

# Application recommendations for N-X form taps



Hole type			
<b>Tool material</b>	HSS-E-PM	HSS-E-PM	HSS-E-PM
<b>Type</b>	Durativ N-X	Durativ N-X	Durativ N-X Page
<b>Form</b>	C with oil grooves	C with oil grooves	E
<b>Surface finish</b>	TiCN	TiCN	TiCN
<b>Cooling</b>	external	radial	axial*

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page		
<b>M</b>	~ DIN 371	4/6HX	53630 M1-M10 Page 123	53610 M5-M20 Page 124	53618 M2*-M10 Page 124
		6GX	53631 M2-M10 Page 125		
	~ DIN 376	6HX	53630 M12-M20 Page 123		53618 M12-M20 Page 124
		6GX	53631 M12-M20 Page 125		
<b>MF</b>	~ DIN 374	6HX	53632 M8x1-M20x1.5 Page 127	53612 M8x1-M20x1.5 Page 128	53619 M8x1-M20x1.5 Page 128
<b>UNC</b>	~ DIN 371 ~ DIN 376	2BX	53633 No.4-40 - 3/4-10 Page 129		
<b>UNF</b>	~ DIN 374	2BX	53634 No.4-48 - 3/4-16 Page 130		
<b>G</b>	DIN 5156	X	53635 G1/8 - G1/2 Page 126		

All tools from M2 with oil grooves.  
\* from M5 with IC

# Application recommendations for N-X form taps

Material group		Tensile strength	Example materials	Material no.	Recommended cutting speed $v_c$ m/min								
P	P1	Structural and free cutting steels, heat-treatable steels unalloyed $\leq 800$ N/mm <sup>2</sup>	S235JR	1.0037	25	25	25						
			C15	1.0401									
			11SMnPb30	1.0718									
P	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels 800 - 1000 N/mm <sup>2</sup>	S355J2	1.0577	25	25	25						
			C60	1.0601									
			31CrMo12	1.8515									
P	P3	Alloyed heat-treatable steels, tool steels, high speed steels 800 - 1200 N/mm <sup>2</sup>	42CrMo4	1.7225	15	15	15						
			36CrNiMo4	1.6511									
			X36CrMo17	1.2316									
M	M1	Stainless steels, sulphured, austenitic $\leq 1000$ N/mm <sup>2</sup>	X5CrNi18-10	1.4301	15	15	15						
			X6CrNiTi18-10	1.4571									
			X8CrNiS18-9	1.4305									
M	M2	Stainless- and acidresistant steels, martensitic $\leq 1000$ N/mm <sup>2</sup>	X17CrNi16-2	1.4057	10	10	10						
			X90CrMoV18	1.4112									
			X2CrTi12	1.4512									
M	M3	Duplex and Super Duplex $\leq 1300$ N/mm <sup>2</sup>	X2CrNiMoN22-5-3	1.4462	6	6	6						
			X2CrNiMoN25-7-4	1.4410									
			X2CrNiMoCuWN25-7-4	1.4501									
K	K1	Cast iron 300 HB	EN-GJL-150	0.6015									
			EN-GJL-250	0.6025									
			EN-GJL-300	0.6030									
K	K2	Spheroidal graphite iron and malleable cast iron 350 HB	EN-GJS-400-15	0.7040	30	30	30						
			EN-GJS-600-3	0.7060									
			EN-GJS-700-2	0.7070									
K	K3	ADI GGV 350 HB	EN-GJS1000-5		25	25	25						
			EN-GJV250										
			EN-GJV400										
N	N1	Aluminium, Aluminium wrought alloys $\leq 450$ N/mm <sup>2</sup>	Al99,5H	3.0250	15	15	15						
			AlMgSi1	3.2315									
			AlZn4,5Mg	3.4335									
N	N2	Aluminium cast alloys $\leq 600$ N/mm <sup>2</sup>	GD-ALSi5Cu1Mg	3.2134	30	30	30						
			GD-ALSi8Cu3	3.2162									
			G-ALSi9Mg	3.2373									
N	N3	Magnesium alloys $\leq 500$ N/mm <sup>2</sup>	GDMgAl8Zn1	3.5812.08									
			N4	Copper and copper alloys				long-chipping	CuZn20	2.0250	30	30	30
								short-chipping	CuZn37Pb0.5	2.0332			
CuZn39Pb2	2.0380												
N	N5	Copper special alloys $\leq 1400$ N/mm <sup>2</sup>	Ampco										
			N6	Plastics [Thermoplastics, duroplastics]				long-chipping	PMMA, POM, PVC				
								short-chipping	Pertinax				
S	S1	Titanium and Titanium alloys $\leq 1200$ N/mm <sup>2</sup>			Titanium	3.7025	8	8	8				
			TiAl5Sn2	3.7115									
			TiAl6V4	3.7165									
S	S2	Nickel, cobalt, iron alloys $\leq 1400$ N/mm <sup>2</sup>	Hastelloy C4	2.4610	8	8	8						
			Inconel 718	2.4668									
			Nimonic 105	2.4634									
H	H1	High tensile steels, hardened steels											
	H2												

