700	70	2900	350	8800	500
R 3.0 X 6.0	1700	150	1430	70	2400	380	7260	500
R 4.0 X 8.0	1270	140	1100	70	1800	480	5500	570
R 5.0 X 10.0	1000	140	870	70	1430	480	4300	570
R 6.0 X 12.0	870	130	730	70	1200	480	3600	660
R 7.0 X 14.0	750	130	620	70	1000	490	3000	660
R 8.0 X 16.0	650	130	540	70	920	490	2700	570
R 9.0 X 18.0	580	130	480	70	810	490	2400	570
R 10.0 X 20.0	500	130	430	70	730	440	2100	570

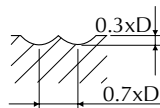


RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

4 FL. Ball nose, TiAlN-COATED 4 Taglienti, sferica, rivestimento TiAlN

PR4000S XTREME

MATERIAL MATERIALE	CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CARBON STEELS ALLOY STEELS TOOL STEELS ACCIAI AL CARBONIO ACCIAI LEGATI ACCIAI PER UTENSILI		CAST IRON GHISA LEGATA		ALLUMINIUM ALLOYS LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA	~HRC30		HRC30 ~ HRC40					
STRENGTH/FORZA	~1000N/mm ²		1000 ~ 1300N/mm ²					
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
R 1.0 X 2.0	6760	180	5700	90	9500	300	28000	550
R 1.5 X 3.0	4500	200	3800	90	6400	310	18600	550
R 2.0 X 4.0	3400	200	2700	90	4700	390	14000	550
R 2.5 X 5.0	2700	210	2200	90	3800	450	11000	650
R 3.0 X 6.0	2200	200	1860	90	3100	490	9400	650
R 4.0 X 8.0	1600	180	1400	90	2300	620	7200	740
R 5.0 X 10.0	1300	180	1100	90	1860	620	5600	740
R 6.0 X 12.0	1100	170	950	90	1600	620	4700	860
R 7.0 X 14.0	980	170	800	90	1300	640	3900	860
R 8.0 X 16.0	850	170	700	90	1200	640	3500	740
R 9.0 X 18.0	750	170	620	90	1000	640	3100	740
R 10.0 X 20.0	650	170	560	90	950	570	2700	740



RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

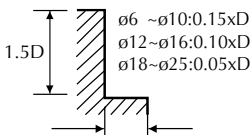
* FEED, in long & extra long types, should be reduced by around 50%
* L'avanzamento per le frese lunghe & extra lunghe dovrebbe essere ridotto del 50% circa

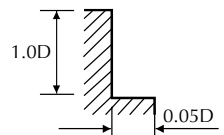
3, 4 FL. INFINITY 50° HI-HELIX 3, 4 Taglienti INFINITY elica 50°

PR5000

<SIDE CUTTING / SPALLAMENTO>

MATERIAL MATERIALE	STAINLESS STEEL TITANIUM ALLOY ACCIAI INOSSIDABILI LEGHE DI TITANIO		INCONEL INCONEL	
HARDNESS/DUREZZA				
STRENGTH/FORZA				
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	8400	570	2400	190
8	6300	570	1800	180
10	5100	570	1300	190
12	4200	570	1200	190
14	3600	570	900	130
16	3300	510	800	110
18	2700	420	700	100
20	2400	360	660	100
25	2160	410	600	110





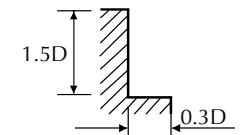
FEED = mm/min
AVANZAMENTO = mm/min

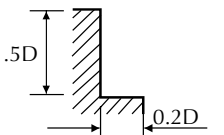
MULTI. FL. INFINITY ROUGHING END MILLS Multi taglienti, INFINITY frese a sgrossare

PR6000

<SIDE CUTTING / SPALLAMENTO>

MATERIAL MATERIALE	STAINLESS STEEL TITANIUM ALLOY ACCIAI INOSSIDABILI LEGHE DI TITANIO		INCONEL INCONEL	
HARDNESS/DUREZZA				
STRENGTH/FORZA				
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
6	2840	210	1050	55
8	2100	220	840	50
10	1680	220	680	50
12	1370	180	560	45
16	1050	135	420	35
18	950	125	370	30
20	840	145	340	30
25	670	115	270	25



