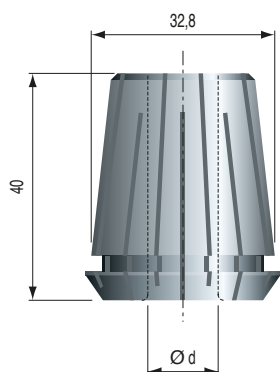


P284

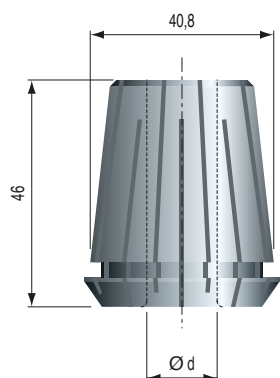
DIN 6499


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	

P285

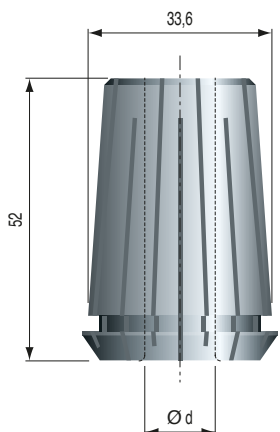
DIN 6499


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	

P286

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



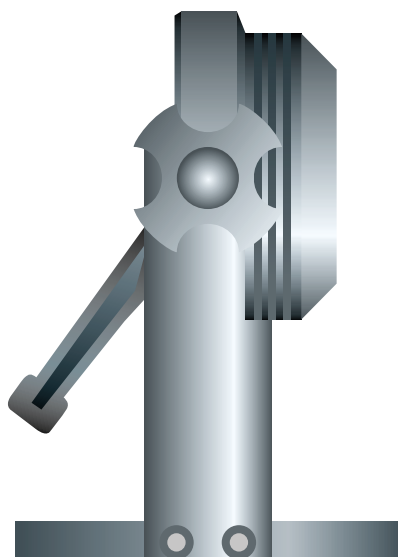
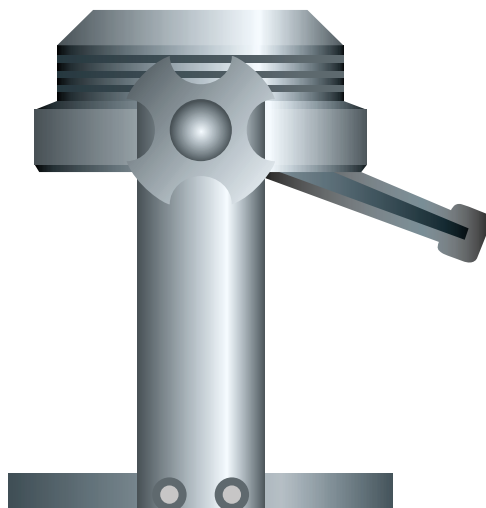
Dispositivo per il bloccaggio di mandrini portafrese e portapinze.

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	DBMH SKF63	

* 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

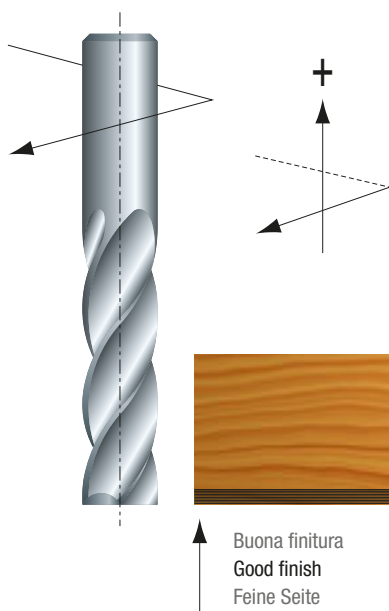
VHW SCHAFTFRÄSER
DÜBELBOHRER
BESCHLAGBOHRER
LANGLOCHBOHRER



ESEMPI DI IMPIEGO ROUTER APPLICATION TECHNISCHE ERLÄUTERUNGEN

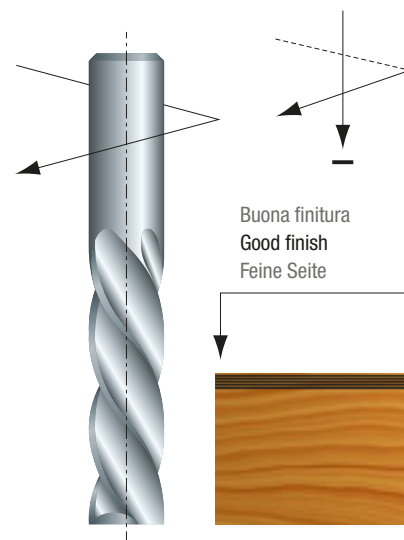
Rotazione destra
Elica destra positiva
Right hand rotation
Right hand spiral
(Positive spiral)
Rechtslauf
Rechtsdrill
(Positive Spirale)

Ⓐ



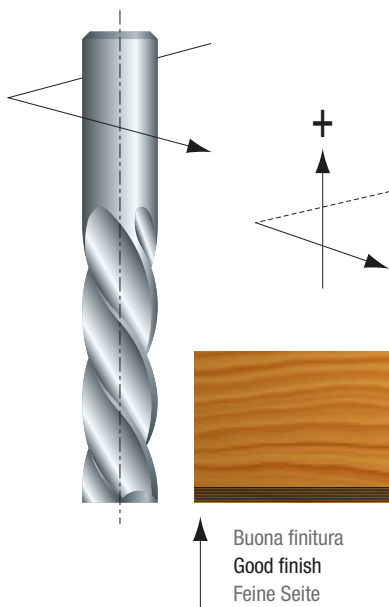
Rotazione destra
Elica sinistra negativa
Right hand rotation
Left hand spiral
(Negative spiral)
Rechtslauf
Linksdrill
(Negative Spirale)

Ⓑ



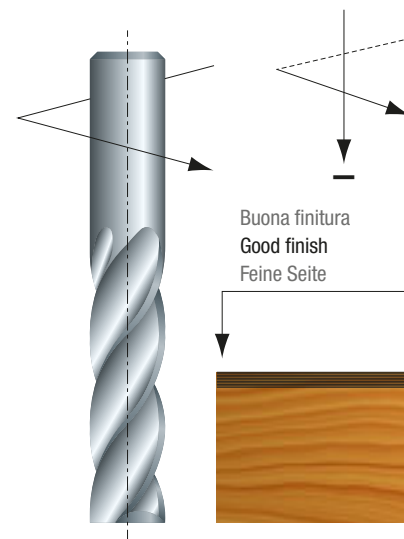
Rotazione sinistra
Elica sinistra positiva
Left hand rotation
Left hand spiral
(Positive spiral)
Linkslauf
Linksdrill
(Positive Spirale)

Ⓒ



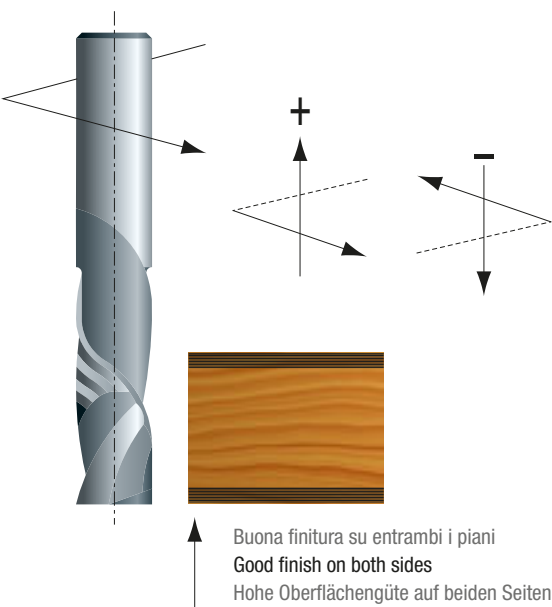
Rotazione sinistra
Elica destra negativa
Left hand rotation
Right hand spiral
(Negative spiral)
Linkslauf
Rechtsdrill
(Negative Spirale)

Ⓓ



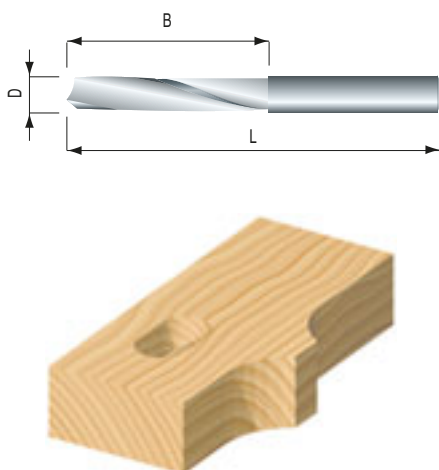
Rotazione destra
Elica destra positiva
Right hand rotation
Right hand spiral
(Positive spiral)
Rechtslauf
Rechtsdrill
(Positive Spirale)

Ⓔ



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

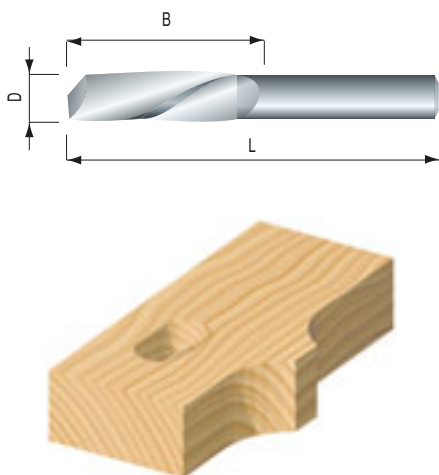
Lavori di foratura e contornatura
 For boring and routing operations
 Zum Bohren und Fräsen

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

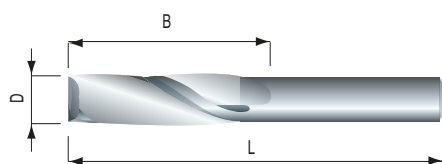
Lavori di foratura e contornatura
 For boring and routing operations
 Zum Bohren und Fräsen

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)

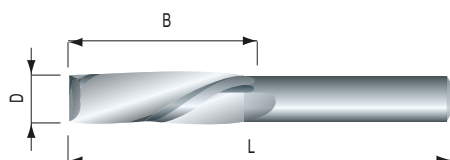
Left hand rotation (C) available on request

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

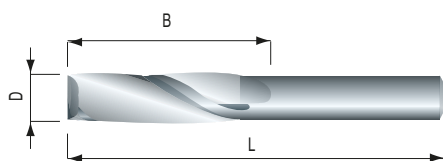
Rechtsdrall = Spanauswurf nach unten
(Negative)

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

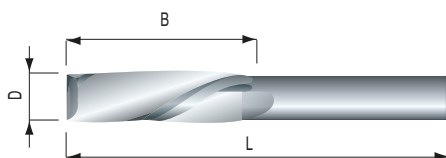
Rechtsdrall = Spanauswurf nach oben (Positive)

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)

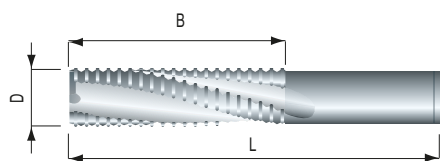
Left hand rotation (D) available on request

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)

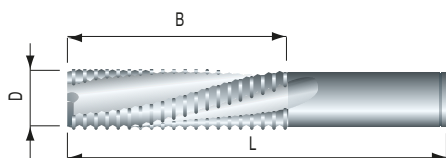
Left hand rotation (C) available on request

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

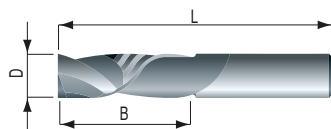
Rechtsdrall = Spanauswurf nach unten (Negative)

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

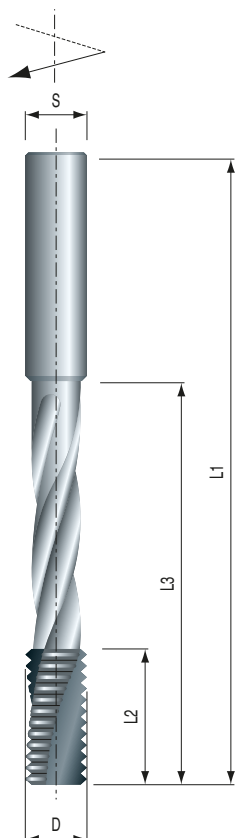
Double flute router compression

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)

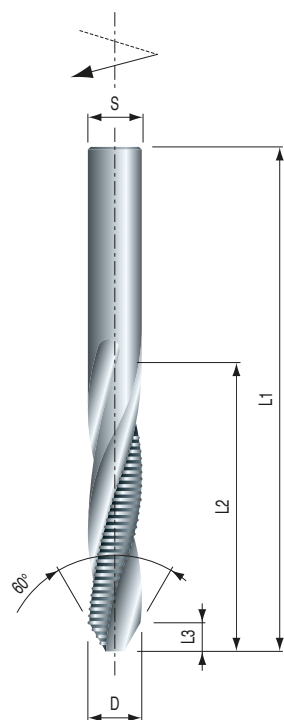
Left hand rotation (C) available on request

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

Schruppfraßer 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)

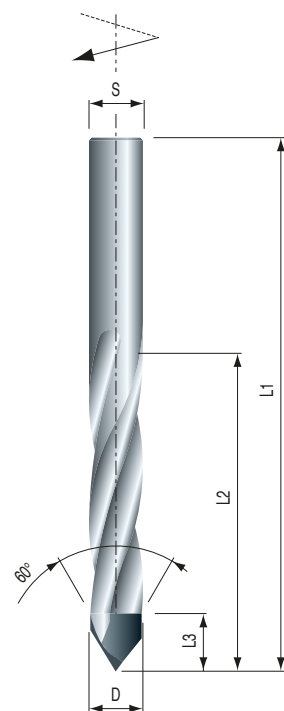
Left hand rotation (C) available on request

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)

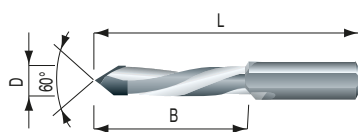
Left hand rotation (C) available on request

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

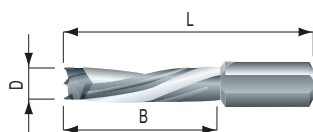
Ø 10x25



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

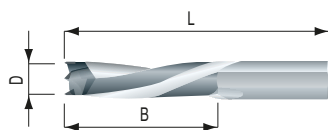
Su foratrici, utilizzabili con art. P161

