Complete range

2nd edition

Threading tools

STOCK

Chip – by Chip – to the Top

Threading tools for every application

- for a wide range of thread forms
- thread cutting, forming and milling
- with or without internal cooling
- all cutting materials ranging from carbide, PM steels to HSS-E
- application-orientated coatings
- special tools on customer‘s request

Threading tools are together with drills, reamers and milling cutters the most important types in the range of STOCK precision cutting tools. The variety of design, together with different thread forms, manufactured in diverse tolerances according to DIN standard or special made, offers a large choice for solving threading problems. The quality of the drilled hole in respect of correct size, roundness, straightness and surface roughness has an eminent influence on the produced thread.

To be on the safe side, it is recommended to use STOCK drills for better results.
Request our catalogue, visit our shop www.stock.de or contact us for our recommendation for the most suitable tool.

ISO-CODES

P	Steel, high-alloyed steel
M	Stainless steel
K	Grey cast iron, spheroidal and malleable cast iron
N	Aluminium and other non-ferrous metals
S	Special-, super- and Ti-alloys
H	Hardened steel and hard cast iron

PICTOGRAMS

TOOL MATERIAL

VHM — Solid carbide

HSS

HSS-E

HSS-E-PM

SURFACE FINISH

bright | ni-trided | steam tempered | TiCN | Al-TiZrN | Ti-AlN | TiAlN-H | TiN | TiSiN | Al-CrN

HOLE TYPE

Through hole, short

Through hole, 1 x D

Through hole, 2 x D

Blind hole, 1 x D

Blind hole, 2 x D

Blind hole down to the bottom of the hole

TOLERANCE CLASS

ISO2/6H | 6HX | ISO3/6G | 2B | 2BX | 6GX | 6g | 6H +0,1

FORM

B — 3,5-5,5 threads

C — 2-3 threads

D — 3,5-5 threads

E — 1,5-2 threads

CUTTING DIRECTION

R — right-hand

L — left-hand

SHANK FORM

HA

THREAD DEPTH

1xD | 2xD | 2,5xD | 3xD

STANDARD

DIN 371 | DIN 376 | DIN 374 | DIN 371/376 | ~DIN 371 | ~DIN 376 | ~DIN 371/376 | ~DIN 374 | DIN 5156

DIN 40432 | DIN 2174 | DIN 352 | ~DIN 352 | DIN 357 | DIN 2181 | DIN 2184/1 | DIN 2189 | WN

to Stock standard

TYPE

Produktiv Synchro | Produktiv N-X | Produktiv N | Intensiv Synchro | Intensiv N-X | Intensiv N | Produktiv HX | Produktiv HDX | N | Massiv N | Intensiv HX | Intensiv HDX

HCX | H | Produktiv H | Produktiv HD | Intensiv HD | GG | Produktiv W | Intensiv W | Durativ | VA | TMC SP | TM SP | ...

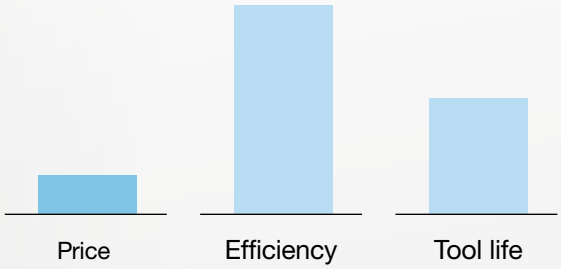
Possible misprints or alterations do not entitle any claim. All products marked with “DIN“, deviating from the dimensions listed in the catalogue, can be delivered,as long as they are in conformity with the DIN standard form.

ECONOMY CLASS

the most economic machining of internal threads

ECONOMY E

- for small and very small batch sizes
- for order and contract manufacturing
- on conventional and CNC machines
- for individual part production
- tools in HSS-E, bright, nitrided or steam tempered



BUSINESS CLASS

economic machining of internal threads

BUSINESS B

- for mass production
- for order and contract manufacturing
- on conventional and CNC machines
- coated HSS-E tools, bright or coated HSS-E-PM tools
- for DIN ISO codes: P, M, K, N, S

PREMIUM CLASS

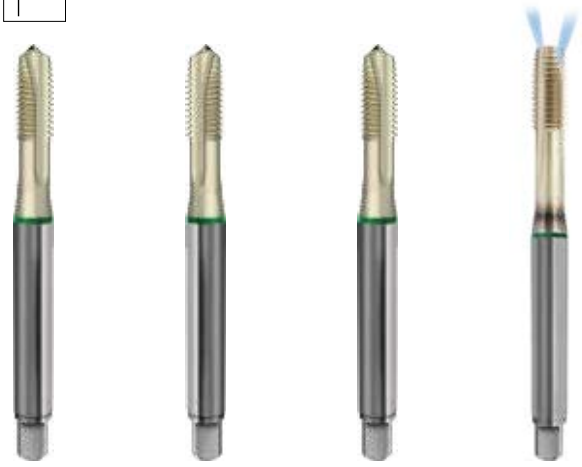
the optimal machining of internal threads

PREMIUM P

- for series production and mass production
- for the most reliable thread production with the highest demands on service life, cutting values and quality
- tools in HSS-E and HSS-E-PM with the most powerful surfaces and the most demanding geometries

Application recommendations for taps

PREMIUM P



Hole type				
Tool material	**HSS-E**	**HSS-E**	**HSS-E-PM**	**HSS-E-PM**
Cutting direction	right	left	right	right
Type	ProduktivN-X	ProduktivN-X	ProduktivN-X	ProduktivN-X
Form	B	B	B	B
Cooling	external	external	external	radial
Surface finish	AlTiZrN	AlTiZrN	AlTiZrN	AlTiZrN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371/DIN 376	6HX	53733 M2 - M42 Page 55	53734 M2 - M30 Page 56	53735 M3 - M20 Page 57	53736 M5 - M30 Page 58
		6H+0,1	53737 M2 - M30 Page 59			
		6GX	53738 M2 - M30 Page 60			
	Company std. extra length	6HX	53739 M3 - M20 Page 61			
MF	DIN 374	6HX	53778 M3x0.35 - M24x2 Page 113		53789 M8x1 - M24x1.5 Page 114	53790 M8x1 - M24x1.5 Page 115
		6GX	53779 M6x0.75 - M24x1.5 Page 116			
UNC	DIN 2184-1	2BX	53782 No.2-56 - 1-8 Page 132			
UNF	DIN 2184-1	2BX	53784 No.2-64 - 1-12 Page 139			
BSW	DIN 2184-1	-	53793 W1/8 - W1 Page 152			
Rp	DIN 5156	-	53795 Rp1/16 - Rp3/4 Page 150			
G	DIN 5156	DIN ISO 228	53787 G1/16 - G1 Page 143			

Application recommendations for taps

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
P	Structural and free cutting steels, heat-treatable steels unalloyed	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	**20**	**20**	**25**	**25**
P	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	**15**	**15**	**20**	**20**
P	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	**10**	**10**	**15**	**15**
M	Stainless steels, sulphured, austenitic	≤1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	**12**	**12**	**15**	**15**
M	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	**10**	**10**	**12**	**12**
M	Duplex and Super Duplex	≤1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWN25-7-4	1.4462 1.4410 1.4501	6	6	8	8
K	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030	20	20	25	25
K	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070	20	20	25	25
K	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		10	10	15	15
N	Aluminium, Aluminium wrought alloys	≤450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.0250 32315 3.4335	10	10	12	12
N	Aluminium cast alloys	≤600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	20	20	25	25
N	Magnesium alloys	≤500 N/mm²	GDMgAl8Zn1	3.5812.08				
N	Copper and copper alloys	long-chipping	CuZn20 CuZn37Pb0.5	2.0250 2.0332	20	20	25	25
N	Copper and copper alloys	short-chipping	CuZn39Pb2 CuZn43Pb2	2.0380 2.0410	20	20	25	25
N	Copper special alloys	≤1400 N/mm²	Ampco		10	10	15	15
N	Plastics [Thermoplastics, duroplastics]	long-chipping short-chipping	PMMA, POM,PVC Pertinax					
S	Titanium and Titanium alloys	≤ 1200 N/mm²	Titanium TiAl5Sn2 TiAl6V4	3.702<5 3.7115 3.7165	3	3	5	5
S	Nickel, cobalt, iron alloys	≤ 1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic 105	2.4610 2.4668 2.4634	2	2	3	3
H	High tensile steels, hardened steels	45 - 55 HRC						
H		55 - 62 HRC						

Application recommendations for taps

PREMIUM

Hole type					
Tool material	**HSS-E**	**HSS-E**	**HSS-E-PM**	**HSS-E-PM**	**HSS-E**
Cutting direction	right	left	right	right	right
Type	IntensivN-X	IntensivN-X	IntensivN-X	IntensivN-X	IntensivN-X
Form	C	C	C	C	E
Cooling	external	external	external	axial	external
Surface finish	TiAlN-H	TiAlN-H	TiAlN-H	TiAlN-H	TiAlN-H

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page				
M	DIN 371/DIN 376	6HX	53746 M2 - M42 Page 62	53747 M2 - M30 Page 63	53748 M3 - M20 Page 64	53749 M5 - M30 Page 65	53760 M2 - M30 Page 66
		6H+0,1	53750 M2 - M30 Page 67				
		6GX	53751 M2 - M30 Page 68				
	Company std. extra length	6HX	53752 M3 - M20 Page 69				
MF	DIN 374	6HX	53780 M3x0.35 - M24x2 Page 117		53791 M8x1 - M24x1.5 Page 118	53792 M8x1 - M24x1.5 Page 119	53770 M6x0.75 - M24x1.5 Page 120
		6GX	53781 M6x0.75 - M24x1.5 Page 121				
UNC	DIN 2184-1	2BX	53783 No.2-56 - 1-8 Page 133				
UNF	DIN 2184-1	2BX	53785 No.2-64 - 1-12 Page 140				
BSW	DIN 2184-1	-	53794 W1/8 - W1 Page 153				
Rp	DIN 5156	-	53796 Rp1/16 - Rp3/4 Page 151				
G	DIN 5156	DIN ISO 228	53788 G1/16 - G1 Page 144				53775 G1/16 - G1 Page 145

Application recommendations for taps

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min				
P	Structural and free cutting steels, heat-treatable steels unalloyed	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	**20**	**20**	**25**	**25**	**20**
P	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	**15**	**15**	**20**	**20**	**15**
P	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	**10**	**10**	**12**	**12**	**10**
M	Stainless steels, sulphured, austenitic	≤1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	**12**	**12**	**15**	**15**	**12**
M	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	**10**	**10**	**12**	**12**	**10**
M	Duplex and Super Duplex	≤1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWN25-7-4	1.4462 1.4410 1.4501	6	6	8	8	6
K	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030	20	20	25	25	20
K	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070	20	20	25	25	20
K	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		10	10	15	15	10
N	Aluminium, Aluminium wrought alloys	≤450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.0250 32315 3.4335	10	10	12	12	10
N	Aluminium cast alloys	≤600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	20	20	25	25	20
N	Magnesium alloys	≤500 N/mm²	GDMgAl8Zn1	3.5812.08					
N	Copper and copper alloys	long-chipping	CuZn20 CuZn37Pb0.5	2.0250 2.0332	20	20	25	25	20
N	Copper and copper alloys	short-chipping	CuZn39Pb2 CuZn43Pb2	2.0380 2.0410	20	20	25	25	20
N	Copper special alloys	≤1400 N/mm²	Ampco		10	10	15	15	10
N	Plastics [Thermoplastics, duroplastics]	long-chipping short-chipping	PMMA, POM,PVC Pertinax						
S	Titanium and Titanium alloys	≤ 1200 N/mm²	Titanium TiAl5Sn2 TiAl6V4	3.702<5 3.7115 3.7165	3	3	5	5	3
S	Nickel, cobalt, iron alloys	≤ 1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic 105	2.4610 2.4668 2.4634	2	2	3	3	2
H	High tensile steels, hardened steels	45 - 55 HRC							
H		55 - 62 HRC							

Application recommendations for taps

Hole type					
Tool material	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**
Type	Produktiv N	Produktiv N	Produktiv N	Produktiv N	Produktiv N
Form	B	B	C	C	E
Surface finish	steam tempered	TiN	steam tempered	TiN	bright

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page				
M	DIN 371	ISO 2 6H	73033 M3 - M10 Page 70	63033 M3 - M10 Page 71	73046 M3 - M10 Page 72	63046 M3 - M10 Page 73	73047 M4 - M10 Page 74
	DIN 376	ISO 2 6H	73038 M12 - M24 Page 70	63033 M12 - M20 Page 71	73048 M12 - M24 Page 72	63048 M12 - M20 Page 73	
MF	DIN 374	ISO 2 6H	73183 M6x0.75 - M20x1.5 Page 122		73187 M6x0.75 - M20x1.5 Page 122		
UNC	~ DIN 371	2B	73308 No.4-40 - 3/8-16 Page 134		73322 No.6-32 - 3/8-16 Page 135		
	~ DIN 376	2B	73309 1/2-13 - 3/4-10 Page 134		73323 1/2-13 - 3/4-10 Page 135		
UNF	~ DIN 374	2B			73324 No.10-32 - 5/8-18 Page 141		
G	DIN 5156		73321 G1/8 - G1 Page 146		73325 G1/8 - G1 Page 146		

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min				
P	Structural and free cutting steels, unalloyed heat-treatable steels	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	**12**	**15**	**10**	**15**	**10**
	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	**10**	**12**	**8**	**10**	**8**
	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	6	8	6	8	4

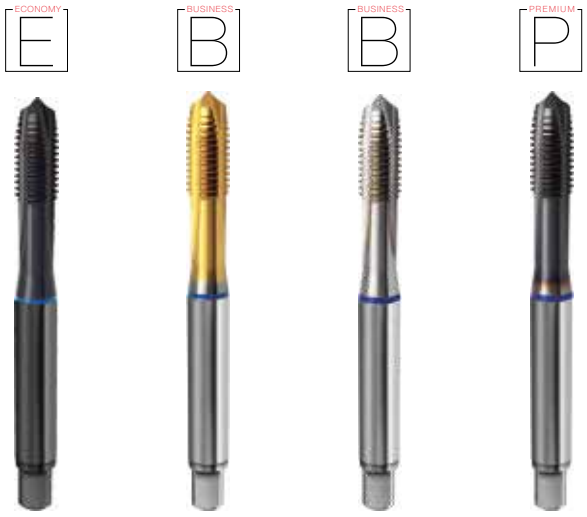
Application recommendations for taps

Hole type			
Tool material	**HSS-E-PM**	**HSS-E-PM**	**HSS-E**
Type	Produktiv-Synchro	Produktiv-Synchro	H
Form	B	C	C
Cooling	external	axial	axial
Surface finish	TiCN	TiCN	TiCN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page		
M	DIN 371	ISO 2 6H	53053 M2 - M10 Page 75		
		6HX		53050 M5 - M10 Page 76	
	DIN 376	ISO 2 6H	53054 M12 - M20 Page 75		
		6HX		53051 M12 - M20 Page 76	53646 M16 - M39 Page 77
	~ DIN 376	6HX			53647 (Company std., extra length) M16 - M39 Page 77
MF	DIN 374	ISO 2 6H	53055 M8x1 - M16x1.5 Page 123		
		6HX		53052 M8x1 - M20x1.5 Page 123	

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min		
P	Structural and free cutting steels, unalloyed heat-treatable steels	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	**20**	**20**	
	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	**15**	**15**	**15**
	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	**10**	10	**12**
K	Cast Iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030			**25**
	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070			**20**
	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400				**15**

Application recommendations for taps



Hole Type				
Tool material	**HSS-E**	**HSS-E**	**HSS-E-PM**	**HSS-E-PM**
Type	Produktiv HD	Produktiv HD	Produktiv HD	Produktiv HD
Form	B	B	B	B
Surface finish	steam tempered	TiN	bright	TiCN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371	ISO 2 6H	73176 M3 - M10 Page 78	63176 M3 - M10 Page 79	73641 M3 - M10 Page 80	53641 M3 - M10 Page 81
	DIN 376	ISO 2 6H	73177 M12 - M20 Page 78	63177 M12 - M16 Page 79	73643 M12 - M20 Page 80	53643 M12 - M16 Page 81
MF	DIN 374	ISO 2 6H	73178 M6x0.75 - M20x1.5 Page 124			
UNC	~ DIN 371	2B	73297 No.4-40 - 3/8-16 Page 136			
	~ DIN 376	2B	73298 1/2-13 - 1-8 Page 136			
UNF	~ DIN 374	2B	73299 3/8-24 - 5/8-18 Page 142			
G	DIN 5156		73300 G1/8 - G1 Page 147			
NPT	Company std.		73293 1/8 - 3/4 Page 150			

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
M	Stainless steels, sulphured, austenitic	≤1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	**8**	**10**	**8**	**10**
	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	**6**	**8**	**6**	**8**
	Duplex and Super Duplex	≤1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWN25-7-4	1.4462 1.4410 1.4501				

Application recommendations for taps

Hole Type				
Tool material	**HSS-E**	**HSS-E-PM**	**HSS-E-PM**	**HSS-E-PM**
Typ	Intensiv HD	Intensiv HD	Intensiv HD	Intensiv HD
Form	C	C	C	C
Surface finish	steam tempered	bright	TiN	TiCN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371	ISO 2 6H	73660 M3 - M10 Page 82	73662 M3 - M10 Page 83	63662 M3 - M10 Page 85	53662 M3 - M10 Page 84
	DIN 376	ISO 2 6H	73659 M12 - M20 Page 82	73665 M12 - M24 Page 83	63665 M12 - M16 Page 85	53665 M12 - M16 Page 84
MF	DIN 374	ISO 2 6H	73180 M8x1 - M20x1.5 Page 125			
UNC	~ DIN 371	2B	73304 No.4-40 - 3/8-16 Page 137			
	~ DIN 376	2B	73305 1/2-13 - 3/4-10 Page 137			
UNF	~ DIN 374	2B	73306 No.10-32 - 5/8-18 Page 142			
G	DIN 5156		73288 G1/8 - G1 Page 147			
NPT	Company std.					

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
M	Stainless steels, sulphured, austenitic	≤1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	**6**	**8**	**10**	**10**
	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	**4**	**6**	**6**	**6**
	Duplex and Super Duplex	≤1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWN25-7-4	1.4462 1.4410 1.4501				

Application recommendations for taps




Hole type				
Tool material	**HSS-E-PM**	**HSS-E-PM**	**HSS-E-PM**	**HSS-E-PM**
Type	Produktiv HDX	Intensiv HDX	Produktiv HX	Intensiv HX
Form	B	C	B	B
Surface finish	TiCN	TiCN	TiAlN	TiAlN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371	ISO 2 6H				
		6HX	53667 M3 - M16 Page 86	53666 M3 - M16 Page 87	53669 M3 - M16 Page 88	53668 M3 - M16 Page 89
	DIN 376	ISO 2 6H				

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
S	Titanium and Titanium alloys	≤1200 N/mm²	Titan	3.7025	**4**	**4**		
			TiAl5Sn2	3.7115				
			TiAl6V4	3.7165				
	Nickel, cobalt, iron alloys	≤1400 N/mm²	Hastelloy C4	2.4610			**4**	**4**
			Inconel 718	2.4668				
			Nimonic 105	2.4634				

Application recommendations for taps

Hole type				
Tool material	**HSS-E**	**HSS-E-PM**	**HSS-E**	**HSS-E-PM**
Type	Produktiv H	Produktiv H	Produktiv H	Produktiv H
Form	B	B	B	B
Surface finish	nitrided	bright	TiCN	TiCN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371	ISO 2 6H	73642 M2 - M10 Page 90	73640 M3 - M10 Page 93	53642 M2 - M10 Page 91	53640 M3 - M10 Page 92
	DIN 376	ISO 2 6H	73645 M12 - M20 Page 90		53642 M12 - M20 Page 91	53640 M12 - M16 Page 92
MF	DIN 374	ISO 2 6H	73646 M3x0.35 - M10x1 Page 126			

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
P	Structural and free cutting steels, unalloyed heat-treatable steels	≤800 N/mm²	S235JR	1.0037				
			C15	1.0401				
			11SMnPb30	1.0718				
	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2	1.0577				
			C60	1.0601	6	8	6	10
			31CrMo12	1.8515				
	Alloyed heat-treatable steels, tool steels, high speed steels	800 - 1200 N/mm²	42CrMo4	1.7225				
			36CrNiMo4	1.6511	**10**	**12**	**12**	**15**
			X36CrMo17	1.2316				
			HS 6-5-2	1.3343				

Application recommendations for taps

Hole type			
Tool material	**HSS-E**	**HSS-E**	**HSS-E-PM**
Type	Intensiv H	Intensiv H	Intensiv H
Form	C	C	C
Surface finish	nitrided	TiCN	TiAlN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page		
M	DIN 371	ISO 2 6H	73661 M3 - M10 Page 94	53661 M2 - M10 Page 95	53664 M3 - M10 Page 6
	DIN 376	ISO 2 6H	73664 M12 - M20 Page 94	53661 M12 - M20 Page 95	53664 M12 - M20 Page 96
MF	DIN 374	ISO 2 6H	73647 M8x0.75 - M24x1.5 Page 127		

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min		
P	Structural and free cutting steels, unalloyed heat-treatable steels	≤800 N/mm²	S235JR	1.0037			
			C15	1.0401			
			11SMnPb30	1.0718			
	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2	1.0577			
			C60	1.0601			
			31CrMo12	1.8515			
	Alloyed heat-treatable steels, tool steels, high speed steels	800 - 1200 N/mm²	42CrMo4	1.7225	6	**10**	**6**
			36CrNiMo4	1.6511			
			X36CrMo17	1.2316			
			HS 6-5-2	1.3343			

Application recommendations for taps

Hole type				
Tool material	**HSS-E**	**HSS-E**	**HSS-E**	**HSS-E**
Type	Massiv N	N	Produktiv N	Produktiv N
Form	B	C	B	B
Surface finish	bright	bright	bright	TiN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371	ISO 2 6H	73126 M2.3 - M10 Page 99	73185 M1 - M10 Page 100	73133 M2 - M10 Page 101	63133 M3 - M10 Page 103
		ISO 3 6G			73132 M2.5 - M10 Page 108	
	DIN 376	ISO 2 6H			73138 M2 - M24 Page 102	63138 M12 - M20 Page 103
MF	DIN 374	ISO 2 6H			73250 M4x0.50 - M36x1.5 Page 128	
G	DIN 5156					

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
P	Structural and free cutting steels, unalloyed heat-treatable steels	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	**10**	**6**	**10**	**10**
	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515			6	**8**
	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				

Application recommendations for taps

Hole type			
Tool material	**HSS-E**	**HSS-E**	**HSS-E**
Type	Intensiv N	Intensiv N	Intensiv N
Form	C	C	C
Surface finish	bright	bright	TiN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page		
M	DIN 371	ISO 2 6H	73221 M2 - M10 Page 104	73146 M2 - M10 Page 105	63146 M3 - M10 Page 107
		ISO 3 6G		73145 M38 - M10 Seite 108	
	DIN 376	ISO 2 6H	73227 M4 - M20 Page 104	73148 M3 - M30 Page 106	63148 M12 - M20 Page 107
MF	DIN 374	DIN 374		73173 M3x0.35 - M30x2 Page 129	63173 M8x1 - M20x1.5 Page 130
G	DIN 5156			73286 G1/8 - G1 1/4 Page 148	

