



GÜHRING

NET PRICE PROMOTION

valid until 30 June 2024

SC-Line thread milling cutters

SC-Line thread milling cutters for 100 % longer tool life and up to 50 % shorter machining times

CNC Gühro ThreadMill v3.0

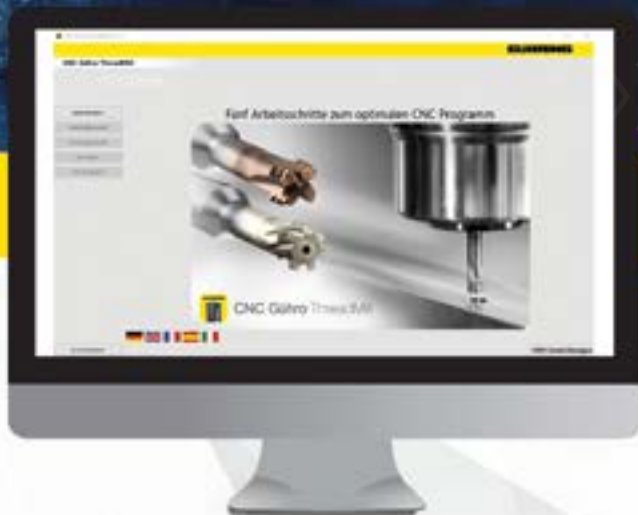
new

CNC Gühro ThreadMill

FIND THE OPTIMAL CNC PROGRAMME

FOR YOUR THREAD MILLING CUTTER

NEW VERSION V3.0



Version v3.0 can do even more:

- 1. New items and dimensions**
e.g. circular drill thread milling cutters, micro-thread milling cutters and universal thread milling cutters
- 2. Inch can be selected as the unit of measurement**
with 5 decimal places for the most accurate information
- 3. Wider range of thread standards**
NEW: tapered threads (55°) & PG threads (80°)
- 4. Addition to the tool selection**
with new information on tool coating
(now also with new SIRIUS coating)
- 5. Revised CNC code**
with additional values (thread depth, feed rate) & control types

TOP PERFORMER IN THREAD MILLING

With our thread milling cutters, high-quality threads can be produced reliably. Thanks to its optimised geometry, the SC-MTM3 SP ensures short machining times even for small diameters.

INCREASED NUMBER OF CUTTING EDGES

With up to eight cutting edges, the SC-MTM3 SP can machine significantly faster. Machining time is reduced by up to 50% – even in the micro-precision range of machining.



LEFT-HAND CUTTING GEOMETRY

Thanks to the new left-hand cutting geometry, up to 100% longer tool lives can be achieved, especially in climb milling operations.

INCREASED WEAR RESISTANCE

Thanks to the combination of new carbide, Sirius coating and new tool geometry, threads can be manufactured true-to-gauge for longer. Radius correction is not required until much later.



Component: Housing

Thread dimension: M6x(1) – 6H

Thread depth: 14 mm

Tool: SC-MTM3 SP, M6, 2.5xD, with IC, Z = 6

Material: VA, 1.4301

Cooling lubricant: Emulsion 7%

Parameters: $v_c = 60$ m/min, $f_z = 0.03$ mm [climb milling]

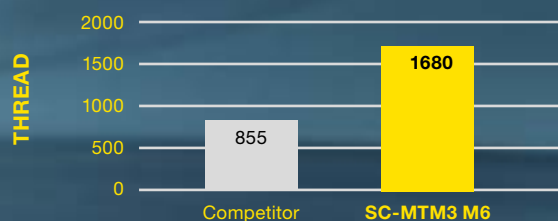
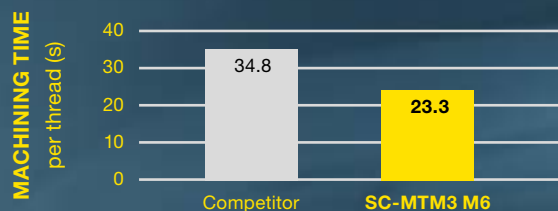
Please note: The tool is left-fluted, left-hand cutting [counterclockwise M4]

- 1,680 threads with only one CNC radius correction
- no chipping
- improved surface quality

new

NOW UP TO 3xD Art. no. 4001

UP TO 4xD Art. no. 4477

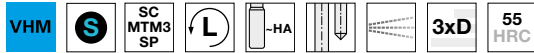




SC-Line thread milling cutters

Micro thread milling cutters for ISO metric threads

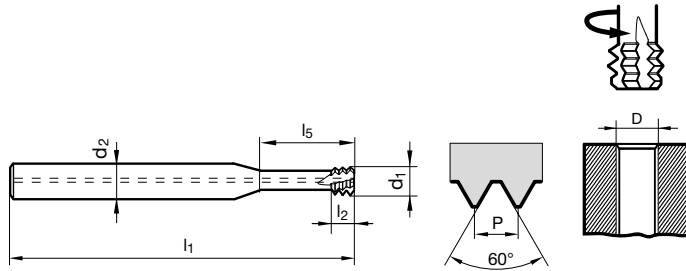
Article no. **4001**



M1.6 - M3 with 2 cooling grooves • with internal cooling \geq M3.5 • rotation direction left

P	M	K	N	S	H
•	•	•	•	•	○

H = 55 HRC



Standard
Article no.

Company std.

