



LEGENDA DEI SIMBOLI E DELLE ABBREVIAZIONI
EXPLANATION OF SYMBOLS AND ABBREVIATIONS
LEGENDE

M Materiale forante
Drilling tip material
Bohrschneide Material

P Placchetta
Tip
Schneide

 Lama con intagli
riempiti con materiale
fonoassorbente
Sawblade with low noise
slots filled with sound-
absorbing resin
Geräuschreduzierte
Sägeblätter mit
Kunstharz-Inlays

● Tutte le dimensioni sono in [mm]
All the dimensions are in [mm]
Alle Angaben in [mm]



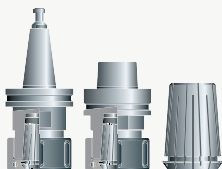
CNC 2017

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MANDRINI PORTAFRESE

PRECISION CHUCKS
SPRING COLLETS
TOOLING HOLDER CHUCKS

FRÄSDORNE
SPANNFUTTER
SPANNZANGEN 3



TIPDI DI MANDRINI
TYPE OF CHUCKS

SCHNITTSTELLENÜBERSICHT 4

MN54 5
MN51 5
MN53 6
MN5703 7
MN66 7

CHIAVE DINAMOMETRICA
TORQUE WRENCH

DREHMOMENTSCHLÜSSEL 8

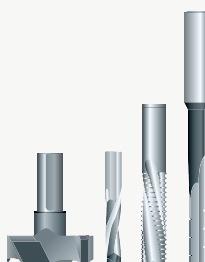
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PUNTE COMBINIBILI
PUNTE PER CERNIERE
PUNTE PER MORTASARE

SOLID HW ROUTERS
DOWEL DRILLS
HINGE BORING BITS
MORTISE DRILLS

VHW SCHAFTFRÄSER
DÜBELBOHRER
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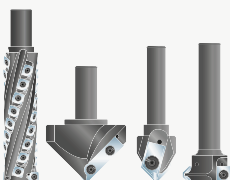
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PUNTE A COLTELLINO
DRITTE E SAGOMATE

STRAIGHT
AND PROFILED
KNIFE ROUTERS

SCHAFTWERKZEUGE 27



PH71FM 28
PH72FM 29
PH73FM 30
PH74FM 31
PH75FM 32
GP29FM10 33
PH29FA05 33
PH76FM 34
PH77FM01 35
PH78FM 36
PH79FM 37
PH80FM 38
PH81FM 39
PH82FM 40
PH83FM 41
PH84FM01 42

PH89FM01 43
PH90FM 44
PH85FM 45
PH91FM01 47
PH86FM 48
PH87FM 49
PH88FM 50
PH88FM10 51
PH88FM20 52
PH88FM30 53
PH88FM40 54
PH92FM 55
PH93FM 57
PH94FM 59
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LINEA UTENSILI IN DIAMANTE
DIAMOND TOOLS LINE
DIAMANT-WERKZEUGE 63



PD10FD 64
PD11FD 65
PD12FD 65
PD13FD 66
PD14FD 67
PD15FD 68
PD16FD 69
PD17FD 70
PD18FD 71
PD19FD 72
PD20FD 73
PD21FD 73
PD26FD 74
PD22FD 75
PD23FD 76
PD24FD 76
PD25FD 77

FD01FD 78
FD02FD 79
FD03FD 80
FD04FD 81
FD05FD 82
FD06FD 83
FD07FD 84
TD01FD 85
TD02FD 86
GP27FM 87
FD08FD 88
LD01FD 89
LD02FD 90
LD03FD 91
LD04FD 92
LD05FD 93

MANDRINI PORTAPINZE
PINZE DI PRECISIONE
MANDRINI PORTAFRESE

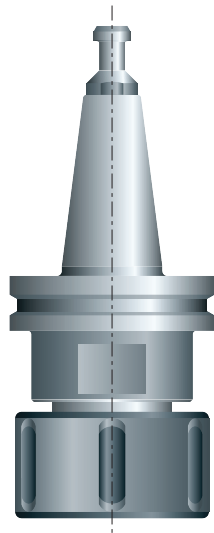
PRECISION CHUCKS
SPRING COLLETS
TOOLING HOLDER CHUCKS

FRÄSDORNE
SPANNFUTTER
SPANNZANGEN

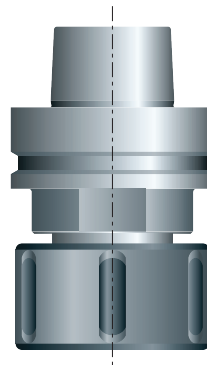


TIPI DI MANDRINI
TYPE OF CHUCKS
SCHNITTSTELLENÜBERSICHT

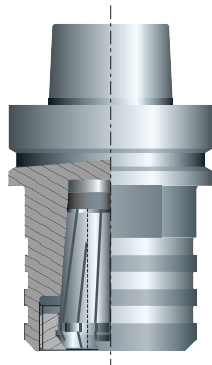
ISO 30



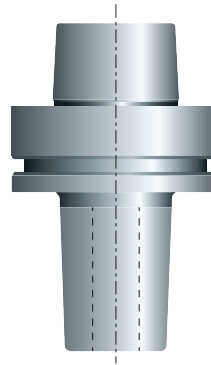
HSK 63F



HSK63 F
HIGH ROTATION
SPEED

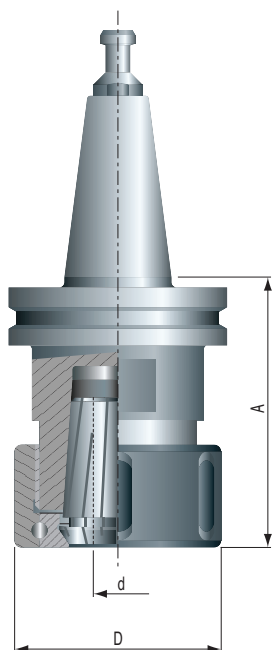


HSK 63F
SHRINK FIT



MN54

MANDRINI PORTAPINZA CON CONO ISO 30 GHIERA DI BLOCCAGGIO CON CUSCINETTO PRECISION CHUCKS ISO 30 WITH BALL-BEARING COLLET NUT SPANNZANGENFUTTER ISO 30 MIT KUGELGELAGERTER SPANNMUTTER



* Per / For / Für: Biesse

Esecuzione cono DIN 69871 per pinze a norme DIN 6388 A,B,E e DIN 6499 (senza incastri e incavi).
Corpo e ghiera perfettamente equilibrati.

La ghiera con cuscinetto permette una maggior forza di bloccaggio con rotazione destra o sinistra.

Steep taper design according to DIN 69871 without grooves or notches and suitable for spring collets manufactured according to DIN 6388 A,B,E and DIN 6499. Tool body and collet nut perfectly balanced.

Suitable for both right and left hand rotation.

Steilkegelausführung nach DIN 69871, ohne Nuten und Kerben für Spannzangen nach DIN 6388 A,B,E und DIN 6499. Technische Daten: Gehärtet und geschliffen, fein gewuchtet.

Die kugellagerte Spannmutter sorgt für hohe Spannkraft und schont die doppeltgeschlitzten Spannzangen, sowie den Innenkonus des Futter.

Auch für Linkslauf lieferbar.

Ø D [mm]	A [mm]	Ø d [mm]	Type	Art. Nr.	€
50	68	3-20	ER32	MN5411	
63	68	3-26	ER40	MN5413	
60	68	2-26	OZ25	MN5415	
50	50	3-20	ER32	MN5417*	
63	60	3-26	ER40	MN5419*	

Il mandrino viene fornito completo di tirante (specificare la macchina). Per le pinze elastiche vedi pag. 9.

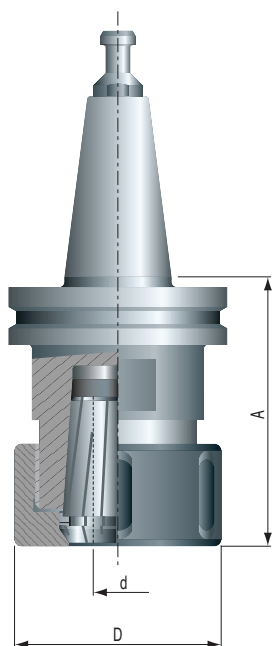
The chuck includes the ball-bearing collet nut and the terminal pin which are listed on page 9.

For spring collets, please turn to page 9.

Lieferumfang: Ohne Spannzange, ohne Schlüssel, mit kugellagerter Spannmutter und Anzugsbolzen je nach Maschinentype. Spannzangen siehe Seite 9.

MN51

MANDRINI PORTAPINZA CON CONO ISO 30 GHIERA DI BLOCCAGGIO SENZA CUSCINETTO PRECISION CHUCKS ISO 30 WITH COLLET NUT WITHOUT BALL-BEARING SPANNZANGENFUTTER ISO 30 OHNE KUGELGELAGERTE SPANNMUTTER



* Per / For / Für: Biesse

Esecuzione cono DIN 69871 per pinze a norme DIN 6388 A,B,E e DIN 6499 (senza incastri e incavi).
Corpo e ghiera perfettamente equilibrati.

Steep taper design according to DIN 69871 without grooves or notches and suitable for spring collets manufactured according to DIN 6388 A,B,E and DIN 6499.

Tool body and collet nut perfectly balanced.

Steilkegelausführung nach DIN 69871, ohne Nuten und Kerben für Spannzangen nach DIN 6388 A,B,E und DIN 6499.

Technische Daten: Gehärtet und geschliffen, fein gewuchtet.

Auch für Linkslauf lieferbar.

Ø D [mm]	A [mm]	Ø d [mm]	Type	Art. Nr.	€
50	68	3-20	ER32	MN5111	
63	68	3-26	ER40	MN5113	
50	50	3-20	ER32	MN5115*	
63	60	3-26	ER40	MN5117*	

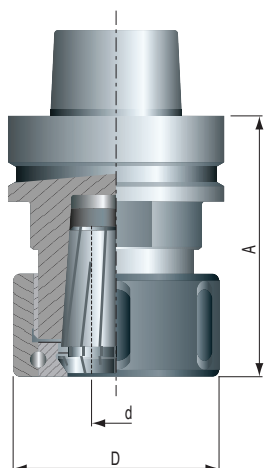
Il mandrino viene fornito completo di tirante (specificare la macchina). Per le pinze elastiche vedi pag. 9.

The chuck includes the collet nut and the terminal pin which are listed on page 9.

For spring collets, please turn to page 9.

Lieferumfang: Ohne Spannzange, ohne Schlüssel, mit Spannmutter und Anzugsbolzen je nach Maschinentype. Spannzangen siehe Seite 9.

MN53



MANDRINI PORTAPINZA CON CONO HSK 63F GHIERA DI BLOCCAGGIO CON CUSCINETTO PRECISION CHUCKS HSK 63F WITH BALL-BEARING COLLET NUT SPANNZANGENFUTTER HSK 63F MIT KUGELGELAGERTER SPANNMUTTER

Esecuzione cono V DIN 69893-6 Form F per pinze a norme DIN 6388 A,B,E e DIN 6499.

Corpo e ghiera perfettamente equilibrati.

La ghiera con cuscinetto permette una maggior forza di bloccaggio con rotazione destra o sinistra.

Hollow taper shank according to V DIN 69893-6 Form F and suitable for spring collets manufactured according to DIN 6388 A,B,E and DIN 6499. Tool body and collet nut perfectly balanced.

Ball bearing collet nut for an increased clamping pressure and improved concentricity.

Suitable for both right and left hand rotation.

Mit Hohlkegelschaft nach Norm V DIN 69893-6 Form F, passend für Spannzangen nach DIN 6388 A,B,E und DIN 6499.

Technische Daten: Gehärtet und geschliffen, fein gewuchtet.

Die kugellagerte Spannmutter sorgt für hohe Spannkraft und schont die doppeltgeschlitzten Spannzangen, sowie den Innenkonus des Futters.

Auch für Linkslauf lieferbar.

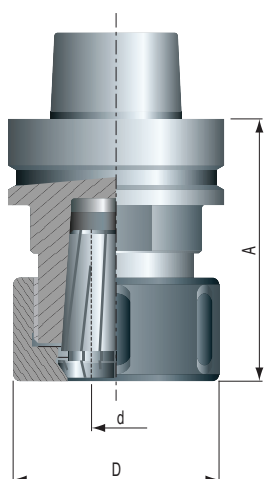
Ø D [mm]	A [mm]	Ø d [mm]	Type	Art. Nr.	€
50	75	3-20	ER32	MN5321	
63	78	3-26	ER40	MN5323	
60	78	2-26	OZ25	MN5325	

Il mandrino viene fornito completo di ghiera. Per le pinze elastiche vedi pag. 9.

The chuck includes the ball-bearing collet nut. For spring collets, please turn to page 9.

Lieferumfang: Ohne Spannzange, ohne Schlüssel, mit kugellagerter Spannmutter. Spannzangen siehe Seiten 9.

MN53



MANDRINI PORTAPINZA CON CONO HSK 63F GHIERA DI BLOCCAGGIO SENZA CUSCINETTO PRECISION CHUCKS HSK 63F WITH COLLET NUT WITHOUT BALL-BEARING SPANNZANGENFUTTER HSK 63F OHNE KUGELGELAGERTE SPANNMUTTER

Esecuzione cono V DIN 69893-6 Form F per pinze a norme DIN 6388 A,B,E e DIN 6499.

Corpo e ghiera perfettamente equilibrati.

Hollow taper shank according to V DIN 69893-6 Form F and suitable for spring collets manufactured according to DIN 6388 A,B,E and DIN 6499.

Tool body and collet nut perfectly balanced.

Mit Hohlkegelschaft nach Norm V DIN 69893-6 Form F, passend für Spannzangen nach DIN 6388 A,B,E und DIN 6499.

Technische Daten: Gehärtet und geschliffen, fein gewuchtet.

Linkslauf lieferbar.

Ø D [mm]	A [mm]	Ø d [mm]	Type	Art. Nr.	€
50	75	3-20	ER32	MN5327	
63	78	3-26	ER40	MN5329	

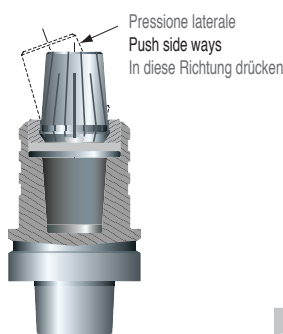
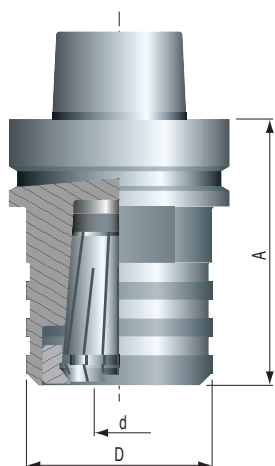
Il mandrino viene fornito completo di ghiera. Per le pinze elastiche vedi pag. 9.

The chuck includes the ball-bearing collet nut. For spring collets, please turn to page 9.

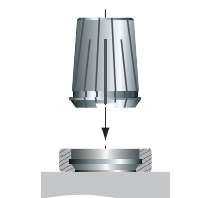
Lieferumfang: Ohne Spannzange, ohne Schlüssel, mit kugellagerter Spannmutter. Spannzangen siehe Seiten 9.

MN5703

MANDRINI PORTAPINZA PER ALTE VELOCITÀ CON CONO HSK 63F HIGH ROTATION SPEED CHUCKS HSK 63F SPANNZANGENFUTTER HSK 63F MIT INNENLIEGENDER SPANNMUTTER



Sistema per sostituzione pinza
Spring collect changing system
Entfernen der Spannmutter



Sistema di inserimento pinza
Spring collect connecting system
Einsetzen der Spannmutter

Esecuzione cono V DIN 69893-6 Form F per pinze a norme DIN 6388 A,B,E e DIN 6499.
Corpo e ghiera perfettamente equilibrati.
Utilizzo fino alla velocità di 30.000 g/min. con rotazione destra o sinistra.

Hollow taper shank according to V DIN 69893-6 Form F and suitable for spring collets manufactured according to DIN 6388 A,B,E and DIN 6499.
Tool body and collet nut perfectly balanced.
Suitable for both right and left hand rotation up to n. 30.000 rpm.

CNC Spannzangenfutter HSK 63F mit innenliegender Spannmutter für Schaftfräser, Oberfräser und Schaftwerkzeuge, für OZ25/462E Spannzangen nach DIN 6388 (Art. P286). Mit Rundlaufgenauigkeiten von 0,005 mm stehen diese Aufnahmen einem Schrumpffutter in nichts nach. Vorteil: zusätzliche Flexibilität durch Aufnahme von Spannzangen unterschiedlicher Durchmesser. Max. Drehzahl 36000 min⁻¹. Bestens geeignet für 5-Achs Anwendungen, z.B. im Treppenaufbau.

Ø D [mm]	A [mm]	Ø d [mm]	Type	Art. Nr.	€
60	76	2-25	OZ25	MN5703	

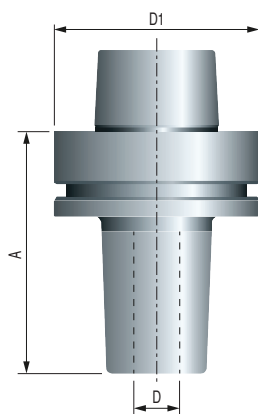
Il mandrino viene fornito completo di ghiera. Per le pinze elastiche vedi pag. 9.

The chuck includes the ball-bearing collet nut. For spring collets, please turn to page 9.

Lieferumfang: Ohne Spannzange, ohne Schlüssel, mit kugellagerter Spannmutter. Spannzangen siehe Seiten 9.

MN66

MANDRINI PORTAPINZA CON CONO HSK-63F PER CALETTAMENTO A CALDO SHRINK FIT CHUCKS HSK 63F THERMO-SCHRUMPFSPANNFUTTER HSK 63F



I mandrini portapinza a calettamento sfruttano la dilatazione termica del cono generata dalla stazione di calettamento, per poterci inserire utensili in HW e HS. Il successivo raffreddamento mediante l'apposito modulo, riporta il cono alle dimensioni originarie garantendo così una stretta sicura e stabile.

Portautensili ad alta precisione grazie alla stretta termica. Le elevate stabilità e rigidità li rendono adatti per lavorazioni particolarmente gravose. Alloggiano utensili con gambi cilindrico tolleranza h6.

These high precision tool holders ensure high precision thanks to the special tight on the shank tool by thermal clamping. The collet is heated with the special shrink fit unit, causing it to expand. The shank is inserted and the collet is cooled to ambient temperature with the cooling machine.

High precision tool holders with thermal induced shrink fit. Suitable for HS and HW cutting tools and heavy CNC workings due to their high rigidity and high balance.

Diese hochpräzisen Werkzeugträger sorgen für höchste Präzision, dank der speziellen Dichtung am Schaftwerkzeug durch thermisches Spannen.

Die Spannzange wird mit der speziellen Schrumpfeinheit erwärmt, wodurch sie sich ausdehnt. Der Schaft wird eingefügt und die Spannzange wird mit der Kühlmaschine auf Umgebungstemperatur abgekühlt.

Hochpräzise Thermo-Schrumpfschraubfutter, geeignet zur Aufnahme von HS sowie HW-Werkzeugen im Bereich Hochleistungs-CNC-Bearbeitung durch höchste Steifigkeit und Rundlaufgenauigkeit.

Ø D [mm]	A [mm]	Ø d [mm]	Art. Nr.	€
63	76	8	MN6601	
63	76	10	MN6602	
63	76	12	MN6603	
63	76	1 1/2" (12,7 mm)	MN6604	
63	76	16	MN6605	
63	76	3/4" (19,05 mm)	MN6606	
63	76	20	MN6607	
63	76	25	MN6608	

400512 CHIAVE DINAMOMETRICA TORQUE WRENCH DREHMOMENTSCHLÜSSEL

Il rapido sistema di sostituzione dell'utensile con meccanismo di blocco del perno garantisce un'operazione rapida e flessibile. Precisione di $\pm 3\%$ dal valore impostato, conforme alla norma DIN EN ISO 6789:2003.

Il movimento torsionometrico udibile e tangibile previene l'eccessivo serraggio dei bulloni.

Dopo l'utilizzo, allentare la molla e impostarla sul valore più basso. Fornito con certificato di taratura.

Tool quick-change system with pin locking mechanism guarantees flexible and swift operation.

Accuracy of $\pm 3\%$ to the set value, in accordance with DIN EN ISO 6789:2003.

Acoustic and tangible torque triggering prevents over-tightening of bolts.

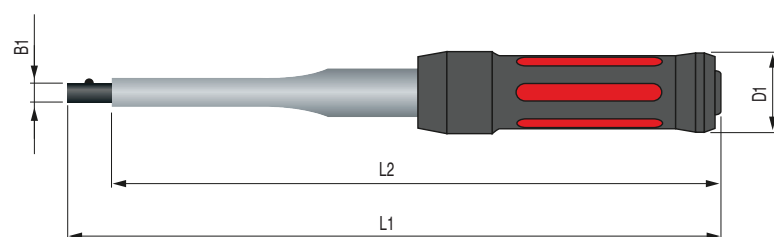
After use, relax spring and set to lowest value. Supplied with calibration certificate.

Werkzeug-Schnellwechselsystem mit Stiftsicherung garantiert flexibles und zügiges Arbeiten.

Genauigkeit von $\pm 3\%$ auf den eingestellten Wert, gemäß DIN EN ISO 6789:2003.

Akustische und fühlbare Wahrnehmung der Drehmomentauslösung verhindert ein Überdrehen der Schrauben.

Nach Gebrauch Feder entlasten und auf den niedrigsten Wert stellen. Mit Kalibrierzertifikat.



Ø profilo Wrench-drive Ø Antrieb [mm]	Gamma di misurazione Measuring range Messbereich		L1 [mm]	L2 [mm]	B1 [mm]	D1 [mm]	Art. Nr.	€
	Nm	lbf. in.						
16	40-200	30-150	423	390	16	37	400512	

CHIAVI PER MANDRINI PORTAPINZE SERVICING KEYS FOR SPRING COLLET CHUCKS SCHLÜSSEL FÜR SPANNMUTTERN



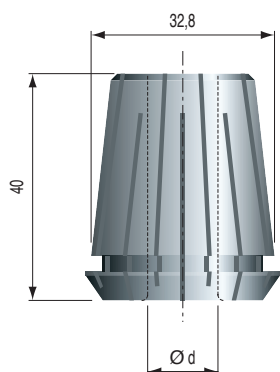
Chiavi per ghiera DIN 6388 Keys for collect nuts DIN 6388 Hakenschlüssel für Spannmutter DIN 6388	Nm	Art. Nr.	€
D = 45/50	120	400513	
D = 60/62 (ER40 / OZ25)	160	400514	



Chiavi per ghiera ERAZ Keys for collect nuts ERAZ Hakenschlüssel für Spannmutter ERAZ	Nm	Art. Nr.	€
OZ25	160	400515	

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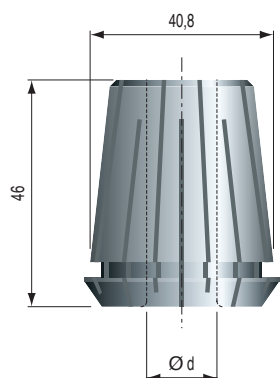
DIN 6499


PINZE DI PRECISIONE ER32
SPRING COLLETS FOR PRECISION CHUCKS ER32
PRÄZISIONS – SPANNZANGEN ER32

Ø D [mm]	Ø d [mm]	Type	Art. Nr.	€
4	(4-3)	470E / ER32	P28404	
6	(6-5)	470E / ER32	P28406	
7	(7-6,35-6)	470E / ER32	P28407	
8	(8-7)	470E / ER32	P28408	
10	(10-9,52-9)	470E / ER32	P28410	
12	(12-11)	470E / ER32	P28412	
13	(13-12,7-12)	470E / ER32	P28413	
14	(14-13)	470E / ER32	P28414	
16	(16-15,88-15)	470E / ER32	P28416	
18	(18-17)	470E / ER32	P28418	
20	(20-19,05-19)	470E / ER32	P28420	

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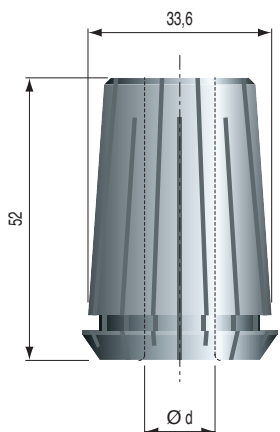
DIN 6499


PINZE DI PRECISIONE ER40
SPRING COLLETS FOR PRECISION CHUCKS ER40
PRÄZISIONS – SPANNZANGEN ER40

Ø D [mm]	Ø d [mm]	Type	Art. Nr.	€
4	(4-3)	472E / ER40	P28504	
6	(6-5)	472E / ER40	P28506	
7	(7-6,35-6)	472E / ER40	P28507	
8	(8-7)	472E / ER40	P28508	
10	(10-9,52-9)	472E / ER40	P28510	
12	(12-11)	472E / ER40	P28512	
13	(13-12,7-12)	472E / ER40	P28513	
14	(14-13)	472E / ER40	P28514	
16	(16-15,88-15)	472E / ER40	P28516	
18	(18-17)	472E / ER40	P28518	
20	(20-19,05-19)	472E / ER40	P28520	
25	(25-24)	472E / ER40	P28525	
26	(26-25,4-25)	472E / ER40	P28526	

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DIN 6388


PINZE DI PRECISIONE OZ25
SPRING COLLETS FOR PRECISION CHUCKS OZ25
PRÄZISIONS – SPANNZANGEN OZ25

Ø D [mm]	Ø d [mm]	Type	Art. Nr.	€
3	(3-2)	462E / OZ25	P28603	
4	(4-3)	462E / OZ25	P28604	
6	(6-5)	462E / OZ25	P28606	
7	(7-6,35-6)	462E / OZ25	P28607	
8	(8-7)	462E / OZ25	P28608	
10	(10-9,52-9)	462E / OZ25	P28610	
12	(12-11)	462E / OZ25	P28612	
13	(13-12,7-12)	462E / OZ25	P28613	
14	(14-13)	462E / OZ25	P28614	
16	(16-15,88-15)	462E / OZ25	P28616	
18	(18-17)	462E / OZ25	P28618	
20	(20-19,05-19)	462E / OZ25	P28620	
25	(25-24)	462E / OZ25	P28625	

DBM

DISPOSITIVO BLOCCAGGIO MANDRINI

CHUCKS MOUNTING DEVICE

MONTAGEVORRICHTUNG



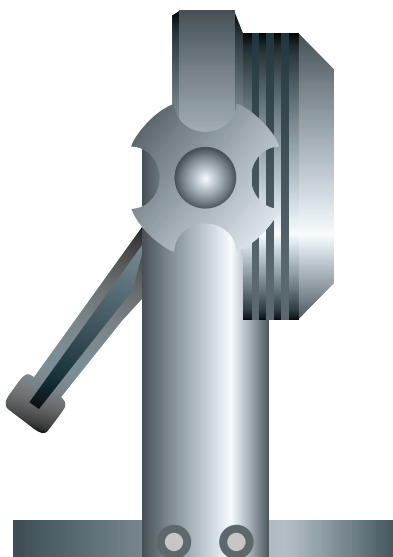
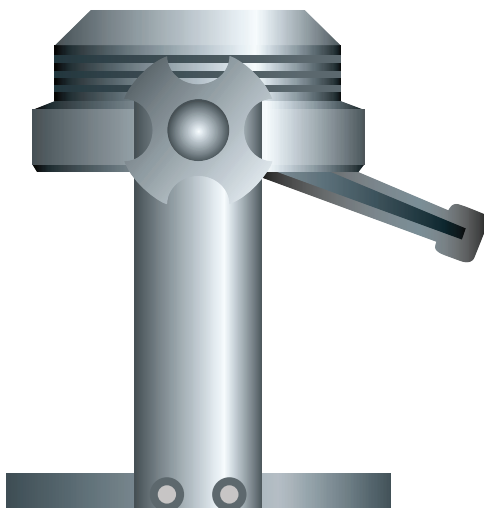
Dispositivo per il bloccaggio di mandrini portafrese e portapinze.

Device for safe assembling and disassembling of cutterheads mounted on tooling holder chucks.

Vorrichtung für die sichere Montage- und Demontage von Werkzeugen auf Fräsdornen und in Spannfuttern.

Ø D [mm]	Type	Art. Nr.	€
50	ISO 30	DBMISO30	
58	ISO 30	DBMISO30*	
63,5	ISO 40	DBMISO40	
63	HSK 63F	DBMHSKF63	

* Per / For / Für: Elte, Esseteam



PUNTE ELICOIDALI IN HW
PUNTE componibili
PUNTE PER CERNIERE
PUNTE PER MORTASARE

SOLID HW ROUTERS
DOWEL DRILLS
HINGE BORING BITS
MORTISE DRILLS

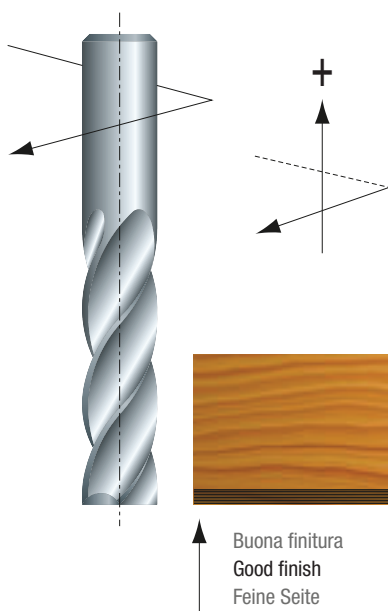
VHW SCHAFTFRÄSER
DÜBELBOHRER
BESCHLAGBOHRER
LANGLOCHBOHRER



ESEMPI DI IMPIEGO ROUTER APPLICATION TECHNISCHE ERLÄUTERUNGEN

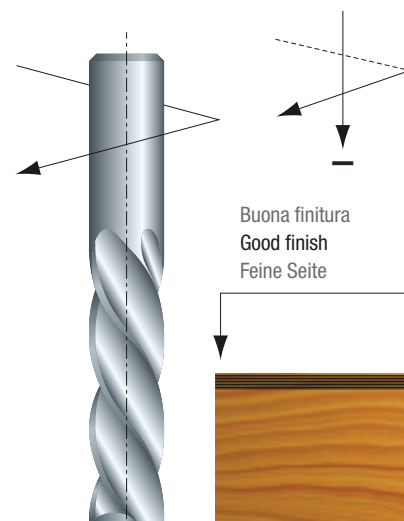
Rotazione destra
Elica destra positiva
Right hand rotation
Right hand spiral
(Positive spiral)
Rechtslauf
Rechtsdrill
(Positive Spirale)

Ⓐ



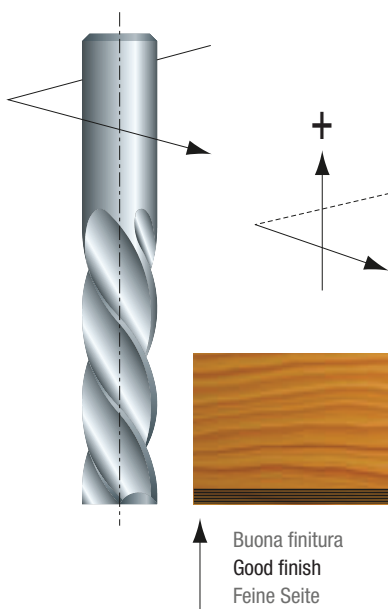
Rotazione destra
Elica sinistra negativa
Right hand rotation
Left hand spiral
(Negative spiral)
Rechtslauf
Linksdrill
(Negative Spirale)

Ⓑ



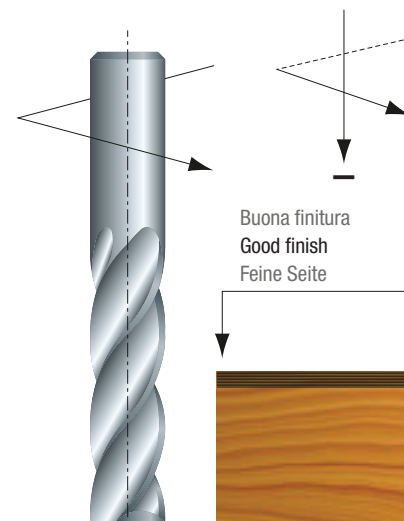
Rotazione sinistra
Elica sinistra positiva
Left hand rotation
Left hand spiral
(Positive spiral)
Linkslauf
Linksdrill
(Positive Spirale)

Ⓒ



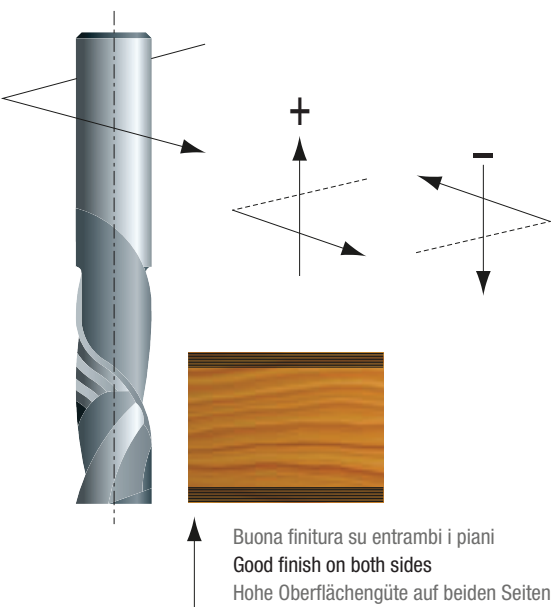
Rotazione sinistra
Elica destra negativa
Left hand rotation
Right hand spiral
(Negative spiral)
Linkslauf
Rechtsdrill
(Negative Spirale)

Ⓓ



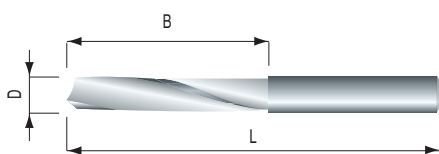
Rotazione destra
Elica destra positiva
Right hand rotation
Right hand spiral
(Positive spiral)
Rechtslauf
Rechtsdrill
(Positive Spirale)

Ⓔ



P174

HW | Z=1

PUNTE ELICOIDALI IN HW INTEGRALE - ELICA DESTRA - ESECUZIONE A
SOLID HW ROUTERS WITH RIGHT HAND SPIRAL - EXECUTION A
VHW SPIRALSCHLICHTFRÄSER MIT RECHTSDRALL - AUSFÜHRUNG A


Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
3	12	50	P174RM0312	
4	12	50	P174RM0412	
5	17	50	P174RM0517	
6	17	60	P174RM0617	
6	27	60	P174RM0627	
8	22	80	P174RM0822	
8	32	80	P174RM0832	
10	32	80	P174RM1032	
10	42	100	P174RM1042	
12	32	80	P174RM1232	
12	42	100	P174RM1242	

Impiego / Use / Anwendung

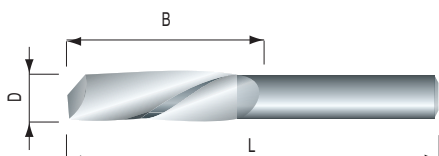
Lavori di foratura e contornatura
 For boring and routing operations
 Zum Bohren und Fräsen

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso l'alto (Positiva)
 Rotazione sinistra (C) a richiesta
 Right hand rotation = upward chip ejection (Positive)
 Left hand rotation (C) available on request
 Rechtsdrall = Spanauswurf nach oben (Positive)
 Linkslauf (C) auf Anfrage

P177

HW | Z=1

PUNTE ELICOIDALI IN HW INTEGRALE - ELICA SINISTRA - ESECUZIONE B
SOLID HW ROUTERS WITH LEFT HAND SPIRAL - EXECUTION B
VHW SPIRALSCHLICHTFRÄSER MIT LINKSDRALL - AUSFÜHRUNG B


Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
3	12	50	P177RM0312	
4	12	50	P177RM0412	
5	17	50	P177RM0517	
6	17	60	P177RM0617	
6	27	60	P177RM0627	
8	22	80	P177RM0822	
8	32	80	P177RM0832	
10	32	80	P177RM1032	
10	42	100	P177RM1042	
12	32	80	P177RM1232	
12	42	100	P177RM1242	
12	52	100	P177RM1252	

Impiego / Use / Anwendung

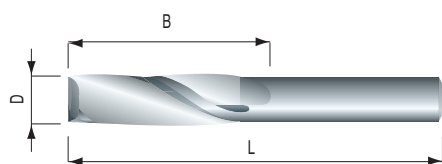
Lavori di foratura e contornatura
 For boring and routing operations
 Zum Bohren und Fräsen

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso il basso (Negativa)
 Rotazione sinistra (D) a richiesta
 Right hand rotation = downward chip ejection (Negative)
 Left hand rotation (D) available on request
 Rechtsdrall = Spanauswurf nach unten (Negative)
 Linkslauf (D) auf Anfrage

P175

HW | Z=2



PUNTE ELICOIDALI IN HW INTEGRALE - ELICA DESTRA - ESECUZIONE A **SOLID HW ROUTERS WITH RIGHT HAND SPIRAL - EXECUTION A** **VHW SPIRALSCHLICHTFRÄSER MIT RECHTSDRALL - AUSFÜHRUNG A**

Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
3	12	50	P175RM0312	
4	12	50	P175RM0412	
5	17	50	P175RM0517	
6	17	60	P175RM0617	
6	27	60	P175RM0627	
8	22	80	P175RM0822	
8	32	80	P175RM0832	
10	32	80	P175RM1032	
10	42	100	P175RM1042	
12	32	80	P175RM1232	
12	42	100	P175RM1242	
12	52	100	P175RM1252	
14	42	100	P175RM1442	
14	52	100	P175RM1452	
16	42	100	P175RM1642	
16	52	100	P175RM1652	
16	72	100	P175RM1672	
18	52	100	P175RM1852	
18	72	120	P175RM1872	
18	102	150	P175RM18102	
20	52	100	P175RM2052	
20	72	120	P175RM2072	
20	102	150	P175RM20102	

Impiego / Use / Anwendung

Lavori di foratura e contornatura
con alto grado di finitura

For boring and routing operations
with high quality finish

Zum Bohren und Fräsen
mit ausgezeichneter Schnittqualität

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo
verso l'alto (Positiva)

Rotazione sinistra (C) a richiesta

Right hand rotation = upward chip
ejection (Positive)

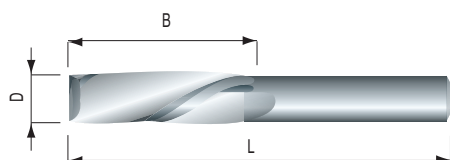
Left hand rotation (C) available on request

Rechtsdrall = Spanauswurf nach oben
(Positive)

Linkslauf (C) auf Anfrage

P178

HW | Z=2



PUNTE ELICOIDALI IN HW INTEGRALE - ELICA SINISTRA - ESECUZIONE B **SOLID HW ROUTERS WITH LEFT HAND SPIRAL - EXECUTION B** **VHW SPIRALSCHLICHTFRÄSER MIT LINKSDRALL - AUSFÜHRUNG B**

Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
3	12	50	P178RM0312	
4	12	50	P178RM0412	
5	17	50	P178RM0517	
6	17	60	P178RM0617	
6	27	60	P178RM0627	
8	22	80	P178RM0822	
8	32	80	P178RM0832	
10	32	80	P178RM1032	
10	42	100	P178RM1042	
12	32	80	P178RM1232	
12	42	100	P178RM1242	
12	52	100	P178RM1252	
14	52	100	P178RM1452	
16	42	100	P178RM1642	
16	52	100	P178RM1652	
18	52	100	P178RM1852	
18	72	120	P178RM1872	
20	52	100	P178RM2052	
20	72	120	P178RM2072	

Impiego / Use / Anwendung

Lavori di foratura e contornatura
con alto grado di finitura

For boring and routing operations
with high quality finish

Zum Bohren und Fräsen
mit ausgezeichneter Schnittqualität

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo
verso il basso (Negativa)

Rotazione sinistra (D) a richiesta

Right hand rotation = downward chip
ejection (Negative)

Left hand rotation (D) available on request

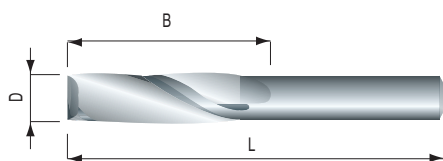
Rechtsdrall = Spanauswurf nach unten
(Negative)

Linkslauf (D) auf Anfrage

P176

HW | Z=3

PUNTE ELICOIDALI IN HW INTEGRALE - ELICA DESTRA - ESECUZIONE A SOLID HW ROUTERS WITH RIGHT HAND SPIRAL - EXECUTION A VHW SPIRALSCHLICHTFRÄSER MIT RECHTSDRALL - AUSFÜHRUNG A



Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
8	22	80	P176RM0822	
8	32	80	P176RM0832	
10	32	80	P176RM1032	
10	42	100	P176RM1042	
12	32	80	P176RM1232	
12	42	100	P176RM1242	
14	42	100	P176RM1442	
14	52	100	P176RM1452	
16	42	100	P176RM1642	
16	52	100	P176RM1652	
16	72	120	P176RM1672	
18	52	100	P176RM1852	
18	72	120	P176RM1872	
18	102	150	P176RM18102	
20	52	100	P176RM2052	
20	72	120	P176RM2072	
20	102	150	P176RM20102	
25	102	150	P176RM25102	

Impiego / Use / Anwendung

Lavori di foratura e contornatura con alto grado di finitura

For boring and routing operations with high quality finish

Zum Bohren und Fräsen mit ausgezeichneter Schnittqualität

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso l'alto (Positiva)

Rotazione sinistra (C) a richiesta

Right hand rotation = upward chip ejection (Positive)

Left hand rotation (C) available on request

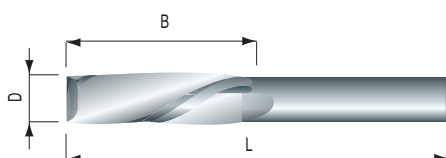
Rechtsdrall = Spanauswurf nach oben (Positive)