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min		
P	Structural and free cutting steels, unalloyed heat-treatable steels	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	**8**	**8**	**12**
	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515			
	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			

Application recommendations for taps

Hole type				
Tool material	**HSS-E**	**HSS-E**	**HSS-E-PM**	**Solid carbide**
Type	Produktiv W	Intensiv W	HCX	H
Form	B	C	C	
Cooling	external	external	axial	axial
Surface finish	bright	bright	TiCN	bright

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371	ISO 2 6H	73131 M2 - M10 Page 109	73156 M2 - M10 Page 110		
		6HX			53670 M5 - M10 Page 98	73011 M3 - M10 Page 98
	DIN 376	ISO 2 6H	73189 M12 - M20 Page 109	73136 M12 - M20 Page 110		

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
P	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515			**15**	
P	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			**12**	
K	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030			**30**	**45**
K	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070			**20**	**35**
K	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400				**15**	**30**
N	Aluminium, Aluminium wrought alloys	≤450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.0250 32315 3.4335	**15**	**15**		
N	Aluminium cast alloys	≤600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581			**30**	**50**
N	Magnesium alloys	≤500 N/mm²	GDMgAl8Zn1	3.5812.08				**50**
N	Copper and copper alloys	long-chipping short-chipping	CuZn20 CuZn37Pb0.5 CuZn39Pb2 CuZn43Pb2	2.0250 2.0332 2.0380 2.0410	**15**	**15**		**50**
N	Copper special alloys	≤1400 N/mm²	Ampco					

Application recommendations for taps

Hole type			max. 1.5 x D	
Tool material	**HSS-E**	**HSS-E**	**HSS-E-PM**	**Solid carbide**
Type	G	G	H	H
Form	C	C	D	D
Surface finish	nitrided	TiAlN	TiCN	TiCN

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 371	ISO 2 6H				
		6HX	73201 M3 - M10 Page 111	63201 M3 - M10 Page 112	53676 M3 - M16 Page 97	
	Company std. ~ DIN 371	ISO 2 6H				63010 M3 - M12 Page 97
	DIN 376	6HX	73211 M12 - M24 Page 111			
MF	DIN 374	6HX	73194 M8x1 - M20x1.5 Page 131			
UNC	~ DIN 371	2B	73326 No.8-32 - 3/8-16 Page 138			
	~ DIN 376	2B	73327 1/2-13 - 1-8 Page 138			
G	DIN 5156		73345 G1/8 - G1 Page 149			

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
K	Cast Iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030	**15**	**25**		
	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070	**10**	**20**		
	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		8	**15**		
H	High tensile steels, hardened steels	45-55 HRC	Hardox 500				**3**	
		55-62 HRC						**2**

Application recommendations for hand taps, short machine- and special taps

Hole type				
Tool material	**HSS**	**HSS-E**	**HSS-E**	**HSS-E**
Type	N	N	N	N
Form		B	Kombi	
Surface finish	bright	bright	bright	bright

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page			
M	DIN 352	ISO 2 6H	73531 (set) RH: V 73101 / M 73102 / F 73103 M1.2 - M20 73532 (set) LH: V 73105 / M 73106 / F 73107 M4 - M16 Page 159/160			73243 M3 - M18 Page 157
	Company std.	ISO 2 6H			73248 M3 - M12 Page 158	
MF	DIN 2181	ISO 2 6H	73521 (set): V 73110 / F 73111 M5x0.5 - M11x1 Page 161			
UNC	~ DIN 352	2B	73535 (set): V 73301 / M 73302 / F 73303 No.5-40 - 5/8-15 Page 162			
BSW	~ DIN 352		73534 (set): V 73311 / M 73312 / F 73313 W1/8 - W9/16 Page 163			
PG	DIN 40 432			73296 Pg7 - PG16 Page 156		
NPT	Company std.			73295 1/16 - 1 Page 155		

	Material group	Tensile strength	Example materials	Material no.	Recommended cutting speed v_c m/min			
P	Structural and free cutting steels, unalloyed heat-treatable steels	≤800 N/mm²				**10**	**6**	**6**
	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²					6	**8**
	Alloyed heat-treatable steels, tool steels, high speed steels	800 - 1200 N/mm²						

Application recommendations for taps

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

Thread type	Dimensions to DIN 2184-1	Tolerance zone	Catalogue no./Ø-range/Page		
M	~ DIN 371	4/6HX	53630 M1-M10 Page 164	53610 M5-M20 Page 165	53618 M2*-M10 Page 165
		6GX	53631 M2-M10 Page 166		
	~ DIN 376	6HX	53630 M12-M20 Page 164		53618 M12-M20 Page 165
		6GX	53631 M12-M20 Page 166		
MF	~ DIN 374	6HX	53632 M8x1-M20x1.5 Page 172	53612 M8x1-M20x1.5 Page 173	53619 M8x1-M20x1.5 Page 173
UNC	~ DIN 371 ~ DIN 376	2BX	53633 No.4-40 - 3/4-10 Page 175		
UNF	~ DIN 374	2BX	53634 No.4-48 - 3/4-16 Page 176		
G	DIN 2189	X	53635 G1/8 - G1/2 Page 177		

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

Application recommendations for 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	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	25	25	25
	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	25	25	25
	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	15	15	15
M	M1	Stainless steels, sulphured, austenitic	≤1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	15	15	15
	M2	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	10	10	10
	M3	Duplex and Super Duplex	≤1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWN25-7-4	1.4462 1.4410 1.4501	6	6	6
K	K1	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030			
	K2	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070	30	30	30
	K3	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		25	25	25
N	N1	Aluminium, Aluminium wrought alloys	≤450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.0250 3.2315 3.4335	15	15	15
	N2	Aluminium cast alloys	≤600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	30	30	30
	N3	Magnesium alloys	≤500 N/mm²	GDMgAl8Zn1	3.5812.08			
	N4	Copper and copper alloys	long-chipping	CuZn20 CuZn37Pb0.5	2.0250 2.0332	30	30	30
			short-chipping	CuZn39Pb2 CuZn43Pb2	2.0380 2.0410			
	N5	Copper special alloys	≤1400 N/mm²	Ampco				
	N6	Plastics [Thermoplastics, duroplastics]	long-chipping short-chipping	PMMA, POM, PVC Pertinax				
S	S1	Titanium and Titanium alloys	≤1200 N/mm²	Titanium TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	8	8	8
	S2	Nickel, cobalt, iron alloys	≤1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic 105	2.4610 2.4668 2.4634	8	8	8
H	H1	High tensile steels, hardened steels	45 - 55 HRC					
	H2		55 - 62 HRC					

Application recommendations for fluteless 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				
M	~ DIN 371	4/6HX	63121 M2 - M10 Page 178	73120 M3 - M10 Page 167	63120 M3 - M10 Page 168	53620 M3 - M10 Page 169	63013 M3 - M10 Page 170
		6GX			63119 M3 - M10 Page 171	53621 M3 - M10 Page 171	
	~ DIN 376	6HX	63123 M12 - M20 Page 178		63122 M12 - M16 Page 168	53622 M12 - M20 Page 169	
MF	~ DIN 374	6HX			63703 M8x1 - M16x1.5 Page 174		

	Materialgruppe	Tensile strength	Recommended cutting speed v_c m/min				
P	Structural and free cutting steels, heat-treatable steels unalloyed	≤800 N/mm²	**12**		**15**	**20**	**35**
P	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	**12**		**15**	**20**	**35**
P	Alloyed heat-treatable steels, tool steels, high speed steels	800 - 1200 N/mm²	**10**	11	**12**	**15**	**25**
M	Stainless steels, sulphured, austenitic	≤1000 N/mm²	**4**	5	**6**		**15**
M	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	**4**	3	**4**		**12**
M	Duplex and Super Duplex	≤1300 N/mm²					**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

Application recommendations for thread milling cutters

Detailed technical guidelines for thread milling cutters from page 32/33

Free CNC programme for thread milling cutters on request

Hole type		
Tool material	**Solid carbide**	**Solid carbide**
Type	TM SP	TM SP
Surface finish	TiCN	TiSiN+

Thread type	**Dimensions to**	**Thread depth**	**Catalogue no./Ø-range/Page**	
M	Company std.	up to 3.0 x D	53840 M1.6 - M16 / M20 Page 188	53850 M2 - M12 Page 189
G (BSP)	Company std.	up to 3.0 x D	53841 G1/8 - G2 Page 190	

	Material group	**Tensile strength**	**Recommended cutting speed v_c m/min**	
P	Structural and free cutting steels, heat treated unalloyed steels	≤800 N/mm²	**90**	
P	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	**80**	
P	Heat treated alloy steels, tool steels, high speed steels	800 - 1200 N/mm²	**70**	**70**
M	Stainless steels, sulphured, austenitic	≤1000 N/mm²	**55**	
M	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	**50**	
M	Duplex and Super Duplex	≤1300 N/mm²	**45**	
K	Grey cast iron, spheroidal and malleable cast iron		**100**	
N	Aluminum, non-ferrous metals and plastics		**230**	
S	Special-, Super- and Titanium alloys		**40**	**30**
H	High tensile steels, hardened steels	45-55 HRC	**45**	**45**
H	High tensile steels, hardened steels	55-62 HRC		**40**

Application recommendations for thread milling cutters

Detailed technical guidelines for thread milling cutters from page 34-37

Free CNC programme for thread milling cutters on request

Hole type		
Tool material	**Solid carbide**	**Solid carbide**
Type	TMC-NX SP	MTM-NX SP
Surface finish	AlCrN	TiCN

Thread type	Dimensions to	Thread depth	Catalogue no./Ø-range/Page	
M	Company std.	2.0 x D	53890 M3 - M16 Page 179	
		2.5 x D		53892 M1.6 - M20 Page 187
MF	Company std.	2.0 x D	53890 M4x0.5 - M16x1.5 Page 179	

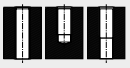
Application recommendations for thread milling cutters

		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	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	100	100
P	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	90	90
P	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	80	80
M	M1	Stainless steels, sulphured, austenitic	≤1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	60	65
M	M2	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	55	60
M	M3	Duplex and Super Duplex	≤1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWN25-7-4	1.4462 1.4410 1.4501	50	55
K	K1	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030	120	140
K	K2	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070	100	120
K	K3	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		90	100
N	N1	Aluminium, Aluminium wrought alloys	≤450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.0250 3.2315 3.4335		280
N	N2	Aluminium cast alloys	≤600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581		250
N	N3	Magnesium alloys	≤500 N/mm²	GDMgAl8Zn1	3.5812.08		200
N	N4	Copper and copper alloys	long-chipping	CuZn20 CuZn37Pb0.5	2.0250 2.0332	90	140
N	N4	Copper and copper alloys	short-chipping	CuZn39Pb2 CuZn43Pb2	2.0380 2.0410	90	140
N	N5	Copper special alloys	≤1400 N/mm²	Ampco		70	130
N	N6	Plastics [Thermoplastics, duroplastics]	long-chipping short-chipping	PMMA, POM, PVC Pertinax			300
S	S1	Titanium and Titanium alloys	≤1200 N/mm²	Titanium TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	55	40
S	S2	Nickel, cobalt, iron alloys	≤1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic 105	2.4610 2.4668 2.4634	45	30
H	H1	High tensile steels, hardened steels	45 - 55 HRC				50
H	H2		55 - 62 HRC				

Application recommendations for drill thread milling cutters

Detailed technical guidelines for thread milling cutters from page 38/39

Free CNC programme for thread milling cutters on request

Hole type	
Tool material	**Solid carbide**
Type	TMD-NX
Surface finish	TiSiN

Thread type	Dimensions to	Thread depth	Catalogue no./Ø-range/Page
M/MF	Company std.	2.5 x D	53948 M2 - M16 Page 191
UNC/UNF	Company std.	2.5 x D	53949 UNF No 1 - UNF 5/8 Page 192
G	Company std.	up to 2.5 x D	53950 G1/16 - G3/4 Page 193

Application recommendations for drill thread milling cutters

		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	≤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 1.4410 1.4501	50
K	K1	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030	80
	K2	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070	75
	K3	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		65
N	N1	Aluminium, Aluminium wrought alloys	≤450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.0250 3.2315 3.4335	
	N2	Aluminium 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	
	N4	Copper and copper alloys	long-chipping	CuZn20 CuZn37Pb0.5	2.0250 2.0332	80
			short-chipping	CuZn39Pb2 CuZn43Pb2	2.0380 2.0410	80
	N5	Copper special alloys	≤1400 N/mm²	Ampco		65
	N6	Plastics [Thermoplastics, duroplastics]	long-chipping short-chipping	PMMA, POM, PVC Pertinax		
S	S1	Titanium and Titanium alloys	≤1200 N/mm²	Titanium TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	45
	S2	Nickel, cobalt, iron alloys	≤1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic 105	2.4610 2.4668 2.4634	45
H	H1	High tensile steels, hardened steels	45 - 55 HRC			40
	H2		55 - 62 HRC			30

Application recommendations for thread milling cutters

Detailed technical guidelines for thread milling cutters from page 32/33

Free CNC programme for thread milling cutters on request

Hole type				
Tool material	Solid carbide	Solid carbide	Solid carbide	Solid carbide
Type	TM SP	TMC SP	TMU SP	TM SP
Surface finish	TiCN	TiCN	TiCN	TiCN

Thread type	Dimensions to	Thread depth	Catalogue no./Ø-range/Page			
M	Company std.	up to 2.0 x D		53810 M3 - M20 Page 180	73830 ≥10 - ≥30 Page 182	53830 M6 - M20 Page 183
		up to 2.5 x D	53860 M6 - M20 Page 181			
MF	Company std.	up to 2.0 x D		53820 M4x0.5 - M16x1.5 Page 184	73830 ≥10 - ≥30 Page 182	53830 M8x1 - M20x1.5 Page 183
G (BSP)	Company std.	up to 2.0 x D			53832 ≥1/4 - ≥1 Page 186	53831 G1/8 - G3/8 Page 185

Application recommendations for thread milling cutters

		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	≤800 N/mm²	S235JR C15 11SMnPb30	1.0037 1.0401 1.0718	**90**	**90**	**90**	**90**
	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800 - 1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	**80**	**80**	**80**	**80**
	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**	**70**	**70**	**70**
M	M1	Stainless steels, sulphured, austenitic	≤1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	55	**55**	**55**	**55**
	M2	Stainless- and acidresistant steels, martensitic	≤1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	50	**50**	**50**	**50**
	M3	Duplex and Super Duplex	≤1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWN25-7-4	1.4462 1.4410 1.4501	45	**45**	**45**	**45**
K	K1	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.6030	**120**	**120**	**120**	**120**
	K2	Spheroidal graphite iron and malleable cast iron	350 HB	EN-GJS-400-15 EN-GJS-600-3 EN-GJS-700-2	0.7040 0.7060 0.7070	**100**	**100**	**100**	**100**
	K3	ADI GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		**80**	**80**	**80**	**80**
N	N1	Aluminium, Aluminium wrought alloys	≤450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.0250 3.2315 3.4335	250	250	250	250
	N2	Aluminium cast alloys	≤600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	**230**	**230**	**230**	**230**
	N3	Magnesium alloys	≤500 N/mm²	GDMgAl8Zn1	3.5812.08	**180**	**180**	**180**	**180**
	N4	Copper and copper alloys	long-chipping	CuZn20 CuZn37Pb0,5	2.0250 2.0332	**130**	**130**	**130**	**130**
			short-chipping	CuZn39Pb2 CuZn43Pb2	2.0380 2.0410	**130**	**130**	**130**	**130**
	N5	Copper special alloys	≤1400 N/mm²	Ampco		**160**	**160**	**160**	**160**
	N6	Plastics [Thermoplastics, duroplastics]	long-chipping short-chipping	PMMA, POM, PVC Pertinax		**300**	**300**	**300**	**300**
S	S1	Titanium and Titanium alloys	≤1200 N/mm²	Titan TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	40	**40**	**40**	**40**
	S2	Nickel, cobalt, iron alloys	≤1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic 105	2.4610 2.4668 2.4634	30	**30**	**30**	**30**
H	H1	High tensile steels, hardened steels	45 - 55 HRC			**45**	**45**	**45**	**45**
	H2		55 - 62 HRC						

Application recommendation

Thread milling cutters und Micro thread milling cutters

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	90
	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800-1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	80
	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	45
K	K1	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.603	120
	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	100
	K3	ADI, GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		80
N	N1	Aluminium and wrought alloys	< 450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.025 3.2315 3.4335	250
	N2	Al cast alloys	< 600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	230
	N3	Magnesium alloys	< 500 N/mm²	GDMgAl8Zn1	3.5812.08	180
	N4	Copper and copper alloys	long-chipping short-chipping	CuZn20 CuZn37Pb0,5 CuZn39Pb2 CuZn43Pb2	2.025 2.0332 2.038 2.041	130
	N5	Copper special alloys	< 1400 N/mm²	Ampco		160
	N6	Plastics [Thermoplastics, Duroplastics]	long-chipping short-chipping	PMMA, POM,PVC Pertinax		300
S	S1	Ti and Ti alloys	< 1200 N/mm²	Titan TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	40
	S2	Nickel, cobalt and iron alloys	< 1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic	2.461 2.4668 2.4634	30
H	H1 H2	High tensile steels, hardened steels	45-55 HRC 55-62 HRC	Hardox PM30		45 40

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 %!

Application recommendation
thread milling cutters

Milling part diameter [d_1] / feed per tooth [f_z] [conventional milling]															TM	TMU	TMC	TM SP	TM SPH
															53830 53831 53860	53832 73830	53810 53820	53840 53841	53850
Ø1 mm	Ø2 mm	Ø3 mm	Ø4 mm	Ø5 mm	Ø6 mm	Ø7 mm	Ø8 mm	Ø9 mm	Ø10 mm	Ø12 mm	Ø14 mm	Ø16 mm	Ø18 mm	Ø20 mm					
0.01	0.02	0.02	0.025	0.03	0.035	0.045	0.05	0.055	0.06	0.06	0.065	0.065	0.07	0.08	●	●	●	●	
0.01	0.02	0.02	0.025	0.03	0.035	0.045	0.05	0.055	0.06	0.06	0.065	0.065	0.07	0.08	●	●	●	●	
0.01	0.02	0.02	0.025	0.03	0.035	0.045	0.05	0.055	0.06	0.06	0.065	0.065	0.07	0.08	○	●	●	●	○
0.01	0.02	0.025	0.03	0.03	0.03	0.035	0.04	0.05	0.055	0.06	0.065	0.065	0.07	0.075	○	●	●	●	
0.01	0.02	0.025	0.03	0.03	0.03	0.035	0.04	0.05	0.055	0.06	0.065	0.065	0.07	0.075	○	●	●	●	
0.01	0.02	0.025	0.03	0.03	0.03	0.035	0.04	0.05	0.055	0.06	0.065	0.065	0.07	0.075	○	●	●	●	
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.06	0.065	0.07	0.08	0.09	0.1	0.12	●	●	●	●	
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.06	0.065	0.07	0.08	0.09	0.1	0.12	●	●	●	●	
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.06	0.065	0.07	0.08	0.09	0.1	0.12	●	●	●	●	○
0.02	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.08	0.085	0.09	0.1	0.12	●	●	●	●	
0.02	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.08	0.085	0.09	0.1	0.12	●	●	●	●	
0.02	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.08	0.085	0.09	0.1	0.12	●	●	●	●	
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.075	0.08	0.09	●	●	●	●	
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.06	0.065	0.07	0.075	0.08	●	●	●	●	
0.02	0.03	0.04	0.045	0.05	0.055	0.06	0.07	0.08	0.09	0.09	0.1	0.12	0.13	0.15	●	●	●	●	
0.01	0.01	0.015	0.02	0.025	0.03	0.035	0.04	0.04	0.045	0.05	0.055	0.06	0.065	0.07	●	●	●	●	
0.01	0.01	0.015	0.02	0.025	0.03	0.035	0.04	0.04	0.045	0.05	0.055	0.06	0.065	0.07	●	●	●	●	●
	0.01	0.015	0.02	0.025	0.03	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	○	○	●	●	●
	0.01	0.015	0.02	0.025	0.03	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07					●

General recommendation:
1.) From 2.5xD [thread depth] thread Ø should be programmed in 2 passes. [2/3-1/3 in the conventional milling]
2.) Generally in VA and in hard machining from > HRC40 it is recommended that the thread Ø is programmed in 2 passes. [2/3-1/3 in the conventional milling]

● optimally suited
○ suited
not suitable

Application recommendation

MTM-NX 2.5xD (Please note, M4 counter clockwise)

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	100
	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800-1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	90
	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	80
M	M1	Stainless steels, sulphured, austenitic	< 1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	65
	M2	Stainless- and acidresistant steels, martensitic	< 1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	60
	M3	Duplex and Super Duplex	< 1300 N/mm²	X2CrNiMoN22-5-3 X2CrNiMoN25-7-4 X2CrNiMoCuWn25-7-4	1.4462 1.441 1.4501	55
K	K1	Cast iron	300 HB	EN-GJL-150 EN-GJL-250 EN-GJL-300	0.6015 0.6025 0.603	140
	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	120
	K3	ADI, GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		100
N	N1	Aluminium and wrought alloys	< 450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.025 3.2315 3.4335	280
	N2	Al cast alloys	< 600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	250
	N3	Magnesium alloys	< 500 N/mm²	GDMgAl8Zn1	3.5812.08	200
	N4	Copper and copper alloys	long-chipping short-chipping	CuZn20 CuZn37Pb0,5 CuZn39Pb2 CuZn43Pb2	2.025 2.0332 2.038 2.041	140
	N5	Copper special alloys	< 1400 N/mm²	Ampco		130
	N6	Plastics [Thermoplastics, Duroplastics]	long-chipping short-chipping	PMMA, POM,PVC Pertinax		300
S	S1	Ti and Ti alloys	< 1200 N/mm²	Titan TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	55
	S2	Nickel, cobalt and iron alloys	< 1400 N/mm²	Hastelloy C4 Inconel 718 Nimonic	2.461 2.4668 2.4634	40
H	H1 H2	High tensile steels, hardened steels	45-55 HRC 55-66 HRC	Hardox PM30		50

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]													MTM-NX 53892 
Ø1 mm	Ø2 mm	Ø3 mm	Ø4 mm	Ø5 mm	Ø6 mm	Ø7 mm	Ø8 mm	Ø9 mm	Ø10 mm	Ø12 mm	Ø14 mm	Ø16 mm	
0.01	0.02	0.02	0.025	0.03	0.03	0.035	0.035	0.04	0.045	0.05	0.055	0.06	●
0.01	0.02	0.02	0.025	0.03	0.03	0.035	0.035	0.04	0.045	0.05	0.055	0.06	●
0.01	0.02	0.02	0.025	0.03	0.03	0.035	0.035	0.04	0.045	0.05	0.055	0.06	●
0.008	0.015	0.02	0.025	0.03	0.03	0.03	0.035	0.04	0.04	0.045	0.05	0.055	●
0.008	0.015	0.02	0.025	0.03	0.03	0.03	0.035	0.04	0.04	0.045	0.05	0.055	●
0.008	0.015	0.02	0.025	0.03	0.03	0.03	0.035	0.04	0.04	0.045	0.05	0.055	●
0.01	0.02	0.02	0.025	0.03	0.03	0.035	0.035	0.04	0.045	0.05	0.055	0.06	●
0.01	0.02	0.02	0.025	0.03	0.03	0.035	0.035	0.04	0.045	0.05	0.055	0.06	●
0.01	0.02	0.02	0.025	0.03	0.03	0.035	0.035	0.04	0.045	0.05	0.055	0.06	●
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.075	●
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.075	●
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.075	●
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.075	●
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.075	●
0.01	0.02	0.025	0.03	0.035	0.04	0.045	0.05	0.055	0.06	0.065	0.07	0.075	●
0.005	0.007	0.012	0.015	0.02	0.025	0.03	0.035	0.035	0.04	0.045	0.045	0.05	●
0.005	0.007	0.012	0.015	0.02	0.025	0.03	0.035	0.035	0.04	0.045	0.045	0.05	●
0.005	0.008	0.01	0.012	0.015	0.02	0.025	0.025	0.03	0.03	0.035	0.04	0.045	●

● optimally suited
○ suited

Application recommendation

TMC-NX 2xD IC

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	100
	P2	Free-cutting steels, unalloyed case hardened steels, nitriding steels	800-1000 N/mm²	S355J2 C60 31CrMo12	1.0577 1.0601 1.8515	90
	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	80
M	M1	Stainless steels, sulphured, austenitic	< 1000 N/mm²	X5CrNi18-10 X6CrNiTi18-10 X8CrNiS18-9	1.4301 1.4571 1.4305	60
	M2	Stainless- and acidresistant steels, martensitic	< 1000 N/mm²	X17CrNi16-2 X90CrMoV18 X2CrTi12	1.4057 1.4112 1.4512	55
	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	120
	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	100
	K3	ADI, GGV	1000 N/mm² 350 HB	EN-GJS1000-5 EN-GJV250 EN-GJV400		90
N	N1	Aluminium and wrought alloys	< 450 N/mm²	Al99,5H AlMgSi1 AlZn4,5Mg	3.025 3.2315 3.4335	
	N2	Al cast alloys	< 600 N/mm²	GD-AlSi5Cu1Mg GD-AlSi8Cu3 G-AlSi9Mg G-AlSi12	3.2134 3.2162 3.2373 3.2581	
	N3	Magnesium alloys	< 500 N/mm²	GDMgAl8Zn1	3.5812.08	
	N4	Copper and copper alloys	long-chipping short-chipping	CuZn20 CuZn37Pb0,5 CuZn39Pb2 CuZn43Pb2	2.025 2.0332 2.038 2.041	90
	N5	Copper special alloys	< 1400 N/mm²	Ampco		70
	N6	Plastics［Thermoplastics, Duroplastics］	long-chipping short-chipping	PMMA, POM,PVC Pertinax		
S	S1	Ti and Ti alloys	< 1200 N/mm²	Titan TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	55
	S2	Nickel, cobalt and iron alloys	< 1400 N/mm²	Hastelloy 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		

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 %!

