

The image features a close-up of a Gühring fluteless tap, a precision metal tool used for threading. The tap is positioned vertically, with its cutting edge just above a pre-drilled hole in a dark, metallic workpiece. The background is a blurred industrial setting. The Gühring logo is prominently displayed in the top right corner.

GÜHRING

Fluteless taps XF

High-performance tool
for forming steel materials



Fluteless taps XF

The specialist for forming steel materials

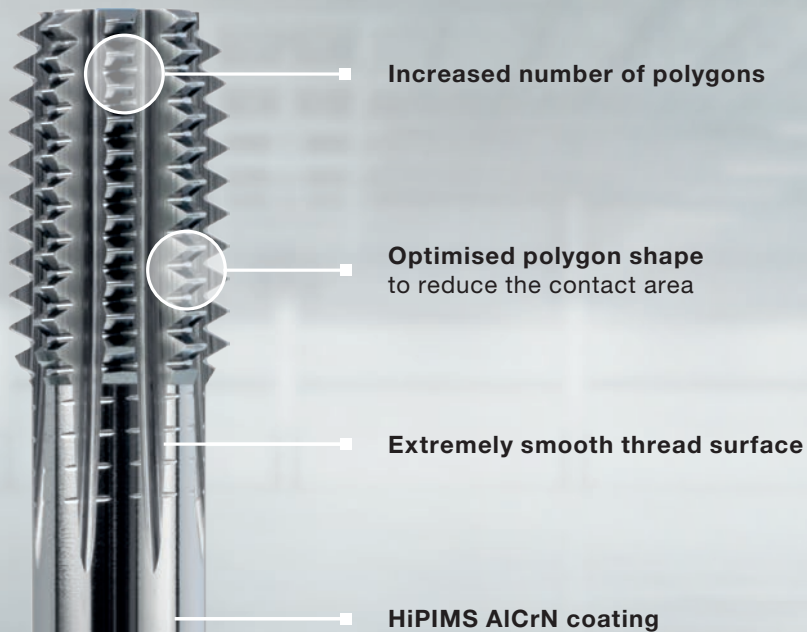
High performance
in steel materials

**The new XF fluteless tap is the high-performance
fluteless tap for all steel materials in ISO group P.**

The tool is characterised by its newly developed polygon geometry. The combination of an increased number of polygons, an extremely smooth thread surface and the HiPIMS AlCrN coating – which is characterised by extremely high temperature resistance – helps to achieve outstanding tool life in steel materials.

- x **Tool life** increased by 60 %
 - x **Processing time** reduced by 25 %
-

- X** Outstanding tool lives
- X** Shorter machining times
- X** Coating & polygon geometry adapted to the challenge



Application example

Component: Axle journal, 1.7225 (42CrMo4)

Tool: #8325, Ø 8.00 mm

Customer target: Increased tool life

Difficulty: Material deformation rate

Cutting data:	Gühring	Competition
	v_c 20 m/min	v_c 15 m/min

Tool life:	3,840 threads	2,400 threads
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Fluteless taps XF

Fluteless taps with coolant ducts for ISO metric threads

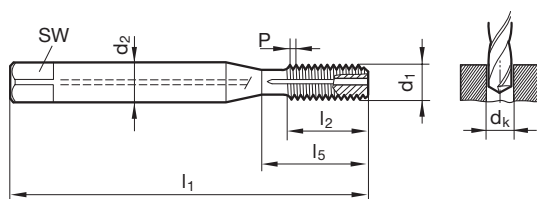
Article no. **8325**



cutting data see page 6



with internal cooling $\geq$ M5 • maximum performance • optimised polygon shape • for steel materials