Linkslauf (C) auf Anfrage

P179

HW | Z=3

PUNTE ELICOIDALI IN HW INTEGRALE - ELICA SINISTRA - ESECUZIONE B SOLID HW ROUTERS WITH LEFT HAND SPIRAL - EXECUTION B VHW SPIRALSCHLICHTFRÄSER MIT LINKSDRALL - AUSFÜHRUNG B



Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
8	32	80	P179RM0832	
10	32	80	P179RM1032	
10	42	100	P179RM1042	
12	32	80	P179RM1232	
12	52	100	P179RM1252	
14	42	100	P179RM1442	
16	42	100	P179RM1642	
16	52	100	P179RM1652	
16	72	120	P179RM1672	
18	52	100	P179RM1852	
18	72	120	P179RM1872	
20	52	100	P179RM2052	
20	72	120	P179RM2072	

Impiego / Use / Anwendung

Lavori di foratura e contornatura con alto grado di finitura

For boring and routing operations with high quality finish

Zum Bohren und Fräsen mit ausgezeichneter Schnittqualität

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso il basso (Negativa)

Rotazione sinistra (D) a richiesta

Right hand rotation = downward chip ejection (Negative)

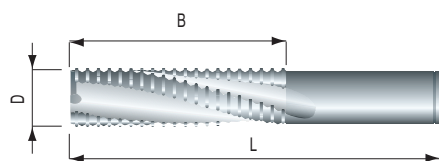
Left hand rotation (D) available on request

Rechtsdrall = Spanauswurf nach unten (Negative)

Linkslauf (D) auf Anfrage

P276

HW | Z=3



PUNTE ELICOIDALI IN HW INTEGRALE CON ROMPITRUCIOLO - ELICA DESTRA - ESECUZIONE A
 SOLID HW ROUTERS WITH CHIPBREAKER AND RIGHT HAND SPIRAL - EXECUTION A
 VHW SPIRALSCHRUPPFÄRER MIT RECHTSDRALL - AUSFÜHRUNG A

Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
8	22	80	P276RM0822	
8	32	80	P276RM0832	
10	32	80	P276RM1032	
10	42	100	P276RM1042	
12	32	80	P276RM1232	
12	42	100	P276RM1242	
12	52	100	P276RM1252	
14	42	100	P276RM1442	
14	52	100	P276RM1452	
16	42	100	P276RM1642	
16	52	100	P276RM1652	
16	72	120	P276RM1672	
18	52	100	P276RM1852	
18	72	120	P276RM1872	
18	102	150	P276RM18102	
20	52	100	P276RM2052	
20	72	120	P276RM2072	
20	102	150	P276RM20102	
25	102	150	P276RM25102	

Impiego / Use / Anwendung

Punta studiata per lavorazioni di sgrossatura

Router developed for roughing operations

Fräser entwickelt für grober Vorzerspannung

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso l'alto (Positiva)

Rotazione sinistra (C) a richiesta

Right hand rotation = upward chip ejection (Positive)

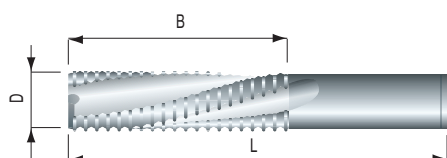
Left hand rotation (C) available on request

Rechtsdrall = Spanauswurf nach oben (Positive)

Linkslauf (C) auf Anfrage

P279

HW | Z=3



PUNTE ELICOIDALI IN HW INTEGRALE CON ROMPITRUCIOLO - ELICA SINISTRA - ESECUZIONE B
 SOLID HW ROUTERS WITH CHIPBREAKER AND LEFT HAND SPIRAL - EXECUTION B
 VHW SPIRALSCHRUPPFÄRER MIT LINKSDRALL - AUSFÜHRUNG B

Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
8	22	80	P279RM0822	
8	32	80	P279RM0832	
10	32	80	P279RM1032	
10	42	100	P279RM1042	
12	32	80	P279RM1232	
12	42	100	P279RM1242	
12	52	100	P279RM1252	
14	42	100	P279RM1442	
16	42	100	P279RM1642	
16	52	100	P279RM1652	
16	72	120	P279RM1672	
18	52	100	P279RM1852	
18	72	120	P279RM1872	
20	52	100	P279RM2052	
20	72	120	P279RM2072	
20	102	150	P279RM20102	

Impiego / Use / Anwendung

Punta studiata per lavorazioni di sgrossatura

Router developed for roughing operations

Fräser entwickelt für grober Vorzerspannung

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso il basso (Negativa)

Rotazione sinistra (D) a richiesta

Right hand rotation = downward chip ejection (Negative)

Left hand rotation (D) available on request

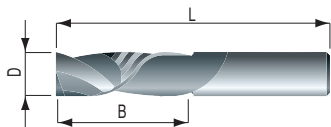
Rechtsdrall = Spanauswurf nach unten (Negative)

Linkslauf (D) auf Anfrage

P290

HW | Z=2+2

HW FRESA UP-DOWN INTEGRALE ELICOIDALE HW SOLID CARBIDE SPIRAL ROUTERS VHW VOLLHARTMETALLFRÄSER



Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	€
8	22	80	P290RM0822	
8	32	80	P290RM0832	
10	32	80	P290RM1032	
10	42	100	P290RM1042	
12	42	100	P290RM1242	
12	52	110	P290RM1252	
14	42	100	P290RM1442	
14	52	110	P290RM1452	
16	42	100	P290RM1642	
16	52	110	P290RM1652	
18	52	115	P290RM1852	
18	72	135	P290RM1872	
20	52	115	P290RM2052	
20	72	135	P290RM2072	

Impiego / Use / Anwendung

Contornatura con buona finitura sui piani superiore ed inferiore

Routing with good finishing on both top and bottom panel sides

Besonders geeignet für gute Oberflächengüte und ausrissfreie Kanten

Attenzione / Attention / Achtung

Rotazione destra doppia elica a compressione

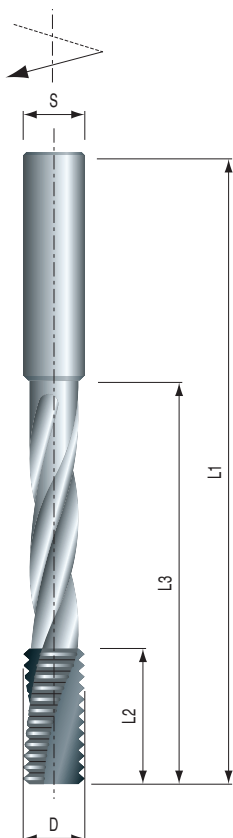
Double flute router compression

Spiralschlichtfräser mit wechselseitigem Achswinkel

P288

HW | Z=3

PUNTE INTEGRALI CON ROMPITRUCIOLO PER SERRATURE SOLID CARBIDE ROUTERS WITH CHIPBREAKER FOR DOOR LOCKS VHW-SCHLOSSKASTENFRÄSER



Ø D [mm]	L2 [mm]	L3 [mm]	L1 [mm]	S [mm]	Z	Art. Nr.	€
16	30	124	170	16	3	P288RM16170	

Impiego / Use / Anwendung

Esecuzione sedi per le serrature delle porte

Router developed for cutting the lock-cases and the face-plates in the doors

Zur Herstellung von Schlosskastenausfräsungen.
Bei stufenweiser Zustellung

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso l'alto (Positiva)

Rotazione sinistra (C) a richiesta

Right hand rotation = upward chip ejection (Positive)

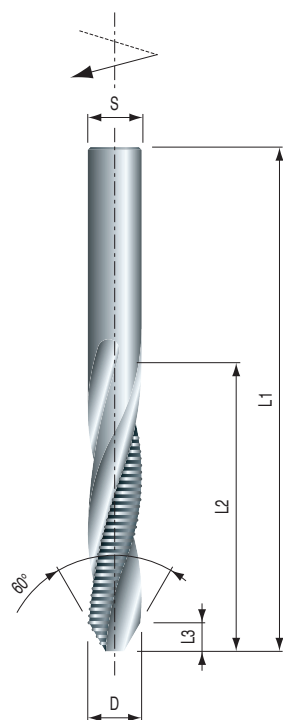
Left hand rotation (C) available on request

Rechtsdrill = Spanauswurf nach oben (Positive)

Linkslauf (C) auf Anfrage

P280

HW | Z=3


PUNTE PER SPIONCINI CON ROMPITRUCIOLO
SOLID CARBIDE ROUTER WITH CHIPBREAKER FOR SPYHOLES
VHW-DRÜCKERLOCH- UND SCHLOSSZYLINDERFRÄSER

Ø D [mm]	L2 [mm]	L3 [mm]	L1 [mm]	S [mm]	Z	Art. Nr.	€
16	90	9	150	16	3	P280RM16150	

Impiego / Use / Anwendung

Realizzazione dei fori per la chiave e la maniglia delle porte

Router developed for plunge-cutting of latchholes and keyholes on door manufacturing

Schrupfräser für Drückerlochbohrungen und Schlosszylinderfräsungen.

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso l'alto (Positiva)

Rotazione sinistra (C) a richiesta

Right hand rotation = upward chip ejection (Positive)

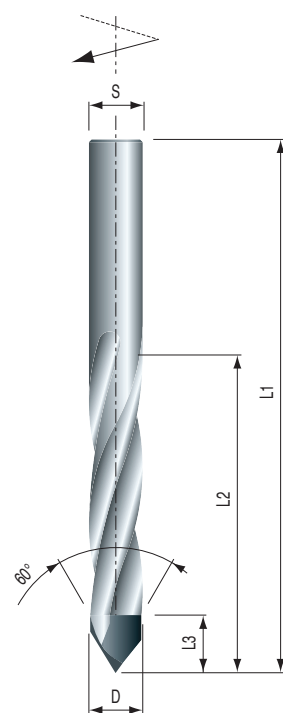
Left hand rotation (C) available on request

Rechtsdrill = Spanauswurf nach oben (Positive)

Linkslauf (C) auf Anfrage

P180

HW | Z=3


PUNTE PER SPIONCINI
SOLID CARBIDE ROUTER FOR SPYHOLES
VHW SPIONLOCH- UND DURCHGANGSLOCHFRÄSER

Ø D [mm]	L2 [mm]	L3 [mm]	L1 [mm]	S [mm]	Z	Art. Nr.	€
16	90	14	150	16	3	P180RM16150	

Impiego / Use / Anwendung

Realizzazione di spioncini

Router developed for spyholes

Bohrfräser für Durchgangs- und

Spionlochbohrungen

Attenzione / Attention / Achtung

Rotazione destra = espulsione del truciolo verso l'alto (Positiva)

Rotazione sinistra (C) a richiesta

Right hand rotation = upward chip ejection (Positive)

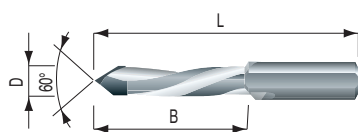
Left hand rotation (C) available on request

Rechtsdrill = Spanauswurf nach oben (Positive)

Linkslauf (C) auf Anfrage

P151

HW | Z=2

PUNTE COMPONENTI PER FORI PASSANTI
DOWEL DRILLS FOR THROUGH-OUT DRILLING
DÜBELBOHRER FÜR DURCHGANGSBOHRUNGEN


Attacco / Chuck / Schaft

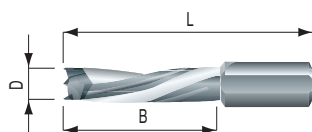
Ø 10x25



Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
4	27	57,5	P151RM0427	P151LM0427	
5	27	57,5	P151RM0527	P151LM0527	
6	27	57,5	P151RM0627	P151LM0627	
7	27	57,5	P151RM0727	P151LM0727	
8	27	57,5	P151RM0827	P151LM0827	
9	27	57,5	P151RM0927	P151LM0927	
10	27	57,5	P151RM1027	P151LM1027	
4	37	70	P151RM0437	P151LM0437	
5	37	70	P151RM0537	P151LM0537	
6	37	70	P151RM0637	P151LM0637	
7	37	70	P151RM0737	P151LM0737	
8	37	70	P151RM0837	P151LM0837	
9	37	70	P151RM0937	P151LM0937	
10	37	70	P151RM1037	P151LM1037	
12	37	70	P151RM1237	P151LM1237	

P152

HW | Z=2

**Attacco / Chuck / Schaft**

Ø 10x20



PUNTE COMPONENTI PER FORI CIECHI A 4 ELICHE
DOWEL DRILLS FOR BLIND DRILLING WITH 4 SPIRALS
DÜBELBOHRER FÜR SACKLOCHBOHRUNGEN MIT RÜCKENFÜHRUNG

Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
4	30	57,5	P152RM0430	P152LM0430	
5	30	57,5	P152RM0530	P152LM0530	
5,5	30	57,5	P152RM5530	P152LM5530	
6	30	57,5	P152RM0630	P152LM0630	
6,35(1/4")	30	57,5	P152RM63530	P152LM63530	
7	30	57,5	P152RM0730	P152LM0730	
8	30	57,5	P152RM0830	P152LM0830	
9	30	57,5	P152RM0930	P152LM0930	
9,5 (3/8")	30	57,5	P152RM9530	P152LM9530	
10	30	57,5	P152RM1030	P152LM1030	
10,5	30	57,5	P152RM10530	P152LM10530	
11	30	57,5	P152RM1130	P152LM1130	
12	30	57,5	P152RM1230	P152LM1230	
12,7(1/2")	30	57,5	P152RM12730	P152LM12730	
13	30	57,5	P152RM1330	P152LM1330	
14	30	57,5	P152RM1430	P152LM1430	
15	30	57,5	P152RM1530	P152LM1530	
16	30	57,5	P152RM1630	P152LM1630	
4	43	70	P152RM0443	P152LM0443	
5	43	70	P152RM0543	P152LM0543	
5,5	43	70	P152RM5543	P152LM5543	
6	43	70	P152RM0643	P152LM0643	
6,35(1/4")	43	70	P152RM63543	P152LM63543	
7	43	70	P152RM0743	P152LM0743	
7,5	43	70	P152RM7543	P152LM7543	
8	43	70	P152RM0843	P152LM0843	
8,2	43	70	P152RM8243	P152LM8243	
9	43	70	P152RM0943	P152LM0943	
9,5 (3/8")	43	70	P152RM9543	P152LM9543	
10	43	70	P152RM1043	P152LM1043	
10,5	43	70	P152RM10543	P152LM10543	
11	43	70	P152RM1143	P152LM1143	
12	43	70	P152RM1243	P152LM1243	
12,7(1/2")	43	70	P152RM12743	P152LM12743	
13	43	70	P152RM1343	P152LM1343	
14	43	70	P152RM1443	P152LM1443	
15	43	70	P152RM1543	P152LM1543	

Impiego / Use / Anwendung

Su foratrici, utilizzabili con art. P161

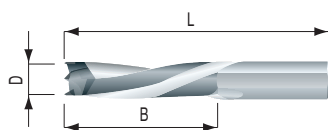
On boring machines, use with item P161

Auf Bohrmaschinen, zur Verwendung mit Art. P161

P154

HW | Z=2

PUNTE COMPONENTI PER FORI CIECHI CON 2 ELICHE DOWEL DRILLS FOR BLIND DRILLING WITH 2 SPIRALS DÜBELBOHRER FÜR SACKLOCHBOHRUNGEN



Attacco / Chuck / Schaft

Ø 10x27 L = 57,5

Ø 10x35 L = 70



Ø D [mm]	B [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
4	27	57,5	P154RM0427	P154LM0427	
5	27	57,5	P154RM0527	P154LM0527	
6	27	57,5	P154RM0627	P154LM0627	
6,35(1/4")	27	57,5	P154RM63527	P154LM63527	
7	27	57,5	P154RM0727	P154LM0727	
8	27	57,5	P154RM0827	P154LM0827	
8,2	27	57,5	P152RM8227	P152LM8227	
9	27	57,5	P154RM0927	P154LM0927	
9,5 (3/8")	27	57,5	P154RM9527	P154LM9527	
10	27	57,5	P154RM1027	P154LM1027	
11	27	57,5	P154RM1127	P154LM1127	
12	27	57,5	P154RM1227	P154LM1227	
12,7(1/2")	27	57,5	P154RM12727	P154LM12727	
14	27	57,5	P154RM1427	P154LM1427	
15	27	57,5	P154RM1527	P154LM1527	
4	35	70	P154RM0435	P154LM0435	
5	35	70	P154RM0535	P154LM0535	
6	35	70	P154RM0635	P154LM0635	
6,35(1/4")	35	70	P154RM63535	P154LM63535	
7	35	70	P154RM0735	P154LM0735	
8	35	70	P154RM0835	P154LM0835	
9	35	70	P154RM0935	P154LM0935	
9,5 (3/8")	35	70	P154RM9535	P154LM9535	
10	35	70	P154RM1035	P154LM1035	
11	35	70	P154RM1135	P154LM1135	
12	35	70	P154RM1235	P154LM1235	
12,7(1/2")	35	70	P154RM12735	P154LM12735	
13	35	70	P154RM1335	P154LM1335	
14	35	70	P154RM1435	P154LM1435	
16	35	70	P154RM1635	P154LM1635	

Impiego / Use / Anwendung

Su foratrici, utilizzabili con art. P162

On boring machines, use with item P162

Auf Bohrmaschinen, zur Verwendung mit Art. P162

P161

HW | Z=2

SVASATORI componibili
SHELL COUNTERSINK
AUFSTECKSENKER

Ø d [mm]	Ø D [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
4	15,5	P161RM04155	P161LM04155	
5	15,5	P161RM05155	P161LM05155	
6	15,5	P161RM06155	P161LM06155	
6,4	15,5	P161RM64155	P161LM64155	
7	18	P161RM0718	P161LM0718	
8	18	P161RM0818	P161LM0818	
9	18	P161RM0918	P161LM0918	
10	20	P161RM1020	P161LM1020	
12	22	P161RM1222	P161LM1222	

Impiego / Use / Anwendung

Su foratrici, utilizzabili con art. P152

On boring machines, use with item P152

Auf Bohrmaschinen, zur Verwendung mit Art. P152

P162

HW | Z=2

SVASATORI componibili
SHELL COUNTERSINK
AUFSTECKSENKER

Ø d [mm]	Ø D [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
5÷10	20	P162RM0520	P162LM0520	
11÷12	22	P162RM1222	P162LM1222	

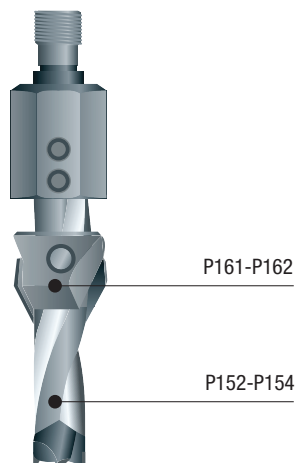
Impiego / Use / Anwendung

Su foratrici, utilizzabili con art. P154

On boring machines, use with item P154

Auf Bohrmaschinen, zur Verwendung mit Art. P154

ESEMPI DI ASSEMBLAGGIO / ASSEMBLY EXAMPLES / MONTAGEBEISPIEL

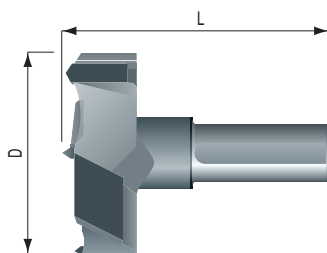
Esempio di foro cieco
con svasaturaExamples of blind drilling
with countersink

Beispiel

P163

HW | Z=2+2

PUNTE PER CERNIERE HINGE BORING BITS BESCHLAGBOHRER



Attacco / Chuck / Schaft

Ø 10x26



Ø D [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
15	57,5	P163RM1557	P163LM1557	
16	57,5	P163RM1657	P163LM1657	
17	57,5	P163RM1757	P163LM1757	
18	57,5	P163RM1857	P163LM1857	
20	57,5	P163RM2057	P163LM2057	
22	57,5	P163RM2257	P163LM2257	
24	57,5	P163RM2457	P163LM2457	
25	57,5	P163RM2557	P163LM2557	
26	57,5	P163RM2657	P163LM2657	
28	57,5	P163RM2857	P163LM2857	
30	57,5	P163RM3057	P163LM3057	
32	57,5	P163RM3257	P163LM3257	
34	57,5	P163RM3457	P163LM3457	
35	57,5	P163RM3557	P163LM3557	
36	57,5	P163RM3657	P163LM3657	
38	57,5	P163RM3857	P163LM3857	
40	57,5	P163RM4057	P163LM4057	
15	70	P163RM1570	P163LM1570	
16	70	P163RM1670	P163LM1670	
20	70	P163RM2070	P163LM2070	
25	70	P163RM2570	P163LM2570	
26	70	P163RM2670	P163LM2670	
30	70	P163RM3070	P163LM3070	
35	70	P163RM3570	P163LM3570	

Impiego / Use / Anwendung

Su foratrici, esecuzione di fori
non passanti o sedi per cerniere

On boring machines, for hardware
recessing and pocket hole drilling

Auf Bohrmaschinen, für Sacklochbohrungen
und Beschlagbohrungen

P172

KSS | Z=2



Attacco / Chuck / Schaft

Ø 13x50 Ø 16x50



PUNTE PER MORTASARE A TAGLIENTI DIRITTI CON ROMPITRUCIOLO MORTISE DRILLS WITH STRAIGHT TEETH AND CHIPBREAKER LANGLOCHBOHRER MIT SPANBRECHERNUTEN

Ø D [mm]	L [mm]	S [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
6	105	13	P172RS0613	P172LS0613	
7	110	13	P172RS0713	P172LS0713	
8	115	13	P172RS0813	P172LS0813	
9	120	13	P172RS0913	P172LS0913	
10	125	13	P172RS1013	P172LS1013	
11	130	13	P172RS1113	P172LS1113	
12	135	13	P172RS1213	P172LS1213	
13	140	13	P172RS1313	P172LS1313	
14	145	13	P172RS1413	P172LS1413	
15	150	13	P172RS1513	P172LS1513	
16	155	13	P172RS1613	P172LS1613	
6	105	16	P172RS0616	P172LS0616	
7	110	16	P172RS0716	P172LS0716	
8	115	16	P172RS0816	P172LS0816	
9	120	16	P172RS0916	P172LS0916	
10	125	16	P172RS1016	P172LS1016	
11	130	16	P172RS1116	P172LS1116	
12	135	16	P172RS1216	P172LS1216	
13	140	16	P172RS1316	P172LS1316	
14	145	16	P172RS1416	P172LS1416	
15	150	16	P172RS1516	P172LS1516	
16	155	16	P172RS1616	P172LS1616	

Impiego / Use / Anwendung

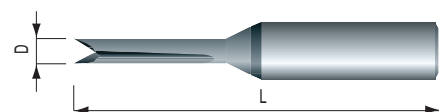
Per asole di precisione su mortasatrici

For making precise slots on mortising machines

Zum Fräsen von Langlöchern, Schlitzten in Weichholz

P173

KSS | Z=2



Attacco / Chuck / Schaft

Ø 16x50



PUNTE PER MORTASARE A TAGLIENTI DIRITTI MORTISE DRILLS WITH STRAIGHT TEETH PENDELSCHLITZBOHRER

Ø D [mm]	L [mm]	S [mm]	Art. Nr.	€
6	100	16	P173NS1606	
7	100	16	P173NS1607	
8	100	16	P173NS1608	
9	100	16	P173NS1609	
10	110	16	P173NS1610	
12	110	16	P173NS1612	
14	110	16	P173NS1614	
16	110	16	P173NS1616	

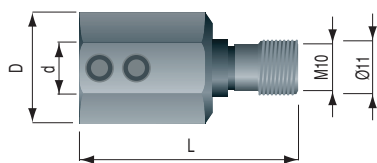
Impiego / Use / Anwendung

Per asole di precisione su macchine automatiche

For making precise slots on automatic machines

Zum Fräsen von ausrißfreien Langlöchern bei pendelnder Arbeitsbewegung

P155



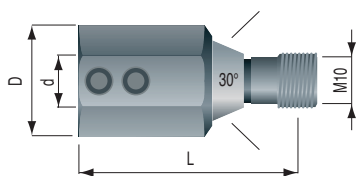
Attacco per macchine
Chuck for machines
Schaft für Maschinen

MORBIDELLI-BIESSE-WEEKE

MANDRINI PER PUNTE componibili REDUCING CHUCKS FOR DOWEL DRILLS BOHRFUTTER FÜR DÜBELBOHRER

Ø d [mm]	Ø D [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
8	15,5	41	P155RC0815	P155LC0815	
10	19,5	41	P155RC1019	P155LC1019	

P156



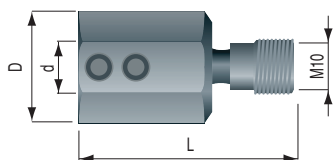
Attacco per macchine
Chuck for machines
Schaft für Maschinen

VITAP-BUSELLATO-SCHLEICHER

MANDRINI PER PUNTE componibili REDUCING CHUCKS FOR DOWEL DRILLS BOHRFUTTER FÜR DÜBELBOHRER

Ø d [mm]	Ø D [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
8	15,5	46	P156RC0815	P156LC0815	
10	19,5	46	P156RC1019	P156LC1019	

P157



Attacco per macchine
Chuck for machines
Schaft für Maschinen

AYEN-HOLZMA-MAYER

MANDRINI PER PUNTE componibili REDUCING CHUCKS FOR DOWEL DRILLS BOHRFUTTER FÜR DÜBELBOHRER

Ø d [mm]	Ø D [mm]	L [mm]	Rotation DX/RH/RL Art. Nr.	Rotation SX/LH/LL Art. Nr.	€
8	15,5	40	P157RC0815	P157LC0815	
10	19,5	40	P157RC1019	P157LC1019	

NOTE / **NOTES** / NOTIZEN



PUNTE A COLTELLINO
DRITTE E SAGOMATE

STRAIGHT
AND PROFILED
KNIFE ROUTERS

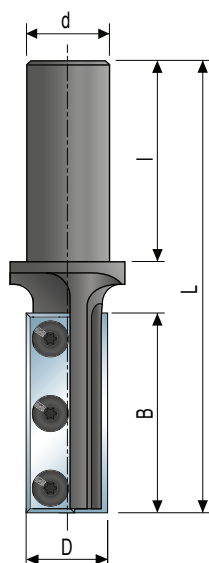
SCHAFTWERKZEUGE



PH71FM

HW | Z=2

PUNTA PER CONTORNARE DISPOSABLE KNIFE SIZING AND REBATING ROUTER WP-SCHAFTFRÄSER

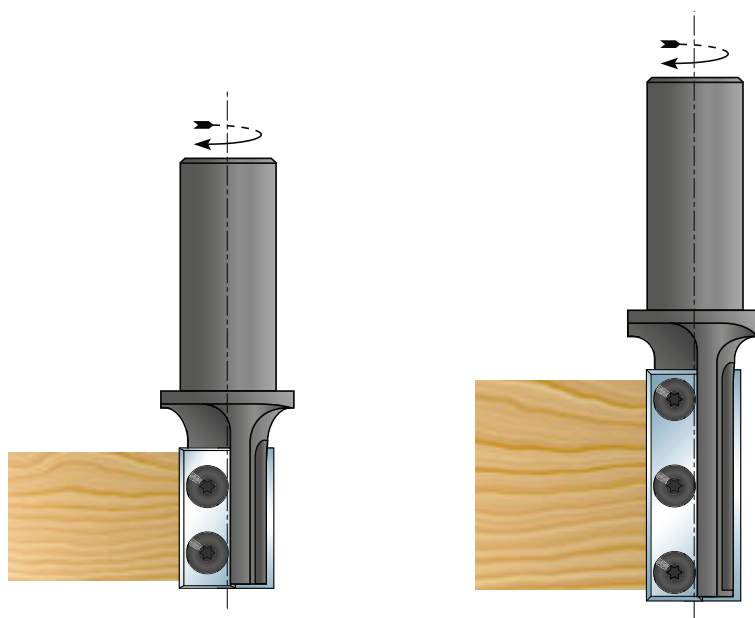


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
20	30	95	20/25	50	2	R	PH71FM01	
20	30	95	20/25	50	2	L	PH71FM02	
20	50	115	20/25	50	2	R	PH71FM03	
20	50	115	20/25	50	2	L	PH71FM04	
25	50	115	20/25	50	2	R	PH71FM05	
25	50	115	20/25	50	2	L	PH71FM06	

RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH71FM			€
		01/02	03/04	05/06	
Coltello / Knife / Messer	29,5x12x1,5	2	/	/	
Coltello / Knife / Messer	50x12x1,7	/	2	2	
Vite per Coltello / Knife's Screw / Schraube	M3,5x4 Ø9	4	6	6	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	1	1	

ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL

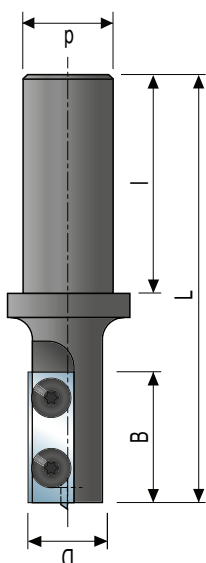


PH72FM

HW | Z=1

HW | Z=1+1

PUNTA PER FORARE E CONTORNARE DISPOSABLE KNIFE SIZING AND PLUNGING ROUTER WP-SCHAFTFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
12	30	100	20/25	50	1	R	PH72FM01	
16	30	100	20/25	50	1	R	PH72FM02	
16	50	120	20/25	50	1	R	PH72FM03	
18	30	100	20/25	50	1+1	R	PH72FM04	
18	50	120	20/25	50	1+1	R	PH72FM05	
20	30	100	20/25	50	1+1	R	PH72FM06	
20	50	120	20/25	50	1+1	R	PH72FM07	
12	30	100	20/25	50	1	L	PH72FM08	
16	30	100	20/25	50	1	L	PH72FM09	
16	50	120	20/25	50	1	L	PH72FM10	
18	30	100	20/25	50	1+1	L	PH72FM11	
18	50	120	20/25	50	1+1	L	PH72FM12	
20	30	100	20/25	50	1+1	L	PH72FM13	
20	50	120	20/25	50	1+1	L	PH72FM14	

Coni MK2 o MK3 disponibili a richiesta

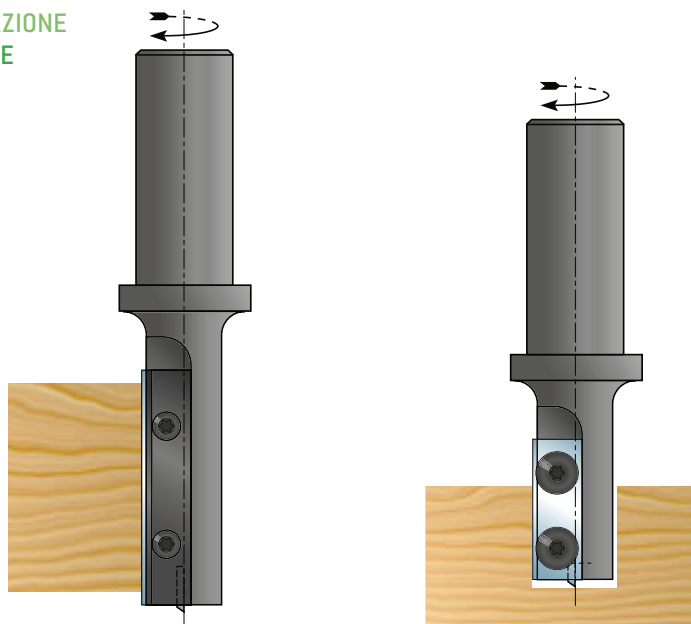
Shanks MK2 or MK3 available on request

Schaft MK2 oder MK3 auf Anfrage

RICAMBI / SPARE PARTS / ERSATZTEILE

RICAMBI / SPARE PARTS / ERSATZTEILE												
Art.	Dimensioni / Dimensions / Abmessungen [mm]	Art. Nr. PH72FM										€
		01/08	02/09	03/10	04/11	05/12	06	07	13	14		
Coltello / Knife / Messer	9,7x9,7x1,5	/	/	/	1	1	/	/	/	/		
Coltello / Knife / Messer	9,7x10,6x1,5 DX	/	/	/	/	/	1	1	/	/		
Coltello / Knife / Messer	9,7x10,6x1,5 SX	/	/	/	/	/	/	/	1	1		
Coltello / Knife / Messer	29,5x9x1,5	1	1	/	/	/	/	/	/	/		
Coltello / Knife / Messer	30x12x1,5	/	/	/	1	/	1	/	1	/		
Coltello / Knife / Messer	49,5x9x1,5	/	/	1	/	/	/	/	/	/		
Coltello / Knife / Messer	50x12x1,5	/	/	/	/	1	/	1	/	1		
Tassello / Wedge / Spannkeil	50x10x2,5	/	/	/	/	1	/	1	/	1		
Vite per Coltello / Knife's Screw / Schraube	M3,5x9 Ø6	/	2	2	1	3	1	3	1	3		
Vite per Coltello / Knife's Screw / Schraube	M3x4	2	/	/	/	/	/	/	/	/		
Vite per Coltello / Knife's Screw / Schraube	M3,5x4 Ø9	/	/	/	2	/	2	/	2	/		
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 9	1	/	/	/	/	/	/	/	/		
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	/	1	1	1	1	1	1	1	1		

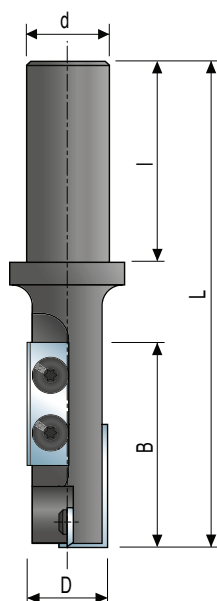
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH73FM

HW | Z=2+1

PUNTA PER FORARE E CONTORNARE DISPOSABLE KNIFE SIZING AND PLUNGING ROUTER WP-SCHAFTFRÄSER

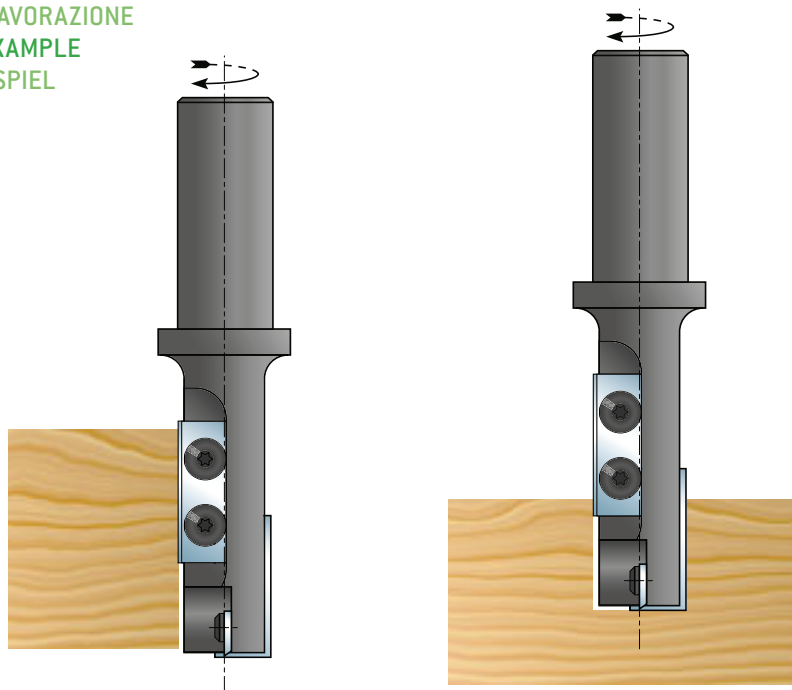


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
18	35	105	20/25	50	2+1	PH73FM01	
20	35	105	20/25	50	2+1	PH73FM02	
20	50	120	20/25	50	2+1	PH73FM03	
20	58	125	20/25	50	2+1	PH73FM04	

Coni MK2 o MK3 disponibili a richiesta
Shanks MK2 or MK3 available on request
Schaft MK2 oder MK3 auf Anfrage

RICAMBI / SPARE PARTS / ERSATZTEILE						
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH73FM				€
		01/05	02/06	03/07	04/08	
Coltello / Knife / Messer	9,7x9,7x1,5	1	/	/	/	
Coltello / Knife / Messer	9,7x10,6x1,5 DX	/	1	1	1	
Coltello / Knife / Messer	20x12x1,5	2	2	/	/	
Coltello / Knife / Messer	30x12x1,5	/	/	2	2	
Vite per Coltello / Knife's Screw / Schraube	M3,5x4 Ø9	2	2	4	4	
Vite per Coltello / Knife's Screw / Schraube	M3,5x6,5 Ø6	1	1	1	1	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	1	1	1	

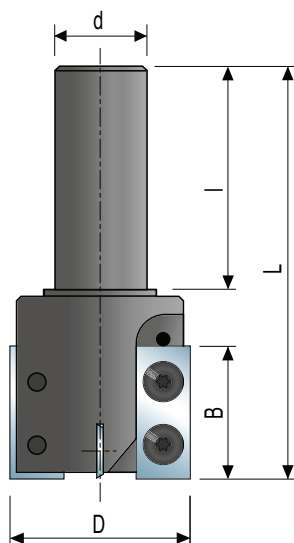
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH74FM

HW | Z=2+1

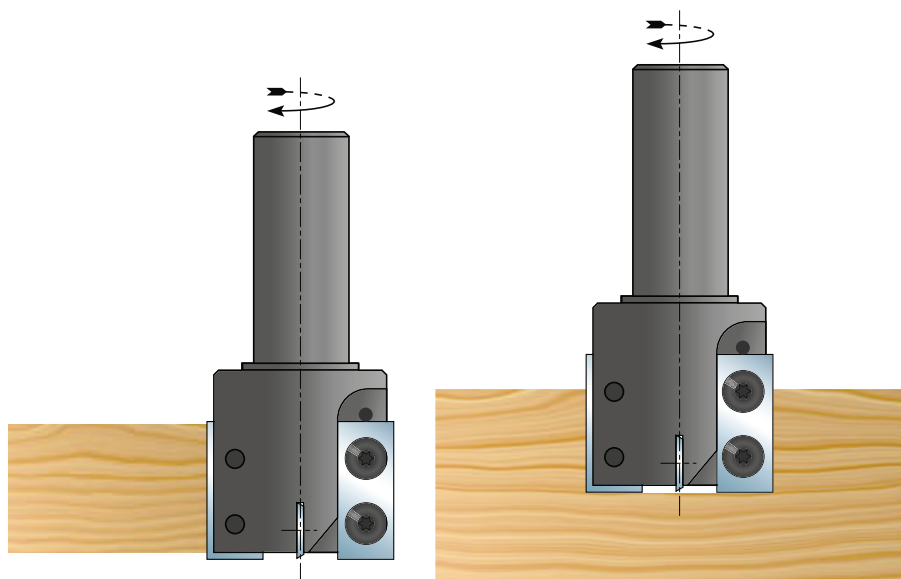
PUNTA PER FORARE E CONTORNARE DISPOSABLE KNIFE SIZING AND PLUNGING ROUTER WP-SCHAFTFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
30	40	100	20/25	50	2+1	PH74FM01	
40	30	90	20/25	50	2+1	PH74FM02	
40	50	110	20/25	50	2+1	PH74FM03	

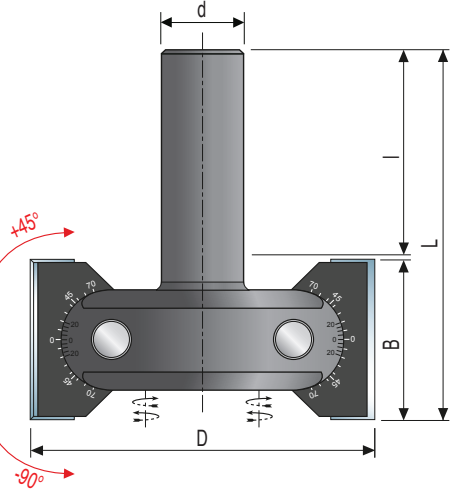
RICAMBI / SPARE PARTS / ERSATZTEILE					
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH74FM			€
		01	02	03	
Coltello / Knife / Messer	12x12x1,5	1	/	/	
Coltello / Knife / Messer	15x12x1,5	/	1	1	
Coltello / Knife / Messer	39,5x12x1,5	2	/	/	
Coltello / Knife / Messer	29,5x12x1,5	/	2	/	
Coltello / Knife / Messer	49,5x12x1,5	/	/	2	
Vite per Coltello / Knife's Screw / Schraube	M3,5x7 Ø9	4	4	4	
Vite per Coltello / Knife's Screw / Schraube	M3,5x7 Ø7,5	1	1	1	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	1	1	

ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH75FM HW | Z=2

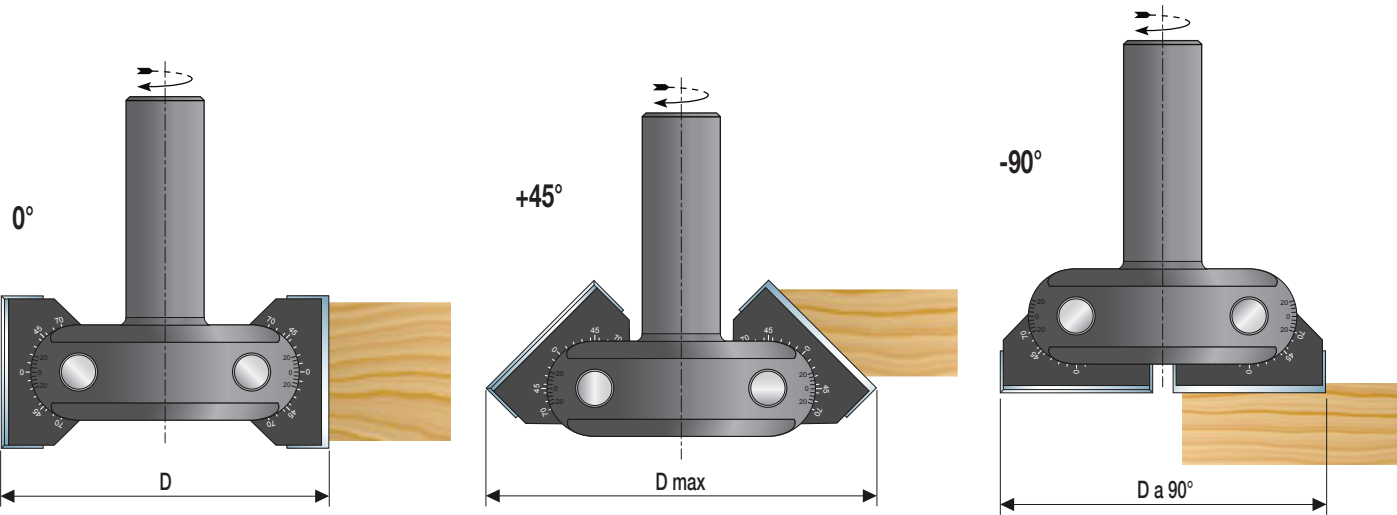
PUNTA CON COLTELLINI A INCLINAZIONE VARIABILE DISPOSABLE KNIFE ADJUSTABLE BEVEL ROUTER WP-SCHWENKMESSERKOPF, STUFENLOS VERSTELLBAR



$\varnothing D$ [mm]	B [mm]	D Max [mm]	D a 90° [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
					$\varnothing d$ [mm]	l [mm]			
85	40	102	88	93	20	50	2	PH75FM01	
85	40	102	88	93	25	50	2	PH75FM02	

RICAMBI / SPARE PARTS / ERSATZTEILE				
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH75FM		€
		01	02	
Coltello / Knife / Messer	40x12x1,5	2	2	
Cuneo / Wedge / Spannkeil	38x12x6	2	2	
Vite per Cuneo / Wedge's Screw / Schraube	M6x8	4	4	
Chiave per Coltello / Knife's Key / Torxschlüssel	Esagonale 3	1	1	
Chiave di Regolaz. / Adjustment Key / Schlüssel	Esagonale 4	1	1	

ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL

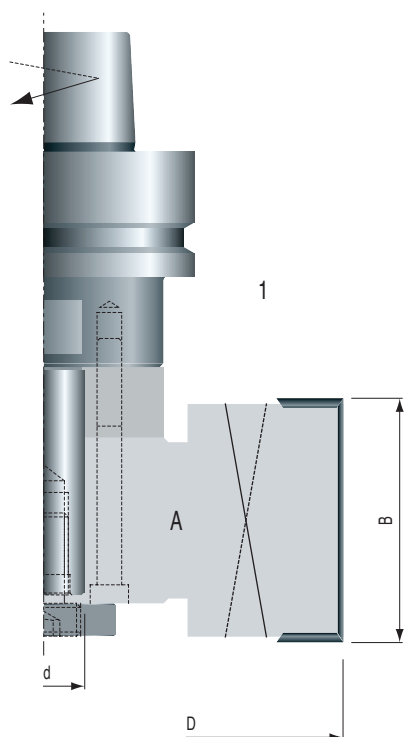


GP29FM10 PH29FA05

HW | Z=4

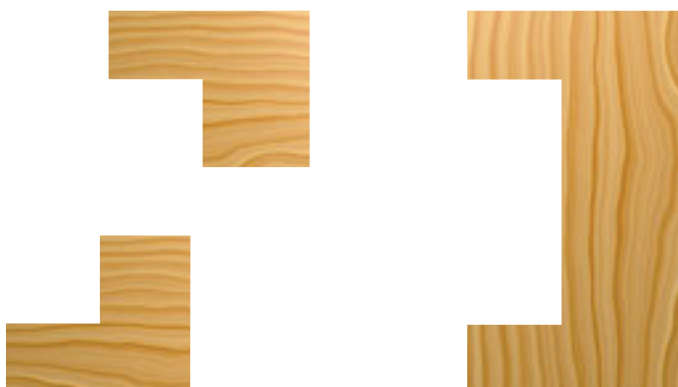
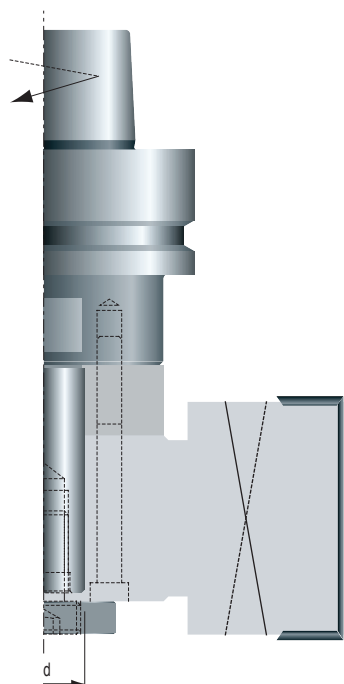
GRUPPO PER BATTUTE E CONTORNATURE DISPOSABLE KNIFE ROUTER SET FOR REBATES WENDEPLATTEN-FALZKOPF

Gruppo completo di mandrino e testa in lega leggera con angolo assiale alternato.
Router set including chuck and a rebating cutterhead in light alloy with alternate shear angle.
Werkzeug auf Schaft verschraubt, mit wechselseitigem Achswinkel.
Werkzeug aus hochfestem Aluminium.