On boring machines, use with item P161

Auf Bohrmaschinen, zur Verwendung mit Art. P161

P154

HW | Z=2

PUNTE componibili 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	

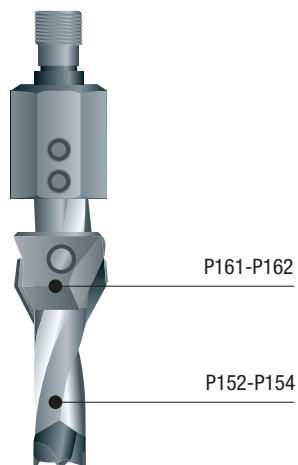
Impiego / Use / Anwendung

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

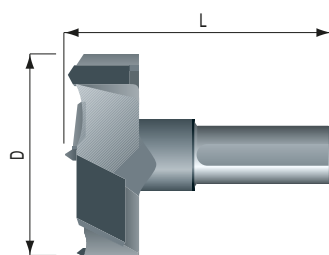
Esempio di foro cieco
con svasaturaExamples of blind drilling
with countersink

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

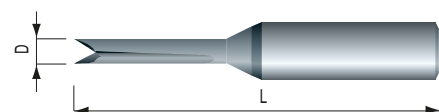
Per asole di precisione su mortasatrici

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	

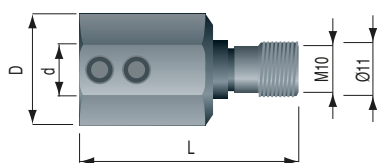
Impiego / Use / Anwendung

Per asole di precisione su macchine automatiche

For making precise slots on automatic machines

Zum Fräsen von ausrißfreien Langlöchern bei pendelnder Arbeitsbewegung

P155



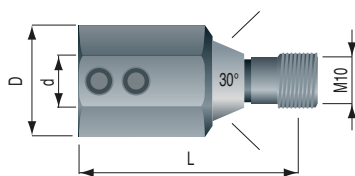
Attacco per macchine
Chuck for machines
Schaft für Maschinen

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



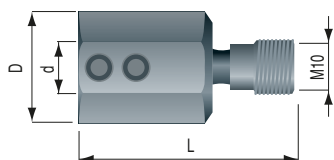
Attacco per macchine
Chuck for machines
Schaft für Maschinen

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

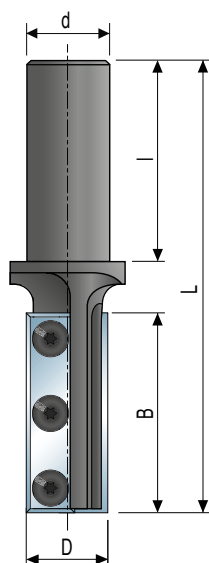
SCHAFTWERKZEUGE



PH71FM

HW | Z=2

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

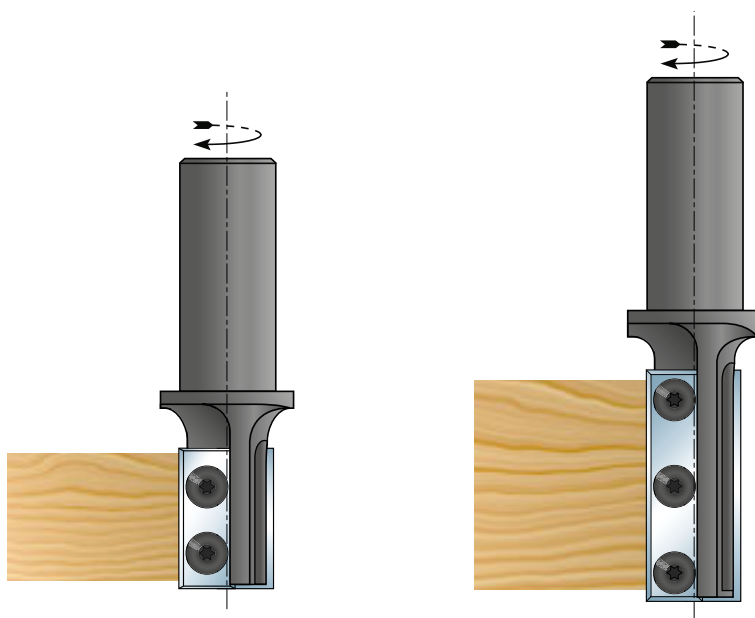


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
20	30	95	20/25	50	2	R	PH71FM01	
20	30	95	20/25	50	2	L	PH71FM02	
20	50	115	20/25	50	2	R	PH71FM03	
20	50	115	20/25	50	2	L	PH71FM04	
25	50	115	20/25	50	2	R	PH71FM05	
25	50	115	20/25	50	2	L	PH71FM06	

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

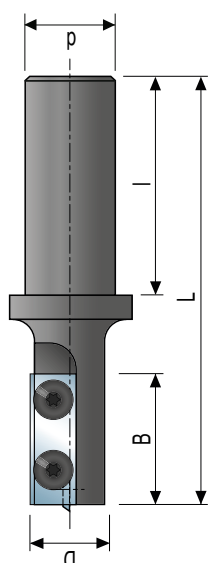


PH72FM

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

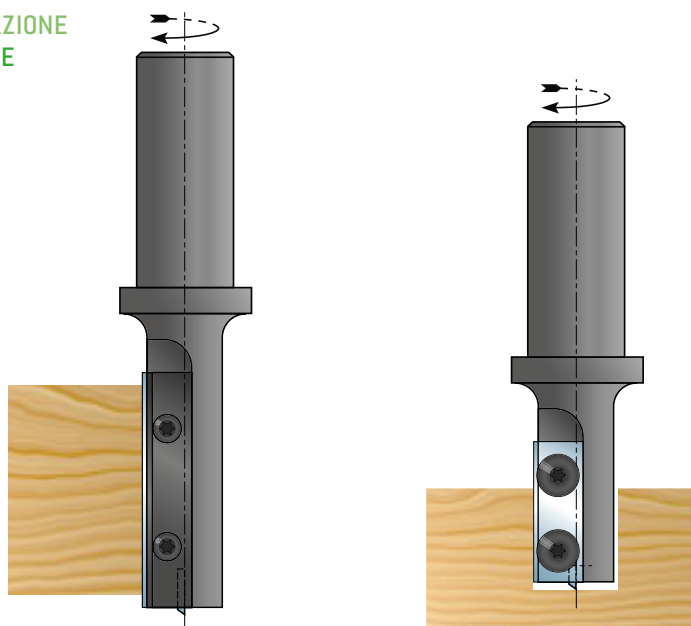
Shanks MK2 or MK3 available on request

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		

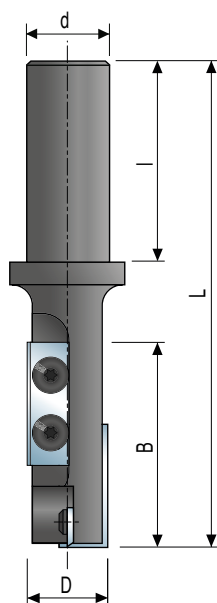
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH73FM

HW | Z=2+1

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

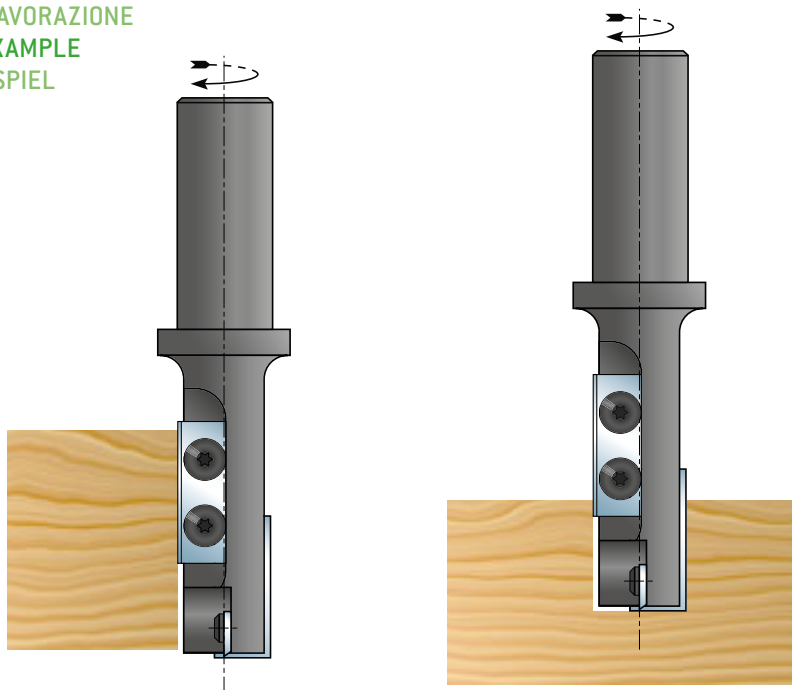


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
18	35	105	20/25	50	2+1	PH73FM01	
20	35	105	20/25	50	2+1	PH73FM02	
20	50	120	20/25	50	2+1	PH73FM03	
20	58	125	20/25	50	2+1	PH73FM04	

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	

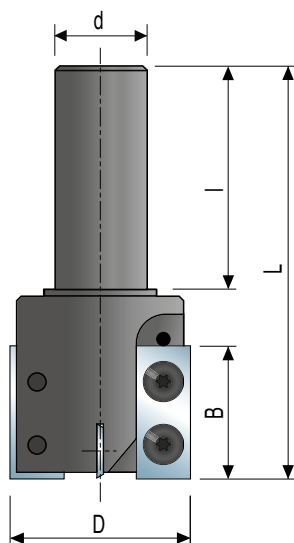
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH74FM

HW | Z=2+1

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

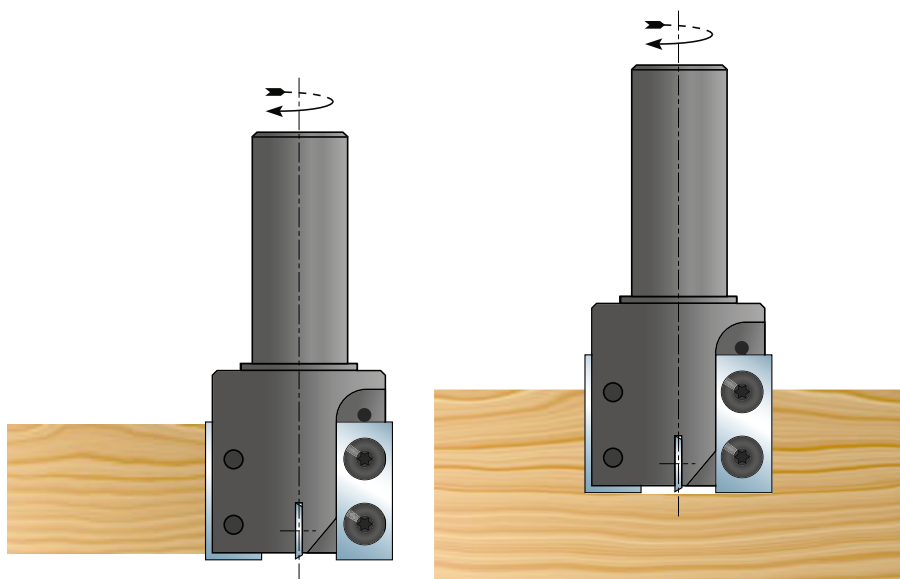


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	l [mm]			
30	40	100	20/25	50	2+1	PH74FM01	
40	30	90	20/25	50	2+1	PH74FM02	
40	50	110	20/25	50	2+1	PH74FM03	

RICAMBI / SPARE PARTS / ERSATZTEILE

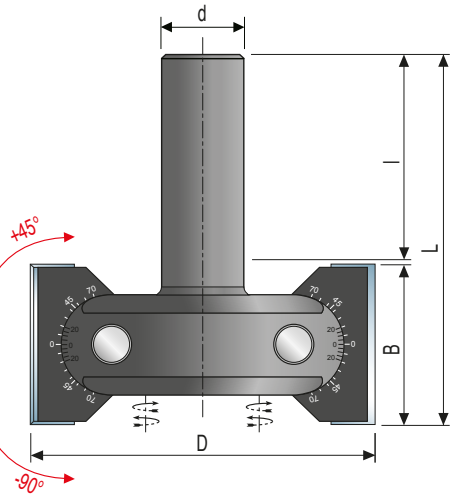
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH74FM			€
		01	02	03	
Coltello / Knife / Messer	12x12x1,5	1	/	/	
Coltello / Knife / Messer	15x12x1,5	/	1	1	
Coltello / Knife / Messer	39,5x12x1,5	2	/	/	
Coltello / Knife / Messer	29,5x12x1,5	/	2	/	
Coltello / Knife / Messer	49,5x12x1,5	/	/	2	
Vite 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

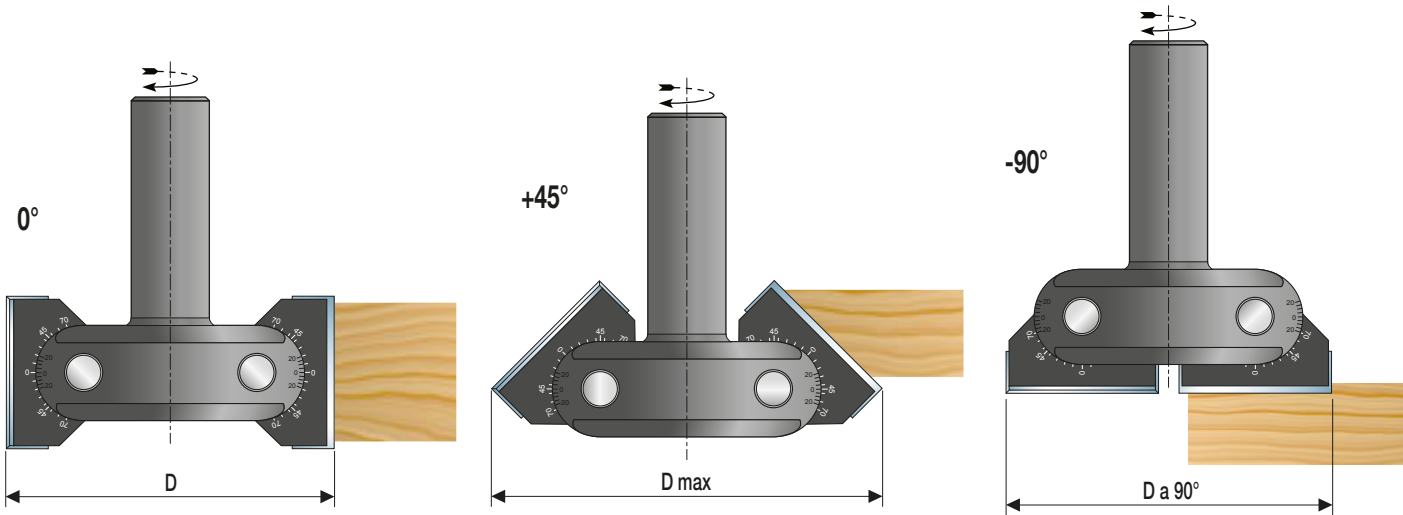
PUNTA CON COLTELLINI A INCLINAZIONE VARIABILE
DISPOSABLE KNIFE ADJUSTABLE BEVEL ROUTER
WP-SCHWENKMESSERKOPF, STUFENLOS VERSTELLBAR



$\varnothing D$ [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

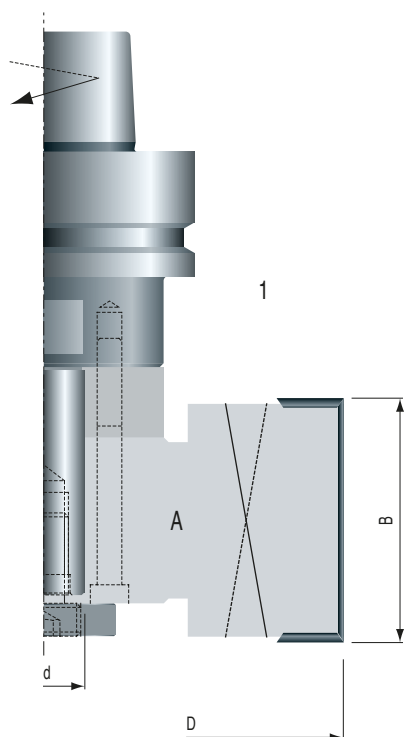
GRUPPO PER BATTUTE E CONTORNATURE DISPOSABLE KNIFE ROUTER SET FOR REBATES WENDEPLATTEN-FALZKOPF

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.