## Fluteless taps with oil grooves M

### Fluteless taps for ISO metric threads



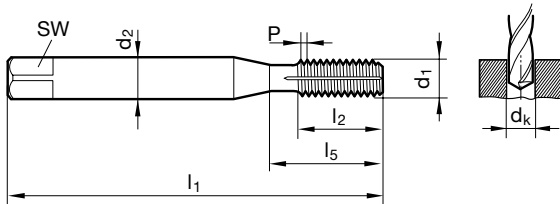
Catalogue no. 53630



P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



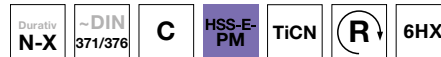
d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M1	0.250	2.500	2.100	0.90	40.000	4.000	7.600
M1,2	0.250	2.500	2.100	1.10	40.000	4.800	7.600
M1,4	0.300	2.500	2.100	1.25	40.000	5.600	10.600
M1,6	0.350	2.500	2.100	1.45	40.000	6.400	11.600
M1,7	0.350	2.500	2.100	1.55	40.000	6.800	11.600
M1,8	0.350	2.500	2.100	1.65	40.000	7.300	11.600
M2	0.400	2.800	2.100	1.85	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.30	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000
M12	1.750	9.000	7.000	11.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	13.10	110.000	26.000	53.000
M16	2.000	12.000	9.000	15.10	110.000	26.000	54.000
M20	2.500	16.000	12.000	18.90	140.000	32.000	62.000

## Fluteless taps with oil grooves M

### Fluteless taps with coolant ducts for metric ISO threads



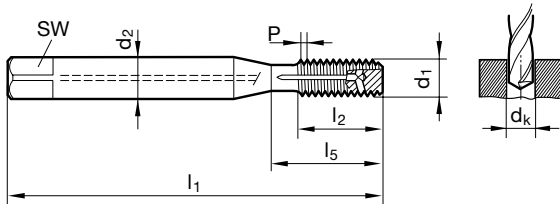
Catalogue no. 53610



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Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- radial coolant exit



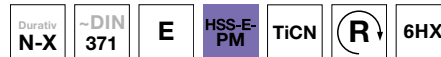
d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M5	0.800	6.000	4.900	4.65	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.55	80.000	11.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	14.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	16.000	39.000
M12	1.750	9.000	7.000	11.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	13.10	110.000	20.000	53.000
M16	2.000	12.000	9.000	15.10	110.000	20.000	54.000
M20	2.500	16.000	12.000	18.90	140.000	25.000	62.000

## Fluteless taps with oil grooves M

### Fluteless taps with coolant ducts for metric ISO threads



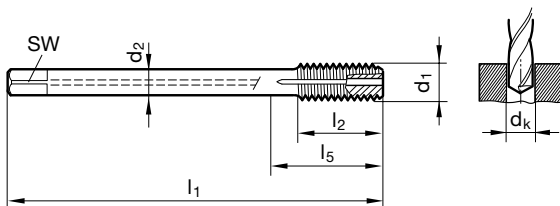
Catalogue no. 53618



P	M	K	N	S	H
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Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- with axial coolant duct
- short chamfer for thread depths close to bottom of the hole



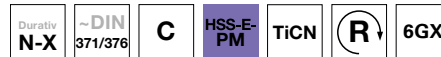
d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M2	0.400	2.800	2.100	1.85	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.30	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.55	80.000	11.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	14.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	16.000	39.000
M12	1.750	9.000	7.000	11.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	13.10	110.000	20.000	53.000
M16	2.000	12.000	9.000	15.10	110.000	20.000	54.000
M20	2.500	16.000	12.000	18.90	140.000	25.000	62.000