Ø D [mm]	B [mm]	Ø d [mm]	Z	Cono / Chuck / Spannzangenfutter	Art. Nr.	€
125	51	30	4	HSK 63F	GP29FM1004	
Ø D [mm]	B [mm]	Ø d [mm]	Z	V	Art. Nr.	€
125	51	30	4	4	PH29FA05020	

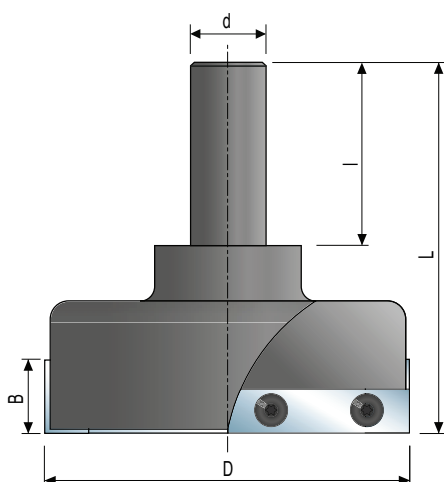
RICAMBI / SPARE PARTS / ERSATZTEILE			
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH29FA05020	€
Coltello / Knife / Messer	50x12x1,5	4	
Cuneo / Wedge / Spannkeil	46	4	
Vite per cuneo / Knife's Screw / Schraube	M8x16	8	
Rasante / Spur / Vorschneide	14x14x2	4	
Vite per rasante / Spur's screw / Schraube für VS	M5x6,5	4	
Chiave di servizio / Allen Key / Schlüssel	4	1	
Chiave di servizio / Allen Key / Schlüssel	Torx 15	1	



PH76FM

HW | Z=2+2

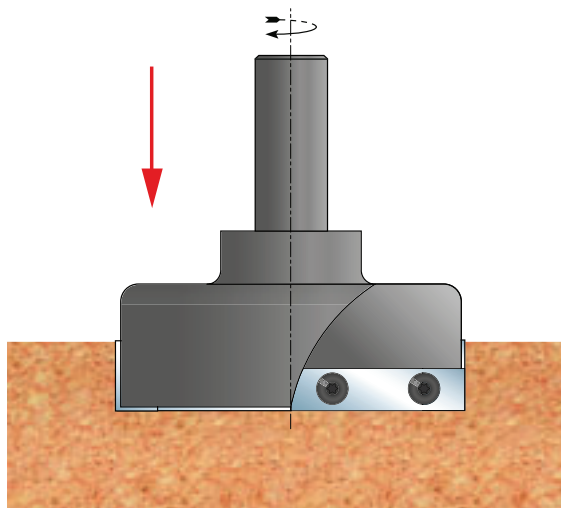
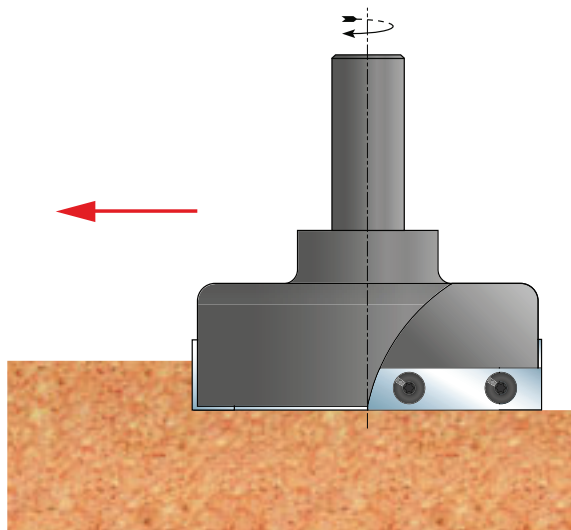
PUNTA PER FORARE E SPIANARE CUTTER FOR DRILLING AND PLANING WP-PLANFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
80	30	100	20/25	50	2+2	PH76FM01	
100	20	100	20/25	50	2+2	PH76FM02	

RICAMBI / SPARE PARTS / ERSATZTEILE				
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH76FM		€
		01	02	
Coltello / Knife / Messer	29,5x12x1,5	2	/	
Coltello / Knife / Messer	39,5x12x1,5	2	/	
Coltello / Knife / Messer	19,5x12x1,5	/	2	
Coltello / Knife / Messer	49,5x12x1,5	/	2	
Cuneo / Wedge / Spannkeil	16 x15x8	/	2	
Ogiva / Nut / Mutter	Ø13x9	/	2	
Vite per Ogiva / Nut's Screw / Schraube	M8x22	/	2	
Vite per Coltello / Knife's Screw / Schraube	M3,5x7 Ø9	8	4	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	1	
Chiave per Ogiva / Nut's Key / Schlüssel	Esagonale 4	/	1	

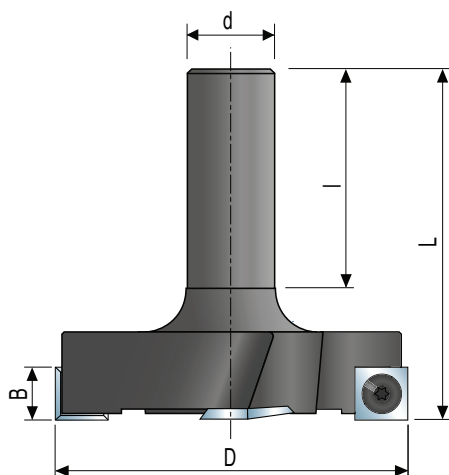
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH77FM01

HW | Z=2+2

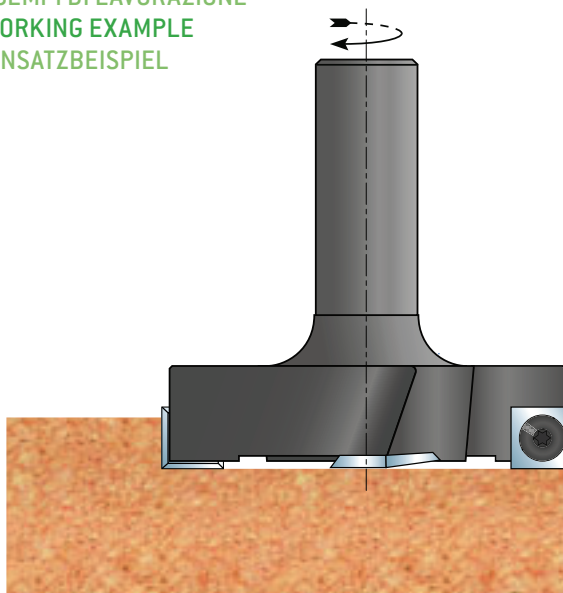
PUNTA PER SPIANARE DISPOSABLE KNIFE PLANING ROUTER WECHSELPLATTEN-PLANFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
80	12	80	20/25	50	2+2	PH77FM01	

RICAMBI / SPARE PARTS / ERSATZTEILE			
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH77FM	€
		01	
Coltello / Knife / Messer	12x12x1,5	2	
Rasante / Spur / Vorschneider	14x14x2	2	
Vite per Coltello / Knife's Screw / Schraube	M4x8 Ø9	8	
Vite per Rasante / Spur's Screw / Schraube für VS	M5x7 Ø8,8	/	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	

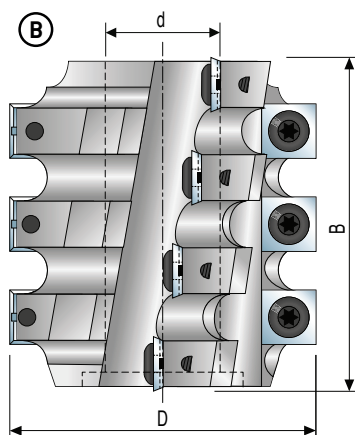
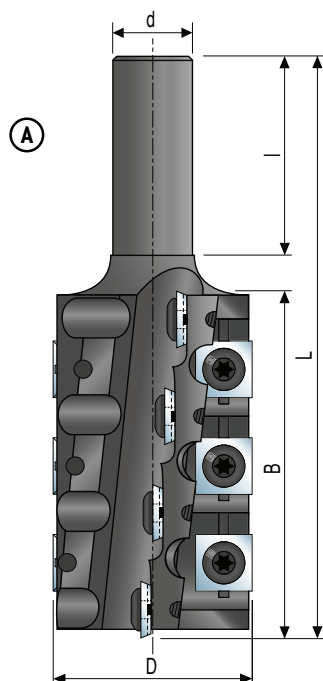
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH78FM

HW | Z=2+2

PUNTA PER CONTORNARE E SPIANARE - GRANDI ASPORTAZIONI DISPOSABLE KNIFE ROUTER FOR SIZING AND PLANING - BIG REMOVAL FRÄSER ZUM FÜGEN UND PLANFRÄSEN



Gli attacchi per i corpi in lega leggera sono da ordinare a parte

The toolholders for the bodies in light alloy must be ordered separately

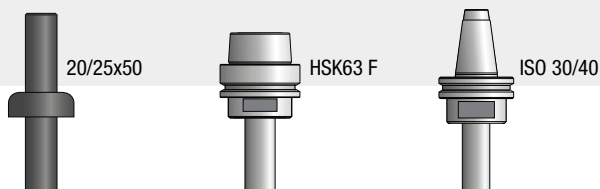
Die Aufnahmen für die Körper aus Leichtmetall sind separat zu bestellen

Type	Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Material	Art. Nr.	€
				Ø d [mm]	l [mm]				
A	50	62	121	20	50	2+2	Acciaio / Steel / Stahl	PH78FM01	
	50	74	133	20	50	2+2	Acciaio / Steel / Stahl	PH78FM02	
	50	86	145	20	50	2+2	Acciaio / Steel / Stahl	PH78FM03	
B	80	62	/	25	/	2+2	* Lega leggera / Light alloy / Leicht Metall	PH78FM04	
	80	74	/	25	/	2+2	* Lega leggera / Light alloy / Leicht Metall	PH78FM05	
	80	86	/	25	/	2+2	* Lega leggera / Light alloy / Leicht Metall	PH78FM06	

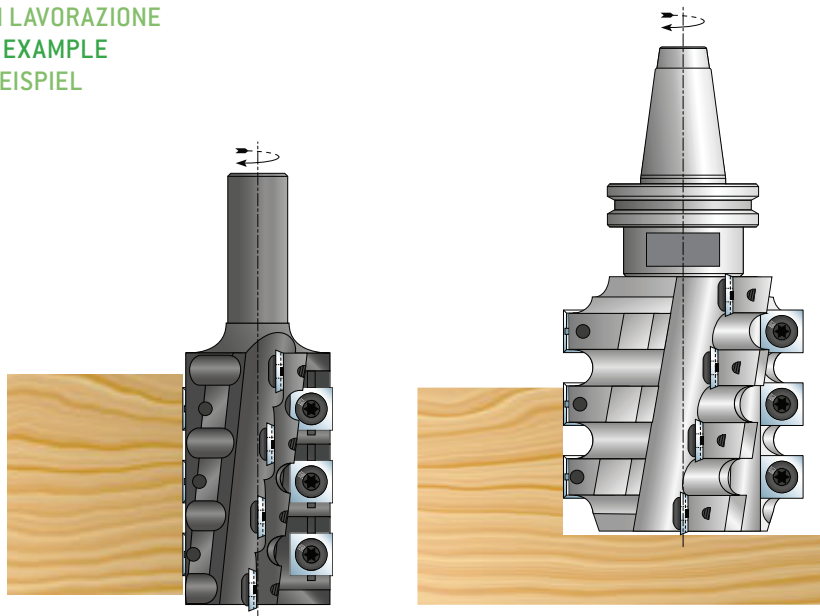
RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH78FM						€
		01	02	03	04	05	06	
Coltello / Knife / Messer	14,3x14,3x2,8	10	14	18	10	14	18	
Vite per Coltello / Knife's Screw / Schraube	M5x10,2 Ø10,5	10	14	18	10	14	18	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 20	1	1	1	1	1	1	

Attacco per tipo B
Shank for type B
Schaft für B



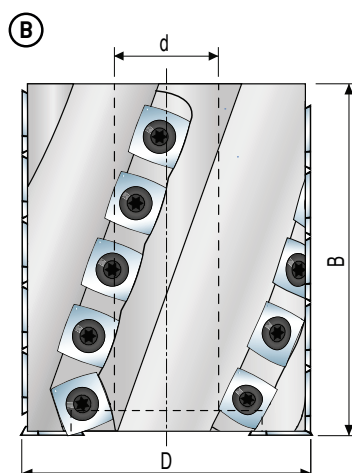
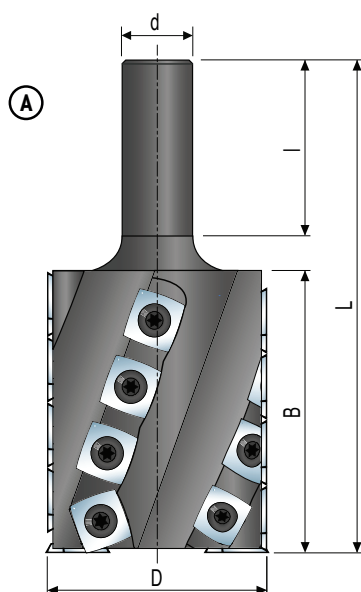
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH79FM

HW | Z=2+2

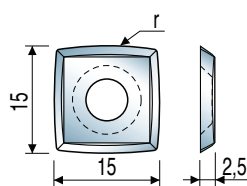
PUNTA PER CONTORNARE E SPIANARE - BUONA FINITURA CUTTER FOR SIZING AND PLANING - GOOD FINISHING SPIRALFÜGEFRÄSER - GROBE ZERSPANUNG



Gli attacchi per i corpi in lega leggera sono da ordinare a parte

The toolholders for the bodies in light alloy must be ordered separately

Die Aufnahmen für die Körper aus Leichtmetall sind separat zu bestellen



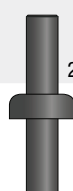
Coltello / Knife / Messer

Type	Ø D [mm]	B [mm]	L [mm]	Attacco Shank Schaft		Z	R	Material	Art. Nr.	€
				Ø d [mm]	l [mm]					
A	50	60	122	20/25	50	2+2	2	Acciaio / Steel / Stahl	PH79FM01	
	50	80	141	20/25	50	2+2	2	Acciaio / Steel / Stahl	PH79FM02	
	50	110	170	20/25	50	2+2	2	Acciaio / Steel / Stahl	PH79FM03	
B	60	60	/	20	/	2+2	2	* Lega leggera / Light alloy / Leicht Metall	PH79FM04	
	60	80	/	20	/	2+2	2	* Lega leggera / Light alloy / Leicht Metall	PH79FM05	
	80	80	/	30	/	2+2	2	* Lega leggera / Light alloy / Leicht Metall	PH79FM06	
	80	100	/	30	/	2+2	2	* Lega leggera / Light alloy / Leicht Metall	PH79FM07	

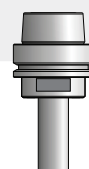
RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH79FM							€
		01	02	03	04	05	06	07	
Coltello / Knife / Messer	15x15x2,5	12	16	24	12	16	16	20	
Rasante / Spur / Vorschneider	14x14x2	2	2	2	2	2	2	2	
Vite per Coltello / Knife's Screw / Schraube	M5x12,5 Ø9	12	16	24	12	16	16	20	
Vite per Rasante / Spur's Screw / Schraube für VS	M5x6,5 Ø9	2	2	2	2	2	2	2	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 20	1	1	1	1	1	1	1	

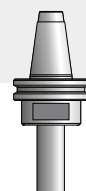
Attacco per tipo B
Shank for type B
Schaft für B



20/25x50

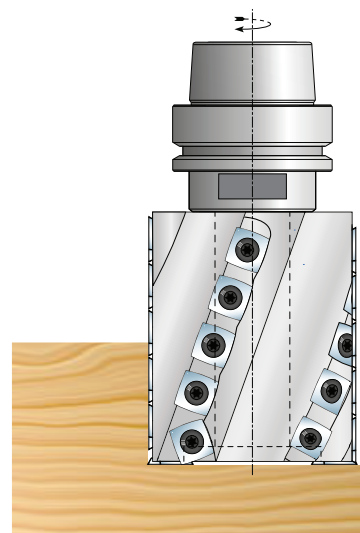
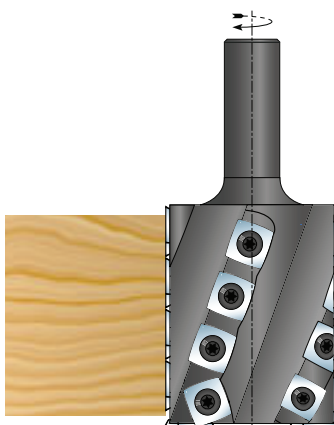


HSK63 F



ISO 30/40

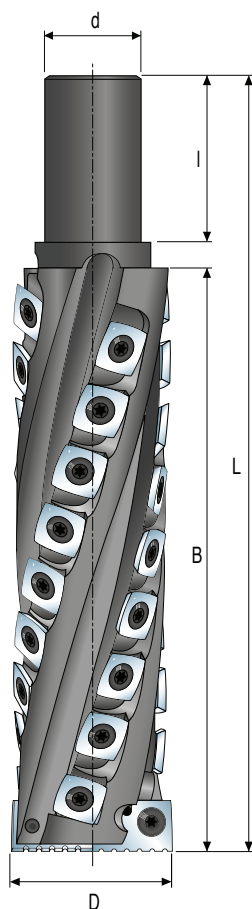
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH80FM

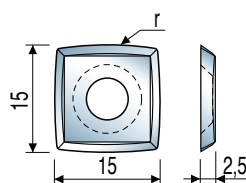
HW | Z=4

FRESA MULTITAGLIANTE ELICOIDALE Z4
HELICAL MULTI-CUTTING CUTTER Z4
SPIRALFÖRMIGER MEHRSCHEIDIGER-SCHAFTFRÄSER Z4

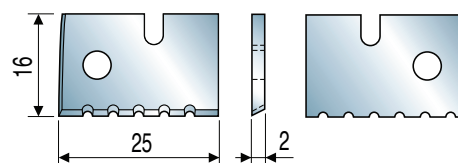


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
50	180	240	25/30	50	4	R	PH80FM01	
50	180	240	25/30	50	4	L	PH80FM02	
50	210	270	25/30	50	4	R	PH80FM03	
50	210	270	25/30	50	4	L	PH80FM04	

RICAMBI / SPARE PARTS / ERSATZTEILE						
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH80FM				€
		01	02	03	04	
① Coltello / Knife / Messer	15x15x2,5	34	34	40	40	
② Coltello / Knife / Messer	25x16x2	1	/	1	/	
② Coltello / Knife / Messer	25x16x2	1	/	1	/	
② Coltello / Knife / Messer	25x16x2	/	1	/	1	
② Coltello / Knife / Messer	25x16x2	/	1	/	1	
Vite per Coltello / Knife's Screw / Schraube	M5x12,5 Ø8,8	34	34	40	40	
Vite per Coltello / Knife's Screw / Schraube	M4x8,3 Ø9	2	2	2	2	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	1	1	1	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 20	1	1	1	1	

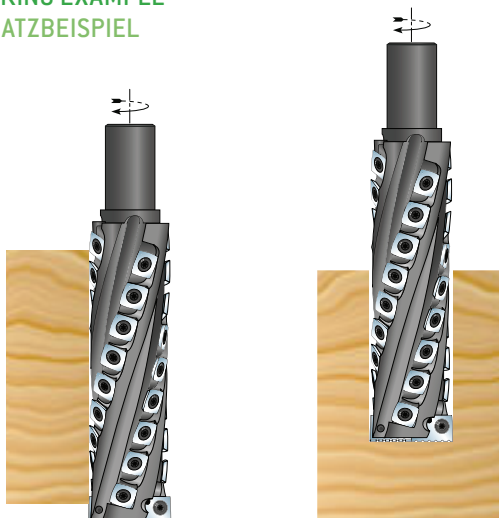


① Coltello / Knife / Messer



② Coltello / Knife / Messer

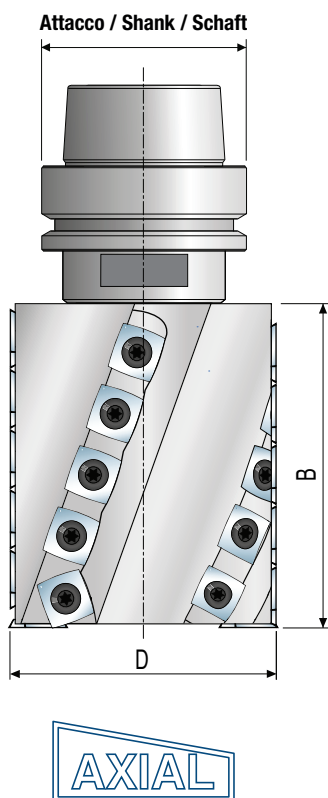
ESEMPI DI LAVORAZIONE
WORKING EXAMPLE
EINSATZBEISPIEL



PH81FM

HW | Z=4 - V=2

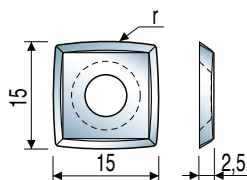
FRESA MULTITAGLIANTE CON COLTELLO BOMBATO MULTI-CUTTING CUTTER WITH ROUNDED KNIFE Z4 SPIRALFÜRGERFRÄSER



Ø D [mm]	B [mm]	Ø d [mm]	Z	V	Attacco Shank Schaft	Rotation	Material	Art. Nr.	€
80	122	30	4	2	HSK 63F	R	Lega leggera / Light alloy / Leicht Metall	PH81FM01	
80	122	30	4	2	HSK 63F	L	Lega leggera / Light alloy / Leicht Metall	PH81FM02	

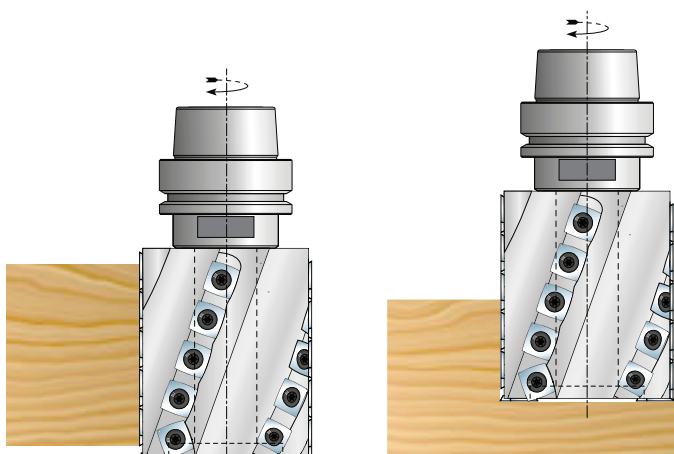
RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH81FM		€
		01	02	
Mandrino / Toolholder / Schaft	HSK 63F H=100	1	1	
Coltello / Knife / Messer	15x15x2,5	24	24	
Rasante / Spur / Vorschneider	14x14x2	2	2	
Vite per Coltello / Knife's Screw / Schraube	M5x12,5 Ø9	24	24	
Vite per Rasante / Spur's Screw / Schraube für VS	M5x6,5 Ø9	2	2	
Vite per Flangia / Flange's Screw / Schraube	M6x26 Ø10	3	3	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 20	1	1	
Chiave per Flangia / Flange's Key / Sechskant Schlüssel	Esagonale 5	1	1	



Coltello / Knife / Messer

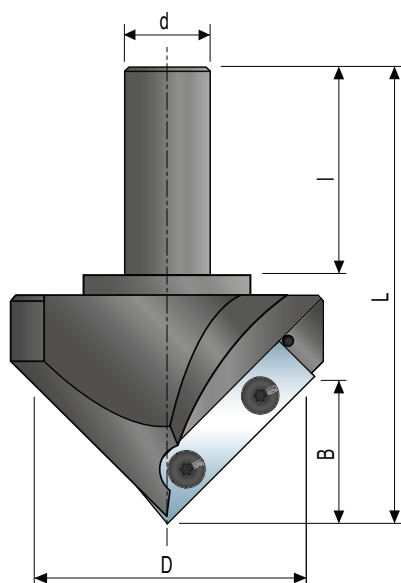
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH82FM

HW | Z=1

FRESA PER FOLDING ROUTER BIT FOR FOLDING FOLDINGFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	I [mm]				
38	19	80	16	50	1	R	PH82FM01	
38	19	80	16	50	1	L	PH82FM02	
65	34	110	20	50	1	R	PH82FM03	
65	34	110	20	50	1	L	PH82FM04	

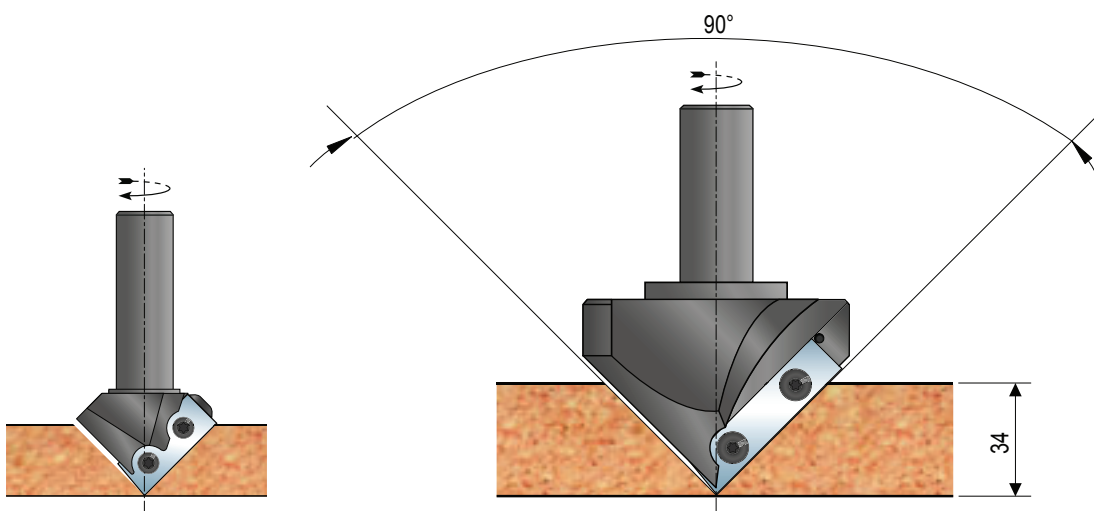
Punte con angoli diversi a richiesta

Folding router with other angles available on request

Foldingfräser mit anderen Winkel auf Anfrage

RICAMBI / SPARE PARTS / ERSATZTEILE						
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH82FM				€
		01	02	03	04	
Coltello / Knife / Messer	29x12x1,5	1	/	/	/	
Coltello / Knife / Messer	29x12x1,5	/	1	/	/	
Coltello / Knife / Messer	49x12x1,5	/	/	1	/	
Coltello / Knife / Messer	49x12x1,5	/	/	/	1	
Vite per Coltello / Knife's Screw / Schraube	M3,5x6,5 Ø6	2	2	/	/	
Vite per Coltello / Knife's Screw / Schraube	M3,5x6,2 Ø9	/	/	2	2	
Vite di riferimento / Positioning Screw / Anschlagsschraube	M3,5x6,2 Ø9	1	1	/	/	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	1	1	1	

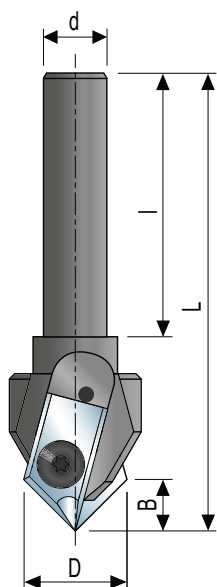
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH83FM

HW | Z=2

SET MULTIPROFILO MULTI-PROFILE CUTTER SET ZIERNUTFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
19	10	88	12	50	2	R	PH83FM01	
19	10	88	12	50	2	L	PH83FM02	

	Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
				Ø d [mm]	l [mm]				
Set	19	10	88	12	50	2	R	PH83FM10	
Set	19	10	88	12	50	2	L	PH83FM20	

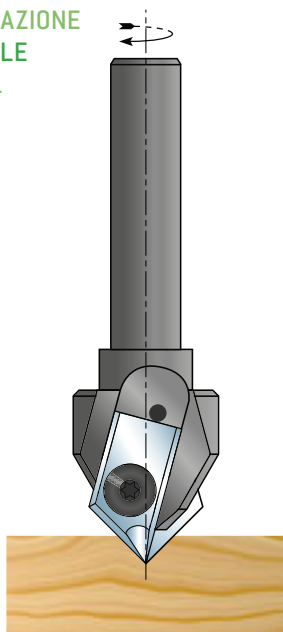
RICAMBI / SPARE PARTS / ERSATZTEILE							
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH83FM				€	
		01	02	03	04		
Coltello / Knife / Messer	25x12x1,5 90°	/	/	2	2		
Coltello Concavo / Concave Knife / Konkaves Messer	25x12x1,5 R 3	/	/	2	2		
Coltello Convesso / Convex Knife / Konkaves Messer	25x12x1,5 R 5	/	/	2	2		
Coltello Concavo / Concave Knife / Konkaves Messer	25x12x1,5 R 4	/	/	2	2		
Vite per Coltello / Knife's Screw / Schraube	M3,5x4 Ø9	2	2	3	3		
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx15	1	1	1	1		

Altri profili disponibili a richiesta

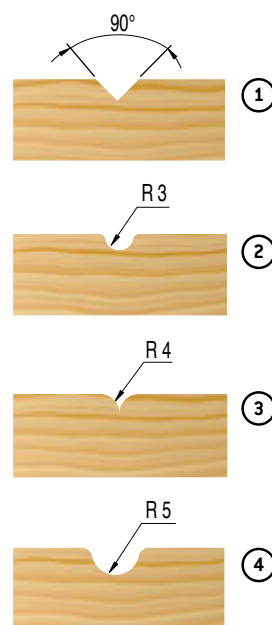
Other profiles available on request

Weitere Profile auf Anfrage lieferbar

ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



DOTAZIONE DEL SET PROVIDED SET SET IN HOLZKASSETTE



Set fornito in cassetta di legno

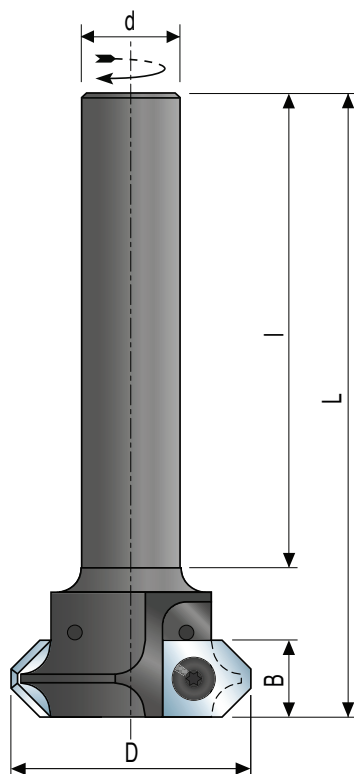
Set supplied in a wooden box

Set wird in Holzkassette geliefert

PH84FM01

HW | Z=2

PUNTE PER RAGGIARE E SMUSSARE DISPOSABLE KNIFE ROUTERS FOR ROUNDING AND CHAMFERING WECHSELPLATTEN-ABRUND- UND FASEFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
50	16	130	20 / 25	100	2	R	PH84FM01	

Punta compresa di coltelli. In fase d'ordine specificare il profilo richiesto.

Router already equipped with profiled knives. When ordering please specify the profile required.

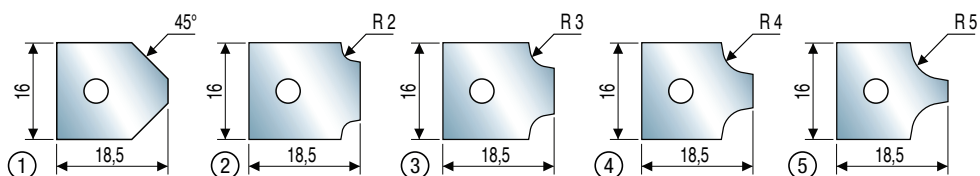
Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.

RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH84FM	€
		01	
Vite per Coltello / Knife's Screw / Schraube	M4x8,3 Ø9	2	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	

COLTELLI STANDARD/ STANDARD KNIVES / STANDARD MESSER

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH84FM		€
		Type	01	
Coltello 45° / Knife 45° / Messer 45°	16x18,5x2	①	2	
Coltello R2 / Knife R2 / Messer R2	16x18,5x2	②	2	
Coltello R3 / Knife R3 / Messer R3	16x18,5x2	③	2	
Coltello R4 / Knife R4 / Messer R4	16x18,5x2	④	2	
Coltello R5 / Knife R5 / Messer R5	16x18,5x2	⑤	2	

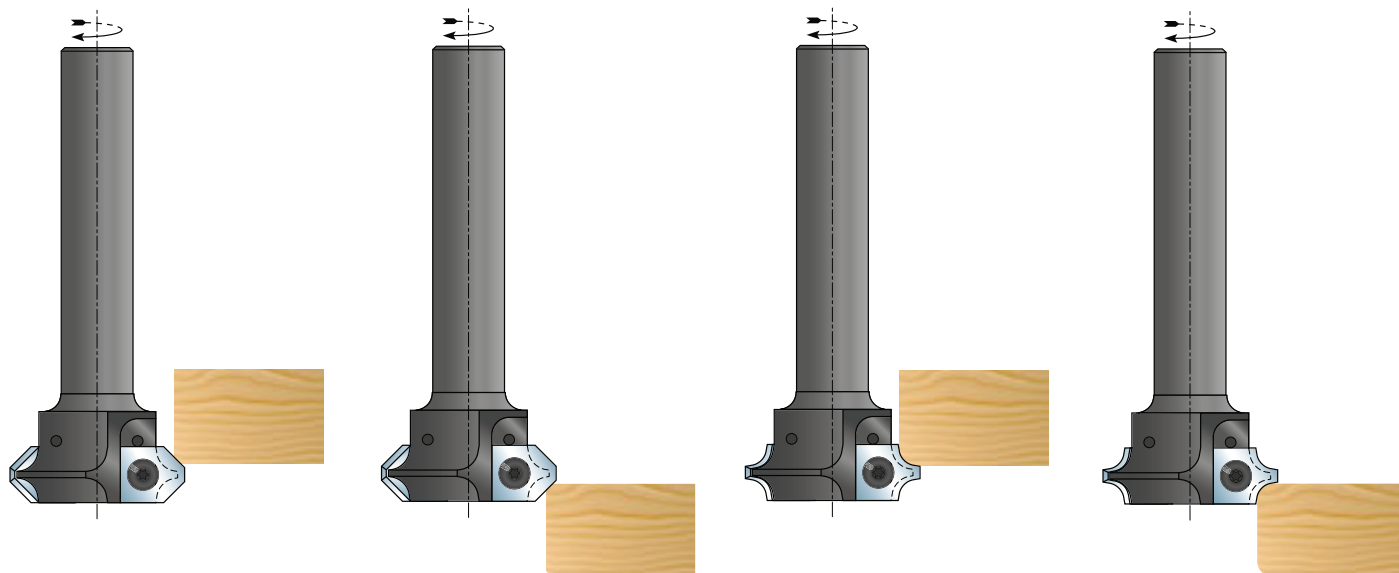


Altri profili disponibili a richiesta

Other profiles available on request

Weitere Profile auf Anfrage lieferbar

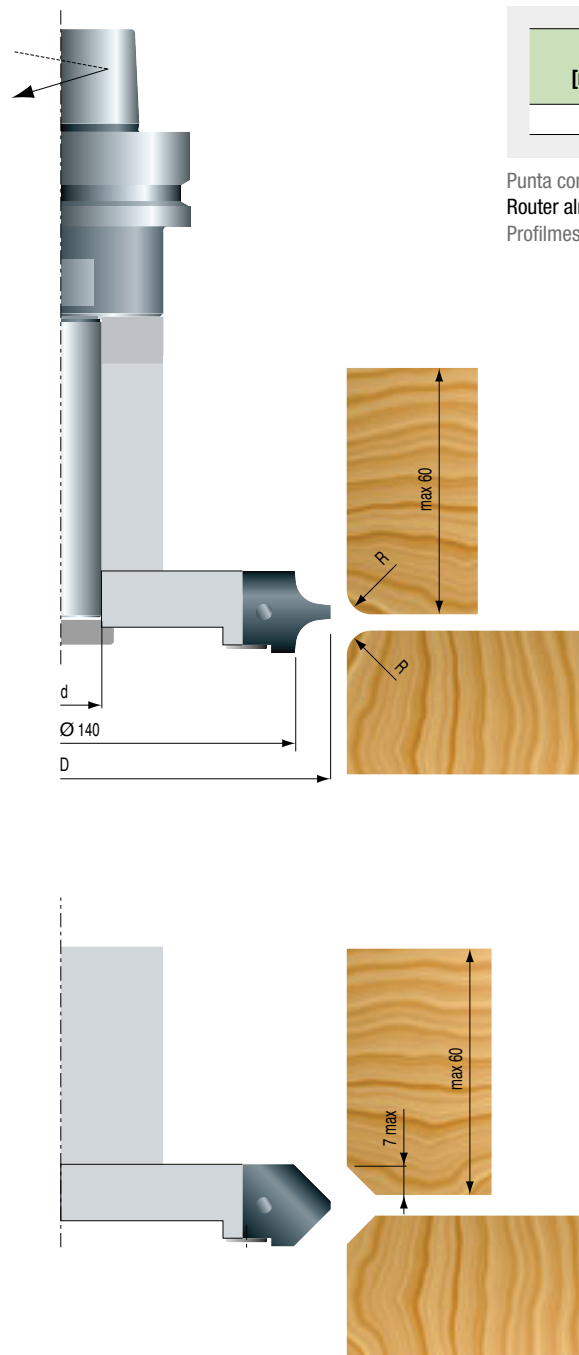
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH89FM01

HW | Z=2

GRUPPO PER RAGGIARE E SMUSSARE DISPOSABLE KNIFE ROUTER FOR ROUNDING AND CHAMFERING WECHSELPLATTEN-ABRUND-FASE-KOMBINATION



Ø D [mm]	B [mm]	Ø d [mm]	Z	Type	Art. Nr.	€
157	120	30	2	HSK 63F	PH89FM01	

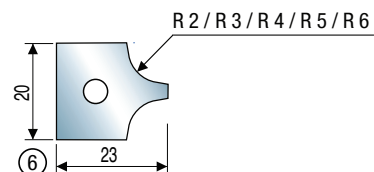
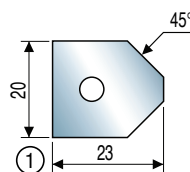
Punta compresa di coltelli. In fase d'ordine specificare il profilo richiesto.