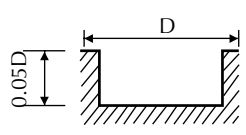


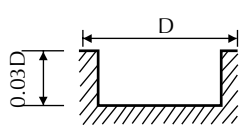
FEED = mm/min
AVANZAMENTO = mm/min

PR6000

<SLOTTING / DAL PIENO>

STAINLESS STEEL TITANIUM ALLOY ACCIAI INOSSIDABILI LEGHE DI TITANIO		INCONEL INCONEL	
HARDNESS/DUREZZA			
STRENGTH/FORZA			
RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
1580	90	1160	40
1160	100	840	40
1010	105	670	40
840	90	560	30
630	65	420	25
560	60	370	20
510	55	320	20
400	45	270	15





FEED = mm/min
AVANZAMENTO = mm/min

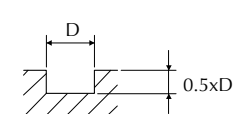
2 Flute, short corner radius with neck for aluminum

2 Schneiden, eckenradius, für aluminum

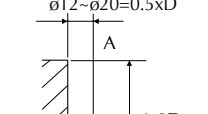
2 Taglienti, toriche per alluminio

PR2000 WT

MATERIAL MATERIALE		ALLUMINUM / ALLUMINUM ALLOY ALLUMINIO / LEGHE DI ALLUMINIO		
HARDNESS/DUREZZA				
STRENGTH/FORZA				
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
4	13000	1200	13000	1400
6	13000	1500	13000	2000
8	10000	1800	10000	2300
10	10000	2200	10000	2700
12	10000	2700	10000	3400
16	8000	2500	8000	3100
20	5000	2000	5000	2500



$0.5 \times D$



A: $\sim \phi 10 = 0.25 \times D$
 $\phi 12 \sim \phi 20 = 0.5 \times D$
 $1.0D$

FEED = mm/min AVANZAMENTO = mm/min

2 Flute, ball nose for aluminum, TiCN coated

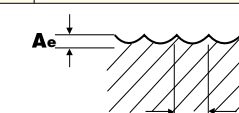
2 Schneiden, stirnradius für aluminum, TiCN beschichtete

2 Taglienti, sferiche per alluminio rivestite TiCN

PR2000 WS

MATERIAL MATERIALE		ALLUMINUM / ALLUMINUM ALLOY ALLUMINIO / LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA			
STRENGTH/FORZA			
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	
6	13000	860	
8	10000	980	
10	10000	980	
12	10000	1140	
16	8000	980	
20	5000	980	

$A_e = 0.2 \times D$
 $A_p = 0.5 \times D$



A_e
 A_p

FEED = mm/min AVANZAMENTO = mm/min

3 Flute ball nose for aluminum, TiCN coated

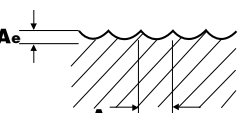
3 Schneiden, stirnradius für aluminium, TiCN beschichtete

3 Taglienti, sferiche per alluminio, rivestite TiCN

PR3000WS

MATERIAL MATERIALE	ALLUMINUM ALLUMINUM ALLOY ALLUMINIO LEGHE DI ALLUMINIO	STAINLESS STEELS TITANIUM ALLOY ACCIAI INOSSIDABILI LEGHE DI TITANIO	COPPER, BRASS NON-FERROUS METALS RAME, OTTONE METALLI NON FERROSI			
HARDNESS/DUREZZA						
STRENGTH/FORZA						
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	18600	550	9000	120	13000	450
4	14000	550	6700	120	10000	460
5	11000	650	5500	120	8000	450
6	9400	650	4400	130	6800	500
8	7200	740	3400	130	5200	500
10	5600	740	2600	130	4000	500
12	4700	860	2200	130	3400	500
16	3500	740	1700	140	2600	500

