

TAPS



RECOMMENDATION CHART FOR TAPS

Colour Ring

Material Groups

Tens Strength
Mpa (N/mm²)

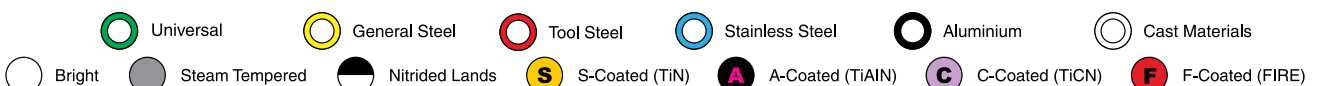
Hardness
HB

Cutting Speed Vc m/min *

HSS-E PM-HSS-E Solid Carbide

	Structural Steels - Mild Steel, 250 and 350 plate	≤ 850	-	10 - 15	15 - 20	30 - 50
	Free Cutting Steels - 1020, S1214, S1213, S12L13, S12L14	≤ 1000	-	10 - 20	15 - 25	30 - 50
	Unalloyed Case Hardened Steels - 1010, 1015	≤ 750	-	10 - 15	15 - 20	30 - 50
	Un9/9/2008d Heat Treatable Steels - 1035, 1045, 1055, 1060, 1025	≤ 850	-	10 - 15	15 - 20	30 - 50
	Alloyed Case Hardened Steels - 3310, 3415, 5115, 4615, 4620, 5120, 8617, 8620, N33, EN36A	850 - 1200	-	8 - 12	10 - 15	25 - 40
	Alloyed Heat Treatable Steels - 3140, 4130, 4140, 4150, 4340, 6150, EN16, EN26	850 - 1200	-	8 - 12	10 - 15	25 - 40
	Alloyed Tool Steels - H11, H13, P20, D2, D3	≤ 1000	-	6 - 10	8 - 12	25 - 40
	High Speed Tool Steels M2, M3, M35, M45	650 - 1000	-	6 - 10	8 - 12	25 - 40
	Stainless and Acid resistant Steels - Sulphured - 410S, 430F, 630	≤ 850	-	6 - 12	8 - 15	30 - 50
	- Austenitic - 302, 303, 304, 310, 316, 316Ti, 321	≤ 850	-	6 - 12	8 - 15	30 - 50
	- Martensitic - 410, 410X, 416, 420, 420C, 431, 440C	≤ 850	-	6 - 12	8 - 15	30 - 50
	Structural Steels - Mild Steel, 250 and 350 plate	≤ 800	-	10 - 15	15 - 20	30 - 50
	Free Cutting Steels - 1020, S1214, S1213, S12L13, S12L14	≤ 1000	-	10 - 20	15 - 25	30 - 50
	Case Hardened Steels	≤ 1000	-	10 - 15	15 - 20	30 - 50
	Heat Treatable Steels	≤ 1200	-	10 - 15	15 - 20	30 - 50
	Nitriding Steels	≤ 1200	-	10 - 15	15 - 20	30 - 50
	Spheroidal Graphite Cast Iron - GGG40, GGG50, GGG60, GGG70	-	≤ 240	10 - 20	15 - 25	30 - 50
	Aluminium and Al-Alloys	≤ 400	-	15 - 20	20 - 25	30 - 50
	Al Wrought Alloys	≤ 400	-	15 - 20	20 - 25	30 - 50
	Alcast Alloys ≤ 10 % Si	≤ 600	-	15 - 20	20 - 25	30 - 50
	> 10 % Si	≤ 600	-	15 - 20	20 - 25	25 - 40
	Cast Iron - GG10, GG15, GG20, GG25, GG30, GG35, GG40	-	≤ 240	15 - 20	20 - 25	30 - 40
	Spheroidal Graphite Cast Iron - GGG40, GGG50, GGG60, GGG70	-	≤ 240	15 - 20	20 - 25	30 - 40
	Malleable Cast Iron - 32510, 50005, Nodular Iron	-	≤ 240	15 - 20	20 - 25	30 - 40
	Brass Short Chipping	≤ 600	-	10 - 15	15 - 20	25 - 30
	Long Chipping	≤ 600	-	10 - 15	15 - 20	25 - 30
	Plastics	-	-	5 - 10	15 - 20	25 - 30
	Magnesium Alloys	≤ 450	-	30 - 50		40 - 60
	Titanium and Ti-Alloys	≤ 1200			2 - 8	
	Ni Alloys				2 - 8	

