

GF

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: 2 x D bzw. 2,5 x D

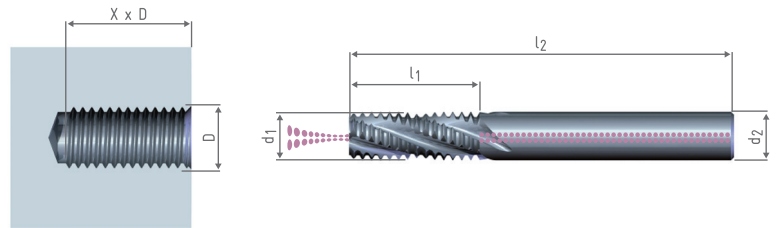
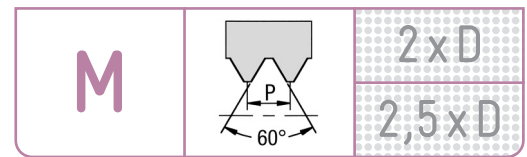
Zylinderschaft und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

ISO metric thread DIN 13

Specification: 2 x D resp. 2,5 x D

Straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GF						→ 2 x D		2 x D K		2 x D T		2 x D KT		2 x D F		2 x D KF	
D ↓	P mm	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)							
																	
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 2	0,4	GFS verwenden (siehe Seite 21) use GFS (see page 21)															
M 3	0,5																
M 3,5	0,6																
M 4	0,7																
M 5	0,8																
M 6	1	13,50	54	6	3	300134	115,00	300195	115,00	300609	134,00	301148	134,00	300131	134,00	300199	134,00
M 8	1,25	18,10	54	6	3	300192	125,00	300135	125,00	301131	148,00	301104	148,00	300132	148,00	300136	148,00
M 10	1,5	21,70	64	8	4	300092	139,00	300130	139,00	300772	163,00	301149	163,00	300133	163,00	300137	163,00
M 12	1,75	27,10	74	10	4			300122	177,00			301105	201,00			300200	201,00
M 14	2	30,90	74	10	4			300196	202,00			301108	227,00			300201	227,00
M 16	2	34,90	80	12	4			300197	230,00			301063	256,00			300202	256,00
M 18/20	2,5	41,10	90	14	4			300198	270,00			301150	296,00			300205	296,00

ORDER-CODE → GF						→ 2,5 x D		2,5 x D K		2,5 x D T		2,5 x D KT		2,5 x D F		2,5 x D KF	
D ↓	P mm	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)							
																	
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 3	0,5	GFS verwenden (siehe Seite 22) use GFS (see page 22)															
M 3,5	0,6																
M 4	0,7																
M 5	0,8																
M 6	1	16,50	54	6	3	300472	122,00	300716	122,00	305051	142,00	301772	142,00	302291	142,00	300870	142,00
M 8	1,25	21,80	54	6	3	300731	133,00	300725	133,00	310000	157,00	301578	157,00	300857	157,00	302129	157,00
M 10	1,5	26,20	64	8	4	300858	148,00	300771	148,00	310001	173,00	301606	173,00	300859	173,00	302433	173,00
M 12	1,75	30,60	74	10	4			300455	188,00			300630	214,00			300717	214,00
M 14	2	36,90	74	10	4			300887	215,00			301513	241,00			300889	241,00
M 16	2	42,90	90	12	4			300519	245,00			301226	272,00			300892	272,00
M 18/20	2,5	48,60	108	14	4			300893	287,00			301312	315,00			300895	315,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GF

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: 3 x D

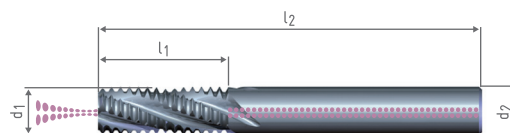
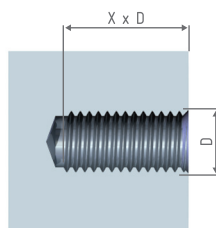
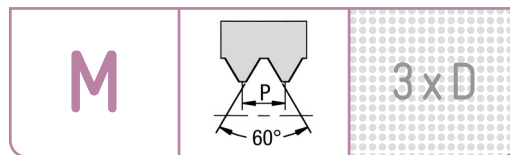
Zylinderschaft und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

ISO metric thread DIN 13

Specification: 3 x D

Straight shank and right hand spiral flute



→ **HA** (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GF						3 x D		3 x D K		3 x D T		3 x D KT		3 x D F		3 x D KF	
D ↓	P mm	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN				TiAlN (Futura)					
																	
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 3	0,5	GFS verwenden (siehe Seite 23) use GFS (see page 23)															
M 3,5	0,6																
M 4	0,7																
M 5	0,8																
M 6	1	19,50	60	6	3	300589	146,00	300868	146,00	310002	170,00	304854	170,00	300855	170,00	300872	170,00
M 8	1,25	26,80	62	6	3	300068	160,00	300645	160,00	310003	189,00	304855	189,00	302306	189,00	300876	189,00
M 10	1,5	32,20	72	8	4	302315	177,00	300468	177,00	310004	208,00	301456	208,00	302322	208,00	300881	208,00
M 12	1,75	37,60	74	10	4			300518	226,00			301271	257,00			300761	257,00
M 14	2	42,90	85	10	4			300888	258,00			310005	289,00			302456	289,00
M 16	2	48,90	102	12	4			302464	295,00			310006	326,00			302469	326,00
M 18/20	2,5	61,10	108	14	4			300894	344,00			304856	378,00			302484	378,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GF

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Feingewinde DIN 13

Ausführung: 2 x D bzw. 2,5 x D

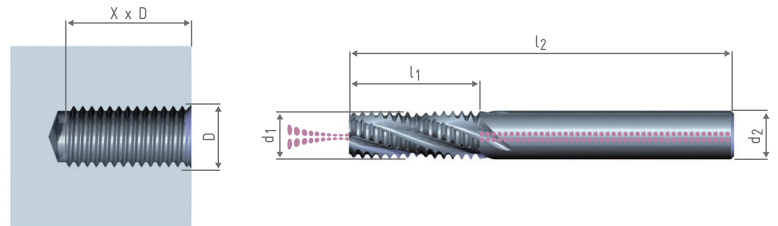
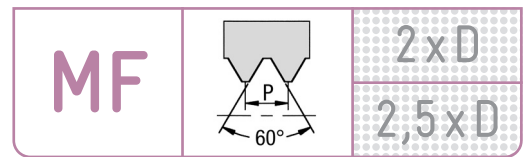
Zylinderschaft und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

ISO metric thread DIN 13

Specification: 2 x D resp. 2,5 x D

Straight shank and right hand spiral flutes



→HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GF		→ 2 x D		2 x D K		2 x D T		2 x D KT		2 x D F		2 x D KF	
D	P mm	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)			
↓	↓					Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 4	0,5	GFS verwenden (siehe Seite 25) use GFS (see page 25)											
M 5	0,5												
M 6	0,5	12,70	54	6	3	300512	164,00	300896	164,00	310008	183,00	310010	183,00
M 8	0,5	17,70	54	6	3			300127	150,00			304829	174,00
M 6	0,75	13,10	54	6	3	300513	141,00	300897	141,00	310009	160,00	310011	160,00
M 8	0,75	16,80	54	6	3			300126	146,00			301196	169,00
M 8	1	17,50	54	6	3			300099	140,00			301194	163,00
M 10	1	21,50	64	8	4			300125	162,00			301351	187,00
M 12	1	25,50	74	10	4			300123	202,00			301198	227,00
M 10	1,25	21,80	64	8	4			300124	155,00			310012	180,00
M 12	1,5	26,20	74	10	4			300128	202,00			301113	227,00

ORDER-CODE → GF		→ 2,5 x D		2,5 x D K		2,5 x D T		2,5 x D KT		2,5 x D F		2,5 x D KF	
D	P mm	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)			
↓	↓					Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 4	0,5	GFS verwenden (siehe Seite 26) use GFS (see page 26)											
M 5	0,5												
M 6	0,5	15,20	54	6	3	300914	174,00	302600	174,00	310013	195,00	310015	195,00
M 8	0,5	20,20	54	6	3			302602	159,00			310017	184,00
M 6	0,75	15,30	54	6	3	302595	149,00	302601	149,00	310014	170,00	310016	170,00
M 8	0,75	20,60	54	6	3			300918	155,00			305002	179,00
M 8	1	20,50	54	6	3			300827	148,00			310018	173,00
M 10	1	25,50	64	8	4			300919	172,00			310019	199,00
M 12	1	30,50	74	10	4			300921	214,00			310020	241,00
M 10	1,25	25,60	64	8	4			300920	165,00			301769	192,00
M 12	1,5	30,70	74	10	4			300815	214,00			310021	241,00

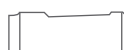
3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: 1,5 x D

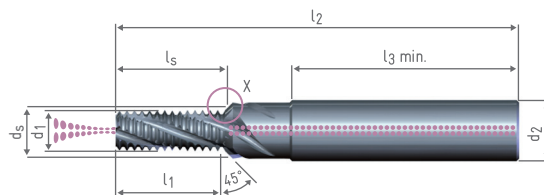
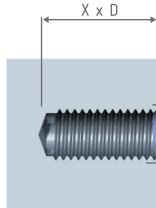
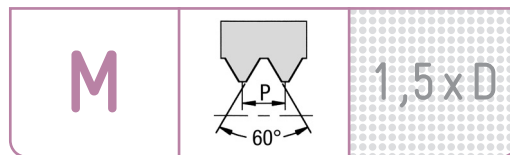
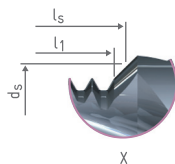
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 1,5 x D

45° chamfer for countersinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										1,5 x D	1,5 x D T	1,5 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 2	0,4	3,40	48	36		6	2,1	3,7	2	Art.-Nr. 300016 158,00	Art.-Nr. 304767 173,00	Art.-Nr. 300347 173,00	
M 2,5	0,45	4,25	48	36		6	2,6	4,6	3	Art.-Nr. 300605 158,00	Art.-Nr. 304789 173,00	Art.-Nr. 304005 173,00	
M 3	0,5	5,25	48	36		6	3,2	5,7	3	Art.-Nr. 300017 131,00	Art.-Nr. 301382 146,00	Art.-Nr. 300038 146,00	
M 3,5	0,6	6,30	48	36		6	3,7	6,8	3	Art.-Nr. 300957 146,00	Art.-Nr. 304790 161,00	Art.-Nr. 304020 161,00	
M 4	0,7	7,35	48	36		6	4,2	7,9	3	Art.-Nr. 300018 113,00	Art.-Nr. 300063 131,00	Art.-Nr. 300039 131,00	
M 5	0,8	9,15	54	36		6	5,3	9,9	3	Art.-Nr. 300019 116,00	Art.-Nr. 301329 134,00	Art.-Nr. 300050 134,00	
M 6	1	10,45	62	36		8	6,3	11,3	3	Art.-Nr. 300020 131,00	Art.-Nr. 301339 157,00	Art.-Nr. 300040 157,00	
M 8	1,25	13,10	74	40		10	8,4	14,1	3	Art.-Nr. 300021 161,00	Art.-Nr. 301242 188,00	Art.-Nr. 300056 188,00	
M 10	1,5	17,20	80	45		12	10,5	18,4	4	Art.-Nr. 301778 190,00	Art.-Nr. 301825 218,00	Art.-Nr. 301804 218,00	

ORDER-CODE → GFS										1,5 x D K	1,5 x D KT	1,5 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 4	0,7	7,35	48	36		6	4,2	7,9	3	Art.-Nr. 300905 113,00	Art.-Nr. 304574 131,00	Art.-Nr. 301033 131,00	
M 5	0,8	9,15	54	36		6	5,3	9,9	3	Art.-Nr. 300908 116,00	Art.-Nr. 304768 134,00	Art.-Nr. 300983 134,00	
M 6	1	10,45	62	36		8	6,3	11,3	3	Art.-Nr. 300705 131,00	Art.-Nr. 301191 157,00	Art.-Nr. 300539 157,00	
M 8	1,25	13,10	74	40		10	8,4	14,1	3	Art.-Nr. 300073 161,00	Art.-Nr. 300612 188,00	Art.-Nr. 300110 188,00	
M 10	1,5	17,20	80	45		12	10,5	18,4	4	Art.-Nr. 300075 190,00	Art.-Nr. 301352 218,00	Art.-Nr. 300348 218,00	
M 12	1,75	20,05	90	45		14	12,6	21,5	4	Art.-Nr. 300077 243,00	Art.-Nr. 301383 272,00	Art.-Nr. 300349 272,00	
M 14	2	24,95	102	48		16	14,7	26,5	4	Art.-Nr. 300345 300,00	Art.-Nr. 304769 331,00	Art.-Nr. 300350 331,00	
M 16	2	26,95	102	48		18	16,8	28,6	4	Art.-Nr. 300346 367,00	Art.-Nr. 300843 398,00	Art.-Nr. 300111 398,00	
M 18/20	2,5	33,65	125	50		20	21,0	36,7	4	Art.-Nr. 300102 640,00	Art.-Nr. 301400 688,00	Art.-Nr. 301852 688,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFS

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: 2 x D

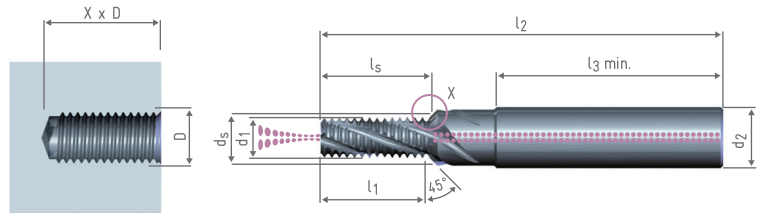
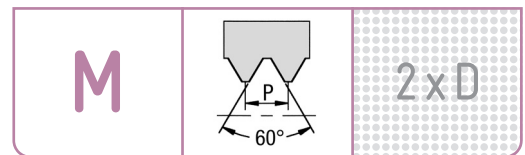
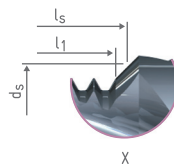
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 2 x D

45° chamfer for countersinking, straight shank
and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

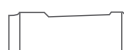
ORDER-CODE → GFS										→ 2 x D	2 x D T	2 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 2	0,4	4,60	48	36		6	2,1	4,9	2	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
M 2,5	0,45	6,05	48	36		6	2,6	6,4	3	300157 158,00	301384 173,00	300354 173,00	
M 3	0,5	6,75	48	36		6	3,2	7,2	3	300606 158,00	301341 173,00	300732 173,00	
M 3,5	0,6	8,10	48	36		6	3,7	8,6	3	300160 131,00	301170 146,00	300355 146,00	
M 4	0,7	8,75	48	36		6	4,2	9,3	3	301038 146,00	304791 161,00	304141 161,00	
M 5	0,8	10,75	54	36		6	5,3	11,5	3	300163 113,00	301171 131,00	300356 131,00	
M 6	1	13,45	62	36		8	6,3	14,3	3	300164 116,00	300571 134,00	300357 134,00	
M 8	1,25	18,10	74	40		10	8,4	19,1	3	300165 131,00	301070 157,00	300358 157,00	
M 10	1,5	21,70	80	45		12	10,5	22,9	4	300258 161,00	300572 188,00	300359 188,00	
M 10	1,5	21,70	80	45		12	10,5	22,9	4	300259 190,00	300610 218,00	300360 218,00	

ORDER-CODE → GFS										→ 2 x D K	2 x D KT	2 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 4	0,7	8,75	48	36		6	4,2	9,3	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
M 5	0,8	10,75	54	36		6	5,3	11,5	3	300906 113,00	301172 131,00	300984 131,00	
M 6	1	13,45	62	36		8	6,3	14,3	3	300907 116,00	301127 134,00	300985 134,00	
M 8	1,25	18,10	74	40		10	8,4	19,1	3	300465 131,00	301095 157,00	300580 157,00	
M 10	1,5	21,70	80	45		12	10,5	22,9	4	300166 161,00	301173 188,00	300364 188,00	
M 12	1,75	25,30	90	45		14	12,6	26,7	4	300167 190,00	301174 218,00	300236 218,00	
M 14	2	30,95	102	48		16	14,7	32,5	4	300168 243,00	301176 272,00	300365 272,00	
M 16	2	34,95	102	48		18	16,8	36,6	4	300169 300,00	301085 331,00	300366 331,00	
M 18/20	2,5	41,15	125	50		20	21,0	44,2	4	300170 367,00	304534 398,00	300238 398,00	
M 18/20	2,5	41,15	125	50		20	21,0	44,2	4	301854 640,00	301133 688,00	300367 688,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: 2,5 x D

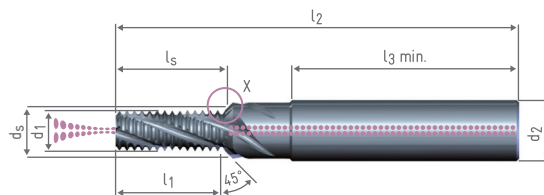
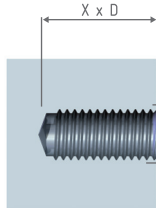
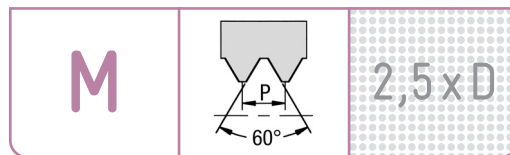
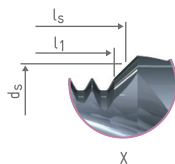
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 2,5 x D

45° chamfer for countersinking, straight shank
and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										2,5 x D	2,5 x D T	2,5 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 3	0,5	7,75	48	36		6	3,2	8,2	3	Art.-Nr. 300954 € 139,00	Art.-Nr. 305047 € 154,00	Art.-Nr. 301047 € 154,00	
M 3,5	0,6	9,30	48	36		6	3,7	9,8	3	Art.-Nr. 301048 € 155,00	Art.-Nr. 310045 € 170,00	Art.-Nr. 304234 € 170,00	
M 4	0,7	10,85	48	36		6	4,2	11,4	3	Art.-Nr. 300793 € 120,00	Art.-Nr. 310046 € 138,00	Art.-Nr. 304243 € 138,00	
M 5	0,8	13,15	54	36		6	5,3	13,9	3	Art.-Nr. 300787 € 123,00	Art.-Nr. 310047 € 141,00	Art.-Nr. 301052 € 141,00	
M 6	1	16,45	62	36		8	6,3	17,3	3	Art.-Nr. 300188 € 139,00	Art.-Nr. 301135 € 165,00	Art.-Nr. 302008 € 165,00	
M 8	1,25	21,85	74	40		10	8,4	22,8	3	Art.-Nr. 300734 € 171,00	Art.-Nr. 301250 € 198,00	Art.-Nr. 301055 € 198,00	
M 10	1,5	26,20	80	45		12	10,5	27,4	4	Art.-Nr. 300738 € 201,00	Art.-Nr. 304624 € 230,00	Art.-Nr. 301057 € 230,00	

ORDER-CODE → GFS										2,5 x D K	2,5 x D KT	2,5 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 4	0,7	10,85	48	36		6	4,2	11,4	3	Art.-Nr. 301049 € 120,00	Art.-Nr. 305038 € 138,00	Art.-Nr. 304246 € 138,00	
M 5	0,8	13,15	54	36		6	5,3	13,9	3	Art.-Nr. 301050 € 123,00	Art.-Nr. 305045 € 141,00	Art.-Nr. 304259 € 141,00	
M 6	1	16,45	62	36		8	6,3	17,3	3	Art.-Nr. 300781 € 139,00	Art.-Nr. 301302 € 165,00	Art.-Nr. 301053 € 165,00	
M 8	1,25	21,85	74	40		10	8,4	22,8	3	Art.-Nr. 300650 € 171,00	Art.-Nr. 304831 € 198,00	Art.-Nr. 301056 € 198,00	
M 10	1,5	26,20	80	45		12	10,5	27,4	4	Art.-Nr. 300505 € 201,00	Art.-Nr. 304618 € 230,00	Art.-Nr. 301058 € 230,00	
M 12	1,75	32,30	90	45		14	12,6	33,7	4	Art.-Nr. 300718 € 258,00	Art.-Nr. 304761 € 289,00	Art.-Nr. 300834 € 289,00	
M 14	2	36,95	102	48		16	14,7	38,5	4	Art.-Nr. 300719 € 318,00	Art.-Nr. 304995 € 349,00	Art.-Nr. 304317 € 349,00	
M 16	2	42,95	102	48		18	16,8	44,6	4	Art.-Nr. 300720 € 389,00	Art.-Nr. 300898 € 420,00	Art.-Nr. 304334 € 420,00	
M 18/20	2,5	48,65	125	50		20	21,0	51,7	4	Art.-Nr. 300721 € 675,00	Art.-Nr. 310048 € 722,00	Art.-Nr. 304351 € 722,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFS

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: 3 x D

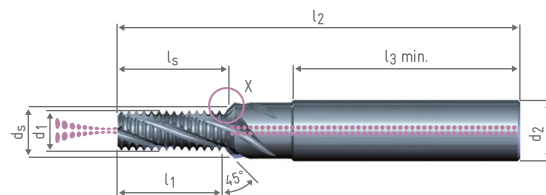
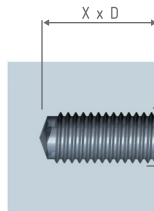
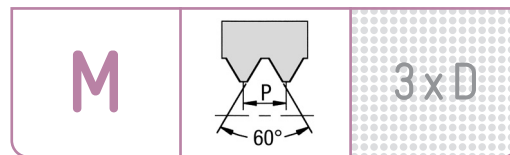
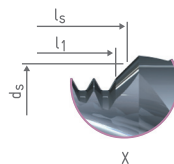
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 3 x D

45° chamfer for countersinking, straight shank
and right hand spiral flutes

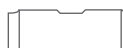


→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										→ 3 x D	3 x D T	3 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 3	0,5	9,75	48	36		6	3,2	10,2	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
M 3,5	0,6	11,10	48	36		6	3,7	11,6	3	300189 164,00	310049 186,00	304384 186,00	
M 4	0,7	12,25	54	36		6	4,2	12,8	3	304365 183,00	311000 205,00	304385 205,00	
M 5	0,8	15,55	54	36		6	5,3	16,3	3	300837 141,00	304647 166,00	301371 166,00	
M 6	1	19,45	62	36		8	6,3	20,3	3	300847 145,00	310051 170,00	310055 170,00	
M 8	1,25	25,60	74	40		10	8,4	26,6	3	300602 164,00	310052 197,00	310056 197,00	
M 10	1,5	32,20	80	45		12	10,5	33,4	4	300680 201,00	310053 235,00	301656 235,00	
M 10	1,5	32,20	80	45		12	10,5	33,4	4	310054 238,00	310050 274,00	310057 274,00	

ORDER-CODE → GFS										→ 3 x D K	3 x D KT	3 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
M 4	0,7	12,25	54	36		6	4,2	12,8	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
M 5	0,8	15,55	54	36		6	5,3	16,3	3	301071 141,00	310058 166,00	304386 166,00	
M 6	1	19,45	62	36		8	6,3	20,3	3	301072 145,00	304853 170,00	304387 170,00	
M 8	1,25	25,60	74	40		10	8,4	26,6	3	300759 164,00	310059 197,00	304388 197,00	
M 10	1,5	32,20	80	45		12	10,5	33,4	4	300700 201,00	310060 235,00	304389 235,00	
M 10	1,5	32,20	80	45		12	10,5	33,4	4	301073 238,00	310061 274,00	301081 274,00	
M 12	1,75	37,55	90	45		14	12,6	39,0	4	301074 304,00	310062 342,00	304390 342,00	
M 14	2	42,95	102	48		16	14,7	44,5	4	304366 375,00	310063 413,00	304391 413,00	
M 16	2	48,95	102	48		18	16,8	50,6	4	304367 459,00	310064 497,00	304392 497,00	
M 18/20	2,5	61,15	125	50		20	21,0	64,2	4	301075 800,00	310065 856,00	304393 856,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Feingewinde DIN 13

Ausführung: 1,5 x D

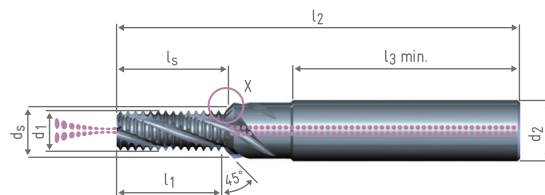
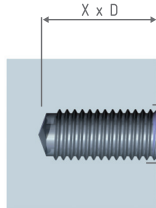
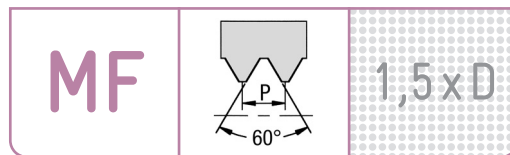
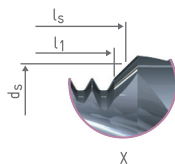
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

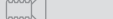
ISO metric fine thread DIN 13

Specification: 1,5 x D

45° chamfer for countersinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

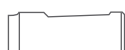
ORDER-CODE → GFS										→		1,5 x D		1,5 x D T		1,5 x D F			
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)					
↓	↓																		
										Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€				
M 4	0,5	7,25	48	36		6	4,2	7,7	3	300023	164,00	310067	182,00	301856	182,00				
M 5	0,5	8,75	54	36		6	5,3	9,3	3	300024	167,00	301461	185,00	301857	185,00				
M 6	0,5	9,75	62	36		8	6,3	10,4	3	301779	178,00	310068	204,00	301858	204,00				
M 6	0,75	10,10	62	36		8	6,3	10,8	3	301780	154,00	310069	180,00	301859	180,00				

ORDER-CODE → GFS										1,5 x D K		1,5 x D KT		1,5 x D KF		
D	P	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z	blank uncoated		TiCN		TiAlN (Futura)		
↓	mm								Nuten- zahl No. of flutes							
										Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	
M 4	0,5	7,25	48	36		6	4,2	7,7	3	305132	164,00	310070	182,00	310076	182,00	
M 5	0,5	8,75	54	36		6	5,3	9,3	3	305133	167,00	310071	185,00	310077	185,00	
M 6	0,5	9,75	62	36		8	6,3	10,4	3	300707	178,00	310078	204,00	310405	204,00	
M 8	0,5	12,75	74	40		10	8,4	13,5	3	301813	202,00	301747	232,00	301861	232,00	
M 6	0,75	10,10	62	36		8	6,3	10,8	3	300052	154,00	304684	180,00	305048	180,00	
M 8	0,75	13,10	74	40		10	8,4	13,9	3	300074	178,00	310072	205,00	301862	205,00	
M 8	1	13,45	74	40		10	8,4	14,4	3	300085	172,00	310073	199,00	301863	199,00	
M 10	1	16,45	80	45		12	10,5	17,5	4	300076	210,00	304645	238,00	300084	238,00	
M 12	1	19,45	90	45		14	12,6	20,6	4	300078	275,00	310075	305,00	300369	305,00	
M 10	1,25	16,85	80	45		12	10,5	20,6	4	301814	202,00	310074	230,00	300368	230,00	
M 12	1,5	20,20	90	45		14	12,6	21,5	4	300079	263,00	304646	293,00	301864	293,00	
M 14	1,5	23,20	102	48		16	14,7	24,6	4	300158	320,00	301415	351,00	300108	351,00	
M 16	1,5	26,20	102	48		18	16,8	27,7	4	300190	387,00	301471	418,00	300109	418,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFS

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Feingewinde DIN 13

Ausführung: 2 x D

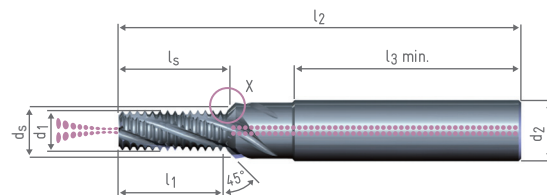
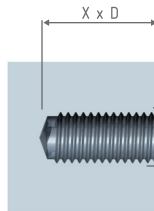
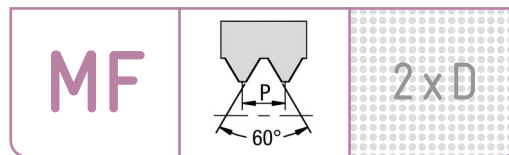
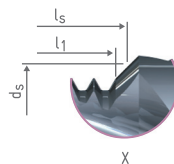
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

ISO metric fine thread DIN 13

Specification: 2 x D

45° chamfer for countersinking, straight shank
and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

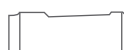
ORDER-CODE → GFS										2 x D	2 x D T	2 x D F	
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
↓	↓									Art.-Nr.	Art.-Nr.	Art.-Nr.	
M 4	0,5	8,75	48	36		6	4,2	9,2	3	300171 164,00	310079 182,00	300378 182,00	
M 5	0,5	10,75	54	36		6	5,3	11,3	3	300172 167,00	301721 185,00	300379 185,00	
M 6	0,5	12,75	62	36		8	6,3	13,4	3	300173 178,00	304986 204,00	300380 204,00	
M 6	0,75	13,10	62	36		8	6,3	13,8	3	300186 154,00	310080 180,00	300174 180,00	

ORDER-CODE → GFS										2 x D K	2 x D KT	2 x D KF	
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
↓	↓									Art.-Nr.	Art.-Nr.	Art.-Nr.	
M 4	0,5	8,75	48	36		6	4,2	9,2	3	310081 164,00	305134 182,00	310085 182,00	
M 5	0,5	10,75	54	36		6	5,3	11,3	3	301586 167,00	310083 185,00	310086 185,00	
M 6	0,5	12,75	62	36		8	6,3	13,4	3	300696 178,00	310084 204,00	300796 204,00	
M 8	0,5	17,75	74	40		10	8,4	18,5	3	300175 202,00	301591 232,00	300389 232,00	
M 6	0,75	13,10	62	36		8	6,3	13,8	3	300467 154,00	301465 180,00	300561 180,00	
M 8	0,75	16,85	74	40		10	8,4	17,7	3	300113 178,00	301658 205,00	300112 205,00	
M 8	1	17,45	74	40		10	8,4	18,4	3	300176 172,00	301466 199,00	300390 199,00	
M 10	1	21,45	80	45		12	10,5	22,5	4	300177 210,00	301522 238,00	300391 238,00	
M 12	1	25,45	90	45		14	12,6	26,6	4	300179 275,00	301487 305,00	301866 305,00	
M 10	1,25	21,85	80	45		12	10,5	22,9	4	300178 202,00	301288 230,00	300392 230,00	
M 12	1,5	26,20	90	45		14	12,6	27,5	4	300180 263,00	301345 293,00	301867 293,00	
M 14	1,5	30,70	102	48		16	14,7	32,1	4	300181 320,00	301213 351,00	300393 351,00	
M 16	1,5	33,70	102	48		18	16,8	35,2	4	300182 387,00	301220 418,00	300394 418,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Feingewinde DIN 13

Ausführung: 2,5 x D

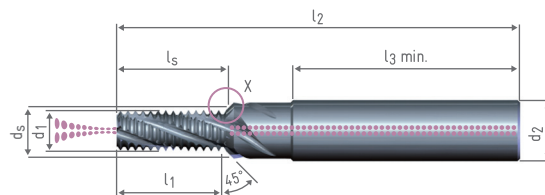
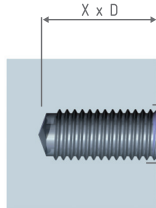
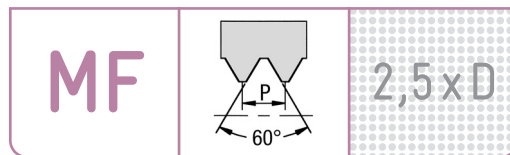
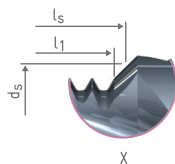
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

ISO metric fine thread DIN 13

Specification: 2,5 x D

45° chamfer for countersinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										→		2,5 x D	2,5 x D T	2,5 x D F	
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
↓	↓														
										Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 4	0,5	10,25	48	36		6	4,2	10,7	3	310087	174,00	310090	192,00	310094	192,00
M 5	0,5	12,75	54	36		6	5,3	13,3	3	310088	177,00	310091	195,00	310095	195,00
M 6	0,5	15,25	62	36		8	6,3	15,9	3	310089	189,00	310092	215,00	310096	215,00
M 6	0,75	15,35	62	36		8	6,3	16,1	3	301541	163,00	310093	189,00	310097	189,00

ORDER-CODE → GFS										2,5 x D K		2,5 x D KT		2,5 x D KF		
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)		
↓	↓									Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	
M 4	0,5	10,25	48	36		6	4,2	10,7	3	310100	174,00	310106	192,00	310116	192,00	
M 5	0,5	12,75	54	36		6	5,3	13,3	3	310101	177,00	310107	195,00	310117	195,00	
M 6	0,5	15,25	62	36		8	6,3	15,9	3	310102	189,00	310108	215,00	310118	215,00	
M 8	0,5	20,25	74	40		10	8,4	21,0	3	310103	214,00	310109	244,00	310120	244,00	
M 6	0,75	15,35	62	36		8	6,3	16,1	3	301753	163,00	301754	189,00	310119	189,00	
M 8	0,75	20,60	74	40		10	8,4	21,4	3	310104	189,00	310110	216,00	310121	216,00	
M 8	1	20,45	74	40		10	8,4	21,4	3	304969	182,00	310111	209,00	304968	209,00	
M 10	1	25,45	80	45		12	10,5	26,5	4	301752	223,00	301750	251,00	305008	251,00	
M 12	1	30,45	90	45		14	12,6	31,6	4	304975	292,00	310113	322,00	310123	322,00	
M 10	1,25	26,85	80	45		12	10,5	27,9	4	310105	214,00	310112	242,00	310122	242,00	
M 12	1,5	30,70	90	45		14	12,6	32,0	4	301069	279,00	301669	309,00	301285	309,00	
M 14	1,5	38,20	102	48		16	14,7	39,6	4	300832	339,00	310114	370,00	310124	370,00	
M 16	1,5	41,20	102	48		18	16,8	42,7	4	301310	410,00	310115	441,00	304908	441,00	

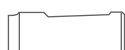
3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant

GFM

Vollhartmetall-Gewindefräser
für Innengewinde

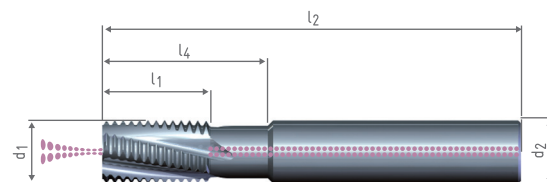
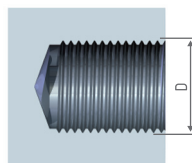
Metrisches ISO-Gewinde DIN 13

Ausführung: Zylinderschaft mit Kühlkanal
und Rechtsspiralnuten

Solid carbide thread milling cutters
for internal threads

ISO metric thread DIN 13

Specification: Straight shank with internal coolant
and right hand spiral flutes



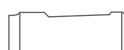
→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM M										T		F	
d ₁ Fräser Nenn-Ø Cutter nom. Ø ↓	P mm ↓	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	l ₄ Nutz- länge use length	z Nuten- zahl No. of flutes	blank uncoated 		TiCN 		TiAlN (Futura) 	
								Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
8	0,5	16	64	10	8	16	4	300257	173,00	301154	194,00	300284	194,00
8	0,75	16	64	10	8	16	4	300267	170,00	301155	191,00	300285	191,00
10	0,75	16	70	12	10	25	4	300268	219,00	301156	240,00	300286	240,00
10	1	16	70	12	10	25	4	300269	186,00	301157	205,00	300287	205,00
10	1,25	16	70	14	10	25	4	300274	199,00	301158	220,00	300288	220,00
10	1,5	16	70	14	10	25	4	300270	176,00	301267	194,00	300289	194,00
12	0,5	20	80	14	12	31	4	300271	272,00	301159	298,00	300290	298,00
12	0,75	20	80	14	12	31	4	300627	272,00	301160	298,00	300674	298,00
12	1	20	80	16	12	31	4	300272	226,00	300842	249,00	300291	249,00
12	1,25	20	80	16	12	31	4	300273	248,00	301161	274,00	300292	274,00
12	1,5	20	80	16	12	31	4	300275	224,00	300453	250,00	300293	250,00
12	2	20	80	16	12	31	4	300276	234,00	301162	260,00	300294	260,00
16	1	25	90	20	16	40	5	300277	316,00	301163	347,00	300295	347,00
16	1,5	25	90	22	16	40	5	300278	281,00	301146	312,00	300296	312,00
16	2	25	90	22	16	40	5	300279	291,00	301200	322,00	300297	322,00
16	2,5	25	90	22	16	40	5	300280	316,00	301164	347,00	300298	347,00
18	3	33	102	24	18	50	5	311001	360,00	311003	396,00	311005	396,00
20	1	33	105	24	20	50	5	300235	399,00	301165	434,00	300299	434,00
20	1,5	33	105	26	20	50	5	300281	408,00	301166	443,00	300300	443,00
20	2	33	105	27	20	50	5	300282	435,00	301136	470,00	300301	470,00
20	2,5	33	105	30	20	50	5	300283	423,00	301167	458,00	300302	458,00
20	3	33	105	30	20	50	5	300234	423,00	301168	458,00	300303	458,00
20	3,5	33	105	30	20	50	5	300644	423,00	301169	458,00	300749	458,00
20	4	33	105	36	20	50	5	311002	443,00	311004	479,00	311006	479,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge



GFM

Vollhartmetall-Gewindefräser
für Außengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: Zylinderschaft mit Kühlkanal
und Rechtsspiralnuten

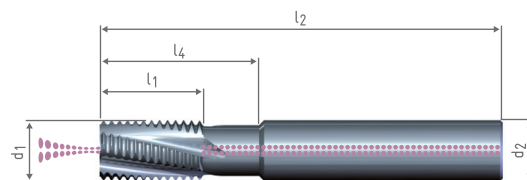
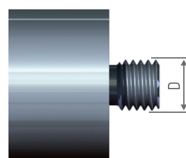
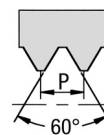
Solid carbide thread milling cutters
for external threads

ISO metric thread DIN 13

Specification: Straight shank with internal coolant
and right hand spiral flutes

M

MF



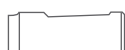
→HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM A M								→		T		F	
d ₁ Fräser Nenn-Ø Cutter nom. Ø ↓	P mm ↓	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	l ₄ Nutz- länge use length	z Nuten- zahl No. of flutes	blank uncoated 		TiCN 		TiAlN (Futura) 	
								Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
10	0,5	16	70	3	10	25	4	300648	305,00	310415	334,00	300955	334,00
10	0,75	16	70	5	10	25	4	300649	305,00	304502	334,00	303748	334,00
10	1,25	16	70	8	10	25	4	301011	263,00	301375	288,00	303756	288,00
12	1	20	80	6	12	31	4	300480	298,00	301284	328,00	300971	328,00
12	1,5	20	80	10	12	31	4	300482	270,00	301358	300,00	303769	300,00
12	2	20	80	14	12	31	4	300481	281,00	311007	311,00	303777	311,00
16	1,5	25	90	10	16	40	5	300633	337,00	301393	368,00	302035	368,00
16	2	25	90	14	16	40	5	301014	347,00	301350	378,00	303789	378,00
16	2,5	25	90	18	16	40	5	301015	372,00	311008	403,00	303797	403,00
20	3	33	105	24	20	50	5	301016	479,00	311009	514,00	303805	514,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

GFS-ST

Vollhartmetall-Gewindefräser für Innengewinde

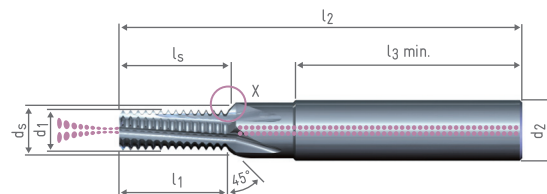
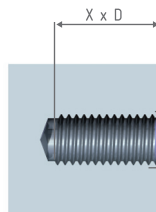
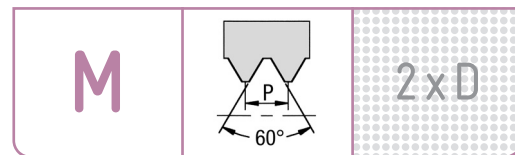
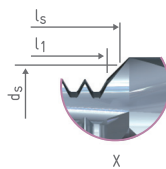
Metrisches ISO-Gewinde DIN 13