$A_e = 0.2 \times D$
 $A_p = 0.5 \times D$

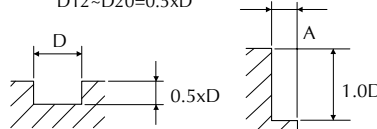
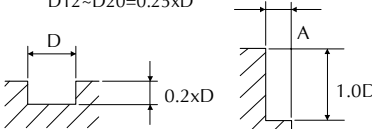


A_e
 A_p

FEED = mm/min
AVANZAMENTO = mm/min

2 Flute finish for aluminum-diamond coated
2 Schneiden, schlichten für aluminium diamant-beschichtete
2 Taglienti a finire per alluminio rivestite al diamante

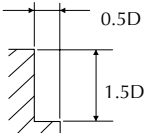
PR2000WD, PR2000 WTD

MATERIAL MATERIALE	ALLUMINUM LOW SILICON ALUMINUM ALLOY ALLUMINIO LEGHE DI ALLUMINIO A BASSO CONTENUTO DI SILICIO		ALUMINUM DIECAST ALLUMINIO PRESSOFUSO	
HARDNESS/DUREZZA				
STRENGTH/FORZA				
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO	RPM GIRI/min.	FEED AVANZAMENTO
3	45000	1100	24000	700
4	35000	1500	20000	950
5	25000	1600	13000	1100
6	25000	1900	13000	1200
8	20000	2300	11000	1500
10	16000	2800	8500	1800
12	13000	3400	7200	2200
16	11000	3100	6000	2000
20	6500	2500	3600	1600
A: D3~D10=0.25xD D12~D20=0.5xD				
A: D3~D10=0.1xD D12~D20=0.25xD				

FEED = mm/min
 AVANZAMENTO = mm/min

3 Flute, roughing end mill for aluminum, TiAlN coated
3 Schneiden, schruppfräser für aluminium, TiAlN beschichtete
3 Taglienti a sgrossare per alluminio, rivestite TiAlN

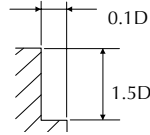
PR3000 WSG, PR3000WSGL

MATERIAL MATERIALE	ALLUMINUM / ALLUMINUM ALLOY ALLUMINIO / LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA		
STRENGTH/FORZA		
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO
12	2800	550
16	2200	625
20	1700	700
25	1400	625
32	1100	700
		

FEED = mm/min
 AVANZAMENTO = mm/min

2 Fl. & 3 Fl., finish for graphite-diamond coated
2 & 3 Schneiden schichten für graphit, diamant-beschichtete
2 & 3 Taglienti a finire per grafite, rivestite diamante

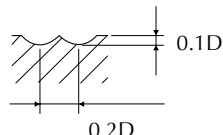
PR3000 G, PR3000GL, PR2000GL

MATERIAL MATERIALE	ALUMINUM / ALLUMINUM ALLOY ALLUMINIO / LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA		
STRENGTH/FORZA		
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO
2	25000	800
3	20000	750
4	18000	950
5	14000	1200
6	10000	1400
8	8000	1300
10	6000	1200
12	5000	1200
		

FEED = mm/min
AVANZAMENTO = mm/min

2 Fl. & 3 Fl., ball nose for graphite-diamond coated
2 & 3 Schneiden stirnradius für graphit, diamant-beschichtete
2 & 3 Taglienti, sferiche per grafite, rivestite diamante

PR2000 GS, PR2000GSN, PR2000GSL, PR3000GSN

MATERIAL MATERIALE	ALUMINUM / ALLUMINUM ALLOY ALLUMINIO / LEGHE DI ALLUMINIO	
HARDNESS/DUREZZA		
STRENGTH/FORZA		
DIAMETRO	RPM GIRI/min.	FEED AVANZAMENTO
2	30000	1600
3	24000	1700
4	21000	1900
5	18000	2400
6	16000	2800
8	13000	2600
10	11000	2500
12	9000	2400
		

FEED = mm/min
AVANZAMENTO = mm/min

***Speed & Feed Data and
Characteristics
Schittwerte und Eigenheiten
Parametri di taglio
e dati tecnici***

***INFINITY Drills
INFINITY Bohrer
Punte INFINITY***

Carbide drills, DIN 6539, DIN 338
Vollhartmetall spiralohrer, DIN 6539, DIN 338
Punte DIN 6539, DIN 338