TMC-NX 53890


Milling part diameter [d1] / feed per tooth [f_z] [conventional milling]											
Ø2	**Ø3**	**Ø4**	**Ø5**	**Ø6**	**Ø7**	**Ø8**	**Ø9**	**Ø10**	**Ø12**	**Ø14**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
0.01	0.015	0.02	0.02	0.025	0.025	0.025	0.03	0.03	0.035	0.04	●
0.01	0.015	0.02	0.02	0.025	0.025	0.025	0.03	0.03	0.035	0.04	●
0.01	0.015	0.02	0.02	0.025	0.025	0.025	0.03	0.03	0.035	0.04	●
0.005	0.01	0.015	0.015	0.02	0.02	0.02	0.025	0.025	0.03	0.03	●
0.005	0.01	0.015	0.015	0.02	0.02	0.02	0.025	0.025	0.03	0.03	●
0.005	0.01	0.015	0.015	0.02	0.02	0.02	0.025	0.025	0.03	0.03	●
0.01	0.02	0.025	0.03	0.03	0.035	0.04	0.04	0.045	0.05	0.06	●
0.01	0.02	0.025	0.03	0.03	0.035	0.04	0.04	0.045	0.05	0.06	●
0.01	0.02	0.025	0.03	0.03	0.035	0.04	0.04	0.045	0.05	0.06	●
0.01	0.015	0.02	0.02	0.025	0.025	0.025	0.03	0.03	0.035	0.04	●
0.005	0.01	0.015	0.015	0.02	0.02	0.02	0.025	0.025	0.03	0.035	●
0.01	0.015	0.015	0.02	0.025	0.025	0.025	0.03	0.03	0.035	0.035	●
0.005	0.01	0.01	0.015	0.02	0.02	0.02	0.025	0.025	0.03	0.03	○

● optimally suited

○ suited

Application recommendation

TMD-NX 2.5xD (Please note, M4 counter clockwise)

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	
	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	
	N4	Copper and copper alloys	long-chipping short-chipping	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]	long-chipping short-chipping	PMMA, POM,PVC Pertinax		
S	S1	Ti and Ti alloys	< 1200 N/mm²	Titan TiAl5Sn2 TiAl6V4	3.7025 3.7115 3.7165	45
	S2	Nickel, cobalt and iron alloys	< 1400 N/mm²	Hastelloy 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 %!

TMD-NX 53948 53949 53950 

Milling part diameter [d1] / feed per tooth [f_z]											
Ø1-1,8		**Ø1,81-2,4**	**Ø2,41-2,7**	**Ø2,71-3,1**	**Ø3,11-3,8**	**Ø3,81-4,6**	**Ø4,61-6,2**	**Ø6,21-7,5**	**Ø7,51-9,0**	**Ø9,01-16**	
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	●
0.007	0.007	0.011	0.013	0.015	0.018	0.022	0.028	0.033	0.038	0.046	○
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	●
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

Taps for ISO metric threads

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
●	●	○	○	○		Produktiv N-X	B	6HX	HSS-E	AlTiZrN	~DIN 371/ ~DIN 376	M 2 - M42	**53733**	55
														
●	●	○	○	○		Produktiv N-X LH	B	6HX	HSS-E	AlTiZrN	DIN 371/ DIN 376	M 2 - M30	**53734**	56
														
●	●	○	○	○		Produktiv N-X	B	6HX	HSS-E-PM	AlTiZrN	DIN 371/ DIN 376	M3 - M20	**53735**	57
														
●	●	○	○	○		Produktiv N-X	B	6HX	HSS-E-PM	AlTiZrN	DIN 371/ DIN 376	M5 - M30	**53736**	58
														
●	●	○	○	○		Produktiv N-X	B	6H+0,1	HSS-E	AlTiZrN	DIN 371/ DIN 376	M 2 - M30	**53737**	59
														
●	●	○	○	○		Produktiv N-X	B	6GX	HSS-E	AlTiZrN	DIN 371/ DIN 376	M 2 - M30	**53738**	60
														
●	●	○	○	○		Produktiv N-X	B	6HX	HSS-E	AlTiZrN	Company std.	M3 - M20	**53739**	61
														
●	●	○	○	○		Intensiv N-X	C	6HX	HSS-E	TiAlN-H	~DIN 371/ ~DIN 376	M 2 - M42	**53746**	62
														
●	●	○	○	○		Intensiv N-X LH	C	6HX	HSS-E	TiAlN-H	DIN 371/ DIN 376	M 2 - M30	**53747**	63
														
●	●	○	○	○		Intensiv N-X	C	6HX	HSS-E-PM	TiAlN-H	DIN 371/ DIN 376	M3 - M20	**53748**	64
														
●	●	○	○	○		Intensiv N-X	C	6HX	HSS-E-PM	TiAlN-H	DIN 371/ DIN 376	M5 - M30	**53749**	65
														
●	●	○	○	○		Intensiv N-X	E	6HX	HSS-E	TiAlN-H	DIN 371/ DIN 376	M 2 - M30	**53760**	66
														
●	●	○	○	○		Intensiv N-X	C	6H+0,1	HSS-E	TiAlN-H	DIN 371/ DIN 376	M 2 - M30	**53750**	67
														
●	●	○	○	○		Intensiv N-X	C	6GX	HSS-E	TiAlN-H	DIN 371/ DIN 376	M 2 - M30	**53751**	68
														
●	●	○	○	○		Intensiv N-X	C	6HX	HSS-E	TiAlN-H	Company std.	M3 - M20	**53752**	69
														
●	○	○	○			Produktiv N	B	ISO2/6H	HSS-E	steam tempered	DIN 371	M3 - M10	**73033**	70

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P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
●	○	○	○			Produktiv N	B	ISO2/6H	**HSS-E**	steam tempered	DIN 376	M12 - M24	**73038**	70
														
●	○	○	○			Produktiv N	B	ISO2/6H	**HSS-E**	TiN	DIN 371/ DIN 376	M3 - M20	**63033**	71
														
●	○	○	○			Intensiv N	C	ISO2/6H	**HSS-E**	steam tempered	DIN 371	M3 - M10	**73046**	72
														
●	○	○	○			Intensiv N	C	ISO2/6H	**HSS-E**	steam tempered	DIN 376	M12 - M24	**73048**	72
														
●	○	○	○			Intensiv N	C	ISO2/6H	**HSS-E**	TiN	DIN 371	M3 - M10	**63046**	73
														
●	○	○	○			Intensiv N	C	6HX	**HSS-E**	TiN	DIN 376	M12 - M20	**63048**	73
														
●	○	○	○			Intensiv N	E	ISO2/6H	**HSS-E**	bright	DIN 371	M4 - M10	**73047**	74
														
●	●	●	●	○		Produktiv Synchro	B	ISO2/6H	**HSS-E-PM**	TiCN	DIN 371	M2,2 - M10	**53053**	75
														
●	●	●	●	○		Produktiv Synchro	B	ISO2/6H	**HSS-E-PM**	TiCN	DIN 376	M12 - M20	**53054**	75
														
●	●	●	●	○		Intensiv Synchro	C	6HX	**HSS-E-PM**	TiCN	DIN 371	M5 - M10	**53050**	76
														
●	●	●	●	○		Intensiv Synchro	C	6HX	**HSS-E-PM**	TiCN	DIN 376	M12 - M20	**53051**	76
														
●		●	○			H	C	6HX	**HSS-E**	TiCN	DIN 376	M16 - M39	**53646**	77
														
●		●	○			H	C	6HX	**HSS-E**	TiCN	~DIN 376	M16 - M39	**53647**	77
														
	●			○		VA	B	ISO2/6H	**HSS-E**	steam tempered	DIN 371	M3 - M10	**73176**	78
														
	●			○		VA	B	ISO2/6H	**HSS-E**	steam tempered	DIN 376	M12 - M20	**73177**	78
														
	●			○		VA	B	ISO2/6H	**HSS-E**	TiN	DIN 371	M3 - M10	**63176**	79

Taps for ISO metric threads

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
	●		○	○		VA	B	6HX	HSS-E	TiN	DIN 376	M12 - M16	**63177**	79
														
	●			○		VA	B	ISO2/6H	HSS-E-PM	bright	DIN 371	M3 - M10	**73641**	80
														
	●		○	○		VA	B	ISO2/6H	HSS-E-PM	bright	DIN 376	M12 - M20	**73643**	80
														
	●			○		VA	B	ISO2/6H	HSS-E-PM	TiCN	DIN 371	M3 - M10	**53641**	81
														
	●			○		VA	B	ISO2/6H	HSS-E-PM	TiCN	DIN 376	M12 - M16	**53643**	81
														
	●			○		Intensiv HD	C	ISO2/6H	HSS-E	steam tempered	DIN 371	M3 - M10	**73660**	82
														
	●			○		Intensiv HD	C	ISO2/6H	HSS-E	steam tempered	DIN 376	M12 - M20	**73659**	82
														
	●		○	○		Intensiv HD	C	ISO2/6H	HSS-E-PM	bright	DIN 371	M3 - M10	**73662**	83
														
	●		○	○		Intensiv HD	C	ISO2/6H	HSS-E-PM	bright	DIN 376	M12 - M24	**73665**	83
														
	●		○	○		Intensiv HD	C	ISO2/6H	HSS-E-PM	TiCN	DIN 371	M3 - M10	**53662**	84
														
	●			○		Intensiv HD	C	ISO2/6H	HSS-E-PM	TiCN	DIN 376	M12 - M16	**53665**	84
														
	●		○	○		Intensiv HD	C	ISO2/6H	HSS-E-PM	TiN	DIN 371	M3 - M10	**63662**	85
														
	●			●		Intensiv HD	C	ISO2/6H	HSS-E-PM	TiN	DIN 376	M12 - M16	**63665**	85
														
	●			●		Intensiv HDX	B	6HX	HSS-E-PM	TiCN	DIN 371/ DIN 376	M3 - M16	**53667**	86
														
	●			●		Intensiv HDX	C	6HX	HSS-E-PM	TiCN	DIN 371/ DIN 376	M3 - M16	**53666**	87
														
		○		●	●	Produktiv HX	B	6HX	HSS-E-PM	TiAlN	DIN 371/ DIN 376	M3 - M16	**53669**	88

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P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
		○		●	●	Intensiv HX	C	6HX	HSS-E-PM	TiAlN	DIN 371/ DIN 376	M3 - M16	53668	89
														
●		○				Produktiv H	B	ISO2/6H	HSS-E	nitrided	DIN 371	M 2 - M10	73642	90
														
●		○				Produktiv H	B	ISO2/6H	HSS-E	nitrided	DIN 376	M12 - M20	73645	90
														
●		○				Produktiv H	B	ISO2/6H	HSS-E	TiCN	DIN 371/ DIN 376	M 2 - M20	53642	91
														
●		○				Produktiv H	B	ISO2/6H	HSS-E-PM	TiCN	DIN 371/ DIN 376	M3 - M16	53640	92
														
●		○				Produktiv H	B	ISO2/6H	HSS-E-PM	bright	DIN 371	M3 - M10	73640	93
														
●		○				Intensiv H	C	ISO2/6H	HSS-E	nitrided	DIN 371	M3 - M10	73661	94
														
●		○				Intensiv H	C	ISO2/6H	HSS-E	nitrided	DIN 376	M12 - M20	73664	94
														
●		○				Intensiv H	C	ISO2/6H	HSS-E	TiCN	DIN 371/ DIN 376	M 2 - M20	53661	95
														
≤ 1200		○				Intensiv H	C	ISO2/6H	HSS-E-PM	TiAlN	DIN 371/ DIN 376	M4 - M20	53664	96
														
					○	H	D	6HX	HSS-E-PM	TiCN	DIN 371/ DIN 376	M3 - M16	53676	97
														
					●	H	D	ISO2/6H	Solid carbide	TiCN	~DIN 371	M3 - M12	63010	97
														
●		●	○	●	○	HCX	C	6HX	HSS-E-PM	TiCN	DIN 371	M5 - M10	53670	98
														
			●			H	C	6HX	Solid carbide	bright	DIN 371	M3 - M10	73011	98
														
●			○			Massiv N	B	ISO2/6H	HSS-E	bright	DIN 371	M2,3 - M10	73126	99
														
●			○			N	C	ISO2/6H	HSS-E	bright	DIN 371	M1 - M10	73185	100

Taps for ISO metric threads

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
•			○			N	B	ISO2/6H	**HSS-E**	bright	DIN 371	M 2 - M10	**73133**	101
														
•			○			N	B	ISO2/6H	**HSS-E**	bright	DIN 376	M 2 - M24	**73138**	102
														
•			○			N	B	ISO2/6H	**HSS-E**	TiN	DIN 371	M3 - M10	**63133**	103
														
•			○			N	B	ISO2/6H	**HSS-E**	TiN	DIN 376	M12 - M20	**63138**	103
														
•			○			Intensiv N	C	ISO2/6H	**HSS-E**	bright	DIN 371	M2,2 - M10	**73221**	104
														
•			○			Intensiv N	C	ISO2/6H	**HSS-E**	bright	DIN 376	M4 - M22	**73227**	104
														
•			○			Intensiv N	C	ISO2/6H	**HSS-E**	bright	DIN 371	M2,2 - M10	**73146**	105
														
•			○			Intensiv N	C	ISO2/6H	**HSS-E**	bright	DIN 376	M3 - M30	**73148**	106
														
•			○			Intensiv N	C	ISO2/6H	**HSS-E**	TiN	DIN 371	M3 - M10	**63146**	107
														
•			○			Intensiv N	C	ISO2/6H	**HSS-E**	TiN	DIN 376	M12 - M20	**63148**	107
														
•			○			N	B	ISO3/6G	**HSS-E**	bright	DIN 371	M2,5 - M10	**73132**	108
														
•			○			Intensiv N	C	ISO3/6G	**HSS-E**	bright	DIN 371	M3 - M10	**73145**	108
														
			•			Produktiv W	B	ISO2/6H	**HSS-E**	bright	DIN 371	M2,3 - M10	**73131**	109
														
			•			Produktiv W	B	ISO2/6H	**HSS-E**	bright	DIN 376	M12 - M20	**73189**	109
														
			•			Intensiv W	C	ISO2/6H	**HSS-E**	bright	DIN 371	M2,2 - M10	**73156**	110
														
			•			Intensiv W	C	ISO2/6H	**HSS-E**	bright	DIN 376	M12 - M20	**73136**	110

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Taps for ISO metric threads

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
		●				GG	C	6HX	**HSS-E**	nitrided	DIN 371	M3 - M10	**73201**	111
														
		●				GG	C	6HX	**HSS-E**	nitrided	DIN 376	M12 - M24	**73211**	111
														
		●	○			GG	C	6HX	**HSS-E**	TiAlN	DIN 371	M3 - M10	**63201**	112

Taps for ISO metric fine threads

														
●	●	○	○	○		Produktiv N-X	B	6HX	**HSS-E**	AlTiZrN	DIN 374	M3 x 0,35 - M24 x 2	**53778**	113
														
●	●	○	○	○		Produktiv N-X	B	6HX	**HSS-E-PM**	AlTiZrN	DIN 374	M8 x 1 - M24 x 1,5	**53789**	114
														
●	●	○	○	○		Produktiv N-X	B	6HX	**HSS-E-PM**	AlTiZrN	DIN 374	M8 x 1 - M24 x 1,5	**53790**	115
														
●	●	○	○	○		Produktiv N-X	B	6GX	**HSS-E**	AlTiZrN	DIN 374	M6 x 0,75 - M24 x 1,5	**53779**	116
														
●	●	○	○	○		Intensiv N-X	C	6HX	**HSS-E**	TiAlN-H	DIN 374	M3 x 0,35 - M24 x 2	**53780**	117
														
●	●	○	○	○		Intensiv N-X	C	6HX	**HSS-E-PM**	TiAlN-H	DIN 374	M8 x 1 - M24 x 1,5	**53791**	118
														
●	●	○	○	○		Intensiv N-X	C	6HX	**HSS-E-PM**	TiAlN-H	DIN 374	M8 x 1 - M24 x 1,5	**53792**	119
														
●	●	○	○	○		Intensiv N-X	E	6HX	**HSS-E**	TiAlN-H	DIN 374	M6 x 0,75 - M24 x 1,5	**53770**	120
														
●	●	○	○	○		Intensiv N-X	C	6GX	**HSS-E**	TiAlN-H	DIN 374	M6 x 0,75 - M24 x 1,5	**53781**	121
														
●		○	○	○		Produktiv N	B	ISO2/6H	**HSS-E**	steam tempered	DIN 374	M6 x 0,75 - M20 x 1,5	**73183**	122
														
●		○	○	○		Intensiv N	C	ISO2/6H	**HSS-E**	steam tempered	DIN 374	M6 x 0,75 - M20 x 1,5	**73187**	122
														
●	●	●	●	○		Produktiv Synchro	B	ISO2/6H	**HSS-E-PM**	TiCN	DIN 374	M8 x 1 - M16 x 1,5	**53055**	123

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page

Taps for ISO metric fine threads

●	●	●	●	○		Intensiv Synchro	C	6HX	**HSS-E-PM**	TiCN	DIN 374	M8 x 1 - M20 x 1,5	**53052**	123

	●			○		VA	B	ISO2/6H	**HSS-E**	steam tempered	DIN 374	M5 x 0,5 - M20 x 1,5	**73178**	124

	●			○		Intensiv HD	C	ISO2/6H	**HSS-E**	steam tempered	DIN 374	M8 x 1 - M20 x 1,5	**73180**	125

●		○				Produktiv H	B	ISO2/6H	**HSS-E**	nitrided	DIN 374	M3 x 0,35 - M22 x 1,5	**73646**	126

●						Intensiv H	C	ISO2/6H	**HSS-E**	nitrided	DIN 374	M8 x 0,75 - M24 x 1,5	**73647**	127

●			○			N	B	ISO2/6H	**HSS-E**	bright	DIN 374	M4 x 0,5 - M36 x 1,5	**73250**	128

●			○			Intensiv N	C	ISO2/6H	**HSS-E**	bright	DIN 374	M3 x 0,35 - M30 x 2	**73173**	129

●			○			Intensiv N	C	ISO2/6H	**HSS-E**	TiN	DIN 374	M8 x 1 - M20 x 1,5	**63173**	130

		●				GG	C	6HX	**HSS-E**	nitrided	DIN 374	M8 x 1 - M20 x 1,5	**73194**	131

Taps for UNC threads

●	●	○	○	○		Produktiv N-X	B	2BX	**HSS-E**	AlTiZrN	DIN 371/ DIN 376	2 - 56 - 1 - 8	**53782**	132

●	●	○	○	○		Intensiv N-X	C	2BX	**HSS-E**	TiAlN-H	DIN 371/ DIN 376	2 - 56 - 1 - 8	**53783**	133

●	○	○	○			Produktiv N	B	2B	**HSS-E**	steam tempered	~DIN 371	4 - 40 - 3/8 - 16	**73308**	134

●	○	○	○			Produktiv N	B	2B	**HSS-E**	steam tempered	~DIN 376	1/2 - 13 - 3/4 - 10	**73309**	134

●	○	○	○			Intensiv N	C	2B	**HSS-E**	steam tempered	~DIN 371	4 - 40 - 3/8 - 16	**73322**	135

●	○	○	○			Intensiv N	C	2B	**HSS-E**	steam tempered	~DIN 376	1/2 - 13 - 3/4 - 10	**73323**	135

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Taps for UNC threads

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
	●			○		VA	B	2B	**HSS-E**	steam tempered	~DIN 371	4 - 40 - 3/8 - 16	**73297**	136
														
	●			○		VA	B	2B	**HSS-E**	steam tempered	~DIN 376	1/2 - 13 - 1 - 8	**73298**	136
														
	●			○		Intensiv HD	C	2B	**HSS-E**	steam tempered	~DIN 371	4 - 40 - 3/8 - 16	**73304**	137
														
	●			○		Intensiv HD	C	2B	**HSS-E**	steam tempered	~DIN 376	1/2 - 13 - 3/4 - 10	**73305**	137
														
		●				GG	C	2B	**HSS-E**	nitrided	~DIN 371	8 - 32 - 3/8 - 16	**73326**	138
														
		●				GG	C	2B	**HSS-E**	nitrided	~DIN 376	1/2 - 13 - 3/4 - 10	**73327**	138

Taps for UNF threads

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
●	●	○	○	○		Produktiv N-X	B	2BX	**HSS-E**	AlTiZrN	~DIN 371/ ~DIN 374	2 - 64 - 1 - 12	**53784**	139
														
