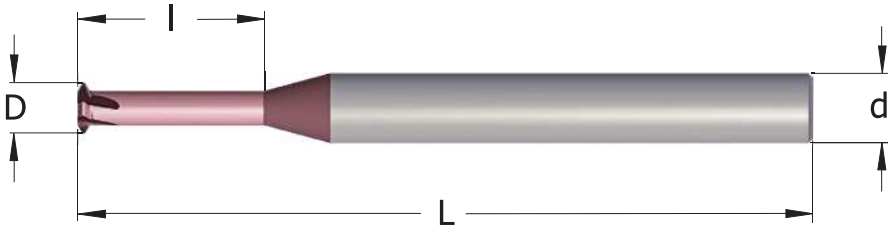
SmiCut STS

SOLID CARBIDE THREAD MILLS

with One Tooth, partial profile

AC / LC
TiAlCN / AlCrN coated
Micrograin Carbide
Tolerance
D 0,3 - 6,0 +0 / -0,020
D 7,0 - 12,0 +0 / -0,030
Shank
Cylindrical h6, DIN6535 HA
Flute
15° right hand spiral
Field of application
Thread Milling of all types of steel



60°

PARTIAL PROFILE 60°

M coarse	M pitch mm	UNC	UNF	UN pitch TPI	INTERNAL Part Number	d mm	D mm	Z flutes	l mm	L mm
M0,5 (2xD)	0,125		No. 0000	160	NS03003C1.3_P60_LC	3	0,37	3	1,3	39
M0,6 (2xD)	0,15				NS03004C1.5_P60_LC	3	0,44	3	1,5	39
M0,8 (2xD)	0,2		No. 000	120	NS03005C2.0_P60_LC	3	0,58	3	2	39
M0,8 (3xD)	0,2		No. 000	120	NS03005C2.7_P60_LC	3	0,58	3	2,7	39
M1 (2xD)	0,2 - 0,25				NS03007C2.5_P60_LC	3	0,72	3	2,5	39
M1 (3xD)	0,2 - 0,25				NS03007C3.2_P60_LC	3	0,72	3	3,2	39
M1,2 (2xD)	0,2 - 0,25		No. 00	95	NS03009C2.9_P60_LC	3	0,92	3	2,9	39
M1,2 (3xD)	0,2 - 0,25		No. 00	95	NS03009C3.9_P60_LC	3	0,92	3	3,9	39
M1,4 (2xD)	0,2 - 0,3				NS03010C3.3_P60_LC	3	1,06	3	3,3	39
M1,4 (3xD)	0,2 - 0,3				NS03010C4.4_P60_LC	3	1,06	3	4,4	39
M1,6 (2xD)	0,2 - 0,35		No. 0	80	NS03012D3.6_P60_LC	3	1,2	4	3,6	39
M1,6 (3xD)	0,2 - 0,35		No. 0	80	NS03012D5.1_P60_LC	3	1,2	4	5,1	39
M1,8 (2xD)	0,35 - 0,4	No. 1	No. 1	72 - 64	NS03014D4.2_P60_LC	3	1,4	4	4,2	39
M1,8 (3xD)	0,35 - 0,4	No. 1	No. 1	72 - 64	NS03014D5.6_P60_LC	3	1,4	4	5,6	39
M2 (2xD)	0,4		No. 2	64	NS03015D4.6_P60_LC	3	1,55	4	4,6	39
M2 (3xD)	0,4		No. 2	64	NS03015D6.2_P60_LC	3	1,55	4	6,2	39
M2 (2xD)	0,35 - 0,4		No. 2	64	NS04015D4_P60_AC	4	1,5	4	4,4	50
M2 (3xD)	0,35 - 0,4		No. 2	64	NS04015D6_P60_AC	4	1,5	4	6,4	50
M2,2 (2xD)	0,45	No. 2		56	NS04016D5_P60_AC	4	1,65	4	5	50
M2,2 (3xD)	0,45	No. 2		56	NS04016D7_P60_AC	4	1,65	4	7,1	50
M2,5 (2xD)	0,45 - 0,5	No. 3	No. 3 - 4	56 - 48	NS04019D5_P60_AC	4	1,9	4	5,5	50
M2,5 (3xD)	0,45 - 0,5	No. 3	No. 3 - 4	56 - 48	NS04019D8_P60_AC	4	1,9	4	8	50
		No. 4		40	NS04021D6_P60_AC	4	2,1	4	6,4	50
		No. 4		40	NS04021D9_P60_AC	4	2,1	4	9,2	50
M3 (2xD)	0,5 - 0,6	No. 5	No. 5	44 - 40	NS04023D6_P60_AC	4	2,3	4	6,5	50
M3 (3xD)	0,5 - 0,6	No. 5	No. 5	44 - 40	NS04023D9_P60_AC	4	2,3	4	9,5	50
M3,5 (2xD)	0,5 - 0,75	No. 6	No. 6	40 - 32	NS04026D7_P60_AC	4	2,6	4	7,6	50
M3,5 (3xD)	0,5 - 0,75	No. 6	No. 6	40 - 32	NS04026D11_P60_AC	4	2,6	4	11,1	50
M4 (2xD)	0,7 - 0,75	No. 8	No. 8	36 - 32	NS0403D9_P60_AC	4	3	4	9	50
M4 (3xD)	0,7 - 0,75	No. 8	No. 8	36 - 32	NS0403D13_P60_AC	4	3	4	13	50
M4,5 (2xD)	0,75 - 1,0	No. 10	No. 10	32 - 24	NS04036D10_P60_AC	4	3,6	4	10	50
M4,5 (3xD)	0,75 - 1,0	No. 10	No. 10	32 - 24	NS04036D14_P60_AC	4	3,6	4	14,3	50
M5 (2xD)	0,75 - 1,0	No. 12	No. 12 - 1/4	32 - 24	NS0404D11_P60_AC	4	4	4	11	50
M5 (3xD)	0,75 - 1,0	No. 12	No. 12 - 1/4	32 - 24	NS0404D16_P60_AC	4	4	4	16	50
M6 (2xD)	1,0 - 1,25	1/4	5/16 - 3/8	24 - 20	NS06045D13_P60_AC	6	4,5	4	13	63
M6 (3xD)	1,0 - 1,25	1/4	5/16 - 3/8	24 - 20	NS06045D19_P60_AC	6	4,5	4	19	76
M8 (2xD)	1,25	5/16	7/16 - 1/2	20 - 18	NS0606E17_P60_AC	6	6	5	17,3	63
M8 (3xD)	1,25	5/16	7/16 - 1/2	20 - 18	NS0606E25_P60_AC	6	6	5	25,3	76
M10 (2xD)	1,5	3/8	9/16 - 3/4	18 - 16	NS08075E22_P60_AC	8	7,5	5	22	63
M10 (3xD)	1,5	3/8	9/16 - 3/4	18 - 16	NS08075E32_P60_AC	8	7,5	5	32	76
M12 (2xD)	1,75	7/16 - 1/2	7/8	14 - 13	NS1009E26_P60_AC	10	9	5	26	76
M12 (3xD)	1,75	7/16 - 1/2	7/8	14 - 13	NS1009E38_P60_AC	10	9	5	38	100
M14 (2xD)	2,0	9/16	≥ 1	12	NS1010E30_P60_AC	10	10	5	30	76
M14 (3xD)	2,0	9/16	≥ 1	12	NS1010E44_P60_AC	10	10	5	44	100
M16 (2xD)	2,0	5/8	≥ 1	12 - 11	NS1212F34_P60_AC	12	12	6	34	83
M16 (3xD)	2,0	5/8	≥ 1	12 - 11	NS1212F50_P60_AC	12	12	6	50	100