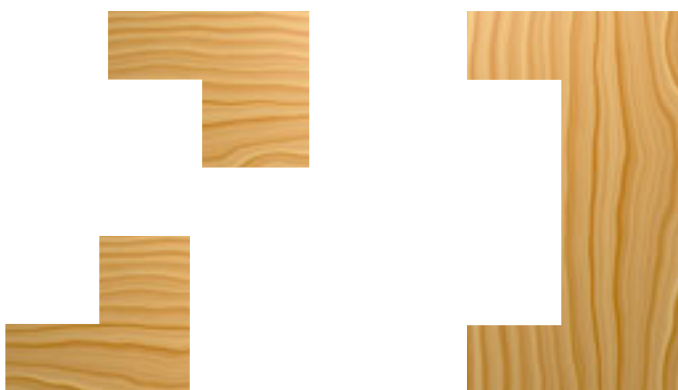
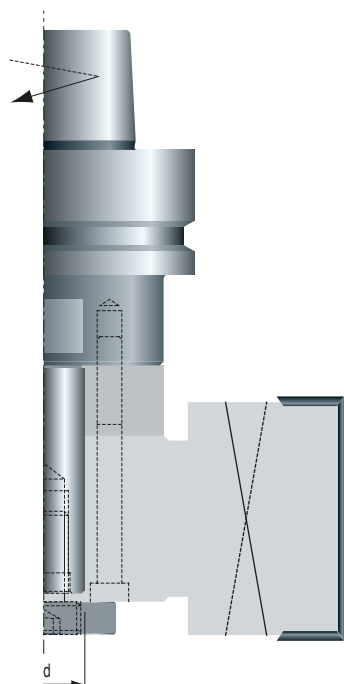
Werkzeug auf Schaft verschraubt, mit wechselseitigem Achswinkel.

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	

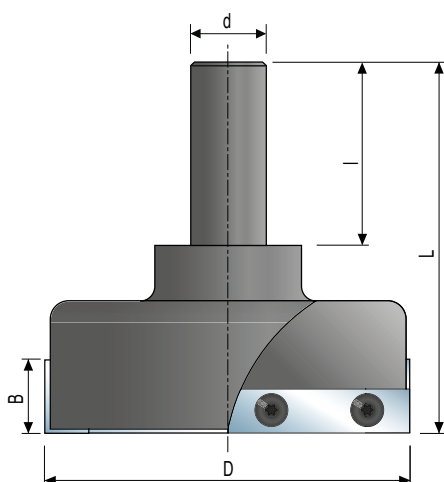
RICAMBI / SPARE PARTS / ERSATZTEILE			
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH29FA05020	€
Coltello / Knife / Messer	50x12x1,5	4	
Cuneo / Wedge / Spannkeil	46	4	
Vite per cuneo / Knife's Screw / Schraube	M8x16	8	
Rasante / Spur / Vorschneide	14x14x2	4	
Vite per rasante / Spur's screw / 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

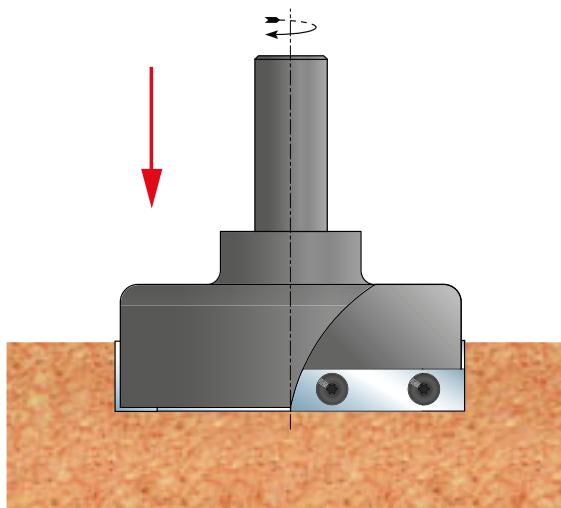
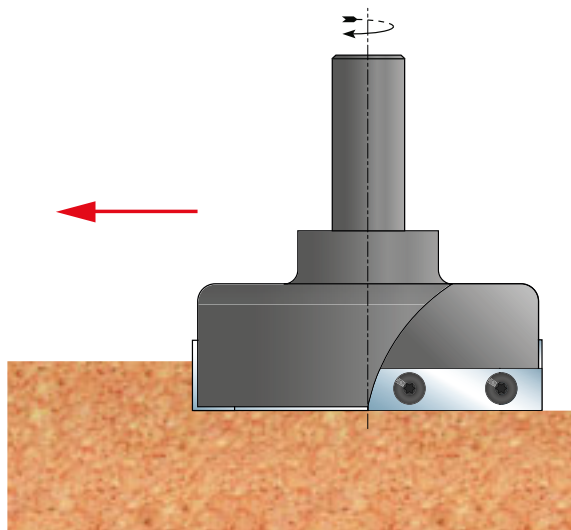
PUNTA PER FORARE E SPIANARE CUTTER FOR DRILLING AND PLANING WP-PLANFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	I [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	

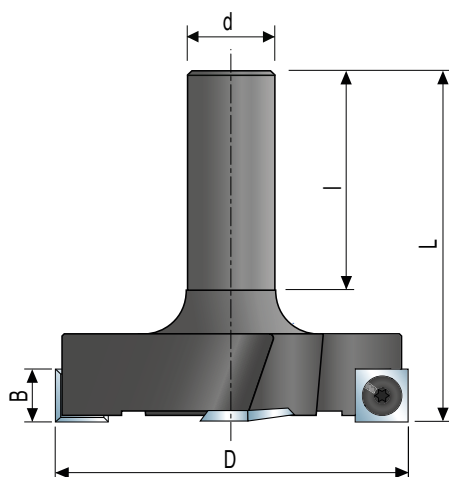
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH77FM01

HW | Z=2+2

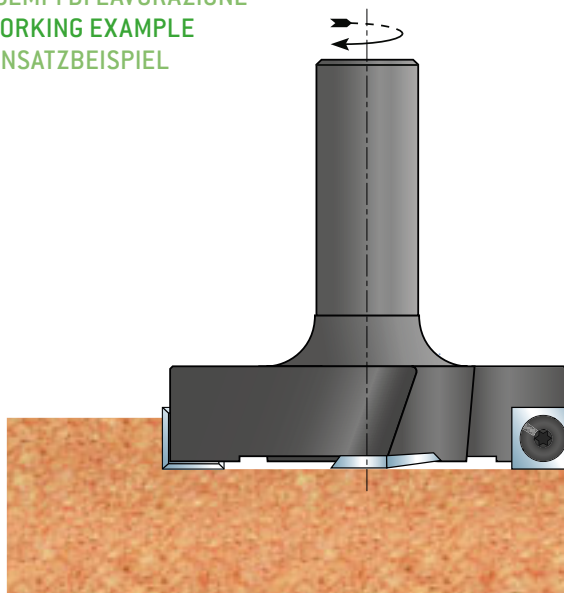
PUNTA PER SPIANARE DISPOSABLE KNIFE PLANING ROUTER WECHSELPLATTEN-PLANFRÄSER



Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	I [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	

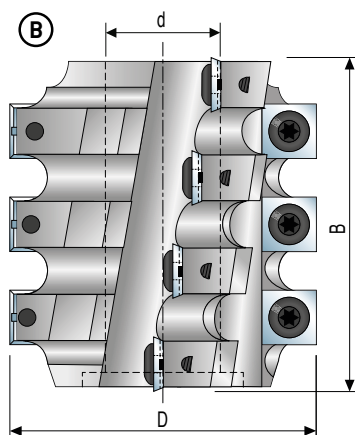
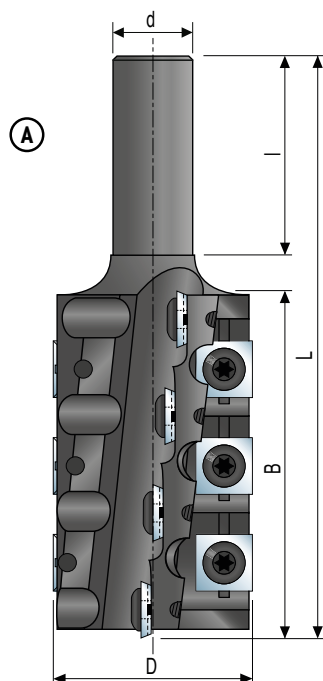
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



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

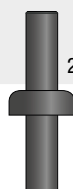
Die Aufnahmen für die Körper aus Leichtmetall sind separat zu bestellen

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	

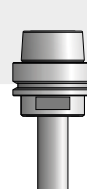
RICAMBI / SPARE PARTS / ERSATZTEILE

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	

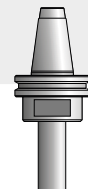
Attacco per tipo B
Shank for type B
Schaft für B



20/25x50

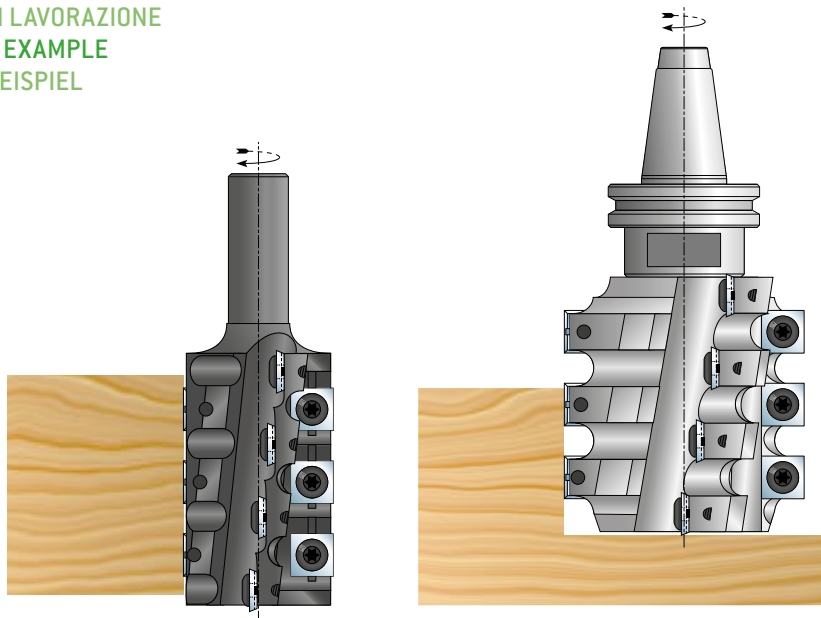


HSK63 F



ISO 30/40

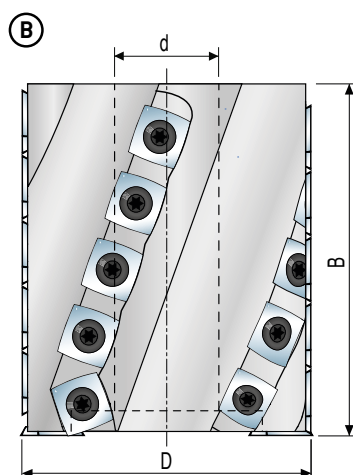
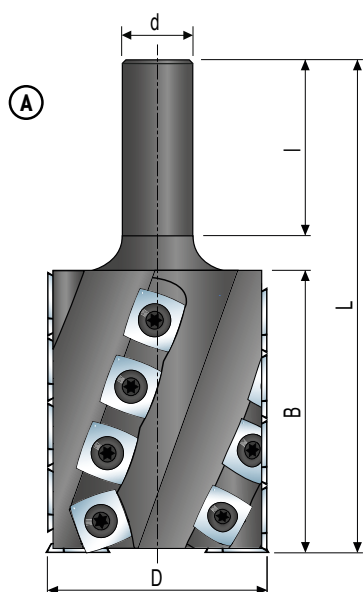
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH79FM

HW | Z=2+2

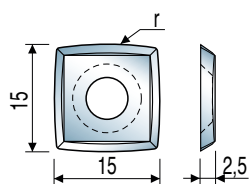
PUNTA PER CONTORNARE E SPIANARE - BUONA FINITURA CUTTER FOR SIZING AND PLANING - GOOD FINISHING SPIRALFÜGEFRÄSER - GROBE ZERSPANUNG



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



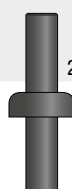
Coltello / Knife / Messer

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	

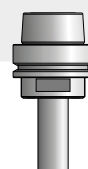
RICAMBI / SPARE PARTS / ERSATZTEILE

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	

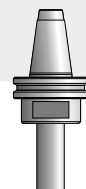
Attacco per tipo B
Shank for type B
Schaft für B



