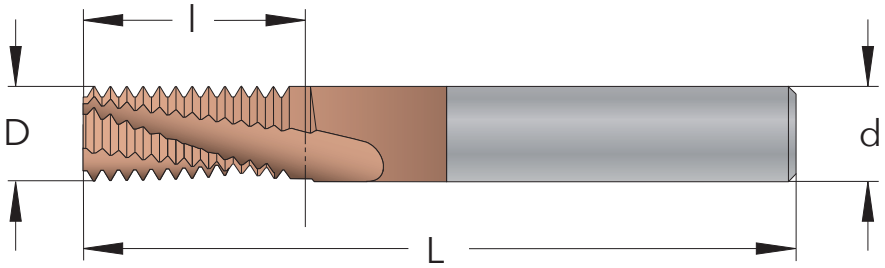
SmiCut STS

SOLID CARBIDE THREAD MILLS *TiAlCN*

ThreadBurr

AC
TiAlCN coated
Micrograin Carbide
Tolerance
The theoretical external diameter of the cutter is lasermarked on the tool.
Shank
Cylindrical h6, DIN6535 HA
Flute
15° right hand spiral
Field of application
Thread Milling of all types of steel



M

METRIC

Pitch mm	M coarse	M fine	INTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
0,4	M2 (1,5xD)		NB04015C3_0.4ISO_AC	4	1,5	3	3,4	50
0,4	M2 (2xD)		NB04015C4_0.4ISO_AC	4	1,5	3	4,6	50
0,45	M2,2 (1,5xD)		NB04016C3_0.45ISO_AC	4	1,6	3	3,82	50
0,45	M2,2 (2xD)		NB04016C5_0.45ISO_AC	4	1,6	3	5,17	50
0,45	M2,5 (1,5xD)		NB04019C4_0.45ISO_AC	4	1,9	3	4,27	50
0,45	M2,5 (2xD)		NB04019C5_0.45ISO_AC	4	1,9	3	5,62	50
0,5	M3 (1,5xD)	≥ M4	NB04023C5_0.5ISO_AC	4	2,3	3	5,25	50
0,5	M3 (2xD)	≥ M4	NB04023C6_0.5ISO_AC	4	2,3	3	6,75	50
0,5	M3 (2,5xD)	≥ M4	NB04023C8_0.5ISO_AC	4	2,3	3	8,25	50
0,5	M3 (1,5xD)	≥ M4	NB06023C5_0.5ISO_AC	6	2,3	3	5,25	63
0,5	M3 (2xD)	≥ M4	NB06023C6_0.5ISO_AC	6	2,3	3	6,75	63
0,5	M3 (2,5xD)	≥ M4	NB06023C8_0.5ISO_AC	6	2,3	3	8,25	63
0,5		≥ M5	NB04038C10_0.5ISO_AC	4	3,8	3	10,75	50
0,5		≥ M5	NB06038C10_0.5ISO_AC	6	3,8	3	10,75	63
0,6	M3,5 (1,5xD)		NB04026C6_0.6ISO_AC	4	2,6	3	6,3	50
0,6	M3,5 (2xD)		NB04026C8_0.6ISO_AC	4	2,6	3	8,1	50
0,7	M4 (1,5xD)		NB0403C7_0.7ISO_AC	4	3	3	7,35	50
0,7	M4 (2xD)		NB0403C8_0.7ISO_AC	4	3	3	8,75	50