SOLID CARBIDE THREAD MILLS

with One Tooth, full profile

LC
AlCrN coated
Micrograin Carbide
Tolerance
D 0,3 - 6,0 +0 / -0,020
Shank
Cylindrical h6, DIN6535 HA
Flute
15° right hand spiral
Field of application
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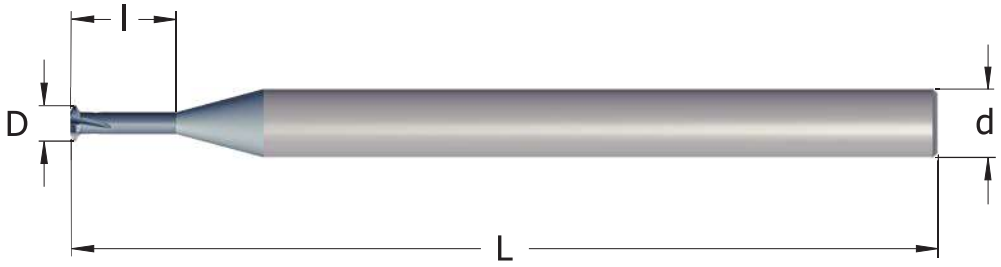

M

METRIC

Pitch mm	M coarse	M fine	INTERNAL Part Number	d mm	D mm	Z flutes	l mm	L mm
0,25	M1 (2xD)	≥ M1,4	NS03007C2_0.25ISO_LC	3	0,72	3	2,5	39
0,25	M1 (3xD)	≥ M1,4	NS03007C3_0.25ISO_LC	3	0,72	3	3,5	39
0,25	M1,2 (2xD)	≥ M1,4	NS03009C2_0.25ISO_LC	3	0,92	3	2,9	39
0,25	M1,2 (3xD)	≥ M1,4	NS03009C3_0.25ISO_LC	3	0,92	3	3,9	39
0,3	M1,4 (2xD)		NS03010C3_0.3ISO_LC	3	1,06	3	3,3	39
0,3	M1,4 (3xD)		NS03010C4_0.3ISO_LC	3	1,06	3	4,4	39
0,35	M1,6 (2xD)	≥ M2	NS03012D3_0.35ISO_LC	3	1,2	4	3,6	39
0,35	M1,6 (3xD)	≥ M2	NS03012D5_0.35ISO_LC	3	1,2	4	5,1	39
0,35	M1,8 (2xD)	≥ M2	NS03014D4_0.35ISO_LC	3	1,4	4	4,2	39
0,35	M1,8 (3xD)	≥ M2	NS03014D5_0.35ISO_LC	3	1,4	4	5,6	39
0,4	M2 (2xD)		NS03015D4_0.4ISO_LC	3	1,55	4	4,7	39
0,4	M2 (3xD)		NS03015D6_0.4ISO_LC	3	1,55	4	6,2	39

Partial Profile vs Full Profile

With a Partial Profile tool it is possible to do different pitches and profiles as the tool only has One Tooth and a profile that is designed to suite several threads.

Some producers make these tools with a very small crest and large profile height to be able to do as many different threads as possible. The disadvantage with this is that the crest will be fragile and the tool diameter small which result in short tool life and tool breakage. Because of this SmiCut produce the Partial Profile thread mills with a more limited area of use.

Full Profile tools will make a thread with higher quality and with these tools it is not so important to drill the exactly correct diameter before threading. Full Profile tools are recommended as first choice.

One Tooth vs Two Teeth

One Tooth has lower cutting forces and Two teeth has longer tool life.

One Tooth is mainly used for extremely small threads and when Two Teeth is not available, for example UN profiles. Two Teeth tools are recommended as first choice.

Thread Milling from M0,5