●	●	○	○	○		Intensiv N-X	C	2BX	**HSS-E**	TiAlN-H	~DIN 371/ ~DIN 374	2 - 64 - 1 - 12	**53785**	140
														
●	○	○	○			Intensiv N	C	2B	**HSS-E**	steam tempered	~DIN 374	10 - 32 - 5/8 - 18	**73324**	141
														
	●			○		VA	B	2B	**HSS-E**	steam tempered	~DIN 374	10 - 32 - 5/8 - 18	**73299**	142
														
	●			○		Intensiv HD	C	2B	**HSS-E**	steam tempered	~DIN 374	10 - 32 - 5/8 - 18	**73306**	142

Taps for BSP threads

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
														
●	●	○	○	○		Produktiv N-X	B		**HSS-E**	AlTiZrN	DIN 5156	G1/16 - G1	**53787**	143
														
●	●	○	○	○		Intensiv N-X	C		**HSS-E**	TiAlN-H	DIN 5156	G1/16 - G1	**53788**	144
														
●	●	○	○	○		Intensiv N-X	E		**HSS-E**	TiAlN-H	DIN 5156	G1/16 - G1	**53775**	145

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
Taps for BSP threads														
														
●	○	○	○			Produktiv N	B		**HSS-E**	steam tempered	DIN 5156	G1/8 - G1	**73321**	146
														
●	○	○	○			Intensiv N	C		**HSS-E**	steam tempered	DIN 5156	G1/8 - G1	**73325**	146
														
	●			○		VA	B		**HSS-E**	steam tempered	DIN 5156	G1/8 - G1	**73300**	147
														
	●			○		Intensiv HD	C		**HSS-E**	steam tempered	DIN 5156	G1/8 - G1	**73288**	147
														
●			○			Intensiv N	C		**HSS-E**	bright	DIN 5156	G1/8 - G1 1/4	**73286**	148
														
		●				GG	C		**HSS-E**	nitrided	DIN 5156	G1/8 - G1	**73345**	149
														
●	●	○	○	○		Produktiv-N-X	B		**HSS-E**	AlTiZrN	DIN 5156	Rp1/16 - Rp3/4	**53795**	150
														
●	●	○	○	○		Intensiv-N-X	C		**HSS-E**	TiAlN-H	DIN 5156	Rp1/16 - Rp3/4	**53796**	151
Taps for BSW threads														
														
●	●	○	○	○		Produktiv-N-X	B		**HSS-E**	AlTiZrN	~DIN 371	W1/8 - W1	**53793**	152
														
●	●	○	○	○		Intensiv-N-X	C		**HSS-E**	TiAlN-H	~DIN 371	W1/8 - W1	**53794**	153
Taps for NPT threads														
														
○	●	○		○		VA	C		**HSS-E**	steam tempered	Company std.	1/8 - 3/4	**73293**	154
Short taps for NPT threads														
														
●		○	○			N	C		**HSS-E**	bright	Company std.	1/16 - 1	**73295**	155

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P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
Short taps for PG threads														
														
•		○	○			N	B		**HSS-E**	bright	DIN 40432	PG7 - PG16	**73296**	156
Machine nut taps for ISO metric threads														
														
•	○	•	•			N		ISO2/6H	**HSS-E**	bright	DIN 357	M3 - M18	**73243**	157
Machine combination drill taps for ISO metric threads														
														
•	○	•	•			N	D	ISO2/6H	**HSS-E**	bright	Company std.	M3 - M12	**73248**	158
Hand taps for ISO-metric threads, set, right hand cutting														
														
•	○	•	•			Produktiv N	A/D/C	ISO2/6H	**HSS**	bright	DIN 352	M1,2 - M20	**73531**	159
Hand taps for ISO-metric threads, set, left hand cutting														
														
•	○	•	•			N	A/D/C	ISO2/6H	**HSS**	bright	DIN 352	M4 - M16	**73532**	160
Hand taps for ISO-metric fine threads, set														
														
•	○	•	•			N	D/C	ISO2/6H	**HSS**	bright	DIN 2181	M5 x 0,5 - M11 x 1	**73521**	161
Hand taps for UNC threads, set														
														
•	○	•	•			N	A/D/C	2B	**HSS**	bright	~DIN 352	5 - 40 - 3/4 - 10	**73535**	162

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
Hand taps for BSW threads, set														
														
●	○	●	●			N	A/D/C		**HSS**	bright	~DIN 352	W1/8 - W9/16	**73534**	163
Fluteless taps for ISO metric threads														
														
●	●	●	○	●		Durativ N-X	C	4HX/6HX	**HSS-E-PM**	TiCN	~DIN 371/ ~DIN 376	M1 - M20	**53630**	164
														
●	●	●	○	●		Durativ N-X	C	6HX	**HSS-E-PM**	TiCN	~DIN 371/ ~DIN 376	M5 - M20	**53610**	165
														
●	●	●	○	●		Durativ N-X	E	6HX	**HSS-E-PM**	TiCN	~DIN 371/ ~DIN 376	M 2 - M20	**53618**	165
														
●	●	●	○	●		Durativ N-X	C	6GX	**HSS-E-PM**	TiCN	~DIN 371/ ~DIN 376	M 2 - M20	**53631**	166
														
○	○	○	○			Durativ	C	6HX	**HSS-E**	bright	~DIN 371	M3 - M10	**73120**	167
														
●	●	●	○			Durativ	C	6HX	**HSS-E**	TiN	~DIN 371	M3 - M10	**63120**	168
														
●	●		○			Durativ	C	6HX	**HSS-E**	TiN	~DIN 376	M12 - M16	**63122**	168
														
●						Durativ	C	6HX	**HSS-E-PM**	AlCrN	~DIN 371	M3 - M10	**53620**	169
														
●						Durativ	C	6HX	**HSS-E-PM**	AlCrN	~DIN 376	M12 - M20	**53622**	169
														
●	●	○	●	●		Durativ	C	6HX	**Solid carbide**	TiCN	~DIN 371	M3 - M10	**63013**	170
														
●	●	●	○			Durativ	C	6GX	**HSS-E**	TiN	~DIN 371	M3 - M10	**63119**	171
														
●						Durativ	C	6GX	**HSS-E-PM**	AlCrN	~DIN 371	M3 - M10	**53621**	171

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P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page
Fluteless taps for ISO metric fine threads														
														
●	●	●	○	●		Durativ N-X	C	6HX	**HSS-E-PM**	TiCN	~DIN 374	M3 x 0,35 - M24 x 2	**53632**	172
														
●	●	●	○	●		Durativ N-X	C	6HX	**HSS-E-PM**	TiCN	~DIN 374	M8 x 1 - M20 x 1,5	**53612**	173
														
●	●	●	○	●		Durativ N-X	E	6HX	**HSS-E-PM**	TiCN	~DIN 374	M8 x 1 - M20 x 1,5	**53619**	173
														
●	●	●	○			Durativ	C	6HX	**HSS-E**	TiN	~DIN 374	M8 x 1 - M16 x 1,5	**63703**	174
Fluteless taps for UNC threads														
														
●	●	●	○	●		Durativ N-X	C	2BX	**HSS-E-PM**	TiCN	~DIN 371/ ~DIN 376	4 - 40 - 3/4 - 10	**53633**	175
Fluteless taps for UNF threads														
														
●	●	●	○	●		Durativ N-X	C	2BX	**HSS-E-PM**	TiCN	~DIN 371/ ~DIN 374	4 - 48 - 3/4 - 16	**53634**	176
Fluteless taps for BSP threads														
														
●	●	●	○	●		Durativ N-X	C		**HSS-E-PM**	TiCN	DIN 2189	G1/8 - G1/2	**53635**	177
Fluteless taps w/o oil grooves for ISO metric threads														
														
●	●		○			Durativ	C	6HX	**HSS-E**	TiN	DIN 371	M 2 - M10	**63121**	178
														
●	●		○			Durativ	C	6HX	**HSS-E**	TiN	~DIN 376	M12 - M20	**63123**	178
Thread milling cutters with chamfer for ISO metric threads														
														
●	●	●	○	○		TMC-NX SP			**Solid carbide**	AlCrN	Company std.	M3 - M16 x 1,5	**53890**	179
														
●	●	●	●	●	○	TMC SP			**Solid carbide**	TiCN	Company std.	M3 - M20	**53810**	180

P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page

Thread milling cutters without chamfer for ISO metric threads

●	○	●	●	○	≤ 55	TM SP		**Solid carbide**	TiCN	Company std.	M6 - M20	**53860**	181

●	●	●	●	●	≤ 55	TMU SP		**Solid carbide**	TiCN	Company std.	> 10 - > 30	**73830**	182

●	●	●	●	●	○	TM SP		**Solid carbide**	TiCN	Company std.	M4 - M20 x 1,5	**53830**	183

Thread milling cutters with chamfer for ISO metric fine threads

●	●	●	●	●	○	TMC SP		**Solid carbide**	TiCN	Company std.	M4 x 0,5 - M16 x 1,5	**53820**	184

Thread milling cutters without chamfer for BSP threads

●	○	●	●	○	≤ 55	TM SP		**Solid carbide**	TiCN	Company std.	G1/8 - G3/8	**53831**	185

Universal thread milling cutters for BSP threads

●	●	●	●	●	≤ 55	TMU SP		**Solid carbide**	TiCN	Company std.	≥ 1/4 - ≥ 1	**53832**	186

Micro thread milling cutters for ISO metric threads

●	●	●	●	●	≤ 55	MTM-NX SP		**Solid carbide**	TiCN	Company std.	M1,6 - M20	**53892**	187

●	●	●	●	●		TM SP		**Solid carbide**	TiCN	Company std.	M1,6 - M16	**53840**	188

				○	●	TM SP		**Solid carbide**	TiSiN+	Company std.	M 2 - M12	**53850**	189

Micro thread milling cutters for BSP-threads

●	●	●	●	●		TM SP		**Solid carbide**	TiCN	Company std.	G1/16-G1/8	**53841**	190

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P	M	K	N	S	H	Type	Form	Tolerance class	Tool material	Surface	Standard	d1	Catalogue no.	Progr. page

Drill thread milling cutters for ISO metric threads

•	•	•	•	•	≤ 66	TMD-NX			**Solid carbide**	TiSiN	Company std.	M 2 - M16	**53948**	191

Drill thread milling cutters for UNC/UNF threads

•	•	•	•	•	≤ 66	TMD-NX			**Solid carbide**	TiSiN	Company std.	UNF No 1	**53949**	192

Drill thread milling cutters for BSP threads

•	•	•	•	•	≤ 66	TMD-NX			**Solid carbide**	TiSiN	Company std.	G1/16-G1/8	**53950**	193

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Machine taps

Taps for ISO metric threads

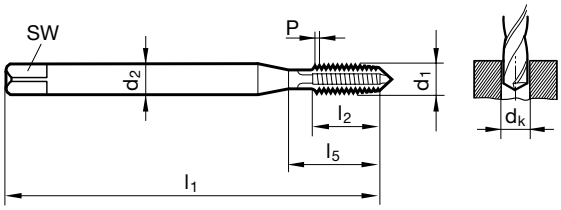
Catalogue no. 53733

Produktiv N-X | ~DIN 371/376 | B | HSS-E | Al-TiZrN | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M4,5	0.750	6.000	4.900	3.70	70.000	14.000	25.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M7	1.000	7.000	5.500	6.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M9	1.250	9.000	7.000	7.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M11	1.500	8.000	6.200	9.50	100.000	20.000	42.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	40.000	85.000
M33	3.500	25.000	20.000	29.50	180.000	40.000	91.000
M36	4.000	28.000	22.000	32.00	200.000	50.000	102.000
M39	4.000	32.000	24.000	35.00	200.000	50.000	107.000
M42	4.500	32.000	24.000	37.50	200.000	56.000	112.000

Machine taps

Taps for ISO metric threads

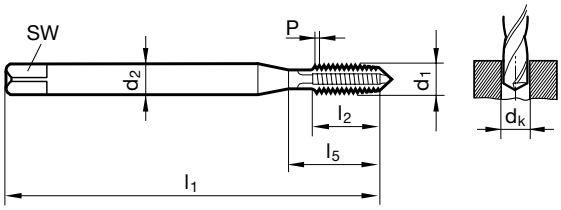
Catalogue no. 53734

Produktiv N-X LH | DIN 371/376 | B | HSS-E | Al-TiZrN | L | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	40.000	85.000

Machine taps

Taps for ISO metric threads

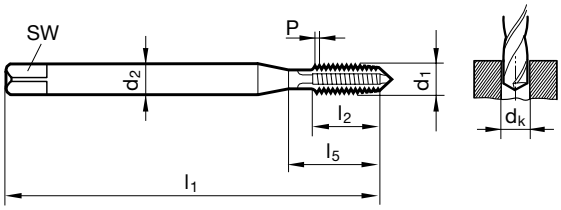
Catalogue no. 53735

Produktiv N-X	DIN 371/376	B	HSS-E-PM	Al-TiZrN	R	6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

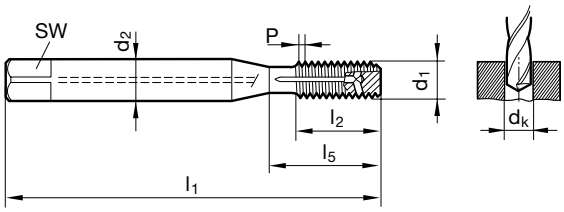
Catalogue no. 53736

Produktiv N-X | DIN 371/376 | B | HSS-E-PM | Al-TiZrN | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- radial coolant exit
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	40.000	85.000

Machine taps

Taps for ISO metric threads

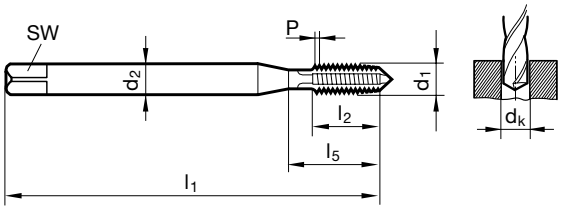
Catalogue no. 53737

Produktiv N-X | DIN 371/376 | B | HSS-E | Al-TiZrN | R | 6H +0,1

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	40.000	85.000

Machine taps

Taps for ISO metric threads

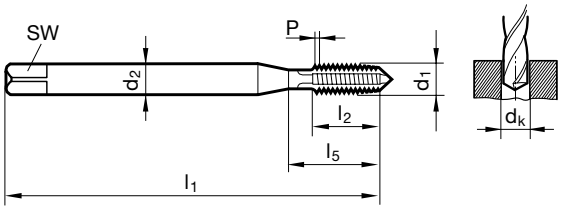
Catalogue no. 53738

Produktiv N-X | DIN 371/376 | B | HSS-E | Al-TiZrN | R | 6GX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	40.000	85.000

Machine taps

Taps for ISO metric threads

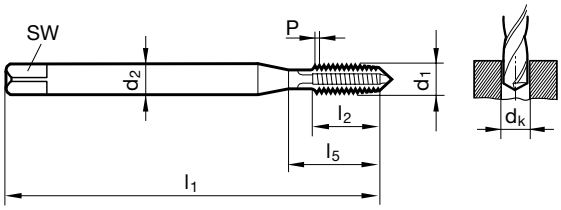
Catalogue no. 53739

Produktiv N-X | WN | B | HSS-E | Al-TiZrN | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- extra length
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	90.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	125.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	140.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	160.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	180.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	200.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	220.000	24.000	158.000
M14	2.000	11.000	9.000	12.00	220.000	26.000	160.000
M16	2.000	12.000	9.000	14.00	220.000	26.000	160.000
M20	2.500	16.000	12.000	17.50	280.000	32.000	217.000

Machine taps

Taps for ISO metric threads

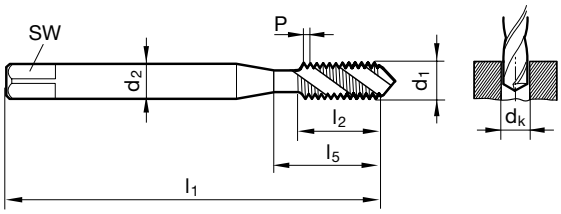
Catalogue no. 53746

Intensiv N-X	~DIN 371/376	C	HSS-E	TiAlN-H	R	6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	7.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M4,5	0.750	6.000	4.900	3.70	70.000	8.500	25.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M7	1.000	7.000	5.500	6.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M9	1.250	9.000	7.000	7.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M11	1.500	8.000	6.200	9.50	100.000	16.000	42.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	27.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000
M27	3.000	20.000	16.000	24.00	160.000	30.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	35.000	85.000
M33	3.500	25.000	20.000	29.50	180.000	40.000	91.000
M36	4.000	28.000	22.000	32.00	200.000	40.000	102.000
M39	4.000	32.000	24.000	35.00	200.000	50.000	107.000
M42	4.500	32.000	24.000	37.50	200.000	45.000	112.000

Machine taps

Taps for ISO metric threads

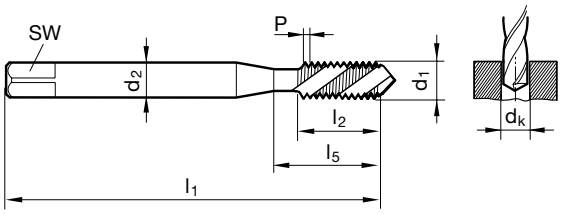
Catalogue no. 53747

Intensiv N-X LH | DIN 371/376 | C | HSS-E | TiAlN-H | L | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	35.000	85.000

Machine taps

Taps for ISO metric threads

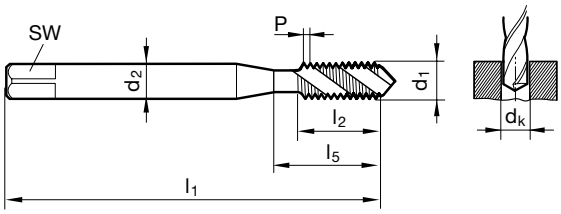
Catalogue no. 53748

Intensiv N-X | DIN 371/376 | C | HSS-E-PM | TiAlN-H | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

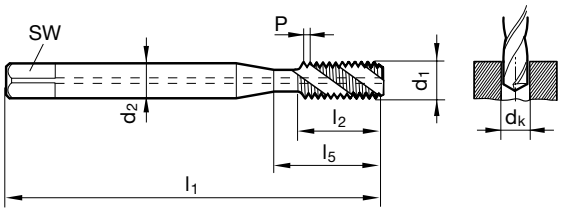
Catalogue no. 53749

Intensiv N-X | DIN 371/376 | C | HSS-E-PM | TiAlN-H | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- with axial coolant duct
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	35.000	85.000

Taps for ISO metric threads

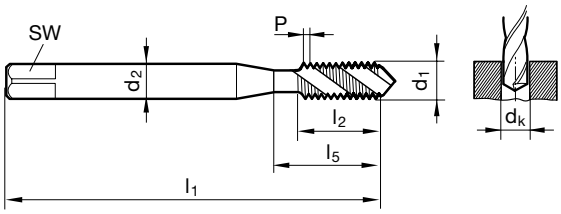
Catalogue no. 53760

Intensiv N-X | DIN 371/376 | E | HSS-E | TiAlN-H | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- short chamfer for thread depths close to bottom of the hole
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	35.000	85.000

Machine taps

Taps for ISO metric threads

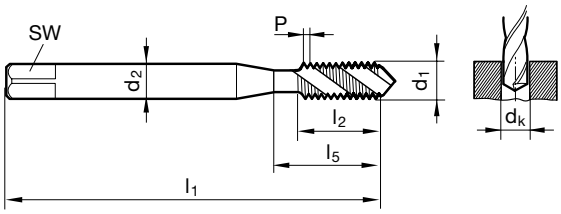
Catalogue no. 53750

Intensiv N-X	DIN 371/376	C	HSS-E	TiAlN-H	R	6H +0,1

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	35.000	85.000

Machine taps

Taps for ISO metric threads

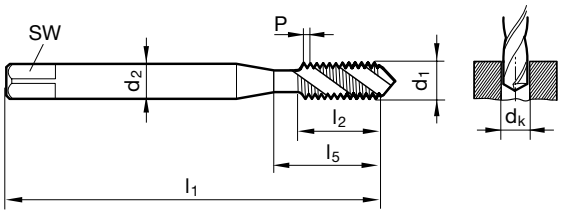
Catalogue no. 53751

Intensiv N-X | DIN 371/376 | C | HSS-E | TiAlN-H | R | 6GX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	35.000	85.000

Machine taps

Taps for ISO metric threads

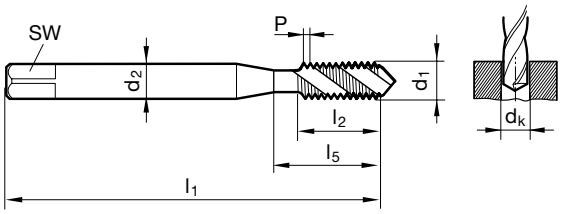
Catalogue no. 53752

Intensiv N-X | WN | C | HSS-E | TiAlN-H | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- extra length
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	90.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	125.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	140.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	160.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	180.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	200.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	220.000	18.500	158.000
M14	2.000	11.000	9.000	12.00	220.000	20.000	160.000
M16	2.000	12.000	9.000	14.00	220.000	20.000	160.000
M20	2.500	16.000	12.000	17.50	280.000	25.000	217.000

Machine taps

Taps for ISO metric threads

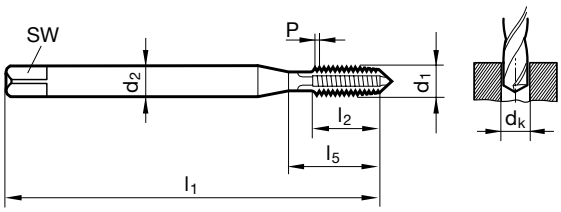
Catalogue no. 73033

Produktiv N | DIN 371 | B | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

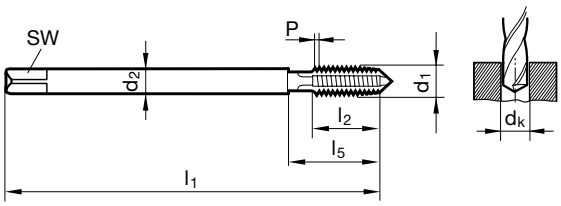
Catalogue no. 73038

Produktiv N | DIN 376 | B | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000

Machine taps

Taps for ISO metric threads

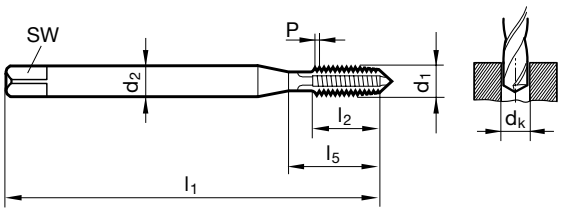
Catalogue no. 63033

Produktiv N | DIN 371/376 | B | HSS-E | TiN | R | ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