20/25x50

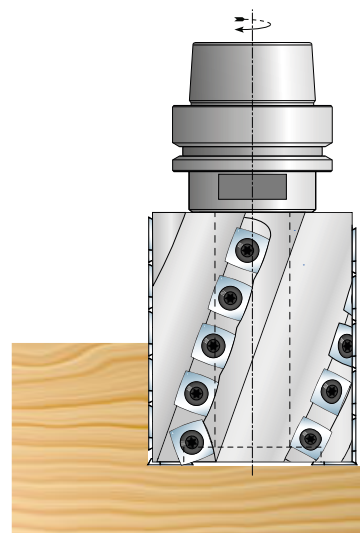
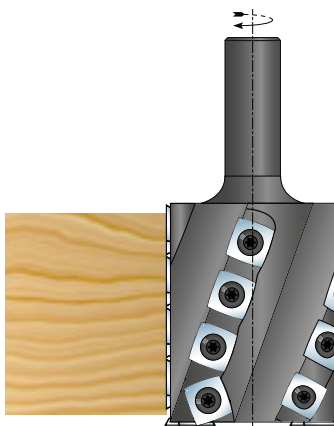


HSK63 F



ISO 30/40

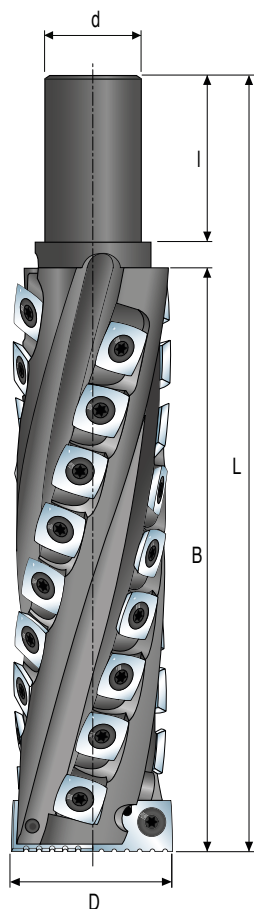
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH80FM

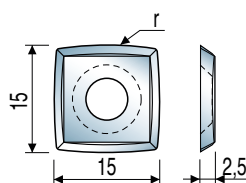
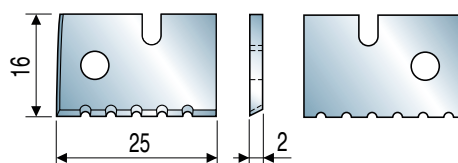
HW | Z=4

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

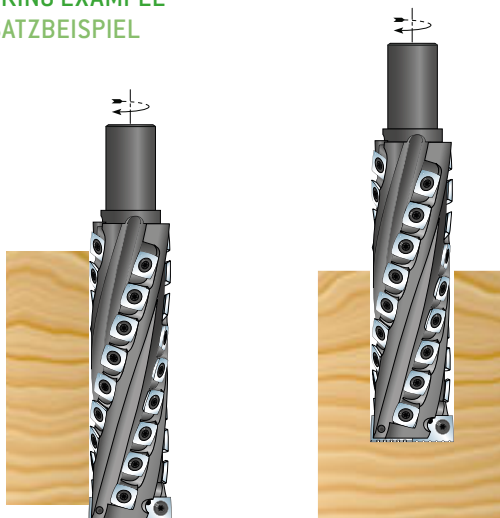


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
50	180	240	25/30	50	4	R	PH80FM01	
50	180	240	25/30	50	4	L	PH80FM02	
50	210	270	25/30	50	4	R	PH80FM03	
50	210	270	25/30	50	4	L	PH80FM04	

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** / Messer② Coltello / **Knife** / Messer

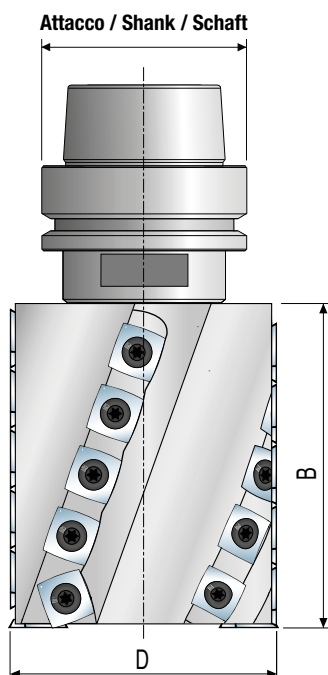
ESEMPI DI LAVORAZIONE
WORKING EXAMPLE
EINSATZBEISPIEL



PH81FM

HW | Z=4 · V=2

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

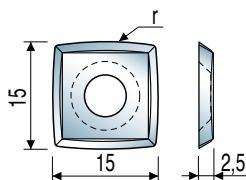


AXIAL

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	

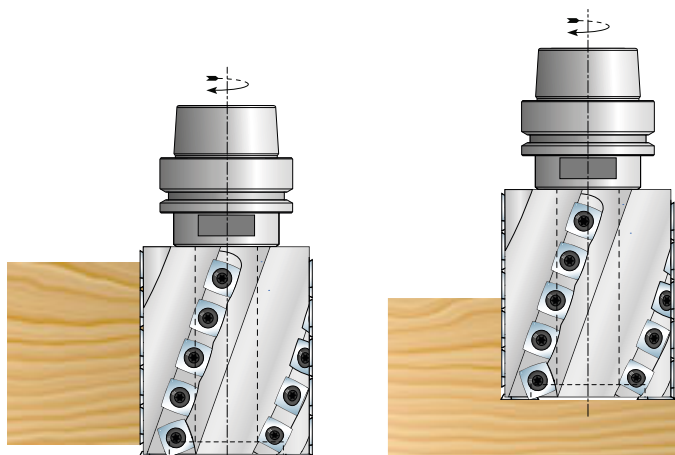
RICAMBI / SPARE PARTS / ERSATZTEILE

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

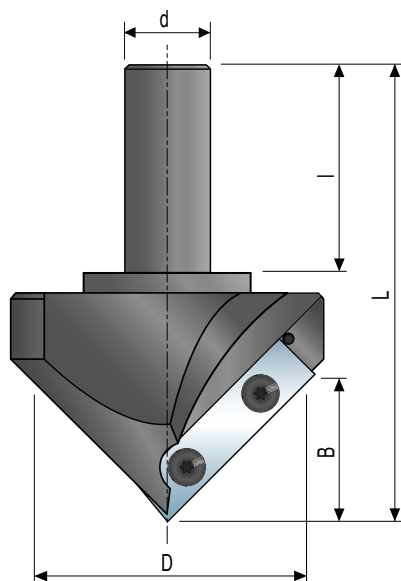
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



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]	l [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	

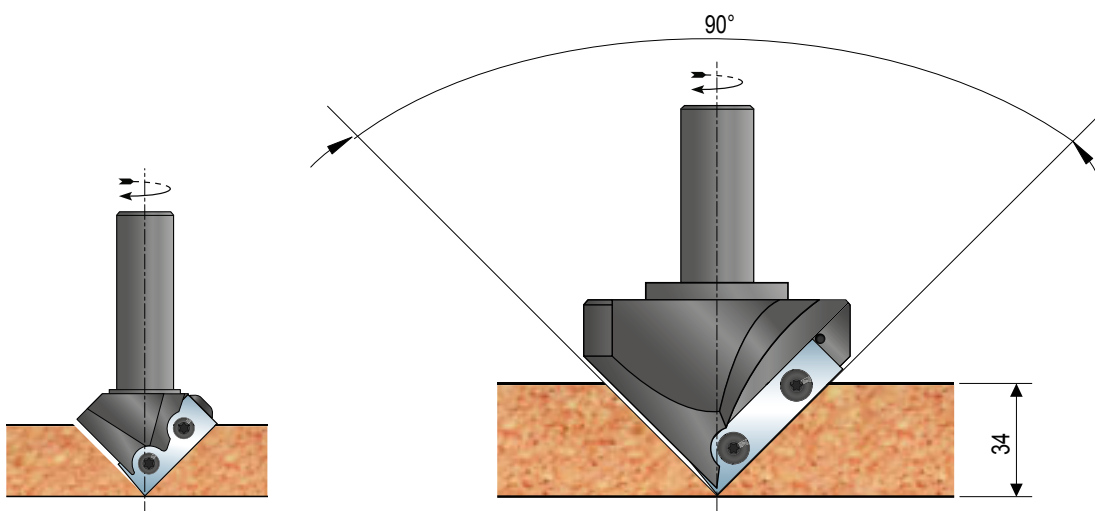
Punte con angoli diversi a richiesta

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	

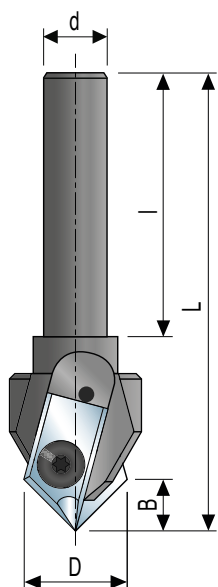
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PH83FM

HW | Z=2

SET MULTIPROFILO MULTI-PROFILE CUTTER SET ZIERNUTFRÄSER



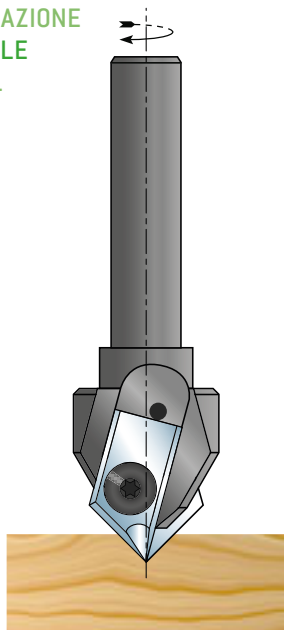
Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Rotation	Art. Nr.	€
			Ø d [mm]	l [mm]				
19	10	88	12	50	2	R	PH83FM01	
19	10	88	12	50	2	L	PH83FM02	

	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	

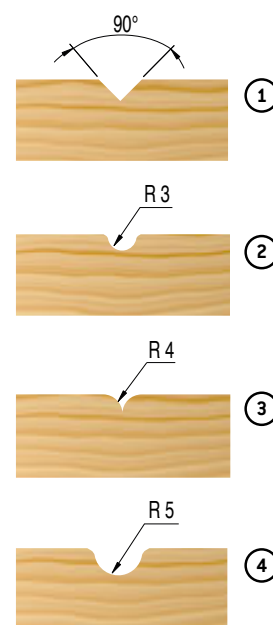
RICAMBI / SPARE PARTS / ERSATZTEILE						
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH83FM				€
		01	02	03	04	
Coltello / Knife / Messer	25x12x1,5 90°	/	/	2	2	
Coltello Concavo / Concave Knife / Konkaves Messer	25x12x1,5 R 3	/	/	2	2	
Coltello Convesso / Convex Knife / Konkaves Messer	25x12x1,5 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

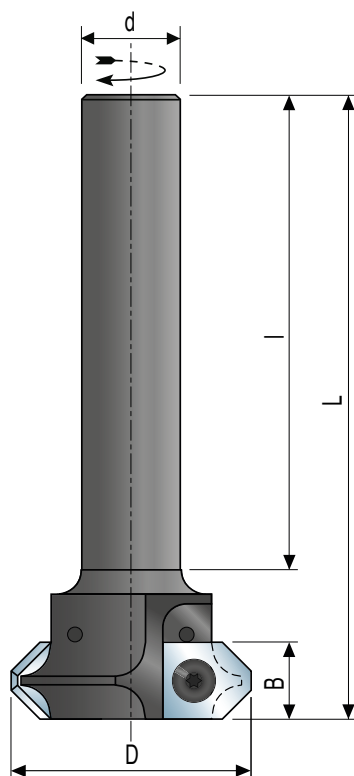


Set fornito in cassetta di legno
Set supplied in a wooden box
Set wird in Holzkassette geliefert

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.

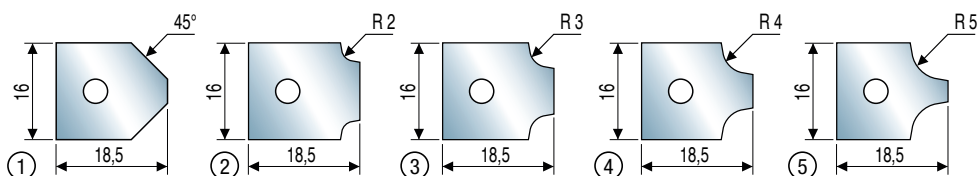
Profilmesser im Lieferumfang enthalten. Bitte das benötigte Profil bei Bestellung angeben.