PRPED - PRPCD

MATERIAL WERKSTOFF MATERIALE	DIAMETER - DIAMETRO (mm)											
	2~2.9		3~5		5.1~8		8.1~10		10.1~12		12.~13	
	N	S	N	S	N	S	N	S	N	S	N	S
NON-ALLOY STEELS ACCIAIO NON LEGATO <700 N/mm ² Non-stahl-Legierungen	8070	0.04	5090	0.06	3070	0.08	2130	0.11	1740	0.14	1520	0.16
ALLOY STEELS ACCIAIO LEGATO <1000 N/mm ² stahl-Legierungen	6050	0.04	3820	0.06	2300	0.08	1600	0.11	1310	0.14	1140	0.16
SOFT GREY CAST IRON GHISA GRIGIA TENERA <HB240, GG25 Weicher Grauguss	10760	0.05	6790	0.08	4090	0.10	2850	0.14	2320	0.18	2030	0.20
HARD GREY CAST IRON GHISA GRIGIA DURA <HB300, GG40 Harter Grauguss	8070	0.05	5090	0.08	3070	0.10	2130	0.14	1740	0.18	1520	0.20
STAINLESS STEELS ACCIAIO INOX Edestahle	4300	0.03	2720	0.05	1640	0.07	1140	0.09	930	0.11	810	0.13
AL-SI ALLOY, Si<10% LEGA DI ALLUMINIO, Si<10% AL-SI Legierungen Si<10%	18340	0.06	11570	0.10	6970	0.13	4850	0.18	3960	0.22	3460	0.25
AL-SI ALLOY, Si>10% LEGA DI ALLUMINIO, Si>10% AL-SI Legierungen Si>10%	14670	0.06	9260	0.10	5570	0.13	3880	0.18	3170	0.22	2770	0.25
Ti, Ni ALLOY STEELS SUPER LEGHE, Ti, Ni Ti-Ni Legierungen Stahle	4030	0.03	2550	0.05	1530	0.07	1070	0.09	870	0.11	760	0.13

Speed & Feed Data and Characteristics

Schittwerte und Eigenheiten

Parametri di taglio punta Starmill

PRP3D - PRP3DM - PRP5DM - PRP5DF - PRP8DF - PRP12DF

MATERIAL WERKSTOFF MATERIALI	VELOCITÀ DI TAGLIO (Speed)	AVANZAMENTO PER GIRO (mm) RIFERITI AL DIAMETRO (Feed)										
		Ø 3	Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 18	Ø 20
Acciai automatici	110-130	0,12	0,14	0,18	0,2	0,25	0,28	0,30	0,35	0,38	0,40	0,40
Acciai non legati, acciai da costruzione	95-110	0,10	0,14	0,16	0,2	0,25	0,28	0,30	0,35	0,38	0,40	0,42
Acciai mediamente legati oltre 1000N/mm ²	70-80	0,10	0,14	0,16	0,18	0,20	0,25	0,28	0,30	0,35	0,38	0,40
Acciai fortemente legati oltre 1000N/mm ²	40-60	0,08	0,10	0,10	0,12	0,14	0,18	0,25	0,28	0,30	0,32	0,32
Acciai inossidabile	50-60	0,06	0,08	0,08	0,1	0,13	0,16	0,18	0,20	0,20	0,25	0,25
Ghisa maleabile, ghisa grigia fino a 200 HB	110-130	0,16	0,20	0,25	0,28	0,30	0,35	0,40	0,45	0,50	0,50	0,55
Oltre 200 HB	75-90	0,15	0,18	0,25	0,28	0,30	0,35	0,40	0,45	0,50	0,50	0,55
Oltre 250 HB	65-80	0,13	0,16	0,20	0,25	0,25	0,30	0,35	0,40	0,45	0,45	0,45
Ghisa temperata da 350 a 450 HB	30-40	0,06	0,07	0,07	0,08	0,10	0,12	0,14	0,14	0,16	0,18	0,20

I SOPRACITATI VALORI DI AVANZAMENTO SI RIFERISCONO AD UNA PROFONDITÀ DI FORATURA DI 3XD. PER OTTENERE GLI AVANZAMENTI RELATIVI A PUNTE CON LUNGHEZZA DI FORATURA MAGGIORE È NECESSARIO MOLTIPLICARE TALE VALORE CON IL FATTORE DI CORREZIONE D'AVANZAMENTO Kfz COME DA TABELLA SEGUENTE.