4001

d1	P	d1	d2	l1	l2	l5	Z
mm	mm	mm	mm	mm	mm	mm	
M1.6	0.350	1.20	3.00	39.00	1.10	4.80	3
M1.8	0.350	1.40	3.00	39.00	1.10	5.40	4
M2	0.400	1.55	3.00	39.00	1.20	6.00	4
M2.5	0.450	1.95	3.00	39.00	1.40	7.50	4
M3	0.500	2.40	3.00	39.00	1.50	9.50	5
M3.5	0.600	2.80	6.00	58.00	1.80	11.00	5
M4	0.700	3.20	6.00	58.00	2.10	12.50	5
M5	0.800	4.00	6.00	58.00	2.40	16.00	6
M6	1.000	4.80	6.00	58.00	3.00	20.00	6
M8	1.250	5.95	8.00	73.00	3.80	24.00	7
M10	1.500	7.80	8.00	73.00	4.50	33.00	7
M12	1.750	9.00	10.00	84.00	5.30	38.00	7
M16	2.000	11.80	12.00	100.00	6.00	48.00	8
M20	2.500	15.00	16.00	105.00	7.50	60.00	8

Order no.	Availability
4001 1.600	•
4001 1.800	•
4001 2.000	•
4001 2.500	•
4001 3.000	•
4001 3.500	•
4001 4.000	•
4001 5.000	•
4001 6.000	•
4001 8.000	•
4001 10.000	•
4001 12.000	•
4001 16.000	•
4001 20.000	•

Micro thread milling cutters for ISO metric threads

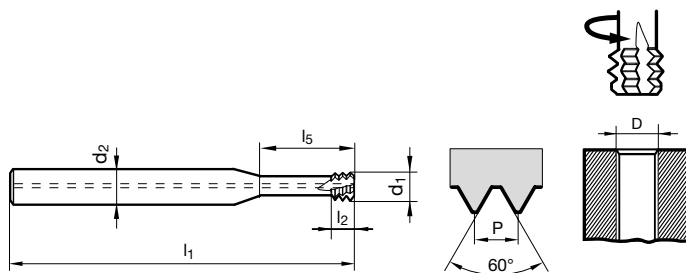
Article no. **4477**



M2 - M3 with 2 cooling grooves • with internal cooling \geq M4 • rotation direction left

P	M	K	N	S	H
•	•	•	•	•	○

H = 55 HRC



Standard
Article no.

Company std.

4477

d1	P	d1	d2	l1	l2	l5	Z
mm	mm	mm	mm	mm	mm	mm	
M2	0.400	1.55	3.00	39.00	1.20	8.00	4
M2,5	0.450	1.95	3.00	39.00	1.40	10.00	4
M3	0.500	2.40	3.00	39.00	1.50	12.50	4
M4	0.700	3.20	6.00	58.00	2.10	16.50	4
M5	0.800	4.00	6.00	58.00	2.40	20.50	4
M6	1.000	4.80	8.00	73.00	3.00	24.50	6
M8	1.250	6.20	8.00	73.00	3.80	32.50	6
M10	1.500	8.00	10.00	84.00	4.50	40.50	6
M12	1.750	9.60	12.00	100.00	5.30	48.50	6
M16	2.000	12.50	14.00	115.00	6.00	64.50	6
M20	2.500	15.80	16.00	130.00	7.50	80.50	6

Order no.	Availability
4477 2.000	•
4477 2.500	•
4477 3.000	•
4477 4.000	•
4477 5.000	•
4477 6.000	•
4477 8.000	•
4477 10.000	•
4477 12.000	•
4477 16.000	•
4477 20.000	•

SC-Line thread milling cutter SC-MTM3



Machining group	v _c (m/min)	fz (mm/z) at milling part Ø (d1)										
		1	2	3	4	5	6	8	10	12	14	16
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm ² , 125 HB	100	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm ² , 125 HB	100	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm ² , 190 HB	100	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm ² , 190 HB	100	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm ² , 250 HB	100	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm ² , 270 HB	100	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm ² , 300 HB	100	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm ² , 180 HB	90	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm ² , 275 HB	90	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm ² , 300 HB	90	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm ² , 350 HB	90	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm ² , 200 HB	80	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm ² , 325 HB	80	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives	65	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm ² , 200 HB	65	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm ² , 240 HB	65	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
M2.1.1 Stainless steel, austenitic, quenched, 180 HB	60	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
M2.2.1 Duplex steel, high-strength stainless steels	55	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050	0.055
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB	140	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB	140	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB	115	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB	115	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
K1.3.1 Malleable cast iron, ferritic, 130 HB	115	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
K1.3.2 Malleable cast iron, pearlitic, 230 HB	115	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
K2.1.1 Vermicular graphite cast iron (GJV)	100	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)	100	0.010	0.015	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.060	0.065
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB	280	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N1.1.2 Wrought aluminium alloys, hardened, 100 HB	280	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB	250	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB	250	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB	250	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %	140	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N3.1.2 Copper and copper alloys: CuZn, CuSnZn	140	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte	110	0.010	0.015	0.020	0.025	0.025	0.030	0.040	0.045	0.050	0.055	0.060
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics	300	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.	300	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
N4.1.3 Non-metallic materials: Graphite	300	0.010	0.015	0.020	0.025	0.030	0.035	0.045	0.050	0.060	0.065	0.070
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB	55	0.005	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB	55	0.005	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB	55	0.005	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB	55	0.005	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB	55	0.005	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm ²	40	0.005	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm ²	40	0.005	0.010	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045	0.050
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC	50	0.005	0.010	0.015	0.015	0.020	0.020	0.025	0.030	0.035	0.040	0.045
H1.1.2 Hardened steel, hardened and tempered, < 60 HRC												
H1.1.3 Hardened steel, hardened and tempered, > 60 HRC												
H2.1.1 Chilled cast iron, 400 HB												
H2.1.2 Chilled cast iron, hardened and tempered, < 55 HRC												



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