

D Schaftfräser
kurz, DIN 844 K

E End mills
short series, DIN 844 K

I Frese cilindriche frontali
serie corta, DIN 844 K

Einsatzbereich:

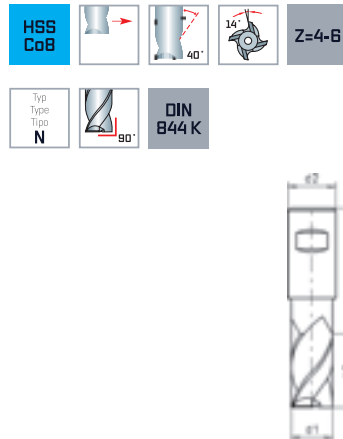
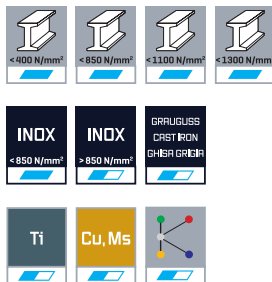
Zum Schlichten mit hoher Zerspanungsleistung bei gleichzeitig guter Oberfläche von Stählen mit mittlerer bis hoher Festigkeit bis 1.300 N/mm² (z.B. Bau-, Einsatz-, Vergütungsstähle); NE-Metalle, rost- und säurebeständige Stähle. Bevorzugt Gleichlaufräsen.

Range of application:

Finishing with high cutting performance and excellent surface quality by steels with medium to high tensile strength up to 1.300 N/mm² (for example structural, case-hardening, heat-treatable steels); non-ferrous metals, stainless and acid resistant steels. Climb milling preferred.

Impiego:

Adatte per lavorazione di acciai di media ed alta resistenza fino a R = 1.300 N/mm², (ad es. acciai da costruzione, acciai da cementazione, acciai bonificati); materiali non ferrosi, acciai inossidabili, acciai resistenti agli acidi, con elevata potenza di fresatura e con una finitura della superficie ottimale. Consigliata fresatura concorde.



d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1616 Art.-Nr.
4	6	55	11	4	0 1616004001 00
5	6	57	13	4	0 1616005001 00
6	6	57	13	4	0 1616006001 00
7	10	66	16	4	0 1616007001 00
8	10	69	19	4	0 1616008001 00
9	10	69	19	4	0 1616009001 00
10	10	72	22	4	0 1616010001 00
11	12	79	22	4	0 1616011001 00
12	12	83	26	4	0 1616012001 00
13	12	83	26	4	0 1616013001 00
14	12	83	26	4	0 1616014001 00
15	12	83	26	4	0 1616015001 00
16	16	92	32	4	0 1616016001 00
18	16	92	32	4	0 1616018001 00
20	20	104	38	4	0 1616020001 00
22	20	104	38	6	0 1616022001 00
24	25	121	45	6	0 1616024001 00
25	25	121	45	6	0 1616025001 00
28	25	121	45	6	0 1616028001 00
30	25	121	45	6	0 1616030001 00
32	32	133	53	6	0 1616032001 00
36	32	133	53	6	0 1616036001 00
40	32*	143*	63	6	0 1616040001 00

*Entspricht nicht der DIN / Not corresponding to DIN / Non secondo DIN

D Schaftfräser

kurz, zentrumschneidend,
DIN 844 K

Einsatzbereich:

Ein breites Anwendungsspektrum bei Werkstoffen geringer Festigkeit, bis hin zu schwer zerspanbaren Werkstoffen auch mit hoher Zähigkeit, z. B. Baustählen bis hin zu legierten Werkzeugstählen. Aber auch NE-Metalle, Kobalt- und Nickellegierungen, sowie für Titan und Titanlegierungen.