									Standard	~DIN 371/~DIN 376
									Article no.	8325
d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm		Order no.	
M3	0.500	3.50	2.70	2.80	56.00	6.00	18.00	~DIN 371	8325 3.000	
M4	0.700	4.50	3.40	3.70	63.00	7.50	21.00	~DIN 371	8325 4.000	
M5	0.800	6.00	4.90	4.65	70.00	8.50	25.00	~DIN 371	8325 5.000	
M6	1.000	6.00	4.90	5.55	80.00	11.00	30.00	~DIN 371	8325 6.000	
M8	1.250	8.00	6.20	7.40	90.00	14.00	35.00	~DIN 371	8325 8.000	
M10	1.500	10.00	8.00	9.30	100.00	16.00	39.00	~DIN 371	8325 10.000	
M12	1.750	9.00	7.00	11.20	110.00	18.50	49.00	~DIN 376	8325 12.000	
M14	2.000	11.00	9.00	13.10	110.00	20.00	53.00	~DIN 376	8325 14.000	
M16	2.000	12.00	9.00	15.10	110.00	20.00	54.00	~DIN 376	8325 16.000	
M20	2.500	16.00	12.00	18.90	140.00	25.00	62.00	~DIN 376	8325 20.000	
M24	3.000	18.00	14.50	22.70	160.00	30.00	73.00	~DIN 376	8325 24.000	

Fluteless taps with coolant ducts for ISO metric threads

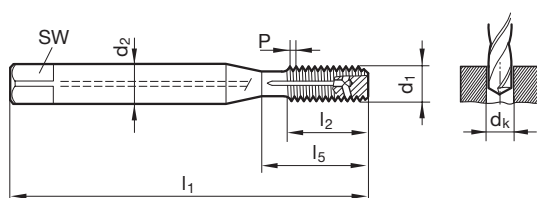
Article no. **8327**



cutting data see page 6



maximum performance • optimised polygon shape • for steel materials



									Standard	~DIN 371/~DIN 376
									Article no.	8327
d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm		Order no.	
M5	0.800	6.00	4.90	4.65	70.00	8.50	25.00	~DIN 371	8327 5.000	
M6	1.000	6.00	4.90	5.55	80.00	11.00	30.00	~DIN 371	8327 6.000	
M8	1.250	8.00	6.20	7.40	90.00	14.00	35.00	~DIN 371	8327 8.000	
M10	1.500	10.00	8.00	9.30	100.00	16.00	39.00	~DIN 371	8327 10.000	
M12	1.750	9.00	7.00	11.20	110.00	18.50	49.00	~DIN 376	8327 12.000	
M14	2.000	11.00	9.00	13.10	110.00	20.00	53.00	~DIN 376	8327 14.000	
M16	2.000	12.00	9.00	15.10	110.00	20.00	54.00	~DIN 376	8327 16.000	
M20	2.500	16.00	12.00	18.90	140.00	25.00	62.00	~DIN 376	8327 20.000	
M24	3.000	18.00	14.50	22.70	160.00	30.00	73.00	~DIN 376	8327 24.000	



Fluteless taps with coolant ducts for ISO metric fine threads

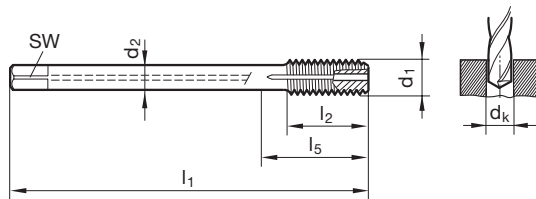
Article no. **8326**


cutting data see page 6



maximum performance • optimised polygon shape • for steel materials

P	M	K	N	S	H
•					



Standard								~DIN 374
Article no.								8326
d1	P	d2	SW	dk	l1	l2	l5	Order no.
M8 x 1	1.000	6.00	4.90	7.55	90.00	11.00	35.00	8326 8.005
M10 x 1	1.000	7.00	5.50	9.55	90.00	11.00	35.00	8326 10.005
M12 x 1,25	1.250	9.00	7.00	11.40	100.00	15.00	40.00	8326 12.006
M12 x 1,5	1.500	9.00	7.00	11.30	100.00	15.00	40.00	8326 12.007
M14 x 1,25	1.250	11.00	9.00	13.40	100.00	15.00	40.00	8326 14.006
M14 x 1,5	1.500	11.00	9.00	13.30	100.00	15.00	40.00	8326 14.007
M16 x 1,5	1.500	12.00	9.00	15.30	100.00	15.00	44.00	8326 16.007
M20 x 1,5	1.500	16.00	12.00	19.30	125.00	16.00	44.00	8326 20.007
M22 x 1,5	1.500	18.00	14.50	21.30	125.00	16.00	44.00	8326 22.007
M24 x 1,5	1.500	18.00	14.50	23.30	140.00	16.00	48.00	8326 24.007