Ausführung: 2 x D, für Stähle und schwer zerspanbare Werkstoffe, 45° Senkfase, Zylinderschaft mit Kühlkanal und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 2 x D, for steel and tough materials, 45° chamfer for countersinking, straight shank with internal coolant and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS-ST

→

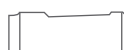
2 x D

D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	beschichtet coated	Art.-Nr.	€
M 4	0,7	8,75	48	36		6	4,2	9,3	4		305106	147,00
M 5	0,8	10,75	54	36		6	5,3	11,5	4		305107	150,00
M 6	1	13,45	62	36		8	6,3	14,3	5		305108	176,00
M 8	1,25	18,10	74	40		10	8,4	19,1	5		305109	211,00
M 10	1,5	21,70	80	45		12	10,5	22,9	5		305110	244,00
M 12	1,75	25,30	90	45		14	12,6	26,7	6		305111	305,00
M 14	2	30,95	102	48		16	14,7	32,5	6		305112	371,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge



GFM-ST

Vollhartmetall-Gewindefräser
für Innengewinde

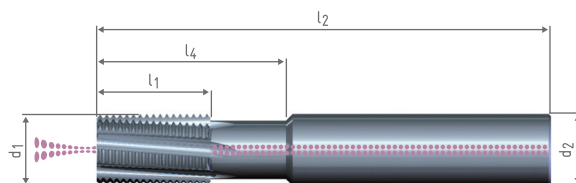
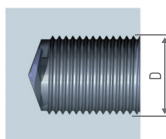
Metrisches ISO-Gewinde DIN 13

Ausführung: Für Stähle und schwer zerspanbare Werkstoffe
Zylinderschaft mit Kühlkanal und Rechtsspiralnuten

Solid carbide thread milling cutters
for internal threads

ISO metric thread DIN 13

Specification: For steel and tough materials,
straight shank with internal coolant and right
hand spiral flutes



→HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM-ST M

d ₁ Fräser Nenn-Ø Cutter nom. Ø	P mm	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	l ₄ Nutz- länge use length	z Nuten- zahl No. of flutes	beschichtet coated	Art.-Nr.	€
↓	↓									
10	1	16	70	12	10	25	5		305091	253,00
10	1,5	16	70	14	10	25	5		305092	238,00
12	1	20	80	16	12	31	5		305093	301,00
12	1,5	20	80	16	12	31	5		305094	275,00
12	2	20	80	16	12	31	5		305095	286,00
16	1	20	90	20	16	40	6		305087	382,00
16	1,5	25	90	22	16	40	6		305088	343,00
16	2	25	90	22	16	40	6		305089	354,00
20	1,5	33	105	26	20	50	6		305084	487,00
20	2	33	105	27	20	50	6		305085	517,00
20	3	33	105	30	20	50	6		305086	504,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

GFM-STL

Vollhartmetall-Gewindefräser
für Innengewinde

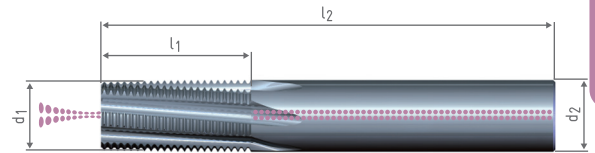
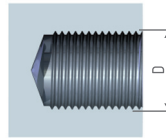
Metrisches ISO-Gewinde DIN 13

Ausführung: lang, für Stähle und schwer zerspanbare
Werkstoffe, Zylinderschaft mit Kühlkanal und
Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

ISO metric thread DIN 13

Specification: long, for steel and tough materials,
straight shank with internal coolant and
right hand spiral flutes



M/MF

→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

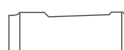
ORDER-CODE → GFM-STL M

d ₁ Fräser Nenn-Ø Cutter nom. Ø	P mm	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	z Nuten- zahl No. of flutes	beschichtet coated	Art.-Nr.	€
↓	↓								
10	1	20	80	12	10	5		305096	278,00
10	1,5	20	80	14	10	5		305097	261,00
12	1	25	90	16	12	5		305098	332,00
12	1,5	25	90	16	12	5		305099	303,00
12	2	25	90	16	12	5		305113	315,00
16	1	33	100	20	16	6		305100	420,00
16	1,5	33	100	22	16	6		305101	378,00
16	2	33	100	22	16	6		305102	390,00
20	1,5	40	115	26	20	6		305103	536,00
20	2	40	115	27	20	6		305104	569,00
20	3	45	115	30	20	6		305105	554,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge



GFH

Vollhartmetall-Gewindefräser für Innengewinde

Metrisches ISO-Gewinde DIN 13

Ausführung: 1,5 x D bzw. 2 x D

Für vergütete und gehärtete Stähle 54-63 HRC
Zylinderschaft

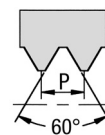
Solid carbide thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 1,5 x D resp. 2 x D

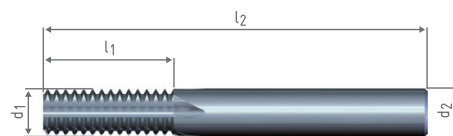
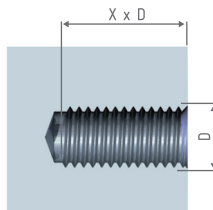
For tempered and hardened steels 54-63 HRC
straight shank

M



1,5 x D

2 x D



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFH →						1,5 x D	
D ↓	P mm	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	beschichtet coated	
M 4	0,7	7,30	48	6	4	Art.-Nr.	€
M 5	0,8	9,20	54	6	4	304989	176,00
M 6	1	10,50	64	8	4	301290	180,00
M 8	1,25	14,30	64	8	5	301205	186,00
M 10	1,5	17,20	80	12	5	301292	204,00
M 12	1,75	21,80	80	12	5	301294	228,00
						301203	246,00

ORDER-CODE → GFH →						2 x D	
D ↓	P mm	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	beschichtet coated	
M 4	0,7	8,70	48	6	4	Art.-Nr.	€
M 5	0,8	11,60	54	6	4	310007	176,00
M 6	1	13,50	64	8	4	301291	180,00
M 8	1,25	18,10	64	8	5	301206	186,00
M 10	1,5	21,70	80	12	5	301293	204,00
M 12	1,75	27,10	80	12	5	301295	228,00
						301204	246,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

GFE

Vollhartmetall-Einprofilgewindefräser
für Innengewinde

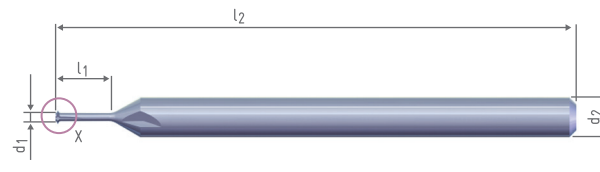
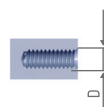
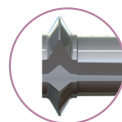
Metrisches ISO-Gewinde DIN 13

Ausführung: 2 x D bzw. 3 x D

Solid carbide thread milling cutters with single ring
of teeth for internal threads

ISO metric thread DIN 13

Specification: 2 x D resp. 3 x D



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFE								2 x D		2 x D T	
D ↓	Bereich range	P mm	l ₁	l ₂	d ₁	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN	
								Art.-Nr.	€	Art.-Nr.	€
M 1	M 1 - M 1,1	0,25	2,3	39		3	3	305187	○	305253	○
M 1,2		0,25	2,5	39		3	3	305233	○	305252	○
M 1,4		0,3	2,9	39		3	3	305234	○	305251	○
M 1,6	M 1,6 - M 1,7	0,35	3,5	39		3	3	305235	○	305250	○
M 1,8		0,35	3,7	39		3	3	305236	○	305249	○
M 2		0,4	4,1	39		3	4	305237	○	305248	○
M 2,2		0,45	4,5	39		3	4	305238	○	305247	○
M 2,3		0,4	4,7	39		3	4	305239	○	305246	○
M 2,5	M 2,5 - M 2,6	0,45	5,3	39		3	4	305240	○	305245	○
M 3		0,5	6,2	39		3	4	305241	○	305244	○
M 3,5		0,6	7,2	39		3	4	305242	○	305243	○

ORDER-CODE → GFE								3 x D		3 x D T	
D ↓	Bereich range	P mm	l ₁	l ₂	d ₁	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN	
								Art.-Nr.	€	Art.-Nr.	€
M 1	M 1 - M 1,1	0,25	3,4	39		3	3	305222	○	305215	○
M 1,2		0,25	3,7	39		3	3	305223	○	305216	○
M 1,4		0,3	4,3	39		3	3	305224	○	305127	○
M 1,6	M 1,6 - M 1,7	0,35	5,2	39		3	3	305225	○	305128	○
M 1,8		0,35	5,5	39		3	3	305226	○	305217	○
M 2		0,4	6,1	39		3	4	305227	○	305129	○
M 2,2		0,45	6,7	39		3	4	305228	○	305218	○
M 2,3		0,4	7,0	39		3	4	305229	○	305219	○
M 2,5	M 2,5 - M 2,6	0,45	7,9	39		3	4	305230	○	305220	○
M 3		0,5	9,2	39		3	4	305231	○	305130	○
M 3,5		0,6	10,7	39		3	4	305232	○	305221	○

○ am Lager, Preis auf Anfrage

○ in stock, price on request

BGF

Vollhartmetall-Bohrgewindefräser für Innengewinde

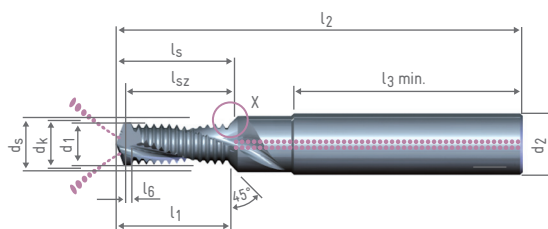
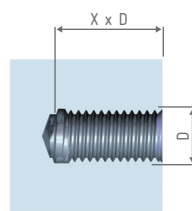
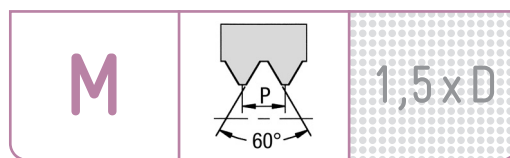
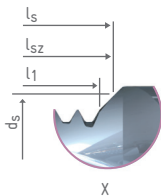
Metrisches ISO-Gewinde DIN 13

Ausführung: 1,5 x D, 45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide drill thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 1,5 x D, 45° chamfer for countersinking, straight shank and right hand spiral flutes

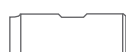


→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF													→ 1,5 x D		1,5 x D T		1,5 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
																		
M 3	0,5	5,40	48	36		6	3,2	5,9	5,4	2,50	0,5	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 4	0,7	6,85	48	36		6	4,2	7,4	6,8	3,30	0,7	2	400058	206,00	401013	221,00	400059	221,00
M 5	0,8	8,70	54	36		6	5,3	9,4	8,6	4,20	0,8	2	400025	179,00	401014	196,00	400061	196,00
M 6	1	10,85	62	36		8	6,3	11,6	10,7	5,00	1,0	2	400000	174,00	400435	192,00	400004	192,00
M 7	1	12,00	74	40		10	7,4	15,7	14,6	6,00	1,0	2	400001	169,00	400494	186,00	400021	186,00
M 8	1,25	13,65	74	40		10	8,4	14,6	13,4	6,75	1,3	2	400125	235,00	410004	261,00	410005	261,00
M 10	1,5	17,95	80	45		12	10,5	19,2	17,7	8,50	1,5	2	400002	210,00	400495	235,00	400695	235,00
M 12	1,75	20,75	90	45		14	12,6	22,2	20,3	10,25	1,5	2	400003	253,00	400496	279,00	400694	279,00
													400024	358,00	400497	385,00	400703	385,00

ORDER-CODE → BGF													→ 1,5 x D K		1,5 x D KT		1,5 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
																		
M 4	0,7	6,85	48	36		6	4,2	7,4	6,8	3,30	0,7	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 5	0,8	8,70	54	36		6	5,3	9,4	8,6	4,20	0,8	2	400364	238,00	400448	255,00	400377	255,00
M 6	1	10,85	62	36		8	6,3	11,6	10,7	5,00	1,0	2	400366	233,00	400449	251,00	410006	251,00
M 7	1	12,00	74	40		10	7,4	15,7	14,6	6,00	1,0	2	400026	227,00	400450	247,00	400075	247,00
M 8	1,25	13,65	74	40		10	8,4	14,6	13,4	6,75	1,3	2	400124	297,00	410008	323,00	410007	323,00
M 10	1,5	17,95	80	45		12	10,5	19,2	17,7	8,50	1,5	2	400029	272,00	400451	298,00	400072	298,00
M 12	1,75	20,75	90	45		14	12,6	22,2	20,3	10,25	1,5	2	400030	319,00	400452	345,00	400070	345,00
M 14	2	23,55	102	48		16	14,7	25,2	23,0	12,00	1,5	2	400038	415,00	400453	442,00	400197	442,00
M 16	2	25,90	102	48		18	16,8	27,6	25,1	14,00	1,5	2	400031	533,00	401021	563,00	400316	563,00
													400084	605,00	400398	635,00	400317	635,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

BGF

Vollhartmetall-Bohrgewindefräser für Innengewinde

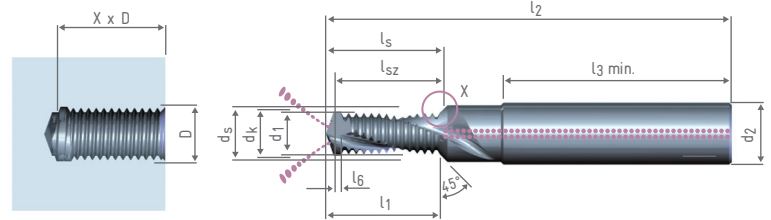
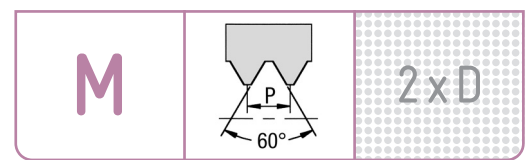
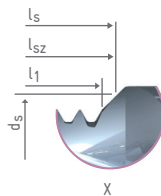
Metrisches ISO-Gewinde DIN 13

Ausführung: 2 x D, 45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide drill thread milling cutters for internal threads

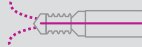
ISO metric thread DIN 13

Specification: 2 x D, 45° chamfer for countersinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

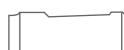
ORDER-CODE → BGF													→	2 x D		2 x D T		2 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)		
																			
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	
M 3	0,5	6,90	48	36		6	3,2	7,4	6,9	2,50	0,5	2	400005	206,00	400485	221,00	400060	221,00	
M 4	0,7	8,95	48	36		6	4,2	9,5	8,9	3,30	0,7	2	400006	179,00	401017	196,00	400062	196,00	
M 5	0,8	11,10	54	36		6	5,3	11,8	11,0	4,20	0,8	2	400007	174,00	401018	192,00	400023	192,00	
M 6	1	13,85	62	36		8	6,3	14,6	13,7	5,00	1,0	2	400010	169,00	400498	186,00	400696	186,00	
M 7	1	16,00	74	40		10	7,4	19,7	18,6	6,00	1,0	2	400123	235,00	410009	261,00	410010	261,00	
M 8	1,25	18,65	74	40		10	8,4	19,6	18,4	6,75	1,3	2	400011	210,00	400499	235,00	400022	235,00	
M 10	1,5	22,45	80	45		12	10,5	23,7	22,2	8,50	1,5	2	400014	253,00	400500	279,00	400697	279,00	
M 12	1,75	26,00	90	45		14	12,6	27,4	25,5	10,25	1,5	2	400015	358,00	400501	385,00	400127	385,00	
M 16	2	35,90	102	48		18	16,8	37,6	35,1	14,00	1,5	2	400019	532,00	401020	563,00	400068	563,00	

ORDER-CODE → BGF													→ 2 x D K		2 x D KT		2 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
																		
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 4	0,7	8,95	48	36		6	4,2	9,5	8,9	3,30	0,7	2	400365	238,00	400455	255,00	400581	255,00
M 5	0,8	11,10	54	36		6	5,3	11,8	11,0	4,20	0,8	2	400008	233,00	400456	251,00	400378	251,00
M 6	1	13,85	62	36		8	6,3	14,6	13,7	5,00	1,0	2	400009	227,00	400457	247,00	400074	247,00
M 7	1	16,00	74	40		10	7,4	19,7	18,6	6,00	1,0	2	400122	297,00	410011	323,00	410012	323,00
M 8	1,25	18,65	74	40		10	8,4	19,6	18,4	6,75	1,3	2	400012	272,00	400423	298,00	400073	298,00
M 10	1,5	22,45	80	45		12	10,5	23,7	22,2	8,50	1,5	2	400013	319,00	400458	345,00	400071	345,00
M 12	1,75	26,00	90	45		14	12,6	27,4	22,5	10,25	1,5	2	400016	415,00	400459	442,00	400035	442,00
M 14	2	31,55	102	48		16	14,7	33,2	31,0	12,00	1,5	2	400017	533,00	401022	563,00	400319	563,00
M 16	2	35,90	102	48		18	16,8	37,6	35,1	14,00	1,5	2	400020	605,00	400397	635,00	400706	635,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



BGF

Vollhartmetall-Bohrgewindefräser für Innengewinde

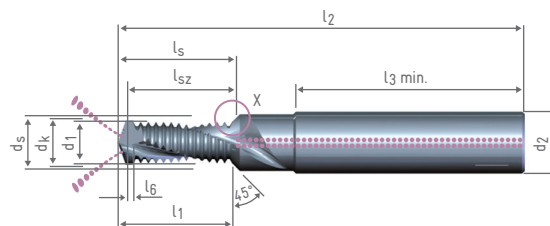
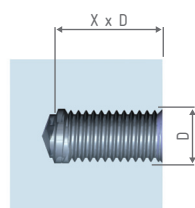
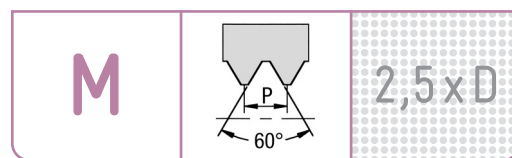
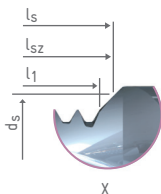
Metrisches ISO-Gewinde DIN 13

Ausführung: 2,5 x D, 45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide drill thread milling cutters for internal threads

ISO metric thread DIN 13

Specification: 2,5 x D, 45° chamfer for countersinking, straight shank and right hand spiral flutes

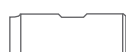


→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF													→		2,5 x D		2,5 x D T		2,5 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)			
																				
M 3	0,5	8,40	48	36		6	3,2	8,9	8,4	2,50	0,5	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€		
M 4	0,7	11,05	54	36		6	4,2	11,6	11,0	3,30	0,7	2	400266	216,00	410013	232,00	410033	232,00		
M 5	0,8	13,50	54	36		6	5,3	14,2	13,4	4,20	0,8	2	400227	189,00	410014	206,00	410035	206,00		
M 6	1	16,85	62	36		8	6,3	17,6	16,7	5,00	1,0	2	400046	183,00	410016	202,00	400530	202,00		
M 7	1	18,00	74	40		10	7,4	21,7	20,6	6,00	1,0	2	400050	177,00	410037	195,00	400776	195,00		
M 8	1,25	22,40	74	40		10	8,4	23,4	22,2	6,75	1,3	2	400121	247,00	410015	274,00	410037	274,00		
M 10	1,5	26,95	80	45		12	10,5	28,2	26,7	8,50	1,5	2	400102	220,00	410017	247,00	400444	247,00		
M 12	1,75	31,25	90	45		14	12,6	32,7	30,8	10,25	1,5	2	400109	266,00	400597	294,00	401058	294,00		
													400595	376,00	410030	405,00	410039	405,00		