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	

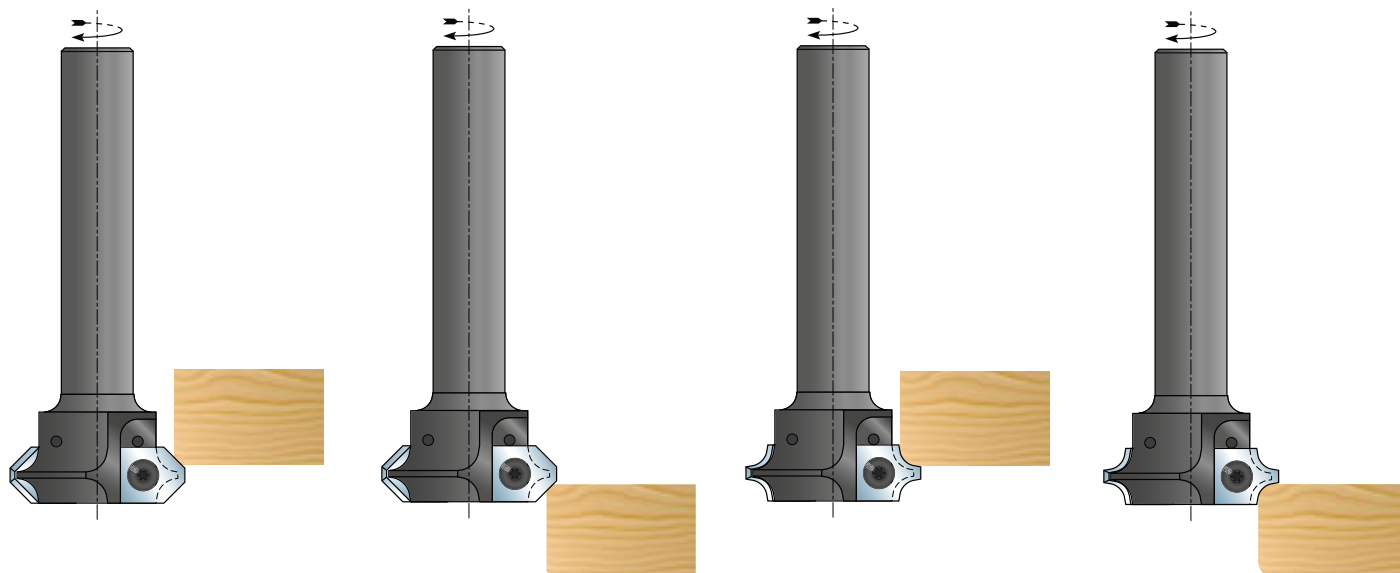


Altri profili disponibili a richiesta

Other profiles available on request

Weitere Profile auf Anfrage lieferbar

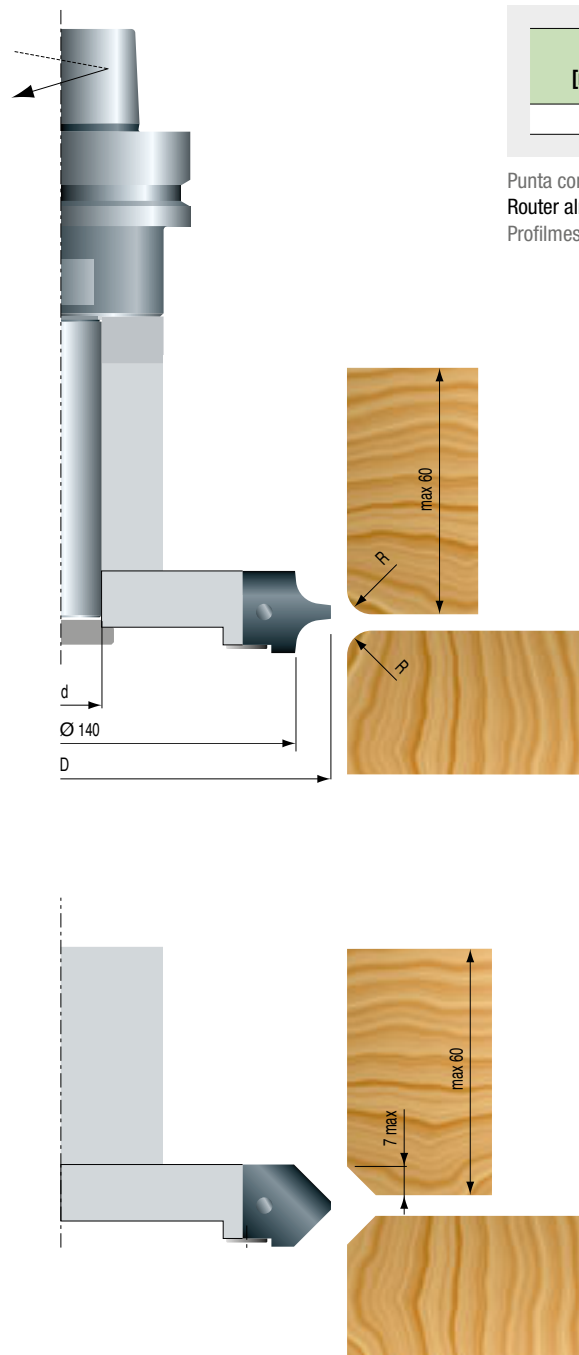
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



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	

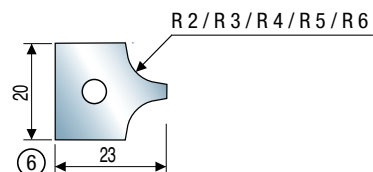
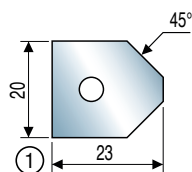
Punta compresa di coltelli. In fase d'ordine specificare il profilo richiesto.

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	



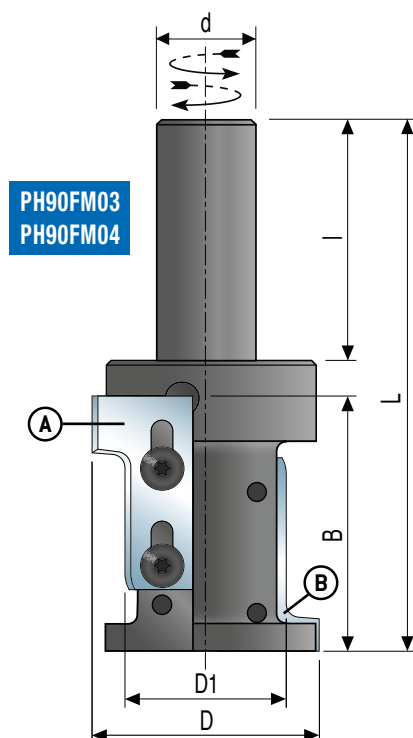
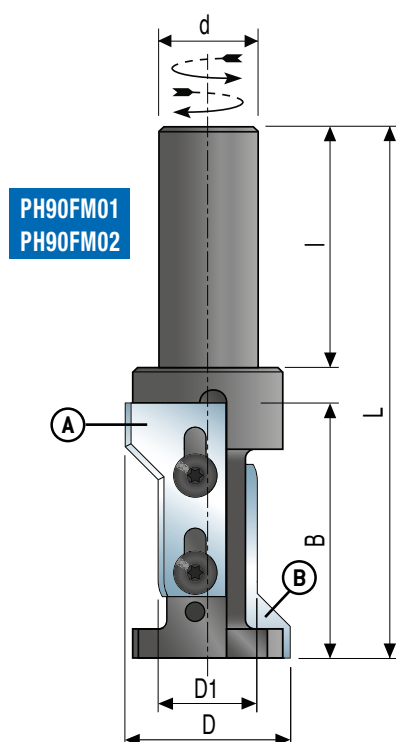
RICAMBI / SPARE PARTS / ERSATZTEILE

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

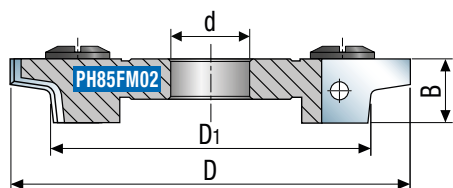
More profile available on request

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

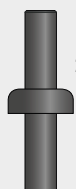
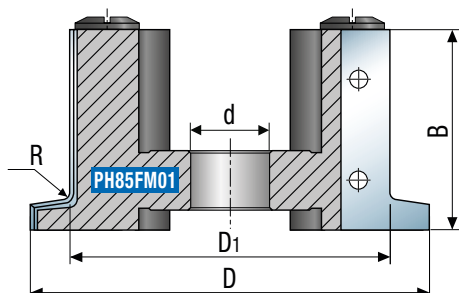


Ø D [mm]	Ø D1 [mm]	B [mm]	Ø d [mm]	Z	Art. Nr.	€
100	80	50	20 / 25	2	PH85FM01	
100	80	16	20 / 25	2	PH85FM02	

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 / Spannschraube	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

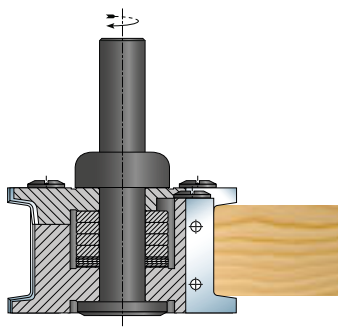
Mandrino portafresa compreso nel prezzo.

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

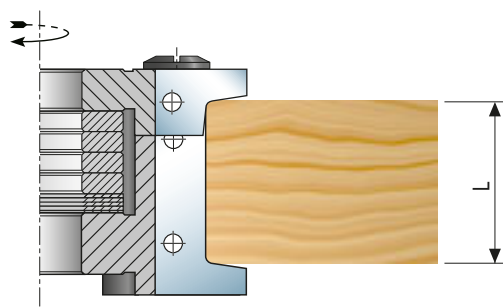


PH85FM

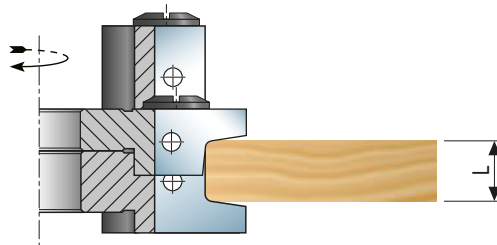
HW | Z=2

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

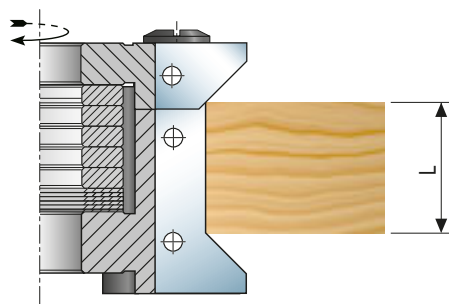
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



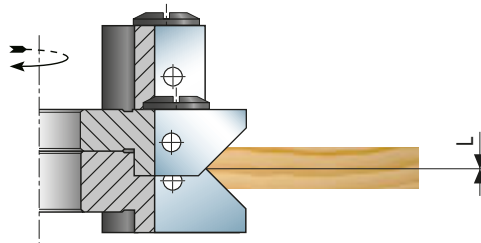
L max = 40,5 mm
R = 8 mm



L min = 14 mm
R = 2 mm

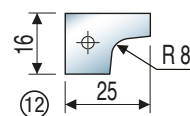
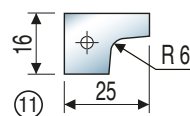
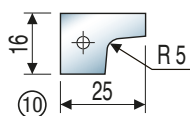
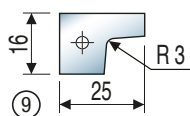
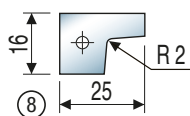
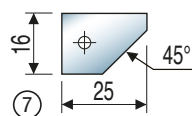
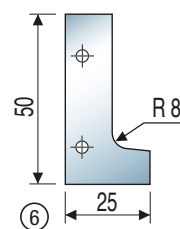
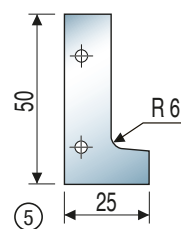
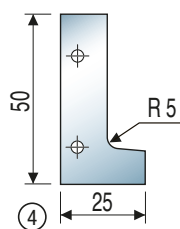
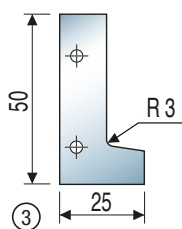
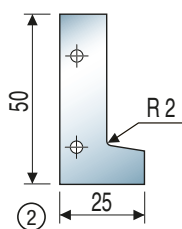
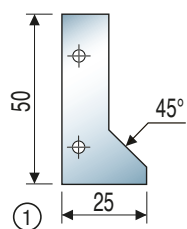


L max = 24 mm



L min = 0 mm

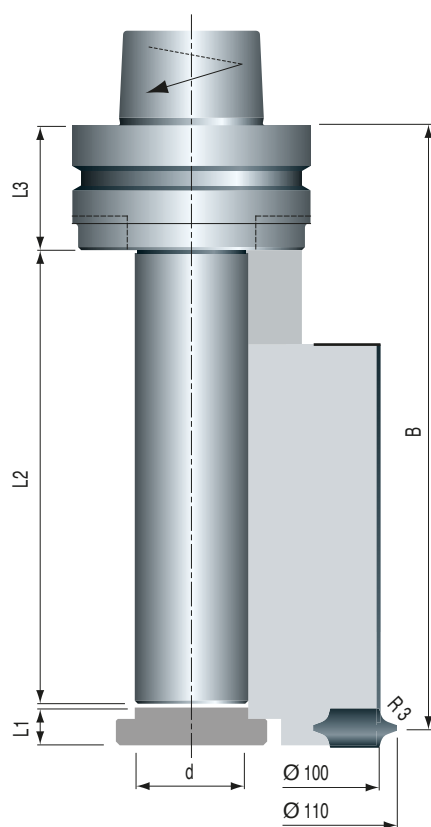
COLTELLI STANDARD STANDARD KNIVES STANDARD MESSER



PH91FM01

HW | Z=4

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



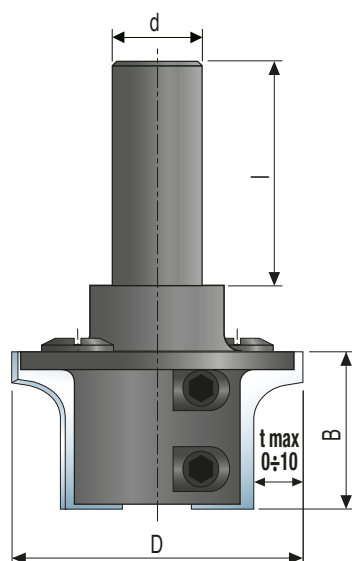
Ø [mm]	Ø d [mm]	L1 [mm]	L2 [mm]	L3 [mm]	B [mm]	Z	Art. Nr.	€
100	30	10	120	33	160,9	4	PH91FM01	

RICAMBI / SPARE PARTS / ERSATZTEILE			
Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH91FM	€
		01	
Coltello / Knife / Messer "PLANNEX"	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.

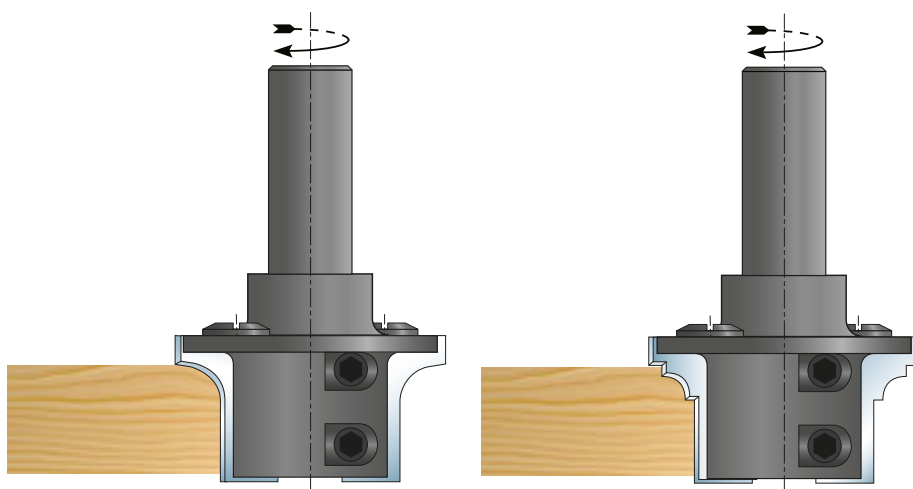
Attenzione / Attention / Achtung

Profilo a richiesta

Special profile on request

Sonder profile auf Anfrage

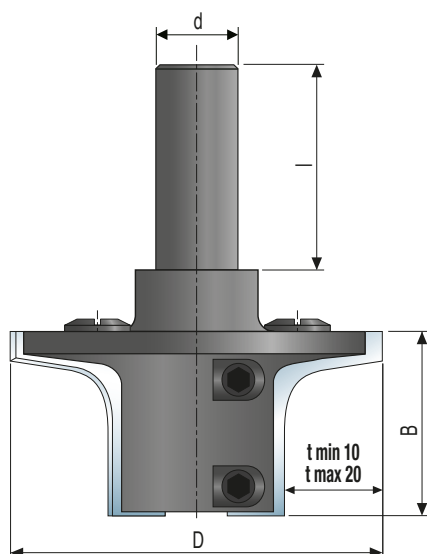
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



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.

