

D Schaftfräser

lang, zentrumschneidend,
DIN 844 L

Einsatzbereich:

Empfohlen zum Fräsen von weichen bis zähen, langspanenden Werkstoffen wie Al- und Cu-Legierungen sowie Thermoplaste.

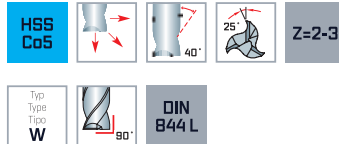


E End mills

long series, centre cutting,
DIN 844 L

Range of application:

Recommended for milling in soft as well as in tough, long chipping materials such as Al- and Cu-alloys as well as in thermo plastics.



I Frese cilindriche frontali

serie lunga, tagliante al centro,
DIN 844 L

Impiego:

Adatte per lavorazioni di acciai teneri, tenaci, a truciolo lungo, leghe alluminio, leghe rame, materiali termoplastici.



d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1754 Art.-Nr.
5	6	68	24	2	0 1754005001 00
6	6	68	24	2	0 1754006001 00
8	10	88	38	2	0 1754008001 00
10	10	95	45	2	0 1754010001 00
12	12	110	53	3	0 1754012001 00

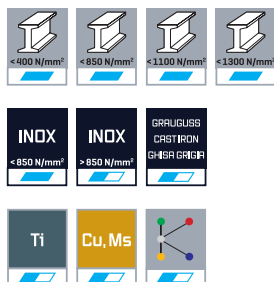
d1 _{k10} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 1754 Art.-Nr.
14	12	110	53	3	0 1754014001 00
16	16	123	63	3	0 1754016001 00
20	20	141	75	3	0 1754020001 00
25	25	166	90	3	0 1754025001 00
30	25	166	90	3	0 1754030001 00

D Schaftfräser

kurz, DIN 844 K

Einsatzbereich:

Empfohlen zum Fräsen von schwer zerspanbaren Werkstoffen mit hoher Festigkeit bis 1.300 N/mm² sowie für Titan und Titanlegierungen.

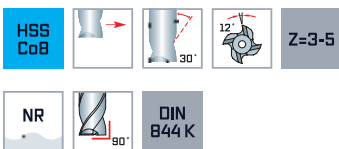


E End mills

short series, DIN 844 K

Range of application:

Recommended for milling in heavy duty materials with high tensile strength up to 1.300 N/mm² as well as in titanium and titanium-alloyed materials.



I Frese cilindriche frontali

serie corta, DIN 844 K

Impiego:

Adatte per lavorazioni di acciai di difficile lavorabilità ad elevata resistenza fino a R = 1.300 N/mm², Titanio, leghe di Titanio.



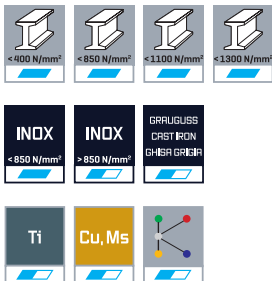
d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2026 Art.-Nr.
5	6	57	13	3	0 2026005001 00
6	6	57	13	3	0 2026006001 00
7	10	66	16	3	0 2026007001 00
8	10	69	19	4	0 2026008001 00
9	10	69	19	4	0 2026009001 00
10	10	72	22	4	0 2026010001 00
11	12	79	22	4	0 2026011001 00
12	12	83	26	4	0 2026012001 00
14	12	83	26	4	0 2026014001 00
16	16	92	32	4	0 2026016001 00
18	16	92	32	4	0 2026018001 00
20	20	104	38	4	0 2026020001 00
25	25	121	45	5	0 2026025001 00
30	25	121	45	5	0 2026030001 00

D Schaftfräser

kurz, zentrumschneidend,
DIN 844 K

Einsatzbereich:

Empfohlen zum Fräsen von schwer zerspanbaren Werkstoffen mit hoher Festigkeit bis 1.300 N/mm² sowie für Titan und Titanlegierungen.