ORDER-CODE → BGF													→ 2,5 x D K		2,5 x D KT		2,5 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
																		
M 4	0,7	11,05	54	36		6	4,2	11,6	11,0	3,30	0,7	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 5	0,8	13,50	54	36		6	5,3	14,2	13,4	4,20	0,8	2	400395	250,00	410042	268,00	400676	268,00
M 6	1	16,85	62	36		8	6,3	17,6	16,7	5,00	1,0	2	400393	245,00	410044	264,00	400974	264,00
M 7	1	18,00	74	40		10	7,4	21,7	20,6	6,00	1,0	2	400077	239,00	400598	258,00	400307	258,00
M 8	1,25	22,40	74	40		10	8,4	23,4	22,2	6,75	1,3	2	400120	312,00	400805	340,00	410048	340,00
M 10	1,5	26,95	80	45		12	10,5	28,2	26,7	8,50	1,5	2	400100	285,00	400491	313,00	400200	313,00
M 12	1,75	31,25	90	45		14	12,6	32,7	30,8	10,25	1,5	2	400110	335,00	400596	363,00	400420	363,00
M 14	2	39,55	102	48		16	14,7	41,2	39,0	12,00	1,5	2	400376	436,00	401036	465,00	400791	465,00
M 16	2	45,90	102	48		18	16,8	47,6	45,1	14,00	1,5	2	410040	560,00	410046	591,00	410050	591,00
													401057	636,00	410047	667,00	401056	667,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

BGF 3

Vollhartmetall-Bohrungwindefräser
für Innengewinde

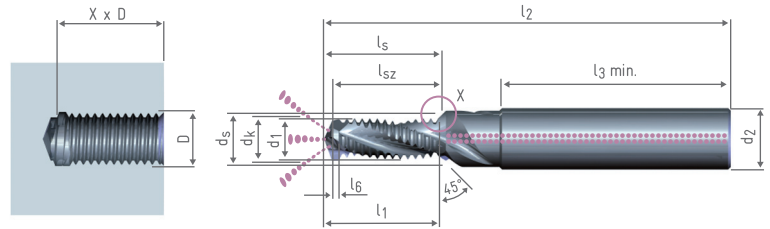
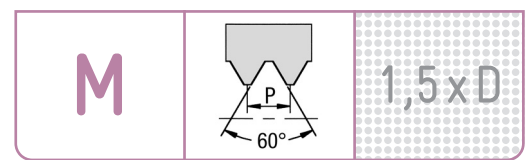
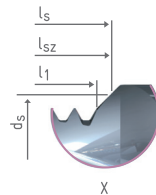
Metrisches ISO-Gewinde DIN 13

Ausführung: Z = 3, 1,5 x D, 45° Senkfase,
Zylinderschaft und Rechtsspiralnuten

**Solid carbide drill thread milling cutters
for internal threads**

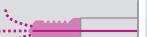
ISO metric thread DIN 13

Specification: Z = 3, 1,5 x D, 45° chamfer for counter-
sinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

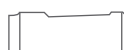
ORDER-CODE → BGF 3													→ 1,5 x D		1,5 x D T		1,5 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
																		
M 3	0,5	5,40	48	36		6	3,2	5,9	5,4	2,50	0,5	3	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 4	0,7	6,85	48	36		6	4,2	7,4	6,8	3,30	0,7	3	410189	247,00	410191	265,00	410197	265,00
M 5	0,8	8,70	54	36		6	5,3	9,4	8,6	4,20	0,8	3	400674	216,00	410190	235,00	410196	235,00
M 6	1	10,85	62	36		8	6,3	11,6	10,7	5,00	1,0	3	400438	210,00	400436	230,00	400513	230,00
M 8	1,25	13,65	74	40		10	8,4	14,6	13,4	6,75	1,3	3	410191	202,00	401089	222,00	410195	222,00
M 10	1,5	17,95	80	45		12	10,5	19,2	17,7	8,50	1,5	3	400231	252,00	410192	282,00	400265	282,00
													400239	304,00	410193	335,00	410194	335,00

ORDER-CODE → BGF 3													→ 1,5 x D K		1,5 x D KT		1,5 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
																		
M 6	1	10,85	62	36		8	6,3	11,6	10,7	5,00	1,0	3	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 8	1,25	13,65	74	40		10	8,4	14,6	13,4	6,75	1,3	3	400179	272,00	401088	299,00	410200	299,00
M 10	1,5	17,95	80	45		12	10,5	19,2	17,7	8,50	1,5	3	400148	325,00	400651	358,00	400964	358,00
M 12	1,75	20,75	90	45		14	12,6	22,2	20,3	10,25	1,5	3	400168	382,00	400652	414,00	400373	414,00
M 14	2	23,55	102	48		16	14,7	25,2	23,0	12,00	1,5	3	400171	498,00	410199	530,00	400778	530,00
M 16	2	25,90	102	48		18	16,8	27,6	25,1	14,00	1,5	3	400310	640,00	410198	675,00	410201	675,00
													400340	725,00	400400	762,00	410202	762,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



BGF 3

Vollhartmetall-Bohrungwindefräser
für Innengewinde

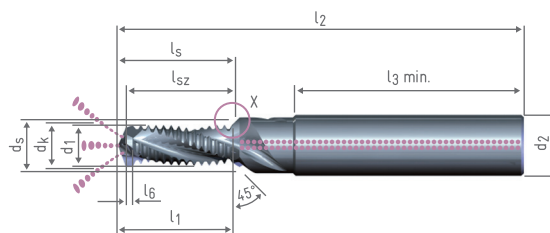
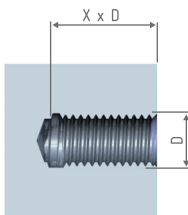
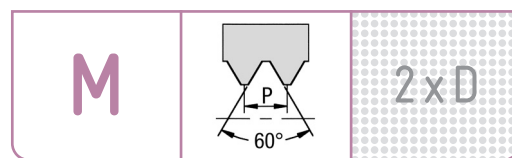
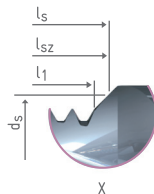
Metrisches ISO-Gewinde DIN 13

Ausführung: Z = 3, 2 x D, 45° Senkfase,
Zylinderschaft und Rechtsspiralnuten

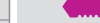
Solid carbide drill thread milling cutters
for internal threads

ISO metric thread DIN 13

Specification: Z = 3, 2 x D, 45° chamfer for counter-
sinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

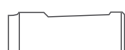
ORDER-CODE → BGF 3													→		2 x D		2 x D T		2 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)			
																				
M 3	0,5	6,90	48	36		6	3,2	7,4	6,9	2,50	0,5	3	400603	247,00	411006	265,00	411010	265,00		
M 4	0,7	8,95	48	36		6	4,2	9,5	8,9	3,30	0,7	3	400279	216,00	401084	235,00	411011	235,00		
M 5	0,8	11,10	54	36		6	5,3	11,8	11,0	4,20	0,8	3	400281	210,00	411007	230,00	411012	230,00		
M 6	1	13,85	62	36		8	6,3	14,6	13,7	5,00	1,0	3	400236	202,00	400437	222,00	411013	222,00		
M 8	1,25	18,65	74	40		10	8,4	19,6	18,4	6,75	1,3	3	400234	252,00	411008	282,00	411014	282,00		
M 10	1,5	22,45	80	45		12	10,5	23,7	22,2	8,50	1,5	3	400225	304,00	411009	335,00	400382	335,00		
M 12	1,75	26,00	90	45		14	12,6	27,4	25,5	10,25	1,5	3	400232	429,00	400923	463,00	400375	463,00		

ORDER-CODE → BGF 3													→	2 x D K		2 x D KT		2 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)		
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	
M 6	1	13,85	62	36		8	6,3	14,6	13,7	5,00	1,0	3	400178	272,00	400403	299,00	400260	299,00	
M 8	1,25	18,65	74	40		10	8,4	19,6	18,4	6,75	1,3	3	400180	325,00	400402	358,00	400277	358,00	
M 10	1,5	22,45	80	45		12	10,5	23,7	22,2	8,50	1,5	3	400167	382,00	400623	414,00	400226	414,00	
M 12	1,75	26,00	90	45		14	12,6	27,4	25,5	10,25	1,5	3	400170	498,00	400624	530,00	400621	530,00	
M 14	2	31,55	102	48		16	14,7	33,2	31,0	12,00	1,5	3	400311	640,00	411015	675,00	400622	675,00	
M 16	2	35,90	102	48		18	16,8	37,6	35,1	14,00	1,5	3	400328	725,00	401113	762,00	400557	762,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

BGF 3

Vollhartmetall-Bohrungwindefräser
für Innengewinde

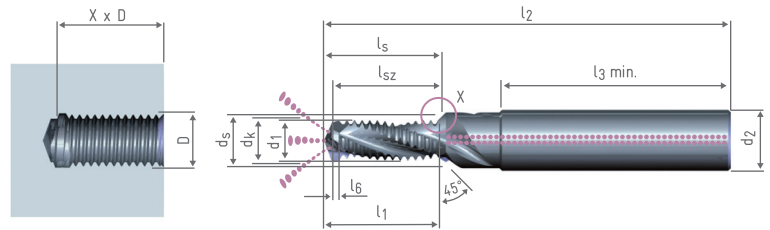
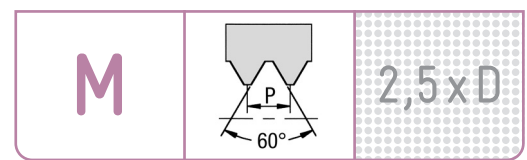
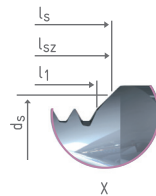
Metrisches ISO-Gewinde DIN 13

Ausführung: Z = 3, 2,5 x D, 45° Senkfase,
Zylinderschaft und Rechtsspiralnuten

Solid carbide drill thread milling cutters
for internal threads

ISO metric thread DIN 13

Specification: Z = 3, 2,5 x D, 45° chamfer for counter-
sinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF 3													→ 2,5 x D	2,5 x D T	2,5 x D F
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
M 3	0,5	8,40	48	36		6	3,2	8,9	8,4	2,50	0,5	3	Art-Nr. €	Art-Nr. €	Art-Nr. €
M 4	0,7	11,05	54	36		6	4,2	11,6	11,0	3,30	0,7	3	400257 254,00	411016 273,00	411021 273,00
M 5	0,8	13,50	54	36		6	5,3	14,2	13,4	4,20	0,8	3	400203 222,00	411017 242,00	411022 242,00
M 6	1	16,85	62	36		8	6,3	17,6	16,7	5,00	1,0	3	400183 216,00	411018 237,00	411023 237,00
M 8	1,25	22,40	74	40		10	8,4	23,4	22,2	6,75	1,3	3	400187 208,00	401038 229,00	400271 229,00
M 10	1,5	26,95	80	45		12	10,5	28,2	26,7	8,50	1,5	3	400235 260,00	411019 290,00	411024 290,00
													400199 313,00	411020 345,00	411025 345,00

ORDER-CODE → BGF 3													→ 2,5 x D K	2,5 x D KT	2,5 x D KF
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
M 6	1	16,85	62	36		8	6,3	17,6	16,7	5,00	1,0	3	Art-Nr. €	Art-Nr. €	Art-Nr. €
M 8	1,25	22,40	74	40		10	8,4	23,4	22,2	6,75	1,3	3	400177 280,00	400447 308,00	400284 308,00
M 10	1,5	26,95	80	45		12	10,5	28,2	26,7	8,50	1,5	3	400166 335,00	400431 369,00	400415 369,00
M 12	1,75	31,25	90	45		14	12,6	32,7	30,8	10,25	1,5	3	400169 393,00	400432 426,00	411027 426,00
M 14	2	39,55	102	48		16	14,7	41,2	39,0	12,00	1,5	3	400172 513,00	401001 546,00	400792 546,00
M 16	2	45,90	102	48		18	16,8	47,6	45,1	14,00	1,5	3	400554 659,00	411026 695,00	411028 695,00
													400230 747,00	400629 785,00	411029 785,00

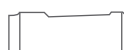
3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



BGF

Vollhartmetall-Bohrungsgewindefräser
für Innengewinde

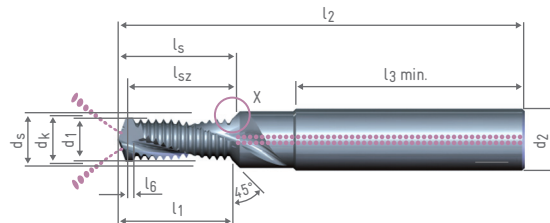
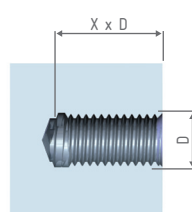
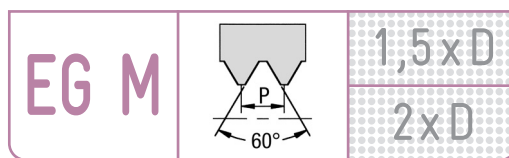
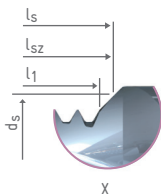
Einsatzgewinde (EG) für
Gewindedrahteinsätze

EG Metrisches ISO-Gewinde DIN 8140-2

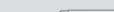
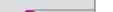
Ausführung: 1,5 x D bzw. 2 x D, 45° Senkfase,
Zylinderschaft und Rechtsspiralnuten

Solid carbide drill thread milling cutters
for internal threads

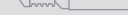
Threads for wire inserts, EG ISO metric thread DIN 8140-2
Specification: 1,5 x D resp. 2 x D, 45° chamfer for counter-
sinking, straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

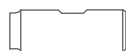
ORDER-CODE → BGF →													1,5 x D		1,5 x D T		1,5 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated 	TiCN 	TiAlN (Futura) 			
EG M 4	0,7	8,40	54	36		6	5,2	9,0	8,2	4,25	0,7	2	Art.-Nr. 400638	€ 242,00	Art.-Nr. 410057	€ 260,00	Art.-Nr. 410059	€ 260,00
EG M 5	0,8	10,50	62	36		8	6,3	11,2	10,3	5,20	0,8	2	Art.-Nr. 400639	€ 237,00	Art.-Nr. 410058	€ 263,00	Art.-Nr. 410060	€ 263,00

ORDER-CODE → BGF													→ 1,5 x D K		1,5 x D KT		1,5 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
																		
EG M 6	1	12,10	74	40		10	7,7	13,0	11,9	6,30	1,0	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
EG M 8	1,25	16,45	80	45		12	10,1	17,5	16,0	8,30	1,3	2	410079	313,00	410080	347,00	410084	347,00
EG M 10	1,5	19,80	90	45		14	12,5	21,1	19,2	10,40	1,5	2	400139	374,00	410081	410,00	410085	410,00
EG M 12	1,75	24,65	102	48		16	15,0	26,2	23,9	12,40	1,5	2	400214	437,00	410082	475,00	410086	475,00
													400173	570,00	410083	609,00	410087	609,00

ORDER-CODE → BGF													→ 2 x D		2 x D T		2 x D F	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated 	TiCN 	TiAlN (Futura) 			
EG M 4	0,7	10,50	54	36		6	5,2	11,1	10,3	4,25	0,7	2	Art.-Nr. 400326 € 242,00	Art.-Nr. 410061 € 260,00	Art.-Nr. 410071 € 260,00			
EG M 5	0,8	12,90	62	36		8	6,3	13,6	12,7	5,20	0,8	2	Art.-Nr. 400160 € 237,00	Art.-Nr. 410062 € 263,00	Art.-Nr. 410070 € 263,00			
EG M 6	1	16,10	74	40		10	7,7	17,0	15,9	6,30	1,0	2	Art.-Nr. 400152 € 231,00	Art.-Nr. 410063 € 258,00	Art.-Nr. 410072 € 258,00			

ORDER-CODE → BGF													→		2 x D K		2 x D KT		2 x D KF	
D ↓	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)			
																				
EG M 6	1	16,10	74	40		10	7,7	17,0	15,9	6,30	1,0	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€		
EG M 8	1,25	21,45	80	45		12	10,1	22,5	21,0	8,30	1,3	2	400508	313,00	410160	347,00	410165	347,00		
EG M 10	1,5	25,80	90	45		14	12,5	27,1	25,2	10,40	1,5	2	400137	374,00	400933	410,00	400324	410,00		
EG M 12	1,75	31,65	102	48		16	15,0	33,2	30,9	12,40	1,5	2	400213	437,00	410162	475,00	400486	475,00		
													400176	570,00	410163	609,00	410166	609,00		

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

BGF

Vollhartmetall-Bohrungwindefräser
für Innengewinde

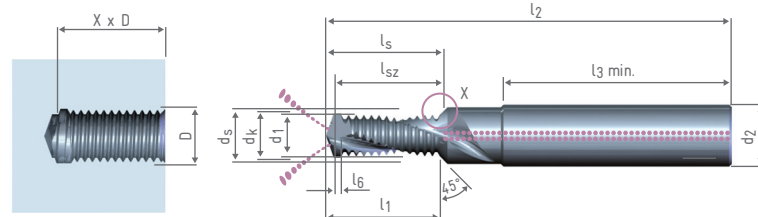
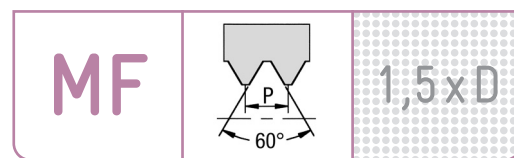
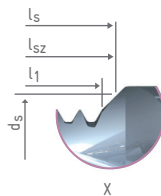
Metrisches ISO-Feingewinde DIN 13

Ausführung: 1,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

**Solid carbide drill thread milling cutters
for internal threads**

ISO metric fine thread DIN 13

Specification: 1,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes

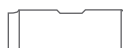


→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF													1,5 x D		1,5 x D T		1,5 x D F	
D ↓	P mm ↓	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated 	TiCN 		TiAlN (Futura) 		
M 5	0,5	8,30	54	36		6	5,3	8,9	8,1	4,50	0,5	2	Art.-Nr. 400251	€ 214,00	Art.-Nr. 410018	€ 231,00	Art.-Nr. 410020	€ 231,00
M 6	0,75	9,90	62	36		8	6,3	10,6	9,6	5,25	0,8	2	Art.-Nr. 400219	€ 191,00	Art.-Nr. 410019	€ 217,00	Art.-Nr. 410026	€ 217,00
M 8	1	14,20	74	40		10	8,4	15,1	13,8	7,00	1,0	2	Art.-Nr. 400028	€ 231,00	Art.-Nr. 410021	€ 258,00	Art.-Nr. 410027	€ 258,00
M 10	1	16,55	80	45		12	10,5	17,6	16,0	9,00	1,0	2	Art.-Nr. 400276	€ 280,00	Art.-Nr. 410022	€ 308,00	Art.-Nr. 410028	€ 308,00
M 12	1	19,95	90	45		14	12,6	21,0	19,0	11,00	1,0	2	Art.-Nr. 400132	€ 385,00	Art.-Nr. 410023	€ 414,00	Art.-Nr. 410029	€ 414,00
M 10	1,25	16,50	80	45		12	10,5	17,6	16,0	8,75	1,3	2	Art.-Nr. 400224	€ 291,00	Art.-Nr. 410024	€ 319,00	Art.-Nr. 410031	€ 319,00
M 12	1,5	21,30	90	45		14	12,6	22,6	20,7	10,50	1,5	2	Art.-Nr. 400091	€ 385,00	Art.-Nr. 410025	€ 414,00	Art.-Nr. 410032	€ 414,00