* With Coated Tools Cutting Speed May Be Increased Up To 50%



METRIC TAPS

METRIC SPIRAL TAPS THROUGH & BLIND HOLES



Guhring no.
Standard
Tool material
Surface
Cutting direction
Tolerance
Application
Cutting speed m/min

5554	914	786
DIN 371		
HSS-E		
●	● S	○
rh	rh	left hand
ISO 2 / 6H		
○	○	○
10-15	10-15	10-15

d1	P	d2	SW	dk	l1	l2
	mm	mm		mm	mm	mm
M 4	0.70	4.50	3.40	3.30	63.00	7.50
M 5	0.80	6.00	4.90	4.20	70.00	8.50
M 6	1.00	6.00	4.90	5.00	80.00	11.00
M 8	1.25	8.00	6.20	6.80	90.00	14.00
M10	1.50	10.00	8.00	8.50	100.00	16.00

AVAILABILITY

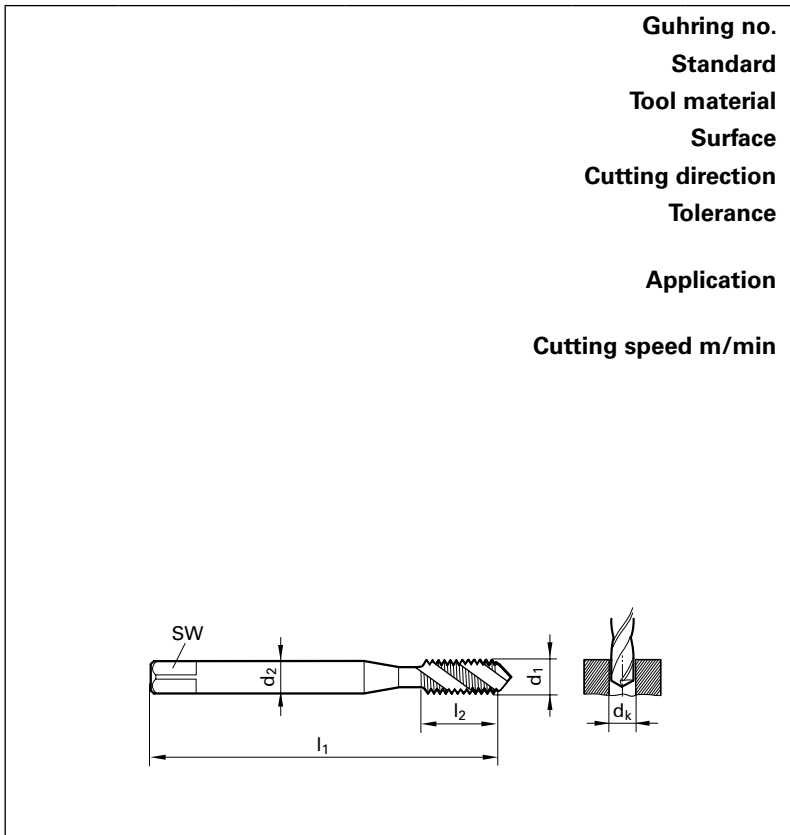
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METRIC TAPS

HIGH PERFORMANCE TAPS
 METRIC TAPS SYNCHRO TAPPING
 ALL MATERIALS

  **Through hole**
Blind hole



Guhring no.

Standard

Tool material







Surface

Cutting direction

Tolerance








Application

Cutting speed m/min

761	763
DIN 371	DIN 376
HSS-E-PM	HSS-E-PM
	
rh	
6HX	
 	
10-25	
	

d1	P	d2	SW	dk	l1	l2
	mm	mm		mm	mm	mm
M 3	0.50	3.500	2.70	2.500	56.00	2.50
M 4	0.70	4.500	3.40	3.300	63.00	3.50
M 5	0.80	6.000	4.90	4.200	70.00	4.00
M 6	1.00	6.000	4.90	5.000	80.00	5.00
M 8	1.25	8.000	6.20	6.800	90.00	6.30
M10	1.50	10.000	8.00	8.500	100.00	7.50
M12	1.75	9.000	7.00	10.200	110.00	8.80
M14	2.00	11.000	9.00	12.000	110.00	10.00
M16	2.00	12.000	9.00	14.000	110.00	10.00
M20	2.50	16.000	12.00	17.500	140.00	12.50

AVAILABILITY	
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-  Universal
-  General Steel
-  Tool Steel
-  Stainless Steel
-  Aluminium
-  Cast Materials
-  Bright
-  Steam Tempered
-  Nitrided Lands
-  S-Coated (TiN)
-  A-Coated (TiAlN)
-  C-Coated (TiCN)
-  F-Coated (FIRE)