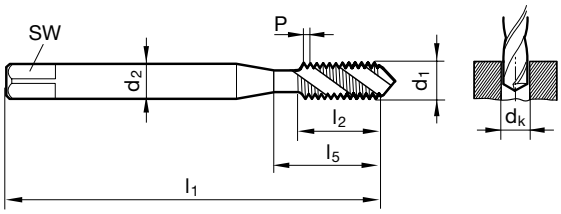
Catalogue no. 73046

Intensiv N | DIN 371 | C | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

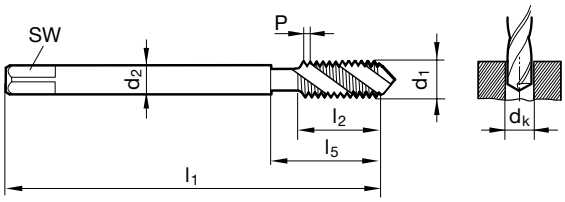
Catalogue no. 73048

Intensiv N | DIN 376 | C | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	27.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000

Machine taps

Taps for ISO metric threads

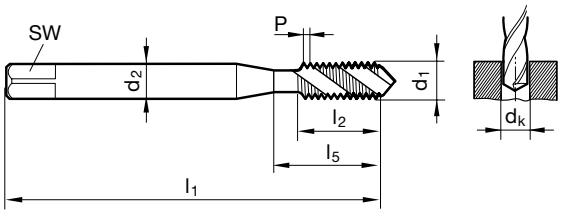
Catalogue no. 63046

Intensiv N	DIN 371	C	HSS-E	TiN	R	ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

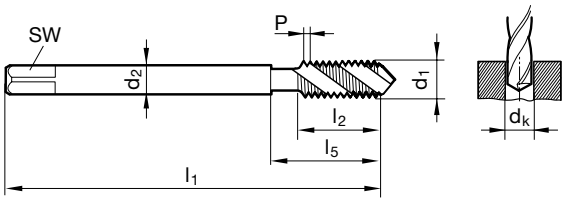
Catalogue no. 63048

Intensiv N	DIN 376	C	HSS-E	TiN	R	6HX

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

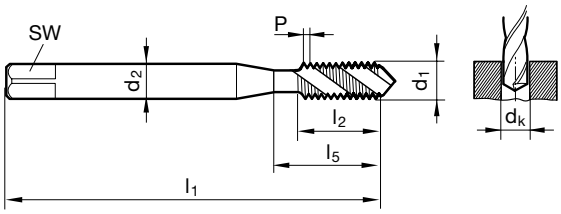
Catalogue no. 73047

Intensiv N | DIN 371 | E | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- short chamfer for thread depths close to bottom of the hole
- steel materials up to 1100 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

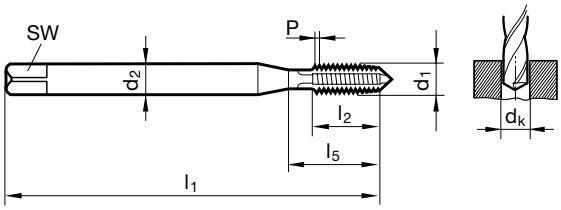
Catalogue no. 53053

Produktiv Synchro | DIN 371 | B | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
●	●	●	●	○	

Application recommendations page 11

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M2,2	0.450	2.800	2.100	1.75	45.000	9.000	14.500
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

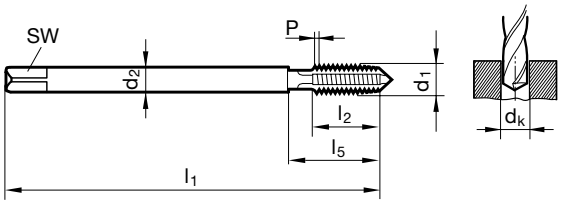
Catalogue no. 53054

Produktiv Synchro | DIN 376 | B | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
●	●	●	●	○	

Application recommendations page 11

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

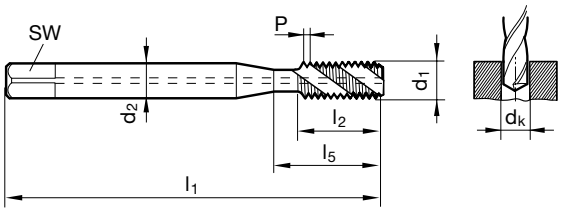
Catalogue no. 53050

Intensiv Synchro | DIN 371 | C | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	●	●	○	

Application recommendations page 11

- for blind holes
- flutes with appr. 50° right-hand helix
- shorter thread length, only suitable for synchro tapping
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M5	0.800	6.000	4.900	4.20	70.000	4.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	5.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	6.300	35.000
M10	1.500	10.000	8.000	8.50	100.000	7.500	39.000

Machine taps

Taps for ISO metric threads

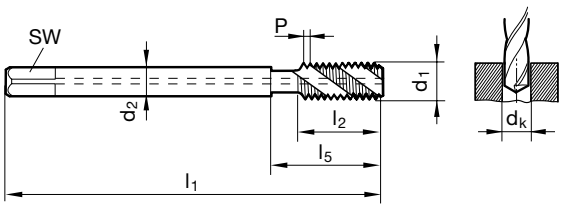
Catalogue no. 53051

Intensiv Synchro | DIN 376 | C | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	●	●	○	

Application recommendations page 11

- for blind holes
- flutes with appr. 50° right-hand helix
- shorter thread length, only suitable for synchro tapping
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	8.800	49.000
M14	2.000	11.000	9.000	12.00	110.000	10.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	10.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	12.500	62.000

Machine taps

Taps for ISO metric threads

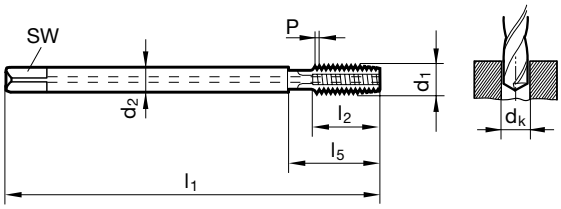
Catalogue no. 53646

H	DIN 376	C	HSS-E	TiCN	R	6HX

P	M	K	N	S	H
●		●	○		

Application recommendations page 11

- for large threads
- for through and blind holes
- steel materials of up to 1200 N/mm²
- for cast materials
- for Al-alloys with Si content > 7%
- with axial coolant duct



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000
M27	3.000	20.000	16.000	24.00	160.000	36.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	40.000	85.000
M33	3.500	25.000	20.000	29.50	180.000	40.000	91.000
M36	4.000	28.000	22.000	32.00	200.000	50.000	102.000
M39	4.000	32.000	24.000	35.00	200.000	50.000	107.000

Machine taps

Taps for ISO metric threads

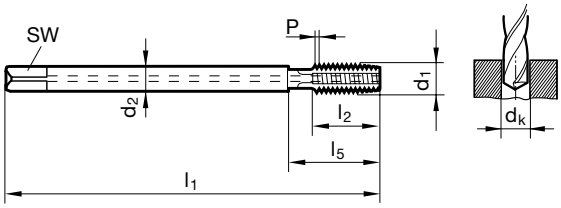
Catalogue no. 53647

H	~DIN 376	C	HSS-E	TiCN	R	6HX

P	M	K	N	S	H
●		●	○		

Application recommendations page 11

- for large threads
- for through and blind holes
- steel materials of up to 1200 N/mm²
- for cast materials
- for Al-alloys with Si content > 7%
- with axial coolant duct
- for large thread depths



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M16	2.000	12.000	9.000	14.00	160.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	180.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	200.000	36.000	73.000
M27	3.000	20.000	16.000	24.00	225.000	36.000	73.000
M30	3.500	22.000	18.000	26.50	250.000	40.000	85.000
M33	3.500	25.000	20.000	29.50	275.000	40.000	91.000
M36	4.000	28.000	22.000	32.00	300.000	50.000	102.000
M39	4.000	32.000	24.000	35.00	325.000	50.000	107.000

Machine taps

Taps for ISO metric threads

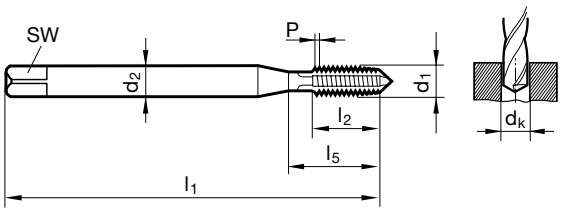
Catalogue no. 73176

VA | DIN 371 | B | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

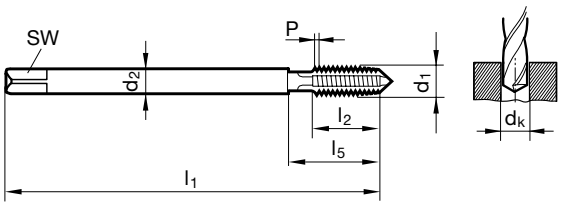
Catalogue no. 73177

VA | DIN 376 | B | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

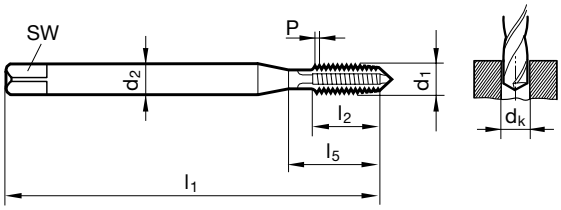
Catalogue no. 63176

VA | DIN 371 | B | HSS-E | TiN | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

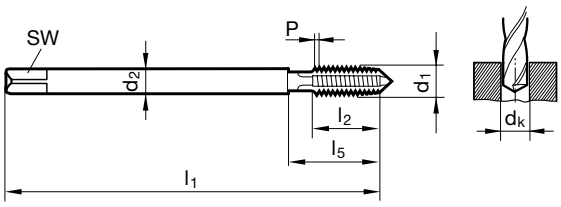
Catalogue no. 63177

VA | DIN 376 | B | HSS-E | TiN | R | 6HX

P	M	K	N	S	H
	●		○	○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

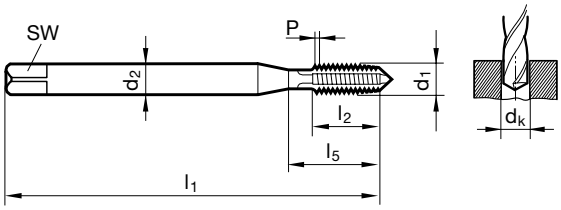
Catalogue no. 73641

VA | DIN 371 | B | HSS-E-PM | bright | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

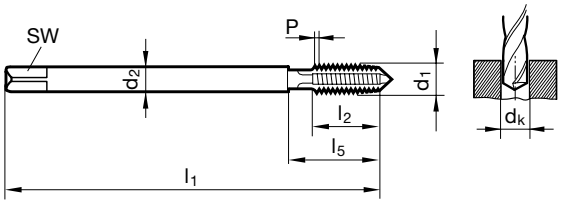
Catalogue no. 73643

VA | DIN 376 | B | HSS-E-PM | bright | R | ISO2/6H

P	M	K	N	S	H
	●		○	○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

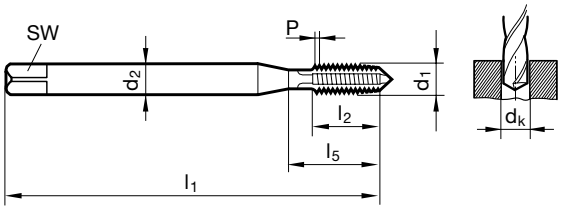
Catalogue no. 53641

VA | DIN 371 | B | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

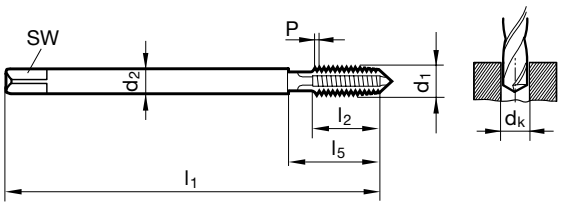
Catalogue no. 53643

VA | DIN 376 | B | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

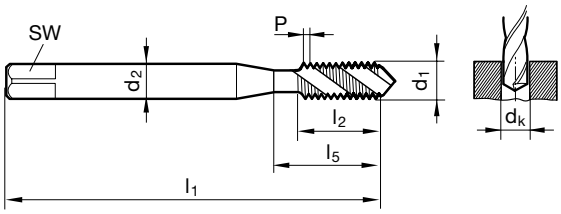
Catalogue no. 73660

Intensiv HD | DIN 371 | C | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

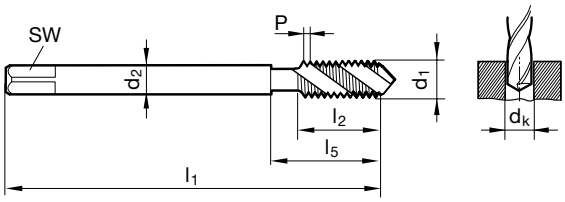
Catalogue no. 73659

Intensiv HD | DIN 376 | C | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

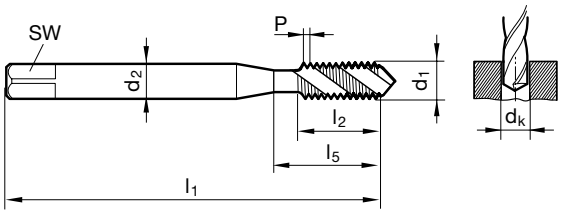
Catalogue no. 73662

Intensiv HD | DIN 371 | C | HSS-E-PM | bright | R | ISO2/6H

P	M	K	N	S	H
	●		○	○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	7.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

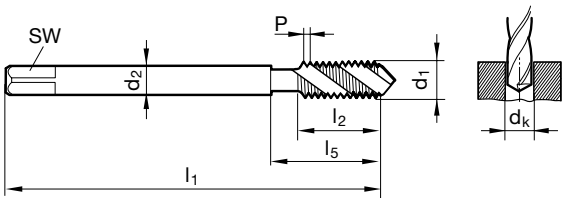
Catalogue no. 73665

Intensiv HD | DIN 376 | C | HSS-E-PM | bright | R | ISO2/6H

P	M	K	N	S	H
	●		○	○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	27.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000

Machine taps

Taps for ISO metric threads

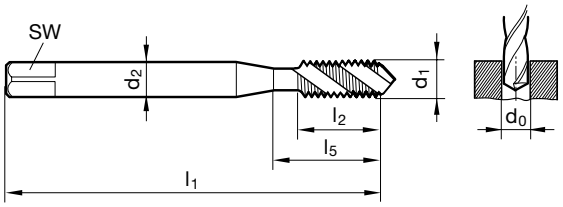
Catalogue no. 53662

Intensiv HD | DIN 371 | C | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
	●		○	○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

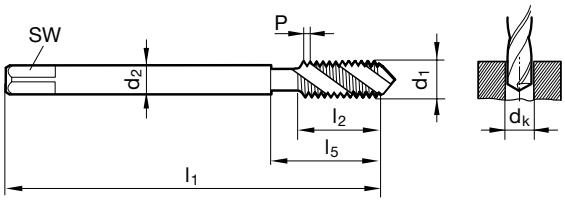
Catalogue no. 53665

Intensiv HD | DIN 376 | C | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000

Machine taps

Taps for ISO metric threads

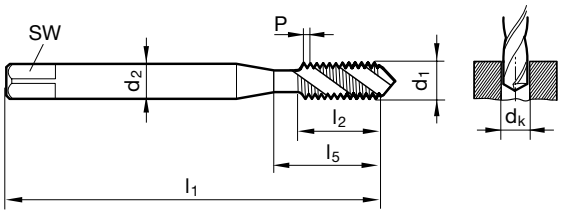
Catalogue no. 63662

Intensiv HD | DIN 371 | C | HSS-E-PM | TiN | R | ISO2/6H

P	M	K	N	S	H
	●		○	○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

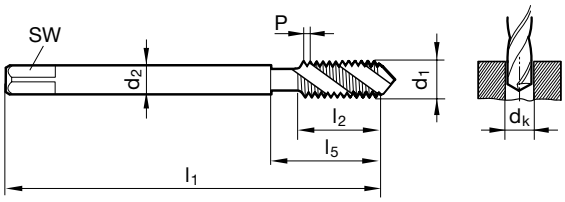
Catalogue no. 63665

Intensiv HD | DIN 376 | C | HSS-E-PM | TiN | R | ISO2/6H

P	M	K	N	S	H
	●			●	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000

Machine taps

Taps for ISO metric threads

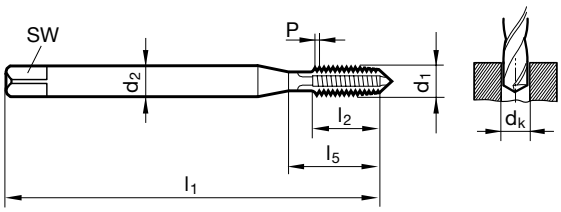
Catalogue no. 53667

Intensiv HDX | DIN 371/376 | B | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
	•			•	

Application recommendations page 14

- for through holes
- with spiral point
- chip evacuation in feed direction
- special alloys
- Titanium and Titanium alloys
- tough materials up to 1400 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

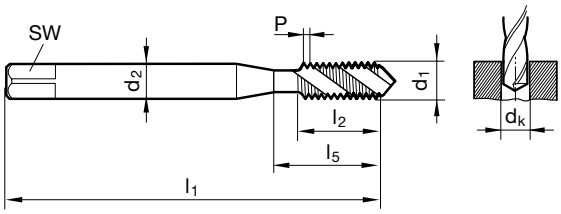
Catalogue no. 53666

Intensiv HDX | DIN 371/376 | C | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
	•			•	

Application recommendations page 14

- for blind holes
- flutes with appr. 15° right-hand helix
- chip evacuation in shank direction
- special alloys
- Titanium and Titanium alloys
- tough materials up to 1400 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

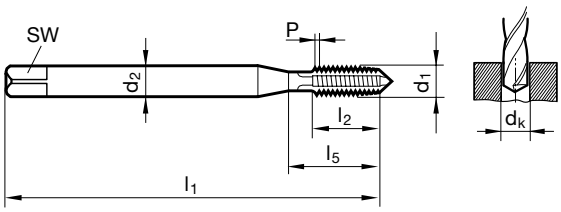
Catalogue no. 53669

Produktiv HX | DIN 371/376 | B | HSS-E-PM | TiAlN | R | 6HX

P	M	K	N	S	H
		○		●	●

Application recommendations page 14

- for through holes
- with spiral point
- chip evacuation in feed direction
- special alloys, hardened steels
- nickel and nickel based alloys
- Ampco > 21, chilled cast iron, Inconel



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

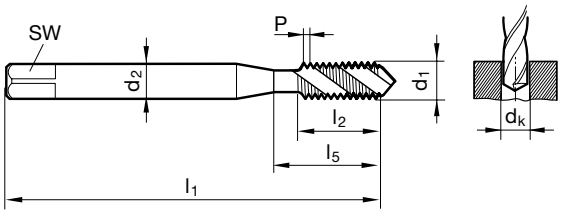
Catalogue no. 53668

Intensiv HX | DIN 371/376 | C | HSS-E-PM | TiAlN | R | 6HX

P	M	K	N	S	H
		○		●	●

Application recommendations page 14

- for blind holes
- flutes with appr. 10° right-hand helix
- chip evacuation in shank direction
- special alloys, hardened steels
- nickel and nickel based alloys
- Ampco > 21, chilled cast iron, Inconel



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

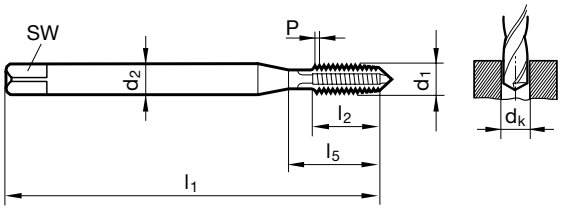
Catalogue no. 73642

Produktiv H | DIN 371 | B | HSS-E | ni-trided | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 15

- for through holes
- with spiral point
- chip evacuation in feed direction
- high tensile steels



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

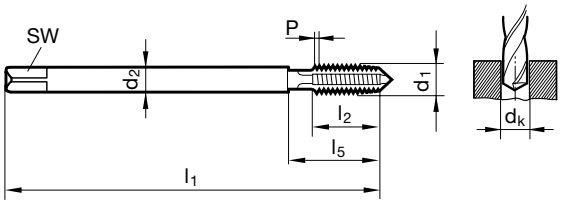
Catalogue no. 73645

Produktiv H | DIN 376 | B | HSS-E | ni-trided | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 15

- for through holes
- with spiral point
- chip evacuation in feed direction
- high tensile steels



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

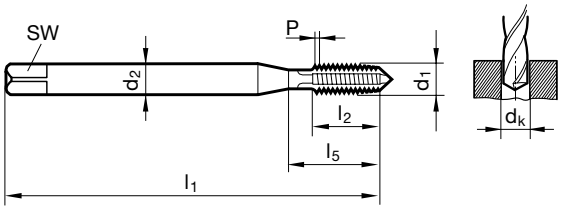
Catalogue no. 53642

Produktiv H | DIN 371/376 | B | HSS-E | TiCN | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 15

- for through holes
- with spiral point
- chip evacuation in feed direction
- high tensile steels



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

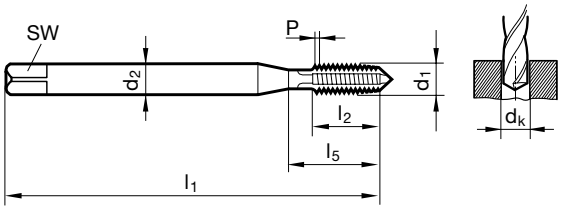
Catalogue no. 53640

Produktiv H | DIN 371/376 | B | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 15

- for through holes
- with spiral point
- chip evacuation in feed direction
- high tensile steels



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

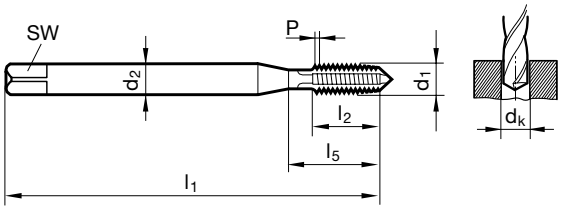
Catalogue no. 73640

Produktiv H | DIN 371 | B | HSS-E-PM | bright | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 15

- for through holes
- with spiral point
- chip evacuation in feed direction
- high tensile steels



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

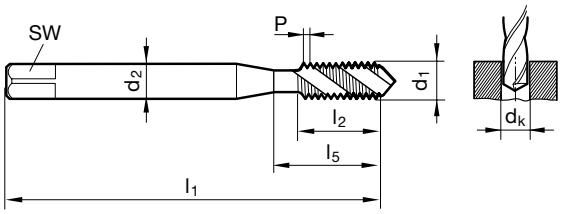
Catalogue no. 73661

Intensiv H | DIN 371 | C | HSS-E | ni-trided | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 16

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- high tensile steels



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

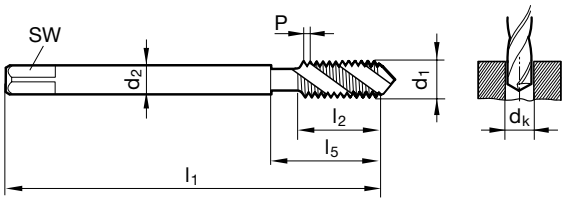
Catalogue no. 73664

Intensiv H | DIN 376 | C | HSS-E | ni-trided | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 16