Fluteless taps with coolant ducts for ISO metric fine threads

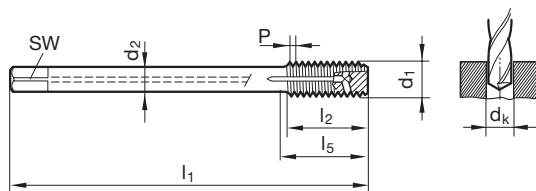
Article no. **8328**


cutting data see page 6



maximum performance • optimised polygon shape • for steel materials

P	M	K	N	S	H
•					



Standard								~DIN 374
Article no.								8328
d1	P	d2	SW	dk	l1	l2	l5	Order no.
M8 x 1	1.000	6.00	4.90	7.55	90.00	11.00	35.00	8328 8.005
M10 x 1	1.000	7.00	5.50	9.55	90.00	11.00	35.00	8328 10.005
M12 x 1,25	1.250	9.00	7.00	11.40	100.00	15.00	40.00	8328 12.006
M12 x 1,5	1.500	9.00	7.00	11.30	100.00	15.00	40.00	8328 12.007
M14 x 1,25	1.250	11.00	9.00	13.40	100.00	15.00	40.00	8328 14.006
M14 x 1,5	1.500	11.00	9.00	13.30	100.00	15.00	40.00	8328 14.007
M16 x 1,5	1.500	12.00	9.00	15.30	100.00	15.00	44.00	8328 16.007
M20 x 1,5	1.500	16.00	12.00	19.30	125.00	16.00	44.00	8328 20.007
M22 x 1,5	1.500	18.00	14.50	21.30	125.00	16.00	44.00	8328 22.007
M24 x 1,5	1.500	18.00	14.50	23.30	140.00	16.00	48.00	8328 24.007



Fluteless taps XF, ISO P M/MF

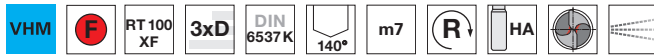


Machining group	HSS-E-PM
	P
	v_c (m/min)
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm ² , 125 HB	31
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm ² , 125 HB	31
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm ² , 190 HB	31
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm ² , 190 HB	31
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm ² , 250 HB	31
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm ² , 270 HB	31
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm ² , 300 HB	31
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm ² , 180 HB	25
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm ² , 275 HB	25
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm ² , 300 HB	25
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm ² , 350 HB	25
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm ² , 200 HB	19
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm ² , 325 HB	19
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives	
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm ² , 200 HB	
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm ² , 240 HB	
M2.1.1 Stainless steel, austenitic, quenched, 180 HB	
M2.2.1 Duplex steel, high-strength stainless steels	
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB	
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB	
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB	
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB	
K1.3.1 Malleable cast iron, ferritic, 130 HB	
K1.3.2 Malleable cast iron, pearlitic, 230 HB	
K2.1.1 Vermicular graphite cast iron (GJV)	
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)	
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB	
N1.1.2 Wrought aluminium alloys, hardened, 100 HB	
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB	
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB	
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB	
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %	
N3.1.2 Copper and copper alloys: CuZn, CuSnZn	
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte	
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics	
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.	
N4.1.3 Non-metallic materials: Graphite	
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB	
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB	
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB	
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB	
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB	
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm ²	
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm ²	
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC	
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	



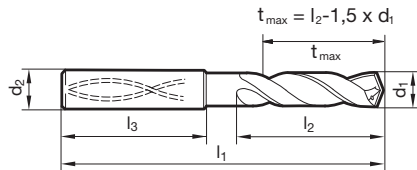
Ratio drills with coolant ducts

Article no. 6498



P	M	K	N	S	H
●	○	○	○	○	○

ideal for core hole drilling • web thinning $\geq \varnothing 3.000$ • relieved cone • main cutting edge form concave
 • optimised cutting edge geometry • maximum performance • double margin



Article no. 6498

d1 mm	inch	d2 h6 mm	l1 mm	l2 mm	l3 mm	Order no.
3.700		6.0	62.0	20.0	36.0	6498 3.700
4.650		6.0	66.0	24.0	36.0	6498 4.650
5.550		6.0	66.0	28.0	36.0	6498 5.550
7.400		8.0	79.0	41.0	36.0	6498 7.400
7.550		8.0	79.0	41.0	36.0	6498 7.550
9.300		10.0	89.0	47.0	40.0	6498 9.300
9.550		10.0	89.0	47.0	40.0	6498 9.550
11.200		12.0	102.0	55.0	45.0	6498 11.200
11.300		12.0	102.0	55.0	45.0	6498 11.300