## Fluteless taps with oil grooves M

### Fluteless taps for ISO metric threads



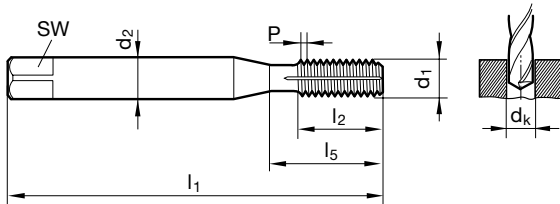
Catalogue no. 53631



P	M	K	N	S	H
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Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M2	0.400	2.800	2.100	1.85	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.30	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000
M12	1.750	9.000	7.000	11.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	13.10	110.000	26.000	53.000
M16	2.000	12.000	9.000	15.10	110.000	26.000	54.000
M20	2.500	16.000	12.000	18.90	140.000	32.000	62.000

## Fluteless taps w/o oil grooves G

### Fluteless taps for BSP threads



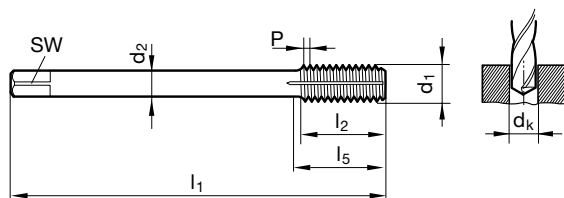
Catalogue no. 53635



P	M	K	N	S	H
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Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



Code no.	d1	P inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28.000	7.000	5.500	9.30	90.000	18.000	35.000
13.157	G1/4	19.000	11.000	9.000	12.50	100.000	20.000	40.000
16.662	G3/8	19.000	12.000	9.000	16.00	100.000	22.000	44.000
20.955	G1/2	14.000	16.000	12.000	20.00	125.000	25.000	44.000

## Fluteless taps with oil grooves MF

### Fluteless taps for ISO metric fine threads



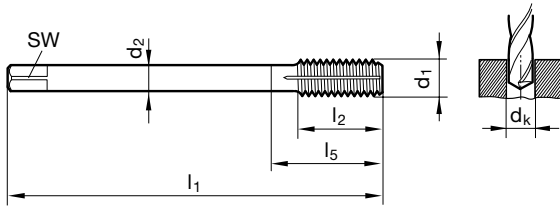
Catalogue no. 53632

Durativ <b>N-X</b>	~DIN <b>374</b>	<b>C</b>	HSS-E- PM	TiCN	<b>R</b>	<b>6HX</b>
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<b>P</b>	<b>M</b>	<b>K</b>	<b>N</b>	<b>S</b>	<b>H</b>
•	•	•	○	•	

Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
<b>8.005</b>	M8 x 1	6.000	4.900	7.55	90.000	17.000	35.000
<b>10.005</b>	M10 x 1	7.000	5.500	9.55	90.000	16.000	35.000
<b>10.006</b>	M10 x 1,25	7.000	5.500	9.40	100.000	20.000	39.000
<b>12.006</b>	M12 x 1,25	9.000	7.000	11.40	100.000	20.000	40.000
<b>12.007</b>	M12 x 1,5	9.000	7.000	11.30	100.000	20.000	40.000
<b>14.006</b>	M14 x 1,25	11.000	9.000	13.40	100.000	20.000	40.000
<b>14.007</b>	M14 x 1,5	11.000	9.000	13.30	100.000	20.000	40.000
<b>16.007</b>	M16 x 1,5	12.000	9.000	15.30	100.000	22.000	44.000
<b>20.007</b>	M20 x 1,5	16.000	12.000	19.30	125.000	25.000	44.000

## Fluteless taps with oil grooves MF

### Oil feed fluteless taps f. ISO metric fine threads



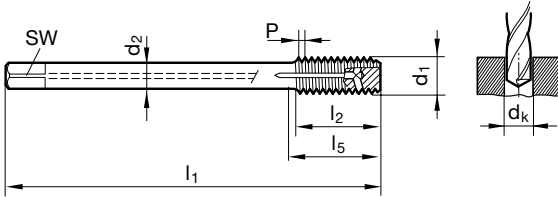
Catalogue no. 53612

Durativ <b>N-X</b>	~DIN <b>374</b>	<b>C</b>	<b>HSS-E-PM</b>	TiCN	<b>R</b>	<b>6HX</b>
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<b>P</b>	<b>M</b>	<b>K</b>	<b>N</b>	<b>S</b>	<b>H</b>
●	●	●	○	●	

Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- radial coolant exit



Code no.	d1	d2	SW	dk	l1	l2	l5
		mm	mm	mm	mm	mm	mm
8.005	M8 x 1	6.000	4.900	7.55	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.55	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	9.40	100.000	14.000	39.000
12.006	M12 x 1,25	9.000	7.000	11.40	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	11.30	100.000	16.000	40.000
14.006	M14 x 1,25	11.000	9.000	13.40	100.000	15.000	40.000
14.007	M14 x 1,5	11.000	9.000	13.30	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	15.30	100.000	15.000	44.000
20.007	M20 x 1,5	16.000	12.000	19.30	125.000	16.000	44.000

## Fluteless taps with oil grooves MF

### Oil feed fluteless taps f. ISO metric fine threads



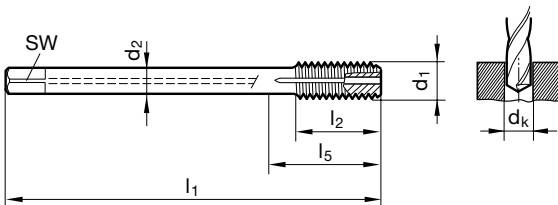
Catalogue no. 53619

Durativ <b>N-X</b>	~DIN <b>374</b>	<b>E</b>	<b>HSS-E-PM</b>	TiCN	<b>R</b>	<b>6HX</b>
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<b>P</b>	<b>M</b>	<b>K</b>	<b>N</b>	<b>S</b>	<b>H</b>
●	●	●	○	●	

Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- with axial coolant duct



Code no.	d1	d2	SW	dk	l1	l2	l5
		mm	mm	mm	mm	mm	mm
8.005	M8 x 1	6.000	4.900	7.55	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.55	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	9.40	100.000	14.000	39.000
12.006	M12 x 1,25	9.000	7.000	11.40	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	11.30	100.000	16.000	40.000
14.006	M14 x 1,25	11.000	9.000	13.40	100.000	15.000	40.000
14.007	M14 x 1,5	11.000	9.000	13.30	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	15.30	100.000	15.000	44.000
20.007	M20 x 1,5	16.000	12.000	19.30	125.000	16.000	44.000



## Fluteless taps with oil grooves UNC

### Fluteless taps for UNC threads



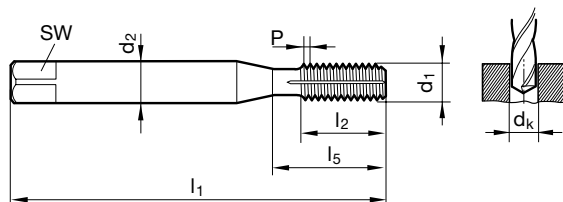
Catalogue no. 53633



P	M	K	N	S	H
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Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.845	4 - 40	3.500	2.700	2.55	56.000	11.000	18.000
3.505	6 - 32	4.000	3.000	3.15	56.000	12.000	20.000
4.166	8 - 32	4.500	3.400	3.80	63.000	12.000	21.000
4.826	10 - 24	6.000	4.900	4.35	70.000	14.000	25.000
5.486	12 - 24	6.000	4.900	5.00	80.000	16.000	30.000
6.350	1/4 - 20	7.000	5.500	5.75	80.000	16.000	30.000
7.938	5/16 - 18	8.000	6.200	7.30	90.000	18.000	35.000
9.525	3/8 - 16	10.000	8.000	8.80	90.000	20.000	35.000
11.113	7/16 - 14	8.000	6.200	10.30	100.000	22.000	42.000
12.700	1/2 - 13	9.000	7.000	11.80	100.000	25.000	40.000
14.288	9/16 - 12	11.000	9.000	13.30	100.000	28.000	40.000
15.875	5/8 - 11	12.000	9.000	14.80	100.000	30.000	44.000
19.050	3/4 - 10	14.000	11.000	17.90	110.000	33.000	44.000