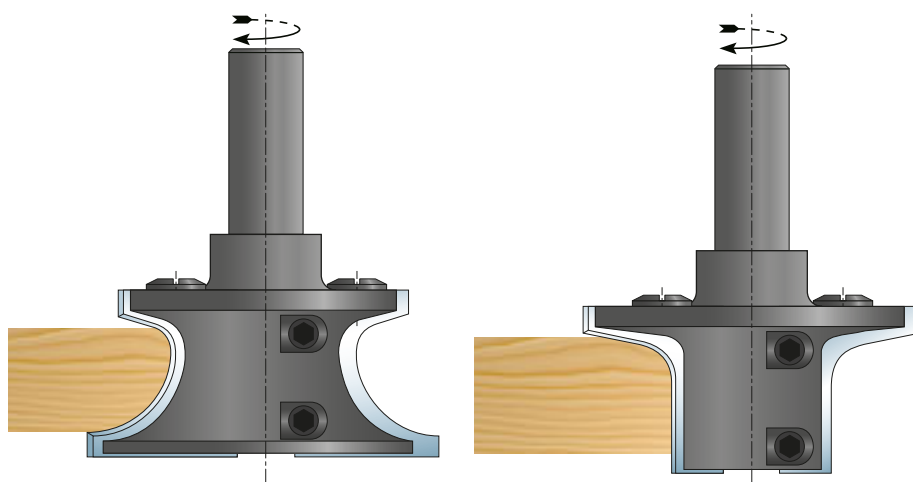
Attenzione / Attention / Achtung

Profilo a richiesta

Special profile on request

Sonder profile auf Anfrage

ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL

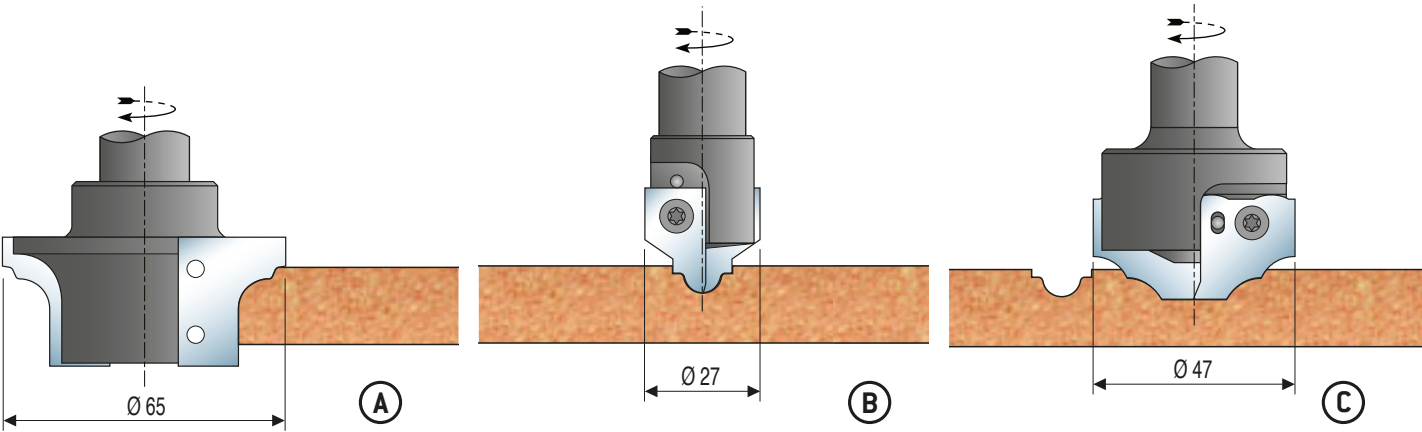


PH88FM

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]			
Ⓐ	65	30	20	50	2	PH88FM01	
Ⓑ	27	25	20	50	2	PH88FM02	
Ⓒ	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

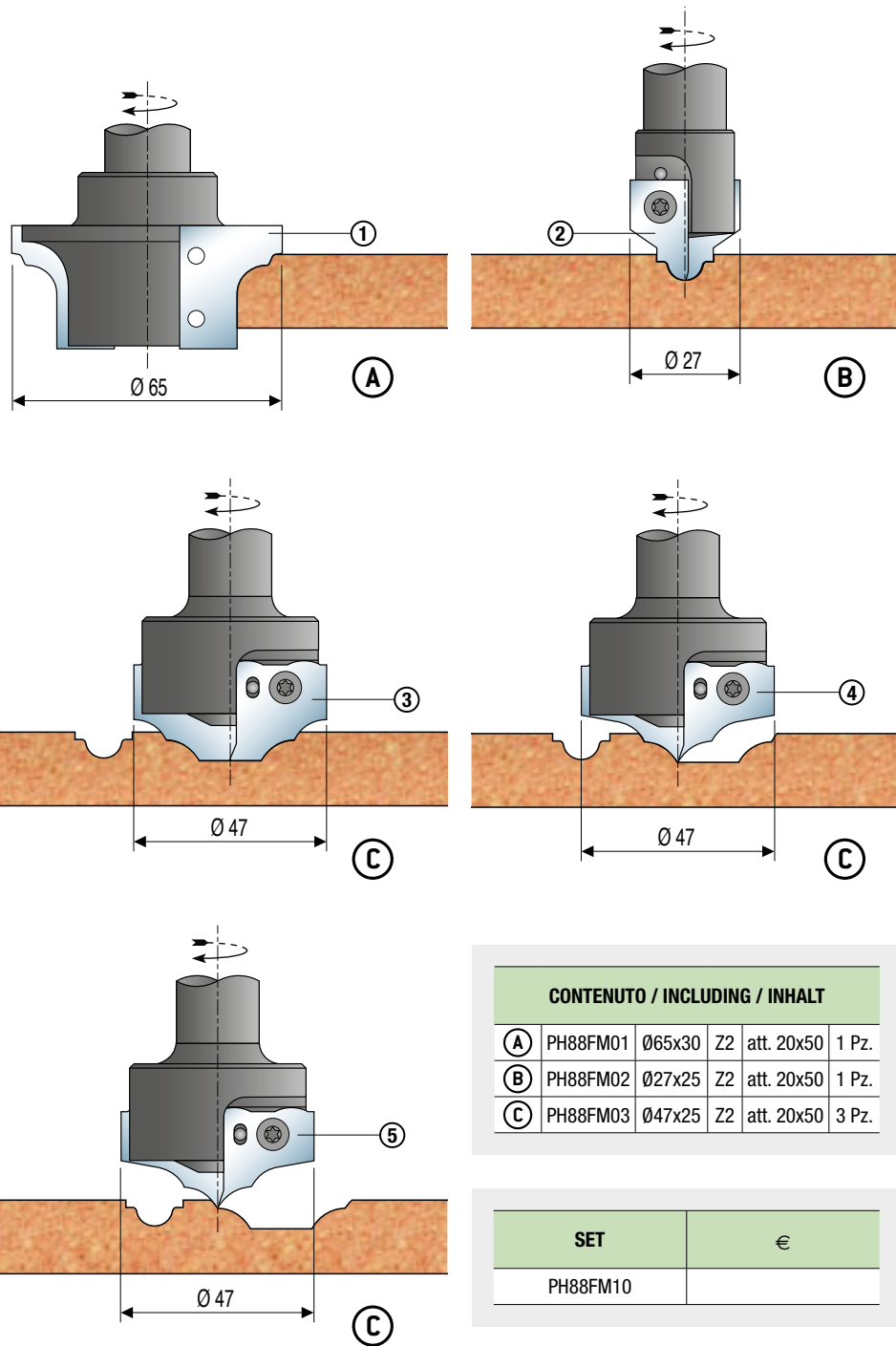


CONTENUTO / INCLUDING / INHALT

5 punte + 5 profili + ricambi

5 drills + 5 knives + spare parts

5 Schaftfräser + 5 Profile + 5 Ersatzmesser



CONTENUTO / INCLUDING / INHALT

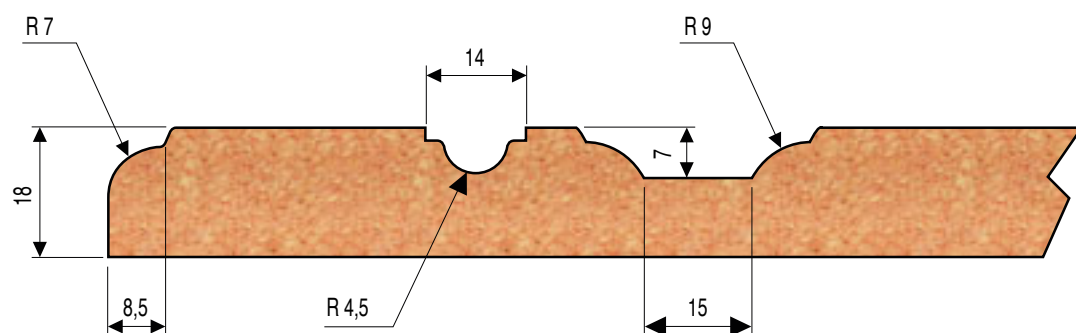
(A)	PH88FM01	Ø65x30	Z2	att. 20x50	1 Pz.
(B)	PH88FM02	Ø27x25	Z2	att. 20x50	1 Pz.
(C)	PH88FM03	Ø47x25	Z2	att. 20x50	3 Pz.

SET

€

PH88FM10

PROFILO / PROFILE / PROFIL



PH88FM20

SET PER ANTINE
SET FOR CABINETS
SET FÜR MOBELFRÖNTEN

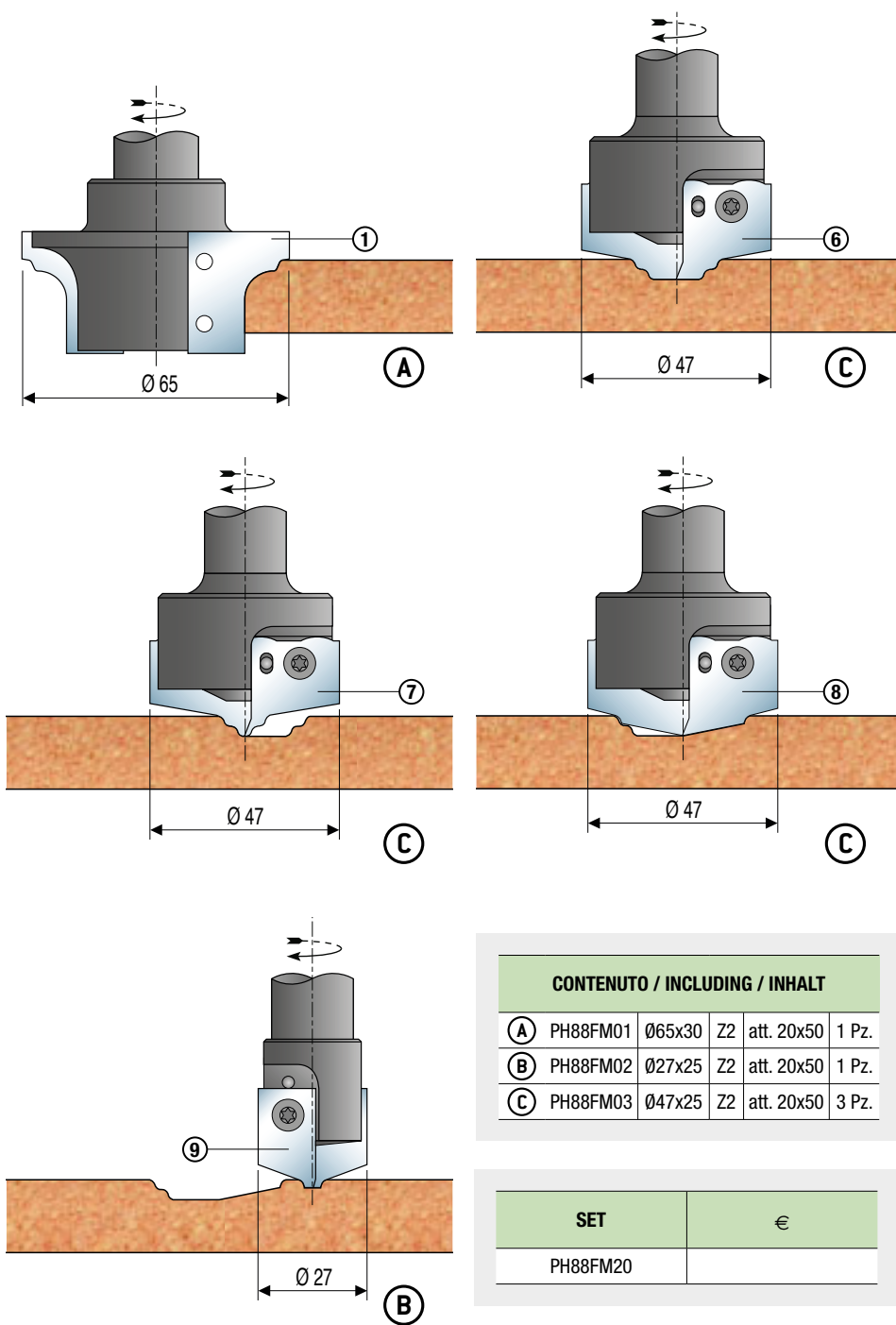


CONTENUTO / INCLUDING / INHALT

5 punte + 5 profili + ricambi

5 drills + 5 knives + spare parts

5 Schafffräser + 5 Profile + 5 Ersatzmesser



CONTENUTO / INCLUDING / INHALT

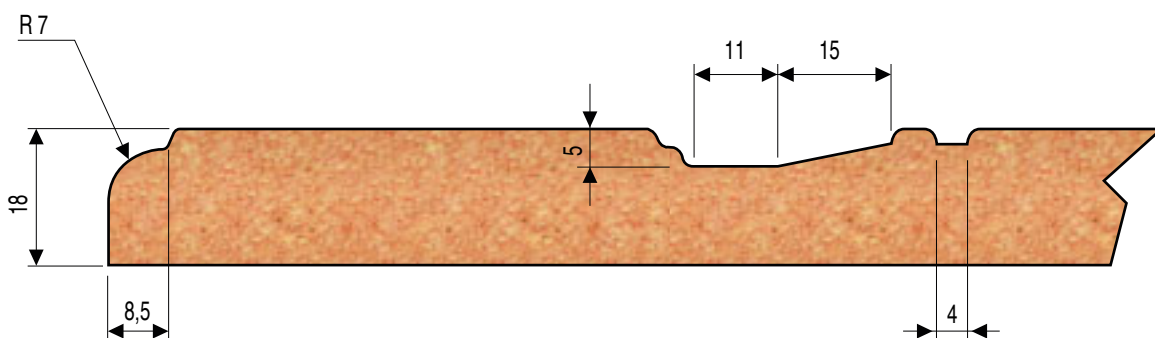
(A)	PH88FM01	Ø65x30	Z2	att. 20x50	1 Pz.
(B)	PH88FM02	Ø27x25	Z2	att. 20x50	1 Pz.
(C)	PH88FM03	Ø47x25	Z2	att. 20x50	3 Pz.

