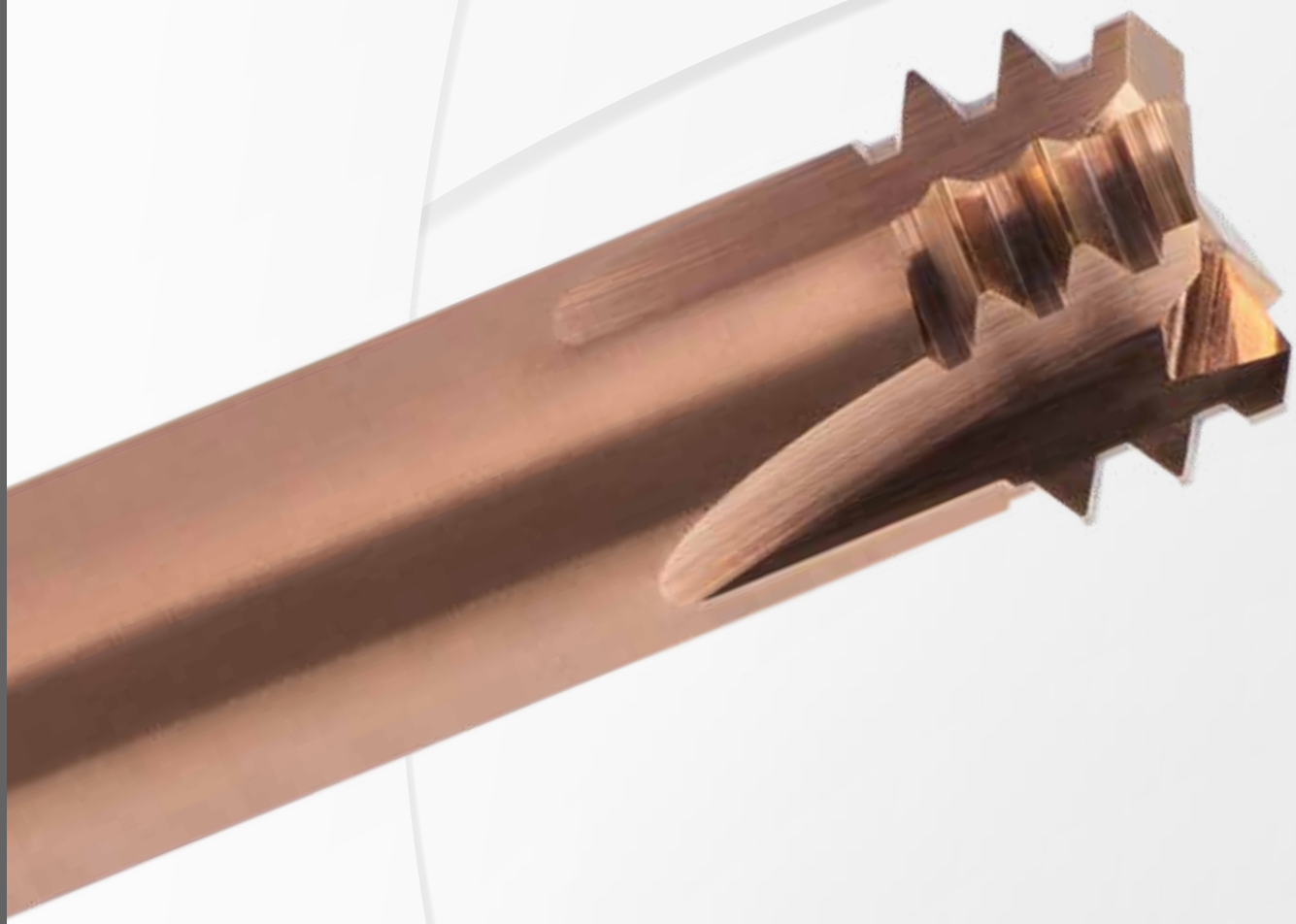


2nd edition 2021

TMD-NX

Drill thread milling cutters

STOCK

Chip – by Chip – to the Top

DRILL THREAD MILLING CUTTERS TMD-NX

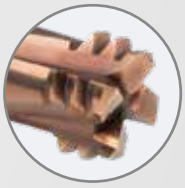
- high process reliability and true to gauge threads
- excellent machining results in dry and wet machining
- universally applicable in high tensile and hardened steels up to 66 HRC
- significantly shorter cycle and setting time, because of core hole and thread production in one step

Thanks to the left cutting geometry the tool stabilises itself during the climb milling process – perfect, true to gauge threads up to 66 HRC are guaranteed.