0,7	M4 (2,5xD)		NB0403C10_0.7ISO_AC	4	3	3	10,85	50
0,7	M4 (1,5xD)		NB0603C7_0.7ISO_AC	6	3	3	7,35	63
0,7	M4 (2xD)		NB0603C8_0.7ISO_AC	6	3	3	8,75	63
0,7	M4 (2,5xD)		NB0603C10_0.7ISO_AC	6	3	3	10,85	63
0,75	M4,5 (1,5xD)		NB04034C7_0.75ISO_AC	4	3,4	3	7,87	50
0,75	M4,5 (2xD)		NB04034C10_0.75ISO_AC	4	3,4	3	10,12	50
0,75		≥ M6	NB06045C10_0.75ISO_AC	6	4,5	3	10,87	63
0,75		≥ M6	NB06045C16_0.75ISO_AC	6	4,5	3	16,87	63
0,8	M5 (1,5xD)		NB04038C8_0.8ISO_AC	4	3,8	3	8,4	50
0,8	M5 (2xD)		NB04038C10_0.8ISO_AC	4	3,8	3	10,8	50
0,8	M5 (2,5xD)		NB04038C13_0.8ISO_AC	4	3,8	3	13,2	50
0,8	M5 (1,5xD)		NB06038C8_0.8ISO_AC	6	3,8	3	8,4	63
0,8	M5 (2xD)		NB06038C10_0.8ISO_AC	6	3,8	3	10,8	63
0,8	M5 (2,5xD)		NB06038C13_0.8ISO_AC	6	3,8	3	13,2	63
1,0	M6 (1,5xD)	≥ M8	NB06045C10_1.0ISO_AC	6	4,5	3	10,5	63
1,0	M6 (2xD)	≥ M8	NB06045C13_1.0ISO_AC	6	4,5	3	13,5	63
1,0	M6 (2,5xD)	≥ M8	NB06045C16_1.0ISO_AC	6	4,5	3	16,5	63
1,0	M6 (3xD)	≥ M8	NB06045C19_1.0ISO_AC	6	4,5	3	19,5	63
1,0		≥ M8	NB0606C10_1.0ISO_AC	6	6	3	10,5	63
1,0		≥ M8	NB0606C13_1.0ISO_AC	6	6	3	13,5	63
1,0		≥ M10	NB0808D10_1.0ISO_AC	8	8	4	10,5	63
1,0		≥ M10	NB0808D13_1.0ISO_AC	8	8	4	13,5	63
1,0		≥ M10	NB0808D17_1.0ISO_AC	8	8	4	17,5	63
1,0		≥ M12	NB1010E14_1.0ISO_ AC	10	10	5	14,5	76
1,0		≥ M12	NB1010E19_1.0ISO_AC	10	10	5	19,5	76
1,0		≥ M14	NB1212F15_1.0ISO_AC	12	12	6	15,5	83
1,0		≥ M14	NB1212F21_1.0ISO_AC	12	12	6	21,5	83
1,25	M8 (1,5xD)	≥ M10	NB0606C14_1.25ISO_AC	6	6	3	14,37	63