Article no. 6498

d1 mm	inch	d2 h6 mm	l1 mm	l2 mm	l3 mm	Order no.
11.400		12.0	102.0	55.0	45.0	6498 11.400
13.100	33/64	14.0	107.0	60.0	45.0	6498 13.100
13.300		14.0	107.0	60.0	45.0	6498 13.300
13.400		14.0	107.0	60.0	45.0	6498 13.400
15.100		16.0	115.0	65.0	48.0	6498 15.100
15.300		16.0	115.0	65.0	48.0	6498 15.300
18.900		20.0	131.0	79.0	50.0	6498 18.900
19.300		20.0	131.0	79.0	50.0	6498 19.300

Machining group		f (mm/rev) with nom. Ø							
		v _c (m/min)							
		3	6	8	10	12	14	16	20
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm ² , 125 HB		180	0.190	0.325	0.405	0.480	0.550	0.620	0.685
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm ² , 125 HB		160	0.175	0.295	0.365	0.430	0.495	0.560	0.615
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm ² , 190 HB		160	0.175	0.295	0.365	0.430	0.495	0.560	0.615
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm ² , 190 HB		155	0.165	0.275	0.345	0.410	0.470	0.525	0.585
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm ² , 250 HB		155	0.165	0.275	0.345	0.410	0.470	0.525	0.585
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm ² , 270 HB		145	0.155	0.260	0.325	0.385	0.440	0.495	0.550
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm ² , 300 HB		135	0.145	0.245	0.305	0.360	0.415	0.465	0.515
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm ² , 180 HB		120	0.155	0.260	0.325	0.385	0.440	0.495	0.550
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm ² , 275 HB		120	0.155	0.260	0.325	0.385	0.440	0.495	0.550
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm ² , 300 HB		100	0.130	0.220	0.275	0.325	0.375	0.420	0.465
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm ² , 350 HB		90	0.115	0.195	0.245	0.290	0.330	0.370	0.410
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm ² , 200 HB		90	0.125	0.210	0.260	0.305	0.355	0.395	0.440
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm ² , 325 HB		75	0.105	0.175	0.220	0.260	0.300	0.335	0.375
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives		80	0.075	0.130	0.160	0.190	0.220	0.250	0.275
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm ² , 200 HB		70	0.070	0.115	0.145	0.175	0.200	0.225	0.245
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm ² , 240 HB		70	0.065	0.110	0.140	0.165	0.185	0.210	0.235
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB		110	0.155	0.260	0.325	0.385	0.440	0.495	0.550
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB		95	0.130	0.220	0.275	0.325	0.375	0.420	0.465
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB		95	0.130	0.220	0.275	0.325	0.375	0.420	0.465
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB		90	0.125	0.210	0.260	0.305	0.355	0.395	0.440
K1.3.1 Malleable cast iron, ferritic, 130 HB		90	0.125	0.210	0.260	0.305	0.355	0.395	0.440
K1.3.2 Malleable cast iron, pearlitic, 230 HB		75	0.110	0.180	0.225	0.270	0.310	0.345	0.385
K2.1.1 Vermicular graphite cast iron (GJV)		90	0.155	0.260	0.325	0.385	0.440	0.495	0.550
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)		70	0.115	0.195	0.245	0.290	0.330	0.370	0.410
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB		40	0.060	0.105	0.130	0.155	0.175	0.200	0.220
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB		30	0.050	0.085	0.105	0.120	0.140	0.160	0.175
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB		35	0.060	0.105	0.130	0.155	0.175	0.200	0.220
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB		20	0.045	0.075	0.090	0.105	0.125	0.140	0.155
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB		25	0.045	0.075	0.090	0.105	0.125	0.140	0.155
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm ²		40	0.060	0.105	0.130	0.155	0.175	0.200	0.220
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm ²		30	0.050	0.085	0.105	0.120	0.140	0.160	0.175
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC		55	0.050	0.080	0.100	0.120	0.140	0.155	0.175



Fluteless taps XF

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