The TMD-NX is made of a special fine-grained carbide, which is characterised by its high hardness and is optimally suited for hard machining.

Thanks to the temperature-resistant TiSiN coating, dry and wet machining is possible.

Two oil grooves on the shaft ensure optimum cooling with emulsion or air.



Thanks to the special face geometry with hollow grinding, a reliable core hole and thread milling process in almost all steels is possible

Thread milling cutters

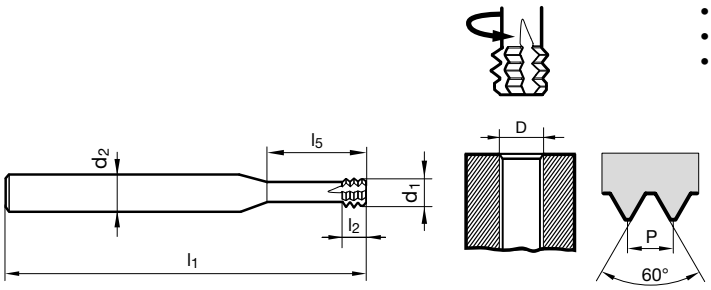
Drill thread milling cutters for ISO metric threads

Catalogue no. 53948

TMD-NX | 2,5xD | WN | VHM | TiSiN | L | ~HB

P	M	K	N	S	H
●	●	●	●	●	≤ 66

- helical drill thread milling, core hole and thread production in one step
- for universal application and also hardened steels up to 66 HRC
- left cutting tool for highest stability during the climb milling process
- oil grooves at the shank



Code no.	D	P mm	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z	PR
2.000	M2	0.400	1.400	3.000	39.000	1.200	5.000	4	0.67
2.500	M2.5	0.450	1.800	3.000	39.000	1.300	6.500	4	0.87
3.000	M3	0.500	2.400	6.000	58.000	1.500	7.500	4	1.17
3.500	M3.5	0.600	2.700	6.000	58.000	1.800	9.000	4	1.32
4.000	M4	0.700	3.100	6.000	58.000	2.100	10.000	4	1.52
5.000	M5	0.800	3.800	6.000	58.000	2.400	12.500	4	1.87
6.000	M6	1.000	4.600	8.000	64.000	3.000	15.000	4	2.27
6.003	M6 x 0.5	0.500	3.800	8.000	64.000	2.400	15.000	4	1.87
8.000	M8	1.250	6.200	8.000	64.000	3.600	20.000	4	3.07
8.004	M8 x 0.75	0.750	4.600	8.000	64.000	3.000	20.000	4	2.27
10.000	M10	1.500	7.500	10.000	73.000	4.500	25.000	4	3.69
12.000	M12	1.750	9.000	10.000	73.000	5.200	30.000	4	4.44
12.005	M12 x 1	1.000	7.500	10.000	73.000	3.000	25.000	4	3.72
16.000	M16	2.000	11.500	12.000	90.000	6.000	40.000	4	5.69
16.007	M16 x 1.5	1.500	11.500	12.000	90.000	4.500	40.000	4	5.69

Thread milling cutters

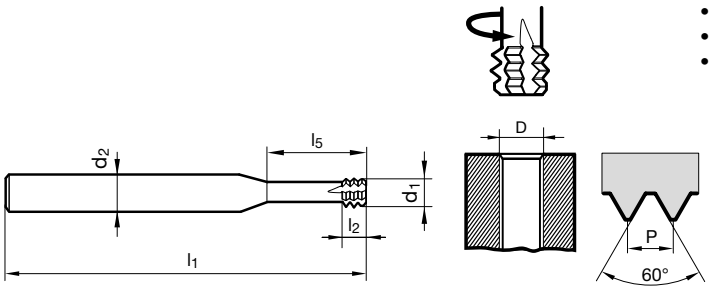
Drill thread milling cutters for UNC/UNF threads

Catalogue no. 53949

TMD-NX | 2,5xD | WN | VHM | TiSiN | L | HA/HB

P	M	K	N	S	H
●	●	●	●	●	≤ 66

- helical drill thread milling, core hole and thread production in one step
- for universal application and also hardened steels up to 66 HRC
- left cutting tool for highest stability during the climb milling process
- oil grooves at the shank