continue

M METRIC

Pitch mm	M coarse	M fine	INTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
1,25	M8 (2xD)	≥ M10	NB0606C18_1.25ISO_AC	6	6	3	18,12	63
1,25	M8 (2,5xD)	≥ M10	NB0606C21_1.25ISO_AC	6	6	3	21,87	63
1,25	M8 (3xD)	≥ M10	NB0606C25_1.25ISO_AC	6	6	3	25,62	76
1,5	M10 (1,5xD)	≥ M12	NB08075C17_1.5ISO_AC	8	7,5	3	17,25	63
1,5	M10 (2xD)	≥ M12	NB08075C21_1.5ISO_AC	8	7,5	3	21,75	76
1,5	M10 (2,5xD)	≥ M12	NB08075C27_1.5ISO_AC	8	7,5	3	27,75	76
1,5	M10 (3xD)	≥ M12	NB08075C32_1.5ISO_AC	8	7,5	3	32,25	76
1,5		≥ M14	NB1010D17_1.5ISO_AC	10	10	4	17,25	76
1,5		≥ M14	NB1010D23_1.5ISO_AC	10	10	4	23,25	76
1,5		≥ M16	NB1212D15_1.5ISO_AC	12	12	4	15,75	83
1,5		≥ M16	NB1212D21_1.5ISO_AC	12	12	4	21,75	83
1,5		≥ M16	NB1212D29_1.5ISO_AC	12	12	4	29,25	83
1,5		≥ M20	NB1616F18_1.5ISO_AC	16	16	6	18,75	89
1,5		≥ M20	NB1616F26_1.5ISO_AC	16	16	6	26,25	89
1,5		≥ M20	NB1616F35_1.5ISO_AC	16	16	6	35,25	100
1,75	M12 (1,5xD)		NB0808C20_1.75ISO_AC	8	8	3	20,12	76
1,75	M12 (2xD)		NB0808C27_1.75ISO_AC	8	8	3	27,12	76
1,75	M12 (1,5xD)		NB1009C20_1.75ISO_AC	10	9	3	20,12	76
1,75	M12 (2xD)		NB1009C27_1.75ISO_AC	10	9	3	27,12	76
1,75	M12 (2,5xD)		NB1009C32_1.75ISO_AC	10	9	3	32,37	100
1,75	M12 (3xD)		NB1009C37_1.75ISO_AC	10	9	3	37,62	100
2,0	M14 (1,5xD)	≥ M18	NB1010C23_2.0ISO_AC	10	10	3	23	76
2,0	M14 (2xD)	≥ M18	NB1010C31_2.0ISO_AC	10	10	3	31	100
2,0	M14 (2,5xD)	≥ M18	NB1010C37_2.0ISO_AC	10	10	3	37	100
2,0	M16 (1,5xD)	≥ M18	NB1212D27_2.0ISO_AC	12	12	4	27	83
2,0	M16 (2xD)	≥ M18	NB1212D35_2.0ISO_AC	12	12	4	35	100
2,0	M16 (2,5xD)	≥ M18	NB1212D43_2.0ISO_AC	12	12	4	43	100
2,0	M16 (3xD)	≥ M18	NB1212C51_2.0ISO_AC	12	12	3	51	100
2,0		≥ M20	NB1616E29_2.0ISO_AC	16	16	5	29	89
2,0		≥ M20	NB1616E39_2.0ISO_AC	16	16	5	39	100
2,0		≥ M24	NB2020F43_2.0ISO_AC	20	20	6	43	100
2,5	M18 (1,5xD)		NB1212C31_2.5ISO_AC	12	12	3	31,25	100
2,5	M18 (2xD)		NB1212C38_2.5ISO_AC	12	12	3	38,75	100
2,5	M18 (2,5xD)		NB1212C48_2.5ISO_AC	12	12	3	48,75	100
2,5	M20 (1,5xD)		NB1414D33_2.5ISO_AC	14	14	4	33,75	89
2,5	M20 (2xD)		NB1414D43_2.5ISO_AC	14	14	4	43,75	100
2,5	M20 (2,5xD)		NB1615D53_2.5ISO_AC	16	15	4	53,75	120
2,5	M20 (3xD)		NB1615C63_2.5ISO_AC	16	15	3	63,75	120
3,0	M24 (1,5xD)	≥ M30	NB1616C40_3.0ISO_AC	16	16	3	40,5	100
3,0	M24 (2xD)	≥ M30	NB1616C52_3.0ISO_AC	16	16	3	52,5	120
3,0	M24 (2,5xD)	≥ M30	NB1818C64_3.0ISO_AC	18	18	3	64,5	130
3,0		≥ M30	NB2020D46_3.0ISO_AC	20	20	4	46,5	120
3,5	M30 (1,5xD)		NB2020C50_3.5ISO_AC	20	20	3	50,75	120
3,5	M30 (2xD)		NB2020C64_3.5ISO_AC	20	20	3	64,75	150
3,5	M30 (2,5xD)		NB2020C78_3.5ISO_AC	20	20	3	78,75	150

M METRIC (external)

Pitch mm	EXTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
1,0	EB1010D21_1.0ISO_AC	10	10	4	21,5	76
1,5	EB1212D26_1.5ISO_AC	12	12	4	26,25	83
2,0	EB1616D35_2.0ISO_AC	16	16	4	35	100