SET

€

PH88FM20

PROFILO / PROFILE / PROFIL



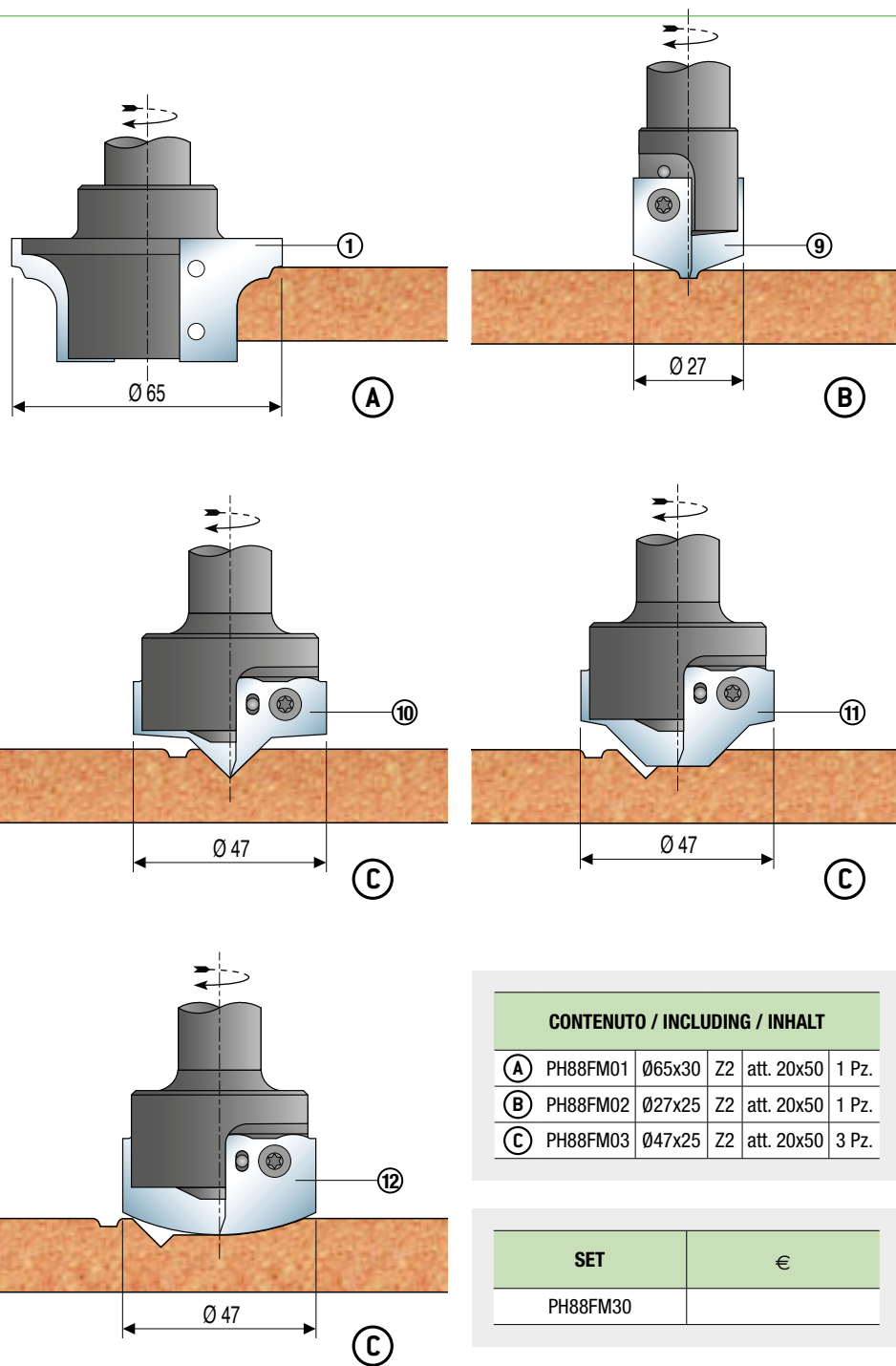
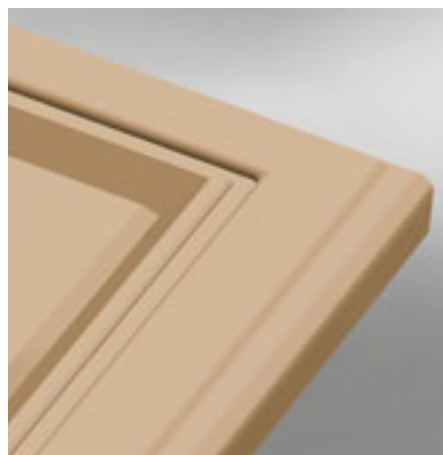
PH88FM30

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



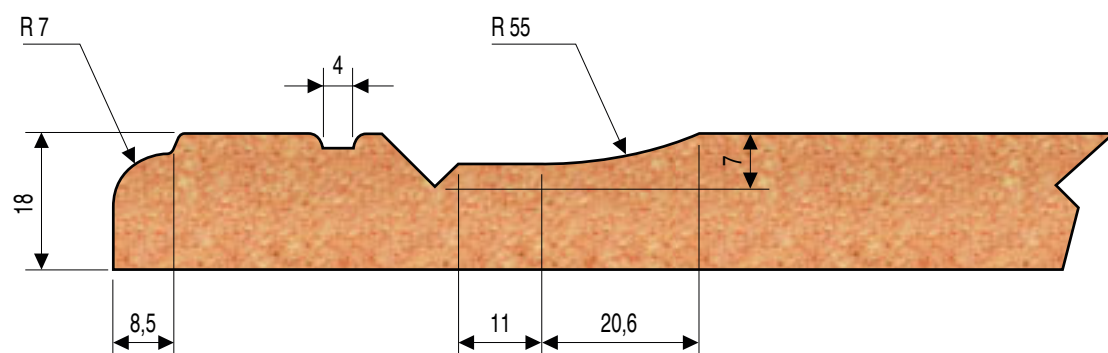
CONTENUTO / INCLUDING / INHALT

(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

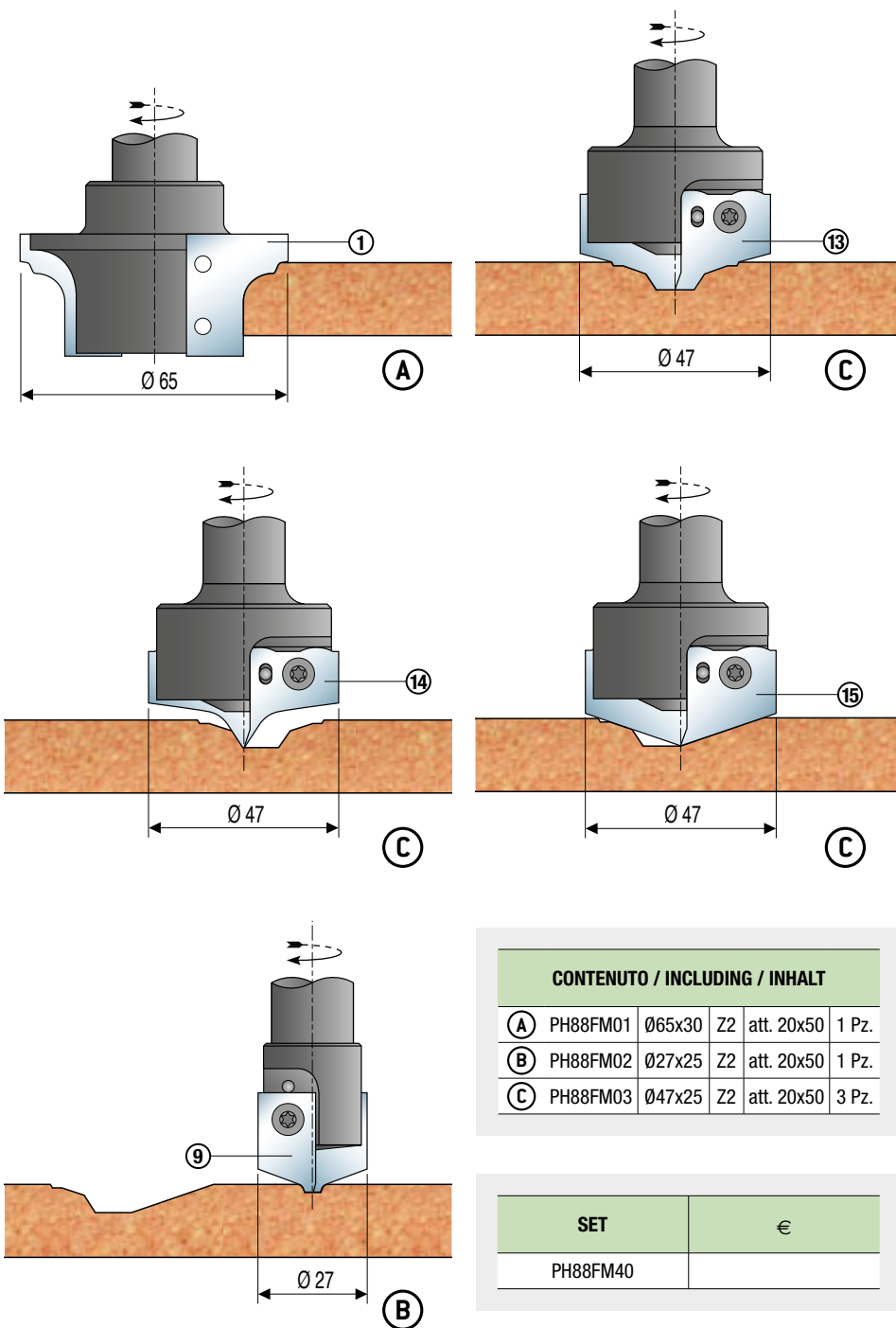


CONTENUTO / INCLUDING / INHALT

5 punte + 5 profili + ricambi

5 drills + 5 knives + spare parts

5 Schafffräser + 5 Profile + 5 Ersatzmesser



CONTENUTO / INCLUDING / INHALT

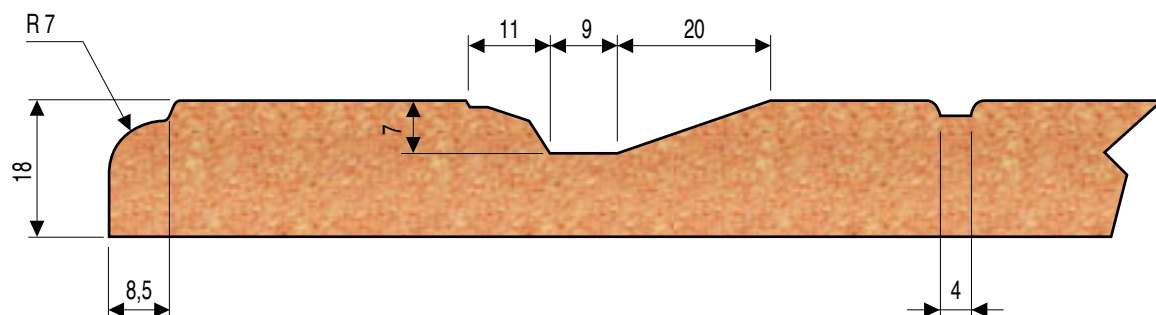
(A)	PH88FM01	Ø65x30	Z2	att. 20x50	1 Pz.
(B)	PH88FM02	Ø27x25	Z2	att. 20x50	1 Pz.
(C)	PH88FM03	Ø47x25	Z2	att. 20x50	3 Pz.

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 length.
 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	

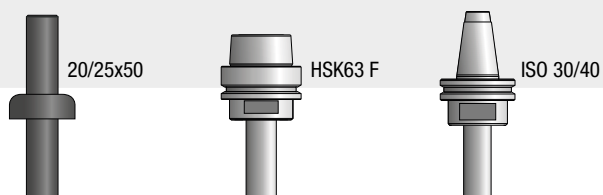
PH92FM

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

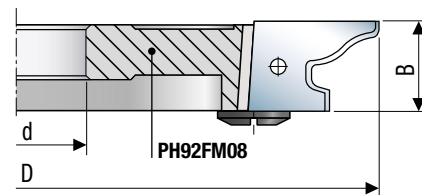
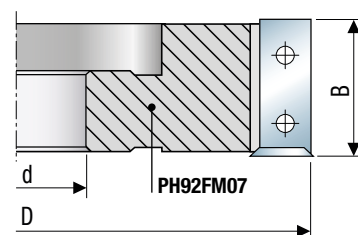
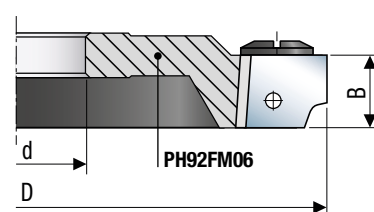
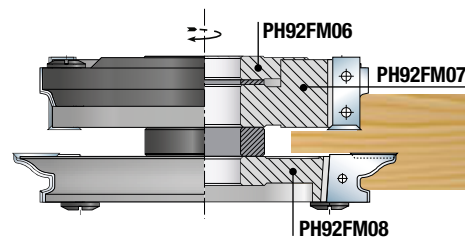
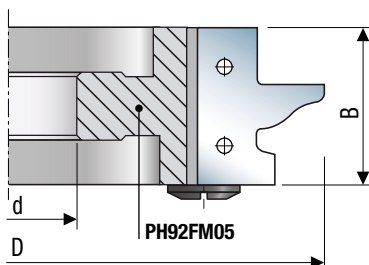
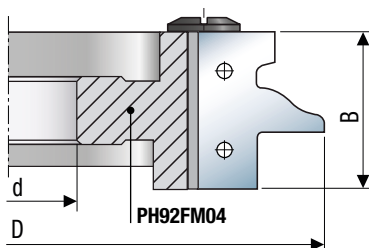
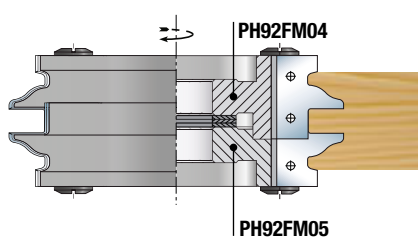
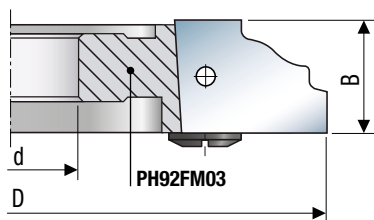
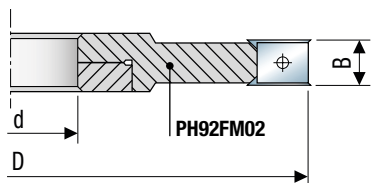
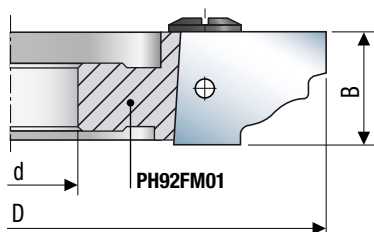
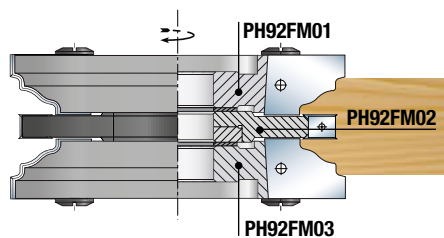
Attacco per PH92FM