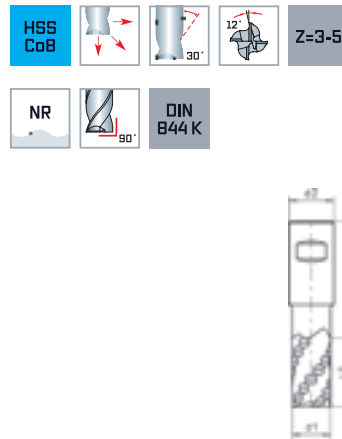


E End mills

short series, centre cutting,
DIN 844 K

Range of application:

Recommended for milling in heavy duty materials with high tensile strength up to 1.300 N/mm² as well as in titanium and titanium-alloyed materials.



I Frese cilindriche frontali

serie corta, tagliente al centro,
DIN 844 K

Impiego:

Adatte per lavorazioni di acciai di difficile lavorabilità ad elevata resistenza fino a R = 1.300 N/mm², Titanio, leghe di Titanio.



DIN 1835-B



DIN 1835-B

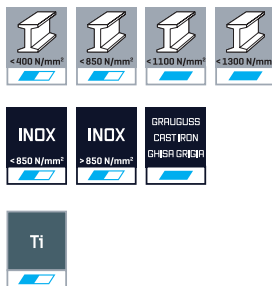
ALLUNIT®

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2286 Art.-Nr.	Code 2287 Art.-Nr.
6	6	57	13	3	0 2286006001 00	0 2287006001 00
8	10	69	19	4	0 2286008001 00	0 2287008001 00
10	10	72	22	4	0 2286010001 00	0 2287010001 00
12	12	83	26	4	0 2286012001 00	0 2287012001 00
14	12	83	26	4	0 2286014001 00	0 2287014001 00
16	16	92	32	4	0 2286016001 00	0 2287016001 00
18	16	92	32	4	0 2286018001 00	0 2287018001 00
20	20	104	38	4	0 2286020001 00	0 2287020001 00
22	20	104	38	5	0 2286022001 00	0 2287022001 00
25	25	121	45	5	0 2286025001 00	0 2287025001 00



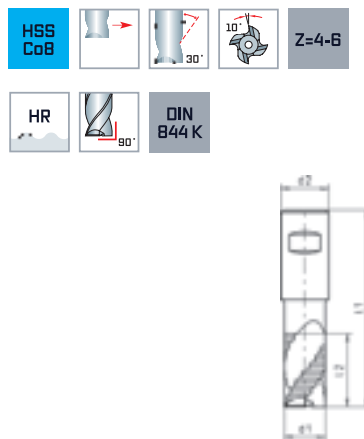
D Schaftfräser
kurz, DIN 844 K

Einsatzbereich:
Großer Anwendungsbereich bei Werkstoffen mit mittlerer bis hoher Festigkeit (ca. 900–1.400 N/mm²), z.B. Einsatz-, Vergütungsstähle, Werkzeugstahl legiert, vergütet, NE-Metalle, hochwärmefeste Werkstoffe sowie Gusseisen und Gusslegierungen.



E End mills
short series, DIN 844 K

Range of application:
Wide range of applications on materials of medium strength up to high tensile strength (~ 900–1.400 N/mm²), for example case-hardening, heat-treatable steels, alloyed tool steel; hardened and tempered non-ferrous metals, high temperature materials, also cast iron and alloyed cast iron.



I Frese cilindriche frontaliserie
serie corta, DIN 844 K

Impiego:
Fresatura generale adatte per lavorazioni di acciai sia a media che ad elevata resistenza (ca. 900 – fino a 1400 N/mm²) ad es. acciai da cementazione, acciai da utensili legati bonificati, metalli non ferrosi, metalli resistenti al calore, ghisa, leghe di ghisa.



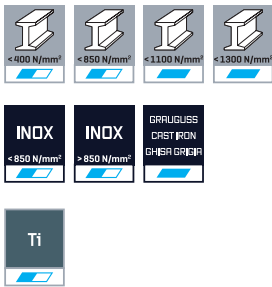
d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2036 Art.-Nr.
10	10	72	22	4	0 2036010001 00
12	12	83	26	4	0 2036012001 00
16	16	92	32	4	0 2036016001 00
18	16	92	32	4	0 2036018001 00
20	20	104	38	4	0 2036020001 00
25	25	121	45	5	0 2036025001 00
30	25	121	45	5	0 2036030001 00
32	32	133	53	6	0 2036032001 00

D Schaftfräser

kurz, zentrumschneidend,
DIN 844 K

Einsatzbereich:

Großer Anwendungsbereich bei Werkstoffen mit mittlerer bis hoher Festigkeit [ca. 900–1.400 N/mm²], z.B. Einsatz-, Vergütungsstähle, Werkzeugstahl legiert, vergütet, NE-Metalle, hochwärmfeste Werkstoffe sowie Gusseisen und Gusslegierungen.