METRIC THREAD MILLING CUTTERS - CARBIDE

THREAD MILLING CUTTER WITH OIL FEED

Guhring no.	4133
Standard	Guhring std.
Tool material	Solid carbide
Surface	C
Cutting direction	rh
Tolerance	
Application	
Cutting speed m/min	50-100

Thread	Code no.	P	d1	d2	dk	l1	l2	z
	mm	mm	mm	mm	mm	mm	mm	
M 6	6.000	1.00	4.80	6.00	5.00	54.00	13.50	3
M 8	8.000	1.25	6.40	8.00	6.80	62.00	18.10	3
M10	10.000	1.50	7.95	10.00	8.50	74.00	21.80	3
M12	12.000	1.75	9.95	10.00	10.20	74.00	25.40	4
M14	14.000	2.00	11.20	12.00	12.00	90.00	31.00	4
M16	16.000	2.00	12.80	14.00	14.00	90.00	35.00	4
M20	20.000	2.50	14.95	16.00	17.50	102.00	41.30	4

AVAILABILITY

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OTHER TYPES AVAILABLE



TM SP – thread milling cutter w/o countersinking step

Straight shank with spiral flute and internal coolant delivery, standard type for the milling of one thread size

Thread type: M, G, NPT, NPTF



TMU SP – universal thread milling cutter

Straight shank with spiral flute and internal coolant delivery, multi-range tool for the production of various thread sizes with the same pitch

Thread type: M/MF, G, NPT, NPTF



TMC SP – thread milling cutter with countersinking step

45° countersinking step, spiral flute and internal coolant delivery, for countersinking and thread milling one thread size

Thread type: M, MF, G, UNC, UNF, NPT, NPTF



DTMC SP – drill/thread milling cutter

2-fluted drill/thread milling cutter with 45° countersinking step, spiral flute and with/without internal coolant delivery, for tapping size holes, countersinking and thread milling of one thread size

Thread type: M, MF



Special thread milling cutters

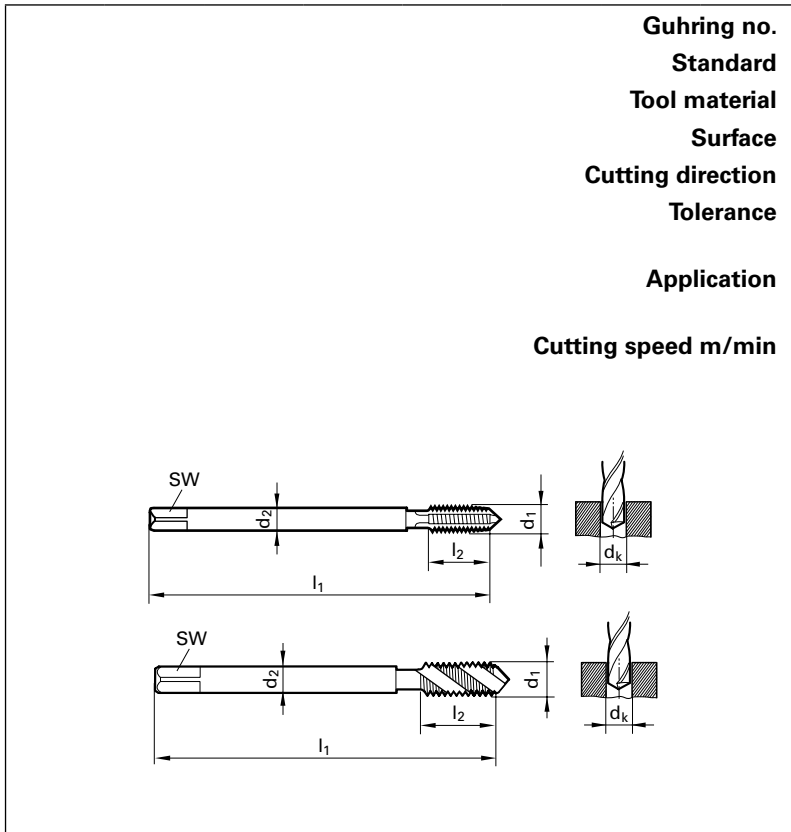
In addition to the four standard types described above, the following thread milling cutters can be supplied on request:









- TM SP and TMC SP thread milling cutters for thread length 3xD
- DTMC SP three-fluted drill/thread milling cutter with or without internal cooling, thread length 1.5xD, 2xD, 2.5xD, 3xD
- Solid carbide thread milling cutters to customer specific demands and drawings