Profondità foratura	3XD	5XD	8XD	12XD
Kfz	1	0,8	0,7	0,6

N.B.: i sopracitati parametri sono da considerare indicativi in quanto vi sono delle variabili che possono cambiare in maniera sensibile la prestazione delle punte stesse. Ad esempio l'attrezzatura per il serraggio dell'utensile, il fissaggio del pezzo, la rigidità della macchina utensile etc. Prima di procedere all'operazione di foratura controllare che l'eccentricità della punta misurata sullo spigolo tagliente non superi 0,015 mm, inoltre la lubrificazione interna alle punte dovrebbe essere non inferiore a 15 BAR. In caso di foratura di acciaio inox aumentare possibilmente la percentuale di contenuto d'olio all'interno dell'emulsione.

Powder steel Infinity twist drills, TiN-CrN coated
Pulver stahl Infinity spiralbohrer, TiN-CrN Beschichtet
Punte elicoidali in acciaio sinterizzato, rivestite TiN-CrN

PRPPME-PRPPMC

MATERIAL WERKSTOFF MATERIALE	CARBON STEELS BAUSTÄHLE ACCIAI AL CARBONIO		ALLOYS STEELS STAHLLEGIERUNGEN ACCIAI LEGATI		TOOL STEELS WERKZEUGSTÄHLE ACCIAI PER UTENSILI		CAST IRON GRAUGUSS GHISA LEGATA		ALUMINIUM ALLOY MAGNESIUM ALLOY ALUMINIUM-LEGIERUNGEN MAGNESIUM-LEGIERUNGEN LEGHE DI ALLUMINIO LEGHE DI MAGNESIO	
HARDNESS/DUREZZA										
STRENGTH/RESISTENZA										
DIAMETRO	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.	RPM GIRI/min.	FEED AVANZ.
2	4620	0.09	3960	0.09	1870	0.09	11550	0.12	11550	0.18
3	3190	0.14	2750	0.14	1100	0.14	11550	0.15	11550	0.28
4	2310	0.15	2090	0.15	935	0.15	8800	0.19	8800	0.33
5	1870	0.18	1650	0.18	715	0.18	7150	0.22	7150	0.40
6	1430	0.19	1430	0.19	605	0.19	8720	0.25	5720	0.46
8	1100	0.23	1045	0.23	440	0.23	4620	0.29	4620	0.52
10	935	0.28	825	0.28	330	0.28	3740	0.35	3740	0.62
12	770	0.33	715	0.33	308	0.33	2970	0.42	2970	0.74
14	605	0.39	550	0.39	264	0.39	2640	0.44	26440	0.79
16	572	0.42	517	0.42	231	0.42	2310	0.46	2310	0.85
18	495	0.48	462	0.48	209	0.48	2090	0.50	2080	0.88
20	440	0.50	385	0.50	187	0.50	1760	0.56	1760	0.96
22	407	0.55	374	0.55	176	0.55	1650	0.57	1650	1.05
24	385	0.57	330	0.57	165	0.57	1540	0.64	1540	1.10
26	352	0.61	308	0.61	143	0.61	1430	0.66	1430	1.16
28	330	0.66	286	0.66	132	0.66	1320	0.69	1320	1.21
30	308	0.69	264	0.69	115.5	0.69	1210	0.81	1210	1.27
32	286	0.75	253	0.75	115.5	0.75	1045	0.81	1045	1.32

RPM = rev./min
FEED = mm/min
AVANZAMENTO = mm/min

Technische Daten - Dati tecnici

Characteristic

- Prealpina's INFINITY Drill Series are suitable for high speed and accurate drilling operations by special design and high quality.
- Good performance for Steels, Cast Irons, Tool steels, Alloy steels and Steels and Stainless steels.
- Rapid chip evacuation and excellent chip breaking can be achieved by special designed cutting edges on point and chip breakers on leading edges.
- High accuracy and stability.
- Longer tool life by TiN, TiCN, TiAlN coating.
- Self-centering.