## Fluteless taps with oil grooves UNF

### Fluteless taps for UNF threads



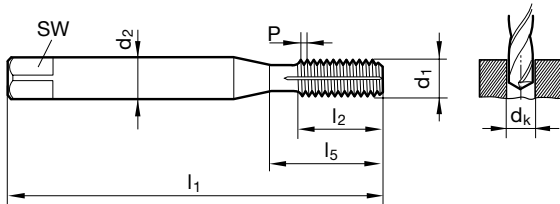
Catalogue no. 53634

Durativ <b>N-X</b>	~DIN 371/374	<b>C</b>	HSS-E- PM	TiCN	<b>R</b>	2BX
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<b>P</b>	<b>M</b>	<b>K</b>	<b>N</b>	<b>S</b>	<b>H</b>
•	•	•	○	•	

Application recommendations page 122

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
<b>2.845</b>	4 - 48	3.500	2.700	2.60	56.000	10.000	18.000
<b>3.505</b>	6 - 40	4.000	3.000	3.20	56.000	11.000	20.000
<b>4.166</b>	8 - 36	4.500	3.400	3.85	63.000	12.000	21.000
<b>4.826</b>	10 - 32	6.000	4.900	4.45	70.000	14.000	25.000
<b>5.486</b>	12 - 28	6.000	4.900	5.10	80.000	16.000	30.000
<b>6.350</b>	1/4 - 28	7.000	5.500	5.95	80.000	16.000	30.000
<b>7.938</b>	5/16 - 24	8.000	6.200	7.45	90.000	18.000	35.000
<b>9.525</b>	3/8 - 24	10.000	8.000	9.05	100.000	18.000	39.000
<b>11.113</b>	7/16 - 20	8.000	6.200	10.55	100.000	22.000	42.000
<b>12.700</b>	1/2 - 20	9.000	7.000	12.10	100.000	20.000	40.000
<b>14.288</b>	9/16 - 18	11.000	9.000	13.65	100.000	22.000	40.000
<b>15.875</b>	5/8 - 18	12.000	9.000	15.25	100.000	22.000	44.000
<b>19.050</b>	3/4 - 16	14.000	11.000	18.35	110.000	25.000	44.000

# Application recommendations for N form taps



Hole type	HSS-E	HSS-E	HSS-E	HSS-E-PM	Solid carbide
Type	Durativ	Durativ	Durativ	Durativ	Durativ
Form	C w/o oil grooves	C with oil grooves	C with oil grooves	C with oil grooves	C with oil grooves
Surface finish	TiN	blank	TiN	AlCrN	TiCN
Cooling	without	without	without	without	radial*

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page				
			63121 M2 - M10 Page 132	73120 M3 - M10 Page 133	63120 M3 - M10 Page 134	53620 M3 - M10 Page 135	63013 M3 - M10 Page 136
M	~ DIN 371	4/6HX			63119 M3 - M10 Page 137	53621 M3 - M10 Page 137	
		6GX					
	~ DIN 376	6HX	63123 M12 - M20 Page 132		63122 M12 - M16 Page 134	53622 M12 - M20 Page 135	
		6GX					
MF	~ DIN 374	6HX			63703 M8x1 - M16x1.5 Page 138		

	Materialgruppe	Tensile strength	Recommended cutting speed v <sub>c</sub> m/min				
			10	11	12	12	25
P	Alloyed heat-treatable steels, tool steels, high speed steels	800 - 1200 N/mm <sup>2</sup>	10	11	12	12	25
M	Stainless steels, sulphured, austenitic	≤1000 N/mm <sup>2</sup>	4	5	6		15
	Stainless- and acidresistant steels, martensitic	≤1000 N/mm <sup>2</sup>	4	3	4		12
	Duplex and Super Duplex	≤1300 N/mm <sup>2</sup>					15
K	Spheroidal and malleable cast iron	from GGG40	15	14	15		40
N	Aluminum, non-ferrous metals and plastics		20	18	20		45
S	Special-, Super- and Titanium alloys						10

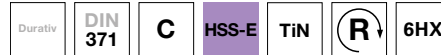
All tools from M2 with oil grooves.  
\* from M5 with IC

## Fluteless taps M

### Fluteless taps w/o oil grooves for ISO metric threads



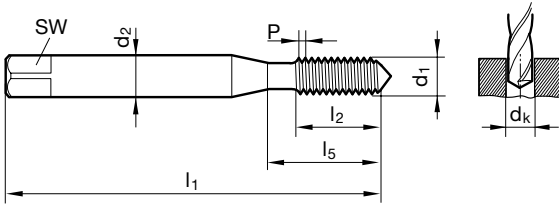
Catalogue no. 63121



P	M	K	N	S	H
•	•		•		

Application recommendations page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