ORDER-CODE → BGF													1,5 x D K		1,5 x D KT		1,5 x D KF	
D ↓	P mm ↓	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated 		TiCN 		TiAlN (Futura) 	
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 6	0,75	9,90	62	36		8	6,3	10,6	9,6	5,25	0,8	2	400220	251,00	410034	276,00	410049	276,00
M 8	1	14,20	74	40		10	8,4	15,1	13,8	7,00	1,0	2	400027	294,00	400460	319,00	410051	319,00
M 10	1	16,55	80	45		12	10,5	17,6	16,0	9,00	1,0	2	400238	346,00	400461	373,00	410052	373,00
M 12	1	19,95	90	45		14	12,6	21,0	19,0	11,00	1,0	2	400136	442,00	410041	470,00	410053	470,00
M 10	1,25	16,50	80	45		12	10,5	17,6	16,0	8,75	1,3	2	400223	357,00	410043	384,00	410054	384,00
M 12	1,5	21,30	90	45		14	12,6	22,6	20,7	10,50	1,5	2	400090	442,00	400462	470,00	410055	470,00
M 14	1,5	23,20	102	48		16	14,7	24,5	22,2	12,50	1,5	2	400210	581,00	410045	611,00	400506	611,00
M 16	1,5	26,55	102	48		18	16,8	28,0	25,4	14,50	1,5	2	400065	654,00	400463	683,00	400980	683,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



BGF

Vollhartmetall-Bohrungwindefräser
für Innengewinde

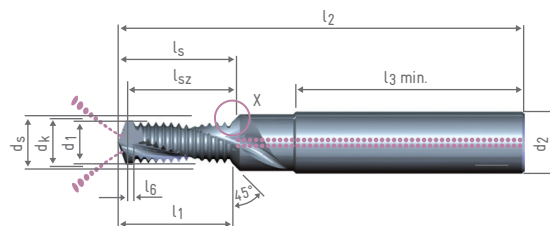
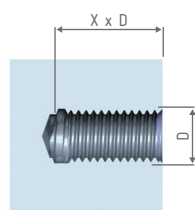
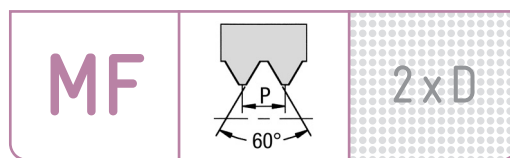
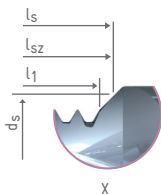
Metrisches ISO-Feingewinde DIN 13

Ausführung: 2 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

Solid carbide drill thread milling cutters
for internal threads

ISO metric fine thread DIN 13

Specification: 2 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF													→		2 x D		2 x D T		2 x D F	
D	P	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN		TiAlN (Futura)				
↓	mm ↓																			
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€		
M 5	0,5	10,80	54	36		6	5,3	11,4	10,6	4,50	0,5	2	400252	214,00	410036	231,00	410038	231,00		
M 6	0,75	12,90	62	36		8	6,3	13,6	12,6	5,25	0,8	2	400217	191,00	410064	217,00	410073	217,00		
M 8	1	17,20	74	40		10	8,4	18,1	16,8	7,00	1,0	2	400034	231,00	410065	258,00	410074	258,00		
M 10	1	21,55	80	45		12	10,5	22,6	21,0	9,00	1,0	2	400188	280,00	410066	308,00	410075	308,00		
M 12	1	25,95	90	45		14	12,6	27,0	25,0	11,00	1,0	2	400134	385,00	410067	414,00	410076	414,00		
M 10	1,25	21,50	80	45		12	10,5	22,6	21,0	8,75	1,3	2	400222	291,00	410068	319,00	410077	319,00		
M 12	1,5	27,30	90	45		14	12,6	28,6	26,7	10,50	1,5	2	400088	385,00	410069	414,00	400789	414,00		

ORDER-CODE → BGF													2 x D K		2 x D KT		2 x D KF	
D ↓	P mm ↓	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated 	TiCN 	TiAlN (Futura) 			
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 6	0,75	12,90	62	36		8	6,3	13,6	12,6	5,25	0,8	2	400218 251,00		410078 276,00		410091 276,00	
M 8	1	17,20	74	40		10	8,4	18,1	16,8	7,00	1,0	2	400033 294,00		400464 319,00		410092 319,00	
M 10	1	21,55	80	45		12	10,5	22,6	21,0	9,00	1,0	2	400237 346,00		400465 373,00		400518 373,00	
M 12	1	25,95	90	45		14	12,6	27,0	25,0	11,00	1,0	2	400135 442,00		410088 470,00		400701 470,00	
M 10	1,25	21,50	80	45		12	10,5	22,6	21,0	8,75	1,3	2	400221 357,00		410089 384,00		400405 384,00	
M 12	1,5	27,30	90	45		14	12,6	28,6	26,7	10,50	1,5	2	400089 442,00		400466 470,00		410093 470,00	
M 14	1,5	30,70	102	48		16	14,7	32,0	29,7	12,50	1,5	2	400208 581,00		410090 611,00		410094 611,00	
M 16	1,5	34,05	102	48		18	16,8	35,5	32,9	14,50	1,5	2	400064 654,00		400467 683,00		400783 683,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

BGF

Vollhartmetall-Bohrungwindefräser
für Innengewinde

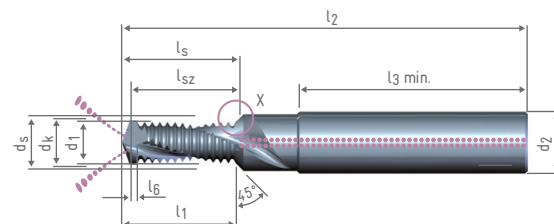
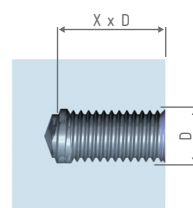
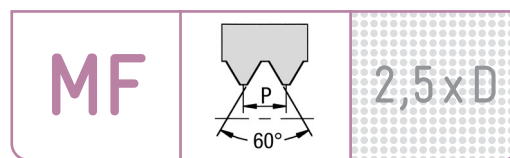
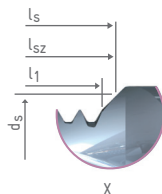
Metrisches ISO-Feingewinde DIN 13

Ausführung: 2,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

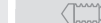
**Solid carbide drill thread milling cutters
for internal threads**

ISO metric fine thread DIN 13

Specification: 2,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

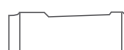
ORDER-CODE → BGF													→ 2,5 x D		2,5 x D T		2,5 x D F	
D	P	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN		TiAlN (Futura)		
↓	mm																	
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 5	0,5	13,30	54	36		6	5,3	12,5	11,7	4,50	0,5	2	410095	225,00	410100	243,00	410106	243,00
M 6	0,75	15,90	74	36		8	6,3	15,7	14,7	5,25	0,8	2	410096	201,00	410101	228,00	410107	228,00
M 8	1	21,20	74	40		10	8,4	22,1	20,8	7,00	1,0	2	410097	243,00	410102	271,00	410108	271,00
M 10	1	26,55	80	45		12	10,5	27,6	26,0	9,00	1,0	2	410098	295,00	410103	323,00	410109	323,00
M 12	1	30,95	90	45		14	12,6	32,0	30,0	11,00	1,0	2	410099	405,00	410104	435,00	410110	435,00
M 10	1,25	26,50	80	45		12	10,5	27,6	26,0	8,75	1,3	2	400540	306,00	410105	335,00	400538	335,00
M 12	1,5	31,80	90	45		14	12,6	33,1	31,2	10,50	1,5	2	400087	405,00	400907	435,00	400308	435,00

ORDER-CODE → BGF													→ 2,5 x D K		2,5 x D KT		2,5 x D KF	
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN		TiAlN (Futura)		
↓	↓																	
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 6	0,75	15,90	74	36		8	6,3	15,7	14,7	5,25	0,8	2	410111	264,00	410056	290,00	410122	290,00
M 8	1	21,20	74	40		10	8,4	22,1	20,8	7,00	1,0	2	410112	309,00	410115	336,00	410123	336,00
M 10	1	26,55	80	45		12	10,5	27,6	26,0	9,00	1,0	2	410113	364,00	410116	392,00	410124	392,00
M 12	1	30,95	90	45		14	12,6	32,0	30,0	11,00	1,0	2	410114	465,00	410117	494,00	410125	494,00
M 10	1,25	26,50	80	45		12	10,5	27,6	26,0	8,75	1,3	2	400157	375,00	410118	404,00	401059	404,00
M 12	1,5	31,80	90	45		14	12,6	33,1	31,2	10,50	1,5	2	400086	465,00	410119	494,00	400580	494,00
M 14	1,5	35,20	102	48		16	14,7	36,5	34,2	12,50	1,5	2	400288	611,00	410120	642,00	410126	642,00
M 16	1,5	41,55	102	48		18	16,8	43,0	40,4	14,50	1,5	2	400274	687,00	410121	718,00	410127	718,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



BGF 3

Vollhartmetall-Bohrungwindefräser
für Innengewinde

Metrisches ISO-Feingewinde DIN 13

Ausführung: Z = 3, 2 x D bzw. 2,5 x D

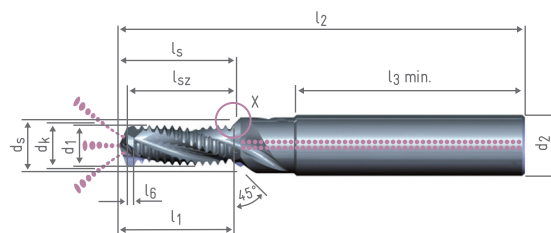
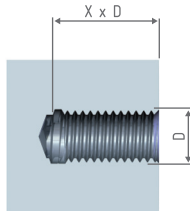
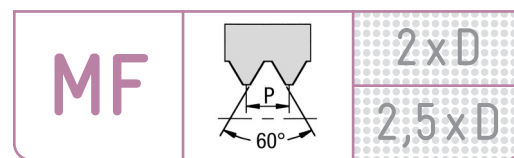
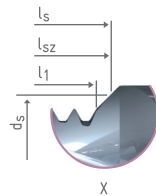
45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide drill thread milling cutters
for internal threads

ISO metric fine thread DIN 13

Specification: Z = 3, 2 x D resp. 2,5 x D

45° chamfer for countersinking, straight shank and
right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF 3													2 x D K		2 x D KT		2 x D KF	
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
↓	↓												Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 6	0,75	12,90	62	36		8	6,3	13,6	12,6	5,25	0,8	3	411030	323,00	411034	350,00	411042	350,00
M 8	1	17,20	74	40		10	8,4	18,1	16,8	7,00	1,0	3	400263	353,00	410204	383,00	410205	383,00
M 10	1	21,55	80	45		12	10,5	22,6	21,0	9,00	1,0	3	400380	416,00	411036	448,00	411044	448,00
M 12	1	25,95	90	45		14	12,6	27,0	25,0	11,00	1,0	3	411032	530,00	411037	564,00	411045	564,00
M 10	1,25	21,50	80	45		12	10,5	22,6	21,0	8,75	1,3	3	411033	428,00	411038	461,00	411046	461,00
M 12	1,5	27,30	90	45		14	12,6	28,6	26,7	10,50	1,5	3	400372	530,00	411039	564,00	411047	564,00
M 14	1,5	30,70	102	48		16	14,7	32,0	29,7	12,50	1,5	3	400360	698,00	411040	733,00	411048	733,00
M 16	1,5	34,05	102	48		18	16,8	35,5	32,9	14,50	1,5	3	400341	784,00	411041	819,00	411049	819,00

ORDER-CODE → BGF 3													2,5 x D K		2,5 x D KT		2,5 x D KF	
D	P mm	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
↓	↓												Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
M 6	0,75	15,90	62	36		8	6,3	15,7	14,7	5,25	0,8	3	411050	340,00	411055	368,00	411063	368,00
M 8	1	21,20	74	40		10	8,4	22,1	20,8	7,00	1,0	3	411052	371,00	410207	403,00	410206	403,00
M 10	1	26,55	80	45		12	10,5	27,6	26,0	9,00	1,0	3	411053	437,00	411057	471,00	411065	471,00
M 12	1	30,95	90	45		14	12,6	32,0	30,0	11,00	1,0	3	411054	557,00	411058	593,00	411066	593,00
M 10	1,25	26,50	80	45		12	10,5	27,6	26,0	8,75	1,3	3	401092	450,00	411059	484,00	411067	484,00
M 12	1,5	31,80	90	45		14	12,6	33,1	31,2	10,50	1,5	3	400141	557,00	411060	593,00	411068	593,00
M 14	1,5	35,20	102	48		16	14,7	36,5	34,2	12,50	1,5	3	400361	733,00	411061	770,00	411069	770,00
M 16	1,5	41,55	102	48		18	16,8	43,0	40,4	14,50	1,5	3	400342	824,00	411062	861,00	411070	861,00

3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant

GF

Vollhartmetall-Gewindefräser
für Innen- und Außengewinde

Whitworth-Rohrgewinde DIN EN ISO 228,
auch verwendbar für Rp und DIN 2999

Ausführung: 1,5 x D, 2 x D bzw. 2,5 x D

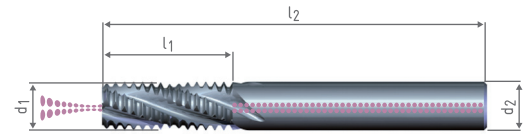
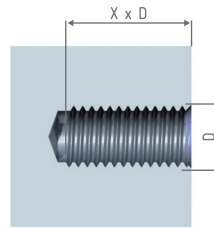
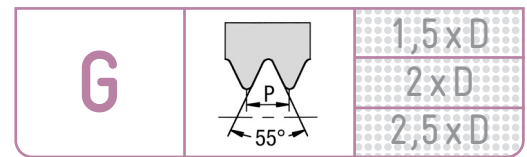
Zylinderschaft mit Kühlkanal und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal and external threads**

Whitworth pipe thread DIN EN ISO 228,
also suitable for Rp and DIN 2999

Specification: 1,5 x D, 2 x D resp. 2,5 x D

Straight shank with internal coolant
and right hand spiral flutes



→ **HA** (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GF						1,5 x D K		1,5 x D KT		1,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
G 1/8"	28	15,80	64	8	4	300105	162,00	301116	187,00	300928	187,00
G 1/4"	19	22,00	74	10	4	300103	207,00	304930	232,00	300100	232,00
G 3/8"	19	27,30	90	14	4	300065	269,00	310022	297,00	301846	297,00

ORDER-CODE → GF						2 x D K		2 x D KT		2 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
G 1/8"	28	21,30	64	8	4	300241	162,00	301114	187,00	300247	187,00
G 1/4"	19	28,70	74	10	4	300242	207,00	301115	232,00	300248	232,00
G 3/8"	19	35,50	90	14	4	300243	269,00	301153	297,00	300249	297,00

ORDER-CODE → GF						2,5 x D K		2,5 x D KT		2,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
G 1/8"	28	24,90	64	8	4	300935	172,00	301736	199,00	300938	199,00
G 1/4"	19	35,40	74	10	4	300943	219,00	301653	246,00	302773	246,00
G 3/8"	19	43,50	90	14	4	300636	285,00	301737	315,00	302806	315,00

3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser
für Innen- und Außengewinde

Whitworth-Rohrgewinde DIN EN ISO 228,
auch verwendbar für Rp und DIN 2999

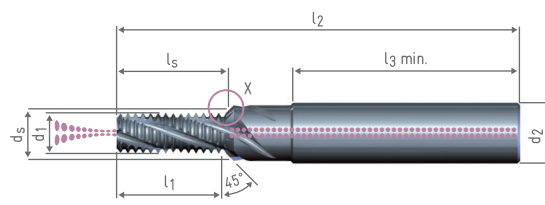
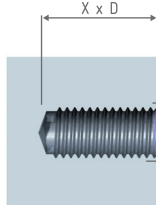
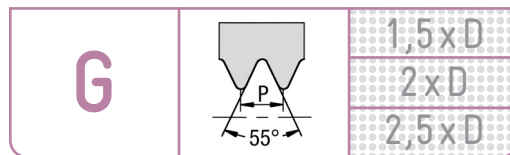
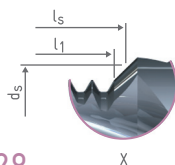
Ausführung: 1,5 x D, 2 x D bzw. 2,5 x D, 45° Senkfase,
Zylinderschaft mit Kühlkanal und Rechtsspiralnuten

Solid carbide thread milling cutters
for internal and external threads

Whitworth pipe thread DIN EN ISO 228,
also suitable for Rp and DIN 2999

Specification: 1,5 x D, 2 x D resp. 2,5 x D

45° chamfer for countersinking, straight shank
with internal coolant and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										1,5 x D K	1,5 x D KT	1,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
G 1/8"	28	15,80	80	45		12	10,2	16,9	4	Art.-Nr. 300080 € 210,00	Art.-Nr. 303153 € 238,00	Art.-Nr. 301868 € 238,00	
G 1/4"	19	22,00	90	45		14	13,8	23,4	4	Art.-Nr. 300081 € 298,00	Art.-Nr. 304993 € 327,00	Art.-Nr. 301869 € 327,00	
G 3/8"	19	27,35	102	48		18	17,5	28,9	4	Art.-Nr. 300082 € 400,00	Art.-Nr. 310125 € 431,00	Art.-Nr. 301870 € 431,00	

ORDER-CODE → GFS										2 x D K	2 x D KT	2 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
G 1/8"	28	21,25	80	45		12	10,2	22,3	4	Art.-Nr. 300183 € 210,00	Art.-Nr. 301180 € 238,00	Art.-Nr. 300401 € 238,00	
G 1/4"	19	28,65	90	45		14	13,8	30,1	4	Art.-Nr. 300184 € 298,00	Art.-Nr. 301182 € 327,00	Art.-Nr. 300402 € 327,00	
G 3/8"	19	35,35	102	48		18	17,5	36,9	4	Art.-Nr. 300185 € 400,00	Art.-Nr. 301184 € 431,00	Art.-Nr. 300403 € 431,00	

ORDER-CODE → GFS										2,5 x D K	2,5 x D KT	2,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
G 1/8"	28	24,90	80	45		12	10,2	25,9	4	Art.-Nr. 301323 € 223,00	Art.-Nr. 310126 € 251,00	Art.-Nr. 301673 € 251,00	
G 1/4"	19	35,35	90	45		14	13,8	36,8	4	Art.-Nr. 301315 € 316,00	Art.-Nr. 301766 € 345,00	Art.-Nr. 310131 € 345,00	
G 3/8"	19	43,40	102	48		18	17,5	44,9	4	Art.-Nr. 310129 € 424,00	Art.-Nr. 310127 € 455,00	Art.-Nr. 310130 € 455,00	

3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFM

Vollhartmetall-Gewindefräser
für Innen- und Außengewinde

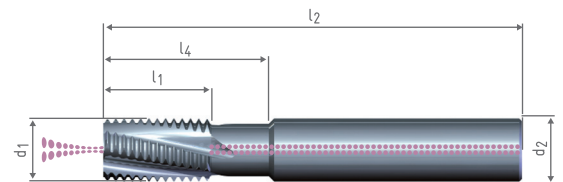
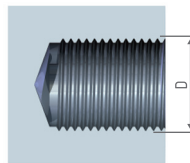
Whitworth-Rohrgewinde DIN EN ISO 228,
auch verwendbar für W, Rp und DIN 2999

Ausführung: Zylinderschaft mit Kühlkanal und
Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal and external threads**

Whitworth pipe thread DIN EN ISO 228,
also suitable for W, Rp and DIN 2999

Specification: Straight shank with internal coolant
and right hand spiral flutes



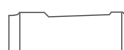
→ **HA** (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM G →								T		F			
d ₁ Fräser Nenn-Ø Cutter nom. Ø ↓	P Gg/1" tpi ↓	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	l ₄ Nutz- länge use length	z Nuten- zahl No. of flutes	blank uncoated 	TiCN 	TiAlN (Futura) 			
								Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
10	19	16	70	G 1/4"	10	25	4	300304	200,00	301244	219,00	300307	219,00
16	14	25	90	G 1/2"	16	40	5	300305	321,00	300961	352,00	300308	352,00
20	11	33	105	G 1"	20	50	5	300306	471,00	301208	506,00	300309	506,00
25	11	40	115	G 1 1/2"	25	57	6	311010	653,00	311011	702,00	311012	702,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge



BGF

Vollhartmetall-Bohrgewindefräser für Innengewinde

Whitworth-Rohrgewinde DIN EN ISO 228

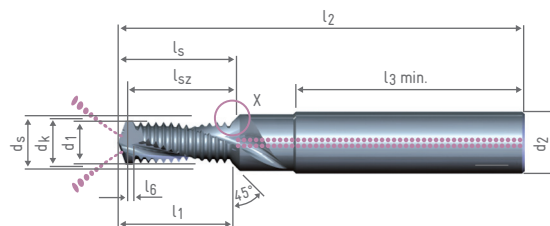
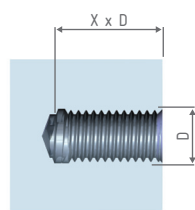
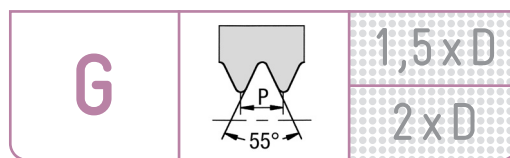
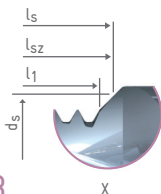
Ausführung: 1,5 x D bzw. 2 x D, 45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide drill thread milling cutters for internal threads

Whitworth pipe thread DIN EN ISO 228

Specification: 1,5 x D resp. 2 x D

45° chamfer for countersinking, straight shank, and right hand spiral flutes



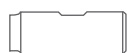
→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF													2 x D	2 x D T	2 x D F
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
G 1/8"	28	21,45	80	45		12	10,2	22,5	20,9	8,70	0,9	2	Art.-Nr. 400053 € 323,00	Art.-Nr. 410128 € 350,00	Art.-Nr. 400770 € 350,00
G 1/4"	19	28,70	90	45		14	13,8	30,1	28,0	11,70	1,3	2	Art.-Nr. 400041 € 460,00	Art.-Nr. 410137 € 492,00	Art.-Nr. 400069 € 492,00

ORDER-CODE → BGF													1,5 x D K	1,5 x D KT	1,5 x D KF
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
G 1/8"	28	16,00	80	45		12	10,2	17,1	15,5	8,70	0,9	2	Art.-Nr. 400055 € 390,00	Art.-Nr. 410129 € 417,00	Art.-Nr. 410167 € 417,00
G 1/4"	19	22,00	90	45		14	13,8	23,4	21,3	11,70	1,3	2	Art.-Nr. 400042 € 540,00	Art.-Nr. 410161 € 572,00	Art.-Nr. 400700 € 572,00
G 3/8"	19	28,00	102	48		18	17,5	29,6	26,8	15,20	1,3	2	Art.-Nr. 400296 € 640,00	Art.-Nr. 410164 € 678,00	Art.-Nr. 400889 € 678,00

ORDER-CODE → BGF													2 x D K	2 x D KT	2 x D KF
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
G 1/8"	28	21,45	80	45		12	10,2	22,5	20,9	8,70	0,9	2	Art.-Nr. 400054 € 390,00	Art.-Nr. 410130 € 417,00	Art.-Nr. 400716 € 417,00
G 1/4"	19	28,70	90	45		14	13,8	30,1	28,0	11,70	1,3	2	Art.-Nr. 400043 € 540,00	Art.-Nr. 410168 € 572,00	Art.-Nr. 400665 € 572,00
G 3/8"	19	36,00	102	48		18	17,5	37,6	34,8	15,20	1,3	2	Art.-Nr. 400295 € 640,00	Art.-Nr. 410169 € 678,00	Art.-Nr. 410170 € 678,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFM

Vollhartmetall-Gewindefräser
für Innengewinde

Kegeliges Whitworth-Rohrgewinde
DIN EN 10226-2, ISO 7-1, BS 21

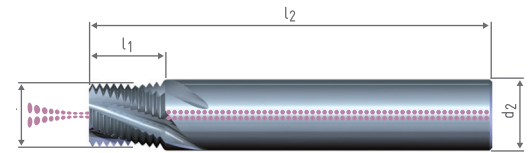
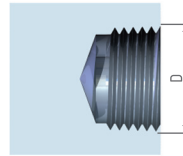
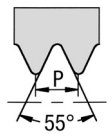
Kegel 1:16, Für im Gewinde dichtende Verbindungen
Ausführung: Zylinderschaft mit Kühlkanal und
Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

Tapered Whitworth pipe thread DIN EN 10226-2, ISO 7-1, BS 21
Taper 1:16, Where pressure-tight joints are made on
the threads

Specification: Straight shank with internal coolant
and right hand spiral flutes

Rc



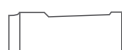
→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM Rc							T			
d ₁ Fräser Nenn-Ø Cutter nom. Ø ↓	P Gg/1" tpi	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN	
							Art.-Nr.	€	Art.-Nr.	€
7,4	28	8,62	64	Rc 1/8"	8	4	311025	245,00	311026	279,00
9,1	19	14,04	74	Rc 1/4"	10	4	311027	260,00	311030	287,00
14,8	14	19,05	90	Rc 1/2"	16	5	311028	390,00	311031	419,00
18	11	33,48	105	Rc 1"	20	5	311029	560,00	311032	598,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge



GFM

Vollhartmetall-Gewindefräser
für Innen- und Aussengewinde

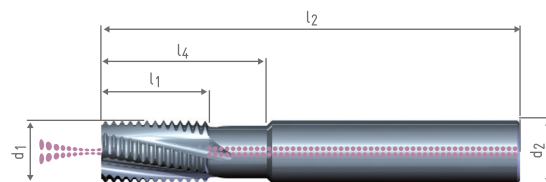
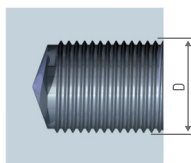
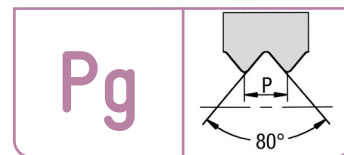
Stahlpanzerrohr-Gewinde DIN 40430

Ausführung: Zylinderschaft mit Kühlkanal
und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal and external threads**

Steel conduit thread DIN 40430

Specification: Straight shank with internal coolant
and right hand spiral flutes



→ **HA** (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM Pg										T	F
d ₁ Fräser Nenn-Ø Cutter nom. Ø	P Gg/1" tpi	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	l ₄ Nutz- länge use length	z Nuten- zahl No. of flutes	blank uncoated		TiCN	TiAlN (Futura)
↓	↓							Art.-Nr.	€	Art.-Nr.	€
10	20	16	70	Pg 7	10	25	4	300310	219,00	301523	240,00
12	18	20	80	Pg 9	12	31	4	300311	246,00	301524	272,00
16	16	25	90	Pg 21	16	40	5	300312	309,00	304847	340,00
										300313	240,00
										300314	272,00
										300315	340,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

Vollhartmetall-Gewindefräser für Innengewinde

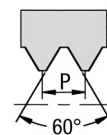
UNC-Grobgewinde ANSI B1.1

Ausführung: 2 x D bzw. 2,5 x D
Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

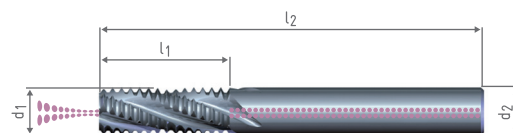
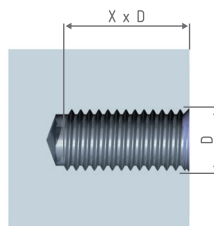
Unified national coarse thread ANSI B1.1
Specification: 2 x D resp. 2,5 x D
Straight shank and right hand spiral flutes

UNC



2 x D

2,5 x D



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

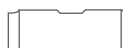
ORDER-CODE → GF						2 x D		2 x D K		2 x D T		2 x D KT		2 x D F		2 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated				TiCN				TiAlN (Futura)			
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
UNC Nr. 10	24	GFS verwenden (siehe Seite 54)															
UNC Nr. 12	24	use GFS (see page 54)															
UNC 1/4"	20	14,50	54	6	3	300508	129,00	300695	129,00	310024	152,00	304858	152,00	300558	152,00	300805	152,00
UNC 5/16"	18	17,60	54	6	3	300141	129,00	300625	129,00	310023	152,00	304859	152,00	300477	152,00	300673	152,00
UNC 3/8"	16	21,40	64	8	4			300142	144,00			304860	168,00			300498	168,00
UNC 7/16"	14	24,40	64	8	4			300101	144,00			304861	168,00			300475	168,00
UNC 1/2"	13	28,30	74	10	4			300143	182,00			304862	208,00			300474	208,00

ORDER-CODE → GF						2,5 x D		2,5 x D K		2,5 x D T		2,5 x D KT		2,5 x D F		2,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated				TiCN				TiAlN (Futura)			
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
UNC Nr. 10	24	GFS verwenden (siehe Seite 55)															
UNC Nr. 12	24	use GFS (see page 55)															
UNC 1/4"	20	17,10	54	6	3	300972	137,00	303137	137,00	310025	162,00	310026	162,00	303140	162,00	303143	162,00
UNC 5/16"	18	20,40	54	6	3	300991	137,00	300992	137,00	304654	162,00	310027	162,00	303188	162,00	303191	162,00
UNC 3/8"	16	24,50	64	8	4			300993	152,00			310028	178,00			300994	178,00
UNC 7/16"	14	28,00	64	8	4			303256	152,00			310029	178,00			303262	178,00
UNC 1/2"	13	32,20	74	10	4			300997	194,00			310030	220,00			303297	220,00

3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant

GF

Vollhartmetall-Gewindefräser für Innengewinde

UNF-Feingewinde ANSI B1.1

Ausführung: 2 x D bzw. 2,5 x D

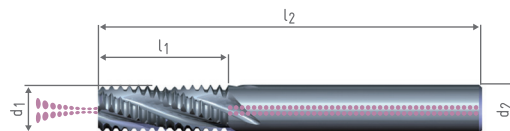
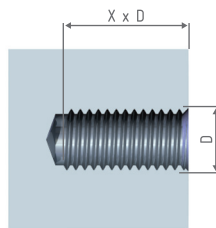
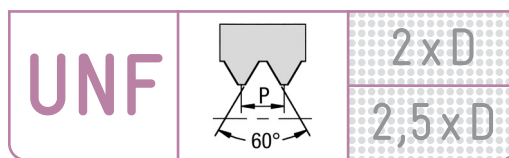
Zylinderschaft und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

Unified national fine thread ANSI B1.1

Specification: 2 x D resp. 2,5 x D

Straight shank and right hand spiral flutes



→ **HA** (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GF						2 x D	2 x D K	2 x D T	2 x D KT	2 x D F	2 x D KF
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated	TiCN		TiAlN (Futura)		
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
UNF Nr. 10	32	GFS verwenden (siehe Seite 57)									
UNF Nr. 12	28	use GFS (see page 57)									
UNF 1/4"	28	14,00	54	6	3	300529	141,00	300694	141,00	301121	160,00
UNF 5/16"	24	17,40	54	6	3	300145	149,00	300668	149,00	304614	174,00
UNF 3/8"	24	20,60	64	8	4			300466	162,00	301119	187,00
UNF 7/16"	20	24,70	64	8	4			300454	155,00	301117	180,00
UNF 1/2"	20	27,30	74	10	4			300095	202,00	304864	227,00

ORDER-CODE → GF						2,5 x D	2,5 x D K	2,5 x D T	2,5 x D KT	2,5 x D F	2,5 x D KF
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated	TiCN		TiAlN (Futura)		
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
UNF Nr. 10	32	GFS verwenden (siehe Seite 58)									
UNF Nr. 12	28	use GFS (see page 58)									
UNF 1/4"	28	16,70	54	6	3	303343	149,00	303347	149,00	310031	170,00
UNF 5/16"	24	20,60	54	6	3	300845	159,00	303348	159,00	310032	184,00
UNF 3/8"	24	24,80	64	8	4			303349	172,00	310035	199,00
UNF 7/16"	20	28,50	64	8	4			303350	165,00	310036	192,00
UNF 1/2"	20	32,30	74	10	4			303351	214,00	310037	241,00

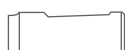
3 x D auf Anfrage

3 x D on request

→ **HB**



→ **HE**



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFS

Vollhartmetall-Gewindefräser für Innengewinde

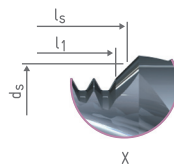
UNC-Grobgewinde ANSI B1.1

Ausführung: 1,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

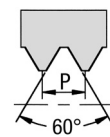
Solid carbide thread milling cutters for internal threads

Unified national coarse thread ANSI B1.1

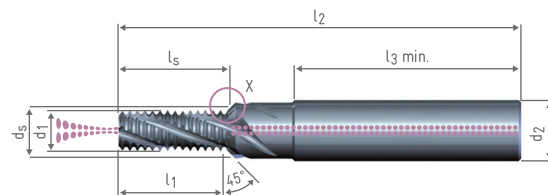
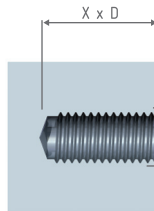
Specification: 1,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



UNC



1,5 x D



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

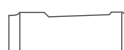
ORDER-CODE → GFS										1,5 x D	1,5 x D T	1,5 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNC Nr. 8	32	7,50	48	36		6	4,4	8,1	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNC Nr. 10	24	10,00	54	36		6	5,1	10,8	3	310132 154,00	310133 180,00	310134 180,00	
UNC Nr. 12	24	10,00	54	36		6	5,8	10,9	3	301809 154,00	310135 180,00	301889 180,00	

ORDER-CODE → GFS										1,5 x D K	1,5 x D KT	1,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNC Nr. 8	32	7,50	48	36		6	4,4	8,1	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNC Nr. 10	24	10,00	54	36		6	5,1	10,8	3	310136 154,00	310139 180,00	310146 180,00	
UNC Nr. 12	24	10,00	54	36		6	5,8	10,9	3	310137 154,00	310140 180,00	310147 180,00	
UNC 1/4"	20	12,00	62	36		8	6,7	13,0	3	310138 154,00	310141 180,00	310148 180,00	
UNC 5/16"	18	14,75	74	40		10	8,3	15,9	3	305007 161,00	304467 188,00	304510 188,00	
UNC 3/8"	16	16,60	80	45		12	10,0	17,9	4	300708 171,00	310142 198,00	310149 198,00	
UNC 7/16"	14	19,00	80	45		12	11,7	20,4	4	300415 190,00	304468 218,00	301896 218,00	
UNC 1/2"	13	22,40	90	45		14	13,3	23,9	4	301886 190,00	310143 218,00	301897 218,00	
UNC 9/16"	12	24,25	102	48		16	15,0	26,0	4	300416 282,00	305135 311,00	301898 311,00	
UNC 5/8"	11	26,50	102	48		18	16,7	28,3	4	301887 330,00	310144 361,00	301899 361,00	
										301888 423,00	310145 454,00	301900 454,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser für Innengewinde

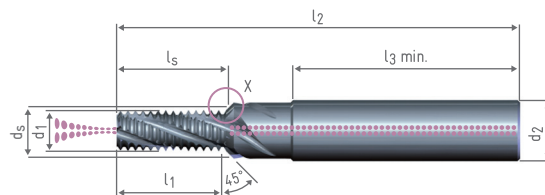
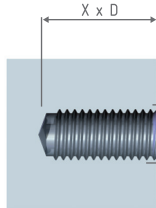
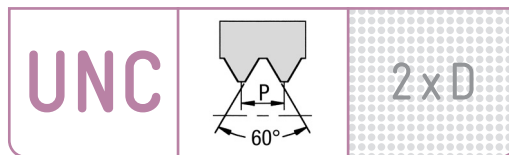
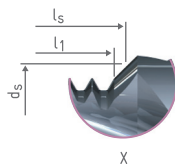
UNC-Grobgewinde ANSI B1.1

Ausführung: 2 x D, 45° Senkfase, Zylinderschaft und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

Unified national coarse thread ANSI B1.1

Specification: 2 x D, 45° chamfer for countersinking, straight shank and right hand spiral flutes

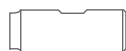


→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										2 x D	2 x D T	2 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNC Nr. 4	40	6,00	48	36		6	3,0	7,5	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNC Nr. 6	32	8,30	48	36		6	3,7	10,0	3	301625 168,00	310150 184,00	310152 184,00	
UNC Nr. 8	32	9,10	48	36		6	4,4	9,7	3	301714 156,00	310151 171,00	310153 171,00	
UNC Nr. 10	24	11,05	54	36		6	5,1	11,9	3	300553 154,00	305136 180,00	301974 180,00	
UNC Nr. 12	24	12,15	54	36		6	5,8	13,0	3	300417 154,00	304867 180,00	300425 180,00	
UNC 1/4"	20	14,55	62	36		8	6,7	15,6	3	300418 154,00	304868 180,00	301902 180,00	
UNC 5/16"	18	17,60	74	40		10	8,3	18,7	3	300419 161,00	310154 188,00	300426 188,00	
										300420 171,00	310155 198,00	300427 198,00	

ORDER-CODE → GFS										2 x D K	2 x D KT	2 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNC Nr. 8	32	9,10	48	36		6	4,4	9,7	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNC Nr. 10	24	11,05	54	36		6	5,1	11,9	3	304956 154,00	304957 180,00	310156 180,00	
UNC Nr. 12	24	12,15	54	36		6	5,8	13,0	3	304964 154,00	304963 180,00	310157 180,00	
UNC 1/4"	20	14,55	62	36		8	6,7	15,6	3	304959 154,00	304958 180,00	310158 180,00	
UNC 5/16"	18	17,60	74	40		10	8,3	18,7	3	300697 161,00	304869 188,00	300797 188,00	
UNC 3/8"	16	21,40	80	45		12	10,0	22,6	4	300146 171,00	304870 198,00	300536 198,00	
UNC 7/16"	14	24,45	80	45		12	11,7	25,9	4	300147 190,00	301684 218,00	301905 218,00	
UNC 1/2"	13	28,25	90	45		14	13,3	29,8	4	300148 190,00	304871 218,00	300431 218,00	
UNC 9/16"	12	30,65	102	48		16	15,0	32,3	4	300149 282,00	304872 311,00	301906 311,00	
UNC 5/8"	11	35,70	102	48		18	16,7	37,6	4	300150 330,00	304873 361,00	300432 361,00	
										300151 423,00	304665 454,00	301907 454,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant

GFS

Vollhartmetall-Gewindefräser für Innengewinde

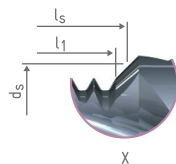
UNC-Grobgewinde ANSI B1.1

Ausführung: 2,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

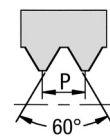
Solid carbide thread milling cutters for internal threads

Unified national coarse thread ANSI B1.1

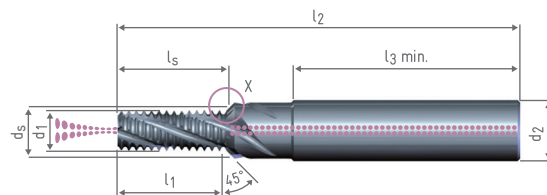
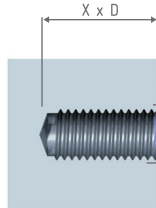
Specification: 2,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



UNC



2,5 x D



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										2,5 x D	2,5 x D T	2,5 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNC Nr. 10	24	13,20	54	36		6	5,1	14,0	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNC Nr. 12	24	14,25	54	36		6	5,8	15,1	3	310218 163,00	310163 189,00	310171 189,00	
UNC 1/4"	20	17,10	62	36		8	6,7	18,1	3	310160 163,00	310164 189,00	310172 189,00	
UNC 5/16"	18	20,40	74	40		10	8,3	21,5	3	310161 171,00	310165 198,00	310173 198,00	
										310162 181,00	310166 208,00	310174 208,00	