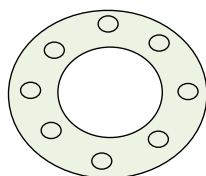
Merkmale

- Prealpina's INFINITY Bohrer Serien sind durch Ihre spezielle Konstruktion und höchste Genauigkeit geeignet zum Hochgeschwindigkeitsbohren und für genaue Bohrvorgänge.
- Gute Leistung bei Stählen, Grauguss, Werkzeugstählen, Stahllegierungen sowie bei Rost- und Säurebeständigen Stählen.
- Schnelle Spanabfuhr und hervorragender Spanbruch durch speziell entwickelte Schneidengeometrien und Spanbrechern.
- Höhere Genauigkeit und Stabilität.
- Höhere Standzeiten durch TiN-, TiCN-, TiAlN-Beschichtungen.
- Selbstzentrierend.

Caratteristiche

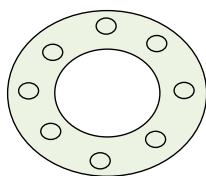
- Le punte INFINITY Prealpina grazie alla loro speciale costruzione e alta precisione si adattano a forature ad alta velocità garantendo un'ottima precisione.
- Buone prestazioni su acciai, ghisa legata, acciai per utensili, acciai legati e inossidabili.
- Buona evacuazione del truciolo e rottura dello stesso grazie alla particolare geometria del tagliente.
- Alta precisione e stabilità.
- I rivestimenti TiN, TiCN, TiAlN permettono maggiori tempi di contatto.
- Autocentranti.

Drilling Parameters Bohr-Parameter Parametri di foratura



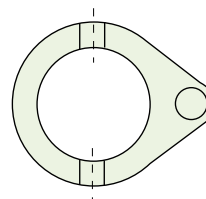
- CAST STEELS, HRc 20
- PRP3D, 8.1mm dia. INFINITY DRILL, TiN
- Hole Depth = 30 mm, Blind Hole
- 3000 RPM
- 0.20 mm/min.
- Soluble oil
- 15,000 Holes Drilling

- ACCIAIO FUSO, HRc 20
- PRP3D, 8.1mm dia. Punta INFINITY, TiN
- Profondità foro = 30 mm = foro cieco
- 3000 RPM
- 0.20 mm/min.
- Olio solubile
- 15,000 Forature



- SUS 304 (STAINLESS STEELS SUS 304)
- PRP5DF, 16.0 mm dia. INFINITY DRILL with Colant Holes, TiN
- Hole Depth = 25 mm Blind Hole
- 850RPM
- 0.20 mm/min.
- Soluble oil
- 400 Holes Drilling

- AISI 304 (ACCIAI INOSSIDABILI AISI 304)
- PRP5DF, 16.0 mm dia. Punta INFINITY c/foro per refrigerante, TiN
- Profondità foro = 25 mm = foro cieco
- 850RPM
- 0.20 mm/min.
- Olio solubile
- 400 Forature

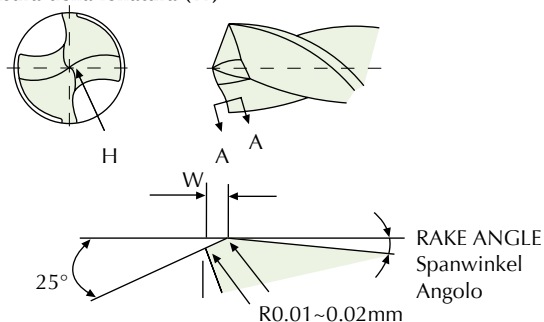


- 1,2080 (HARDENED STEELS), HRc20
- PRP3D, 7.8 mm dia. INFINITY DRILL, TiCN
- Hole Depth = 12 mm Both Side, Thru Hole
- 2000 RPM
- 0.15 mm/min.
- Soluble oil
- 2,400 Holes Drilling