Code no.	D	P G/inch	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z	PR
1.853	UNF No 1	72	1.400	3.000	39.000	1.100	5.000	4	0.67
1.854	UNC No 1+UNF No 2	64	1.400	3.000	39.000	1.200	5.000	4	0.67
2.184	UNC No 2+UNF No 3	56	1.600	3.000	39.000	1.400	5.500	4	0.77
2.515	UNC No 3+UNF No 4	48	1.900	3.000	39.000	1.600	6.500	4	0.92
2.845	UNC No 4	40	2.100	6.000	58.000	1.900	7.500	4	1.02
3.175	UNC No 5+UNF No 6	40	2.400	6.000	58.000	1.900	8.000	4	1.17
3.505	UNC No 6	32	2.600	6.000	58.000	2.400	9.000	4	1.27
4.165	UNF No 8	36	3.200	6.000	58.000	2.100	10.500	4	1.57
4.166	UNC No 8	32	3.100	6.000	58.000	2.400	10.500	4	1.52
4.825	UNF No10	32	3.600	6.000	58.000	2.400	12.500	4	1.77
4.826	UNC No10+UNC No12	24	3.600	6.000	58.000	3.200	12.500	4	1.77
5.485	UNF No12	28	4.100	6.000	58.000	2.700	14.000	4	2.02
6.349	UNF 1/4	28	4.800	6.000	58.000	2.700	16.000	4	2.37
6.350	UNC 1/4	20	4.800	6.000	58.000	3.800	16.000	4	2.34
7.937	UNF 5/16+UNF 3/8	24	6.300	8.000	64.000	3.200	20.000	4	3.12
7.938	UNC 5/16	18	6.300	8.000	64.000	4.200	20.000	4	3.09
9.525	UNC 3/8	16	7.200	8.000	64.000	4.800	24.000	4	3.54
11.112	UNF 7/16	20	8.300	10.000	73.000	3.800	28.000	4	4.09
11.113	UNC 7/16	14	8.300	10.000	73.000	5.400	28.000	4	4.09
12.700	UNF 1/2	20	9.700	10.000	73.000	3.800	31.000	4	4.79
15.874	UNF 5/8	18	11.800	12.000	90.000	4.200	40.000	4	5.84

Thread milling cutters

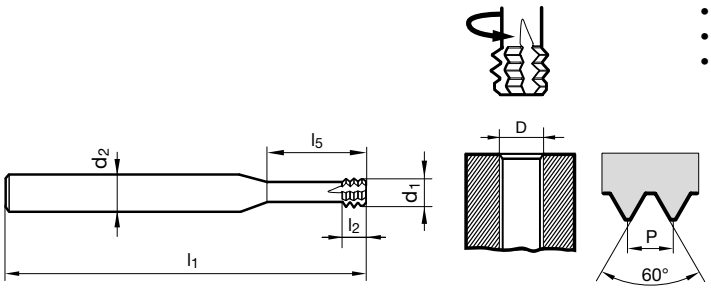
Drill thread milling cutters for BSP threads

Catalogue no. 53950

TMD-NX | 2,5xD | WN | VHM | TiSiN | L | ~HB

P	M	K	N	S	H
●	●	●	●	●	≤ 66

- helical drill thread milling, core hole and thread production in one step
- for universal application and also hardened steels up to 66 HRC
- left cutting tool for highest stability during the climb milling process
- oil grooves at the shank



Code no.	D	P G/inch	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z	PR
9.728	G1/16-G1/8	28	6.100	8.000	64.000	2.700	24.000	4	3.02
16.662	G1/4-G3/8	19	10.300	12.000	90.000	4.000	40.000	4	5.09
26.441	G1/2-G5/8-G3/4	14	15.700	16.000	105.000	5.400	50.000	4	7.79

Application recommendations

TMD-NX 2.5xD (Please note, M4 anticlockwise)