UN

UNIFIED

Pitch TPI	UNC	UNF	INTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
44		No.5 (1,5xD)	NB04024C5_44UN_AC	4	2,4	3	5,48	50
40	No.5 (1,5xD)		NB04023C5_40UN_AC	4	2,3	3	5,4	50
40	No.5 (2xD)		NB04023C7_40UN_AC	4	2,3	3	7,3	50
40	No.5 (2,5xD)		NB04023C8_40UN_AC	4	2,3	3	8,57	50
40		No.6 (1,5xD)	NB04026C6_40UN_AC	4	2,6	3	6,03	50
36		No.8 (1,5xD)	NB04031C7_36UN_AC	4	3,1	3	7,41	50
36		No.8 (2xD)	NB04031C9_36UN_AC	4	3,1	3	9,53	50
32	No.6 (1,5xD)		NB04025C6_32UN_AC	4	2,5	3	6,75	50
32	No.6 (2xD)		NB04025C8_32UN_AC	4	2,5	3	8,33	50
32	No.6 (2,5xD)		NB04025C10_32UN_AC	4	2,5	3	9,92	50
32	No.8 (1,5xD)		NB0403C7_32UN_AC	4	3	3	7,54	50
32	No.8 (2xD)		NB0403C9_32UN_AC	4	3	3	9,13	50
32	No.8 (2,5xD)		NB0403C11_32UN_AC	4	3	3	11,51	50
32		No.10 (1,5xD)	NB04036C8_32UN_AC	4	3,6	3	8,33	50
32		No.10 (2xD)	NB04036C10_32UN_AC	4	3,6	3	10,72	50
32			NB0606D13_32UN_AC	6	6	4	13,1	63
28		No.12 (1,5xD)	NB0404C9_28UN_AC	4	4	3	9,52	50
28		No.12 (2xD)	NB0404C12_28UN_AC	4	4	3	12,25	50
28		1/4 (1,5xD)	NB0605C10_28UN_AC	6	5	3	10,43	63
28		1/4 (2xD)	NB0605C14_28UN_AC	6	5	3	14,06	63
28			NB0808D17_28UN_AC	8	8	4	17,69	63
24	No.10 (1,5xD)		NB04038C9_24UN_AC	4	3,8	3	9	50
24	No.10 (2xD)		NB04038C11_24UN_AC	4	3,8	3	11,11	50
24	No.10 (2,5xD)		NB04038C13_24UN_AC	4	3,8	3	13,23	50
24	No.12 (1,5xD)		NB0404C10_24UN_AC	4	4	3	10,05	50
24	No.12 (2xD)		NB0404C12_24UN_AC	4	4	3	12,17	50
24	No.12 (2,5xD)		NB0404C15_24UN_AC	4	4	3	15,35	50
24		5/16 (1,5xD)	NB0606C13_24UN_AC	6	6	3	13,23	63
24		5/16 (2xD)	NB0606C17_24UN_AC	6	6	3	17,46	63
24		3/8 (1,5xD)	NB08076C15_24UN_AC	8	7,6	3	15,35	63
24		3/8 (2xD)	NB08076C20_24UN_AC	8	7,6	3	20,64	76
20	1/4 (1,5xD)		NB06045C10_20UN_AC	6	4,5	3	10,8	63
20	1/4 (2xD)		NB06045C14_20UN_AC	6	4,5	3	14,6	63
20	1/4 (2,5xD)		NB06045C17_20UN_AC	6	4,5	3	17,15	63
20		7/16 (1,5xD)	NB0808C18_20UN_AC	8	8	3	18,41	63
20		7/16 (2xD)	NB0808C23_20UN_AC	8	8	3	23,5	76
20		1/2 (1,5xD)	NB1010D21_20UN_AC	10	10	4	20,96	76
20		1/2 (2xD)	NB1010D27_20UN_AC	10	10	4	27,31	76
20			NB1212E28_20UN_AC	12	12	5	28,57	83
18	5/16 (1,5xD)		NB06058C13_18UN_AC	6	5,8	3	13,41	63
18	5/16 (2xD)		NB06058C17_18UN_AC	6	5,8	3	17,64	63
18	5/16 (2,5xD)		NB06058C21_18UN_AC	6	5,8	3	21,87	63
18		9/16 (1,5xD)	NB1010D23_18UN_AC	10	10	4	23,28	76
18		9/16 (2xD)	NB1010D30_18UN_AC	10	10	4	30,34	100
18		5/8 (1,5xD)	NB1212D26_18UN_AC	12	12	4	26,11	83
18		5/8 (2xD)	NB1212D33_18UN_AC	12	12	4	33,16	100
16	3/8 (1,5xD)		NB0606C16_16UN_AC	6	6	3	16,67	63
16	3/8 (2xD)		NB0606C21_16UN_AC	6	6	3	21,43	63
16	3/8 (2,5xD)		NB0807C26_16UN_AC	8	7	3	26,19	76
16		3/4 (1,5xD)	NB1212D31_16UN_AC	12	12	4	30,96	100
16		3/4 (2xD)	NB1212D40_16UN_AC	12	12	4	40,48	100
16			NB1616E35_16UN_AC	16	16	5	35,72	100
14	7/16 (1,5xD)		NB0808C19_14UN_AC	8	8	3	19,05	63
14	7/16 (2xD)		NB0808C24_14UN_AC	8	8	3	24,49	76
14	7/16 (2,5xD)		NB0808C30_14UN_AC	8	8	3	29,94	76
14		7/8 (1,5xD)	NB1616E35_14UN_AC	16	16	5	35,38	100
14		7/8 (2xD)	NB1616E46_14UN_AC	16	16	5	46,26	120
13	1/2 (1,5xD)		NB0808C22_13UN_AC	8	8	3	22,47	76
13	1/2 (2xD)		NB0808C28_13UN_AC	8	8	3	28,33	76
13	1/2 (2,5xD)		NB10093C34_13UN_AC	10	9,3	3	34,19	100