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- high tensile steels



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

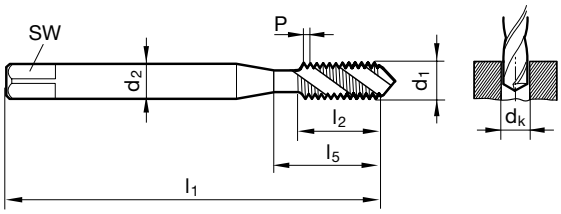
Catalogue no. 53661

Intensiv H | DIN 371/376 | C | HSS-E | TiCN | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 16

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- high tensile steels



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

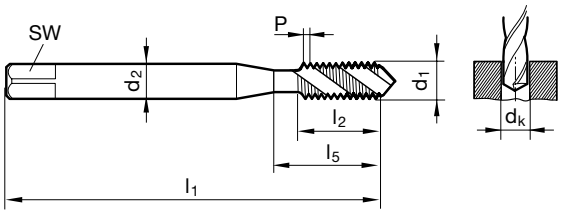
Catalogue no. 53664

Intensiv H | DIN 371/376 | C | HSS-E-PM | TiAlN | R | ISO2/6H

P	M	K	N	S	H
≤ 1200		○			

Application recommendations page 16

- for blind holes
- flutes with appr. 15° right-hand helix
- chip evacuation in shank direction
- high tensile steels



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

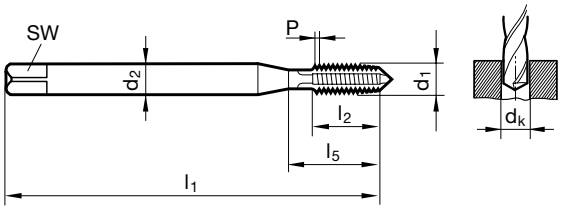
Catalogue no. 53676

H | DIN 371/376 | D | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
					○

Application recommendations page 20

- for through and blind holes
- for thread depths up to 1.5xD
- for materials between 45 - 55 HRC



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.60	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.40	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.30	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.10	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.90	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.60	100.000	20.000	39.000
M12	1.750	12.000	9.000	10.40	110.000	24.000	49.000
M14	2.000	14.000	11.000	12.10	110.000	26.000	53.000
M16	2.000	16.000	12.000	14.10	110.000	26.000	54.000

Machine taps

Taps for ISO metric threads

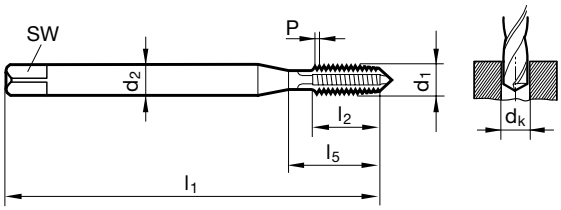
Catalogue no. 63010

H | ~DIN 371 | D | VHM | TiCN | R | ISO2/6H

P	M	K	N	S	H
					●

Application recommendations page 20

- for through and blind holes
- for thread depths up to 1xD
- hardened steels 54 to 62 HRC



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm
M3	0.500	3.500	2.700	2.60	56.000	12.000
M4	0.700	4.500	3.400	3.40	63.000	14.000
M5	0.800	6.000	4.900	4.30	70.000	17.000
M6	1.000	6.000	4.900	5.10	80.000	20.000
M8	1.250	8.000	6.200	6.90	90.000	20.000
M10	1.500	10.000	8.000	8.60	100.000	24.000
M12	1.750	12.000	9.000	10.40	110.000	28.000

Machine taps

Taps for ISO metric threads

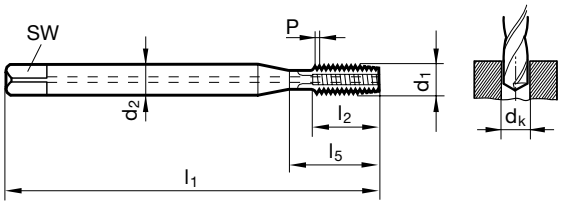
Catalogue no. 53670

HCX | DIN 371 | C | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●		●	○	●	○

Application recommendations page 19

- for through and blind holes
- with internal coolant duct ≥ M5
- central coolant exit
- high-tensile steel up to 1600 N/mm²
- hard and short chipping materials such as cast iron, bronze, AlSi alloys with high silicon content



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

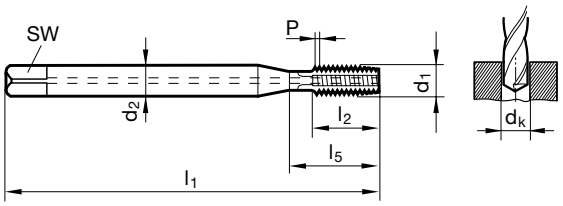
Catalogue no. 73011

H | DIN 371 | C | VHM | bright | R | 6HX

P	M	K	N	S	H
			●		

Application recommendations page 19

- for through and blind holes
- with internal coolant duct ≥ M5
- central coolant exit
- short-chipping aluminium and aluminium alloys, short-chipping, brittle non-ferrous metals



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	8.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	10.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	10.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	12.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	16.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	18.000	39.000

Machine taps

Taps for ISO metric threads

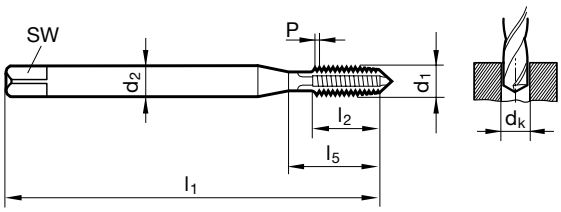
Catalogue no. 73126

Massiv N | 1xD | DIN 371 | B | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through holes
- for thread depths up to 1xD
- especially for sheet metal, plates and bushings



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M2,3	0.400	2.800	2.100	1.90	45.000	9.000	14.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M2,6	0.450	2.800	2.100	2.15	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	12.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

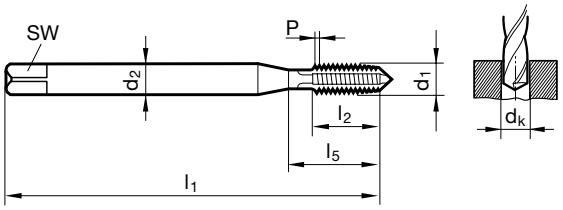
Catalogue no. 73185

N	1xD	DIN 371	C	HSS-E	bright	R	ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through and blind holes
- for thread depths up to 1xD
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M1	0.250	2.500	2.100	0.75	40.000	4.000	4.000
M1,2	0.250	2.500	2.100	0.95	40.000	4.800	4.800
M1,4	0.300	2.500	2.100	1.10	40.000	5.600	5.600
M1,6	0.350	2.500	2.100	1.25	40.000	6.400	6.400
M2,3	0.400	2.800	2.100	1.90	45.000	4.500	14.500
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M2,6	0.450	2.800	2.100	2.15	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	7.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

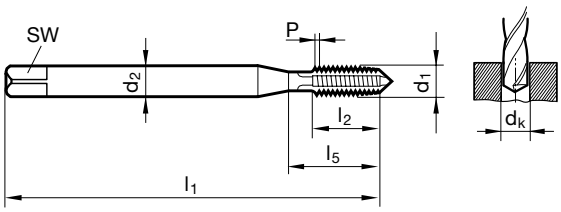
Catalogue no. 73133

N | DIN 371 | B | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through holes
- with spiral point
- chip evacuation in feed direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	12.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M7	1.000	7.000	5.500	6.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

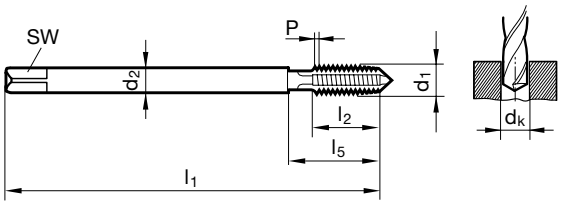
Catalogue no. 73138

N | DIN 376 | B | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through holes
- with spiral point
- chip evacuation in feed direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	0.400	1.400	1.250	1.60	45.000	8.000	13.500
M2,5	0.450	1.800	1.400	2.05	50.000	9.000	14.500
M3	0.500	2.200	1.800	2.50	56.000	10.000	18.000
M3,5	0.600	2.500	2.100	2.90	56.000	12.000	20.000
M4	0.700	2.800	2.100	3.30	63.000	12.000	21.000
M5	0.800	3.500	2.700	4.20	70.000	14.000	25.000
M6	1.000	4.500	3.400	5.00	80.000	16.000	30.000
M8	1.250	6.000	4.900	6.80	90.000	17.000	35.000
M10	1.500	7.000	5.500	8.50	100.000	20.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000

Machine taps

Taps for ISO metric threads

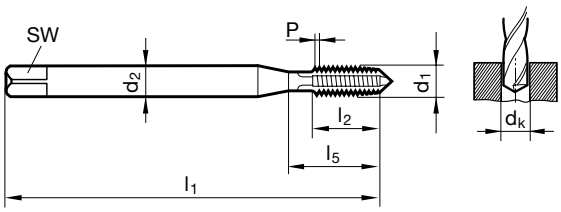
Catalogue no. 63133

N	DIN 371	B	HSS-E	TiN	R	ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through holes
- with spiral point
- chip evacuation in feed direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

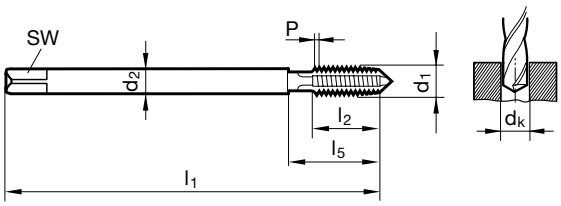
Catalogue no. 63138

N	DIN 376	B	HSS-E	TiN	R	ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through holes
- with spiral point
- chip evacuation in feed direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

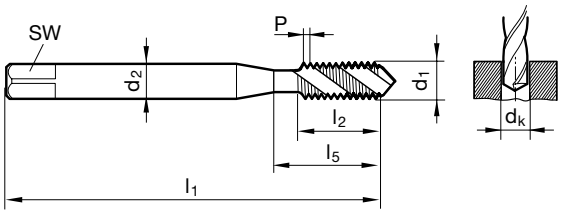
Catalogue no. 73221

Intensiv N | DIN 371 | C | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 15° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M2,2	0.450	2.800	2.100	1.75	45.000	5.000	14.500
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	7.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

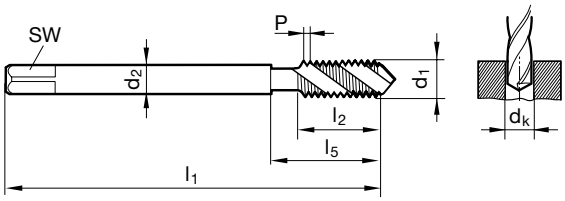
Catalogue no. 73227

Intensiv N | DIN 376 | C | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 15° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M4	0.700	2.800	2.100	3.30	63.000	7.500	21.000
M5	0.800	3.500	2.700	4.20	70.000	8.500	25.000
M6	1.000	4.500	3.400	5.00	80.000	11.000	30.000
M8	1.250	6.000	4.900	6.80	90.000	14.000	35.000
M10	1.500	7.000	5.500	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	27.000	62.000

Machine taps

Taps for ISO metric threads

Catalogue no. 73146

Intensiv N | DIN 371 | C | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
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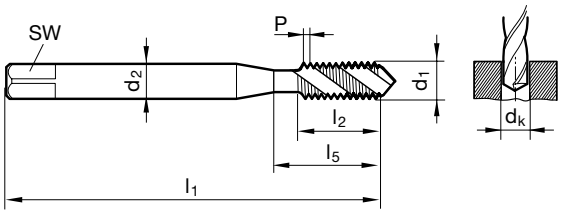
Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M2,2	0.450	2.800	2.100	1.75	45.000	5.000	14.500
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	7.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

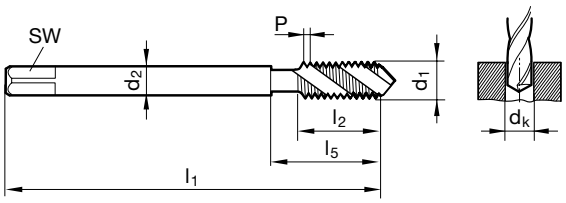
Catalogue no. 73148

Intensiv N | DIN 376 | C | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	2.200	1.800	2.50	56.000	6.000	18.000
M4	0.700	2.800	2.100	3.30	63.000	7.500	21.000
M5	0.800	3.500	2.700	4.20	70.000	8.500	25.000
M6	1.000	4.500	3.400	5.00	80.000	11.000	30.000
M8	1.250	6.000	4.900	6.80	90.000	14.000	35.000
M10	1.500	7.000	5.500	8.50	100.000	16.000	39.000
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M14	2.000	11.000	9.000	12.00	110.000	20.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	25.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	27.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	30.000	73.000
M27	3.000	20.000	16.000	24.00	160.000	30.000	73.000
M30	3.500	22.000	18.000	26.50	180.000	35.000	85.000

Machine taps

Taps for ISO metric threads

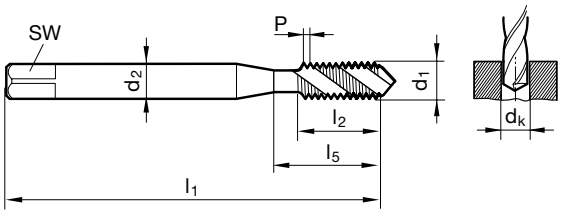
Catalogue no. 63146

Intensiv N | DIN 371 | C | HSS-E | TiN | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

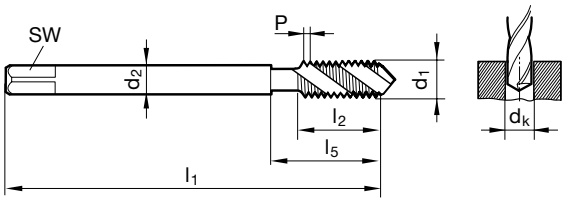
Catalogue no. 63148

Intensiv N | DIN 376 | C | HSS-E | TiN | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

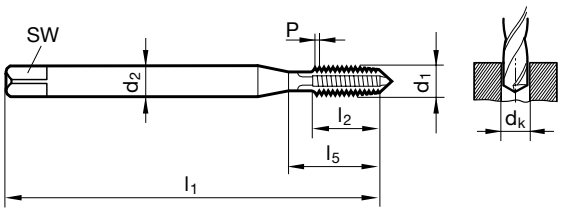
Catalogue no. 73132

N | DIN 371 | B | HSS-E | bright | R | ISO3/6G

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through holes
- with spiral point
- chip evacuation in feed direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

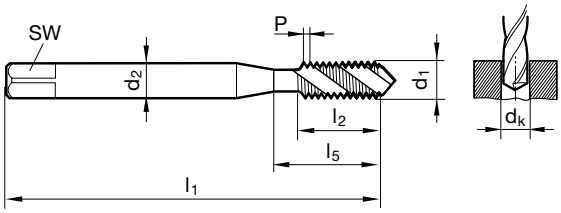
Catalogue no. 73145

Intensiv N | DIN 371 | C | HSS-E | bright | R | ISO3/6G

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

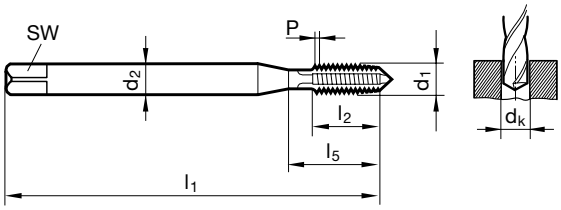
Catalogue no. 73131

Produktiv W | DIN 371 | B | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
			●		

Application recommendations page 19

- for through holes
- with spiral point
- chip evacuation in feed direction
- soft, long-chipping materials such as aluminium, aluminium alloys, non-ferrous metals



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M2,3	0.400	2.800	2.100	1.90	45.000	9.000	14.500
M 2	0.400	2.800	2.100	1.60	45.000	8.000	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	9.000	14.500
M2,6	0.450	2.800	2.100	2.15	50.000	9.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	12.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

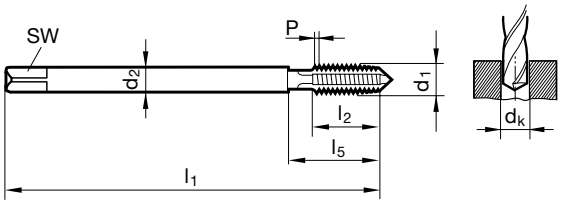
Catalogue no. 73189

Produktiv W | DIN 376 | B | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
			●		

Application recommendations page 19

- for through holes
- with spiral point
- chip evacuation in feed direction
- soft, long-chipping materials such as aluminium, aluminium alloys, non-ferrous metals



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000

Machine taps

Taps for ISO metric threads

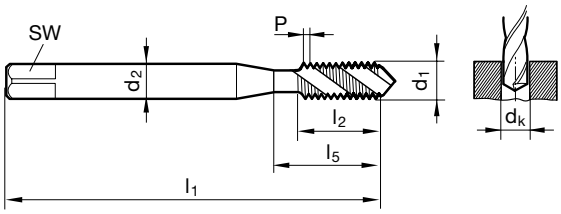
Catalogue no. 73156

Intensiv W | DIN 371 | C | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
			●		

Application recommendations page 19

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- soft, long-chipping materials such as aluminium, aluminium alloys, non-ferrous metals



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M2,2	0.450	2.800	2.100	1.75	45.000	5.000	14.500
M2,3	0.400	2.800	2.100	1.90	45.000	4.500	14.500
M 2	0.400	2.800	2.100	1.60	45.000	4.500	13.500
M2,5	0.450	2.800	2.100	2.05	50.000	5.000	14.500
M3	0.500	3.500	2.700	2.50	56.000	6.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	7.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	7.500	21.000
M5	0.800	6.000	4.900	4.20	70.000	8.500	25.000
M6	1.000	6.000	4.900	5.00	80.000	11.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	14.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	16.000	39.000

Machine taps

Taps for ISO metric threads

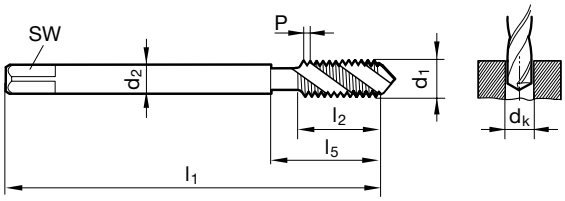
Catalogue no. 73136

Intensiv W | DIN 376 | C | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
			●		

Application recommendations page 19

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- soft, long-chipping materials such as aluminium, aluminium alloys, non-ferrous metals



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	18.500	49.000
M16	2.000	12.000	9.000	14.00	110.000	20.000	54.000
M20	2.500	16.000	12.000	17.50	140.000	25.000	62.000

Machine taps

Taps for ISO metric threads

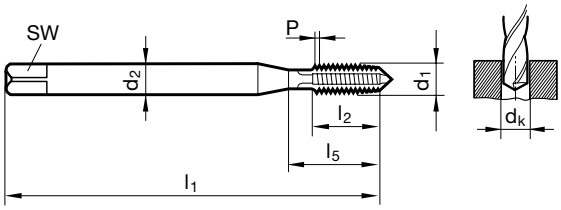
Catalogue no. 73201

GG | DIN 371 | C | HSS-E | ni-trided | R | 6HX

P	M	K	N	S	H
		●			

Application recommendations page 20

- for through and blind holes
- cast materials such as grey cast iron, malleable cast iron, spheroidal graphite cast iron



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M3,5	0.600	4.000	3.000	2.90	56.000	12.000	20.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric threads

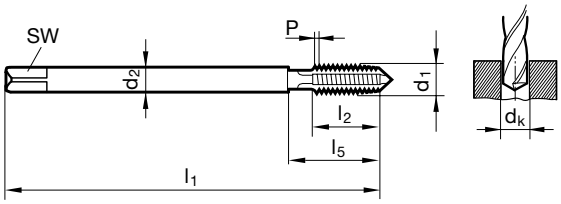
Catalogue no. 73211

GG | DIN 376 | C | HSS-E | ni-trided | R | 6HX

P	M	K	N	S	H
		●			

Application recommendations page 20

- for through and blind holes
- cast materials such as grey cast iron, malleable cast iron, spheroidal graphite cast iron



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M12	1.750	9.000	7.000	10.20	110.000	24.000	49.000
M14	2.000	11.000	9.000	12.00	110.000	26.000	53.000
M16	2.000	12.000	9.000	14.00	110.000	26.000	54.000
M18	2.500	14.000	11.000	15.50	125.000	30.000	62.000
M20	2.500	16.000	12.000	17.50	140.000	32.000	62.000
M22	2.500	18.000	14.500	19.50	140.000	32.000	62.000
M24	3.000	18.000	14.500	21.00	160.000	36.000	73.000

Machine taps

Taps for ISO metric threads

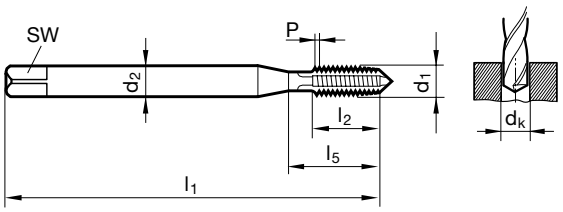
Catalogue no. 63201

GG | DIN 371 | C | HSS-E | TiAlN | R | 6HX

P	M	K	N	S	H
		●	○		

Application recommendations page 20

- for through and blind holes
- cast materials such as grey cast iron, malleable cast iron, spheroidal graphite cast iron



d1	P	d2	SW	dk	l1	l2	l5
	mm	mm	mm	mm	mm	mm	mm
M3	0.500	3.500	2.700	2.50	56.000	10.000	18.000
M4	0.700	4.500	3.400	3.30	63.000	12.000	21.000
M5	0.800	6.000	4.900	4.20	70.000	14.000	25.000
M6	1.000	6.000	4.900	5.00	80.000	16.000	30.000
M8	1.250	8.000	6.200	6.80	90.000	17.000	35.000
M10	1.500	10.000	8.000	8.50	100.000	20.000	39.000

Machine taps

Taps for ISO metric fine threads

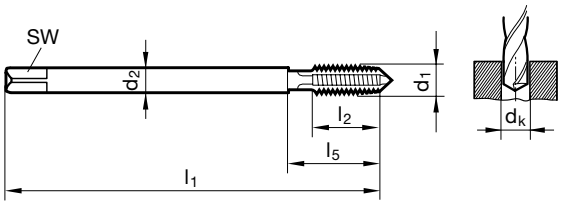
Catalogue no. 53778

Produktiv N-X | DIN 374 | B | HSS-E | Al-TiZrN | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
3.002	M3 x 0,35	2.200	1.800	2.65	56.000	7.000	18.000
4.002	M4 x 0,35	2.800	2.100	3.65	63.000	8.000	21.000
4.003	M4 x 0,5	2.800	2.100	3.50	63.000	8.000	21.000
5.003	M5 x 0,5	3.500	2.700	4.50	70.000	10.000	25.000
6.003	M6 x 0,5	4.500	3.400	5.50	80.000	13.000	30.000
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	13.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	14.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
9.005	M9 x 1	7.000	5.500	8.00	90.000	16.000	35.000
10.004	M10 x 0,75	7.000	5.500	9.20	90.000	16.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	20.000	39.000
11.005	M11 x 1	8.000	6.200	10.00	90.000	20.000	33.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.005	M14 x 1	11.000	9.000	13.00	100.000	20.000	40.000
14.006	M14 x 1,25	11.000	9.000	12.80	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.005	M16 x 1	12.000	9.000	15.00	100.000	22.000	44.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.005	M18 x 1	14.000	11.000	17.00	110.000	25.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
18.008	M18 x 2	14.000	11.000	16.00	125.000	30.000	58.000
20.005	M20 x 1	16.000	12.000	19.00	125.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000
20.008	M20 x 2	16.000	12.000	18.00	140.000	32.000	60.000
22.005	M22 x 1	18.000	14.500	21.00	125.000	25.000	44.000
22.007	M22 x 1,5	18.000	14.500	20.50	125.000	25.000	44.000
22.008	M22 x 2	18.000	14.500	20.00	140.000	32.000	62.000
24.005	M24 x 1	18.000	14.500	23.00	140.000	28.000	48.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	28.000	48.000
24.008	M24 x 2	18.000	14.500	22.00	140.000	28.000	48.000