ISO		Material group	Hardness	Example materials	Material no.	Cutting speed v_c (m/min)
P	P1	Structural and free cutting steels, heat-treatable steels unalloyed	< 800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	80
	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800-1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	70
	P3	Alloyed heat-treatable steels, tool steels, high speed steels	800-1200 N/mm²	42CrMo4 36CrNiMo4 X36CrMo17 HS 6-5-2	1.7225 1.6511 1.2316 1.3343	70
M	M1	Stainless steels, sulphured, austenitic	< 1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	55
	M2	Stainless- and acidresistant steels, martensitic	< 1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	50
	M3	Duplex and Super Duplex	< 1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWn25-7-4	1.4462 1.441 1.4501	50
K	K1	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.603	80
	K2	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.704 0.706 0.707	75
	K3	ADI, GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		65
N	N1	Aluminium and wrought alloys	< 450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.025 3.2315 3.4335	x
	N2	Al cast alloys	< 600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	120
	N3	Magnesium alloys	< 500 N/mm²	GDMgAl8Zn1	3.5812.08	x
	N4	Copper and copper alloys	langspanend kurzspanend	CuZn20 CuZn37Pb0,5 CuZn39Pb2 CuZn43Pb2	2.025 2.0332 2.038 2.041	80
	N5	Copper special alloys	< 1400 N/mm²	Ampco		65
	N6	Plastics [Thermoplastics, Duroplastics]	langspanend kurzspanend	PMMA, POM,PVC Pertinax		x
S	S1	Ti and Ti alloys	< 1200 N/mm²	Titanium TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	45
	S2	Nickel, cobalt and iron alloys	< 1400 N/mm²	Hasteloy C4 Inconel 718 Nimonic	2.461 2.4668 2.4634	45
H	H1 H2	High tensile steels, hardened steels	45-55 HRC 55-66 HRC	Hardox PM30		40 30

Please note:
The cutting values specified in the respective columns are guide values, they have to be adapted according to application conditions (material, lubrication, tool clamping, machine etc.)
Depending on the machining task the optimal cutting values can differ from those in the table by up to ±30 %!

Milling part diameter [d1] / feed per tooth [f_z] [climb milling]											TMD-NX
M2	**M2,5**	**M3**	**M3,5**	**M4**	**M5**	**M6**	**M8**	**M10**	**M12**	**M16**	
0,4	**0,45**	**0,5**	**0,6**	**0,7**	**0,8**	**1,0**	**1,25**	**1,5**	**1,75**	**2**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0.008	0.008	0.012	0.014	0.018	0.026	0.028	0.030	0.035	0.040	0.048	●●
0.008	0.008	0.012	0.014	0.018	0.026	0.028	0.030	0.035	0.040	0.048	●●
0.007	0.007	0.010	0.011	0.012	0.016	0.020	0.025	0.030	0.036	0.044	●●
0.007	0.007	0.010	0.011	0.012	0.016	0.020	0.025	0.030	0.036	0.044	●●
0.007	0.007	0.010	0.011	0.012	0.016	0.020	0.025	0.030	0.036	0.044	●●
0.005	0.005	0.007	0.008	0.010	0.014	0.016	0.018	0.020	0.026	0.033	●●
0.008	0.008	0.012	0.014	0.016	0.020	0.024	0.030	0.036	0.040	0.048	●●
0.008	0.008	0.012	0.014	0.016	0.020	0.024	0.030	0.036	0.040	0.048	●●
0.007	0.007	0.011	0.013	0.015	0.018	0.022	0.028	0.033	0.038	0.046	●●
x	x	x	x	x	x	x	x	x	x	x	○
0.007	0.007	0.011	0.013	0.015	0.018	0.022	0.028	0.033	0.038	0.046	●●
x	x	x	x	x	x	x	x	x	x	x	○
0.008	0.008	0.012	0.014	0.016	0.020	0.024	0.030	0.036	0.040	0.048	●●
0.007	0.007	0.010	0.011	0.012	0.016	0.020	0.025	0.030	0.036	0.048	●●
x	x	x	x	x	x	x	x	x	x	x	○
0.007	0.007	0.010	0.011	0.012	0.016	0.020	0.025	0.030	0.036	0.044	●●
0.007	0.007	0.010	0.011	0.012	0.016	0.020	0.025	0.030	0.036	0.044	●●
0.007 0.005	0.007 0.005	0.010 0.008	0.011 0.009	0.012 0.010	0.016 0.014	0.020 0.018	0.025 0.022	0.030 0.028	0.036 0.033	0.044 0.042	●● ●●

●● optimally suited
● suited
○ not suitable

TMD-NX

Drill thread milling cutters

2nd edition 2021

Our programme

Products

Twist Drills
Taps
Milling Cutters
Reamers
Countersinks & -bores
Chamfering Tools
Special HSS and Carbide Tools
(to your specifications or our solutions)
Tool holders

Services

Regrinding
Modifications
Recoating
Paid labour coating
Coating removal
Intelligent Tool Depot Systems
Technical assistance

Your local contact:

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