E End mills

short series, centre cutting,
DIN 844 K

Range of application:

Wide range of applications on materials of medium strength up to high tensile strength [~ 900–1.400 N/mm²], for example case-hardening, heat-treatable steels, alloyed tool steel; hardened and tempered non-ferrous metals, high temperature materials, also cast iron and alloyed cast iron.



I Frese cilindriche frontali

serie corta, tagliante al centro,
DIN 844 K

Impiego:

Fresatura generale adatte per lavorazioni di acciai sia a media che ad elevata resistenza [ca. 900 – fino a 1400 N/mm²] ad es. acciai da cementazione, acciai da utensili legati bonificati, metalli non ferrosi, metalli resistenti al calore, ghisa, leghe di ghisa.



DIN 1835-B

ALUNIT®

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2047 Art.-Nr.
6	6	57	13	3	0 2047006001.00
7	10	66	16	3	0 2047007001.00
8	10	69	19	4	0 2047008001.00
9	10	69	19	4	0 2047009001.00
10	10	72	22	4	0 2047010001.00
11	12	79	22	4	0 2047011001.00
12	12	83	26	4	0 2047012001.00
13	12	83	26	4	0 2047013001.00
14	12	83	26	4	0 2047014001.00
15	12	83	26	4	0 2047015001.00
16	16	92	32	4	0 2047016001.00
18	16	92	32	4	0 2047018001.00
20	20	104	38	4	0 2047020001.00
22	20	104	38	5	0 2047022001.00
25	25	121	45	5	0 2047025001.00
30	25	121	45	5	0 2047030001.00
32	32	133	53	6	0 2047032001.00

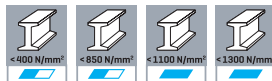


D HPT-Schaftfräser

kurz, zentrumschneidend,
DIN 844 K

Einsatzbereich:

Gefertigt aus pulvermetallurgischem Material zur Verwendung bei extremen Zerspanungsbedingungen und/oder großen Standwegen. Großer Anwendungsbereich bei Werkstoffen mit mittlerer bis hoher Festigkeit (ca. 900–1.400 N/mm²), z.B. Einsatz-, Vergütungsstähle, Werkzeugstahl legiert, vergütet, NE-Metalle, hochwärmefeste Werkstoffe sowie Gusseisen und Gusslegierungen.

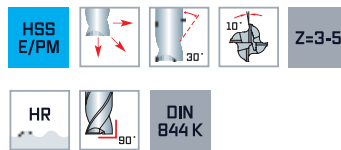


E HPT-End mills

short series, centre cutting,
DIN 844 K

Range of application:

Made from powder-metallurgical steel for extreme cutting conditions for long continuous utilisation. Wide range of applications on materials of medium strength up to high tensile strength (~ 900–1.400 N/mm²), for example case-hardening, heat-treatable steels, alloyed tool steel; hardened and tempered non-ferrous metals, high temperature materials, also cast iron and alloyed cast iron.



ALUNIT®

I HPT-Frese cilindriche frontali

serie corta, tagliente al centro,
DIN 844 K

Impiego:

Frese in acciai speciali da polveri particolarmente adatte per lavorazioni di acciai in condizioni estreme ovvero in passate di fresatura molto lunghe. Adatte per lavorazioni di acciai sia a media che ad elevata resistenza (ca. 900 – fino a 1400 N/mm²) ad es. acciai da cementazione, acciai da utensili legati bonificati, metalli non ferrosi, metalli resistenti al calore, ghisa, leghe di ghisa.