continue

UN — UNIFIED

Pitch TPI	UNC	UNF	INTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
12	9/16 (1,5xD)		NB1010C24_12UN_AC	10	10	3	24,34	76
12	9/16 (2xD)		NB1010C30_12UN_AC	10	10	3	30,69	100
12			NB1616E43_12UN_AC	16	16	5	43,39	100
11	5/8 (1,5xD)		NB1010C26_11UN_AC	10	10	3	26,55	76
11	5/8 (2xD)		NB1010C35_11UN_AC	10	10	3	35,79	100
11	5/8 (2,5xD)		NB12117C42_11UN_AC	12	11,7	3	42,72	100
10	3/4 (1,5xD)		NB1212C31_10UN_AC	12	12	3	31,75	100
10	3/4 (2xD)		NB1212C41_10UN_AC	12	12	3	41,91	100
9	7/8 (1,5xD)		NB1616C38_9UN_AC	16	16	3	38,1	100
9	7/8 (2xD)		NB1616C49_9UN_AC	16	16	3	49,39	120
8	1 (1,5xD)		NB1616C42_8UN_AC	16	16	3	42,86	100
8	1 (2xD)		NB1616C55_8UN_AC	16	16	3	55,56	120
8			NB2020D49_8UN_AC	20	20	4	49,21	120
7	1 1/8 - 1 1/4 (1,5xD)		NB2020C52_7UN_AC	20	20	3	52,61	120
6	1 3/8 - 1 1/2 (1,5xD)		NB2525C61_6UN_AC	25	25	3	61,38	130

G/Rp — WHITWORTH PIPE THREAD

Pitch TPI	Standard	INTERNAL / EXTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
28	G 1/16 - 1/8	XB0606C10_28W_AC	6	6	3	10,43	63
19	G 1/4 - 3/8	XB0808C15_19W_AC	8	8	3	15,37	63
19	G 1/4 - 3/8	XB1010D22_19W_AC	10	10	4	22,06	76
14	G 1/2 - 7/8	XB1212D20_14W_AC	12	12	4	20,86	83
14	G 1/2 - 7/8	XB1212D28_14W_AC	12	12	4	28,12	83
14	G 1/2 - 7/8	XB1616E28_14W_AC	16	16	5	28,12	89
11	G 1 - 1 1/2	XB1212C26_11W_AC	12	12	3	26,55	83
11	G 1 - 3	XB1616D40_11W_AC	16	16	4	40,41	100
11	G ≥ 1	XB2020E49_11W_AC	20	20	5	49,65	120

R/Rc — BSPT PIPE THREAD

Pitch TPI	Standard	INTERNAL / EXTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
28	Rc 1/16 - 1/8	XB0606C10_28BSPT_AC	6	6	3	10,43	63
19	Rc 1/4 - 3/8	XB0808C15_19BSPT_AC	8	8	3	15,37	63
14	Rc 1/2 - 7/8	XB1212D20_14BSPT_AC	12	12	4	20,86	83
11	Rc 1 - 2	XB1616D31_11BSPT_AC	16	16	4	31,17	89