Router already equipped with profiled knives. When ordering please specify the profile required.

Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.

COLTELLI STANDARD/ STANDARD KNIVES / STANDARD MESSER

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH89FM		€
		Type	01	
Coltello 45° / Knife 45° / Messer 45°	20x23x2	①	2	
Coltello R2 / Knife R2 / Messer R2	20x23x2	②	2	
Coltello R3 / Knife R3 / Messer R3	20x23x2	③	2	
Coltello R4 / Knife R4 / Messer R4	20x23x2	④	2	
Coltello R5 / Knife R5 / Messer R5	20x23x2	⑤	2	
Coltello R6 / Knife R6 / Messer R6	20x23x2	⑥	2	



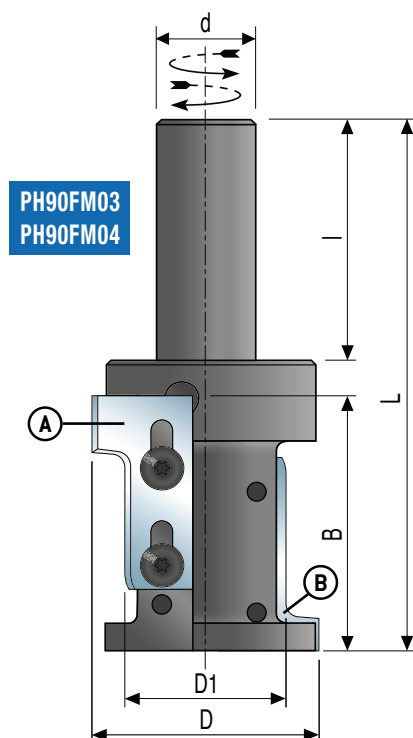
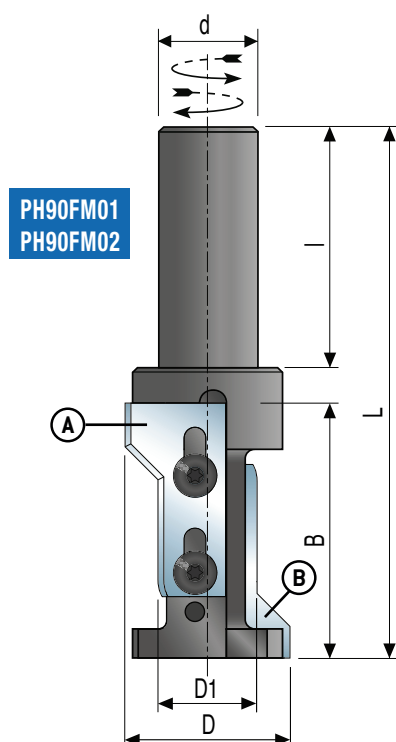
RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH89FM	€
		01	
Cuneo / Wedge / spannkeil	15	2	
Vite per cuneo / Wedge's screw / Schraube	M8 x 16	2	

PH90FM

HW | Z=2

FRESA MULTIPROFILO PER STONDARE E SMUSSARE REGOLABILE Ø MIN = 20 MM
ADJUSTABLE MULTI-PROFILE CUTTER FOR ROUNDING AND CHAMFERING Ø MIN 20MM
VERSTELLBARER MULTIPROFIL-KANTEN-BZW. ABRUND-FRÄSER Ø MIN 20MM



Ø D [mm]	D1 [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
				Ø d [mm]	l [mm]				
33,4	20	39,5÷54	110	20 / 25	50	2	R	PH90FM01	
33,4	20	39,5÷54	110	20 / 25	50	2	L	PH90FM02	
48	35	39,5÷54	110	20 / 25	50	2	R	PH90FM03	
48	35	39,5÷54	110	20 / 25	50	2	L	PH90FM04	

Punta compresa di coltelli. In fase d'ordine specificare il profilo richiesto.

Router already equipped with profiled knives. When ordering please specify the profile required.

Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.

RICAMBI / SPARE PARTS / ERSATZTEILE						
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH90FM				€
		01	02	03	04	
Vite per Coltello / Knife's Screw / Schraube	M4x8,3 Ø9	4	4	4	4	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	1	1	1	

COLTELLI STANDARD/ STANDARD KNIVES / STANDARD MESSER							
Art.		Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH90FM				€
			01	02	03	04	
Ⓐ	Coltello 45° / Knife 45° / Messer 45°	40x25x2 DX	1	/	1	/	
Ⓑ	Coltello 45° / Knife 45° / Messer 45°	40x25x2 DX	1	/	1	/	
Ⓐ	Coltello R2 / Knife R2 / Messer R2	40x25x2 DX	1	/	1	/	
Ⓑ	Coltello R2 / Knife R2 / Messer R2	40x25x2 DX	1	/	1	/	
Ⓐ	Coltello R3 / Knife R3 / Messer R3	40x25x2 DX	1	/	1	/	
Ⓑ	Coltello R3 / Knife R3 / Messer R3	40x25x2 DX	1	/	1	/	
Ⓐ	Coltello R5 / Knife R5 / Messer R5	40x25x2 DX	1	/	1	/	
Ⓑ	Coltello R5 / Knife R5 / Messer R5	40x25x2 DX	1	/	1	/	
Ⓐ	Coltello 45° / Knife 45° / Messer 45°	40x25x2 SX	/	1	/	1	
Ⓑ	Coltello 45° / Knife 45° / Messer 45°	40x25x2 SX	/	1	/	1	
Ⓐ	Coltello R2 / Knife R2 / Messer R2	40x25x2 SX	/	1	/	1	
Ⓑ	Coltello R2 / Knife R2 / Messer R2	40x25x2 SX	/	1	/	1	
Ⓐ	Coltello R3 / Knife R3 / Messer R3	40x25x2 SX	/	1	/	1	
Ⓑ	Coltello R3 / Knife R3 / Messer R3	40x25x2 SX	/	1	/	1	
Ⓐ	Coltello R5 / Knife R5 / Messer R5	40x25x2 SX	/	1	/	1	
Ⓑ	Coltello R5 / Knife R5 / Messer R5	40x25x2 SX	/	1	/	1	

Altri profili disponibili a richiesta

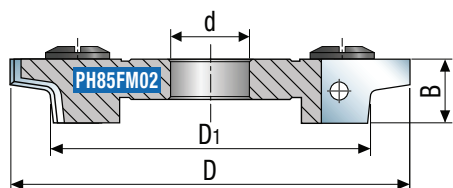
More profile available on request

Weitere Profile auf Anfrage verfügbar

PH85FM

HW | Z=2

PUNTE PER RAGGIARE E SMUSSARE REGOLABILE Ø MIN = 80 MM
DISPOSABLE KNIFE ROUTERS FOR ROUNDING AND CHAMFERING Ø MIN 80MM
WECHSELPLATTEN-ABRUND- UND FASEFRÄSER Ø MIN 80MM

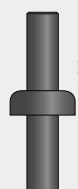
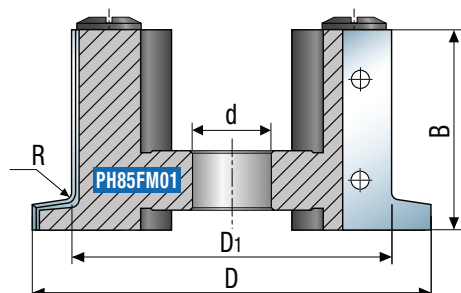


Ø D [mm]	Ø D1 [mm]	B [mm]	Ø d [mm]	Z	Art. Nr.	€
100	80	50	20 / 25	2	PH85FM01	
100	80	16	20 / 25	2	PH85FM02	

Punta compresa di coltelli. In fase d'ordine specificare il profilo richiesto.

Router already equipped with profiled knives. When ordering please specify the profile required.

Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.



20/25x50

RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH85FM		€
		01	02	
Cuneo / Wedge / Spannkeil	48x15x8	2	/	
Cuneo / Wedge / Spannkeil	15x15x8	/	2	
Set Anelli / Set Rings / Ringsatz	Ø20x25	1	1	
Vite per cuneo / Wedge's Screw / Schraube	M8x10	4	2	
Viti di Riferimento / Positioning Screw / Spannkeilschraube	M5x7 Ø16	2	2	

COLTELLI STANDARD/ STANDARD KNIVES / STANDARD MESSER

Art.	Dimensioni Dimensions Abmessungen [mm]	Type	Art. Nr. PH84FM		€
			01	02	
Coltello 45° / Knife 45° / Messer 45°	50x25x2	①	2	/	
Coltello R2 / Knife R2 / Messer R2	50x25x2	②	2	/	
Coltello R3 / Knife R3 / Messer R3	50x25x2	③	2	/	
Coltello R5 / Knife R5 / Messer R5	50x25x2	④	2	/	
Coltello R6 / Knife R6 / Messer R6	50x25x2	⑤	2	/	
Coltello R8 / Knife R8 / Messer R8	50x25x2	⑥	2	/	
Coltello 45° / Knife 45° / Messer 45°	16x25x2	⑦	/	2	
Coltello R2 / Knife R2 / Messer R2	16x25x2	⑧	/	2	
Coltello R3 / Knife R3 / Messer R3	16x25x2	⑨	/	2	
Coltello R5 / Knife R5 / Messer R5	16x25x2	⑩	/	2	
Coltello R6 / Knife R6 / Messer R6	16x25x2	⑪	/	2	
Coltello R8 / Knife R8 / Messer R8	16x25x2	⑫	/	2	

Altri profili disponibili a richiesta

Other profiles available on request

Weitere Profile auf Anfrage lieferbar

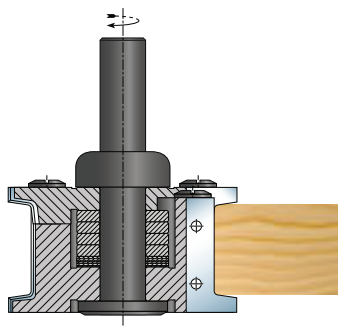
Mandrino portafresa compreso nel prezzo.

In fase d'ordine specificare attacco da 20 o 25

Chuck included in the price. When ordering, please specify if you need the shank diam. 20 or 25.

Preis inklusive Schaft. Im Auftragsfall bitte angeben, ob Ø20mm oder Ø25mm Schaft benötigt wird.

ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL

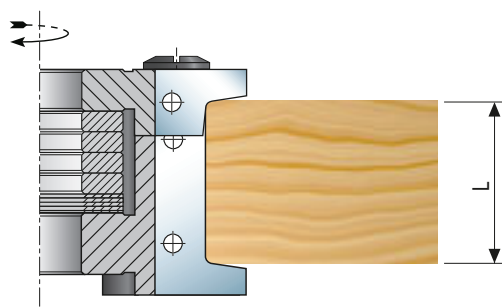


PH85FM

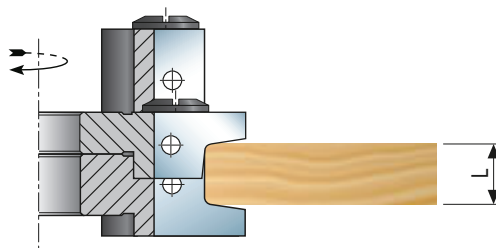
HW | Z=2

PUNTE PER RAGGIARE E SMUSSARE REGOLABILE Ø MIN = 80 MM
DISPOSABLE KNIFE ROUTERS FOR ROUNING AND CHAMFERING Ø MIN 80MM
WECHSELPLATTEN-ABRUND- UND FASEFRÄSER Ø MIN 80MM

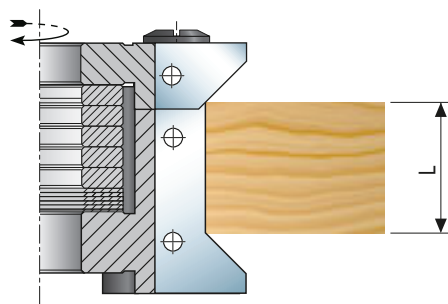
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



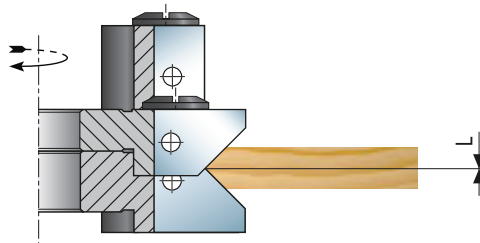
L max = 40,5 mm
R = 8 mm



L min = 14 mm
R = 2 mm

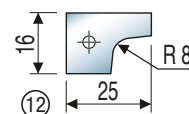
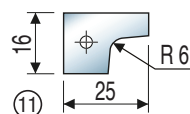
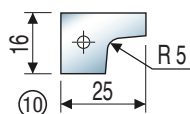
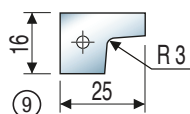
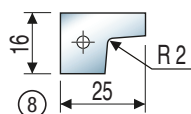
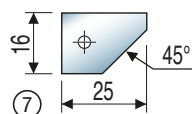
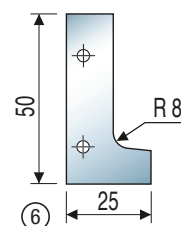
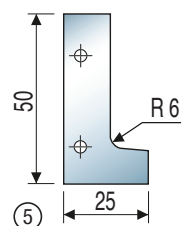
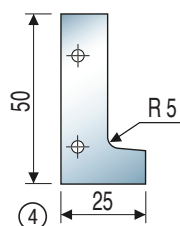
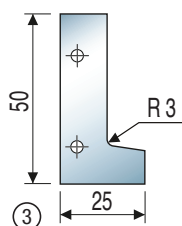
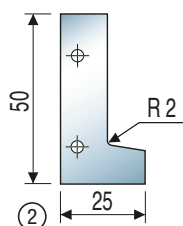
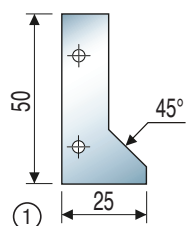


L max = 24 mm



L min = 0 mm

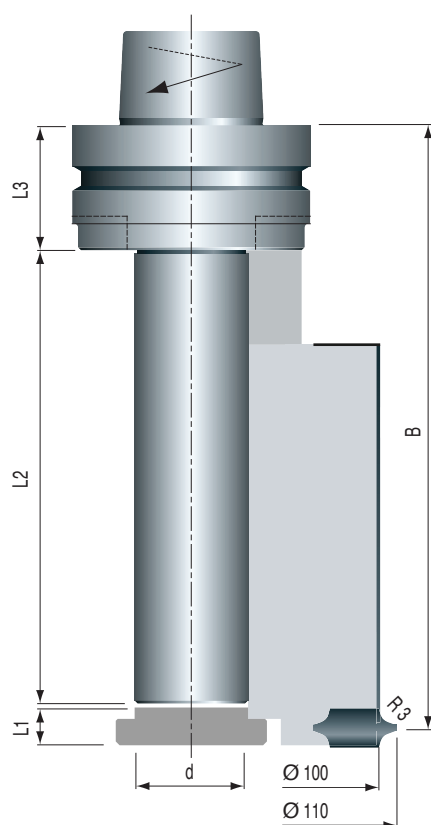
COLTELLI STANDARD STANDARD KNIVES STANDARD MESSER



PH91FM01

HW | Z=4

PUNTE PER RAGGIARE DISPOSABLE KNIFE ROUTERS FOR ROUNDING FÜGE - UND ABRUND - KOMBINATION



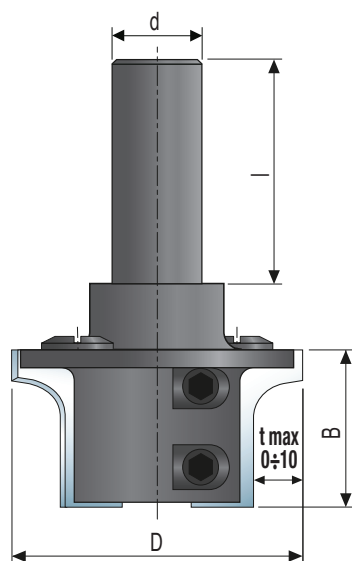
Ø [mm]	Ø d [mm]	L1 [mm]	L2 [mm]	L3 [mm]	B [mm]	Z	Art. Nr.	€
100	30	10	120	33	160,9	4	PH91FM01	

RICAMBI / SPARE PARTS / ERSATZTEILE			
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH91FM	€
		01	
Coltello / Knife / Messer "PLANEX"	100x14x2,2	4	
Cuneo / Wedge / Spannkeil	98	4	
Vite per cuneo / Wedge's screw / Schraube	M5x10	4	
Raggiatore DX / Rounding knife RH / Radiusmesser RL	27x6x14 R3	2	
Raggiatore SX / Rounding knife LH / Radiusmesser LL	27x6x14 R3	2	
Vite per raggiatore / Rounding knife's screw / Schraube	M6x19	2	

PH86FM

HW | Z=2

FRESA SAGOMATA SPECIALE CON PROFILO DA 0 A 10 MM DI PROFONDITÀ
 PROFILED CUTTER, FROM 0 TO 10 MM
 PROFILFRÄSER, PROFILTIEFE BIS 10 MM



Ø D [mm]	B [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
		Ø d [mm]	l [mm]			
60	20	20	50	2	PH86FM01	
60	30	20	50	2	PH86FM02	
60	40	20	50	2	PH86FM03	
60	50	20	50	2	PH86FM04	
60	60	20	50	2	PH86FM05	
70	20	20	50	2	PH86FM06	
70	30	20	50	2	PH86FM07	
70	40	20	50	2	PH86FM08	
70	50	20	50	2	PH86FM09	
70	60	20	50	2	PH86FM10	
80	20	20	50	2	PH86FM11	
80	30	20	50	2	PH86FM12	
80	40	20	50	2	PH86FM13	
80	50	20	50	2	PH86FM14	
80	60	20	50	2	PH86FM15	
100	20	20	50	2	PH86FM16	
100	30	20	50	2	PH86FM17	
100	40	20	50	2	PH86FM18	
100	50	20	50	2	PH86FM19	
100	60	20	50	2	PH86FM20	
120	20	20	50	2	PH86FM21	
120	30	20	50	2	PH86FM22	
120	40	20	50	2	PH86FM23	
120	50	20	50	2	PH86FM24	
120	60	20	50	2	PH86FM25	

Impiego / Use / Anwendung

Punte e coltellini per lavorazioni di contornatura con profili speciali.

Router and knives developed for routing operations with special profiles.

Werkzeug entwickelt zum Fräsen von Sonderprofilen.

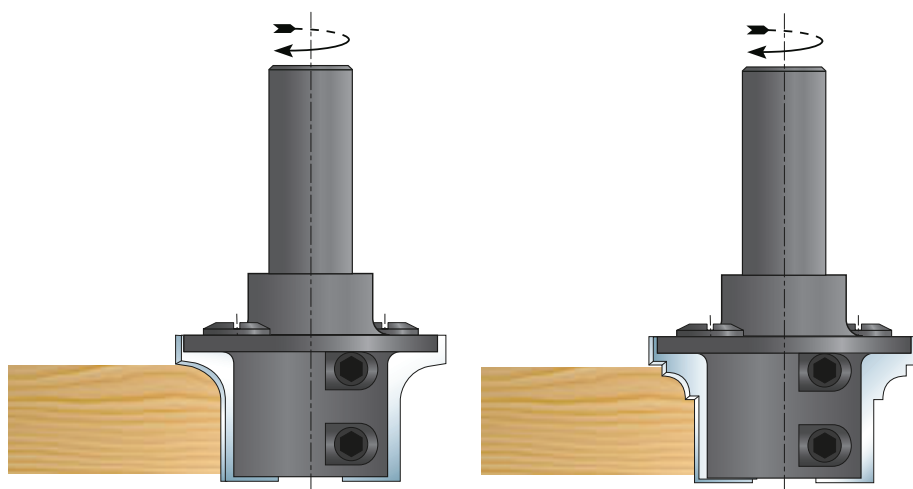
Attenzione / Attention / Achtung

Profilo a richiesta

Special profile on request

Sonder profile auf Anfrage

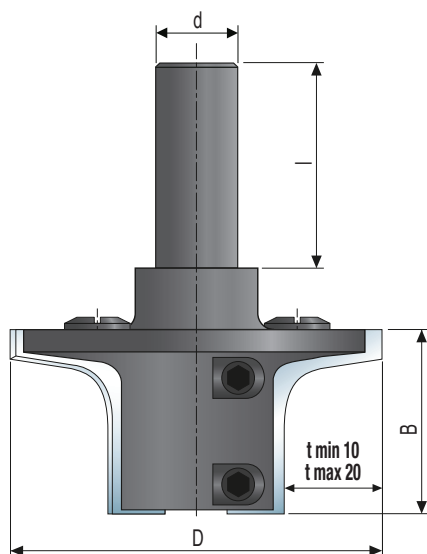
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH87FM

HW | Z=2

FRESA SAGOMATA SPECIALE CON PROFILO DA 10 A 20 MM DI PROFONDITÀ
 PROFILED CUTTER, FROM 10 TO 20 MM
 PROFILFRÄSER, PROFILTIEFE BIS 20 MM



Ø D [mm]	B [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
		Ø d [mm]	l [mm]			
60	20	20	50	2	PH87FM01	
60	30	20	50	2	PH87FM02	
60	40	20	50	2	PH87FM03	
60	50	20	50	2	PH87FM04	
60	60	20	50	2	PH87FM05	
70	20	20	50	2	PH87FM06	
70	30	20	50	2	PH87FM07	
70	40	20	50	2	PH87FM08	
70	50	20	50	2	PH87FM09	
70	60	20	50	2	PH87FM10	
80	20	20	50	2	PH87FM11	
80	30	20	50	2	PH87FM12	
80	40	20	50	2	PH87FM13	
80	50	20	50	2	PH87FM14	
80	60	20	50	2	PH87FM15	
100	20	20	50	2	PH87FM16	
100	30	20	50	2	PH87FM17	
100	40	20	50	2	PH87FM18	
100	50	20	50	2	PH87FM19	
100	60	20	50	2	PH87FM20	
120	20	20	50	2	PH87FM21	
120	30	20	50	2	PH87FM22	
120	40	20	50	2	PH87FM23	
120	50	20	50	2	PH87FM24	
120	60	20	50	2	PH87FM25	

Impiego / Use / Anwendung

Punte e coltellini per lavorazioni di contornatura con profili speciali.

Router and knives developed for routing operations with special profiles.

Werkzeug entwickelt zum Fräsen von Sonderprofilen.

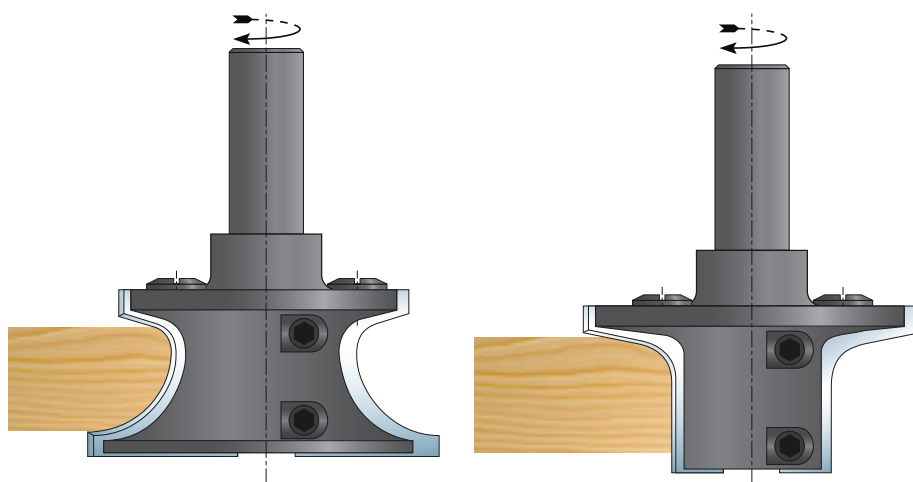
Attenzione / Attention / Achtung

Profilo a richiesta

Special profile on request

Sonder profile auf Anfrage

ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL

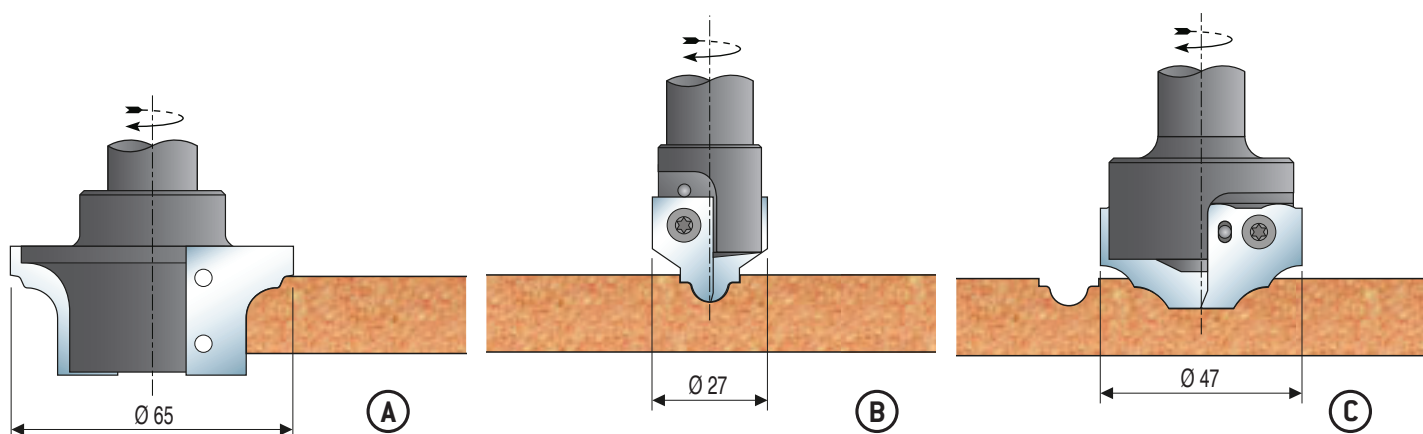


PH88FM

HW | Z=2

FRESE PER ANTINE ROUTERS FOR CABINETS WERKZEUGE FÜR MOBELFRÖNTEN

Type	Ø D [mm]	B [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
(A)	65	30	20	50	2	PH88FM01	
(B)	27	25	20	50	2	PH88FM02	
(C)	47	25	20	50	2	PH88FM03	



COLTELLI STANDARD/ STANDARD KNIVES / STANDARD MESSER		
Type	Dimensioni Dimensions Abmessungen [mm]	€
①	30X25X2	
②	15X25X2	
③	25X25X2	
④	25X25X2	
⑤	25X25X2	
⑥	25X25X2	
⑦	25X25X2	
⑧	25X25X2	
⑨	15X25X2	
⑩	25X25X2	
⑪	25X25X2	
⑫	25X25X2	
⑬	25x25x2	
⑭	25x25x2	
⑮	25x25x2	

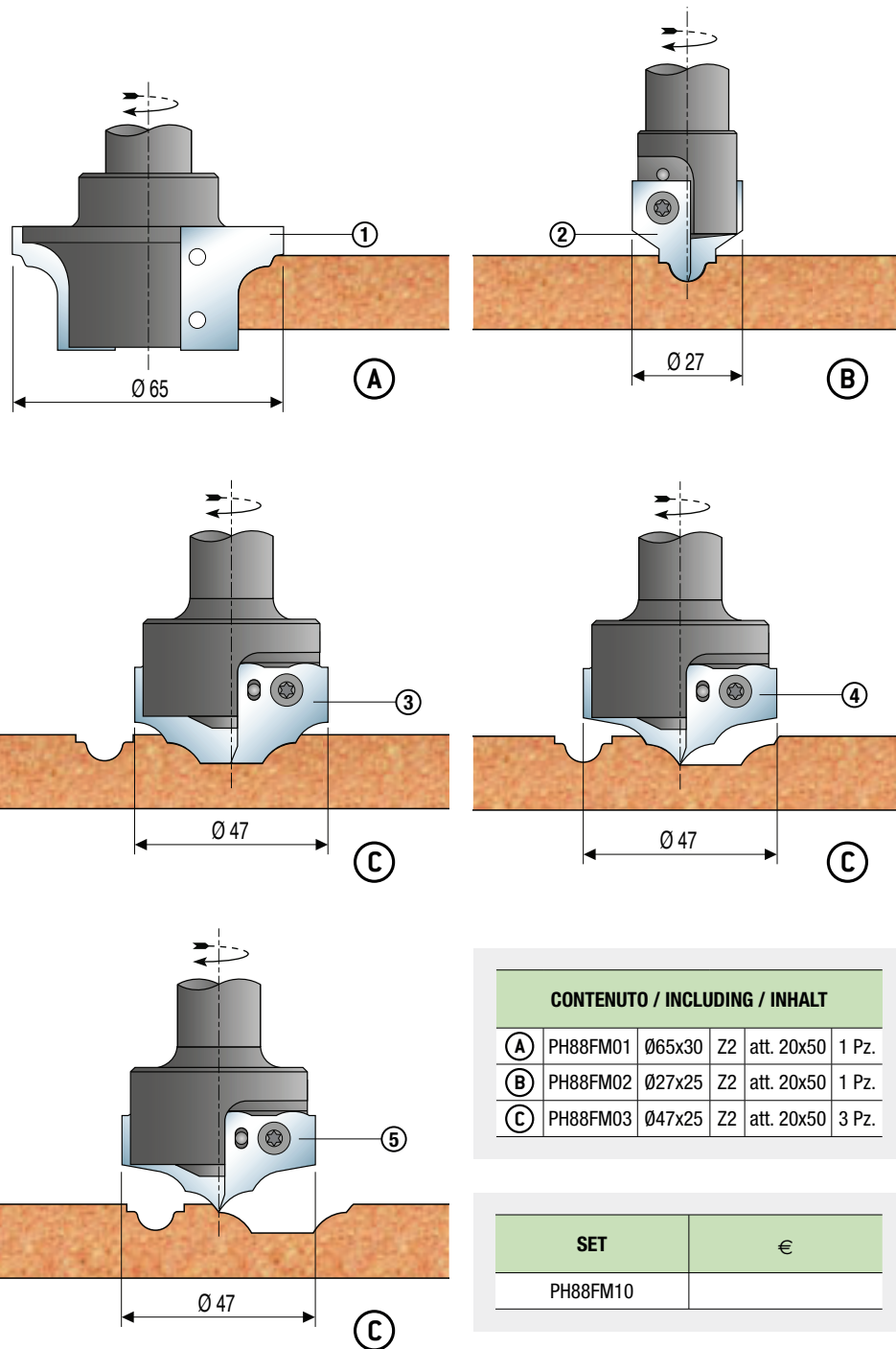
PH88FM10

SET PER ANTINE SET FOR CABINETS SET FÜR MOBELFRÖNTEN



CONTENUTO / INCLUDING / INHALT

5 punte + 5 profili + ricambi
5 drills + 5 knives + spare parts
5 Schaftfräser + 5 Profile + 5 Ersatzmesser



CONTENUTO / INCLUDING / INHALT

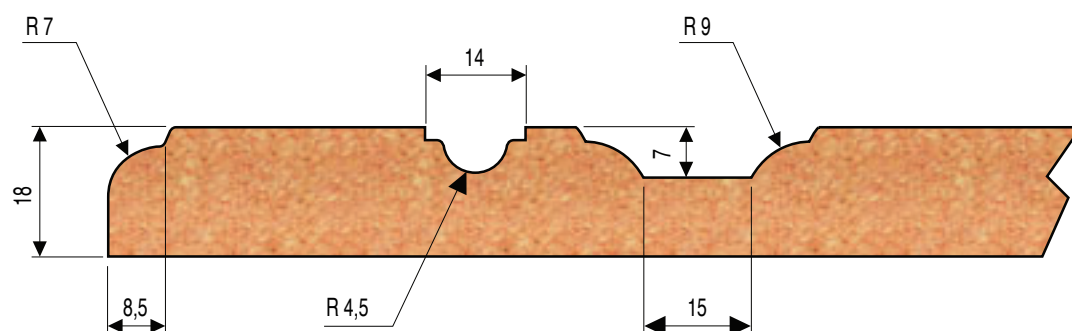
(A)	PH88FM01	Ø65x30	Z2	att. 20x50	1 Pz.
(B)	PH88FM02	Ø27x25	Z2	att. 20x50	1 Pz.
(C)	PH88FM03	Ø47x25	Z2	att. 20x50	3 Pz.

SET

€

PH88FM10

PROFILO / PROFILE / PROFIL

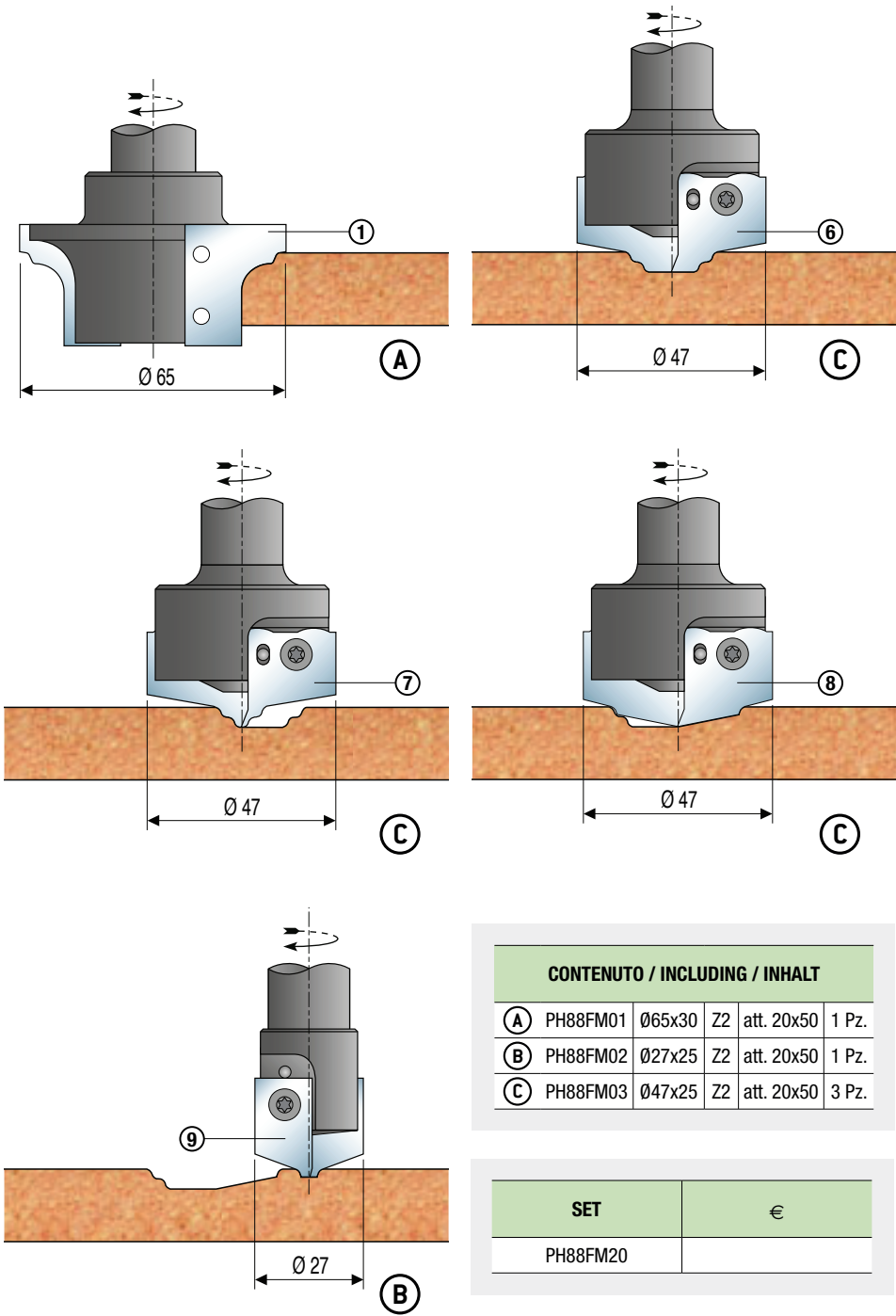


PH88FM20

SET PER ANTINE
SET FOR CABINETS
SET FÜR MOBELFRÖNTEN



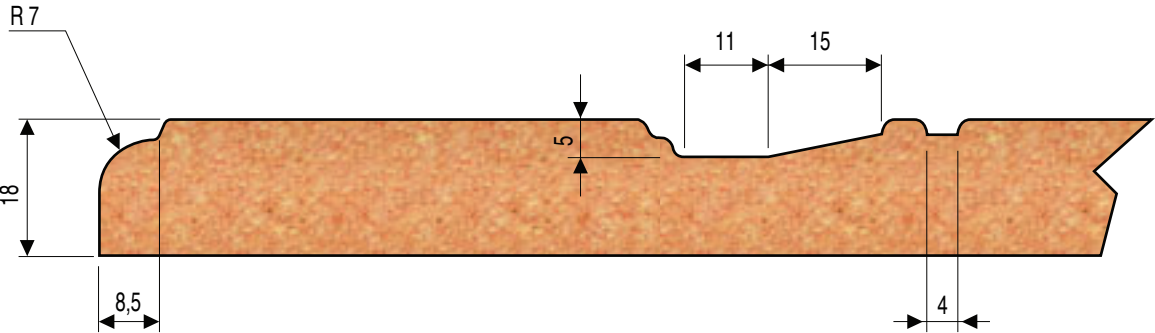
CONTENUTO / INCLUDING / INHALT
5 punte + 5 profili + ricambi
5 drills + 5 knives + spare parts
5 Schafffräser + 5 Profile + 5 Ersatzmesser



CONTENUTO / INCLUDING / INHALT					
(A)	PH88FM01	$\varnothing 65 \times 30$	Z2	att. 20x50	1 Pz.
(B)	PH88FM02	$\varnothing 27 \times 25$	Z2	att. 20x50	1 Pz.
(C)	PH88FM03	$\varnothing 47 \times 25$	Z2	att. 20x50	3 Pz.

SET	€
PH88FM20	

PROFILO / PROFILE / PROFIL



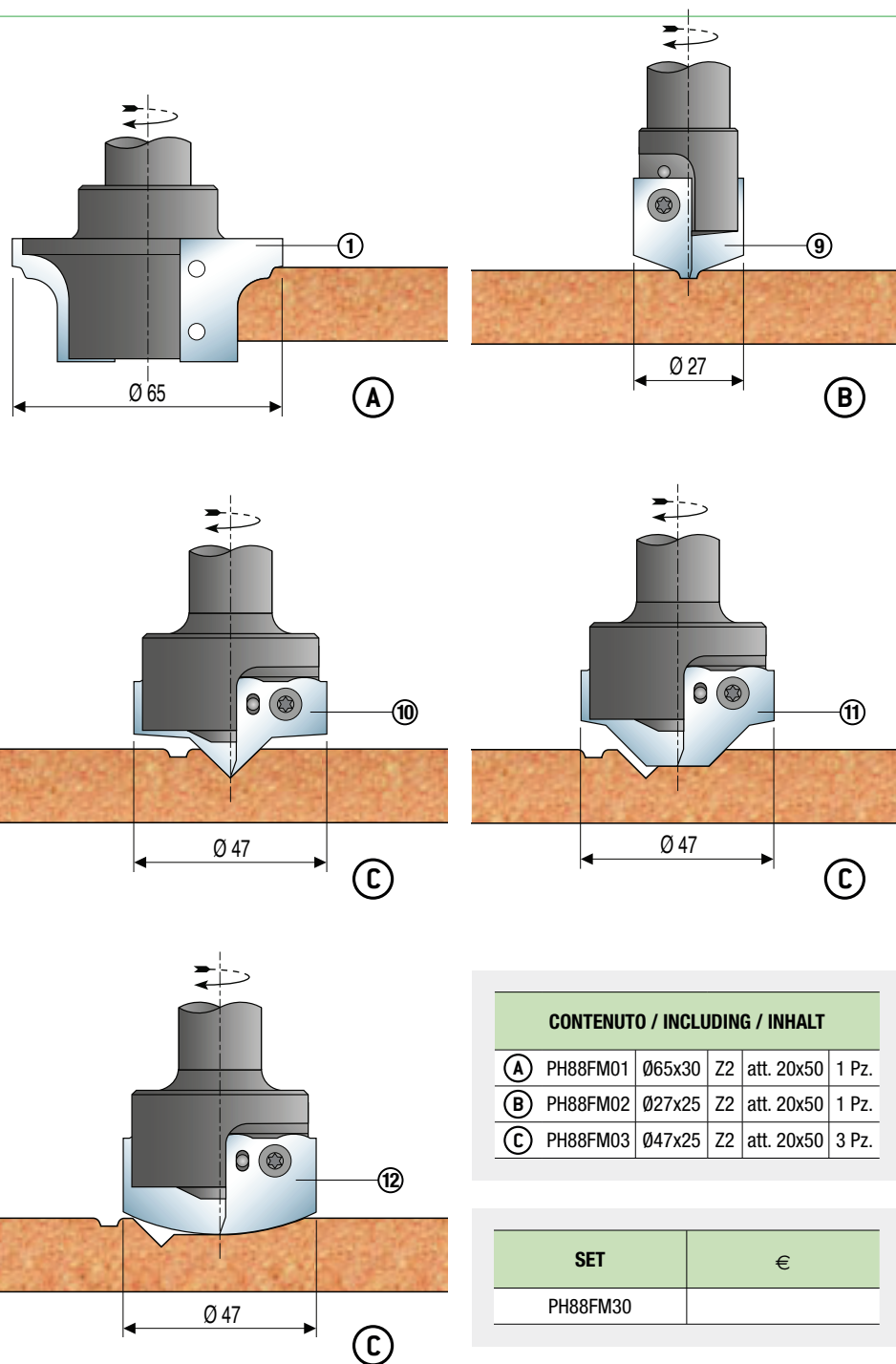
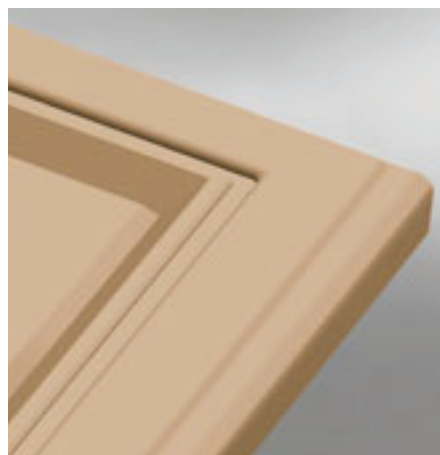
PH88FM30

SET PER ANTINE SET FOR CABINETS SET FÜR MOBELFRÖNTEN



CONTENUTO / INCLUDING / INHALT

5 punte + 5 profili + ricambi
5 drills + 5 knives + spare parts
5 Schaftfräser + 5 Profile + 5 Ersatzmesser



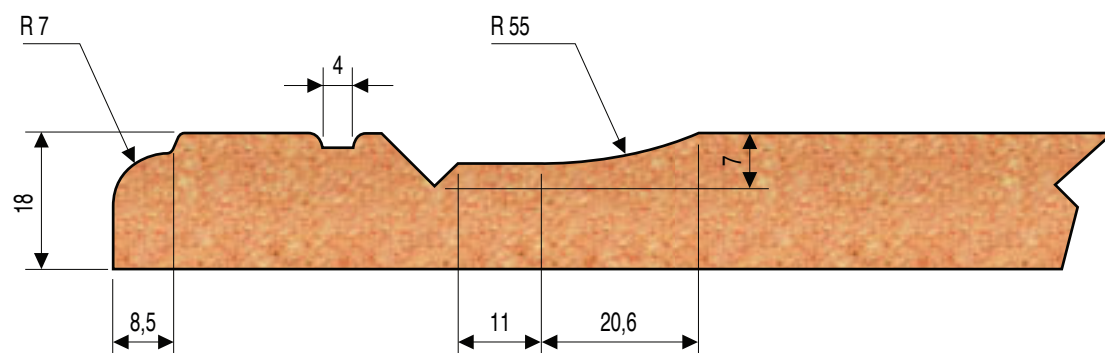
CONTENUTO / INCLUDING / INHALT

(A)	PH88FM01	Ø65x30	Z2	att. 20x50	1 Pz.
(B)	PH88FM02	Ø27x25	Z2	att. 20x50	1 Pz.
(C)	PH88FM03	Ø47x25	Z2	att. 20x50	3 Pz.