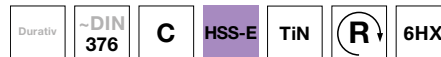
d1	P	d2	SW	dk	l1	l2	l5
mm	mm	mm	mm	mm	mm	mm	mm
M2	0.400	2.800	2.100	1.85	45.000	8.000	13.500
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000

## Fluteless taps M

### Fluteless taps w/o oil grooves for ISO metric threads



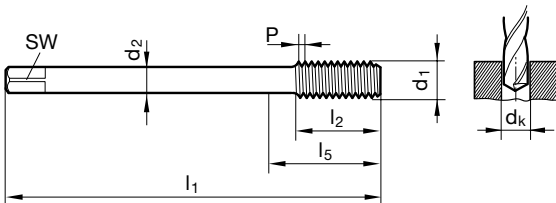
Catalogue no. 63123



P	M	K	N	S	H
•	•		•		

Application recommendations page 24

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
mm	mm	mm	mm	mm	mm	mm	mm
M12	1.750	9.000	7.000	11.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	15.10	110.000	26.000	54.000
M20	2.500	16.000	12.000	18.90	140.000	32.000	62.000

## Fluteless taps M

### Fluteless taps with oil grooves for ISO metric threads



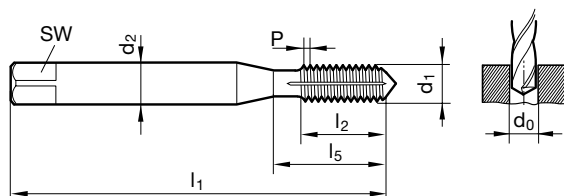
Catalogue no. 73120

Durativ	~DIN 371	C	HSS-E	bright	R	6HX
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P	M	K	N	S	H
•	•		•		

Application  
recommendations  
page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000

## Fluteless taps M

### Fluteless taps with oil grooves for ISO metric threads



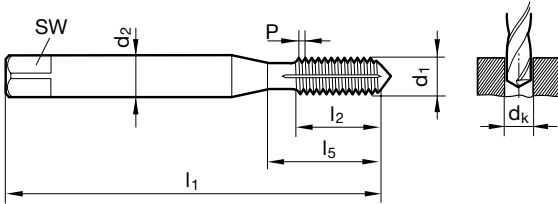
Catalogue no. 63120

Durativ	~DIN 371	C	HSS-E	TiN		6HX
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P	M	K	N	S	H
•	•		•		

Application recommendations page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
mm	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000

## Fluteless taps M

### Fluteless taps with oil grooves for ISO metric threads



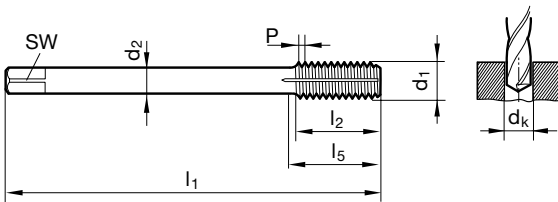
Catalogue no. 63122

Durativ	~DIN 376	C	HSS-E	TiN		6HX
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P	M	K	N	S	H
•	•		•		

Application recommendations page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
mm	mm	mm	mm	mm	mm	mm	mm
M12	1.750	9.000	7.000	11.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	13.10	110.000	26.000	53.000
M16	2.000	12.000	9.000	15.10	110.000	26.000	54.000

## Fluteless taps M

### Fluteless taps with oil grooves for ISO metric threads



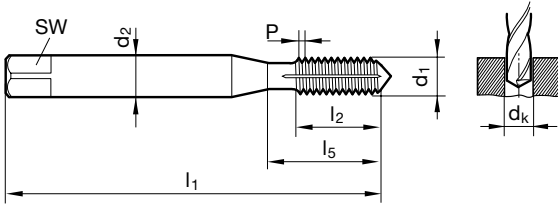
Catalogue no. 53620

Durativ	~DIN 371	C	HSS-E- PM	Al- CrN		6HX
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P	M	K	N	S	H
•	•		•		

Application recommendations page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
mm	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000