ORDER-CODE → GFS										2,5 x D K	2,5 x D KT	2,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNC Nr. 10	24	13,20	54	36		6	5,1	14,0	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNC Nr. 12	24	14,25	54	36		6	5,8	15,1	3	310175 163,00	310183 189,00	310193 189,00	
UNC 1/4"	20	17,10	62	36		8	6,7	18,1	3	310176 163,00	310184 189,00	310194 189,00	
UNC 5/16"	18	20,40	74	40		10	8,3	21,5	3	301405 171,00	310185 198,00	310195 198,00	
UNC 3/8"	16	24,55	80	45		12	10,0	25,8	4	310177 181,00	310186 208,00	310197 208,00	
UNC 7/16"	14	28,05	80	45		12	11,7	29,5	4	310178 201,00	310187 229,00	310198 229,00	
UNC 1/2"	13	32,20	90	45		14	13,3	33,7	4	310179 201,00	310188 229,00	310199 229,00	
UNC 9/16"	12	37,00	102	48		16	15,0	38,7	4	310180 299,00	310189 328,00	310200 328,00	
UNC 5/8"	11	40,35	102	48		18	16,7	42,2	4	310181 350,00	310190 381,00	310201 381,00	
										310182 448,00	310191 489,00	310202 489,00	

3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser für Innengewinde

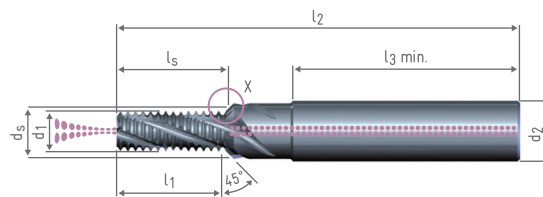
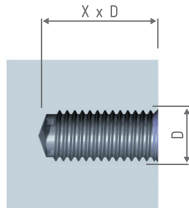
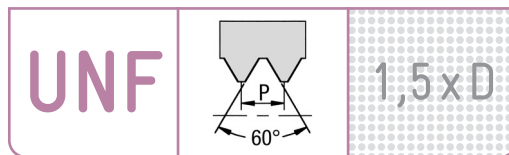
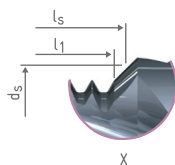
UNF-Feingewinde ANSI B1.1

Ausführung: 1,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

Unified national fine thread ANSI B1.1

Specification: 1,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										1,5 x D	1,5 x D T	1,5 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l ₃ min.	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNF Nr. 10	32	8,30	54	36		6	5,1	9,0	3	Art.-Nr. 300433 154,00	Art.-Nr. 310203 172,00	Art.-Nr. 300436 172,00	
UNF Nr. 12	28	9,50	54	36		6	5,8	10,3	3	Art.-Nr. 301908 154,00	Art.-Nr. 310204 172,00	Art.-Nr. 301914 172,00	

ORDER-CODE → GFS										1,5 x D K	1,5 x D KT	1,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l ₃ min.	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNF Nr. 10	32	8,30	54	36		6	5,1	9,0	3	Art.-Nr. 310209 154,00	Art.-Nr. 310211 172,00	Art.-Nr. 310218 172,00	
UNF Nr. 12	28	9,50	54	36		6	5,8	10,3	3	Art.-Nr. 310210 154,00	Art.-Nr. 310212 172,00	Art.-Nr. 310219 172,00	
UNF 1/4"	28	11,30	62	36		8	6,7	12,1	3	Art.-Nr. 305015 161,00	Art.-Nr. 310213 187,00	Art.-Nr. 310220 187,00	
UNF 5/16"	24	13,20	74	40		10	8,3	14,1	3	Art.-Nr. 302124 183,00	Art.-Nr. 310214 210,00	Art.-Nr. 310221 210,00	
UNF 3/8"	24	16,35	80	45		12	10,0	17,4	4	Art.-Nr. 300118 206,00	Art.-Nr. 301674 234,00	Art.-Nr. 301920 234,00	
UNF 7/16"	20	18,35	80	45		12	11,7	19,6	4	Art.-Nr. 300434 206,00	Art.-Nr. 304799 234,00	Art.-Nr. 300437 234,00	
UNF 1/2"	20	20,90	90	45		14	13,3	22,1	4	Art.-Nr. 301912 301,00	Art.-Nr. 310215 331,00	Art.-Nr. 301921 331,00	
UNF 9/16"	18	23,25	102	48		16	15,0	24,6	4	Art.-Nr. 300435 330,00	Art.-Nr. 310216 361,00	Art.-Nr. 300438 361,00	
UNF 5/8"	18	26,05	102	48		18	16,7	27,5	4	Art.-Nr. 301913 423,00	Art.-Nr. 310217 454,00	Art.-Nr. 301922 454,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFS

Vollhartmetall-Gewindefräser für Innengewinde

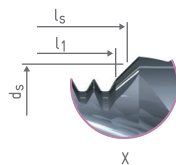
UNF-Feingewinde ANSI B1.1

Ausführung: 2 x D, 45° Senkfase,
Zylinderschaft und Rechtsspiralnuten

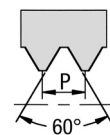
Solid carbide thread milling cutters for internal threads

Unified national fine thread ANSI B1.1

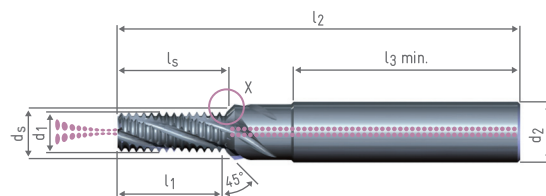
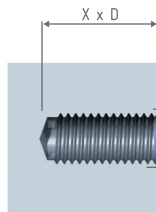
Specification: 2 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



UNF



2 x D



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										→ 2 x D	2 x D T	2 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l ₃ min.	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNF Nr. 10	32	11,50	54	36		6	5,1	12,1	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNF Nr. 12	28	12,20	54	36		6	5,8	13,0	3	300155 154,00	304604 172,00	300446 172,00	
UNF 1/4"	28	14,05	62	36		8	6,7	14,8	3	300156 154,00	304874 172,00	300447 172,00	
UNF 3/16"	24	17,40	74	40		10	8,3	18,3	3	300439 161,00	301227 187,00	300448 187,00	
										300440 183,00	310222 210,00	300449 210,00	

ORDER-CODE → GFS										→ 2 x D K	2 x D KT	2 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l ₃ min.	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNF Nr. 10	32	11,50	54	36		6	5,1	12,1	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNF Nr. 12	28	12,20	54	36		6	5,8	13,0	3	304937 154,00	304960 172,00	304936 172,00	
UNF 1/4"	28	14,05	62	36		8	6,7	14,8	3	304962 154,00	304961 172,00	310223 172,00	
UNF 3/16"	24	17,40	74	40		10	8,3	18,3	3	300693 161,00	304875 187,00	302204 187,00	
UNF 3/8"	24	20,60	80	45		12	10,0	21,6	4	300152 183,00	304876 210,00	301960 210,00	
UNF 7/16"	20	24,70	80	45		12	11,7	25,9	4	300444 206,00	304877 234,00	300461 234,00	
UNF 1/2"	20	27,25	90	45		14	13,3	28,5	4	300266 206,00	304878 234,00	300462 234,00	
UNF 9/16"	18	30,30	102	48		16	15,0	31,6	4	300153 301,00	304879 331,00	300463 331,00	
UNF 5/8"	18	33,10	102	48		18	16,7	34,5	4	300445 330,00	304880 361,00	301926 361,00	
										300154 423,00	304881 454,00	300464 454,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFS

Vollhartmetall-Gewindefräser für Innengewinde

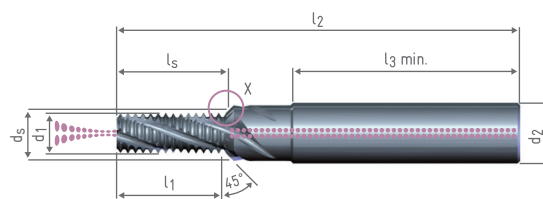
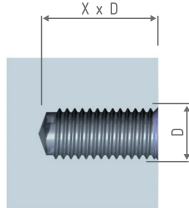
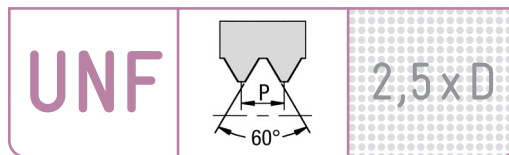
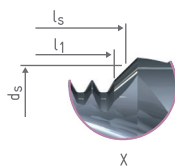
UNF-Feingewinde ANSI B1.1

Ausführung: 2,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

Unified national fine thread ANSI B1.1

Specification: 2,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										2,5 x D	2,5 x D T	2,5 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNF Nr. 10	32	12,30	54	36		6	5,1	12,9	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNF Nr. 12	28	14,00	54	36		6	5,8	14,8	3	301377 163,00	310225 181,00	310229 181,00	
UNF 1/4"	28	16,75	62	36		8	6,7	17,6	3	310224 163,00	310226 181,00	310230 181,00	
UNF 5/16"	24	20,60	74	40		10	8,3	21,5	3	300549 171,00	310227 189,00	301972 189,00	
										301300 194,00	310228 221,00	304677 221,00	

ORDER-CODE → GFS										2,5 x D K	2,5 x D KT	2,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)	
UNF Nr. 10	32	12,30	54	36		6	5,1	12,9	3	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €	
UNF Nr. 12	28	14,00	54	36		6	5,8	14,8	3	304984 163,00	310236 181,00	304965 181,00	
UNF 1/4"	28	16,75	62	36		8	6,7	17,6	3	310231 163,00	310237 181,00	310245 181,00	
UNF 5/16"	24	20,60	74	40		10	8,3	21,5	3	310232 171,00	310238 189,00	310246 189,00	
UNF 3/8"	24	24,85	80	45		12	10,0	25,8	4	310233 194,00	310239 221,00	310247 221,00	
UNF 7/16"	20	28,55	80	45		12	11,7	29,7	4	301614 218,00	310240 246,00	310248 246,00	
UNF 1/2"	20	32,35	90	45		14	13,3	33,5	4	304922 218,00	310241 246,00	305020 246,00	
UNF 9/16"	18	35,95	102	48		16	15,0	37,3	4	305137 319,00	310242 349,00	310249 349,00	
UNF 5/8"	18	40,15	102	48		18	16,7	41,6	4	301137 350,00	310243 381,00	310250 381,00	
										310235 448,00	310244 479,00	310251 479,00	

3 x D auf Anfrage

3 x D on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFM UN

Vollhartmetall-Gewindefräser
für Innengewinde

UN-Gewinde ANSI B1.1

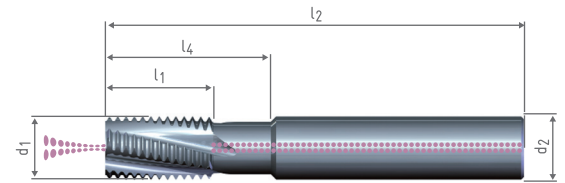
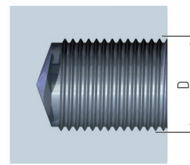
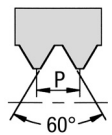
Ausführung: Zylinderschaft mit Kühlkanal
und Rechtsspiralnuten

Solid carbide thread milling cutters
for internal threads

Unified national thread ANSI B1.1

Specification: Straight shank with internal coolant
and right hand spiral flutes

UN



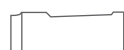
→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM UN								→		T		F	
d ₁ Fräser Nenn-Ø Cutter nom. Ø	P Gg/1" tpi	l ₂	l ₁	D ≥ für Gew.-Ø for thread Ø	d ₂	l ₄ Nutz- länge use length	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
↓	↓							Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
10	24	70	16	1/2"	10	25	4	300317	209,00	311013	230,00	300582	230,00
12	24	80	20	5/8"	12	31	4	300318	248,00	311014	274,00	301018	274,00
12	20	80	20	11/16"	12	31	4	300319	248,00	311015	274,00	300557	274,00
12	18	80	20	5/8"	12	31	4	300320	224,00	304865	250,00	301939	250,00
12	16	80	20	5/8"	12	31	4	300321	224,00	301094	250,00	300527	250,00
12	10	80	20	3/4"	12	31	4	311033	260,00	311034	286,00	311035	286,00
16	24	90	25	13/16"	16	40	5	300322	316,00	311016	347,00	300581	347,00
16	20	90	25	13/16"	16	40	5	300323	299,00	311017	330,00	302153	330,00
16	18	90	25	7/8"	16	40	5	300324	281,00	311018	312,00	300751	312,00
16	16	90	25	7/8"	16	40	5	300325	281,00	301317	312,00	300528	312,00
16	14	90	25	7/8"	16	40	5	300326	286,00	301145	317,00	301961	317,00
16	12	90	25	7/8"	16	40	5	300327	291,00	301214	322,00	300335	322,00
16	10	90	25	7/8"	16	40	5	311019	291,00	311021	320,00	311020	320,00
20	20	105	33	1"	20	50	5	300328	407,00	311022	442,00	300583	442,00
20	18	105	33	1"	20	50	5	300329	399,00	311023	434,00	300794	434,00
20	16	105	33	1"	20	50	5	300330	399,00	311024	434,00	302159	434,00
20	12	105	33	1"	20	50	5	300332	408,00	301596	438,00	300750	438,00
20	8	105	33	1"	20	50	5	300334	423,00	304866	458,00	300526	458,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge



BGF

Vollhartmetall-Bohrungwindefräser
für Innengewinde

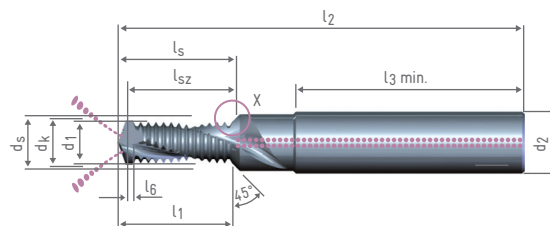
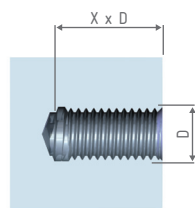
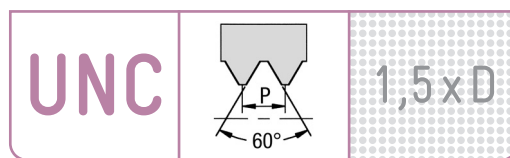
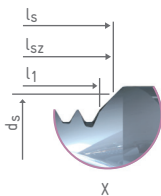
UNC-Grobgewinde ANSI B1.1

Ausführung: 1,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

Solid carbide drill thread milling cutters
for internal threads

Unified national coarse thread ANSI B1.1

Specification: 1,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF													1,5 x D	1,5 x D T	1,5 x D F
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
UNC Nr. 10	24	9,10	54	36		6	5,1	9,9	9,2	3,80	1,1	2	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €
UNC Nr. 12	24	9,25	54	36		6	5,8	10,1	9,3	4,50	1,1	2	410135 218,00	410131 236,00	410141 236,00
UNC 1/4"	20	11,00	62	36		8	6,7	12,0	11,1	5,10	1,3	2	410134 211,00	410136 229,00	410142 229,00
UNC 5/16"	18	13,80	74	40		10	8,3	14,9	13,7	6,40	1,4	2	400119 199,00	410138 217,00	410143 217,00
UNC 3/8"	16	17,15	80	45		12	10,0	18,4	17,0	7,80	1,5	2	400106 236,00	410139 261,00	410144 261,00
													400076 286,00	410140 313,00	400056 313,00

ORDER-CODE → BGF													1,5 x D K	1,5 x D KT	1,5 x D KF
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
UNC 1/4"	20	11,00	62	36		8	6,7	12,0	11,1	5,10	1,3	2	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €
UNC 5/16"	18	13,80	74	40		10	8,3	14,9	13,7	6,40	1,4	2	400118 247,00	410132 265,00	410154 265,00
UNC 3/8"	16	17,15	80	45		12	10,0	18,4	17,0	7,80	1,5	2	400107 296,00	410148 322,00	410155 322,00
UNC 7/16"	14	19,40	80	45		12	11,7	20,8	19,1	9,20	1,5	2	410145 350,00	410149 376,00	410133 376,00
UNC 1/2"	13	20,90	90	45		14	13,3	22,4	20,5	10,60	1,5	2	410146 397,00	410150 425,00	410156 425,00
UNC 9/16"	12	24,75	102	48		16	15,0	26,4	24,2	12,20	1,5	2	400149 451,00	410151 480,00	410157 480,00
UNC 5/8"	11	26,90	102	48		18	16,7	28,8	26,4	13,40	1,5	2	410147 533,00	410152 564,00	410158 564,00
													400584 595,00	410153 626,00	410159 626,00

Preise für weitere Ausführungen auf Anfrage

Prices for further versions on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

BGF

Vollhartmetall-Bohrungwindefräser
für Innengewinde

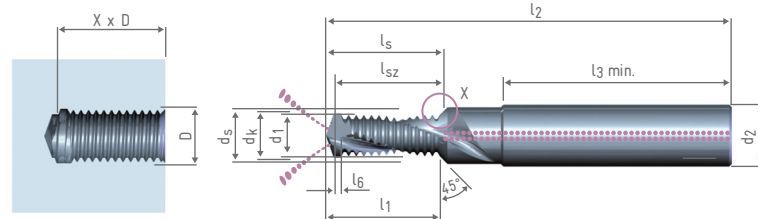
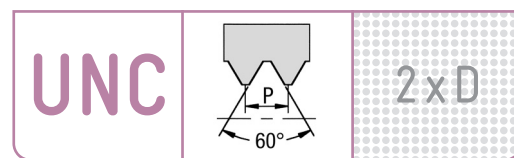
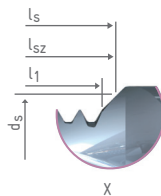
UNC-Grobgewinde ANSI B1.1

Ausführung: 2 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

**Solid carbide drill thread milling cutters
for internal threads**

Unified national coarse thread ANSI B1.1

Specification: 2 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → BGF													→ 2 x D	2 x D T	2 x D F
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
UNC Nr. 10	24	11,25	54	36		6	5,1	12,0	11,3	3,80	1,1	2	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €
UNC Nr. 12	24	12,40	54	36		6	5,8	13,3	12,5	4,50	1,1	2	410171 218,00	410173 236,00	410208 236,00
UNC 1/4"	20	14,85	62	36		8	6,7	15,8	14,9	5,10	1,3	2	410172 211,00	410174 229,00	411071 229,00
UNC 5/16"	18	18,00	74	40		10	8,3	19,1	17,9	6,40	1,4	2	400117 199,00	401039 217,00	411072 217,00
UNC 3/8"	16	21,90	80	45		12	10,0	23,1	21,7	7,80	1,5	2	400104 236,00	401041 261,00	411073 261,00
													400047 286,00	401043 313,00	411074 313,00

ORDER-CODE → BGF													→ 2 x D K	2 x D KT	2 x D KF
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN	TiAlN (Futura)
UNC 1/4"	20	14,85	62	36		8	6,7	15,8	14,9	5,10	1,3	2	Art.-Nr. €	Art.-Nr. €	Art.-Nr. €
UNC 5/16"	18	18,00	74	40		10	8,3	19,1	17,9	6,40	1,4	2	400116 247,00	401040 265,00	410209 265,00
UNC 3/8"	16	21,90	80	45		12	10,0	23,1	21,7	7,80	1,5	2	400103 296,00	401042 322,00	411075 322,00
UNC 7/16"	14	24,85	80	45		12	11,7	26,3	24,6	9,20	1,5	2	400081 350,00	401044 376,00	411076 376,00
UNC 1/2"	13	26,80	90	45		14	13,3	28,3	26,4	10,60	1,5	2	400551 397,00	401046 425,00	411077 425,00
UNC 9/16"	12	31,10	102	48		16	15,0	32,8	30,6	12,20	1,5	2	400552 451,00	401047 480,00	411078 480,00
UNC 5/8"	11	36,15	102	48		18	16,7	38,0	35,6	13,40	1,5	2	400553 533,00	401048 564,00	411079 564,00
													410175 595,00	410176 626,00	411080 626,00