Shank for PH92FM

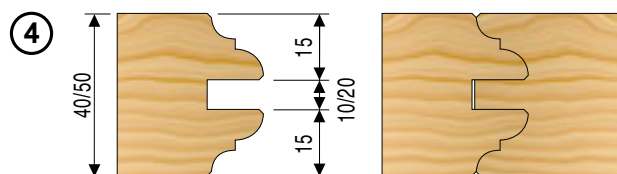
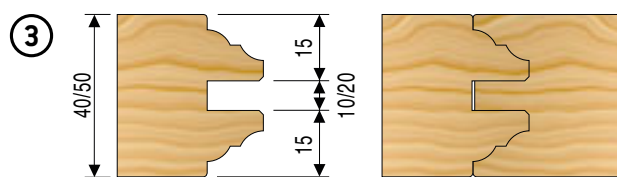
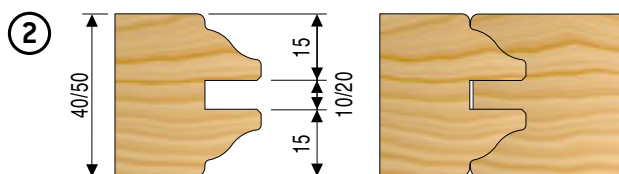
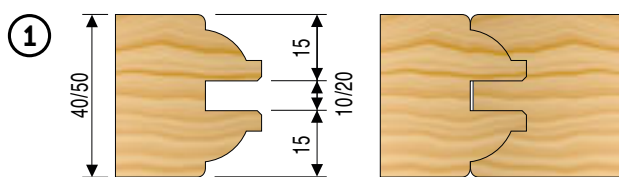
Schaft für PH92FM



ESEMPI DI LAVORAZIONE WORKING EXAMPLE BEISPIELE



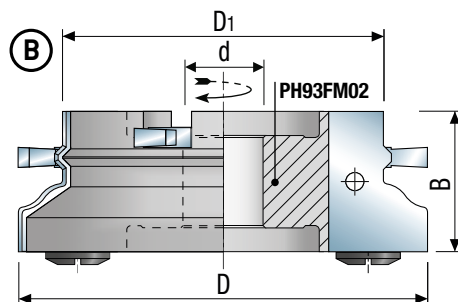
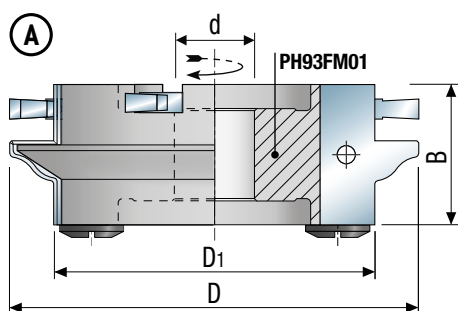
ESEMPI DI PROFILI EXAMPLE OF PROFILE EINSATZBEISPIEL



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

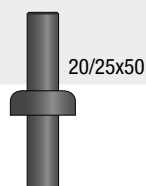
Type	Art.	Dimensioni Dimensions Abmessungen [mm]	Art. Nr. PH93FM		€
			01	02	
(P1)	Coltello / Knife / Messer	35x30x3	2	/	
(P2)	Coltello / Knife / Messer	35x30x3	2	/	
(P3)	Coltello / Knife / Messer	35x30x3	2	/	
(P4)	Coltello / Knife / Messer	35x30x3	2	/	
(P5)	Coltello / Knife / Messer	35x30x3	2	/	
(C1)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

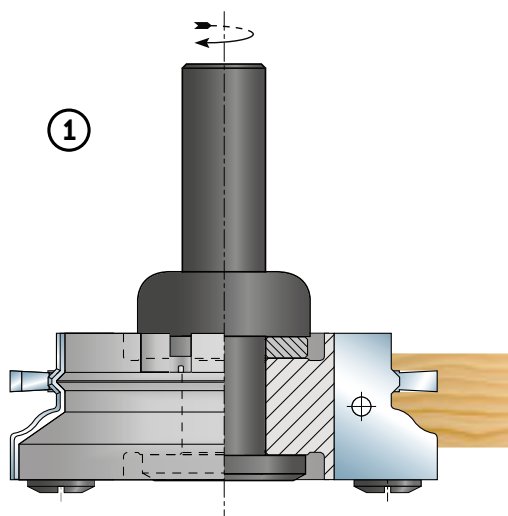


PH93FM

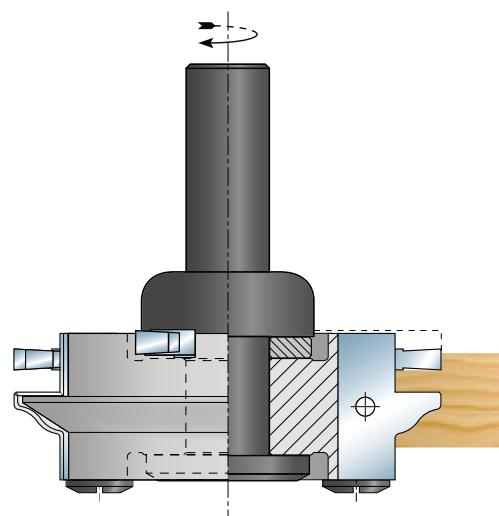
HW | Z=2

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

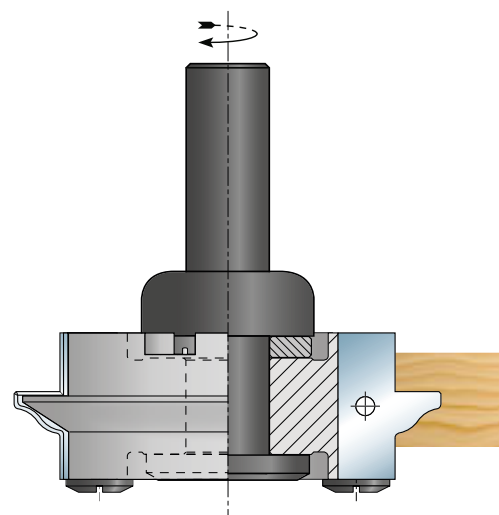
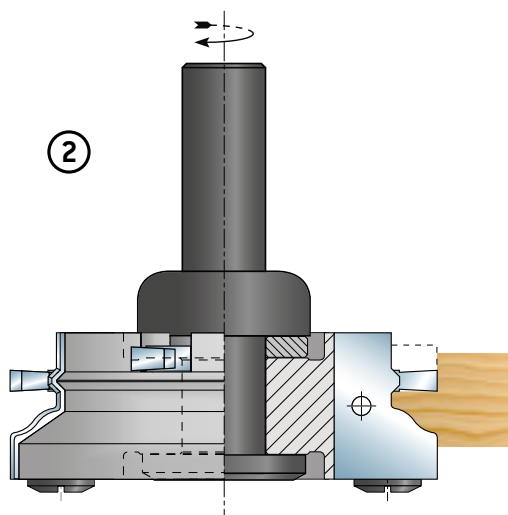
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



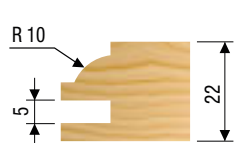
Con spina
With tenon
Mit Zapfen



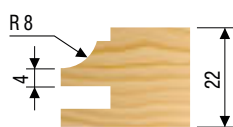
Senza spina
Without tenon
Ohne Zapfen



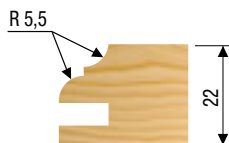
PROFILO / PROFILE / KONTERPROFIL



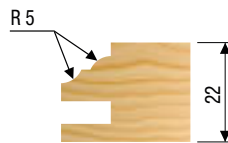
(P1)



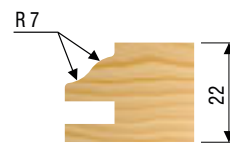
(P2)



(P3)

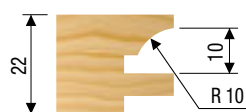


(P4)

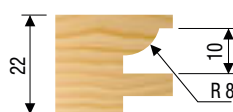


(P5)

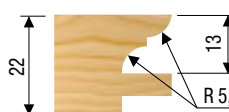
CONTROPROFILO / SCRIBE / PROFIL



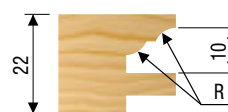
(C1)



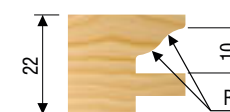
(C2)



(C3)



(C4)



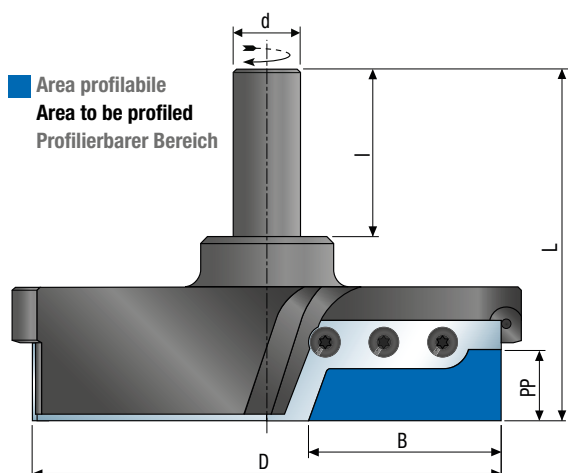
(C5)

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.

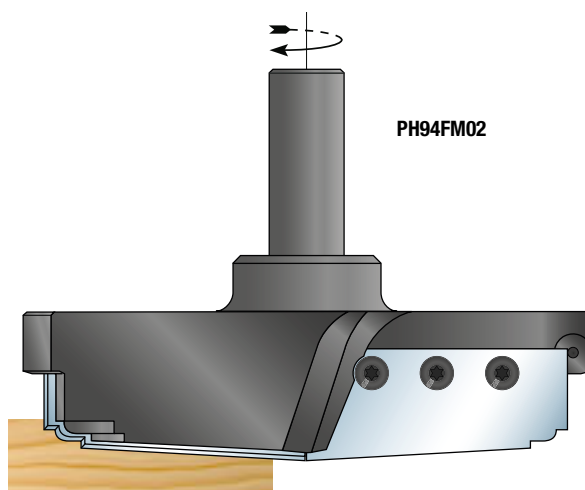
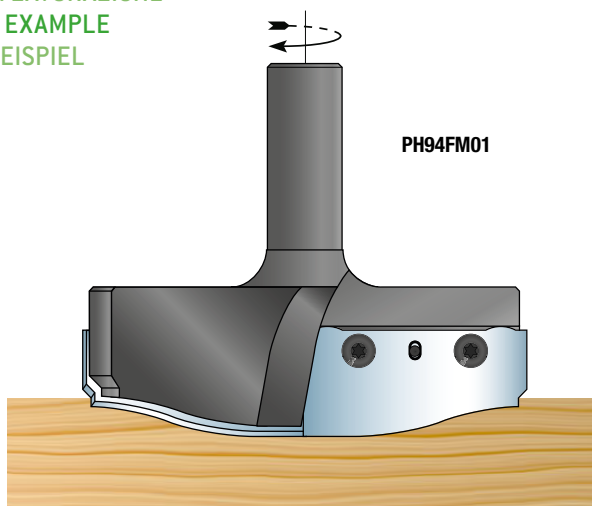
Router already equipped with profiled knives. When ordering please specify the profile required.

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	/	

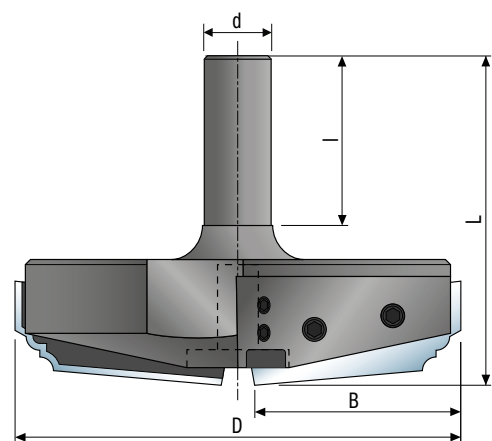
ESEMPI DI LAVORAZIONE WORKING EXAMPLE EINSATZBEISPIEL



PIATTABANDA MULTIPROFILO Z2
MULTI-PROFILE PANEL RAISING Z2
MULTIPROFILABPLATTFRÄSER Z2

PH95FM01

HW | Z=2

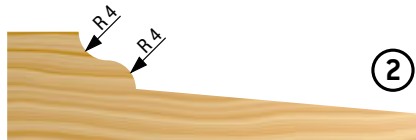


Ø D [mm]	B [mm]	L [mm]	Attacco / Shank / Schaft		Z	Art. Nr.	€
			Ø d [mm]	I [mm]			
138	46,5	97	20 / 25	50	2	PH95FM01	

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



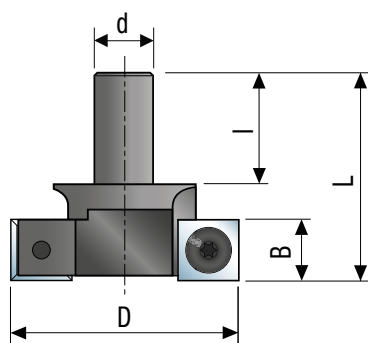
PH96FM01

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