SET

SET	€
PH88FM30	

PROFILO / PROFILE / PROFIL



PH88FM40

SET PER ANTINE
SET FOR CABINETS
SET FÜR MOBELFRÖNTEN

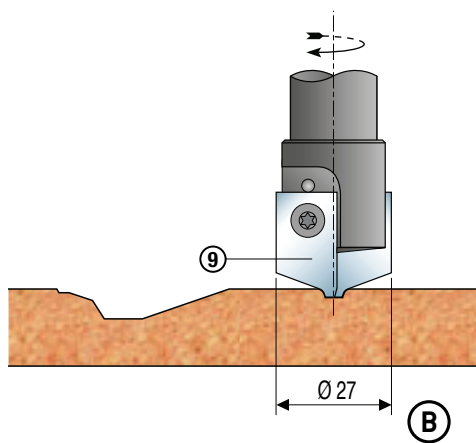
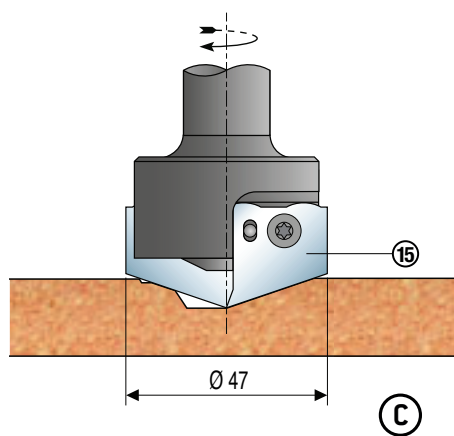
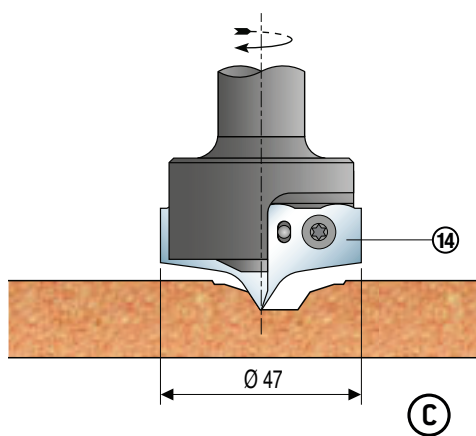
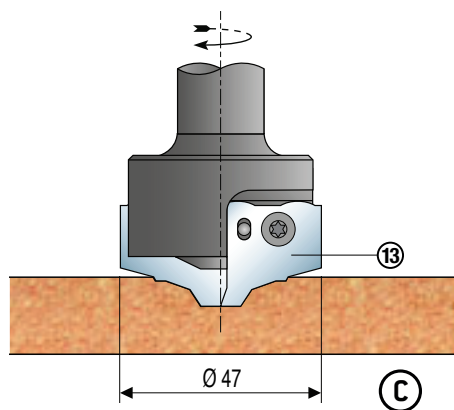
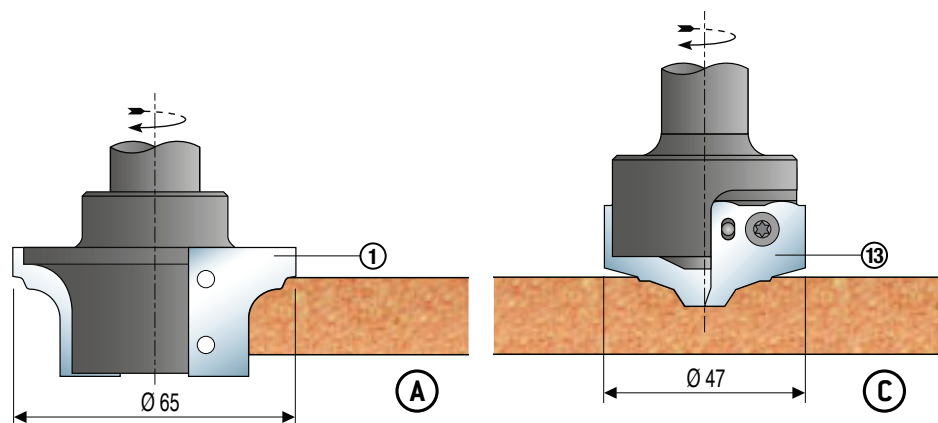


CONTENUTO / INCLUDING / INHALT

5 punte + 5 profili + ricambi

5 drills + 5 knives + spare parts

5 Schaftfräser + 5 Profile + 5 Ersatzmesser



CONTENUTO / INCLUDING / INHALT

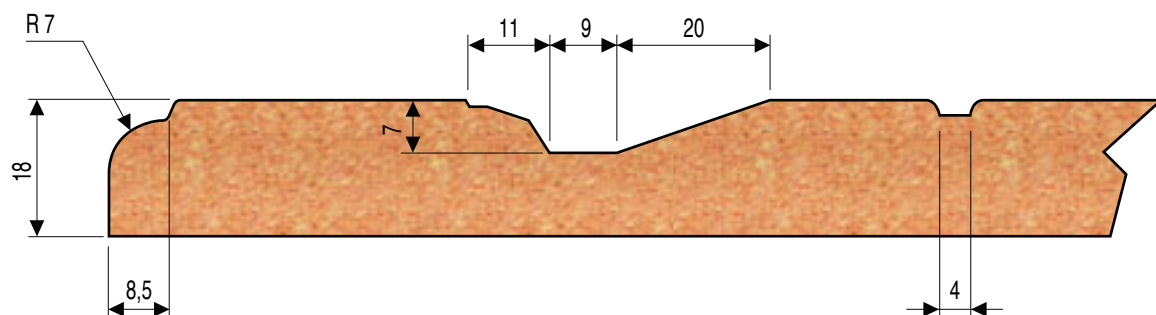
(A)	PH88FM01	Ø65x30	Z2	att. 20x50	1 Pz.
(B)	PH88FM02	Ø27x25	Z2	att. 20x50	1 Pz.
(C)	PH88FM03	Ø47x25	Z2	att. 20x50	3 Pz.

SET

€

PH88FM40

PROFILO / PROFILE / PROFIL



PH92FM

FRESE PER PORTE PROFILO E CONTROPROFILO

CUTTERS FOR DOORS - PROFILE AND COUNTERPROFILE

KONTERPROFILFRÄSER



Ø D [mm]	B [mm]	Ø d [mm]	Z	V	Material	Art. nr.	€
140	25	30	3	/	* Lega leggera / Light alloy / Leicht Metall	PH92FM01	
132	10÷20	30	4	2+2	Acciaio / Steel / Stahl	PH92FM02	
140	25	30	3	/	* Lega leggera / Light alloy / Leicht Metall	PH92FM03	
140	35	30	3	/	* Lega leggera / Light alloy / Leicht Metall	PH92FM04	
140	35	30	3	/	* Lega leggera / Light alloy / Leicht Metall	PH92FM05	
138	16	30	3	/	Acciaio / Steel / Stahl	PH92FM06	
131	30,3	30	3	3	* Lega leggera / Light alloy / Leicht Metall	PH92FM07	
160	20,3	30	3	3	* Lega leggera / Light alloy / Leicht Metall	PH92FM08	

Altri profili disponibili a richiesta
 Other profiles available on request
 Weitere Profile auf Anfrage lieferbar

Mandrino portafresa non compreso. In fase d'ordine specificare la lunghezza dell'albero.
 Toolholder not included. When order please specify the arbor's lenght.
 Werkzeugaufnahme im Lieferumfang nicht inbegriffen. Bei Bestellung bitte Länge des Aufnahmedorns angeben.

RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni / Dimensions / Abmessungen [mm]	CODE PH92FM								€
		01	02	03	04	05	06	07	08	
Coltello / Knife / Messer	25x35x2 DX	3	/	/	/	/	/	/	/	
Coltello / Knife / Messer	9,6x12x1,5	/	4	/	/	/	/	/	/	
Coltello / Knife / Messer	25x35x2 SX	/	/	3	/	/	/	/	/	
Coltello / Knife / Messer	35x30x2 DX	/	/	/	3	/	/	/	/	
Coltello / Knife / Messer	35x30x2 SX	/	/	/	/	3	/	/	/	
Coltello / Knife / Messer	16x20x2	/	/	/	/	/	3	/	/	
Coltello / Knife / Messer	30x12x1,5	/	/	/	/	/	/	3	/	
Coltello / Knife / Messer	20x30x2	/	/	/	/	/	/	/	3	
Rasante / Spur / Vorschneider	14x14x2	/	4	/	/	/	/	3	/	
Rasante / Spur / Vorschneider	22x19x2	/	/	/	/	/	/	/	3	
Cuneo / Wedge / Spannkeil	24x25x8 DX	3	/	/	/	/	/	/	/	
Cuneo / Wedge / Spannkeil	9x12x10	/	4	/	/	/	/	/	/	
Cuneo / Wedge / Spannkeil	24x25x8 SX	/	/	3	/	/	/	/	/	
Cuneo / Wedge / Spannkeil	35x12x8 DX	/	/	/	3	/	/	/	/	
Cuneo / Wedge / Spannkeil	35x12x8 SX	/	/	/	/	3	/	/	/	
Cuneo / Wedge / Spannkeil	16x13,5x8	/	/	/	/	/	3	/	/	
Cuneo / Wedge / Spannkeil	26x15x8	/	/	/	/	/	/	3	/	
Cuneo / Wedge / Spannkeil	19x15x8	/	/	/	/	/	/	/	3	
Vite per Cuneo / Wedge's Screw / Spannkeilschraube	M8x16	3	/	3	6	6	3	6	3	
Vite per Cuneo / Wedge's Screw / Spannkeilschraube	M6x16	/	4	/	/	/	/	/	/	
Vite per Rasante / Spur's Screw / Schraube für VS	M5x6,5 Ø9	/	4	/	/	/	/	3	/	
Vite di riferimento / Positioning Screw / Schraube für VS	M5x7 Ø16	3	/	3	3	3	3	/	3	
Set Anelli / Set Rings / Ringsatz	d30x12,4	*			/	/	/	/	/	
Set Anelli / Set Rings / Ringsatz	d30x15	/	/	/	*		/	/	/	
Set Anelli / Set Rings / Ringsatz	d30x24,6	/	/	/	/	/	*			
Vite per Rasante / Spur's Screw / Anschlagsschraube	Torx 20	/	1	/	/	/	/	1	1	
Chiave per Cuneo / Wedge's Key / Torxschlüssel	Esagonale 3	/	1	/	/	/	/	/	/	
Chiave per Cuneo / Wedge's Key / Torxschlüssel	Esagonale 4	1	/	1	1	1	1	1	1	

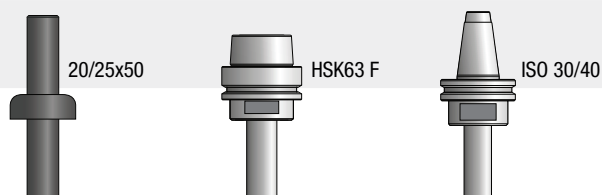
PH92FM

FRESE PER PORTE PROFILO E CONTROPROFILO
CUTTERS FOR DOORS - PROFILE AND COUNTERPROFILE
KONTERPROFILFRÄSER

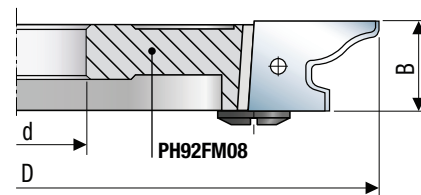
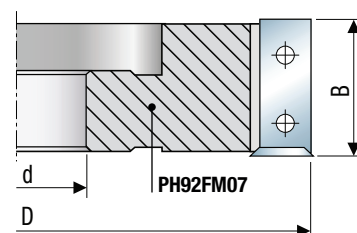
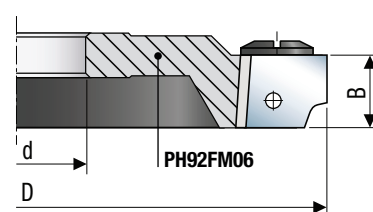
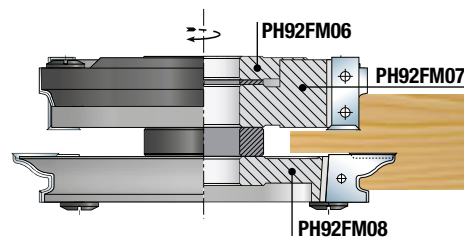
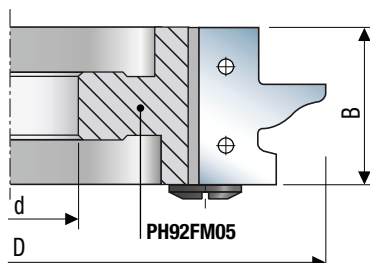
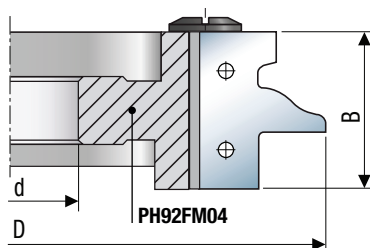
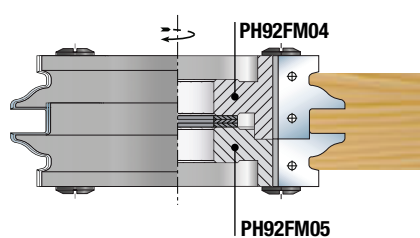
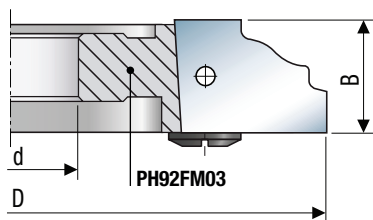
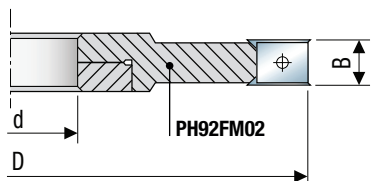
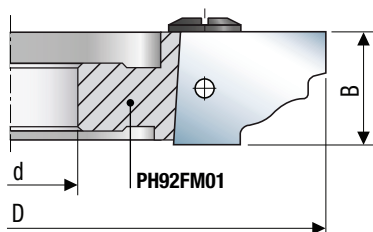
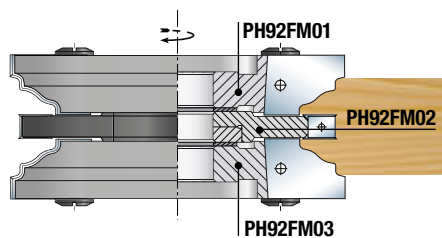
Attacco per PH92FM

Shank for PH92FM

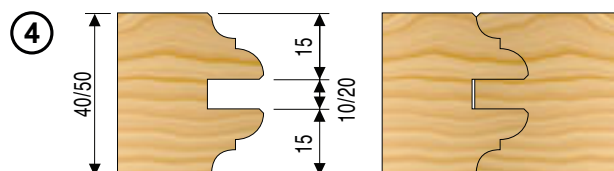
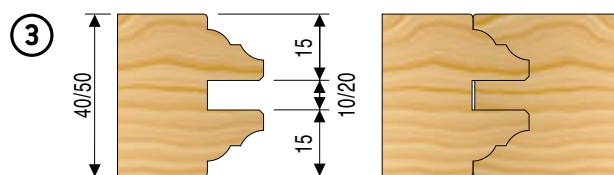
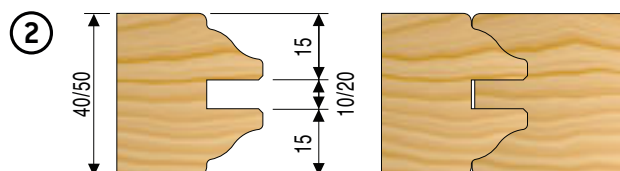
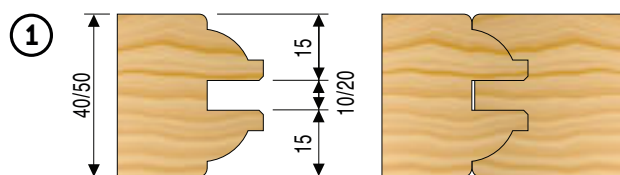
Schaft für PH92FM



ESEMPI DI LAVORAZIONE WORKING EXAMPLE BEISPIELE



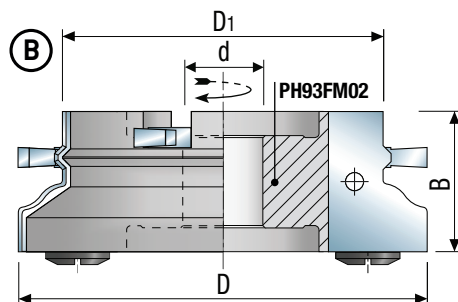
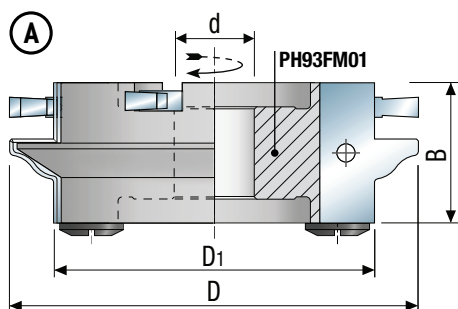
ESEMPI DI PROFILI EXAMPLE OF PROFILE EINSATZBEISPIEL



PH93FM

HW | Z=2

FRESE PER ANTINE PROFILO E CONTROPROFILO CUTTERS FOR CABINE - PROFILE AND COUNTERPROFILE KONTERPROFILFRÄSER



Type	Ø D [mm]	D1 [mm]	B [mm]	Ø Ø d [mm]	Z	I	Art. Nr.	€
(A)	102	80	35	20 / 25	2	2+2	PH93FM01	
(B)	102	80	35	20 / 25	2	2+2	PH93FM02	

Fresa compresa di coltelli. In fase d'ordine specificare il profilo richiesto.

Router already equipped with profiled knives. When ordering please specify the profile required.

Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.

RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH93FM		€
		01	02	
Inserto per incastri / Grooving insert / Nutmesser	34x16x5	2	2	
Inserto per incastri / Grooving insert / Nutmesser	34x16x6	2	2	
Cuneo / Wedge / Spannkeil	35x20x8	2	/	
Cuneo / Wedge / Spannkeil	35x20x8	/	2	
Vite per cuneo / Wedge's screw / Spannkeil Schraube	M8x16	4	4	
Vite di riferimento / Positioning screw / Schraube für VS	M5x7 Ø16	2	2	
Vite per inserto / Insert's screw / Schraube für nutmesser	M5x10	4	4	
Chiave per cuneo / Wedge's key / Torxschlüssel	Esagonale 4	1	1	
Chiave per inserto / Insert's key / Torxschlüssel	Esagonale 3	1	1	

COLTELLI STANDARD/ STANDARD KNIVES / STANDARD MESSER

Type	Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH93FM		€
			01	02	
(P1)	Coltello / Knife / Messer	35x30x3	2	/	
(P2)	Coltello / Knife / Messer	35x30x3	2	/	
(P3)	Coltello / Knife / Messer	35x30x3	2	/	
(P4)	Coltello / Knife / Messer	35x30x3	2	/	
(P5)	Coltello / Knife / Messer	35x30x3	2	/	
(C1)	Controprofilo / Counterprofile / Konterprofilmesser	35x30x3	/	2	
(C2)	Controprofilo / Counterprofile / Konterprofilmesser	35x30x3	/	2	
(C3)	Controprofilo / Counterprofile / Konterprofilmesser	35x30x3	/	2	
(C4)	Controprofilo / Counterprofile / Konterprofilmesser	35x30x3	/	2	
(C5)	Controprofilo / Counterprofile / Konterprofilmesser	35x30x3	/	2	

Mandrino portafresa non compreso.

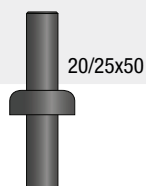
Toolholder not included.

Werkzeugaufnahme nicht inbegriffen.

Attacco per PH93FM

Shank for PH93FM

Schaft für PH93FM

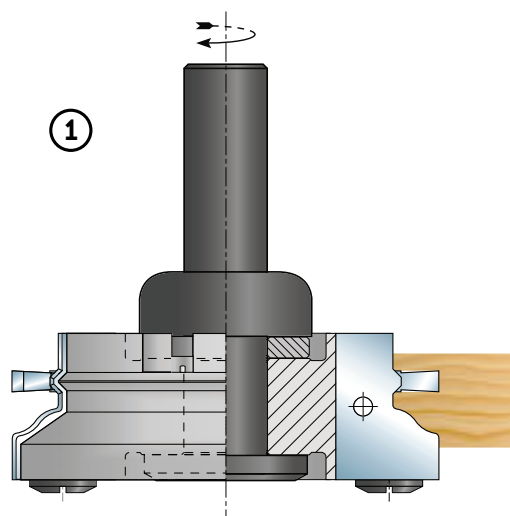


PH93FM

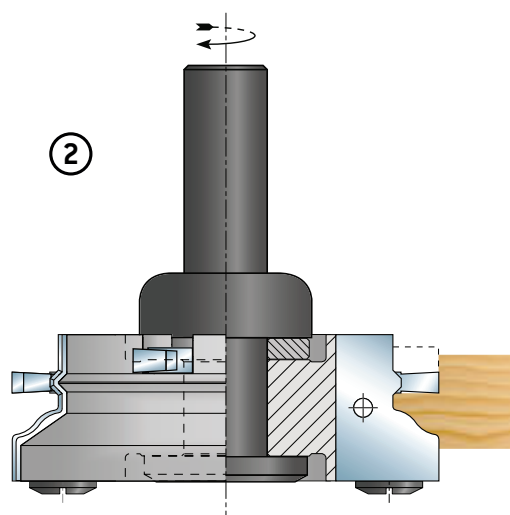
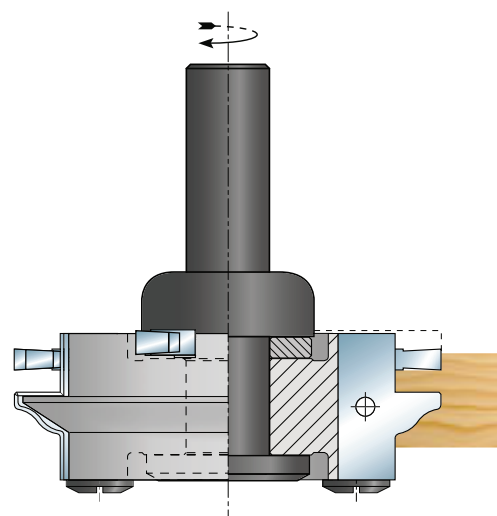
HW | Z=2

FRESE PER ANTINE PROFILO E CONTROPROFILO
CUTTERS FOR CABINE - PROFILE AND COUNTERPROFILE
KONTERPROFILFRÄSER

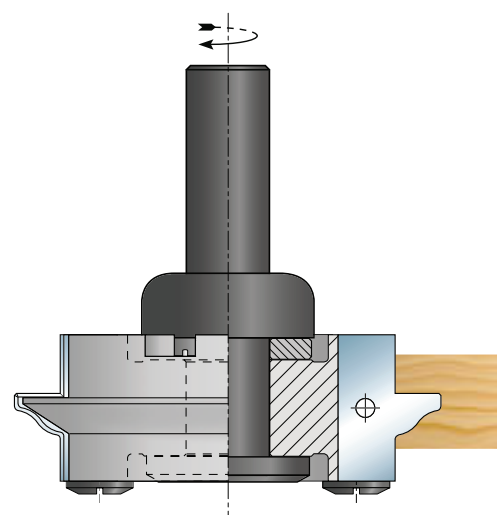
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



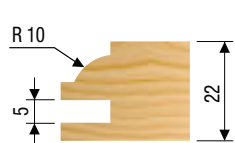
Con spina
With tenon
Mit Zapfen



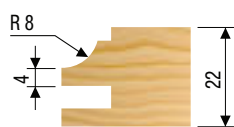
Senza spina
Without tenon
Ohne Zapfen



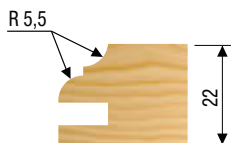
PROFILO / PROFILE / KONTERPROFIL



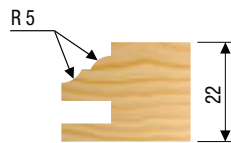
①



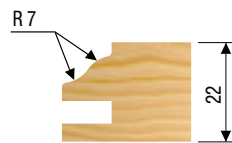
②



③

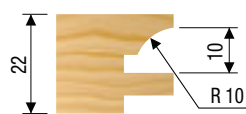


④

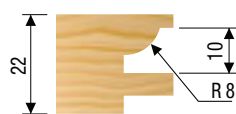


⑤

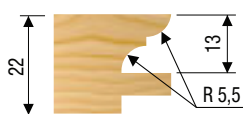
CONTROPROFILO / SCRIBE / PROFIL



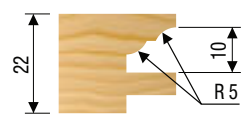
①



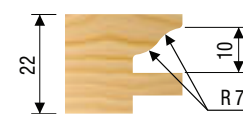
②



③



④



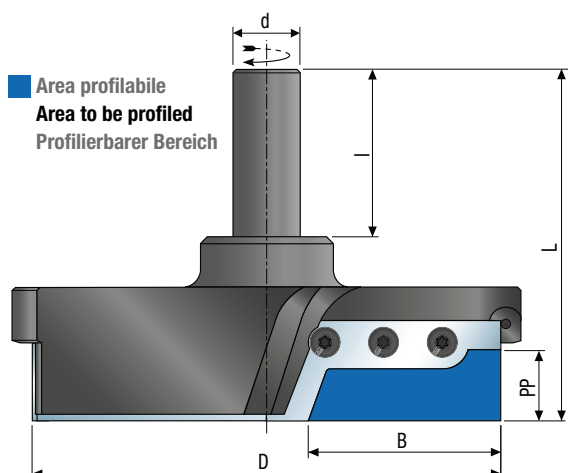
⑤

Altri profili disponibili a richiesta
Other profiles available on request
Weitere Profile auf Anfrage lieferbar

PH94FM

HW | Z=2

FRESE MULTIPROFILO PER SAGOME INTERNE O PIATTABANDA MULTI-PROFILE PLATBAND FOR INTERNAL PROFILES ABPLATTFRÄSER FÜR INNENPROFILE



Ø D [mm]	B [mm]	PP [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
				Ø d [mm]	l [mm]			
119	59,5	14	100	20	50	2	PH94FM01	
140	57	21	105	20	50	2	PH94FM02	

Impiego / Use / Anwendung

Materiale : Mdf - Legno
Material : MDF - Wood
Werkstoff : MDF - Holz

Fresa compressa di coltelli. In fase d'ordine specificare il profilo richiesto.

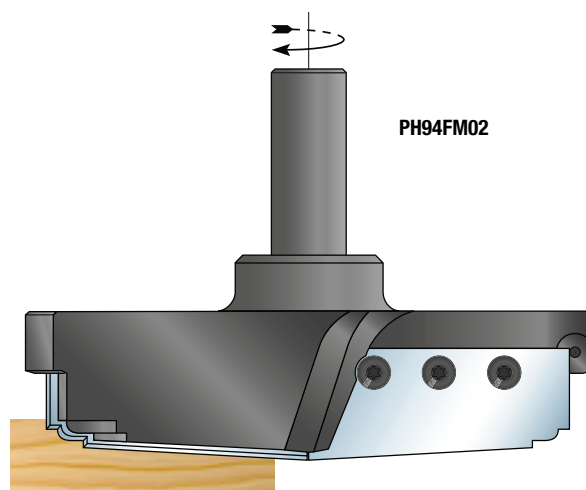
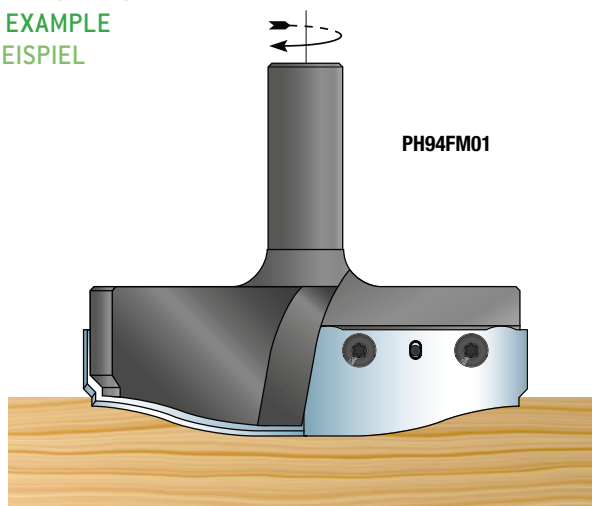
Router already equipped with profiled knives. When ordering please specify the profile required.

Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.

RICAMBI / SPARE PARTS / ERSATZTEILE

Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH94FM		€
		01	02	
Coltello / Knife / Messer	70x30x2	/	2	
Coltelli FIX / Knife FIX / Messer FIX	60x30x2	2	/	
Vite per Coltello / Knife's Screw / Schraube	M4x8,3 Ø9	/	6	
Vite per Coltello / Knife's Screw / Schraube	M5x10,2 Ø10,5	4	/	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	/	1	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 20	1	/	

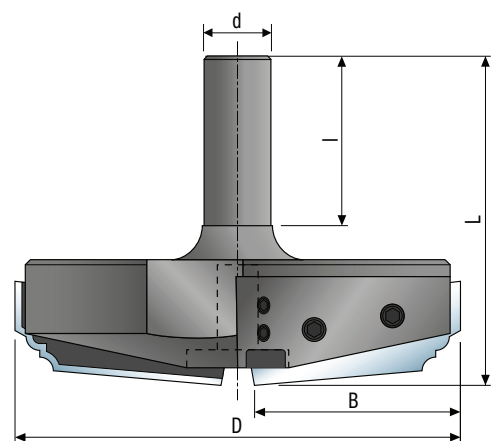
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PIATTABANDA MULTIPROFILO Z2
MULTI-PROFILE PANEL RAISING Z2
MULTIPROFILABPLATTFRÄSER Z2

PH95FM01

HW | Z=2

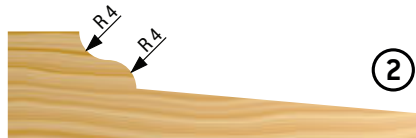


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
138	46,5	97	20 / 25	50	2	PH95FM01	

Fresa compresa di coltelli. In fase d'ordine specificare il profilo richiesto.
Router already equipped with profiled knives. When ordering please specify the profile required.
Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.

RICAMBI / SPARE PARTS / ERSATZTEILE				
Type	Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH95FM	€
			01	
①	Coltello / Knife / Messer	65x25x2	2	
②	Coltello / Knife / Messer	65x25x2	2	
③	Coltello / Knife / Messer	65x25x2	2	
④	Coltello / Knife / Messer	65x25x2	2	
⑤	Coltello / Knife / Messer	65x25x2	2	
①	Supporto / Backing plate / Stützplatte	65x25x4	2	
②	Supporto / Backing plate / Stützplatte	65x25x4	2	
③	Supporto / Backing plate / Stützplatte	65x25x4	2	
④	Supporto / Backing plate / Stützplatte	65x25x4	2	
⑤	Supporto / Backing plate / Stützplatte	65x25x4	2	

ESEMPI DI LAVORAZIONE
WORKING EXAMPLE
EINSATZBEISPIEL



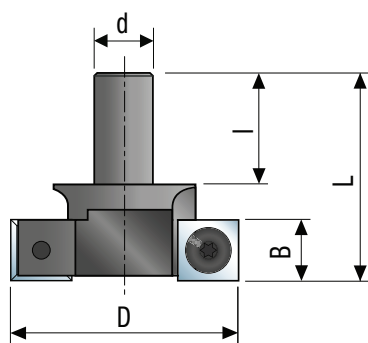
PH96FM01

HW | Z=2

SOTTOPUNTA OPZIONALE PER PH95FM01

ADDITIONAL ROUTER FOR CENTER CAN BE MOUNTED ON PH95FM01

AUFSATZ MONTIERBAR AUF PH95FM01



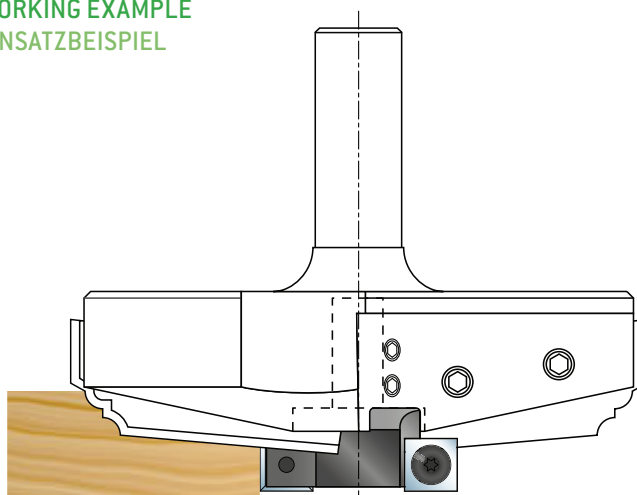
Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
45	12	40	12	22	2	PH96FM01	

RICAMBI / SPARE PARTS / ERSATZTEILE			
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH96FM	€
		01	
Coltello / Knife / Messer	12x12x1,5	2	
Vite per Coltello / Knife's Screw / Schraube	M3,5x7 Ø9	2	
Chiave per Coltello / Knife's Key / Torxschlüssel	Torx 15	1	
Chiave per Vite di blocc. / Block Screw's Key / Sechskantschlüssel	Esagonale 2,5	1	

ESEMPI DI LAVORAZIONE

WORKING EXAMPLE

EINSATZBEISPIEL



NOTE / **NOTES** / NOTIZEN





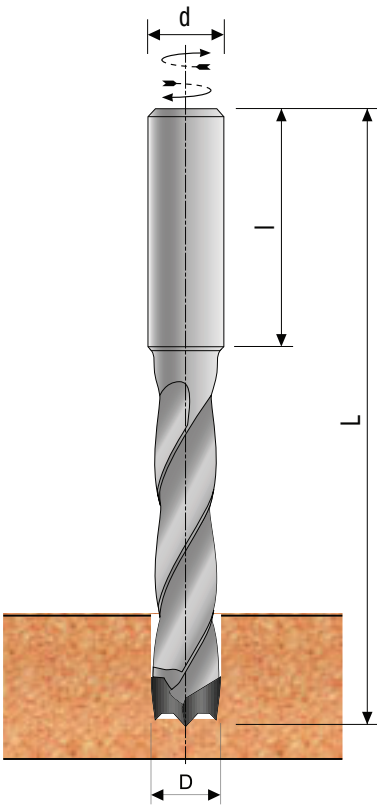
LINEA UTENSILI IN DIAMANTE / DIAMOND TOOLS LINE / DIAMANT-WERKZEUGE



PD10FD

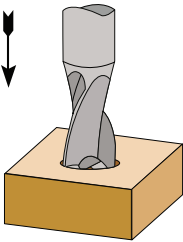
DIA | Z=2

PUNTA PER FORATRICE - FORO CIECO
BLIND HOLE DRILL BIT
DÜBELLOCHBOHRER



M Materiale forante
Drilling tip material
Bohrschneide Material

P Placchetta
Tip
Schneide

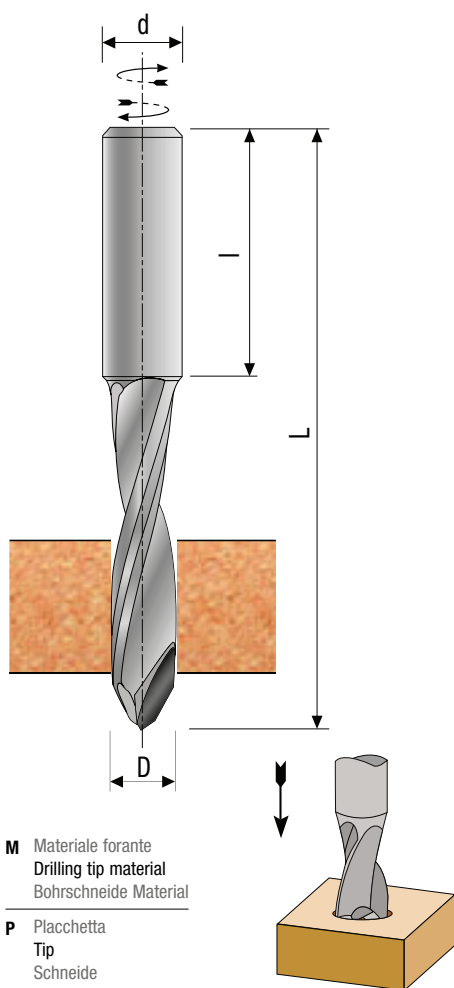


Ø D [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	P		Art. Nr.	€
		Ø d [mm]	l [mm]			n°	M		
5	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD01	
5	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD02	
6	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD03	
6	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD04	
7	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD05	
7	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD06	
8	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD07	
8	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD08	
9	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD09	
9	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD10	
10	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD11	
10	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD12	
12	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD13	
12	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD14	
5	70	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD15	
5	70	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD16	
6	70	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD17	
6	70	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD18	
7	70	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD19	
7	70	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD20	
8	70	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD21	
8	70	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD22	
9	70	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD23	
9	70	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD24	
10	70	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD25	
10	70	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD26	
12	70	10	20	2	DX / RH / RL	2	PCD / PKD	PD10FD27	
12	70	10	20	2	SX / LH / LL	2	PCD / PKD	PD10FD28	

PD11FD

DIA | Z=2

PUNTA PER FORATRICE - FORO PASSANTE THROUGH-OUT DRILL BIT DURCHGANGSBOHRER

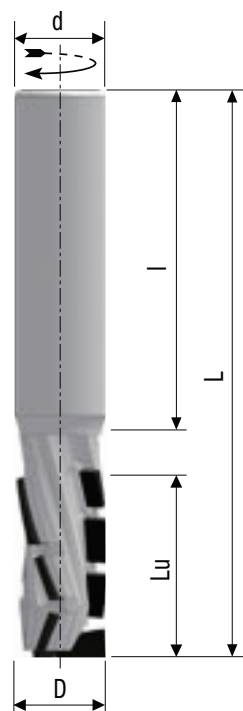


Ø D [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
		Ø d [mm]	l [mm]			n°	M	h [mm]		
5	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD01	
5	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD02	
6	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD03	
6	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD04	
7	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD05	
7	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD06	
8	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD07	
8	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD08	
9	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD09	
9	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD10	
10	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD11	
10	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD12	
12	57,5	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD13	
12	57,5	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD14	
5	70	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD15	
5	70	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD16	
6	70	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD17	
6	70	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD18	
7	70	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD19	
7	70	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD20	
8	70	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD21	
8	70	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD22	
9	70	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD23	
9	70	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD24	
10	70	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD25	
10	70	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD26	
12	70	10	20	2	DX / RH / RL	2	PCD / PKD	4	PD11FD27	
12	70	10	20	2	SX / LH / LL	2	PCD / PKD	4	PD11FD28	