Machine taps

Taps for ISO metric fine threads

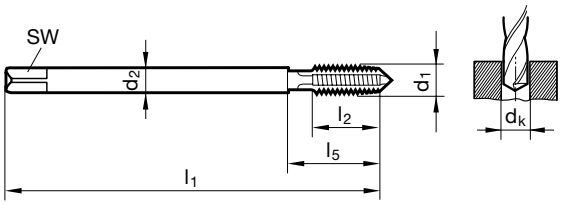
Catalogue no. 53789

Produktiv N-X	DIN 374	B	HSS-E-PM	Al-TiZrN	R	6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	20.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	28.000	48.000

Machine taps

Taps for ISO metric fine threads

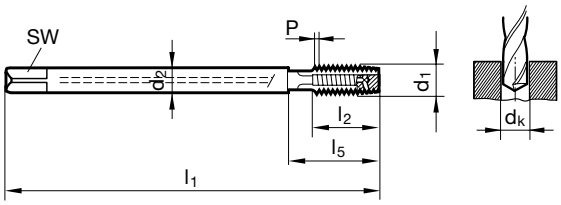
Catalogue no. 53790

Produktiv N-X | DIN 374 | B | HSS-E-PM | Al-TiZrN | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- radial coolant exit
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	20.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	28.000	48.000

Machine taps

Taps for ISO metric fine threads

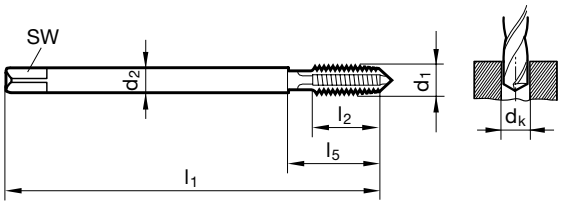
Catalogue no. 53779

Produktiv N-X	DIN 374	B	HSS-E	Al-TiZrN	R	6GX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	13.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	14.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	20.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	28.000	48.000

Machine taps

Taps for ISO metric fine threads

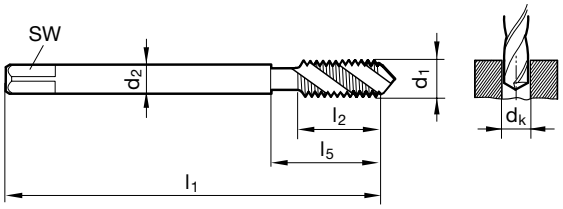
Catalogue no. 53780

Intensiv N-X	DIN 374	C	HSS-E	TiAlN-H	R	6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
3.002	M3 x 0,35	2.200	1.800	2.65	56.000	4.000	18.000
4.002	M4 x 0,35	2.800	2.100	3.65	63.000	5.000	21.000
4.003	M4 x 0,5	2.800	2.100	3.50	63.000	5.000	21.000
5.003	M5 x 0,5	3.500	2.700	4.50	70.000	5.000	25.000
6.003	M6 x 0,5	4.500	3.400	5.50	80.000	5.000	30.000
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	8.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	8.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
9.005	M9 x 1	7.000	5.500	8.00	90.000	11.000	35.000
10.004	M10 x 0,75	7.000	5.500	9.20	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
11.005	M11 x 1	8.000	6.200	10.00	90.000	11.000	33.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	15.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	15.000	40.000
14.005	M14 x 1	11.000	9.000	13.00	100.000	11.000	40.000
14.006	M14 x 1,25	11.000	9.000	12.80	100.000	15.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.005	M16 x 1	12.000	9.000	15.00	100.000	11.000	44.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.005	M18 x 1	14.000	11.000	17.00	110.000	12.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
18.008	M18 x 2	14.000	11.000	16.00	125.000	20.000	58.000
20.005	M20 x 1	16.000	12.000	19.00	125.000	12.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000
20.008	M20 x 2	16.000	12.000	18.00	140.000	20.000	60.000
22.005	M22 x 1	18.000	14.500	21.00	125.000	12.000	44.000
22.007	M22 x 1,5	18.000	14.500	20.50	125.000	16.000	44.000
22.008	M22 x 2	18.000	14.500	20.00	140.000	22.000	62.000
24.005	M24 x 1	18.000	14.500	23.00	140.000	15.000	48.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	16.000	48.000
24.008	M24 x 2	18.000	14.500	22.00	140.000	22.000	48.000

Machine taps

Taps for ISO metric fine threads

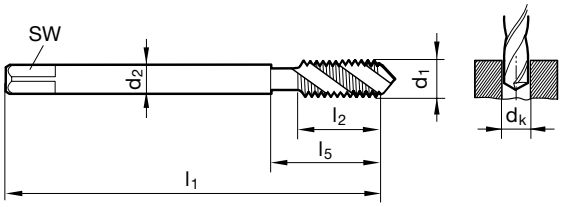
Catalogue no. 53791

Intensiv N-X | DIN 374 | C | HSS-E-PM | TiAlN-H | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	16.000	48.000

Machine taps

Taps for ISO metric fine threads

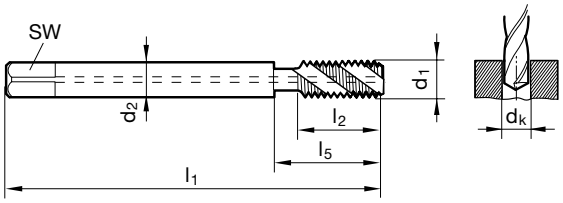
Catalogue no. 53792

Intensiv N-X | DIN 374 | C | HSS-E-PM | TiAlN-H | R | 6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- with axial coolant duct
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	16.000	48.000

Machine taps

Taps for ISO metric fine threads

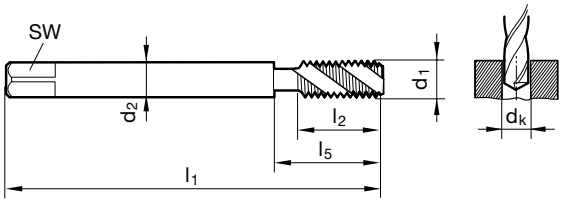
Catalogue no. 53770

Intensiv N-X	DIN 374	E	HSS-E	TiAlN-H	R	6HX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- short chamfer for thread depths close to bottom of the hole
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	8.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	8.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	16.000	48.000

Machine taps

Taps for ISO metric fine threads

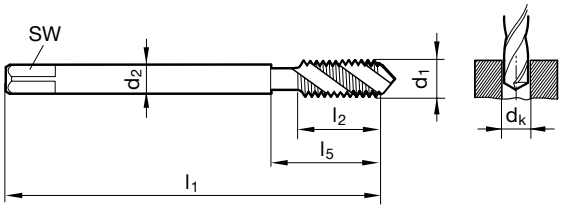
Catalogue no. 53781

Intensiv N-X | DIN 374 | C | HSS-E | TiAlN-H | R | 6GX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	8.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	8.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	16.000	48.000

Machine taps

Taps for ISO metric fine threads

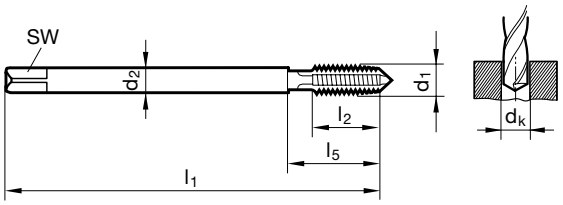
Catalogue no. 73183

Produktiv N	DIN 374	B	HSS-E	steam tempered	R	ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	13.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	14.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000

Machine taps

Taps for ISO metric fine threads

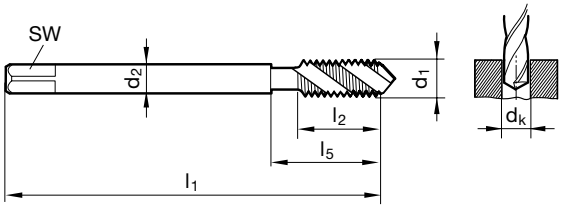
Catalogue no. 73187

Intensiv N	DIN 374	C	HSS-E	steam tempered	R	ISO2/6H

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	8.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.005	M14 x 1	11.000	9.000	13.00	100.000	11.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000

Machine taps

Taps for ISO metric fine threads

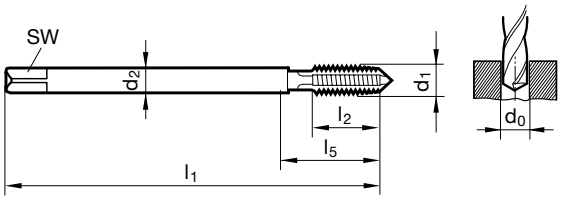
Catalogue no. 53055

Produktiv Synchro | DIN 374 | B | HSS-E-PM | TiCN | R | ISO2/6H

P	M	K	N	S	H
●	●	●	●	○	

Application recommendations page 11

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000

Machine taps

Taps for ISO metric fine threads

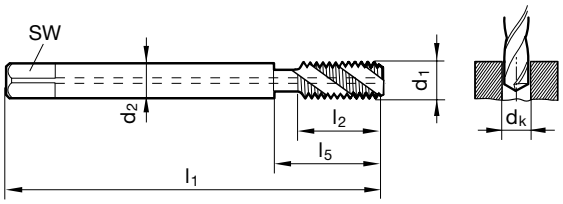
Catalogue no. 53052

Intensiv Synchro | DIN 374 | C | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	●	●	○	

Application recommendations page 11

- for blind holes
- flutes with appr. 50° right-hand helix
- shorter thread length, only suitable for synchro tapping
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	5.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	5.000	35.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	5.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	7.500	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	7.500	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	7.500	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	7.500	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	7.500	44.000

Machine taps

Taps for ISO metric fine threads

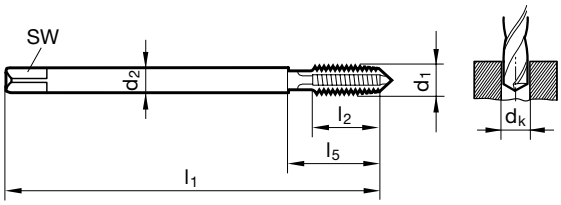
Catalogue no. 73178

VA | DIN 374 | B | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
5.003	M5 x 0,5	3.500	2.700	4.50	70.000	10.000	25.000
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	13.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000

Machine taps

Taps for ISO metric fine threads

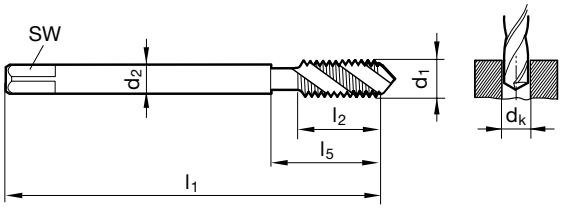
Catalogue no. 73180

Intensiv HD | DIN 374 | C | HSS-E | steam tempered | R | ISO2/6H

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000

Machine taps

Taps for ISO metric fine threads

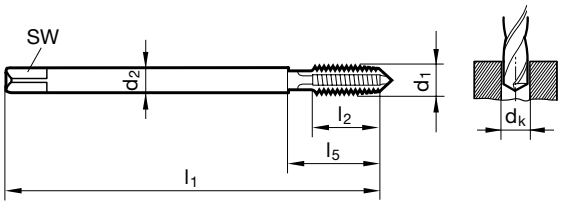
Catalogue no. 73646

Produktiv H | DIN 374 | B | HSS-E | ni-trided | R | ISO2/6H

P	M	K	N	S	H
●		○			

Application recommendations page 15

- for through holes
- with spiral point
- chip evacuation in feed direction
- high tensile steels
- steel from 1100 to 1600 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
3.002	M3 x 0,35	2.200	1.800	2.65	56.000	7.000	18.000
4.003	M4 x 0,5	2.800	2.100	3.50	63.000	8.000	21.000
5.003	M5 x 0,5	3.500	2.700	4.50	70.000	10.000	25.000
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	13.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	14.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000
22.007	M22 x 1,5	18.000	14.500	20.50	125.000	25.000	44.000

Machine taps

Taps for ISO metric fine threads

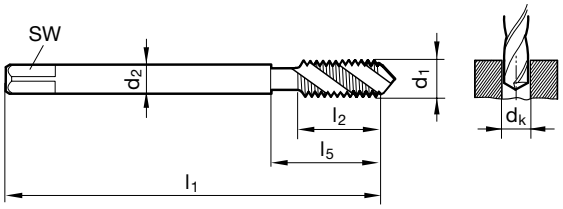
Catalogue no. 73647

Intensiv H | DIN 374 | C | HSS-E | ni-trided | R | ISO2/6H

P	M	K	N	S	H
●					

Application recommendations page 16

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- high tensile steels
- steel from 1100 to 1200 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	8.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	15.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000
22.007	M22 x 1,5	18.000	14.500	20.50	125.000	16.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	16.000	48.000

Machine taps

Taps for ISO metric fine threads

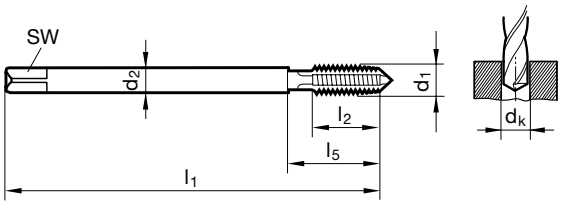
Catalogue no. 73250

N	DIN 374	B	HSS-E	bright	R	ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 17

- for through holes
- with spiral point
- chip evacuation in feed direction
- general application
- steel to 800 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
4.003	M4 x 0,5	2.800	2.100	3.50	63.000	8.000	21.000
5.003	M5 x 0,5	3.500	2.700	4.50	70.000	10.000	25.000
6.003	M6 x 0,5	4.500	3.400	5.50	80.000	13.000	30.000
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	13.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	14.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
9.005	M9 x 1	7.000	5.500	8.00	90.000	16.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	20.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	20.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.005	M14 x 1	11.000	9.000	13.00	100.000	20.000	40.000
14.006	M14 x 1,25	11.000	9.000	12.80	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.005	M18 x 1	14.000	11.000	17.00	110.000	25.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000
20.008	M20 x 2	16.000	12.000	18.00	140.000	32.000	60.000
22.007	M22 x 1,5	18.000	14.500	20.50	125.000	25.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	28.000	48.000
24.008	M24 x 2	18.000	14.500	22.00	140.000	28.000	48.000
27.007	M27 x 1,5	20.000	16.000	25.50	140.000	28.000	53.000
30.007	M30 x 1,5	22.000	18.000	28.50	150.000	28.000	53.000
30.008	M30 x 2	22.000	18.000	28.00	150.000	28.000	53.000
36.007	M36 x 1,5	28.000	22.000	34.50	170.000	30.000	56.000

Machine taps

Taps for ISO metric fine threads

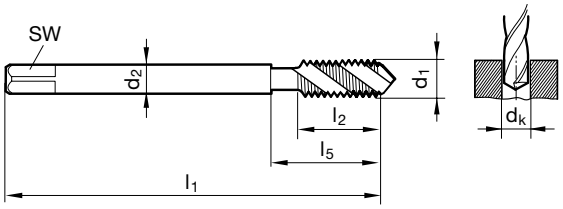
Catalogue no. 73173

Intensiv N | DIN 374 | C | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
3.002	M3 x 0,35	2.200	1.800	2.65	56.000	4.000	18.000
4.003	M4 x 0,5	2.800	2.100	3.50	63.000	5.000	21.000
5.003	M5 x 0,5	3.500	2.700	4.50	70.000	5.000	25.000
6.003	M6 x 0,5	4.500	3.400	5.50	80.000	5.000	30.000
6.004	M6 x 0,75	4.500	3.400	5.20	80.000	8.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.20	80.000	8.000	30.000
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
11.005	M11 x 1	8.000	6.200	10.00	90.000	11.000	33.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.006	M12 x 1,25	9.000	7.000	10.80	100.000	16.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.005	M14 x 1	11.000	9.000	13.00	100.000	11.000	40.000
14.006	M14 x 1,25	11.000	9.000	12.80	100.000	15.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.005	M16 x 1	12.000	9.000	15.00	100.000	11.000	44.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
18.005	M18 x 1	14.000	11.000	17.00	110.000	12.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	16.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000
22.007	M22 x 1,5	18.000	14.500	20.50	125.000	16.000	44.000
24.007	M24 x 1,5	18.000	14.500	22.50	140.000	16.000	48.000
24.008	M24 x 2	18.000	14.500	22.00	140.000	22.000	48.000
26.007	M26 x 1,5	18.000	14.500	24.50	140.000	20.000	50.000
30.007	M30 x 1,5	22.000	18.000	28.50	150.000	20.000	53.000
30.008	M30 x 2	22.000	18.000	28.00	150.000	20.000	53.000

Machine taps

Taps for ISO metric fine threads

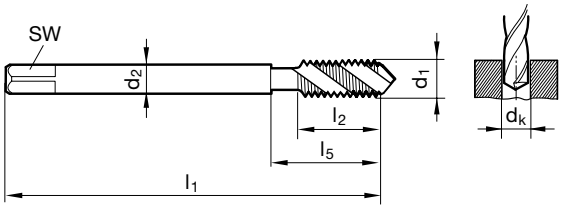
Catalogue no. 63173

Intensiv N | DIN 374 | C | HSS-E | TiN | R | ISO2/6H

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	11.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	11.000	35.000
10.006	M10 x 1,25	7.000	5.500	8.80	100.000	14.000	39.000
12.005	M12 x 1	9.000	7.000	11.00	100.000	11.000	40.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	16.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	15.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	15.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	16.000	44.000

Machine taps

Taps for ISO metric fine threads

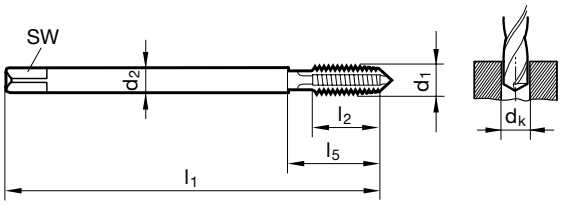
Catalogue no. 73194

GG | DIN 374 | C | HSS-E | ni-trided | R | 6HX

P	M	K	N	S	H
		●			

Application recommendations page 20

- for through and blind holes
- cast materials such as grey cast iron, malleable cast iron, spheroidal graphite cast iron



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.005	M8 x 1	6.000	4.900	7.00	90.000	17.000	35.000
10.005	M10 x 1	7.000	5.500	9.00	90.000	16.000	35.000
12.007	M12 x 1,5	9.000	7.000	10.50	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	12.50	100.000	20.000	40.000
16.007	M16 x 1,5	12.000	9.000	14.50	100.000	22.000	44.000
18.007	M18 x 1,5	14.000	11.000	16.50	110.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	18.50	125.000	25.000	44.000

Machine taps

Taps for UNC threads

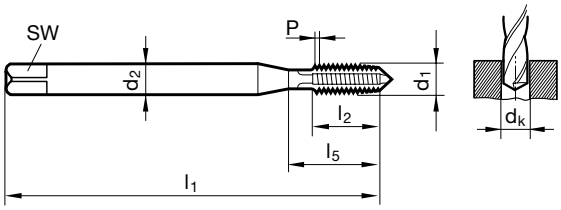
Catalogue no. 53782

Produktiv N-X | DIN 371/376 | B | HSS-E | Al-TiZrN | R | 2BX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.184	2 - 56	2.800	2.100	1.85	45.000	9.000	14.500
2.845	4 - 40	3.500	2.700	2.35	56.000	11.000	18.000
3.505	6 - 32	4.000	3.000	2.85	56.000	12.000	20.000
4.166	8 - 32	4.500	3.400	3.50	63.000	12.000	21.000
4.826	10 - 24	6.000	4.900	3.90	70.000	14.000	25.000
5.486	12 - 24	6.000	4.900	4.50	80.000	16.000	30.000
6.350	1/4 - 20	7.000	5.500	5.10	80.000	16.000	30.000
7.938	5/16 - 18	8.000	6.200	6.60	90.000	18.000	35.000
9.525	3/8 - 16	10.000	8.000	8.00	100.000	20.000	39.000
11.113	7/16 - 14	8.000	6.200	9.40	100.000	22.000	42.000
12.700	1/2 - 13	9.000	7.000	10.80	110.000	25.000	49.000
14.288	9/16 - 12	11.000	9.000	12.20	110.000	28.000	53.000
15.875	5/8 - 11	12.000	9.000	13.50	110.000	30.000	53.000
19.050	3/4 - 10	14.000	11.000	16.50	125.000	33.000	62.000
22.225	7/8 - 9	18.000	14.500	19.50	140.000	35.000	62.000
25.400	1 - 8	18.000	14.500	22.25	160.000	38.000	73.000

Machine taps

Taps for UNC threads

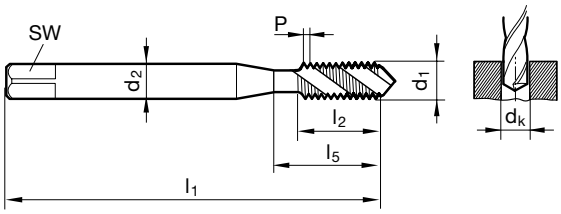
Catalogue no. 53783

Intensiv N-X | DIN 371/376 | C | HSS-E | TiAlN-H | R | 2BX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.184	2 - 56	2.800	2.100	1.85	45.000	5.000	14.500
2.845	4 - 40	3.500	2.700	2.35	56.000	7.000	18.000
3.505	6 - 32	4.000	3.000	2.85	56.000	8.000	20.000
4.166	8 - 32	4.500	3.400	3.50	63.000	8.000	21.000
4.826	10 - 24	6.000	4.900	3.90	70.000	11.000	25.000
5.486	12 - 24	6.000	4.900	4.50	80.000	11.000	30.000
6.350	1/4 - 20	7.000	5.500	5.10	80.000	13.000	30.000
7.938	5/16 - 18	8.000	6.200	6.60	90.000	14.000	35.000
9.525	3/8 - 16	10.000	8.000	8.00	100.000	16.000	39.000
11.113	7/16 - 14	8.000	6.200	9.40	100.000	18.000	42.000
12.700	1/2 - 13	9.000	7.000	10.80	110.000	20.000	49.000
14.288	9/16 - 12	11.000	9.000	12.20	110.000	21.000	53.000
15.875	5/8 - 11	12.000	9.000	13.50	110.000	24.000	53.000
19.050	3/4 - 10	14.000	11.000	16.50	125.000	25.000	62.000
22.225	7/8 - 9	18.000	14.500	19.50	140.000	28.000	62.000
25.400	1 - 8	18.000	14.500	22.25	160.000	32.000	73.000