PG — STEEL CONDUIT THREAD DIN 40430

Pitch TPI	Standard	INTERNAL / EXTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
20	Pg 7	XB0808C21_20PG_AC	8	8	3	20,96	63
18	Pg 9 - 16	XB1010C27_18PG_AC	10	10	3	27,52	76
16	Pg 21- 48	XB1212D31_16PG_AC	12	12	4	30,96	83

NPSF — NPSF PIPE THREAD

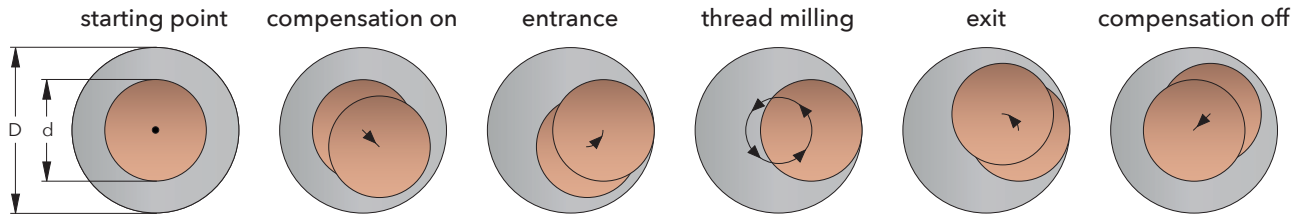
Pitch TPI	Standard	INTERNAL / EXTERNAL Part Number	d mm	D mm	Cutting edges	l mm	L mm
27	1/16 - 1/8	XB0606C12_27NPSF_AC	6	6	3	12,70	63
18	1/4 - 3/8	XB0808C16_18NPSF_AC	8	8	3	16,23	63
14	1/2 - 3/4	XB1212D22_14NPSF_AC	12	12	4	22,68	83
11,5	1	XB1616D29_11.5NPSF_AC	16	16	4	29,82	89

Cutting Speed (V_c) and Material Factor (F_m)

MATERIAL		Hardness HB	Tensile Strenght N/mm²	Cutting Speed (V_c) m/min	Material Factor (F_m)
Steel	Low carbon, C < 0,25%	< 120	< 400	150 - 200	1,2
	Medium carbon, C < 0,55%	< 200	< 700	120 - 170	1,1
	High carbon, C < 0,85%	< 250	< 850	110 - 150	1,0
	Low alloy	< 250	< 850	100 - 140	1,0
	High alloy	< 350	< 1200	70 - 110	0,9
	Hardened, HRC < 45			60 - 100	0,8
	Hardened, HRC < 55			30 - 60	0,7
	Hardened, HRC < 65			20 - 40	0,6
Cast iron	Lamellar graphite	< 150	< 500	130 - 180	1,2
	Lamellar graphite	< 300	< 1000	100 - 150	1,1
	Nodular graphite, malleable	< 200	< 700	100 - 150	1,0
	Nodular graphite, malleable	< 300	< 1000	80 - 120	0,9
Stainless steel	Free machining	< 250	< 850	130 - 180	1,0
	Austenitic	< 250	< 850	90 - 140	0,9
	Ferritic and austenitic	< 300	< 1000	80 - 120	0,8
Titanium	Unalloyed	< 200	< 700	60 - 80	0,8
	Alloyed	< 270	< 900	50 - 70	0,7
	Alloyed	< 350	< 1250	30 - 50	0,6
Nickel	Unalloyed	< 150	< 500	80 - 120	0,8
	Alloyed	< 270	< 900	60 - 80	0,7
	Alloyed	< 350	< 1250	50 - 70	0,6
Copper	Unalloyed	< 100	< 350	150 - 250	1,0
	Brass, bronze	< 200	< 700	130 - 180	1,0
	High strength bronze	< 470	< 1500	60 - 80	0,8
Aluminium	Unalloyed	< 100	< 350	500 - 900	1,4
	Alloyed, Si < 0.5%	< 150	< 500	400 - 800	1,3
	Alloyed, Si < 10%	< 120	< 400	300 - 500	1,2
	Alloyed, Si > 10%	< 120	< 400	200 - 400	1,1
Inconel	718	< 370		50 - 70	0,6
Graphite				300 - 500	1,0