PD12FD

DIA | H3 - Z=2

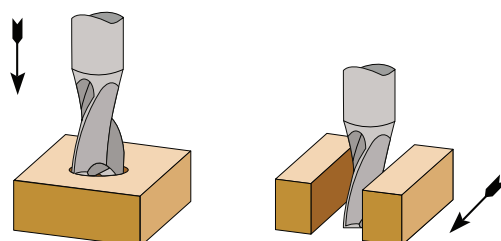
PUNTA PER NESTING Z2 H3 ROUTER BIT FOR NESTING Z2 H3 NESTINGFRÄSER Z2 H3



Corpo in acciaio pesante
Heavy steel body
Schwermetallkörper

Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
12	21,5	75	12	43	2	DX / RH / RL	8	PCD / PKD	3	PD12FD01	
12	24,5	75	12	43	2	DX / RH / RL	9	PCD / PKD	3	PD12FD02	
12	31,5	80	12	43	2	DX / RH / RL	12	PCD / PKD	3	PD12FD03	

Altre misure su richiesta
Other dimension available on request
Weitere Abmessungen auf Anfrage



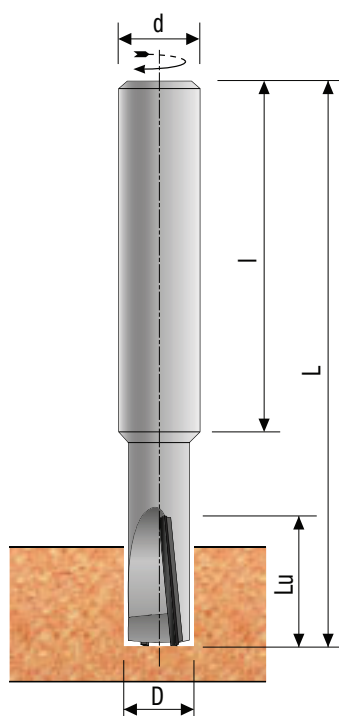
M Materiale forante
Drilling tip material
Bohrschneide Material

P Placchetta
Tip
Schneide

PD13FD

DIA | Z=1 - Z=2

PUNTA PER SCANALATURE CON CORPO IN HW ROUTER BIT WITH HW BODY SCHAFTFRÄSER MIT HW KÖRPER



M Materiale forante
Drilling tip material
Bohrschneide Material

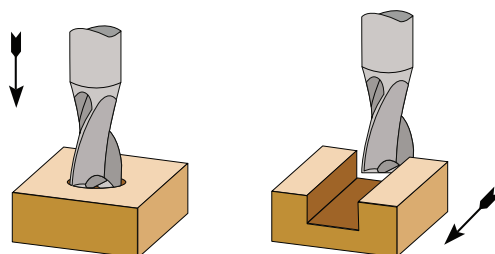
P Placchetta
Tip
Schneide

Forante in HW
HW drilling tip
HW Einbohrschneide

Forante in Diamante a richiesta
Diamond drilling tip on request
DIA Einbohrschneide auf Anfrage

Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P		Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M		
5	10	70	6	40	1	DX / RH / RL	1	HW	PD13FD01	
6	10	70	6	40	1	DX / RH / RL	1	HW	PD13FD02	
7	10	70	8	40	1	DX / RH / RL	1	HW	PD13FD03	
8	10	70	10	40	1	DX / RH / RL	1	HW	PD13FD04	
8	13	70	10	40	1	DX / RH / RL	1	HW	PD13FD05	
8	16	70	10	40	1	DX / RH / RL	1	HW	PD13FD06	
8	20	70	10	40	1	DX / RH / RL	1	HW	PD13FD07	
10	10	70	10	40	1	DX / RH / RL	1	HW	PD13FD08	
10	10	70	10	40	2	DX / RH / RL	2	HW	PD13FD09	
10	13	70	10	40	1	DX / RH / RL	1	HW	PD13FD10	
10	13	70	10	40	2	DX / RH / RL	2	HW	PD13FD11	
10	16	70	10	40	1	DX / RH / RL	1	HW	PD13FD12	
10	16	70	10	40	2	DX / RH / RL	2	HW	PD13FD13	
10	20	70	10	40	1	DX / RH / RL	1	HW	PD13FD14	
10	20	70	10	40	2	DX / RH / RL	2	HW	PD13FD15	
10	25	70	10	40	1	DX / RH / RL	2	HW	PD13FD16	
10	25	70	10	40	2	DX / RH / RL	2	HW	PD13FD17	
12	10	70	12	40	1	DX / RH / RL	1	HW	PD13FD18	
12	10	70	12	40	2	DX / RH / RL	2	HW	PD13FD19	
12	13	70	12	40	1	DX / RH / RL	1	HW	PD13FD20	
12	13	70	12	40	2	DX / RH / RL	2	HW	PD13FD21	
12	16	70	12	40	1	DX / RH / RL	1	HW	PD13FD22	
12	16	70	12	40	2	DX / RH / RL	2	HW	PD13FD23	
12	20	70	12	40	1	DX / RH / RL	2	HW	PD13FD24	
12	20	70	12	40	2	DX / RH / RL	2	HW	PD13FD25	
12	25	70	12	40	1	DX / RH / RL	2	HW	PD13FD26	
12	25	70	12	40	2	DX / RH / RL	2	HW	PD13FD27	

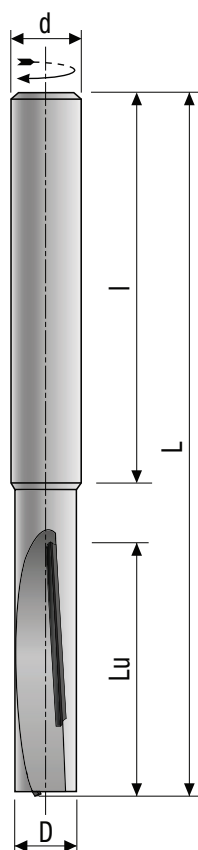
Altre misure su richiesta
Other dimension available on request
Weitere Abmessungen auf Anfrage



PD14FD

DIA | H3 - Z=1+1

PUNTA CON CORPO IN HW ROUTER BIT WITH HW BODY SCHAFTFRÄSER MIT HW KÖRPER



Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P		Art. Nr.	€
			Ø d [mm]	l [mm]			M	h [mm]		
8	28	80	8	45	1+1	DX / RH / RL	PCD / PKD	3	PD14FD01	
10	28	80	8	45	1+1	DX / RH / RL	PCD / PKD	3	PD14FD02	

Impiego / Use / Anwendung

Punta per forare e contornare
Disposable knife sizing and plunging router
WP-Schaftfräser

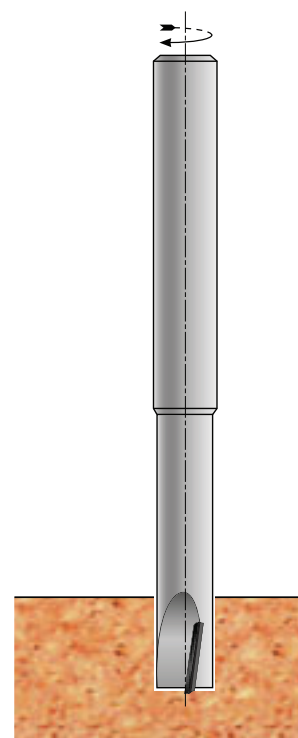
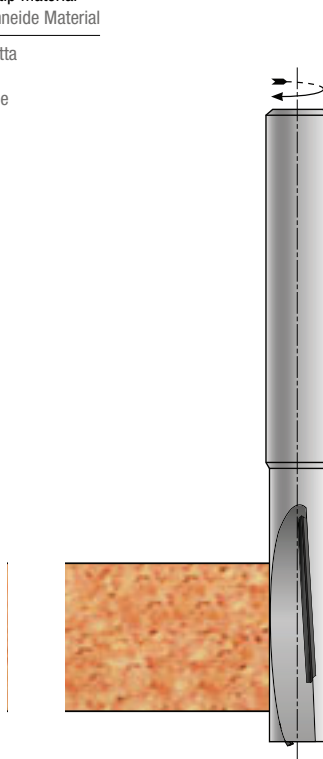
Altre misure su richiesta

Other dimension available on request

Weitere Abmessungen auf Anfrage

M Materiale forante
Drilling tip material
Bohrschneide Material

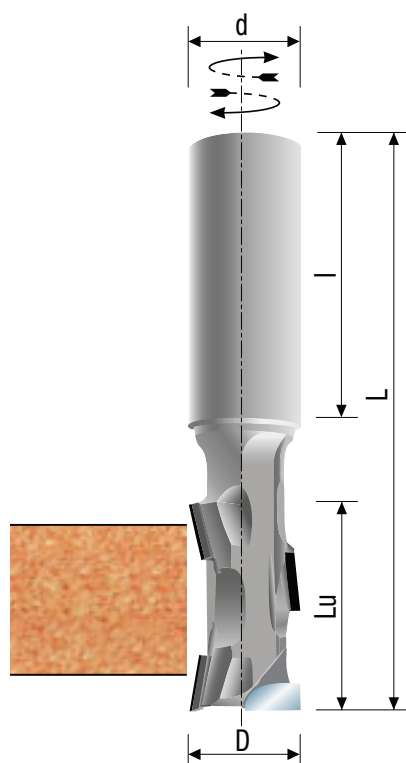
P Placchetta
Tip
Schneide



PD15FD

DIA | H2,5 - Z=1

PUNTA PER FORARE E CONTORNARE ROUTER BIT FOR DRILLING AND ROUTING SCHAFTFRÄSER

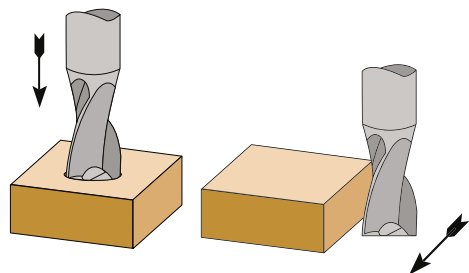


M Materiale forante
Drilling tip material
Bohrschneide Material

P Placchetta
Tip
Schneide

Forante in HW
HW drilling tip
HW Einbohrschneide

Forante in Diamante a richiesta
Diamond drilling tip on request
DIA Einbohrschneide auf Anfrage



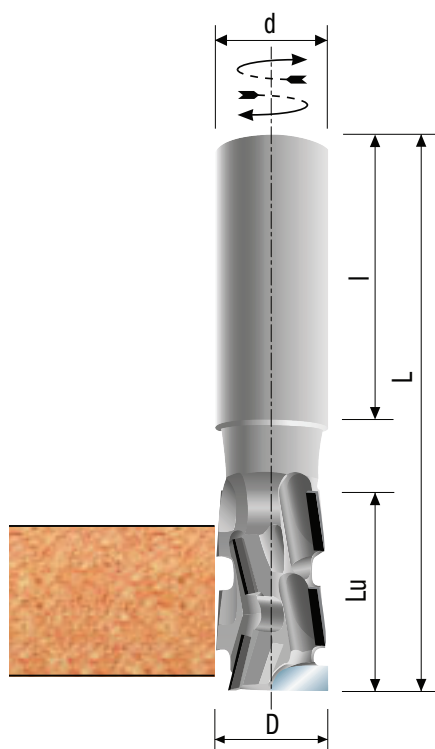
Altre misure su richiesta
Other dimension available on request
Weitere Abmessungen auf Anfrage

Ø D [mm]	Lu [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	P		Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M		
8	20	65	10	40	1	DX / RH / RL	2	HW	PD15FD01	
8	20	65	10	40	1	SX / LH / LL	2	HW	PD15FD02	
8	27	70	10	40	1	DX / RH / RL	3	HW	PD15FD03	
8	27	70	10	40	1	SX / LH / LL	3	HW	PD15FD04	
10	20	70	10	40	1	DX / RH / RL	2	HW	PD15FD05	
10	20	70	10	40	1	SX / LH / LL	2	HW	PD15FD06	
10	27	75	10	40	1	DX / RH / RL	3	HW	PD15FD07	
10	27	75	10	40	1	SX / LH / LL	3	HW	PD15FD08	
12	27	75	12	40	1	DX / RH / RL	4	HW	PD15FD09	
12	27	75	12	40	1	SX / LH / LL	4	HW	PD15FD10	
12	35	80	12	40	1	DX / RH / RL	5	HW	PD15FD11	
12	35	80	12	40	1	SX / LH / LL	5	HW	PD15FD12	
16	27	95	16/20	50	1	DX / RH / RL	3	HW	PD15FD13	
16	27	95	16/20	50	1	SX / LH / LL	3	HW	PD15FD14	
16	34	95	16/20	50	1	DX / RH / RL	4	HW	PD15FD15	
16	34	95	16/20	50	1	SX / LH / LL	4	HW	PD15FD16	
16	43	105	16/20	50	1	DX / RH / RL	5	HW	PD15FD17	
16	43	105	16/20	50	1	SX / LH / LL	5	HW	PD15FD18	
18	27	95	20	50	1	DX / RH / RL	3	HW	PD15FD19	
18	27	95	20	50	1	SX / LH / LL	3	HW	PD15FD20	
18	34	95	20	50	1	DX / RH / RL	4	HW	PD15FD21	
18	34	95	20	50	1	SX / LH / LL	4	HW	PD15FD22	
18	43	105	20	50	1	DX / RH / RL	5	HW	PD15FD23	
18	43	105	20	50	1	SX / LH / LL	5	HW	PD15FD24	
18	52	110	20	50	1	DX / RH / RL	6	HW	PD15FD25	
18	52	110	20	50	1	SX / LH / LL	6	HW	PD15FD26	
20	27	95	20	50	1	DX / RH / RL	3	HW	PD15FD27	
20	27	95	20	50	1	SX / LH / LL	3	HW	PD15FD28	
20	35	95	20	50	1	DX / RH / RL	4	HW	PD15FD29	
20	35	95	20	50	1	SX / LH / LL	4	HW	PD15FD30	
20	43	105	20	50	1	DX / RH / RL	5	HW	PD15FD31	
20	43	105	20	50	1	SX / LH / LL	5	HW	PD15FD32	
20	52	110	20	50	1	DX / RH / RL	6	HW	PD15FD33	
20	52	110	20	50	1	SX / LH / LL	6	HW	PD15FD34	
20	58	120	20	50	1	DX / RH / RL	7	HW	PD15FD35	
20	58	120	20	50	1	SX / LH / LL	7	HW	PD15FD36	
20	66	125	20	50	1	DX / RH / RL	8	HW	PD15FD37	
20	66	125	20	50	1	SX / LH / LL	8	HW	PD15FD38	
12,7 (1/2")	27	75	12,7 (1/2")	40	1	DX / RH / RL	4	HW	PD15FD39	
12,7 (1/2")	27	75	12,7 (1/2")	40	1	SX / LH / LL	4	HW	PD15FD40	
12,7 (1/2")	35	80	12,7 (1/2")	40	1	DX / RH / RL	5	HW	PD15FD41	
12,7 (1/2")	35	80	12,7 (1/2")	40	1	SX / LH / LL	5	HW	PD15FD42	
15,87 (5/8")	27	95	15,87 (5/8")	50	1	DX / RH / RL	3	HW	PD15FD43	
15,87 (5/8")	27	95	15,87 (5/8")	50	1	SX / LH / LL	3	HW	PD15FD44	
15,87 (5/8")	34	95	15,87 (5/8")	50	1	DX / RH / RL	4	HW	PD15FD45	
15,87 (5/8")	34	95	15,87 (5/8")	50	1	SX / LH / LL	4	HW	PD15FD46	
15,87 (5/8")	43	105	15,87 (5/8")	50	1	DX / RH / RL	5	HW	PD15FD47	
15,87 (5/8")	43	105	15,87 (5/8")	50	1	SX / LH / LL	5	HW	PD15FD48	
15,87 (5/8")	27	95	19,05 (3/4")	50	1	DX / RH / RL	3	HW	PD15FD49	
15,87 (5/8")	27	95	19,05 (3/4")	50	1	SX / LH / LL	3	HW	PD15FD50	
15,87 (5/8")	34	95	19,05 (3/4")	50	1	DX / RH / RL	4	HW	PD15FD51	
15,87 (5/8")	34	95	19,05 (3/4")	50	1	SX / LH / LL	4	HW	PD15FD52	
15,87 (5/8")	43	105	19,05 (3/4")	50	1	DX / RH / RL	5	HW	PD15FD53	
15,87 (5/8")	43	105	19,05 (3/4")	50	1	SX / LH / LL	5	HW	PD15FD54	
19,05 (3/4")	27	95	19,05 (3/4")	50	1	DX / RH / RL	3	HW	PD15FD55	
19,05 (3/4")	27	95	19,05 (3/4")	50	1	SX / LH / LL	3	HW	PD15FD56	
19,05 (3/4")	35	95	19,05 (3/4")	50	1	DX / RH / RL	4	HW	PD15FD57	
19,05 (3/4")	35	95	19,05 (3/4")	50	1	SX / LH / LL	4	HW	PD15FD58	
19,05 (3/4")	43	105	19,05 (3/4")	50	1	DX / RH / RL	5	HW	PD15FD59	
19,05 (3/4")	43	105	19,05 (3/4")	50	1	SX / LH / LL	5	HW	PD15FD60	
19,05 (3/4")	50	110	19,05 (3/4")	50	1	DX / RH / RL	6	HW	PD15FD61	
19,05 (3/4")	52	110	19,05 (3/4")	50	1	SX / LH / LL	6	HW	PD15FD62	
19,05 (3/4")	58	120	19,05 (3/4")	50	1	DX / RH / RL	7	HW	PD15FD63	
19,05 (3/4")	58	120	19,05 (3/4")	50	1	SX / LH / LL	7	HW	PD15FD64	
19,05 (3/4")	66	125	19,05 (3/4")	50	1	DX / RH / RL	8	HW	PD15FD65	
19,05 (3/4")	66	125	19,05 (3/4")	50	1	SX / LH / LL	8	HW	PD15FD66	

PD16FD

DIA | H2,5 - Z=2

PUNTA PER FORARE E CONTORNARE ROUTER BIT FOR DRILLING AND ROUTING SCHAFTFRÄSER



Forante in HW
HW drilling tip
HW Einbohrschneide

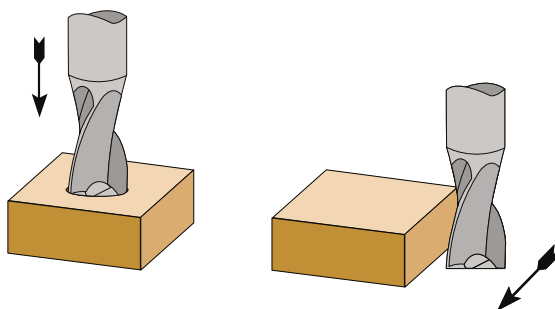
Forante in Diamante a richiesta
Diamond drilling tip on request
DIA Einbohrschneide auf Anfrage

Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P		Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M		
18	42	105	20	50	2	DX / RH / RL	10	HW	PD16FD01	
18	42	105	20	50	2	SX / LH / LL	10	HW	PD16FD02	
18	51	110	20	50	2	DX / RH / RL	12	HW	PD16FD03	
18	51	110	20	50	2	SX / LH / LL	12	HW	PD16FD04	
20	25	95	20	50	2	DX / RH / RL	6	HW	PD16FD05	
20	25	95	20	50	2	SX / LH / LL	6	HW	PD16FD06	
20	32	95	20	50	2	DX / RH / RL	8	HW	PD16FD07	
20	32	95	20	50	2	SX / LH / LL	8	HW	PD16FD08	
20	42	105	20	50	2	DX / RH / RL	10	HW	PD16FD09	
20	42	105	20	50	2	SX / LH / LL	10	HW	PD16FD10	
20	51	110	20	50	2	DX / RH / RL	12	HW	PD16FD11	
20	51	110	20	50	2	SX / LH / LL	12	HW	PD16FD12	

Altre misure su richiesta
Other dimension available on request
Weitere Abmessungen auf Anfrage

M Materiale forante
Drilling tip material
Bohrschneide Material

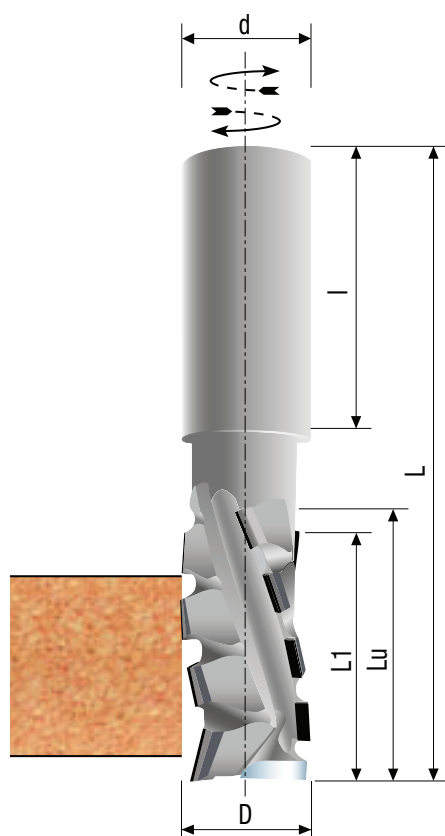
P Placchetta
Tip
Schneide



PD17FD

DIA | H2,5 - Z=2

PUNTA ELICOIDALE CON BUONA EVACUAZIONE TRUCIOLO HELICAL ROUTER BIT FOR GOOD CHIP EJECTION SCHAFTFRÄSER FÜR EXZELLENTE SPANFLUSS



M Materiale forante
Drilling tip material
Bohrschneide Material

P Placchetta
Tip
Schneide

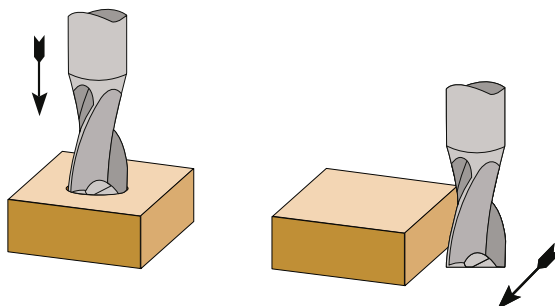
Forante in HW
HW drilling tip
HW Einbohrschneide

Forante in Diamante a richiesta
Diamond drilling tip on request
DIA Einbohrschneide auf Anfrage

Ø D [mm]	L1 [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P		Art. Nr.	€
				Ø d [mm]	l [mm]			n°	M		
20	27	30	96	20	50	2	DX / RH / RL	7	HW	PD17FD01	
20	27	30	96	20	50	2	SX / LH / LL	7	HW	PD17FD02	
20	32	36	96	20	50	2	DX / RH / RL	8	HW	PD17FD03	
20	32	36	96	20	50	2	SX / LH / LL	8	HW	PD17FD04	
20	42	44	104	20	50	2	DX / RH / RL	10	HW	PD17FD05	
20	42	44	104	20	50	2	SX / LH / LL	10	HW	PD17FD06	
20	52	54	112	20	50	2	DX / RH / RL	12	HW	PD17FD07	
20	52	54	112	20	50	2	SX / LH / LL	12	HW	PD17FD08	
20	65	69,5	125	25	50	2	DX / RH / RL	16	HW	PD17FD09	
20	65	69,5	125	25	50	2	SX / LH / LL	16	HW	PD17FD10	

Ø D [mm]	L1 [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P		Art. Nr.	€
				Ø Ø d [mm]	l [mm]			n°	M		
19,05 (3/4")	27	30	96	19,05 (3/4")	50	2	DX / RH / RL	7	HW	PD17FD11	
19,05 (3/4")	27	30	96	19,05 (3/4")	50	2	SX / LH / LL	7	HW	PD17FD12	
19,05 (3/4")	32	36	96	19,05 (3/4")	50	2	DX / RH / RL	8	HW	PD17FD13	
19,05 (3/4")	32	36	96	19,05 (3/4")	50	2	SX / LH / LL	8	HW	PD17FD14	
19,05 (3/4")	42	44	104	19,05 (3/4")	50	2	DX / RH / RL	10	HW	PD17FD15	
19,05 (3/4")	42	44	104	19,05 (3/4")	50	2	SX / LH / LL	10	HW	PD17FD16	
19,05 (3/4")	52	54	112	19,05 (3/4")	50	2	DX / RH / RL	12	HW	PD17FD17	
19,05 (3/4")	52	54	112	19,05 (3/4")	50	2	SX / LH / LL	12	HW	PD17FD18	
19,05 (3/4")	65	69,5	125	19,05 (3/4")	50	2	DX / RH / RL	15	HW	PD17FD19	
19,05 (3/4")	65	69,5	125	19,05 (3/4")	50	2	SX / LH / LL	15	HW	PD17FD20	

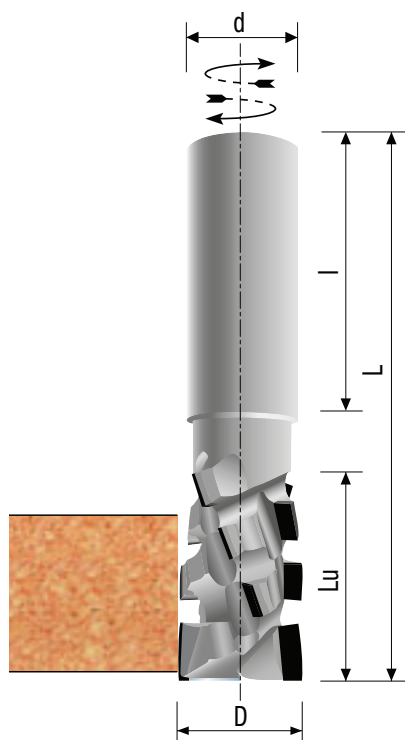
Altre misure su richiesta
Other dimension available on request
Weitere Abmessungen auf Anfrage



PD18FD

DIA | H4 - Z=2

PUNTA MULTIDENTI AD ALTA RESA HIGH PERFORMANCE MULTI-CUTTING ROUTER BIT HOCHSLEISTUNGS-SCHAFTFRÄSER



M Materiale forante
Drilling tip material
Bohrschneide Material

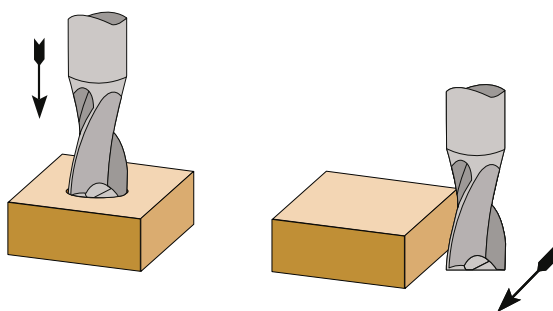
P Placchetta
Tip
Schneide

Forante in HW
HW drilling tip
HW Einbohrschneide

Forante in Diamante a richiesta
Diamond drilling tip on request
DIA Einbohrschneide auf Anfrage

Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P		Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M		
22	32	92	20	50	2	DX / RH / RL	10	HW	PD18FD01	
22	32	92	20	50	2	SX / LH / LL	10	HW	PD18FD02	
22	38	98	20	50	2	DX / RH / RL	12	HW	PD18FD03	
22	38	98	20	50	2	SX / LH / LL	12	HW	PD18FD04	
22	43,5	103	20	50	2	DX / RH / RL	14	HW	PD18FD05	
22	43,5	103	20	50	2	SX / LH / LL	14	HW	PD18FD06	
22	49	109	20	50	2	DX / RH / RL	16	HW	PD18FD07	
22	49	109	20	50	2	SX / LH / LL	16	HW	PD18FD08	
22	54,5	115	20	50	2	DX / RH / RL	18	HW	PD18FD09	
22	54,5	115	20	50	2	SX / LH / LL	18	HW	PD18FD10	
22	60	126	20	50	2	DX / RH / RL	20	HW	PD18FD11	
22	60	126	20	50	2	SX / LH / LL	20	HW	PD18FD12	
25	32	92	20/25	55	2	DX / RH / RL	10	HW	PD18FD13	
25	32	92	20/25	55	2	SX / LH / LL	10	HW	PD18FD14	
25	38	98	20/25	55	2	DX / RH / RL	12	HW	PD18FD15	
25	38	98	20/25	55	2	SX / LH / LL	12	HW	PD18FD16	
25	43,5	103	20/25	55	2	DX / RH / RL	14	HW	PD18FD17	
25	43,5	103	20/25	55	2	SX / LH / LL	14	HW	PD18FD18	
25	49	109	20/25	55	2	DX / RH / RL	16	HW	PD18FD19	
25	49	109	20/25	55	2	SX / LH / LL	16	HW	PD18FD20	
25	54,5	115	20/25	55	2	DX / RH / RL	18	HW	PD18FD21	
25	54,5	115	20/25	55	2	SX / LH / LL	18	HW	PD18FD22	
25	60	126	20/25	55	2	DX / RH / RL	20	HW	PD18FD23	
25	60	126	20/25	55	2	SX / LH / LL	20	HW	PD18FD24	
25	65	126	20/25	55	2	DX / RH / RL	22	HW	PD18FD25	
25	65	126	20/25	55	2	SX / LH / LL	22	HW	PD18FD26	
25	70	126	20/25	55	2	DX / RH / RL	24	HW	PD18FD27	
25	70	126	20/25	55	2	SX / LH / LL	24	HW	PD18FD28	

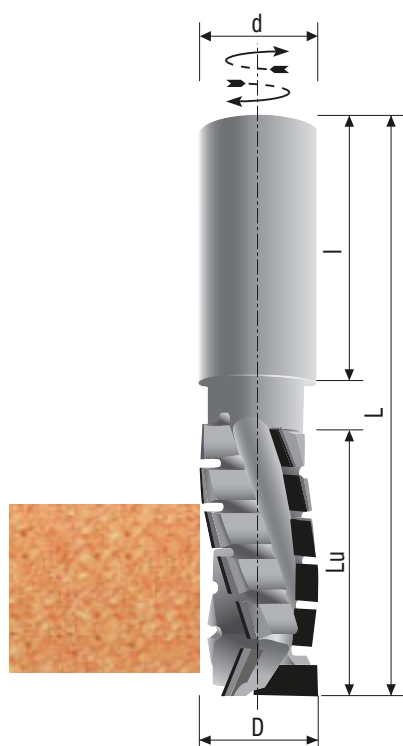
Altre misure su richiesta
Other dimension available on request
Weitere Abmessungen auf Anfrage



PD19FD

DIA | H4 - Z=3

PUNTA ELICOIDALE MULTIDENTI HELICAL MULTI-CUTTING ROUTER BIT DIA-SCHAFTFRÄSER



M Materiale forante
Drilling tip material
Bohrschneide Material

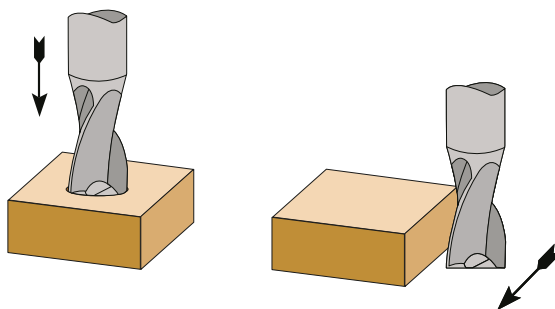
P Placchetta
Tip
Schneide

Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
20	22	95	20	50	3	DX / RH / RL	8	PCD / PKD	4	PD19FD01	
20	22	95	20	50	3	SX / LH / LL	8	PCD / PKD	4	PD19FD02	
20	29	95	20	50	3	DX / RH / RL	11	PCD / PKD	4	PD19FD03	
20	29	95	20	50	3	SX / LH / LL	11	PCD / PKD	4	PD19FD04	
20	37	95	20	50	3	DX / RH / RL	14	PCD / PKD	4	PD19FD05	
20	37	95	20	50	3	SX / LH / LL	14	PCD / PKD	4	PD19FD06	
20	44	105	20	50	3	DX / RH / RL	17	PCD / PKD	4	PD19FD07	
20	44	105	20	50	3	SX / LH / LL	17	PCD / PKD	4	PD19FD08	
20	52	110	20	50	3	DX / RH / RL	20	PCD / PKD	4	PD19FD09	
20	52	110	20	50	3	SX / LH / LL	20	PCD / PKD	4	PD19FD10	
20	59	120	20	50	3	DX / RH / RL	23	PCD / PKD	4	PD19FD11	
20	59	120	20	50	3	SX / LH / LL	23	PCD / PKD	4	PD19FD12	
20	67	125	20	50	3	DX / RH / RL	26	PCD / PKD	4	PD19FD13	
20	67	125	20	50	3	SX / LH / LL	26	PCD / PKD	4	PD19FD14	
25	22	95	25	55	3	DX / RH / RL	8	PCD / PKD	4	PD19FD15	
25	22	95	25	55	3	SX / LH / LL	8	PCD / PKD	4	PD19FD16	
25	29	95	25	55	3	DX / RH / RL	11	PCD / PKD	4	PD19FD17	
25	29	95	25	55	3	SX / LH / LL	11	PCD / PKD	4	PD19FD18	
25	37	100	25	55	3	DX / RH / RL	14	PCD / PKD	4	PD19FD19	
25	37	100	25	55	3	SX / LH / LL	14	PCD / PKD	4	PD19FD20	
25	44	110	25	55	3	DX / RH / RL	17	PCD / PKD	4	PD19FD21	
25	44	110	25	55	3	SX / LH / LL	17	PCD / PKD	4	PD19FD22	
25	52	115	25	55	3	DX / RH / RL	20	PCD / PKD	4	PD19FD23	
25	52	115	25	55	3	SX / LH / LL	20	PCD / PKD	4	PD19FD24	
25	59	125	25	55	3	DX / RH / RL	23	PCD / PKD	4	PD19FD25	
25	59	125	25	55	3	SX / LH / LL	23	PCD / PKD	4	PD19FD26	
25	67	130	25	55	3	DX / RH / RL	26	PCD / PKD	4	PD19FD27	
25	67	130	25	55	3	SX / LH / LL	26	PCD / PKD	4	PD19FD28	

Altre misure su richiesta

Other dimension available on request

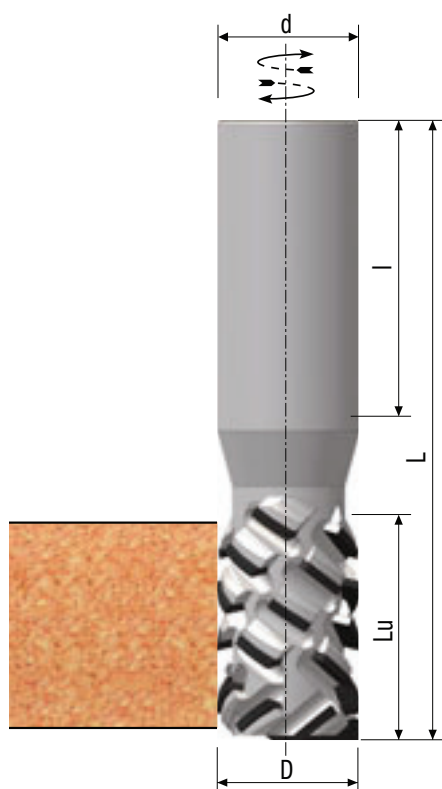
Weitere Abmessungen auf Anfrage



PD20FD

DIA | H4 - Z=2

PUNTA ELICOIDALE MULTIDENTI 54° PER L'OTTIMA FINITURA SPECIAL HELICAL MULTI-CUTTING ROUTER BIT 54° FOR EXCELLENT FINISH HOCHLEISTUNGS-DIA-SCHAFTFRÄSER 54° FÜR FEINBEARBEITUNG



Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
25	30	95	20/25	50/55	2	DX / RH / RL	18	PCD / PKD	4	PD20FD01	
25	30	95	20/25	50/55	2	SX / LH / LL	18	PCD / PKD	4	PD20FD02	
25	40	105	20/25	50/55	2	DX / RH / RL	24	PCD / PKD	4	PD20FD03	
25	40	105	20/25	50/55	2	SX / LH / LL	24	PCD / PKD	4	PD20FD04	
25	49,5	115	20/25	50/55	2	DX / RH / RL	30	PCD / PKD	4	PD20FD05	
25	49,5	115	20/25	50/55	2	SX / LH / LL	30	PCD / PKD	4	PD20FD06	
25	59	125	20/25	50/55	2	DX / RH / RL	36	PCD / PKD	4	PD20FD07	
25	59	125	20/25	50/55	2	SX / LH / LL	36	PCD / PKD	4	PD20FD08	

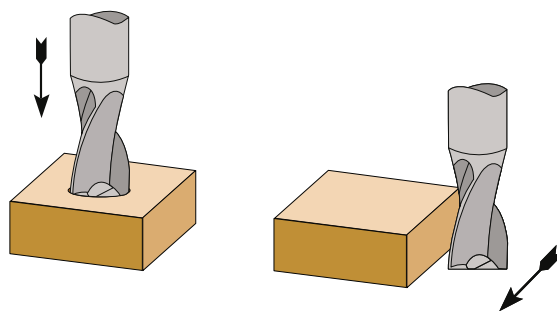
Altre misure su richiesta

Other dimension available on request

Weitere Abmessungen auf Anfrage

M Materiale forante
Drilling tip material
Bohrschneide Material

P Placchetta
Tip
Schneide

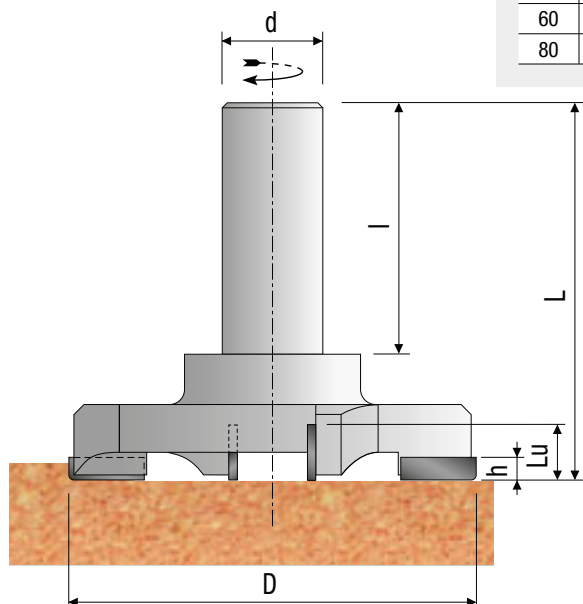


PD21FD

DIA | H4 - Z=2+2

PUNTA PER SPIANARE PLANING ROUTER BIT PLANFRÄSER

Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
40	15	75	20	50	2+2	DX / RH / RL	4	PCD / PKD	4	PD20FD01	
60	15	75	20	50	2+2	DX / RH / RL	4	PCD / PKD	4	PD20FD02	
80	15	75	20	50	2+2	DX / RH / RL	4	PCD / PKD	4	PD20FD03	



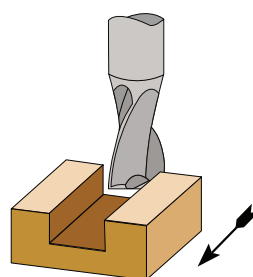
Altre misure su richiesta

Other dimension available on request

Weitere Abmessungen auf Anfrage

M Materiale forante
Drilling tip material
Bohrschneide Material

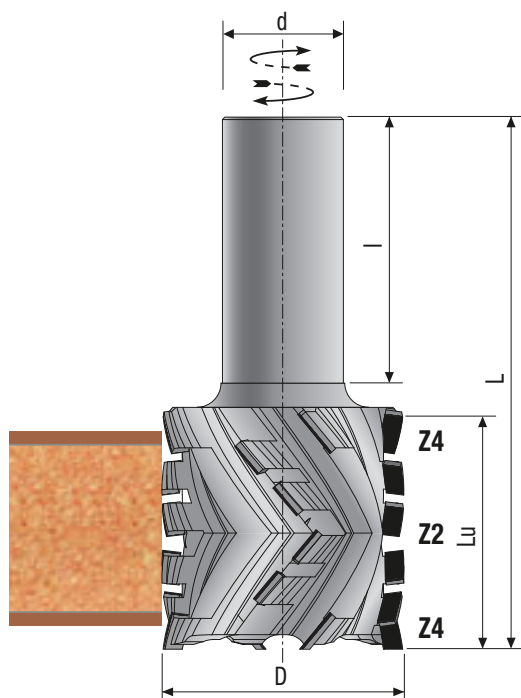
P Placchetta
Tip
Schneide



PD26FD

DIA | H4 - Z=4+2+4

PUNTA ELICOIDALE MULTIDENTI PER AVANZAMENTO RAPIDO SPECIAL HELICAL MULTI-CUTTING ROUTER BIT FOR QUICK FEED RATES HOCHSLEISTUNGS-SPIRALFÖRMIG SCHAFTFRÄSER



Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
50	22	85	20/25	50/55	4+2+4	DX / RH / RL	12	PCD / PKD	4	PD26FD01	
50	22	85	20/25	50/55	4+2+4	SX / LH / LL	12	PCD / PKD	4	PD26FD02	
50	30	90	20/25	50/55	4+2+4	DX / RH / RL	16	PCD / PKD	4	PD26FD03	
50	30	90	20/25	50/55	4+2+4	SX / LH / LL	16	PCD / PKD	4	PD26FD04	
50	39	100	20/25	50/55	4+2+4	DX / RH / RL	20	PCD / PKD	4	PD26FD05	
50	39	100	20/25	50/55	4+2+4	SX / LH / LL	20	PCD / PKD	4	PD26FD06	
50	48	110	20/25	50/55	4+2+4	DX / RH / RL	24	PCD / PKD	4	PD26FD07	
50	48	110	20/25	50/55	4+2+4	SX / LH / LL	24	PCD / PKD	4	PD26FD08	