Pulverstahl
Powder steel
Acciaio da polveri



ALUNIT®

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2017 Art.-Nr.
6	6	57	13	3	0 2017006001 00
8	10	69	19	4	0 2017008001 00
10	10	72	22	4	0 2017010001 00
12	12	83	26	4	0 2017012001 00

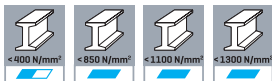
d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2017 Art.-Nr.
16	16	92	32	4	0 2017016001 00
18	16	92	32	4	0 2017018001 00
20	20	104	38	4	0 2017020001 00
25	25	121	45	5	0 2017025001 00

D HPT-Schrupp-Schaftfräser

kurz, zentrumschneidend,
DIN 844 K

Einsatzbereich:

Universalfräser mit dynamischen Spezialkor-
delprofil zum Schruppen. Gefertigt aus neuem
Substrat SPM mit sehr hohem Kobalt-Anteil. Es
verbindet die Härte von VHM und die Zähigkeit des
PM-Stahles. Dieser Fräser ist für höchste Ansprü-
che an Zerspanungsleistung und Steigerung des
Zerspanungsvolumens ideal geeignet.

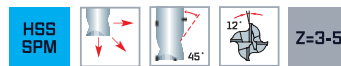


E HPT-Roughing end mills

short series, centre cutting,
DIN 844 K

Range of application:

Universal milling cutter with dynamic special cor-
del profile for roughing. 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. This milling cutter is
specially suitable for highest requirements in cut-
ting performance and increase of cutting volume.



I HPT-Frese cilindriche frontali a sgrossare

serie corta, tagliente al centro,
DIN 844 K

Impiego:

Frese universali con speciale profilo dinamico per
sgrossatura. Prodotta con la nuova tipologia di ac-
ciaio con substrato SPM ad elevato tenore di cobalto.
Associa la durezza del M.D. alla resilienza dell'acciaio
da polveri. Questa fresa è particolarmente adatta per
elevate esigenze di resa e di asportazione di grandi
volumi nella lavorazione.

Pulverstahl-PLUS
Powder steel-PLUS
Acciaio da polveri-PLUS



ALUNIT®

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z		Code 2147 Art.-Nr.
6	6	57	13	3	0,20	0 2147006001 00
8	10	69	19	4	0,20	0 2147008001 00
10	10	72	22	4	0,20	0 2147010001 00
12	12	83	26	4	0,30	0 2147012001 00
14	12	83	26	4	0,30	0 2147014001 00
16	16	92	32	5	0,30	0 2147016001 00
18	16	92	32	5	0,30	0 2147018001 00
20	20	104	38	5	0,30	0 2147020001 00



D HPT-Schaftfräser

kurz, zentrumschneidend,
DIN 327 D

Einsatzbereich:

Gefertigt aus neuem Substrat SPM mit sehr hohem Kobalt-Anteil. Es verbindet die Härte von VHM und die Zähigkeit des PM-Stahles. Dieser Fräser ist für höchste Ansprüche an Zerspansungsleistung und Steigerung des Zerspanungsvolumens in rostfreien Stählen ideal geeignet.



E HPT-End mills

short series, centre cutting,
DIN 327 D

Range of application:

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. This milling cutter is specially suitable for highest requirements in cutting performance and increase of cutting volume in stainless steels.



I HPT-Frese cilindriche frontali

serie corta, tagliente al centro,
DIN 327 D

Impiego:

Prodotta con la nuova tipologia di acciaio con substrato SPM ad elevato tenore di cobalto. Associa la durezza del M.D alla resilienza dell'acciaio da polveri. Questa fresa è particolarmente adatta per elevate esigenze di resa e di asportazione di grandi volumi nella lavorazione degli acciai inossidabili.

Pulverstahl-PLUS
Powder steel-PLUS
Acciaio da polveri-PLUS



ALUNIT®

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z		Code 2137 Art.-Nr.
6	6	52	8	3	0,30	0 2137006001 00
8	10	61	11	4	0,30	0 2137008001 00
10	10	63	13	4	0,30	0 2137010001 00
12	12	73	16	4	0,30	0 2137012001 00
14	12	73	16	4	0,30	0 2137014001 00
16	16	79	19	5	0,30	0 2137016001 00
18	16	79	19	5	0,30	0 2137018001 00
20	20	88	22	5	0,30	0 2137020001 00
25	25	102	26	5	0,30	0 2137025001 00
32	32	112	32	6	0,30	0 2137032001 00

D HPT-Schaftfräser

kurz, zentrumschneidend,
DIN 844 K

Einsatzbereich:

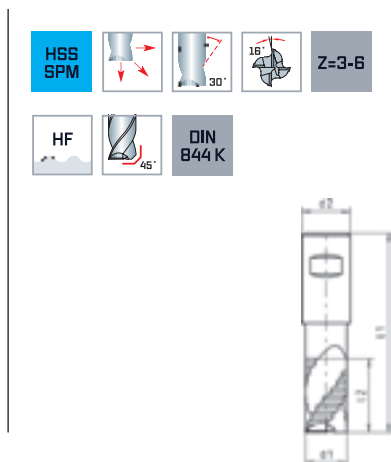
Gefertigt aus neuem Substrat SPM mit sehr hohem Kobalt-Anteil. Es verbindet die Härte von VHM und die Zähigkeit des PM-Stahles. Dieser Fräser ist für höchste Ansprüche an Zerspanungsleistung und Steigerung des Zerspanungsvolumens in rostfreien Stählen ideal geeignet.

**E HPT-End mills**

short series, centre cutting,
DIN 844 K

Range of application:

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. This milling cutter is specially suitable for highest requirements in cutting performance and increase of cutting volume in stainless steels.

**I HPT-Frese cilindriche frontali**

serie corta, tagliante al centro,
DIN 844 K

Impiego:

Prodotta con la nuova tipologia di acciaio con substrato SPM ad elevato tenore di cobalto. Associa la durezza del M.D alla resilienza dell'acciaio da polveri. Questa fresa è particolarmente adatta per elevate esigenze di resa e di asportazione di grandi volumi nella lavorazione degli acciai inossidabili.

Pulverstahl-PLUS
Powder steel-PLUS
Acciaio da polveri-PLUS



DIN
1835-8

ALUNIT®

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z		Code 2117 Art.-Nr.
6	6	57	13	3	0,30	0 2117006001 00
8	10	69	19	4	0,30	0 2117008001 00
10	10	72	22	4	0,30	0 2117010001 00
12	12	83	26	4	0,30	0 2117012001 00
14	12	83	26	4	0,30	0 2117014001 00
16	16	92	32	5	0,30	0 2117016001 00
18	16	92	32	5	0,30	0 2117018001 00
20	20	104	38	5	0,30	0 2117020001 00
25	25	121	45	5	0,30	0 2117025001 00
32	32	133	53	6	0,30	0 2117032001 00

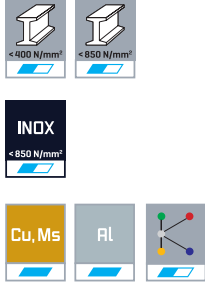


D Schaftfräser

kurz, dreischneider,
zentrumschneidend,
DIN 844 K

Einsatzbereich:

Empfohlen zum Fräsen von weichen bis zähen, langspanenden Werkstoffen wie Al- und Cu-Legierungen sowie Thermoplaste.

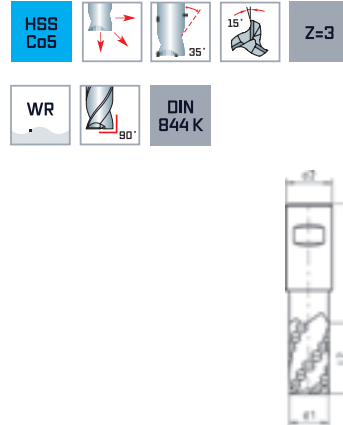


E End mills

short series, three flutes,
centre cutting, DIN 844 K

Range of application:

Recommended for milling in soft as well as in tough, long chipping materials such as Al- and Cu-alloys as well as in thermo plastics.



I Frese cilindriche frontali

serie corta, 3 taglienti,
tagliante al centro, DIN 844 K

Impiego:

Adatte per lavorazioni di acciai teneri, tenaci, a truciolo lungo, leghe alluminio, leghe rame, materiali termoplastici.



d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2094 Art.-Nr.
6	6	57	13	3	0 2094006001 00
8	10	69	19	3	0 2094008001 00
10	10	72	22	3	0 2094010001 00
12	12	83	26	3	0 2094012001 00
14	12	83	26	3	0 2094014001 00

d1 _{k12} mm	d2 _{h6} mm	l1 mm	l2 mm	Z	Code 2094 Art.-Nr.
16	16	92	32	3	0 2094016001 00
18	16	92	32	3	0 2094018001 00
20	20	104	38	3	0 2094020001 00
25	25	121	45	3	0 2094025001 00