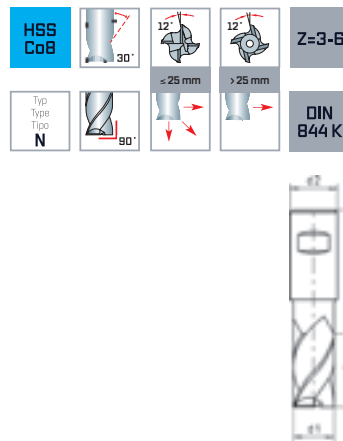


E End mills

short series, centre cutting,
DIN 844 K

Range of application:

Wide range of applications on materials with low strength up to materials difficult to machine, having a high toughness, for example structural steels or alloyed tool steels. Also including non-ferrous metals, cobalt- and nickel-alloys, as well as titanium and titanium-alloyed materials.



I Frese cilindriche frontali

serie corta, tagliente al centro,
DIN 844 K

Impiego:

Fresatura generale adatte per lavorazioni di acciai sia a bassa resistenza che di difficile lavorabilità e ad elevata tenacità come acciai da costruzione, acciai legati da utensili. Adatte anche per materiali non ferrosi leghe al Cobalto, leghe al Nickel, Titanio e leghe di Titanio.



ALLUNIT®

d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1816 Art.-Nr.	Code 1817 Art.-Nr.
2	6	51	7	3	0 1816002001 00	0 1817002001 00
2,5	6	52	8	3	0 1816002501 00	0 1817002501 00
3	6	52	8	4	0 1816003001 00	0 1817003001 00
3,5	6	54	10	4	0 1816003501 00	0 1817003501 00
4	6	55	11	4	0 1816004001 00	0 1817004001 00
4,5	6	55	11	4	0 1816004501 00	0 1817004501 00
5	6	57	13	4	0 1816005001 00	0 1817005001 00
5,5	6	57	13	4	0 1816005501 00	0 1817005501 00
6	6	57	13	4	0 1816006001 00	0 1817006001 00
6,5	10	66	16	4	0 1816006501 00	0 1817006501 00
7	10	66	16	4	0 1816007001 00	0 1817007001 00
7,5	10	66	16	4	0 1816007501 00	0 1817007501 00
8	10	69	19	4	0 1816008001 00	0 1817008001 00
8,5	10	69	19	4	0 1816008501 00	0 1817008501 00
9	10	69	19	4	0 1816009001 00	0 1817009001 00
9,5	10	69	19	4	0 1816009501 00	0 1817009501 00
10	10	72	22	4	0 1816010001 00	0 1817010001 00
11	12	79	22	4	0 1816011001 00	0 1817011001 00
12	12	83	26	4	0 1816012001 00	0 1817012001 00
13	12	83	26	4	0 1816013001 00	0 1817013001 00
14	12	83	26	4	0 1816014001 00	0 1817014001 00
15	12	83	26	4	0 1816015001 00	0 1817015001 00
16	16	92	32	4	0 1816016001 00	0 1817016001 00
18	16	92	32	4	0 1816018001 00	0 1817018001 00
20	20	104	38	4	0 1816020001 00	0 1817020001 00
22	20	104	38	6	0 1816022001 00	0 1817022001 00
24	25	121	45	6	0 1816024001 00	0 1817024001 00
25	25	121	45	6	0 1816025001 00	0 1817025001 00
28	25	121	45	6	0 1816028001 00	
30	25	121	45	6	0 1816030001 00	
32	32	133	53	6	0 1816032001 00	



D HPT-Schaftfräser

kurz, zentrumschneidend,
DIN 327 D

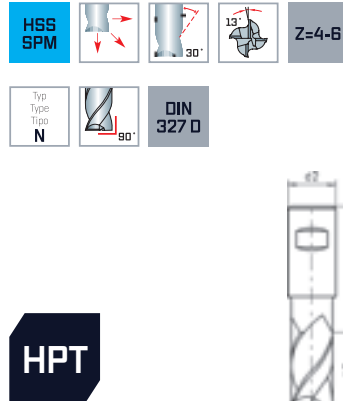
Einsatzbereich:
Mehrschneidiger Universal-Schaftfräser, gefertigt aus neuem Substrat SPM mit sehr hohem Kobalt-Anteil. Es verbindet die Härte von VHM und die Zähigkeit des PM-Stahles. Der Fräser kann durch seine universelle Geometrie für die verschiedensten Werkstoffe eingesetzt werden.