## Fluteless taps M

### Fluteless taps with oil grooves for ISO metric threads



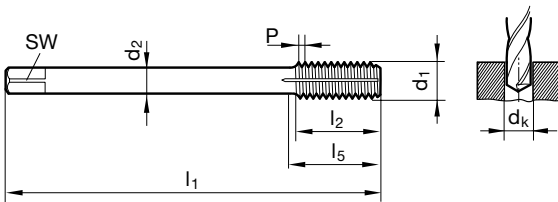
Catalogue no. 53622

Durativ	~DIN 376	C	HSS-E- PM	Al- CrN		6HX
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P	M	K	N	S	H
•	•		•		

Application recommendations page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
mm	mm	mm	mm	mm	mm	mm	mm
M12	1.750	9.000	7.000	11.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	13.10	110.000	26.000	53.000
M16	2.000	12.000	9.000	15.10	110.000	26.000	54.000
M20	2.500	16.000	12.000	18.90	140.000	32.000	62.000

## Fluteless taps M

### Fluteless taps with coolant ducts for metric ISO threads



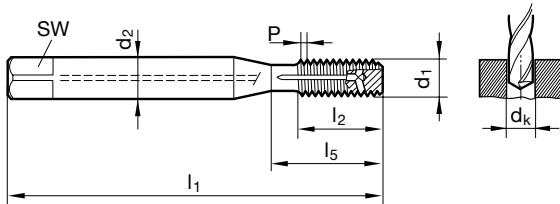
Catalogue no. 63013

Durativ	~DIN 371	C	VHM	TiCN	R	6HX
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P	M	K	N	S	H
•	•		•		

Application  
recommendations  
page 131

- for through and blind holes
- for large thread depths
- for universal application
- radial coolant exit
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.80	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.65	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.55	80.000	11.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	14.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	16.000	39.000



## Fluteless taps M

### Fluteless taps with oil grooves for ISO metric threads



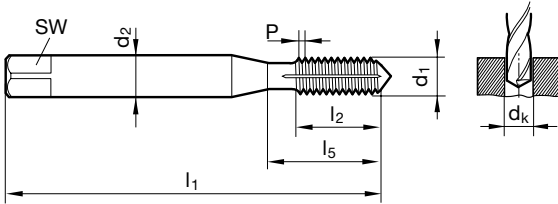
Catalogue no. 63119

Durativ	~DIN 371	C	HSS-E	TiN		6GX
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P	M	K	N	S	H
•	•		•		

Application recommendations page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000

## Fluteless taps M

### Fluteless taps with oil grooves for ISO metric threads



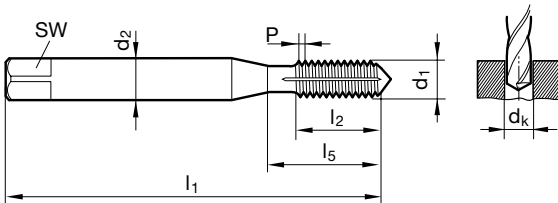
Catalogue no. 53621

Durativ	~DIN 371	C	HSS-E-PM	Al-CrN		6GX
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P	M	K	N	S	H
•	•		•		

Application recommendations page 131

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm<sup>2</sup>
- acid resist./stainless steels
- tough, long-chipping materials



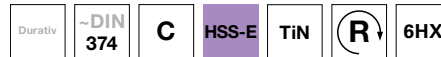
d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.65	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000

## Fluteless taps with oil grooves MF

### Fluteless taps for ISO metric fine threads



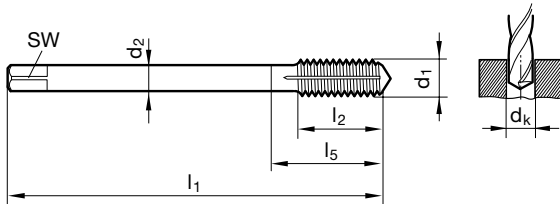
Catalogue no. 63703



P	M	K	N	S	H
•	•	•	○	•	

Application recommendations page 131

- for through and blind holes
- steel materials of up to 1200 N/mm<sup>2</sup>
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



Code no.	d1	d2	SW	dk	l1	l2	l5
		mm	mm	mm	mm	mm	mm
8.005	M8 x 1	6.000	4.900	7.55	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.55	90.000	16.000	35.000
10.006	M10 x 1,25	7.000	5.500	9.40	100.000	20.000	39.000
12.005	M12 x 1	9.000	7.000	11.55	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	11.30	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	13.30	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	15.30	100.000	22.000	44.000