IMPERIAL TAPS

BSP GUN NOSE AND SPIRAL TAPS THROUGH & BLIND HOLES

  **Through hole**
Blind hole
















962	965	967	968
DIN 5156			
HSS-E			
○	○	○	○
rh	rh	rh	rh
			
10-15	10-15	8-10	8-10
			

d1	Code no.	P	d2	SW	dk	l1	l2
inch	mm	TPI	mm		mm	mm	mm
G 1/16	7.723	28.00	6.00	4.90	6.80	90.00	18.00
G 1/8	9.728	28.00	7.00	5.50	8.80	90.00	18.00
G 1/4	13.157	19.00	11.00	9.00	11.80	100.00	20.00
G 3/8	16.662	19.00	12.00	9.00	15.25	100.00	22.00
G 1/2	20.955	14.00	16.00	12.00	19.00	125.00	25.00
G 3/4	26.441	14.00	20.00	16.00	24.50	140.00	28.00
G 1"	33.249	11.00	25.00	20.00	30.75	160.00	30.00

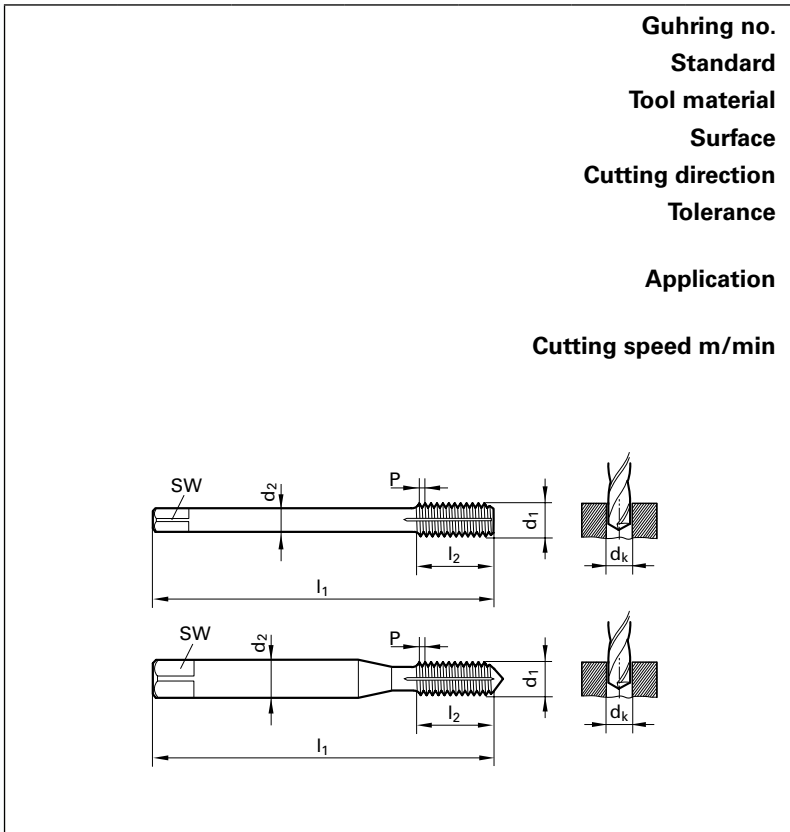
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-  Universal
-  General Steel
-  Tool Steel
-  Stainless Steel
-  Aluminium
-  Cast Materials
-  Bright
-  Steam Tempered
-  Nitrided Lands
-  S-Coated (TiN)
-  A-Coated (TiAlN)
-  C-Coated (TiCN)
-  F-Coated (FIRE)

METRIC FLUTELESS TAPS

METRIC FLUTELESS TAPS (THREAD FORMERS) THROUGH & BLIND HOLES



Guhring no.

Standard

Tool material

Surface

Cutting direction

Tolerance

Application

Cutting speed m/min

782	793	921	5598	5599
~DIN 371				~DIN 376
HSS-E				
○	○	● S	● S	● S
rh	rh	rh	rh	rh
6HX				
○	○	○	○	○
12-18	12-18	10-15	10-15	10-15

d1	P	d2	SW	dk	l1	l2
	mm	mm		mm	mm	mm
M 2	0.40	2.80	2.10	1.80	45.00	8.00
M 2,5	0.45	2.80	2.10	2.30	50.00	9.00
M 3	0.50	3.50	2.70	2.80	56.00	10.00
M 3,5	0.60	4.00	3.00	3.25	56.00	12.00
M 4	0.70	4.50	3.40	3.70	63.00	12.00
M 5	0.80	6.00	4.90	4.65	70.00	14.00
M 6	1.00	6.00	4.90	5.50	80.00	16.00
M 8	1.25	8.00	6.20	7.40	90.00	18.00
M10	1.50	10.00	8.00	9.25	100.00	20.00
M12	1.75	9.00	7.00	11.25	110.00	24.00
M14	2.00	11.00	9.00	13.10	110.00	26.00
M16	2.00	12.00	9.00	15.10	110.00	26.00