E HPT-End mills

short series, centre cutting,
DIN 327 D

Range of application:
Universal multi-flute end mill, made from new substrate SPM with extreme high content of cobalt. It combines the hardness of solid carbide and the toughness of powder-metallurgical steel. Due to its universal geometry this end mill is suitable for various materials.



I HPT-Frese cilindriche frontali

serie corta, tagliente al centro,
DIN 327 D

Impiego:
Frese a più taglienti adatte per lavorazione universale, fabbricate con un nuova tipologia di acciaio con substrato SPM ad elevato tenore di cobalto. Associa la durezza del M.D. alla resilienza dell'acciaio da polveri. La fresa, grazie alla sua particolare geometria, può essere impiegata per i più diversi materiali.



ALUNIT®

ALUNIT®

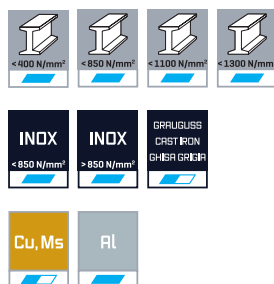
d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1877 Art.-Nr.
6	6	52	8	4	0 1877006001 00
8	10	61	11	4	0 1877008001 00
10	10	63	13	4	0 1877010001 00
12	12	73	16	4	0 1877012001 00
14	12	73	16	4	0 1877014001 00
16	16	79	19	4	0 1877016001 00

d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1877 Art.-Nr.
18	16	79	19	4	0 1877018001 00
20	20	88	22	4	0 1877020001 00
22	20	88	22	4	0 1877022001 00
25	25	102	26	4	0 1877025001 00
32	32	112	32	6	0 1877032001 00

D HPT-Schaftfräser

kurz, zentrumschneidend,
DIN 844 B

Einsatzbereich:
Mehrschneidiger, Universal-Schaftfräser. Einsetzbar als Schlicht-, Schruppschlicht- und Schruppfräser. Gefertigt aus pulvermetallurgischem Material zur Verwendung bei extremen Zerspanungsbedingungen oder großen Standwegen.



E HPT-End mills

short series, centre cutting,
DIN 844 B

Range of application:
Universal multi-flute end mill. Useable for finishing, roughing finishing and roughing. Made from powder-metallurgical steel for using at extreme cutting conditions for long continuous utilisation.



I HPT-Frese cilindriche frontali

serie corta, tagliente al centro,
DIN 844 B

Impiego:
Frese a più taglienti adatte per lavorazione universal. Adatto per finitura, sgrossatura finitura e sgrossatura. Made from powder-metallurgical steel for using at extreme cutting conditions for long continuous utilisation.



ALLUNIT®

ALLUNIT®

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1867 Art.-Nr.
3	6	52	8	4	0 1867003001 00
3,5	6	54	10	4	0 1867003501 00
4	6	55	11	4	0 1867004001 00
4,5	6	55	11	4	0 1867004501 00
5	6	57	13	4	0 1867005001 00
6	6	57	13	4	0 1867006001 00
7	10	66	16	4	0 1867007001 00
8	10	69	19	4	0 1867008001 00

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1867 Art.-Nr.
9	10	69	19	4	1867009001
10	10	72	22	4	1867010001
12	12	83	26	4	1867012001
14	12	83	27	4	1867014001
16	16	92	32	4	1867016001
18	16	92	32	4	1867018001
20	20	104	38	4	1867020001
25	25	121	45	4	1867025001

D Schaftfräser

kurz, zentrumschneidend,
DIN 844 K

Einsatzbereich:

Zum Schlichten mit hoher Zerspanungsleistung bei gleichzeitig guter Oberfläche von Stählen mit mittlerer bis hoher Festigkeit bis 1.200 N/mm² (z.B. Bau-, Einsatz-, Vergütungsstähle); NE-Metalle, rost- und säurebeständige Stähle. Bevorzugt Gleichlaufräsen.