- 1,2080 (ACCIAI TEMPRATI), HRc20
- PRP3D, 7.8 mm dia. Punta INFINITY, TiCN
- Profondità foro = 12 mm, foro passante
- 2000 RPM
- 0.15 mm/min.
- Olio solubile
- 2,400 Forature

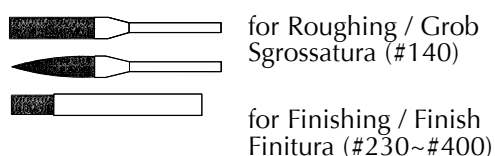
Honing Guide - Hinweis zum Honen - Istruzioni per affilare

■ Dimension of Honing - Abmessung beim Honen Misura della lonatura (W)



► Section A-A
Sezione A-A

■ Scraper - Schaben - Lime

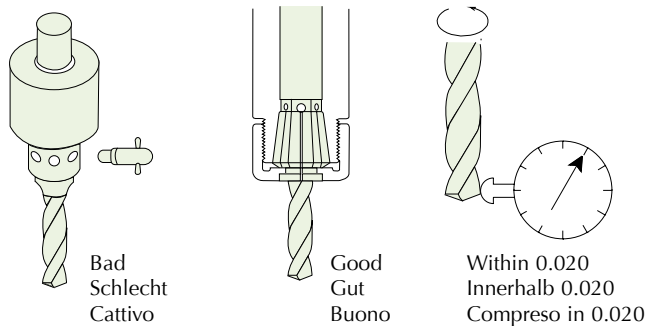


WORK MATERIAL WERKSTOFF MATERIALE	MILD STEEL WEICHE STÄHLE ACCIAI TENERI	HARD STEEL HARTE STÄHLE ACCIAI DURI	CAST IRON GRAUGUSS GHISA LEGATA
W(mm)	0.15~0.2	0.1~0.15	0.03

► The dimension W of stocked products is 0.1~0.15.
Das Maß W ist bei lagerhaltigen Produkten 0.1~0.15.
I prodotti a magazzino hanno W = 0.1~0.15.

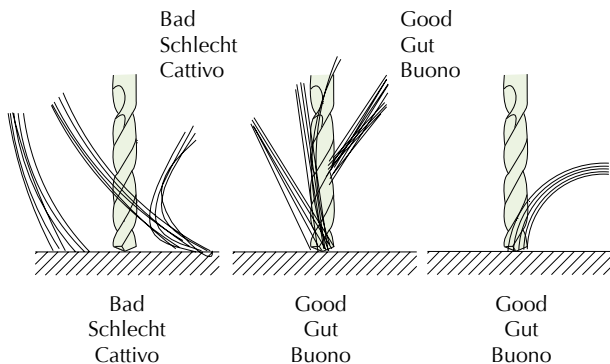
Technische Daten - Dati tecnici

Use of INFINITY DRILL - Verwendung von INFINITY BOHRER - Utilizzo delle punte INFINITY



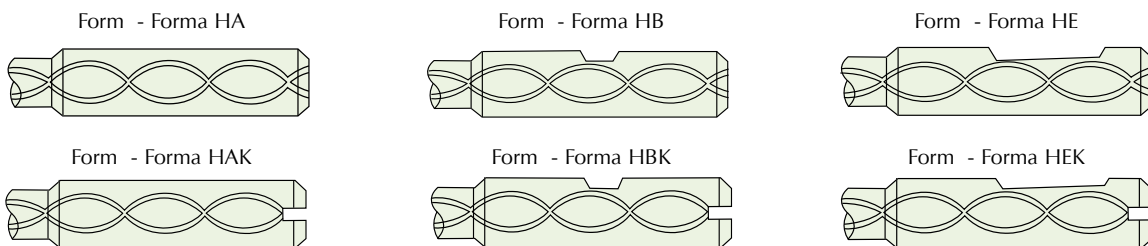
- ▶ Chucking with spring collet correctly. Richtiges Spannen mit Spannzangen. Fissaggio con pinze corrette.
- ▶ Radial run out at cutting lip must not exceed 0.025 mm. Radialer Rundlauf an der Schneidlippe darf nicht 0.025 überschreiten. Eccentricità radiale sull'angolo del tagliente non deve superare i 0.025.