AVAILABILITY

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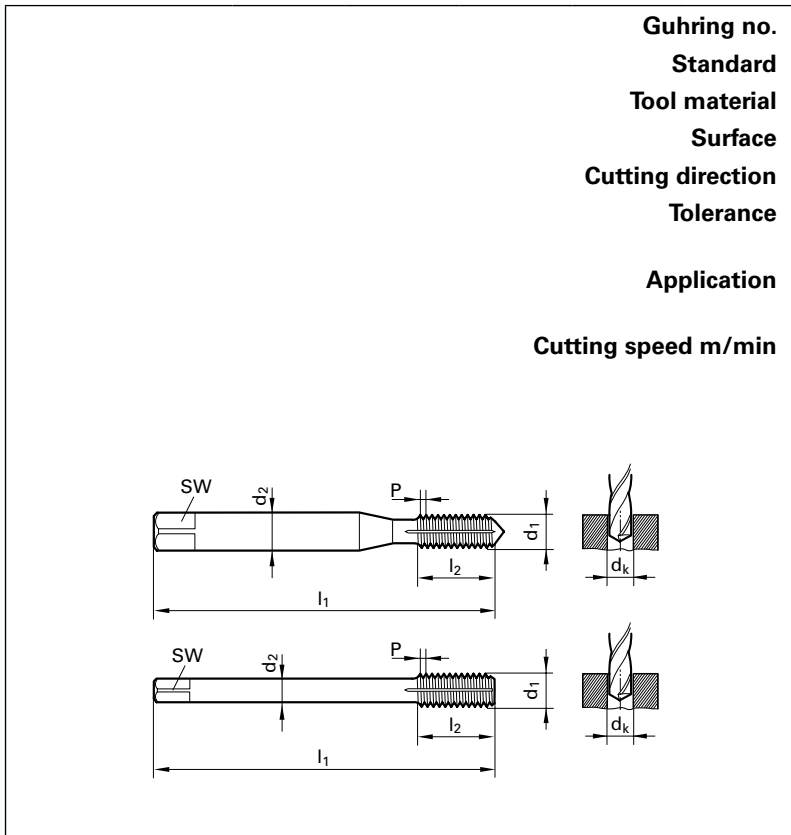
TAPS

- Universal
- General Steel
- Tool Steel
- Stainless Steel
- Aluminium
- Cast Materials
- Bright
- Steam Tempered
- Nitrided Lands
- S-Coated (TiN)
- A-Coated (TiAlN)
- C-Coated (TiCN)
- F-Coated (FIRE)







IMPERIAL FLUTELESS TAPS

UNF FLUTELESS TAPS (THREAD FORMERS)
THROUGH & BLIND HOLES

 **Through hole**
 **Blind hole**



Guhring no.
Standard
Tool material
Surface
Cutting direction
Tolerance
Application
Cutting speed m/min







1584	1585
~DIN 2184-1	~DIN 2184-1
HSS-E	
	
rh	rh
2BX	
	
	

d1	P	d2	SW	dk	l1	l2
inch	TPI	mm		mm	mm	mm
NR. 10 - 32	32.00	6.000	4.90	4.450	70.00	14.00
NR. 12 - 28	28.00	6.000	4.90	5.100	80.00	16.00
1/4 - 28	28.00	7.000	5.50	5.950	80.00	16.00
5/16 - 24	24.00	8.000	6.20	7.450	90.00	18.00
3/8 - 24	24.00	10.000	8.00	9.050	100.00	18.00
7/16 - 20	20.00	8.000	6.20	10.500	100.00	22.00
1/2 - 20	20.00	9.000	7.00	12.100	100.00	20.00
9/16 - 18	18.00	11.000	9.00	13.650	100.00	22.00
5/8 - 18	18.00	12.000	9.00	15.250	100.00	22.00
3/4 - 16	16.00	14.000	11.00	18.300	110.00	25.00

AVAILABILITY

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TAPS

-  Universal
-  General Steel
-  Tool Steel
-  Stainless Steel
-  Aluminium
-  Cast Materials
-  Bright
-  Steam Tempered
-  Nitrided Lands
-  S-Coated (TIN)
-  A-Coated (TiAlN)
-  C-Coated (TiCN)
-  F-Coated (FIRE)