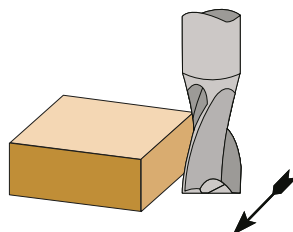
Altre misure su richiesta

Other dimension available on request

Weitere Abmessungen auf Anfrage

M Materiale forante
Drilling tip material
Bohrschneide Material

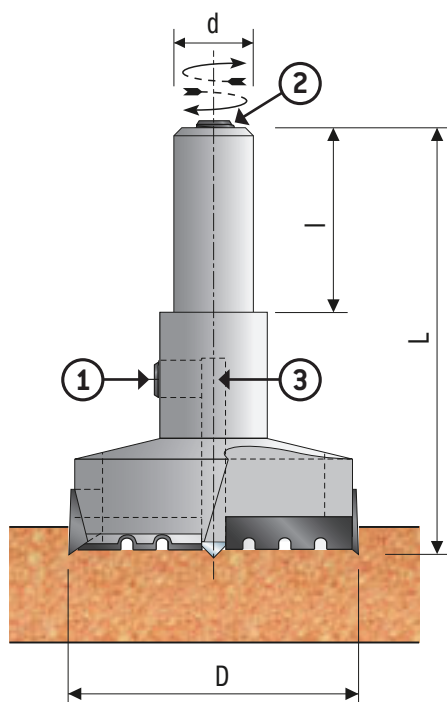
P Placchetta
Tip
Schneide



PD22FD

DIA | H4 - Z=2+2

PUNTA PER CERNIERE HINGE BORING BIT BESCHLAGSBOHRER MIT ZENTRIERSTIFT



M Materiale forante
Drilling tip material
Bohrschneide Material

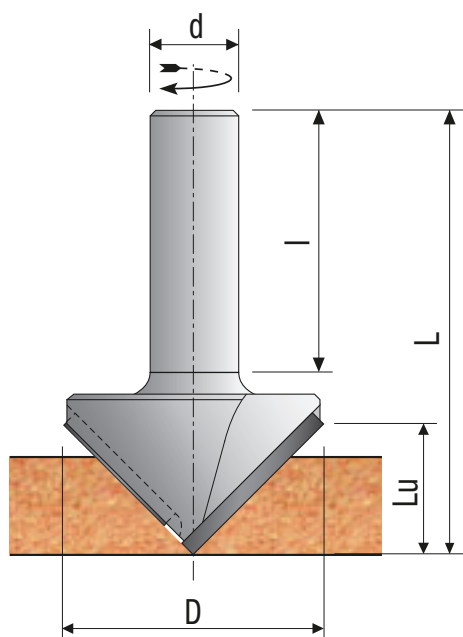
P Placchetta
Tip
Schneide



Ø D [mm]	L [mm]	Attacco Shank Schaft		Z	P		Rotation	Art. Nr.	€
		Ø d [mm]	l [mm]		M	h [mm]			
14	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD01	
14	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD02	
15	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD03	
15	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD04	
16	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD05	
16	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD06	
18	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD07	
18	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD08	
20	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD09	
20	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD10	
22	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD11	
22	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD12	
24	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD13	
24	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD14	
25	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD15	
25	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD16	
26	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD17	
26	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD18	
28	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD19	
28	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD20	
30	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD21	
30	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD22	
32	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD23	
32	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD24	
35	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD25	
35	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD26	
38	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD27	
38	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD28	
40	57,5	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD29	
40	57,5	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD30	
14	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD31	
14	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD32	
15	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD33	
15	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD34	
16	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD35	
16	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD36	
18	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD37	
18	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD38	
20	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD39	
20	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD40	
22	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD41	
22	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD42	
24	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD43	
24	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD44	
25	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD45	
25	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD46	
26	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD47	
26	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD48	
28	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD49	
28	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD50	
30	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD51	
30	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD52	
32	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD53	
32	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD54	
35	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD55	
35	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD56	
38	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD57	
38	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD58	
40	70	10	20	2+2	PCD / PKD	4	DX / RH / RL	PD22FD59	
40	70	10	20	2+2	PCD / PKD	4	SX / LH / LL	PD22FD60	

PD23FD

DIA | H4 - Z=1+1

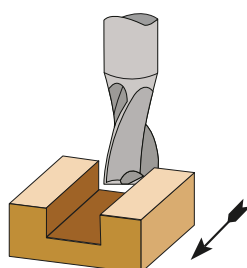
PUNTA PER FOLDING
ROUTER BIT FOR FOLDING
FOLDINGFRÄSER


Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
48	24	90	20	50	1+1	DX / RH / RL	2	PCD / PKD	4	PD23FD01	
65	32,5	95	20	50	1+1	DX / RH / RL	2	PCD / PKD	4	PD23FD02	

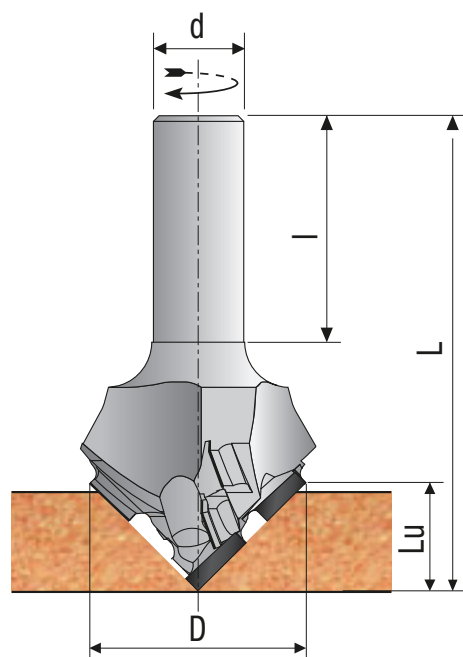
Altre misure su richiesta
 Other dimension available on request
 Weitere Abmessungen auf Anfrage

M Materiale forante
 Drilling tip material
 Bohrschneide Material

P Placchetta
 Tip
 Schneide

**PD24FD**

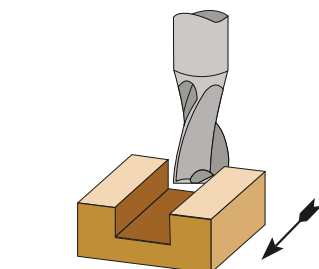
DIA | H4 - Z=2+2

PUNTA PER FOLDING CON TAGLIANTE FRAZIONATO
ROUTER BIT FOR FOLDING WITH MULTI-CUTTING EDGES
FOLDINGFRÄSER MIT GETEILTEN SCHNEIDEN


Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
60	30	105	20	50	2+2	DX / RH / RL	7	PCD / PKD	4	PD24FD01	
73	36	105	20	50	2+2	DX / RH / RL	9	PCD / PKD	4	PD24FD02	

M Materiale forante
 Drilling tip material
 Bohrschneide Material

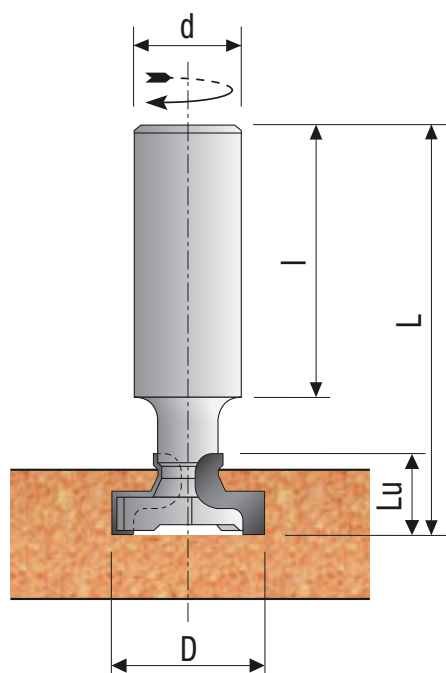
P Placchetta
 Tip
 Schneide



PD25FD

DIA | H4 - Z=2

PUNTA PER GUIDE IN ALLUMINIO PROFIED ROUTER BIT FOR ALUMINIUM GUIDES T-NUT-FRÄSER



M Materiale forante
Drilling tip material
Bohrschneide Material

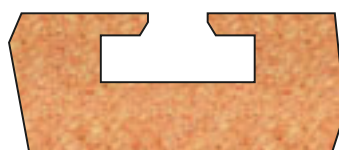
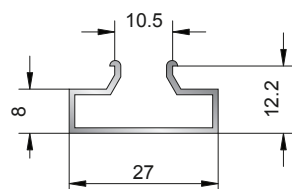
P Placchetta
Tip
Schneide

Ø D [mm]	Lu [mm]	L [mm]	Attacco Shank Schaft		Z	Rotation	P			Art. Nr.	€
			Ø d [mm]	l [mm]			n°	M	h [mm]		
27,9	15,2	75	20	50	2	DX / RH / RL	2	PCD / PKD	4	PD25FD01	
32,7	16,8	75	20	50	2	DX / RH / RL	2	PCD / PKD	4	PD25FD02	
27,3	20	75	20	50	2	DX / RH / RL	2	PCD / PKD	4	PD25FD03	
29	20	75	20	50	2	DX / RH / RL	2	PCD / PKD	4	PD25FD04	
28	20	75	20	50	2	DX / RH / RL	2	PCD / PKD	4	PD25FD05	
25,9	20	75	20	50	2	DX / RH / RL	2	PCD / PKD	4	PD25FD06	

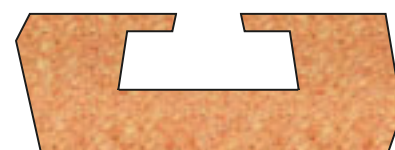
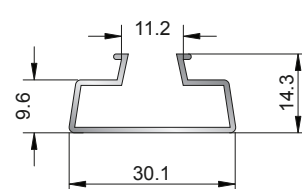
Altre misure su richiesta

Other dimension available on request

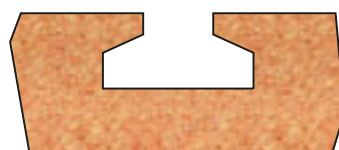
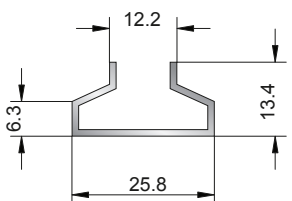
Weitere Abmessungen auf Anfrage



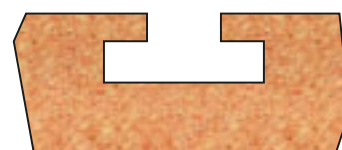
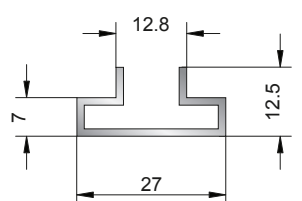
PD25FD01



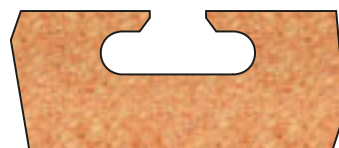
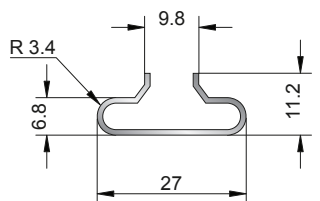
PD25FD02



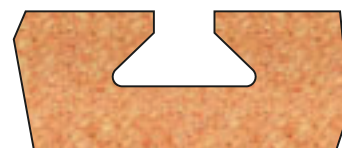
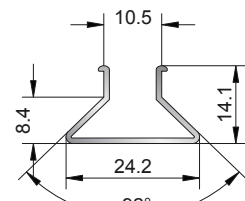
PD25FD03



PD25FD04



PD25FD05



PD25FD06

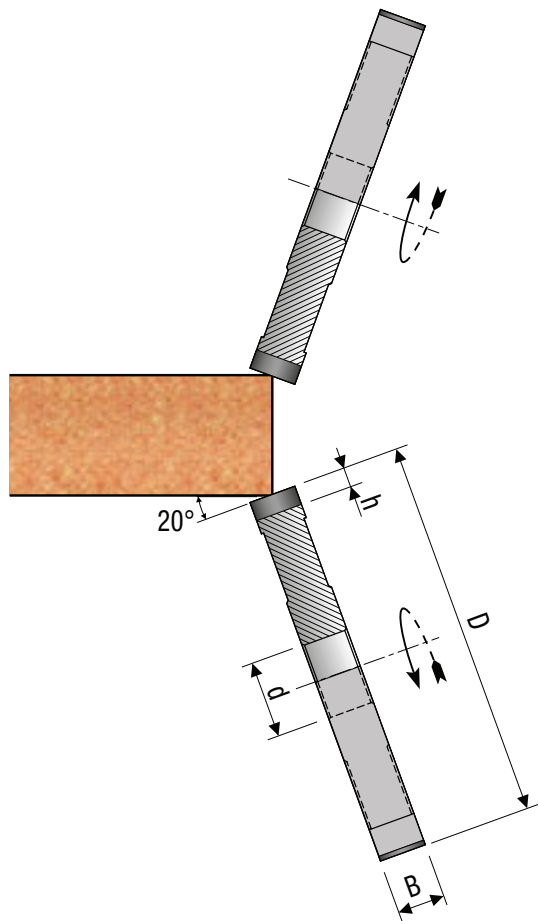
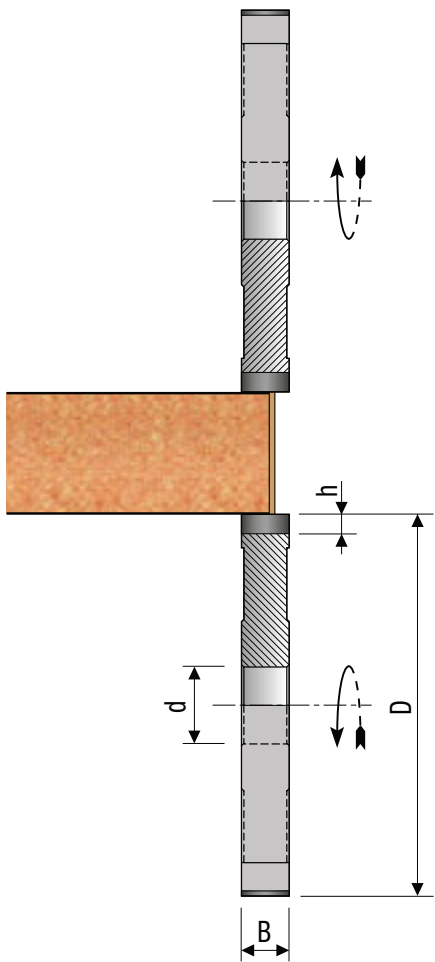
FD01FD

DIA | H4 - Z=6 - Z=4

FRESA BORDATRICE PER REFILARE E SPIGOLARE
MILLING CUTTERS FOR TRIMMING AND BEVELING-DIA EDGE BANDER
KANTENFRÄSER DIA



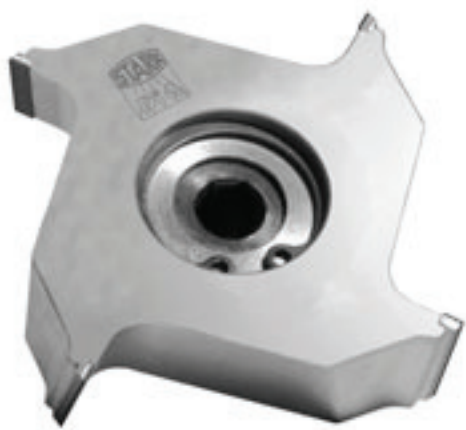
Ø D [mm]	B [mm]	D [mm]	Chiavetta / Keyway / Doppelkeilnute [mm]	Z	PCD / PKD	Art. Nr.	€
					h [mm]		
70	8	16/20	2 - 6x3	4	4	FD01FD01	
70	12	16/20	2 - 6x3	4	4	FD01FD02	
70	8	16/20	2 - 6x3	6	6	FD01FD03	
70	12	16/20	2 - 10x5	6	6	FD01FD04	



FD02FD

DIA | H4 - Z=4

FRESA BORDATRICE PER REFILARE E SPIGOLARE MILLING CUTTERS FOR TRIMMING AND BEVELING KANTEN FRÄSER DIA

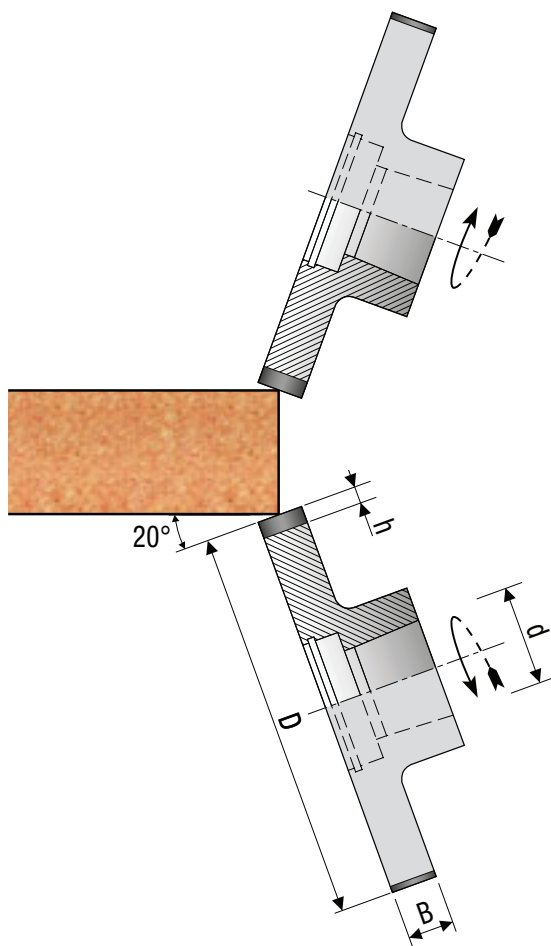


Ø D [mm]	B [mm]	D [mm]	Z	Rotation	PCD / PKD	Art. Nr.	€
					h [mm]		
70	8	HSK 25R	4	DX / RH / RL	4	FD02FD01	
70	8	HSK 25R	6	DX / RH / RL	4	FD02FD02	
70	12	HSK 25R	4	DX / RH / RL	4	FD02FD03	
70	12	HSK 25R	6	DX / RH / RL	4	FD02FD04	
70	8	HSK 25R	4	SX / LH / LL	4	FD02FD05	
70	8	HSK 25R	6	SX / LH / LL	4	FD02FD06	
70	12	HSK 25R	4	SX / LH / LL	4	FD02FD07	
70	12	HSK 25R	6	SX / LH / LL	4	FD02FD08	

Altre misure su richiesta

Other dimension available on request

Weitere Abmessungen auf Anfrage



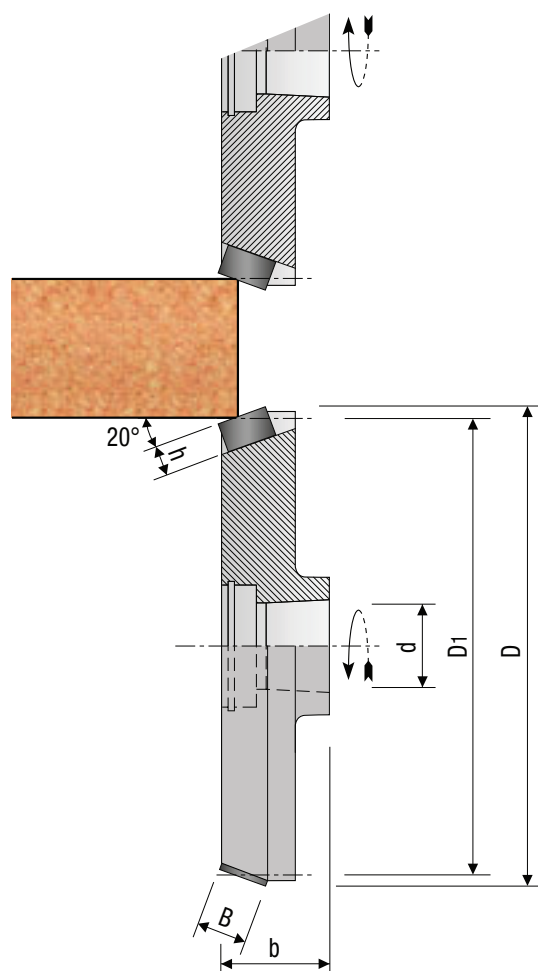
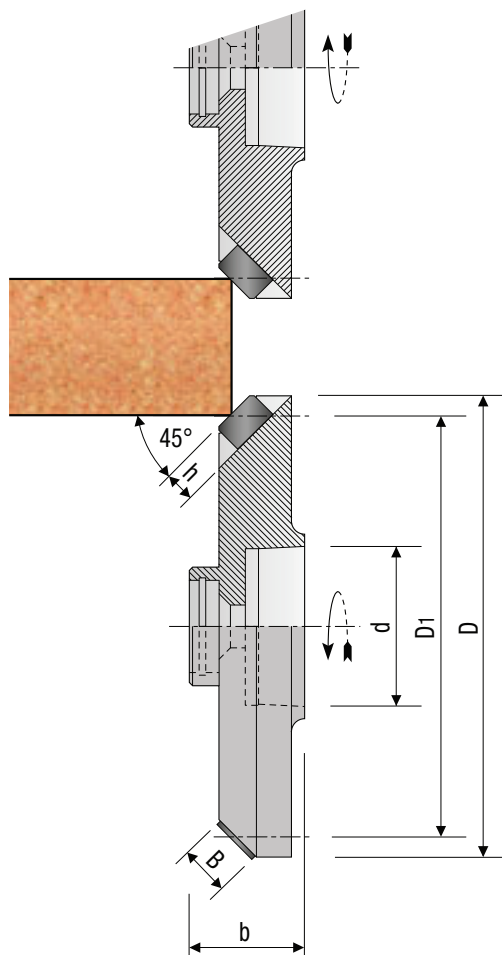
FD03FD

DIA | H4 - Z=4 - Z=4

FRESA PER BORDATRICE EDGEBANDING CUTTERS DIA FASEFRÄSER



D/D1 [mm]	B/b [mm]	Ø d [mm]	R [mm]	Z	Rotation	PCD / PKD	Art. Nr.	€
						h [mm]		
73/70	6/23	HSK 25R	20°	4	DX / RH / RL	4	FD03FD01	
73/70	6/23	HSK 25R	20°	4	SX / LH / LL	4	FD03FD02	
64/62	6/17,5	HSK 32R	20°	4	DX / RH / RL	4	FD03FD03	
64/62	6/17,5	HSK 32R	20°	6	DX / RH / RL	4	FD03FD04	
64/62	6/17,5	HSK 32R	20°	4	SX / LH / LL	4	FD03FD05	
64/62	6/17,5	HSK 32R	20°	6	SX / LH / LL	4	FD03FD06	
73/62	6/17,5	HSK 32R	45°	4	DX / RH / RL	4	FD03FD07	
73/62	6/17,5	HSK 32R	45°	6	DX / RH / RL	4	FD03FD08	
73/62	6/17,5	HSK 32R	45°	4	SX / LH / LL	4	FD03FD09	
73/62	6/17,5	HSK 32R	45°	6	SX / LH / LL	4	FD03FD10	



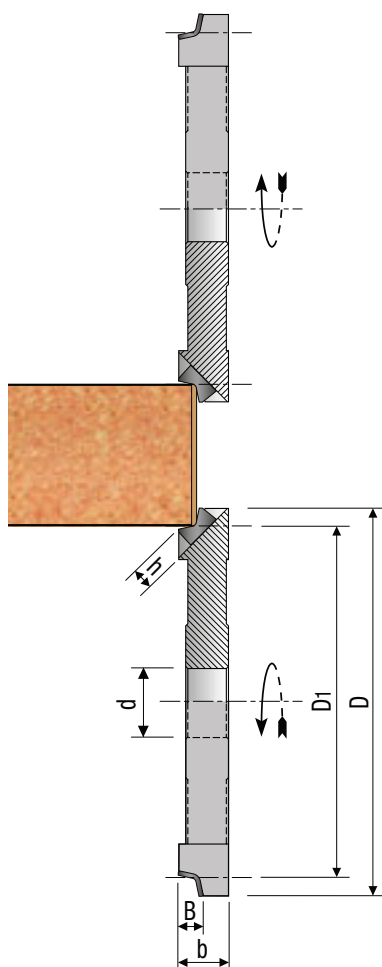
FD04FD

DIA | H4 - Z=4

FRESA BORDATRICE PER RAGGIARE RADIUS EDGEBANDER DIA-RADIUSFRÄSER



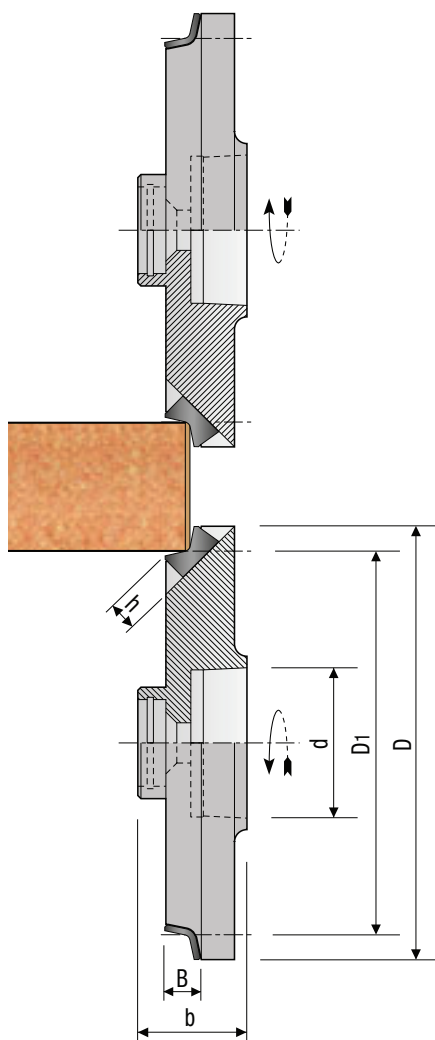
Ø D/D1 [mm]	B [mm]	Ø d [mm]	Chiavetta / Keyway / Doppelkeilnute [mm]	R [mm]	Z	Rotation	PCD / PKD	Art. Nr.	€
							h [mm]		
73/61	12	16/20	2 - 6x3	1,5	4	DX / RH / RL	4	FD04FD01	
73/61	12	16/20	2 - 6x3	2	4	DX / RH / RL	4	FD04FD02	
73/61	12	16/20	2 - 6x3	3	4	DX / RH / RL	4	FD04FD03	
73/61	12	16/20	2 - 6x3	4	4	DX / RH / RL	4	FD04FD04	
73/61	12	16/20	2 - 6x3	5	4	DX / RH / RL	4	FD04FD05	
73/61	12	16/20	2 - 6x3	1,5	4	SX / LH / LL	4	FD04FD06	
73/61	12	16/20	2 - 6x3	2	4	SX / LH / LL	4	FD04FD07	
73/61	12	16/20	2 - 6x3	3	4	SX / LH / LL	4	FD04FD08	
73/61	12	16/20	2 - 6x3	4	4	SX / LH / LL	4	FD04FD09	
73/61	12	16/20	2 - 6x3	5	4	SX / LH / LL	4	FD04FD10	
82/70	12	16/20	2 - 6x3	1,5	4	DX / RH / RL	4	FD04FD11	
82/70	12	16/20	2 - 6x3	2	4	DX / RH / RL	4	FD04FD12	
82/70	12	16/20	2 - 6x3	3	4	DX / RH / RL	4	FD04FD13	
82/70	12	16/20	2 - 6x3	4	4	DX / RH / RL	4	FD04FD14	
82/70	12	16/20	2 - 6x3	5	4	DX / RH / RL	4	FD04FD15	
82/70	12	16/20	2 - 6x3	1,5	4	SX / LH / LL	4	FD04FD16	
82/70	12	16/20	2 - 6x3	2	4	SX / LH / LL	4	FD04FD17	
82/70	12	16/20	2 - 6x3	3	4	SX / LH / LL	4	FD04FD18	
82/70	12	16/20	2 - 6x3	4	4	SX / LH / LL	4	FD04FD19	
82/70	12	16/20	2 - 6x3	5	4	SX / LH / LL	4	FD04FD20	



FD05FD

DIA | H4 - Z=6 - Z=4

FRESA BORDATRICE PER RAGGIARE
RADIUS EDGEBANDER
DIA-RADIUS-FRÄSER



Ø D/D1 [mm]	B [mm]	b [mm]	Ø d [mm]	R [mm]	Z	Rotation	PCD / PKD	Art. Nr.	€
							h [mm]		
84/70	10	23	HSK25R	1,5	4	DX / RH / RL	4	FD05FD01	
84/70	10	23	HSK25R	1,5	6	DX / RH / RL	4	FD05FD02	
84/70	10	23	HSK25R	2	4	DX / RH / RL	4	FD05FD03	
84/70	10	23	HSK25R	2	6	DX / RH / RL	4	FD05FD04	
84/70	10	23	HSK25R	3	4	DX / RH / RL	4	FD05FD05	
84/70	10	23	HSK25R	3	6	DX / RH / RL	4	FD05FD06	
84/70	10	23	HSK25R	4	4	DX / RH / RL	4	FD05FD07	
84/70	10	23	HSK25R	4	6	DX / RH / RL	4	FD05FD08	
84/70	10	23	HSK25R	5	4	DX / RH / RL	4	FD05FD09	
84/70	10	23	HSK25R	5	6	DX / RH / RL	4	FD05FD10	
84/70	10	23	HSK25R	1,5	4	SX / LH / LL	4	FD05FD11	
84/70	10	23	HSK25R	1,5	6	SX / LH / LL	4	FD05FD12	
84/70	10	23	HSK25R	2	4	SX / LH / LL	4	FD05FD13	
84/70	10	23	HSK25R	2	6	SX / LH / LL	4	FD05FD14	
84/70	10	23	HSK25R	3	4	SX / LH / LL	4	FD05FD15	
84/70	10	23	HSK25R	3	6	SX / LH / LL	4	FD05FD16	
84/70	10	23	HSK25R	4	4	SX / LH / LL	4	FD05FD17	
84/70	10	23	HSK25R	4	6	SX / LH / LL	4	FD05FD18	
84/70	10	23	HSK25R	5	4	SX / LH / LL	4	FD05FD19	
84/70	10	23	HSK25R	5	6	SX / LH / LL	4	FD05FD20	
73/62	10	33	HSK32R	1,5	4	DX / RH / RL	4	FD05FD21	
73/62	10	33	HSK32R	1,5	6	DX / RH / RL	4	FD05FD22	
73/62	10	33	HSK32R	2	4	DX / RH / RL	4	FD05FD23	
73/62	10	33	HSK32R	2	6	DX / RH / RL	4	FD05FD24	
73/62	10	33	HSK32R	3	4	DX / RH / RL	4	FD05FD25	
73/62	10	33	HSK32R	3	6	DX / RH / RL	4	FD05FD26	
73/62	10	33	HSK32R	4	4	DX / RH / RL	4	FD05FD27	
73/62	10	33	HSK32R	4	6	DX / RH / RL	4	FD05FD28	
73/62	10	33	HSK32R	5	4	DX / RH / RL	4	FD05FD29	
73/62	10	33	HSK32R	5	6	DX / RH / RL	4	FD05FD30	
73/62	10	33	HSK32R	1,5	4	SX / LH / LL	4	FD05FD31	
73/62	10	33	HSK32R	1,5	6	SX / LH / LL	4	FD05FD32	
73/62	10	33	HSK32R	2	4	SX / LH / LL	4	FD05FD33	
73/62	10	33	HSK32R	2	6	SX / LH / LL	4	FD05FD34	
73/62	10	33	HSK32R	3	4	SX / LH / LL	4	FD05FD35	
73/62	10	33	HSK32R	3	6	SX / LH / LL	4	FD05FD36	
73/62	10	33	HSK32R	4	4	SX / LH / LL	4	FD05FD37	
73/62	10	33	HSK32R	4	6	SX / LH / LL	4	FD05FD38	
73/62	10	33	HSK32R	5	4	SX / LH / LL	4	FD05FD39	
73/62	10	33	HSK32R	5	6	SX / LH / LL	4	FD05FD40	

FD06FD

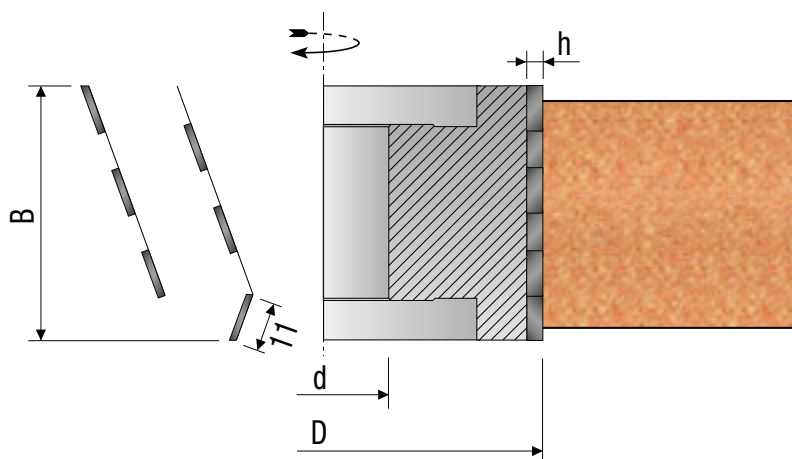
DIA | H4 - Z=3

FRESA A FINIRE PER BORDATRICE MONOSPALLA FINISHING EDGE BANDING CUTTER DIA-FÜGEFRÄSER



Ø D [mm]	B [mm]	Ø d [mm]	Chiavetta / Keyway / Doppelkeilnute [mm]	Z	Rotation	P		Art. Nr.	€
						n°	h [mm]		
80	42	30	2 - 8x4	3	DX / RH / RL	15	4	FD06FD01	
80	50	30	2 - 8x4	3	DX / RH / RL	18	4	FD06FD02	
80	58	30	2 - 8x4	3	DX / RH / RL	21	4	FD06FD03	
100	34	30	2 - 8x4	3	DX / RH / RL	12	4	FD06FD04	
100	42	30	2 - 8x4	3	DX / RH / RL	15	4	FD06FD05	
100	50	30	2 - 8x4	3	DX / RH / RL	18	4	FD06FD06	
100	58	30	2 - 8x4	3	DX / RH / RL	21	4	FD06FD07	
125	42	30	2 - 8x4	3	DX / RH / RL	15	4	FD06FD08	
125	50	30	2 - 8x4	3	DX / RH / RL	18	4	FD06FD09	
125	58	30	2 - 8x4	3	DX / RH / RL	21	4	FD06FD10	
125	66	30	2 - 8x4	3	DX / RH / RL	24	4	FD06FD11	
80	42	30	2 - 8x4	3	SX / LH / LL	15	4	FD06FD12	
80	50	30	2 - 8x4	3	SX / LH / LL	18	4	FD06FD13	
80	58	30	2 - 8x4	3	SX / LH / LL	21	4	FD06FD14	
100	34	30	2 - 8x4	3	SX / LH / LL	12	4	FD06FD15	
100	42	30	2 - 8x4	3	SX / LH / LL	15	4	FD06FD16	
100	50	30	2 - 8x4	3	SX / LH / LL	18	4	FD06FD17	
100	58	30	2 - 8x4	3	SX / LH / LL	21	4	FD06FD18	
125	42	30	2 - 8x4	3	SX / LH / LL	15	4	FD06FD19	
125	50	30	2 - 8x4	3	SX / LH / LL	18	4	FD06FD20	
125	58	30	2 - 8x4	3	SX / LH / LL	21	4	FD06FD21	
125	66	30	2 - 8x4	3	SX / LH / LL	24	4	FD06FD22	

P Placchetta
Tip
Schneide



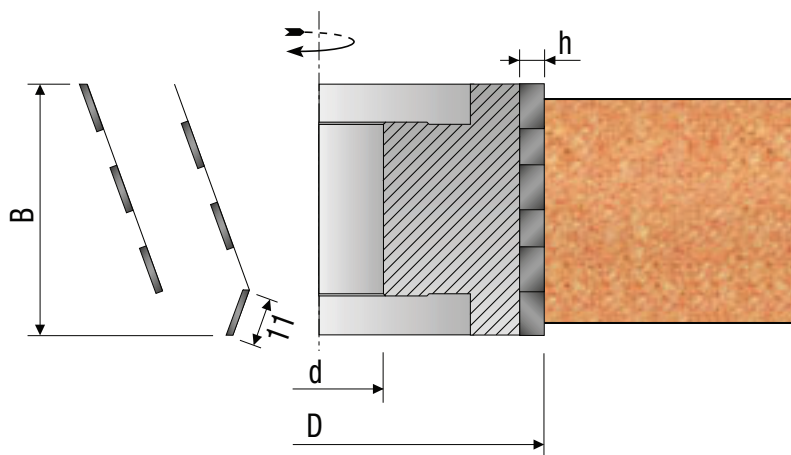
FD07FD

DIA | H6 - Z=3

FRESA A FINIRE PER BORDATRICE MONOSPALLA
FINISHING EDGE BANDING CUTTER
DIA-FÜGEFRÄSER


Ø D [mm]	B [mm]	Ø d [mm]	Chiavetta / Keyway / Doppelkeilnute [mm]	Z	Rotation	P		Art. Nr.	€
						n°	h [mm]		
80	42	30	2 - 8x4	3	DX / RH / RL	15	6	FD07FD01	
80	50	30	2 - 8x4	3	DX / RH / RL	18	6	FD07FD02	
80	58	30	2 - 8x4	3	DX / RH / RL	21	6	FD07FD03	
100	34	30	2 - 8x4	3	DX / RH / RL	12	6	FD07FD04	
100	42	30	2 - 8x4	3	DX / RH / RL	15	6	FD07FD05	
100	50	30	2 - 8x4	3	DX / RH / RL	18	6	FD07FD06	
100	58	30	2 - 8x4	3	DX / RH / RL	21	6	FD07FD07	
125	42	30	2 - 8x4	3	DX / RH / RL	15	6	FD07FD08	
125	50	30	2 - 8x4	3	DX / RH / RL	18	6	FD07FD09	
125	58	30	2 - 8x4	3	DX / RH / RL	21	6	FD07FD10	
125	66	30	2 - 8x4	3	DX / RH / RL	24	6	FD07FD11	
80	42	30	2 - 8x4	3	SX / LH / LL	15	6	FD07FD12	
80	50	30	2 - 8x4	3	SX / LH / LL	18	6	FD07FD13	
80	58	30	2 - 8x4	3	SX / LH / LL	21	6	FD07FD14	
100	34	30	2 - 8x4	3	SX / LH / LL	12	6	FD07FD15	
100	42	30	2 - 8x4	3	SX / LH / LL	15	6	FD07FD16	
100	50	30	2 - 8x4	3	SX / LH / LL	18	6	FD07FD17	
100	58	30	2 - 8x4	3	SX / LH / LL	21	6	FD07FD18	
125	42	30	2 - 8x4	3	SX / LH / LL	15	6	FD07FD19	
125	50	30	2 - 8x4	3	SX / LH / LL	18	6	FD07FD20	
125	58	30	2 - 8x4	3	SX / LH / LL	21	6	FD07FD21	
125	66	30	2 - 8x4	3	SX / LH / LL	24	6	FD07FD22	

P Placchetta
Tip
Schneide

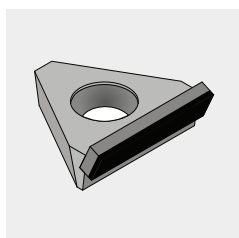
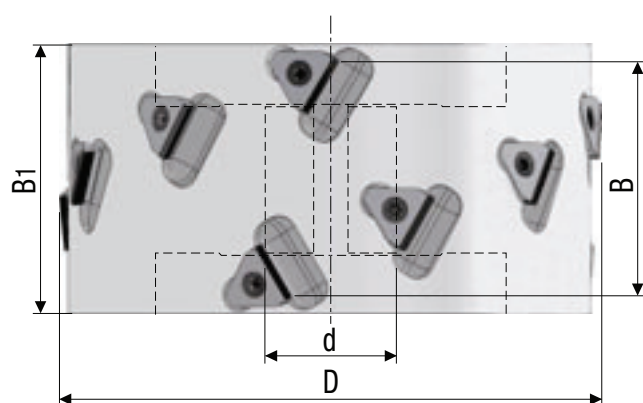


TD01FD

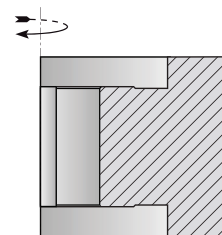
DIA | H3 - Z=2

FRESA A FINIRE PER BORDATRICE CON INSERTI IN DIAMANTE A 30°
FINISHING EDGE BANDING CUTTER WITH DIAMOND INSERTS - 30°
FÜGEFRÄSER MIT DIAMANT-EINSÄTZEN 30°

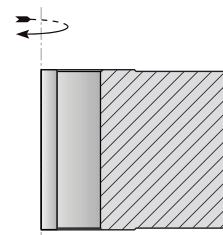

Material	Ø D [mm]	B [mm]	B1 [mm]	Ø d [mm]	Chiavetta Keyway Doppelkeilnute [mm]	Z	Rotation	P		Art. Nr.	€
								n°	h [mm]		
Lega leggera Light alloy Leicht Metall	80	43,5	51,5	30	2 8x4	3	DX / RH / RL	12	3	TD01FD01	
	80	64,5	72,5	30	2 8x4	3	DX / RH / RL	18	3	TD01FD02	
	85	43,5	51,5	30	2 8x4	3	DX / RH / RL	12	3	TD01FD03	
	100	33	41	30	2 8x4	3	DX / RH / RL	9	3	TD01FD04	
	100	43,5	51,5	30	2 8x4	3	DX / RH / RL	12	3	TD01FD05	
	100	54	63,5	30	2 8x4	3	DX / RH / RL	15	3	TD01FD06	
	100	64,5	72,5	30	2 8x4	3	DX / RH / RL	18	3	TD01FD07	
	125	33	41	30	2 8x4	3	DX / RH / RL	9	3	TD01FD08	
	125	43,5	51,5	30	2 8x4	3	DX / RH / RL	12	3	TD01FD09	
	125	54	63,5	30	2 8x4	3	DX / RH / RL	15	3	TD01FD10	
	125	64,5	72,5	30	2 8x4	3	DX / RH / RL	18	3	TD01FD11	
	125	75	83	30	2 8x4	3	DX / RH / RL	21	3	TD01FD12	
Lega leggera Light alloy Leicht Metall	80	43,5	51,5	30	2 8x4	3	SX / LH / LL	12	3	TD01FD13	
	80	64,5	72,5	30	2 8x4	3	SX / LH / LL	18	3	TD01FD14	
	85	43,5	51,5	30	2 8x4	3	SX / LH / LL	12	3	TD01FD15	
	100	33	41	30	2 8x4	3	SX / LH / LL	9	3	TD01FD16	
	100	43,5	51,5	30	2 8x4	3	SX / LH / LL	12	3	TD01FD17	
	100	54	63,5	30	2 8x4	3	SX / LH / LL	15	3	TD01FD18	
	100	64,5	72,5	30	2 8x4	3	SX / LH / LL	18	3	TD01FD19	
	125	33	41	30	2 8x4	3	SX / LH / LL	9	3	TD01FD20	
	125	43,5	51,5	30	2 8x4	3	SX / LH / LL	12	3	TD01FD21	
	125	54	63,5	30	2 8x4	3	SX / LH / LL	15	3	TD01FD22	
	125	64,5	72,5	30	2 8x4	3	SX / LH / LL	18	3	TD01FD23	
	125	75	83	30	2 8x4	3	SX / LH / LL	21	3	TD01FD24	