Engagement Factor (F_e)

	B/d = 0,05	B/d = 0,06	B/d = 0,07	B/d = 0,08	B/d = 0,09	B/d = 0,10	B/d = 0,12	B/d = 0,14	B/d = 0,16
L / d = 1,0	1,75	1,59	1,45	1,31	1,20	1,09	0,99	0,90	0,82
L / d = 1,25	1,52	1,38	1,25	1,14	1,04	0,94	0,86	0,78	0,70
L / d = 1,5	1,31	1,20	1,09	0,99	0,90	0,82	0,74	0,67	0,61
L / d = 1,75	1,20	1,09	0,99	0,90	0,82	0,74	0,67	0,61	0,56
L / d = 2,0	1,09	0,99	0,90	0,82	0,74	0,67	0,61	0,56	0,51
L / d = 2,25	0,99	0,90	0,82	0,74	0,67	0,61	0,56	0,51	0,46
L / d = 2,5	0,90	0,82	0,74	0,67	0,61	0,56	0,51	0,46	0,42
L / d = 3,0	0,78	0,70	0,64	0,58	0,53	0,48	0,44	0,40	0,36
L / d = 3,5	0,67	0,61	0,56	0,51	0,46	0,42	0,38	0,35	0,31
L / d = 4,0	0,61	0,56	0,51	0,46	0,42	0,38	0,35	0,31	0,29



CUTTING DATA

Diameter Factor (F_d)

d	Diameter Factor (F_d)
1,5	0,010
2,0	0,011
3,0	0,015
4,0	0,019
5,0	0,024
6,0	0,028
8,0	0,036
10,0	0,044
12,0	0,052
14,0	0,060
16,0	0,067
18,0	0,075
20,0	0,082
25,0	0,101
32,0	0,126
40,0	0,156

Example

M24x3,0 thread length 36 mm
Carbon Steel, up to 400 N/mm²
Thread Milling with NB1616C40_3.0ISO_AC
B = 0,54 x 3 = 1,62 mm
B/d = 1,62/16 = 0,10
L/d = 36/16 = 2,25
F_z = 1,2 x 0,61 x 0,067 = 0,049
n = (160 x 1000) / (π x 16) = 3183 rpm
V_{fD} = 0,049 x 3 x 3183 = 468 mm/min
V_{fd} = 468 x (24-16) / 24 = 156 mm/min
T = (278 x 24) / 468 = 14 seconds

$$B = 0{,}54 \times P$$

$$F_z = F_m \times F_e \times F_d$$

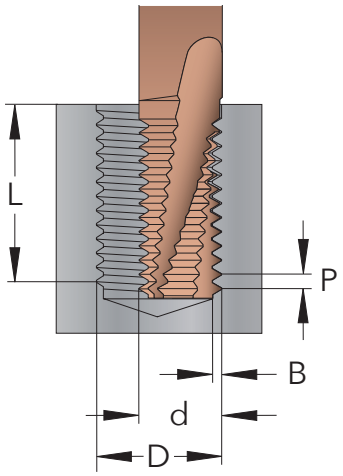
$$n = \frac{V_c \times 1000}{\pi \times d}$$

$$V_{fD} = F_z \times z \times n$$

$$V_{fd} = V_{fD} \times \frac{(D - d)}{D}$$

$$T = 278 \times \frac{D}{V_{fD}}$$

D = thread diameter (mm)
L = thread lenght (mm)
d = cutter diameter (mm)
B = depth of profile (mm)
P = pitch (mm)
z = cutting edges
F_z = feed / flute (mm/flute)
n = spindle speed (rpm)
V_c = cutting speed (m/min)
V_{fD} = feed at thread diameter Ø (mm/min)
V_{fd} = feed at center of mill (mm/min)
T = time to mill the thread (seconds)



Carbide Grades

AC Micrograin Carbide with TiAlCN coating.
Allround Grade with low friction.
Use cutting data according to the tables.

FC Micrograin Carbide with TiAlN coating.
Allround Grade with high heat resistance.
Use cutting data according to the tables.