E End mills

short series, centre cutting,
DIN 844 K

Range of application:

Finishing with high cutting performance and excellent surface quality by steels with medium to high tensile strength up to 1.200 N/mm² (for example structural, case-hardening, heat-treatable steels); non-ferrous metals, stainless and acid resistant steels. Climb milling preferred.



I Frese cilindriche frontali

serie corta, tagliente al centro,
DIN 844 K

Impiego:

Adatte per lavorazione di acciai di media ed alta resistenza fino a R = 1.200 N/mm², [ad es. acciai da costruzione, acciai da cementazione, acciai bonificati]; materiali non ferrosi, acciai inossidabili, acciai resistenti agli acidi, con elevata potenza di fresatura e con una finitura della superficie ottimale. Consigliata fresatura concorde.



DIN 1835-B



DIN 1835-B

ALLUNIT®

d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1786 Art.-Nr.	Code 1787 Art.-Nr.
3	6	52	8	4	0 1786003001 00	0 1787003001 00
4	6	55	11	4	0 1786004001 00	0 1787004001 00
5	6	57	13	4	0 1786005001 00	0 1787005001 00
6	6	57	13	4	0 1786006001 00	0 1787006001 00
8	10	69	19	4	0 1786008001 00	0 1787008001 00
10	10	72	22	4	0 1786010001 00	0 1787010001 00
12	12	83	26	4	0 1786012001 00	0 1787012001 00
14	12	83	26	4	0 1786014001 00	0 1787014001 00
16	16	92	32	4	0 1786016001 00	0 1787016001 00
18	16	92	32	4	0 1786018001 00	0 1787018001 00
20	20	104	38	4	0 1786020001 00	0 1787020001 00
25	25	121	45	6	0 1786025001 00	0 1787025001 00
New 28	25	121	45	6	0 1786028001 00	0 1787028001 00
New 30	25	121	45	6	0 1786030001 00	0 1787030001 00
New 32	32	133	53	6	0 1786032001 00	0 1787032001 00

HSS Fräser
HSS milling cutters
HSS frese



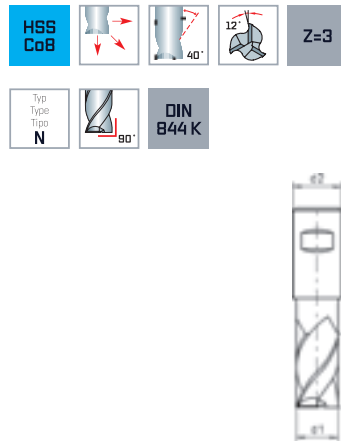
D Schaftfräser,
kurz, Dreischneider, zentrum-
schneidend, DIN 844 K

Einsatzbereich:
Tauchfräsen auf volle Nuttiefe oder allmähliche Tiefenzustellung, auch als Schaftfräser für konventionelles Stirn- und Umfangfräsen.



E End mills
short series, three flutes,
centre cutting, DIN 844 K

Range of application:
Plunge milling to full depth or with gradual feed; also for conventional face and peripheral milling.



I Frese cilindriche frontali
3 taglienti, serie corta, taglienti
al centro, DIN 844 K

Impiego:
Adatte per foratura dal pieno e fresatura generale sia di testa che di contornatura.



DIN 1835-B

d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1666 Art.-Nr.
4	6	55	11	3	0 1666004001 00
5	6	57	13	3	0 1666005001 00
6	6	57	13	3	0 1666006001 00
7	10	66	16	3	0 1666007001 00
8	10	69	19	3	0 1666008001 00
9	10	69	19	3	0 1666009001 00
10	10	72	22	3	0 1666010001 00
11	12	79	22	3	0 1666011001 00

d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1666 Art.-Nr.
12	12	83	26	3	0 1666012001 00
13	12	83	26	3	0 1666013001 00
14	12	83	26	3	0 1666014001 00
15	12	83	26	3	0 1666015001 00
16	16	92	32	3	0 1666016001 00
18	16	92	32	3	0 1666018001 00
20	20	104	38	3	0 1666020001 00
25	25	121	45	3	0 1666025001 00