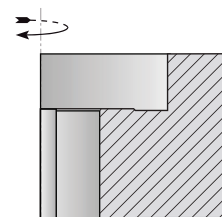
P Placchetta
Tip
Schneide



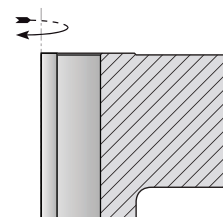
Type
A



Type
C



Type
B



Type
D

TD02FD

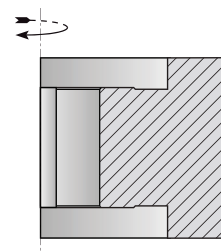
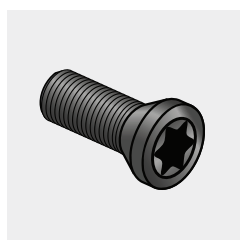
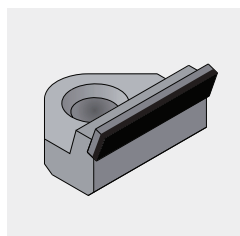
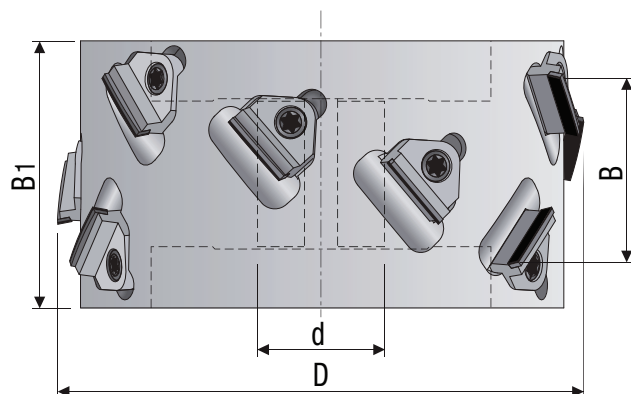
DIA | H5 - Z=3



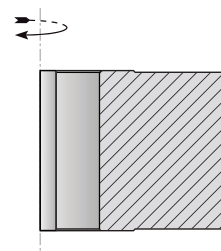
FRESA A FINIRE PER BORDATRICE CON INSERTI IN DIAMANTE A 40° FINISHING EDGE BANDING CUTTER WITH DIAMOND INSERTS - 40° FÜGEFRÄSER MIT DIAMANT - EINSÄTZEN 40°

Ø D [mm]	B [mm]	B1 [mm]	Ø d [mm]	Chiavetta Keyway Doppelkeilnute [mm]	Z	Rotation	P		Material	Art. Nr.	€
							n°	h [mm]			
80	37,5	55	30	2 8x4	3	DX / RH / RL	9	5	Lega leggera Light alloy Leicht Metall	TD02FD01	
80	50	67	30	2 8x4	3	DX / RH / RL	12	5		TD02FD02	
85	37,5	55	30	2 8x4	3	DX / RH / RL	9	5		TD02FD03	
100	25,5	43	30	2 8x4	3	DX / RH / RL	6	5		TD02FD04	
100	37,5	55	30	2 8x4	3	DX / RH / RL	9	5		TD02FD05	
100	50	67	30	2 8x4	3	DX / RH / RL	12	5		TD02FD06	
100	62	79	30	2 8x4	3	DX / RH / RL	15	5		TD02FD07	
125	25,5	43	30	2 8x4	3	DX / RH / RL	6	5		TD02FD08	
125	37,5	55	30	2 8x4	3	DX / RH / RL	9	5		TD02FD09	
125	50	67	30	2 8x4	3	DX / RH / RL	12	5		TD02FD10	
125	62	79	30	2 8x4	3	DX / RH / RL	15	5		TD02FD11	
125	74	91	30	2 8x4	3	DX / RH / RL	18	5		TD02FD12	
80	37,5	55	30	2 8x4	3	SX / LH / LL	9	5	Lega leggera Light alloy Leicht Metall	TD02FD13	
80	50	67	30	2 8x4	3	SX / LH / LL	12	5		TD02FD14	
85	37,5	55	30	2 8x4	3	SX / LH / LL	9	5		TD02FD15	
100	25,5	43	30	2 8x4	3	SX / LH / LL	6	5		TD02FD16	
100	37,5	55	30	2 8x4	3	SX / LH / LL	9	5		TD02FD17	
100	50	67	30	2 8x4	3	SX / LH / LL	12	5		TD02FD18	
100	62	79	30	2 8x4	3	SX / LH / LL	15	5		TD02FD19	
125	25,5	43	30	2 8x4	3	SX / LH / LL	6	5		TD02FD20	
125	37,5	55	30	2 8x4	3	SX / LH / LL	9	5		TD02FD21	
125	50	67	30	2 8x4	3	SX / LH / LL	12	5		TD02FD22	
125	62	79	30	2 8x4	3	SX / LH / LL	15	5		TD02FD23	
125	74	91	30	2 8x4	3	SX / LH / LL	18	5		TD02FD24	

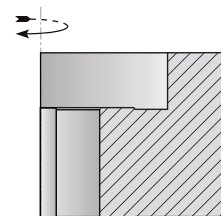
P Placchetta
Tip
Schneide



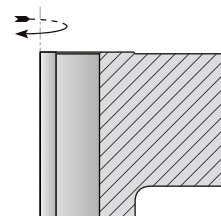
Type
A



Type
C



Type
B



Type
D

GP27FM

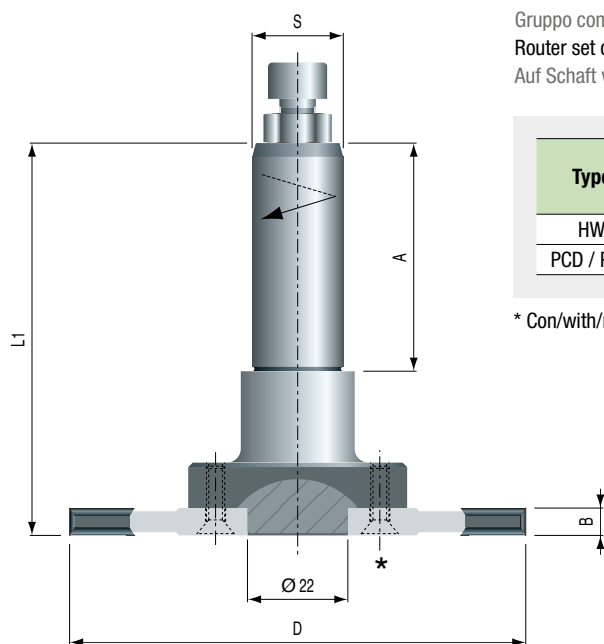
DIA | HW - Z=4

GRUPPO CON FRESA PER INCASTRI GROOVING ROUTER SET LAMELLEN-NUTFRÄSER

Gruppo completo di mandrino e utensile per incastri.

Router set complete with chuck for grooving.

Auf Schaft verschraubtes Nutwerkzeug für Lamellen-Verbindungen.



* Vite per fissare l'utensile sul mandrino

Screw for fastening the tool on the chuck

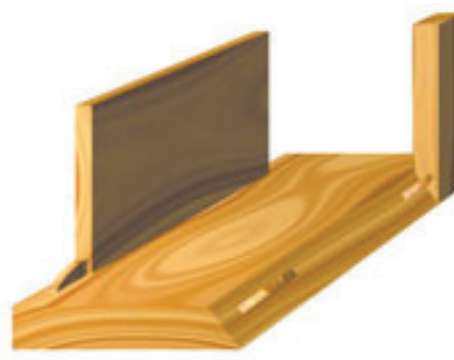
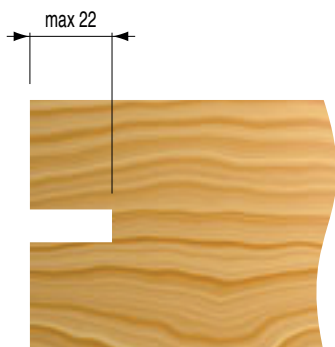
M 4x12

Befestigungsschraube

Type	Ø D [mm]	B [mm]	Ø d [mm]	Attacco / Shank / Schaft		Z	V	Art. Nr.	€
				Ø d [mm]	l [mm]				
HW	100	3,95	22	20	60	2	4	GP27FM10*	
PCD / PKD	100	3,95	22	20	60	4	-	GP27FM20	

* Con/with/mit Art. IN03TM01 (pag. BAS-2 Basic Line)

Ø D [mm]	B [mm]	Ø d [mm]	Attacco / Shank / Schaft		L	Art. Nr.	€
			Ø d [mm]	l [mm]			
60	2,5	22	20	60	90	MN02FC10B	



FD08FD

DIA | H6

FRESA REGOLABILE CON ANELLI DISTANZIALI H6
ADJUSTABLE GROOVER H6 WITH DISTANCE RINGS
VERSTELLNUTFRÄSER H6



Ø D [mm]	B [mm]	Ø d [mm]	Z	P		Art. Nr.	€
				n°	h [mm]		
120	3 / 5,5	25 / 30 / 35	6+6	2x6	6	FD08FD01	
120	4 / 7,5	25 / 30 / 35	6+6	2x6	6	FD08FD02	
120	5 / 9,5	25 / 30 / 35	6+6	2x6	6	FD08FD03	
120	6 / 11,5	25 / 30 / 35	6+6	2x6	6	FD08FD04	
150	3 / 5,5	25 / 30 / 35	6+6	2x6	6	FD08FD05	
150	4 / 7,5	25 / 30 / 35	6+6	2x6	6	FD08FD06	
150	5 / 9,5	25 / 30 / 35	6+6	2x6	6	FD08FD07	
150	6 / 11,5	25 / 30 / 35	6+6	2x6	6	FD08FD08	
200	3 / 5,5	30 / 35 / 40	6+6	2x6	6	FD08FD09	
200	4 / 7,5	30 / 35 / 40	6+6	2x6	6	FD08FD10	
200	5 / 9,5	30 / 35 / 40	6+6	2x6	6	FD08FD11	
200	6 / 11,5	30 / 35 / 40	6+6	2x6	6	FD08FD12	
200	3 / 5,5	30 / 35 / 40	8+8	2x8	6	FD08FD13	
200	4 / 7,5	30 / 35 / 40	8+8	2x8	6	FD08FD14	
200	5 / 9,5	30 / 35 / 40	8+8	2x8	6	FD08FD15	
200	6 / 11,5	30 / 35 / 40	8+8	2x8	6	FD08FD16	
200	3 / 5,5	30 / 35 / 40	12+12	2x12	6	FD08FD17	
200	4 / 7,5	30 / 35 / 40	12+12	2x12	6	FD08FD18	
200	5 / 9,5	30 / 35 / 40	12+12	2x12	6	FD08FD19	
200	6 / 11,5	30 / 35 / 40	12+12	2x12	6	FD08FD20	

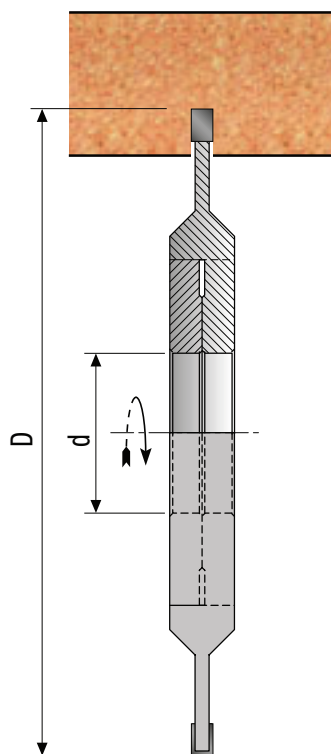
Attenzione / Attention / Achtung

Chiavetta a richiesta

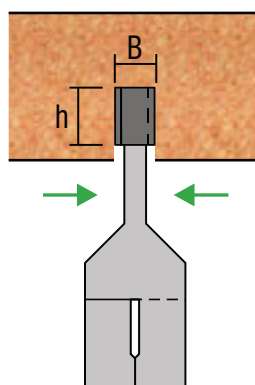
Keyways on request

Keilnut auf Anfrage

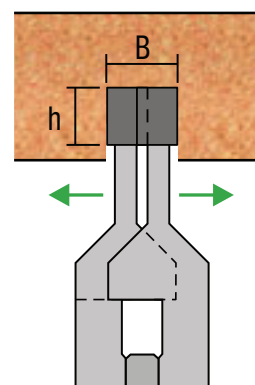
P Placchetta
Tip
Schneide



MIN

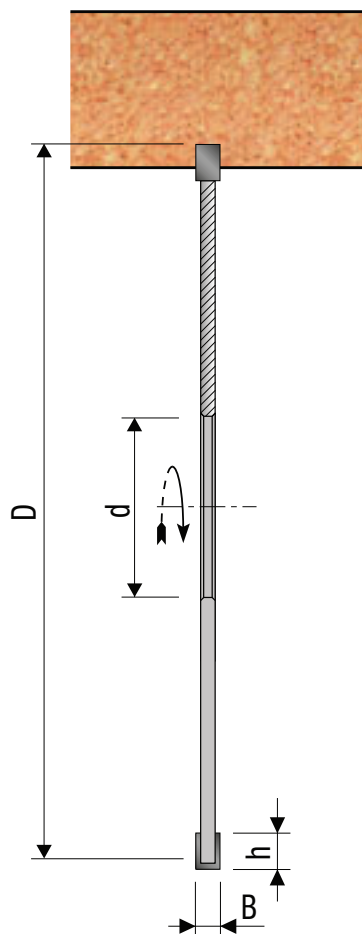


MAX



LD01FD

DIA | H6 - Z=12 - Z=24

**LAMA PER INCASTRI
GROOVER
DIA-NUTFRÄSER**

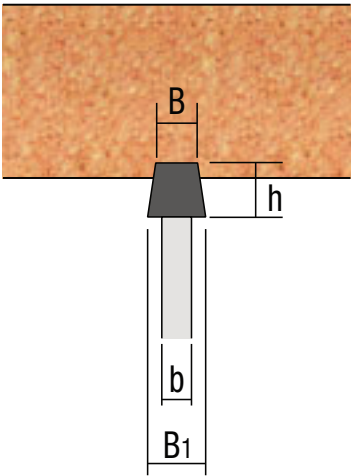
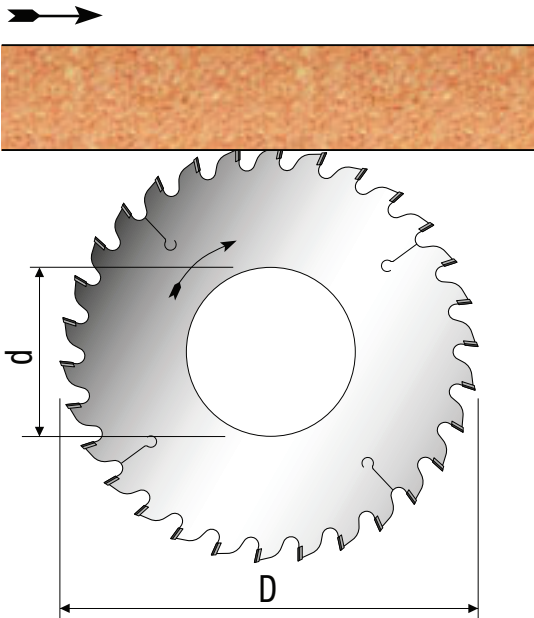
Ø D [mm]	B [mm]	Ø d [mm]	Z	PCD / PKD	Art. Nr.	€
				h [mm]		
120	3	30 / 35 / 40	12	6	LD01FD01	
120	4	30 / 35 / 40	12	6	LD01FD02	
120	5	30 / 35 / 40	12	6	LD01FD03	
120	6	30 / 35 / 40	12	6	LD01FD04	
120	7	30 / 35 / 40	12	6	LD01FD05	
160	3	30 / 35 / 40	12	6	LD01FD06	
160	4	30 / 35 / 40	12	6	LD01FD07	
160	5	30 / 35 / 40	12	6	LD01FD08	
160	6	30 / 35 / 40	12	6	LD01FD09	
160	7	30 / 35 / 40	12	6	LD01FD10	
180	3	30 / 35 / 40	12	6	LD01FD11	
180	4	30 / 35 / 40	12	6	LD01FD12	
180	5	30 / 35 / 40	12	6	LD01FD13	
180	6	30 / 35 / 40	12	6	LD01FD14	
180	7	30 / 35 / 40	12	6	LD01FD15	
200	3	30 / 35 / 40	12	6	LD01FD16	
200	4	30 / 35 / 40	12	6	LD01FD17	
200	5	30 / 35 / 40	12	6	LD01FD18	
200	6	30 / 35 / 40	12	6	LD01FD19	
200	7	30 / 35 / 40	12	6	LD01FD20	
160	3	30 / 35 / 40	24	6	LD01FD21	
160	4	30 / 35 / 40	24	6	LD01FD22	
160	5	30 / 35 / 40	24	6	LD01FD23	
160	6	30 / 35 / 40	24	6	LD01FD24	
160	7	30 / 35 / 40	24	6	LD01FD25	
180	3	30 / 35 / 40	24	6	LD01FD26	
180	4	30 / 35 / 40	24	6	LD01FD27	
180	5	30 / 35 / 40	24	6	LD01FD28	
180	6	30 / 35 / 40	24	6	LD01FD29	
180	7	30 / 35 / 40	24	6	LD01FD30	
200	3	30 / 35 / 40	24	6	LD01FD31	
200	4	30 / 35 / 40	24	6	LD01FD32	
200	5	30 / 35 / 40	24	6	LD01FD33	
200	6	30 / 35 / 40	24	6	LD01FD34	
200	7	30 / 35 / 40	24	6	LD01FD35	

LD02FD
DIA | H4 - H6

INCISORE CONICO
CONICAL SCORING SAWBLADE
VORRITZ-KREISSÄGEBLÄTTER, KONISCH



Ø D [mm]	B/B ₁ [mm]	b [mm]	Ø d [mm]	Z	PCD / PKD	Art. Nr.	€
					h [mm]		
125	3,1 / 4,3	2,2	20	24	4	LD02FD01	
125	4,4 / 5,6	2,8	20	24	4	LD02FD02	
150	4,3 / 5,6	2,8	30	30	4	LD02FD03	
160	4,3 / 5,6	2,8	55	36	4	LD02FD04	
200	4,3 / 5,6	2,8	30 / 80	36	4	LD02FD05	
200	4,6 / 5,8	2,8	45	36	4	LD02FD06	
125	3,1 / 4,3	2,2	20	24	6	LD02FD07	
125	4,4 / 5,6	2,8	20	24	6	LD02FD08	
150	4,3 / 5,6	2,8	30	30	6	LD02FD09	
160	4,3 / 5,6	2,8	55	36	6	LD02FD10	
200	4,3 / 5,6	2,8	30 / 80	36	6	LD02FD11	
200	4,6 / 5,8	2,8	45	36	6	LD02FD12	

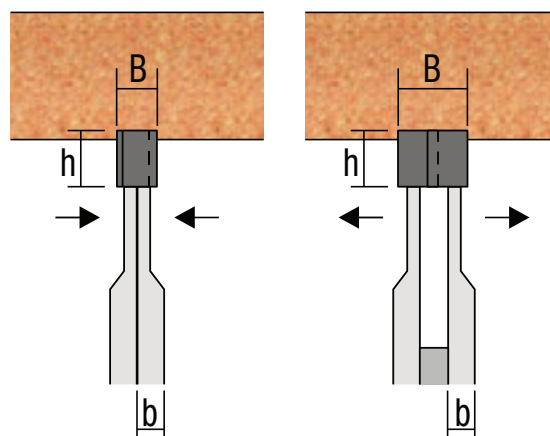
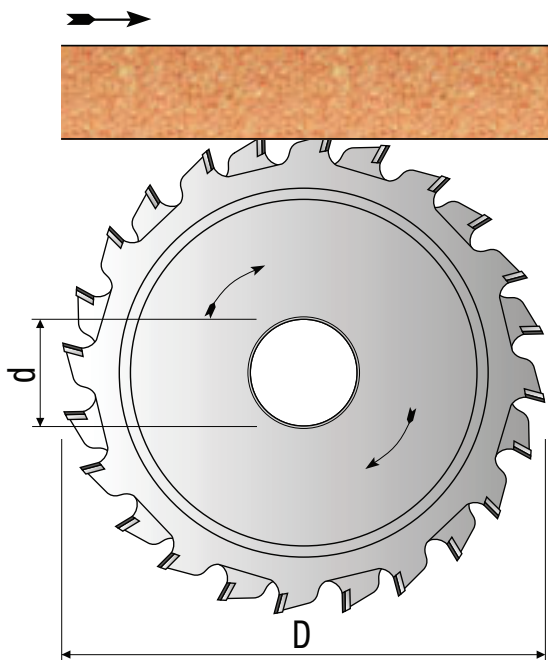


LD03FD

DIA | H4 - H6 - Z=12+12

INCISORE REGOLABILE COMPLETO DI ANELLI
ADJUSTABLE SCORING SAWBLADE WITH DISTANCE RINGS
VORRITZ-KREISSÄGEBLÄTTER, VERSTELLBAR MIT DISTANZRINGEN


Ø D [mm]	B [mm]	b [mm]	Ø d [mm]	Z	PCD / PKD	Art. Nr.	€
					h [mm]		
80	2,8 / 3,6	2,2	20	12+12	4	LD03FD01	
100	2,8 / 3,6	2,2	20 / 22	12+12	4	LD03FD02	
120	2,8 / 3,6	2,2	20 / 22	12+12	4	LD03FD03	
125	2,8 / 3,6	2,2	20 / 22	12+12	4	LD03FD04	
120	2,8 / 3,6	2,2	50+4	12+12	4	LD03FD05	
80	2,8 / 3,6	2,2	20	12+12	6	LD03FD06	
100	2,8 / 3,6	2,2	20 / 22	12+12	6	LD03FD07	
120	2,8 / 3,6	2,2	20 / 22	12+12	6	LD03FD08	
125	2,8 / 3,6	2,2	20 / 22	12+12	6	LD03FD09	
120	2,8 / 3,6	2,2	50+4	12+12	6	LD03FD10	



LD04FD

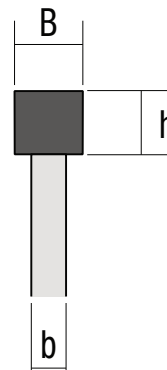
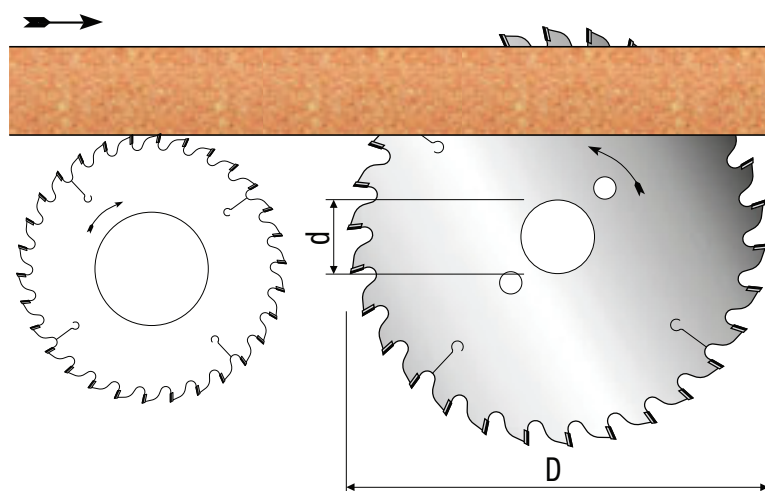
DIA | H6

LAMA CIRCOLARE
CIRCULAR SAWBLADE
DIA-KREISSÄGEBLATT


Ø D [mm]	B [mm]	b [mm]	Ø d [mm]	Z	PCD / PKD	Art. Nr.	€
					h [mm]		
250	3,2	2,2	30	48	6	LD04FD01	
250	3,2	2,2	30	60	6	LD04FD02	
300	3,2	2,2	30	48	6	LD04FD03	
300	3,2	2,2	30	60	6	LD04FD04	
300	3,2	2,2	30	72	6	LD04FD05	
300	3,2	2,2	30	96	6	LD04FD06	
350	3,5	2,5	30	54	6	LD04FD07	
350	3,5	2,5	30	72	6	LD04FD08	
350	3,5	2,5	30	84	6	LD04FD09	

Su richiesta anche con corpo silenziato
 On request the body can be produced silenced
 Geräuscharme Ausführung auf Anfrage

SILENZIATE
LOW NOISE
GERÄUSCHARM

**1****2****3**

In fase d'ordine indicare tipologia dente (1 - 2 - 3)
 When ordering please specify the tooth shape (1 - 2 - 3)
 Im Auftragsfall bitte Zahnform angeben (1-2-3)

LD05FD

DIA | H6

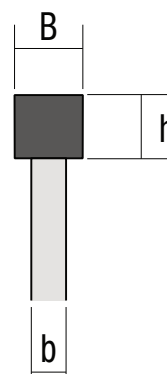
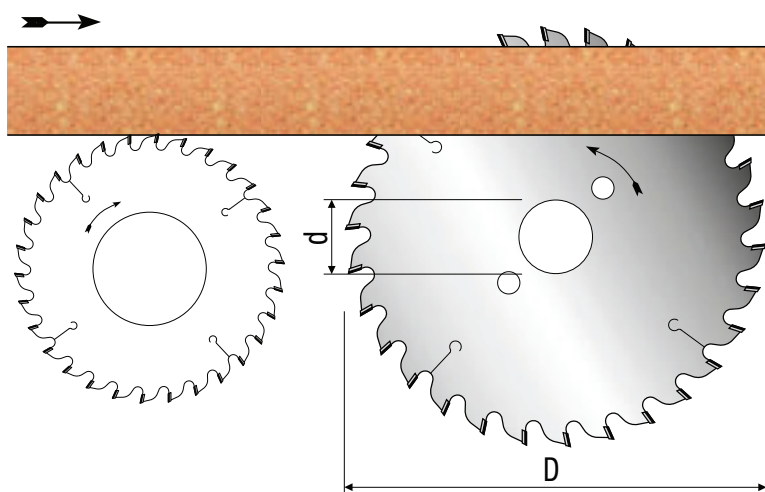
LAMA CIRCOLARE PER SEZIONATRICE
SIZING SAWBLADE PANEL
DIA-KREISSÄGEBLATT

Ø D [mm]	B [mm]	b [mm]	Ø d [mm]	Z	PCD / PKD	Art. Nr.	€
					h [mm]		
350	4,4	3,2	★	60	6	LD05FD01	
350	4,4	3,2	★	54	6	LD05FD02	
350	4,4	3,2	★	72	6	LD05FD03	
400	4,4	3,5	★	36	6	LD05FD04	
400	4,4	3,5	★	60	6	LD05FD05	
400	4,4	3,5	★	72	6	LD05FD06	
420	4,4	3,5	★	48	6	LD05FD07	
420	4,4	3,5	★	60	6	LD05FD08	
420	4,4	3,5	★	72	6	LD05FD09	
430	4,4	3,5	★	60	6	LD05FD10	
430	4,4	3,5	★	72	6	LD05FD11	
450	4,6	3,5	★	48	6	LD05FD12	
450	4,6	3,5	★	60	6	LD05FD13	
450	4,6	3,5	★	72	6	LD05FD14	
500	5,2	4	★	54	6	LD05FD15	
500	5,2	4	★	72	6	LD05FD16	
500	5,2	4	★	54	6	LD05FD17	
550	5,2	4	★	72	6	LD05FD18	
565	5,4	4	★	60	6	LD05FD19	
565	5,4	4	★	72	6	LD05FD20	
600	5,8	4	★	60	6	LD05FD21	
600	5,8	4	★	72	6	LD05FD22	
600	5,8	4	★	84	6	LD05FD23	

* Diametro del foro a richiesta
Bore's diameter on request
Bohrungsdurchmesser auf Anfrage

Su richiesta anche con corpo silenziato
On request the body can be produced silenced
Geräuscharme Ausführung auf Anfrage

SILENZIATE
LOW NOISE
GERÄUSCHARM



1



2



3



In fase d'ordine indicare tipologia dente (1 - 2 - 3)
When ordering please specify the tooth shape (1 - 2 - 3)
Im Auftragsfall bitte Zahnform angeben (1-2-3)

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CONDIZIONI DI VENDITA / **GENERAL SALE CONDITIONS** / VERKAUFS-, LIEFER- UND ZAHLUNGSBEDINGUNGEN



ORDINI Si intendono accettati solo con l'emissione della nostra conferma e non potranno essere revocati, né integralmente, né parzialmente dal Committente.

CONSEGNE I termini riportati in conferma sono indicativi e subordinati al normale rifornimento delle materie prime da parte dei Fornitori nonché salvo impedimenti di forza maggiore quali scioperi, serrate, calamità naturali e quant'altro. Il non rispetto dei termini da parte di STARK non dà diritto al Committente di revocare l'ordine.

PREZZI I prezzi richiamati in conferma non sono impegnativi e potranno essere eventualmente modificati, nel caso si verificassero aumenti del costo del materiale, della manodopera, dell'energia etc., prima della consegna totale e/o parziale.

SPEDIZIONI La merce si intende fornita franco nostro stabilimento o deposito e viaggia sempre ed esclusivamente a rischio del destinatario, indipendentemente dalle condizioni di addebito del trasporto (franco, franco con addebito in fattura, a carico, etc.)

IMBALLO Viene sempre addebitato al costo.

UTILIZZO Il materiale fornito da STARK dovrà essere sempre utilizzato con l'osservanza di tutte le norme legislative di prevenzione infortuni.

Non potrà altresì essere manipolato e/o modificato senza la preventiva autorizzazione scritta da STARK.

RECLAMI - RESI Eventuali contestazioni relative alla quantità ed alla qualità dei prodotti forniti, dovranno pervenire a STARK in forma scritta entro otto giorni dalla nota di ricevimento.
Non si accettano, per qualsiasi motivi, restituzioni non preventivamente autorizzate da STARK.

GARANZIA I prodotti sono forniti da STARK con 24 (ventiquattro) mesi di garanzia per vizi occulti.
Durante tale periodo, ad insindacabile giudizio STARK e per i comprovati casi di opportunità, si provvederà alla sostituzione dei particolari difettosi restando escluso ogni altro onere, a qualsiasi titolo.

PICCOLI ORDINI Per le forniture di importo inferiore a € 250,00 netti, sarà addebitato l'importo fisso di € 25,00 netti a titolo di concorso per le maggiori spese di gestione.

PAGAMENTI Dovranno pervenire, nei termini e nelle forme stabilite in conferma e fattura, alla sede STARK.
Non sono ammessi né arrotondamenti né trattenute a qualsiasi titolo.
La non ottemperanza da parte del Cliente darà diritto a STARK di sospendere eventuali nuove forniture, consentendole contemporaneamente di addebitare gli interessi passivi maturati ed ogni altro onere accessorio.
Il passaggio di proprietà dei prodotti forniti da STARK al Cliente avverrà al completo saldo della/e fattura/e di fornitura.

LEGGE E FORO COMPETENTE Ogni rapporto tra STARK ed il Cliente s'intende regolato dalla Legge Italiana. Per ogni controversia viene riconosciuta l'esclusiva competenza del Foro di Udine.



ORDERS Orders are considered accepted only after our written confirmation and may neither be totally nor partially cancelled by the customer.

DELIVERY The terms of delivery quoted in the confirmation are only indicative and is dependant on normal supply of raw materials on part of the suppliers, as well as to circumstances beyond our control, such as strikes, closures, natural calamities and other similar impediments. The non compliance with the terms by STARK does not give the right to the customer to cancel the order.

PRICES The prices quoted in the confirmation of the order are not binding and may be altered in the case of changes in the costs of raw materials, of labour, energy etc., as long as they occurred before the total or partial delivery.

SHIPMENTS The goods are supplied ex factory or ex warehouse and the transport is at the risk of the consignee, regardless of the terms of payment for the transport (free, charged in the invoice, at the customers expenses, etc.)

PACKAGING Packaging will be charged as extra.

USAGE When using the material supplied by STARK, all the safety rules and regulations for the prevention of accidents must be observed.
The goods may not be modified nor manipulated without prior written authorisation of STARK.

COMPLAINTS Any complaint that may arise concerning the quantity and the quality of the supplied goods, must be communicated to STARK in writing within eight days from note of receipt.
Goods sent back without prior authorisation will not be accepted under any circumstances.

GUARANTEE The products supplied by STARK are under a 24 (twentyfour) months guarantee for hidden defects.
During this period, provided defects of the kinds envisaged are confirmed by STARK, the replacement of faulty parts will be free of charge. STARK will not entertain claims for any other reason whatsoever and its decision will be irrevocable.

SMALL ORDERS For orders worth less than € 250,00 net, an additional € 25,00 net will be charged as a contribution to costs.

PAYMENTS Payments must reach the STARK headquarters according to the terms and conditions as stated in the confirmation document and invoice.
The prices may not be rounded down or reduced under any circumstances.
The non compliance of this on behalf of the customer will give STARK the right to stop any future deliveries and at the same time to charge all the due interests allowed as well as any additional expenses.
The passing of property of the products supplied by STARK to the customer will take place after complete settlement of the invoices and of the delivery.

LAW AND PLACE OF JURISDICTION Dealings between STARK and the customer will be regulated by Italian Law. The place of jurisdiction for any arising controversy is the Court of Udine.



ALLGEMEINE GESCHÄFTSBEDINGUNGEN Alle Angebote, Bestellungen, Auftragsbestätigungen, Aufträge und sonstige Vereinbarungen basieren auf unseren nachstehenden Verkaufsbedingungen. Mit der Bestellung werden unsere Verkaufs-, Lieferungs- und Zahlungsbedingungen vom Käufer anerkannt. Ebenso gilt eine Auftragsbestätigung, der nicht widersprochen wird, als anerkannt. Angebote sind grundsätzlich bis zu unserer Auftragsbestätigung freibleibend. Annullierungen von Aufträgen können nur mit unserer schriftlichen Zustimmung erfolgen. Für bereits in Bearbeitung befindliche Aufträge sind zumindest die bis zum Zeitpunkt unserer Zustimmung angefallenen Kosten vom Besteller zu erstatten. Für ab Lager angebotene Werkzeuge behalten wir uns das Zwischenverkaufsrecht vor. Eine Rücknahme von Werkzeugen kann nur nach Vereinbarung erfolgen, in Sonderanfertigung hergestellte Werkzeuge werden grundsätzlich nicht zurückgenommen. Abbildungen, Zeichnungen und Muster sowie sonstige Unterlagen gehören uns. Sie genießen Urheberrecht und dürfen nicht zum Zwecke der Vervielfältigung, Nachahmung oder Weitergabe verwendet werden. Wenn die Ausführung eines Auftrags wegen unvorhergesehener Ereignisse (nicht vorhersehbarer, fehlender Zulieferung, Streik etc.) unmöglich wird, sind wir berechtigt, vom Vertrag zurückzutreten.

LIEFERUNG Liefertermine werden von uns mit der gebotenen Sorgfalt festgelegt und unter Zugrundelegung eines normalen Ablaufs der Fertigung genannt. Die Lieferzeit beginnt erst nach vollständiger Klärung aller Einzelheiten (spez. technischer), die mit dem Auftrag zusammenhängen. Angemessene Lieferzeitverzögerungen berechtigen den Käufer nicht zu Deckungskäufen, Schadenersatzansprüchen, Aufrechnung und Verzugschäden oder Rücktritt vom Kaufvertrag. Geschehnisse höherer Gewalt, z.B., Betriebsstörung, Streik, Aussperrung, Rohstoffmangel, nicht rechtzeitiges Liefern durch Vorlieferanten befreien uns für die Dauer der Störungen und im Umfang ihrer Auswirkungen von der Verpflichtung zur Lieferung. Diese Lieferungs Hindernisse sind auch nicht vom Lieferanten zu vertreten, wenn sie während eines bereits entstandenen Verzugs eintreten. Weitergehende Ansprüche auf Schadenersatz, insbesondere aus Verzug, sind ausgeschlossen.
Wenn nichts vereinbart wurde, sind auch Teillieferungen erlaubt, die als gesonderte Lieferungen abgerechnet werden. Die Versendung erfolgt auf Gefahr des Bestellers, d.h., die Gefahr der Qualitätsminderung oder der Verlust der Ware geht mit Verladung auf den Besteller über, auch wenn diese Verladung auf unsere Fahrzeuge erfolgt. Sendungen werden nur auf ausdrücklichen Wunsch des Bestellers versichert.

PREISE Es gelten grundsätzlich die am Tag der Lieferung gültigen Preise. Preisangaben verstehen sich ab Werk Oberkochen zuzüglich der gesetzlichen Mehrwertsteuer am Auslieferungstag. Übersteigt der Rechnungswert einer Bestellung € 250,00 erfolgt die Lieferung frachtfrei deutscher Empfangsstation, frachtfrei deutscher Grenze bzw. deutschem Hafen bei Exportlieferungen, wobei wir uns die Wahl der preisgünstigsten Versandart vorbehalten. Verpackungskosten und Mehrkosten für besondere Vorschriften, Eilversand und Versicherung gehen zu Lasten des Bestellers. Bei Aufträgen unter € 75,00 Rechnungswert werden € 5,00 Bearbeitungsgebühr in Rechnung gestellt. Ebenso erfolgt eine gesonderte Rechnung für nachträgliche Sonderwünsche oder Änderungen, die bei Vertragsabschluß nicht bekannt waren.

ZAHLUNGSBEDINGUNGEN Die Zahlung unserer Rechnungen hat entweder innerhalb 14 Tagen mit 2% Skonto oder innerhalb 30 Tagen netto ab Rechnungsdatum zu erfolgen. Schecks und Wechsel gelten erst nach Einlösung als Zahlung, wobei für Wechselzahlung kein Skonto gewährt wird. Ebenso gehen Diskont- und Wechselspesen zu Lasten des Bestellers und sind sofort fällig. Bei Zahlungsverzug behalten wir uns vor, entstandene Kosten und bankübliche Zinsen zu berechnen. Die Zurückhaltung von Zahlungen oder die Aufrechnung strittiger Gegenansprüche seitens des Rechnungsempfängers sind nicht gestattet. Bei Reklamationen, die einen Teil der Lieferung betreffen, darf die Zahlung für den nichtbeanstandeten Teil nicht zurückgehalten werden. Kommt der Käufer seiner Zahlungspflicht nicht nach, so sind wir berechtigt, noch ausstehende Lieferungen zurückzuhalten, auch wenn diese auf einer anderweitigen Bestellung beruhen. Ebenso sind wir berechtigt, unsere Lieferung von einer Barzahlung abhängig zu machen, insbesondere dann, wenn uns nach Vertragsabschluß Umstände bekannt werden, die eine fristgemäße Zahlung gefährden. Bei vereinbarten Teilzahlungen sind wir berechtigt, diese zu widerrufen, falls eine zugesagte Rate länger als 1 Woche aussteht. Falls oben angeführte Differenzen auftreten, verlängert sich die vereinbarte Lieferfrist gemäß der Verzögerung.

GARANTIE Wir garantieren die Lieferung einwandfreier Werkzeuge, sachgemäße Ausführung und einwandfreies Material sowie technische Funktion bei richtigem Einsatz. Beanstandungen sind innerhalb von 8 Tagen nach Erhalt der Ware unter genauer, schriftlicher Angabe des Mangels mitzuteilen. Die Werkzeuge sind erst nach ausdrücklicher Zustimmung durch uns kostenfrei einzusenden.
Mängel, die wir zu vertreten haben, werden für den Käufer kostenfrei nach unserer Wahl behoben. Wurde ein zu beseitigender Mangel vom Besteller verursacht, können wir diesem die Kosten für die Mangelbeseitigung in Rechnung stellen. Für Werkzeuge, die durch fehlerhafte Behandlung, ungeeignete oder unsachgemäße Handhabung, eigenmächtige Veränderung oder falsche Anwendung durch den Käufer oder Dritte unbrauchbar oder beschädigt worden sind, kann kein Ersatzanspruch geltend gemacht werden. Eine Haftung für Mängelfolgeschäden ist völlig ausgeschlossen. Ebenso behalten wir uns an den technischen Fortschritt angepaßte Konstruktionsveränderungen vor.

EIGENTUMSVORBEHALT Sämtliche gelieferten Waren bleiben bis zur Bezahlung aller noch offenen Forderungen und bis zur Einlösung der in Zahlung gegebenen Schecks oder Wechsel unser Eigentum. Bei Lieferungen über den Fachhandel ist dieser verpflichtet, unseren Eigentumsvorbehalt sicherzustellen. Werden die Zahlungstermine nicht eingehalten, können wir nach Ankündigung und Fristsetzung einer angemessenen Zeitspanne die Waren zurückfordern.
Erfolgt keine Zahlung vom Käufer, kann die Rückforderung ohne Ankündigung und ohne Fristsetzung erfolgen. Bei einem Zahlungsrückstand ist der Käufer nicht mehr berechtigt, die Waren bestimmungsgemäß zu verwenden oder weiterzuverkaufen. Auch ist die Verpfändung oder Sicherungsübereignung zu unterlassen und der Lieferant hiervon unverzüglich in Kenntnis zu setzen. Wird die Ware weiterverkauft, ganz gleich, ob verarbeitet oder unverändert, tritt der Käufer hiermit bereits jetzt seine Forderung gegen den Erwerb in Höhe des Rechnungsbetrages an uns ab (verlängerter Eigentumsvorbehalt).
Wenn wir aufgrund des Eigentumsvorbehalts Ware zurücknehmen, geschieht dies auf Rechnung des Käufers bei Ertelung einer entsprechenden Gutschrift.

ERFÜLLUNGORT UND GERICHTSSTAND Erfüllungsort für Lieferung und Zahlung ist 73447 Oberkochen bzw. 73479 Ellwangen. Diese Vereinbarung gilt auch für Scheck- und Wechselforderungen. Außerdem unterliegen die gesamten Rechtsbeziehungen ausschließlich deutschem Recht.

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