- ▶ Tighten clamp of work piece. Sicheres Spannen des Werkstückes. Fissaggio sicuro del pezzo da lavorare.



- ▶ Supply enough coolant enoughly to the entrance of hole. Ausreichend Kühlmittelzufluss am Bohrloch. Far arrivare sufficiente liquido refrigerante all'entrata del foro.
- ▶ In using INFINITY Drill with Coolant need high pressure coolant. Beim Verwenden von INFINITY BOHRER mit Kühlkanal wird Hochdruckkühlung benötigt. Le punte INFINITY con refrigerante necessitano di grande pressione.

Shank Type INFINITY DRILL with Coolant Holes - Schaftausführung INFINITY BOHRER mit Kühlkanal Gambo punte INFINITY con fori per refrigerante



- ▶ Shank Type of stocked products is Form HA. Schaftausführung von lagerhaltigen Produkten ist HA. Il gambo delle punte a magazzino è della forma HA.

- ▶ If you need other Shank Type, we can supply them. Andere Schaftausführungen können geliefert werden. È possibile, a richiesta, fornire anche le altre tipologie.

Tolerance - Toleranz - Tolleranze

$\mu\text{m} = 1/1000 \text{ mm}$

diameter (mm) tolerance diametro (mm) tolleranza	1-3 from to über bis da 1 a 3	3-6 over to über bis da 3 a 6	6-10 over to über bis da 6 a 10	10-18 over to über bis da 10 a 18	18-30 over to über bis da 18 a 30
h6	0 -6	0 -8	0 -9	0 -11	0 -13
h7	0 -10	0 -12	0 -15	0 -18	0 -21
h8	0 -14	0 -18	0 -22	0 -27	0 -33
m7	+12 +2	+16 +4	+21 +6	+25 +7	+29 +8

	METRISCH METRIC METRICO	ZOLL IMPERIAL POLLICI
Vc = Schnittgeschwindigkeit Vc = Cutting speed Vc = velocità di taglio	m/min	ft/min
D = Fräserdurchmesser D = Cutter-diameter D = diametro freza	mm	inch
n = Umdrehung pro min. n = revolution per min n = giri al minuto		
S = Vorschub pro Umdrehung S = feed per revolution S = avanzamento per giro	mm	inch
Vf = Vorschub pro min Vf = feed per min Vf = avanzamento al min	mm	inch
fz = Vorschub pro Zahn fz = feed per teeth fz = avanzamento per dente	mm	inch
Z = Zähnezahl Z = No. of teeth Z = nr. taglienti		
Q = Spanvolumen Q = chip-volume Q = volume truciolo	cm ³ /min	cub. inch/min
A = Schnitttiefe A = depth of cut A = profondità del taglio	mm	inch
a = Schnittbreite a = length of cut a = lunghezza del taglio	mm	inch
T = Bearbeitungszeit T = Machining time T = tempo di lavorazione	min	min
lf = Fräslänge lf = length of workpiece lf = lunghezza fresatura	mm	inch

METRISCH METRIC METRICO	ZOLL IMPERIAL POLLICI
$V_c = \frac{\pi \cdot D \cdot n}{1000}$	$V_c = \frac{\pi \cdot D \cdot n}{12}$
$n = \frac{V_c \cdot 1000}{\pi \cdot D}$	$n = \frac{V_c \cdot 12}{\pi \cdot D}$
$S = \frac{V_f}{n}$	$S = \frac{V_f}{n}$
$f_z = \frac{V_f}{n \cdot Z}$	$f_z = \frac{V_f}{n \cdot Z}$
$V_f = n \cdot z \cdot f_z$	$V_f = n \cdot z \cdot f_z$
$Q = \frac{A \cdot a \cdot V_f}{1000}$	$Q = A \cdot a \cdot V_f$
$T = \frac{l_f}{V_f}$	$T = \frac{l_f}{V_f}$