Preise für weitere Ausführungen auf Anfrage

Prices for further versions on request

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



BGF

Vollhartmetall-Bohrgewindefräser
für Innengewinde

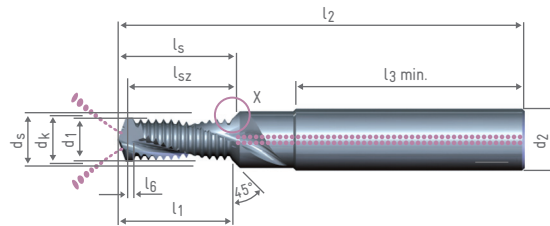
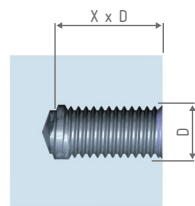
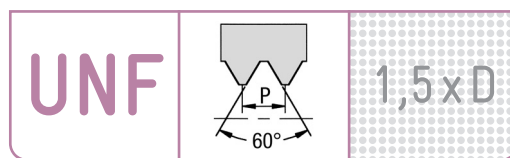
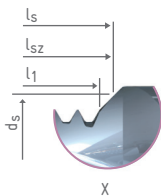
UNF-Feingewinde ANSI B1.1

Ausführung: 1,5 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

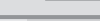
**Solid carbide drill thread milling cutters
for internal threads**

Unified national fine thread ANSI B1.1

Specification: 1,5 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

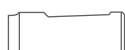
ORDER-CODE → BGF													→		1,5 x D		1,5 x D T		1,5 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)			
																				
UNF Nr. 10	32	7,85	54	36		6	5,1	8,5	7,8	4,10	0,8	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€		
UNF Nr. 12	28	9,85	54	36		6	5,8	10,6	9,8	4,60	0,9	2	411085	223,00	411088	241,00	411092	241,00		
UNF 1/4"	28	10,90	62	36		8	6,7	11,7	10,7	5,50	0,9	2	411086	216,00	411089	234,00	411093	234,00		
UNF 5/16"	24	13,90	74	40		10	8,3	14,8	13,6	6,80	1,1	2	411087	257,00	411090	283,00	411094	283,00		
UNF 3/8"	24	16,30	80	45		12	10,0	17,3	15,8	8,50	1,1	2	400243	311,00	411091	337,00	411095	337,00		

ORDER-CODE → BGF													1,5 x D K		1,5 x D KT		1,5 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated	TiCN		TiAlN (Futura)		
																		
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
UNF 1/4"	28	10,90	62	36		8	6,7	11,7	10,7	5,50	0,9	2	400445	264,00	411083	282,00	411084	282,00
UNF 5/16"	24	13,90	74	40		10	8,3	14,8	13,6	6,80	1,1	2	411096	318,00	411100	343,00	411106	343,00
UNF 3/8"	24	16,30	80	45		12	10,0	17,3	15,8	8,50	1,1	2	400242	374,00	411101	401,00	411107	401,00
UNF 7/16"	20	18,25	80	45		12	11,7	19,4	17,6	9,70	1,3	2	400313	422,00	411102	449,00	411108	449,00
UNF 1/2"	20	21,10	90	45		14	13,3	22,3	20,2	11,30	1,3	2	411097	471,00	411103	500,00	411109	500,00
UNF 9/16"	18	23,40	102	48		16	15,0	24,8	22,5	12,80	1,4	2	411098	555,00	411104	585,00	411110	585,00
UNF 5/8"	18	26,50	102	48		18	16,7	27,9	25,3	14,40	1,4	2	411099	617,00	411105	647,00	411111	647,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

BGF

Vollhartmetall-Bohrungwindefräser
für Innengewinde

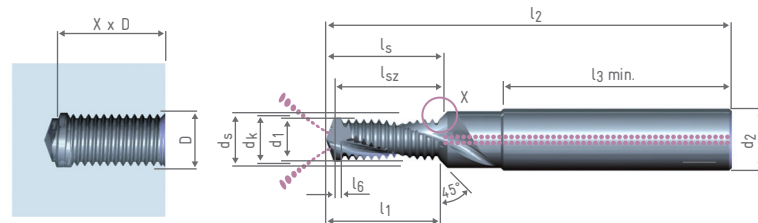
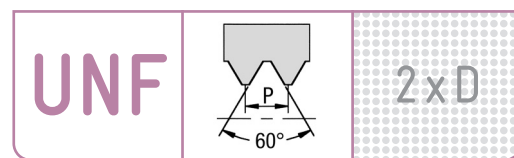
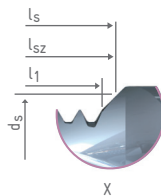
UNF-Feingewinde ANSI B1.1

Ausführung: 2 x D, 45° Senkfase, Zylinderschaft
und Rechtsspiralnuten

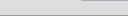
**Solid carbide drill thread milling cutters
for internal threads**

Unified national fine thread ANSI B1.1

Specification: 2 x D, 45° chamfer for countersinking,
straight shank and right hand spiral flutes



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

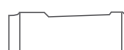
ORDER-CODE → BGF													→		2 x D		2 x D T		2 x D F	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)			
																				
UNF Nr. 10	32	10,20	54	36		6	5,1	10,9	10,2	4,10	0,8	2	Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€		
UNF Nr. 12	28	12,55	54	36		6	5,8	13,4	12,6	4,60	0,9	2	400115	226,00	401049	244,00	410182	244,00		
UNF 1/4"	28	12,70	62	36		8	6,7	13,5	12,5	5,50	0,9	2	410177	223,00	410178	241,00	410181	241,00		
UNF 5/16"	24	18,15	74	40		10	8,3	19,1	17,9	6,80	1,1	2	401103	216,00	401054	234,00	410180	234,00		
UNF 3/8"	24	20,55	80	45		12	10,0	21,6	20,1	8,50	1,1	2	401104	257,00	401055	283,00	410179	283,00		
	24	20,55	80	45		12	10,0	21,6	20,1	8,50	1,1	2	400244	311,00	401050	337,00	400968	337,00		

ORDER-CODE → BGF													→		2 x D K		2 x D KT		2 x D KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	l _{sz}	d _k	l ₆	z Nuten- zahl No. of flutes	blank uncoated 		TiCN 		TiAlN (Futura) 			
													Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€		
UNF 1/4"	28	12,70	62	36		8	6,7	13,5	12,5	5,50	0,9	2	401105	264,00	410184	282,00	410203	282,00		
UNF 5/16"	24	18,15	74	40		10	8,3	19,1	17,9	6,80	1,1	2	401106	318,00	410185	343,00	411000	343,00		
UNF 3/8"	24	20,55	80	45		12	10,0	21,6	20,1	8,50	1,1	2	400245	374,00	401051	401,00	411001	401,00		
UNF 7/16"	20	24,60	80	45		12	11,7	25,8	24,0	9,70	1,3	2	400305	422,00	401053	449,00	411002	449,00		
UNF 1/2"	20	27,40	90	45		14	13,3	28,6	26,5	11,30	1,3	2	401107	471,00	410186	500,00	411003	500,00		
UNF 9/16"	18	30,45	102	48		16	15,0	31,8	29,5	12,80	1,4	2	410183	555,00	410187	585,00	411004	585,00		
UNF 5/8"	18	33,55	102	48		18	16,7	35,0	32,4	14,40	1,4	2	400680	617,00	410188	647,00	411005	647,00		

→ HB



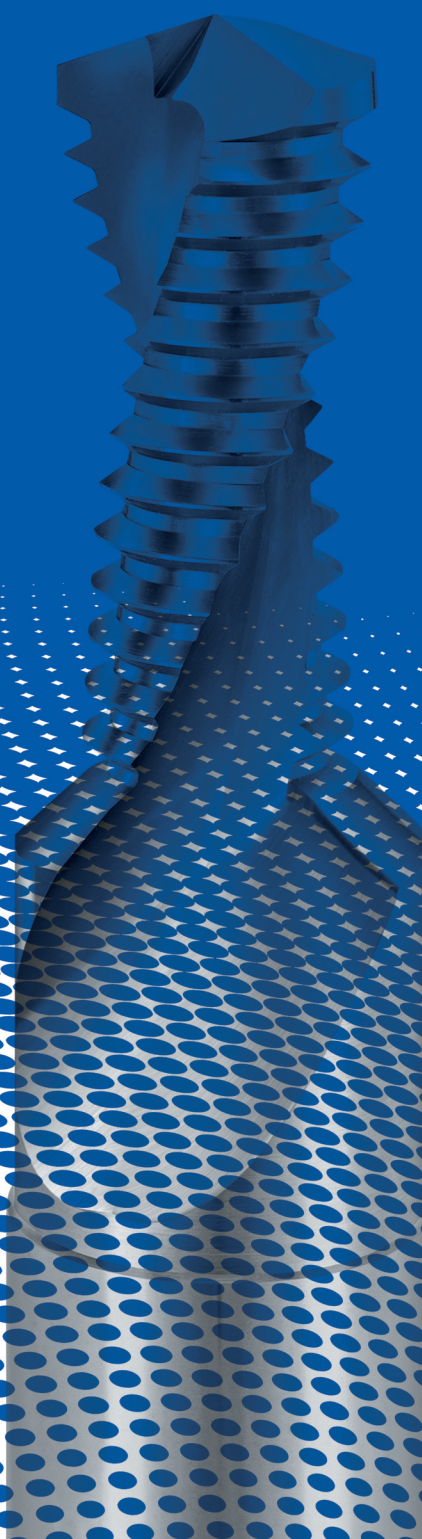
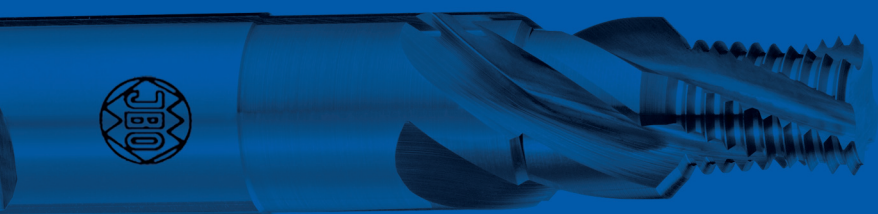
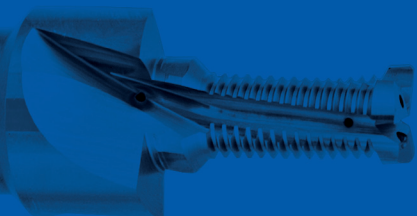
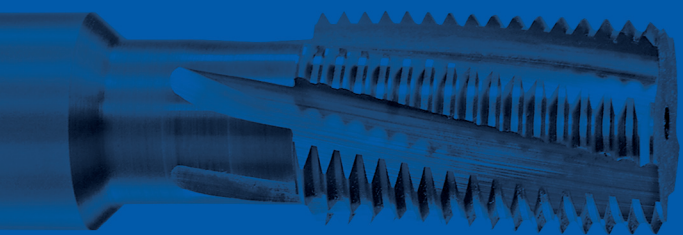
→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant





GF

Vollhartmetall-Gewindefräser für Innengewinde

NPT-Kegeliges Amerikanisches Rohrgewinde ANSI B1.20.1

Kegel 1:16, Für Gewinde mit Dichtmittel
Ausführung: Zylinderschaft mit Kühlkanal und Rechtsspiralnuten

Solid carbide thread milling cutters for internal threads

American Standard taper pipe thread ANSI B1.20.1
Taper 1:16, For threads used with jointing compound
Specification: Straight shank with internal coolant and right hand spiral flutes

→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GF						K		KT		KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
NPT 1/16"	27	9,86	64	8	3	310038	188,00	310039	214,00	310040	214,00
NPT 1/8"	27	9,86	64	8	4	300114	188,00	301468	214,00	300251	214,00
NPT 1/4"	18	18,98	72	12	4	300121	242,00	300531	268,00	300252	268,00
NPT 3/8"	18	14,82	80	14	4	300250	260,00	300532	287,00	300107	287,00
NPT 1/2"	14	19,05	80	14	4	300802	321,00	301122	350,00	302233	350,00

GFS

Vollhartmetall-Gewindefräser für Innengewinde

NPT-Kegeliges Amerikanisches Rohrgewinde ANSI B1.20.1

Kegel 1:16, Für Gewinde mit Dichtmittel
Ausführung: 45° Senkfasse, Zylinderschaft mit Kühlkanal und Rechtsspiralnuten

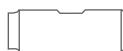
Solid carbide thread milling cutters for internal threads

American Standard taper pipe thread ANSI B1.20.1
Taper 1:16, For threads used with jointing compound
Specification: 45° chamfer for countersinking, straight shank with internal coolant and right hand spiral flutes

→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										K		KT		KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	l _{3 min.}	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
										Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€
NPT 1/16"	27	9,86	70	40		10	8,3	11,1	3	310252	210,00	310253	235,00	310254	235,00
NPT 1/8"	27	9,86	70	45		12	10,0	11,2	4	300404	233,00	304845	261,00	300406	261,00
NPT 1/4"	18	14,79	80	48		16	13,1	16,4	4	300405	298,00	301212	326,00	300407	326,00
NPT 3/8"	18	14,79	80	48		18	16,7	16,9	4	300117	428,00	304846	457,00	300408	457,00

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFM

Vollhartmetall-Gewindefräser
für Innengewinde

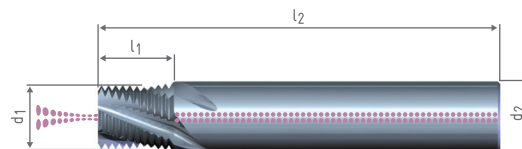
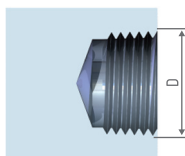
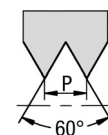
NPT-Kegeliges Amerikanisches
Rohrgewinde ANSI B1.20.1

Kegel 1:16, Für Gewinde mit Dichtmittel
Ausführung: Zylinderschaft mit Kühlkanal
und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

American Standard taper pipe thread ANSI B1.20.1
Taper 1:16, For threads used with jointing compound
Specification: Straight shank with internal coolant
and right hand spiral flutes

NPT



→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM NPT →							T		F			
d ₁ Fräser Nenn-Ø Cutter nom. Ø	P Gg/1" tpi	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)	
↓							Art.-Nr.		Art.-Nr.		Art.-Nr.	
14,5	14	19,05	90	NPT 1/2"	16	5	300336	408,00	301101	439,00	300340	439,00
18,5	11,5	23,19	90	NPT 1"	20	5	300337	500,00	301102	535,00	300341	535,00

GF

Vollhartmetall-Gewindefräser
für Innengewinde

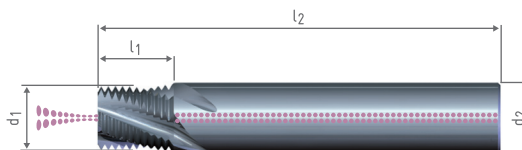
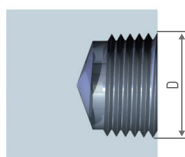
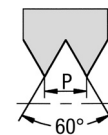
NPTF-Kegeliges Amerikanisches
Rohrgewinde ANSI B1.20.3

Kegel 1:16, Für Gewinde ohne Dichtmittel
Ausführung: Zylinderschaft mit Kühlkanal und
Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

American Standard taper pipe thread ANSI B1.20.3
Taper 1:16, For threads used without jointing compound
Specification: Straight shank with internal coolant
and right hand spiral flutes

NPTF



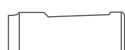
→ HA (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GF →							K		KT		KF	
D ↓	P Gg/1" tpi	l ₁	l ₂	d ₂	z Nuten- zahl No. of flutes	blank uncoated	TiCN		TiAlN (Futura)			
						Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	
NPTF 1/16"	27	9,86	62	8	3	310042	207,00	310043	234,00	310044	234,00	
NPTF 1/8"	27	9,86	64	8	4	301837	207,00	301297	234,00	301840	234,00	
NPTF 1/4"	18	18,98	72	12	4	300255	266,00	304503	293,00	301841	293,00	
NPTF 3/8"	18	14,82	80	14	4	300254	286,00	310041	315,00	300256	315,00	
NPTF 1/2"	14	19,05	80	14	4	303494	353,00	305035	384,00	303501	384,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K

Kühlkanal
internal coolant

GFS

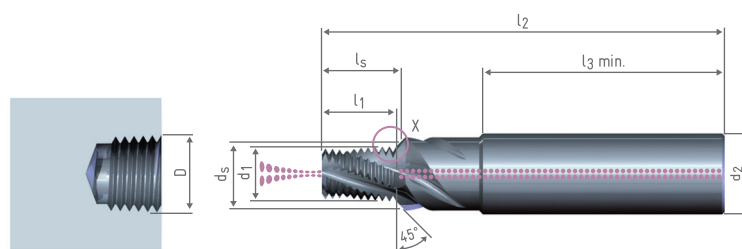
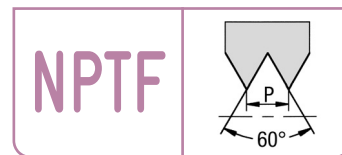
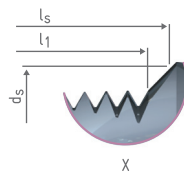
Vollhartmetall-Gewindefräser
für Innengewinde

**NPTF-Kegeliges Amerikanisches
Rohrgewinde ANSI B1.20.3**

Kegel 1:16, Für Gewinde ohne Dichtmittel
Ausführung: 45° Senkfase, Zylinderschaft mit
Kühlkanal und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

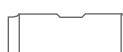
American Standard taper pipe thread ANSI B1.20.3
Taper 1:16, For threads used without jointing compound
Specification: 45° chamfer for countersinking,
straight shank with internal coolant and right hand spiral flutes



→ **HA** (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFS										K		KT		KF		
D ↓	P Gg/1" tpi	l ₁	l ₂	l ₃ min.	d ₁	d ₂	d _s	l _s	z Nuten- zahl No. of flutes	blank uncoated		TiCN		TiAlN (Futura)		
										Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	
NPTF 1/16"	27	9,83	70	40		10	8,3	11,1	3	310255	231,00	310256	257,00	310257	257,00	
NPTF 1/8"	27	9,83	70	45		12	10,0	11,2	4	300409	256,00	301655	284,00	301877	284,00	
NPTF 1/4"	18	14,77	80	48		16	13,1	16,3	4	300410	328,00	304857	358,00	300412	358,00	
NPTF 3/8"	18	14,77	80	48		18	16,7	16,9	4	300411	470,00	310258	501,00	300413	501,00	

→ HB



→ HE



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge

K Kühlkanal
internal coolant



GFM

Vollhartmetall-Gewindefräser
für Innengewinde

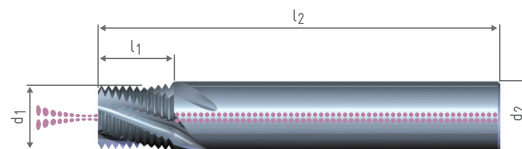
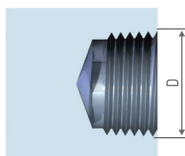
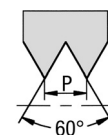
**NPTF-Kegeliges Amerikanisches
Rohrgewinde ANSI B1.20.3**

Kegel 1:16, Für Gewinde ohne Dichtmittel
Ausführung: Zylinderschaft mit Kühlkanal
und Rechtsspiralnuten

**Solid carbide thread milling cutters
for internal threads**

American Standard taper pipe thread ANSI B1.20.3
Taper 1:16, For threads used without jointing compound
Specification: Straight shank with internal coolant
and right hand spiral flutes

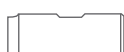
NPTF



→ **HA** (Zyl.-Schaft nach DIN 6535, Straight shank according to DIN 6535)

ORDER-CODE → GFM NPTF →							T		F				
d₁ Fräser Nenn-Ø Cutter nom. Ø ↓	P	l ₁	l ₂	D ≥ für Gew.-Ø for thread Ø	d ₂	z Nuten- zahl No. of flutes	blank uncoated 		TiCN 		TiAlN (Futura) 		
							Art.-Nr.	€	Art.-Nr.	€	Art.-Nr.	€	
	14,5	14	19,05	90	NPTF 1/2"	16	5	300338	428,00	304998	460,00	301849	460,00
	18,5	11,5	23,14	90	NPTF 1"	20	5	301848	525,00	305036	571,00	300339	571,00

→ **HB**



→ **HE**



Zyl.-Schaft nach DIN 6535 HB oder HE, kein Zuschlag
Straight shank according to DIN 6535 HB or HE, no extra charge