Machine taps

Taps for UNC threads

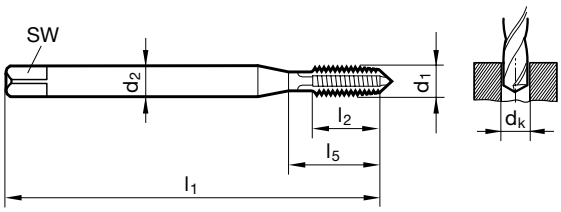
Catalogue no. 73308

Produktiv N | ~DIN 371 | B | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.845	4 - 40	3.500	2.700	2.35	56.000	11.000	18.000
3.505	6 - 32	4.000	3.000	2.85	56.000	12.000	20.000
4.166	8 - 32	4.500	3.400	3.50	63.000	12.000	21.000
4.826	10 - 24	6.000	4.900	3.90	70.000	14.000	25.000
6.350	1/4 - 20	7.000	5.500	5.10	80.000	16.000	30.000
7.938	5/16 - 18	8.000	6.200	6.60	90.000	18.000	35.000
9.525	3/8 - 16	10.000	8.000	8.00	100.000	20.000	39.000

Machine taps

Taps for UNC threads

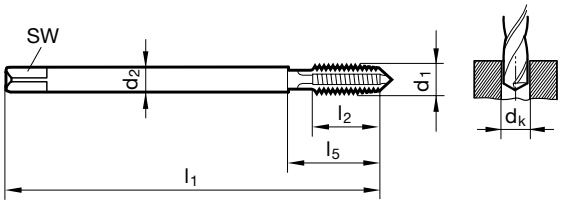
Catalogue no. 73309

Produktiv N | ~DIN 376 | B | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
12.700	1/2 - 13	9.000	7.000	10.80	110.000	25.000	49.000
15.875	5/8 - 11	12.000	9.000	13.50	110.000	30.000	53.000
19.050	3/4 - 10	14.000	11.000	16.50	125.000	33.000	62.000

Machine taps

Taps for UNC threads

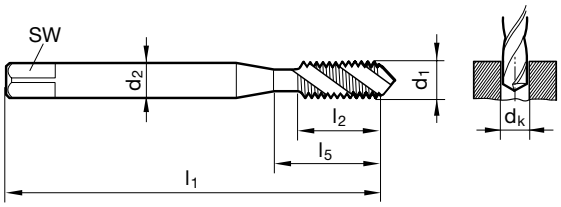
Catalogue no. 73322

Intensiv N | ~DIN 371 | C | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.845	4 - 40	3.500	2.700	2.35	56.000	7.000	18.000
3.505	6 - 32	4.000	3.000	2.85	56.000	8.000	20.000
4.166	8 - 32	4.500	3.400	3.50	63.000	8.000	21.000
4.826	10 - 24	6.000	4.900	3.90	70.000	11.000	25.000
6.350	1/4 - 20	7.000	5.500	5.10	80.000	13.000	30.000
7.938	5/16 - 18	8.000	6.200	6.60	90.000	14.000	35.000
9.525	3/8 - 16	10.000	8.000	8.00	100.000	16.000	39.000

Machine taps

Taps for UNC threads

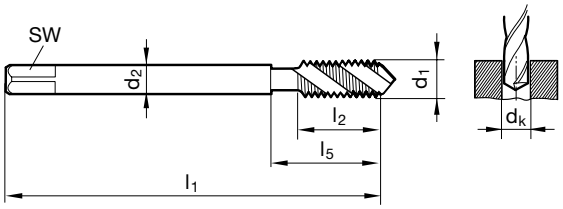
Catalogue no. 73323

Intensiv N | ~DIN 376 | C | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
12.700	1/2 - 13	9.000	7.000	10.80	110.000	20.000	49.000
15.875	5/8 - 11	12.000	9.000	13.50	110.000	24.000	53.000
19.050	3/4 - 10	14.000	11.000	16.50	125.000	25.000	62.000

Machine taps

Taps for UNC threads

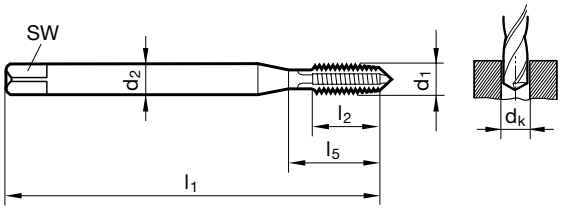
Catalogue no. 73297

VA | ~DIN 371 | B | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.845	4 - 40	3.500	2.700	2.35	56.000	11.000	18.000
3.505	6 - 32	4.000	3.000	2.85	56.000	12.000	20.000
4.166	8 - 32	4.500	3.400	3.50	63.000	12.000	21.000
4.826	10 - 24	6.000	4.900	3.90	70.000	14.000	25.000
6.350	1/4 - 20	7.000	5.500	5.10	80.000	16.000	30.000
7.938	5/16 - 18	8.000	6.200	6.60	90.000	18.000	35.000
9.525	3/8 - 16	10.000	8.000	8.00	100.000	20.000	39.000

Machine taps

Taps for UNC threads

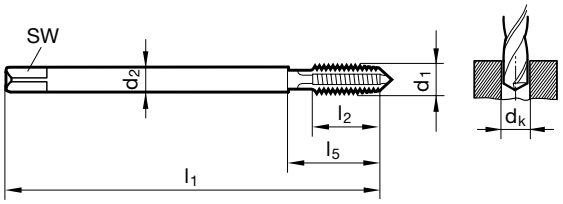
Catalogue no. 73298

VA | ~DIN 376 | B | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
12.700	1/2 - 13	9.000	7.000	10.80	110.000	25.000	49.000
15.875	5/8 - 11	12.000	9.000	13.50	110.000	30.000	53.000
19.050	3/4 - 10	14.000	11.000	16.50	125.000	33.000	62.000
25.400	1 - 8	18.000	14.500	22.25	160.000	38.000	73.000

Machine taps

Taps for UNC threads

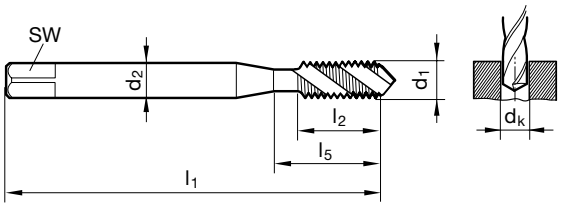
Catalogue no. 73304

Intensiv HD | ~DIN 371 | C | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.845	4 - 40	3.500	2.700	2.35	56.000	7.000	18.000
3.505	6 - 32	4.000	3.000	2.85	56.000	8.000	20.000
4.166	8 - 32	4.500	3.400	3.50	63.000	8.000	21.000
4.826	10 - 24	6.000	4.900	3.90	70.000	11.000	25.000
6.350	1/4 - 20	7.000	5.500	5.10	80.000	13.000	30.000
7.938	5/16 - 18	8.000	6.200	6.60	90.000	14.000	35.000
9.525	3/8 - 16	10.000	8.000	8.00	100.000	16.000	39.000

Machine taps

Taps for UNC threads

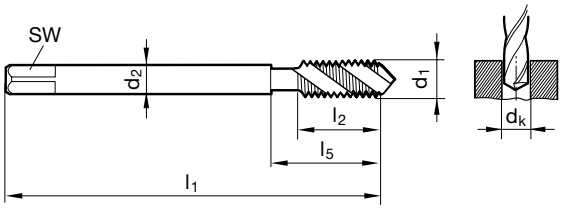
Catalogue no. 73305

Intensiv HD | ~DIN 376 | C | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
12.700	1/2 - 13	9.000	7.000	10.80	110.000	20.000	49.000
15.875	5/8 - 11	12.000	9.000	13.50	110.000	24.000	53.000
19.050	3/4 - 10	14.000	11.000	16.50	125.000	25.000	62.000

Machine taps

Taps for UNC threads

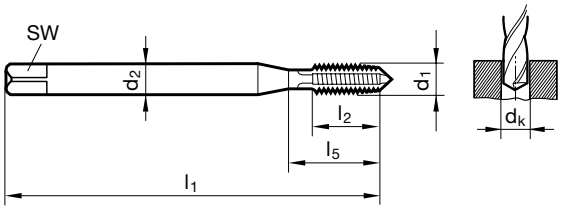
Catalogue no. 73326

GG | ~DIN 371 | C | HSS-E | ni-trided | R | 2B

P	M	K	N	S	H
		●			

Application recommendations page 20

- for through and blind holes
- cast materials such as grey cast iron, malleable cast iron, spheroidal graphite cast iron



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
4.166	8 - 32	4.500	3.400	3.50	63.000	12.000	21.000
4.826	10 - 24	6.000	4.900	3.90	70.000	14.000	25.000
6.350	1/4 - 20	7.000	5.500	5.10	80.000	16.000	30.000
7.938	5/16 - 18	8.000	6.200	6.60	90.000	18.000	35.000
9.525	3/8 - 16	10.000	8.000	8.00	100.000	20.000	39.000

Machine taps

Taps for UNC threads

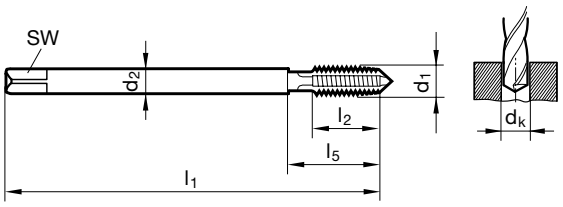
Catalogue no. 73327

GG | ~DIN 376 | C | HSS-E | ni-trided | R | 2B

P	M	K	N	S	H
		●			

Application recommendations page 20

- for through and blind holes
- cast materials such as grey cast iron, malleable cast iron, spheroidal graphite cast iron



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
12.700	1/2 - 13	9.000	7.000	10.80	110.000	25.000	49.000
15.875	5/8 - 11	12.000	9.000	13.50	110.000	30.000	53.000
19.050	3/4 - 10	14.000	11.000	16.50	125.000	33.000	62.000

Machine taps

Taps for UNF threads

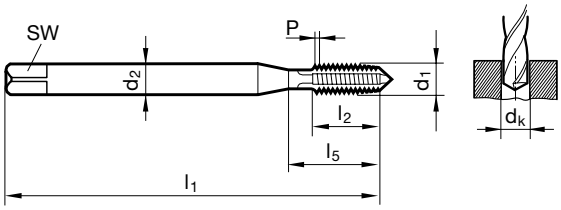
Catalogue no. 53784

Produktiv N-X | ~DIN 371/374 | B | HSS-E | Al-TiZrN | R | 2BX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.184	2 - 64	2.800	2.100	1.85	45.000	9.000	14.500
2.845	4 - 48	3.500	2.700	2.40	56.000	10.000	18.000
3.505	6 - 40	4.000	3.000	2.95	56.000	11.000	20.000
4.166	8 - 36	4.500	3.400	3.50	63.000	12.000	21.000
4.826	10 - 32	6.000	4.900	4.10	70.000	14.000	25.000
5.486	12 - 28	6.000	4.900	4.60	80.000	16.000	30.000
6.350	1/4 - 28	7.000	5.500	5.50	80.000	16.000	30.000
7.938	5/16 - 24	8.000	6.200	6.90	90.000	17.000	35.000
9.525	3/8 - 24	10.000	8.000	8.50	90.000	18.000	35.000
11.113	7/16 - 20	8.000	6.200	9.90	100.000	22.000	42.000
12.700	1/2 - 20	9.000	7.000	11.50	100.000	20.000	40.000
14.288	9/16 - 18	11.000	9.000	12.90	100.000	22.000	40.000
15.875	5/8 - 18	12.000	9.000	14.50	100.000	22.000	44.000
19.050	3/4 - 16	14.000	11.000	17.50	110.000	25.000	44.000
22.225	7/8 - 14	18.000	14.500	20.40	125.000	25.000	44.000
25.400	1 - 12	18.000	14.500	23.25	140.000	28.000	50.000

Machine taps

Taps for UNF threads

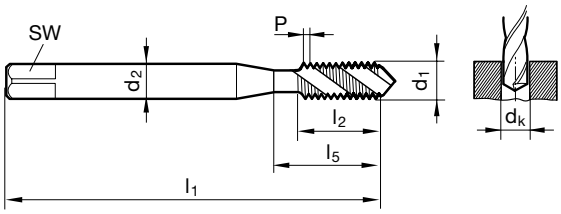
Catalogue no. 53785

Intensiv N-X | ~DIN 371/374 | C | HSS-E | TiAlN-H | R | 2BX

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
2.184	2 - 64	2.800	2.100	1.85	45.000	5.000	14.500
2.845	4 - 48	3.500	2.700	2.40	56.000	6.000	18.000
3.505	6 - 40	4.000	3.000	2.95	56.000	6.500	20.000
4.166	8 - 36	4.500	3.400	3.50	63.000	7.000	21.000
4.826	10 - 32	6.000	4.900	4.10	70.000	8.500	25.000
5.486	12 - 28	6.000	4.900	4.60	80.000	9.500	30.000
6.350	1/4 - 28	7.000	5.500	5.50	80.000	9.500	30.000
7.938	5/16 - 24	8.000	6.200	6.90	90.000	11.500	35.000
9.525	3/8 - 24	10.000	8.000	8.50	90.000	11.500	35.000
11.113	7/16 - 20	8.000	6.200	9.90	100.000	13.000	42.000
12.700	1/2 - 20	9.000	7.000	11.50	100.000	13.000	40.000
14.288	9/16 - 18	11.000	9.000	12.90	100.000	14.000	40.000
15.875	5/8 - 18	12.000	9.000	14.50	100.000	15.000	44.000
19.050	3/4 - 16	14.000	11.000	17.50	110.000	16.000	44.000
22.225	7/8 - 14	18.000	14.500	20.40	125.000	19.000	44.000
25.400	1 - 12	18.000	14.500	23.25	140.000	22.000	50.000

Machine taps

Taps for UNF threads

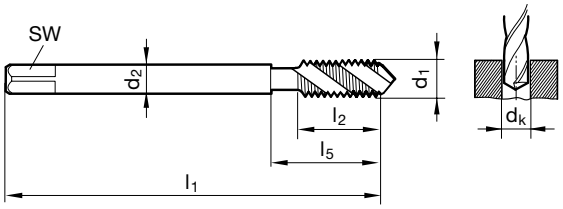
Catalogue no. 73324

Intensiv N | ~DIN 374 | C | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
4.826	10 - 32	3.500	2.700	4.10	70.000	8.500	25.000
6.350	1/4 - 28	4.500	3.400	5.50	80.000	9.500	30.000
7.938	5/16 - 24	6.000	4.900	6.90	90.000	11.500	35.000
9.525	3/8 - 24	7.000	5.500	8.50	90.000	11.500	35.000
11.113	7/16 - 20	8.000	6.200	9.90	100.000	13.000	42.000
12.700	1/2 - 20	9.000	7.000	11.50	100.000	13.000	40.000
15.875	5/8 - 18	12.000	9.000	14.50	100.000	15.000	44.000

Machine taps

Taps for UNF threads

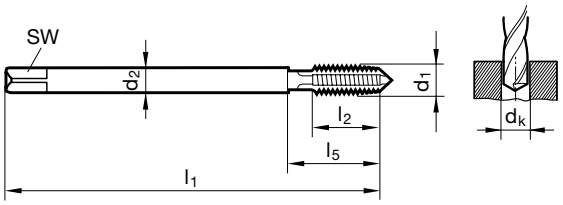
Catalogue no. 73299

VA | ~DIN 374 | B | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
4.826	10 - 32	3.500	2.700	4.10	70.000	14.000	25.000
6.350	1/4 - 28	4.500	3.400	5.50	80.000	16.000	30.000
9.525	3/8 - 24	7.000	5.500	8.50	90.000	18.000	35.000
15.875	5/8 - 18	12.000	9.000	14.50	100.000	22.000	44.000

Machine taps

Taps for UNF threads

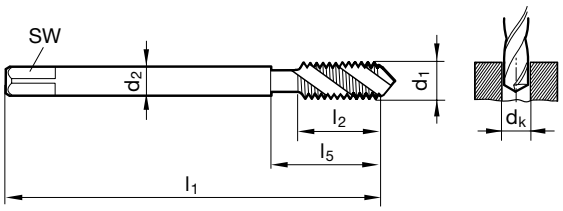
Catalogue no. 73306

Intensiv HD | ~DIN 374 | C | HSS-E | steam tempered | R | 2B

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
4.826	10 - 32	3.500	2.700	4.10	70.000	8.500	25.000
6.350	1/4 - 28	4.500	3.400	5.50	80.000	9.500	30.000
7.938	5/16 - 24	6.000	4.900	6.90	90.000	11.500	35.000
9.525	3/8 - 24	7.000	5.500	8.50	90.000	11.500	35.000
11.113	7/16 - 20	8.000	6.200	9.90	100.000	13.000	42.000
12.700	1/2 - 20	9.000	7.000	11.50	100.000	13.000	40.000
15.875	5/8 - 18	12.000	9.000	14.50	100.000	15.000	44.000

Machine taps

Taps for BSP threads

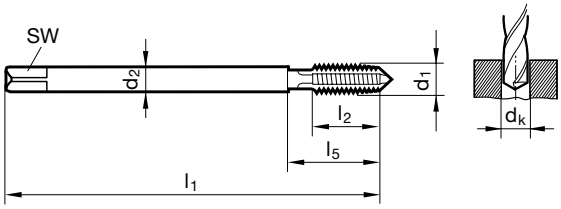
Catalogue no. 53787

Produktiv N-X | DIN 5156 | B | HSS-E | Al-TiZrN | R

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
7.723	G1/16	28	6.000	4.900	6.80	90.000	18.000	30.000
9.728	G1/8	28	7.000	5.500	8.80	90.000	18.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	20.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	22.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	25.000	44.000
22.911	G5/8	14	18.000	14.500	21.00	125.000	25.000	48.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	28.000	53.000
30.201	G7/8	14	22.000	18.000	28.25	150.000	28.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	30.000	56.000

Machine taps

Taps for BSP threads

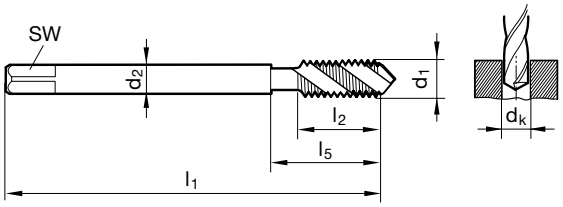
Catalogue no. 53788

Intensiv N-X | DIN 5156 | C | HSS-E | TiAlN-H | R

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
7.723	G1/16	28	6.000	4.900	6.80	90.000	11.000	30.000
9.728	G1/8	28	7.000	5.500	8.80	90.000	11.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	14.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	14.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	18.000	44.000
22.911	G5/8	14	18.000	14.500	21.00	125.000	18.000	48.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	20.000	53.000
30.201	G7/8	14	22.000	18.000	28.25	150.000	22.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	24.000	56.000

Machine taps

Taps for BSP threads

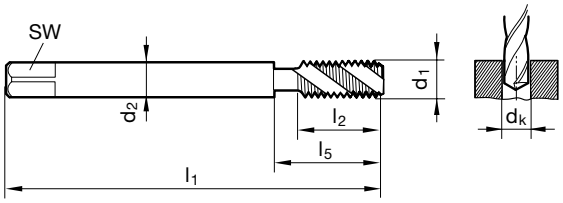
Catalogue no. 53775

Intensiv N-X | DIN 5156 | E | HSS-E | TiAlN-H | R

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for blind holes
- flutes with appr. 45° right-hand helix
- chip evacuation in shank direction
- short chamfer for thread depths close to bottom of the hole
- for universal application
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
7.723	G1/16	28	6.000	4.900	6.80	90.000	11.000	30.000
9.728	G1/8	28	7.000	5.500	8.80	90.000	11.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	14.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	14.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	18.000	44.000
22.911	G5/8	14	18.000	14.500	21.00	125.000	18.000	48.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	20.000	53.000
30.201	G7/8	14	22.000	18.000	28.25	150.000	22.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	24.000	56.000

Machine taps

Taps for BSP threads

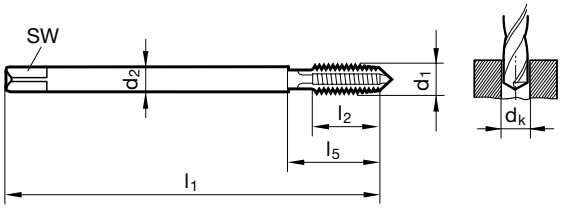
Catalogue no. 73321

Produktiv N | DIN 5156 | B | HSS-E | steam tempered | R

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28	7.000	5.500	8.80	90.000	18.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	20.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	22.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	25.000	44.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	28.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	30.000	56.000

Machine taps

Taps for BSP threads

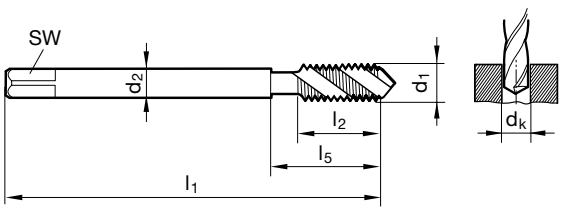
Catalogue no. 73325

Intensiv N | DIN 5156 | C | HSS-E | steam tempered | R

P	M	K	N	S	H
●	○	○	○		

Application recommendations page 10

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28	7.000	5.500	8.80	90.000	11.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	14.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	14.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	18.000	44.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	20.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	24.000	56.000

Machine taps

Taps for BSP threads

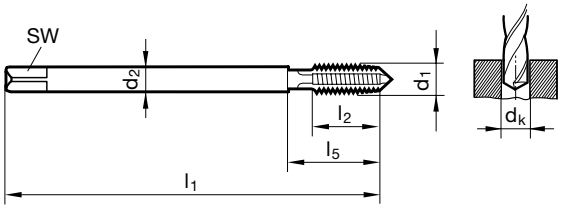
Catalogue no. 73300

VA | DIN 5156 | B | HSS-E | steam tempered | R

P	M	K	N	S	H
	●			○	

Application recommendations page 12

- for through holes
- with spiral point
- chip evacuation in feed direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28	7.000	5.500	8.80	90.000	18.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	20.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	22.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	25.000	44.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	28.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	30.000	56.000

Machine taps

Taps for BSP threads

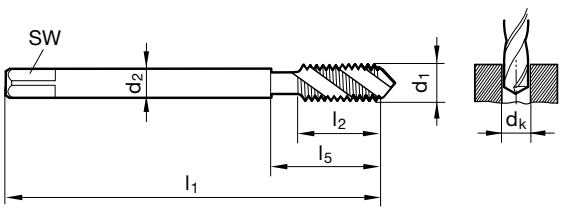
Catalogue no. 73288

Intensiv HD | DIN 5156 | C | HSS-E | steam tempered | R

P	M	K	N	S	H
	●			○	

Application recommendations page 13

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- acid resist./stainless steels
- tough, long-chipping materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28	7.000	5.500	8.80	90.000	11.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	14.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	14.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	18.000	44.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	20.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	24.000	56.000

Machine taps

Taps for BSP threads

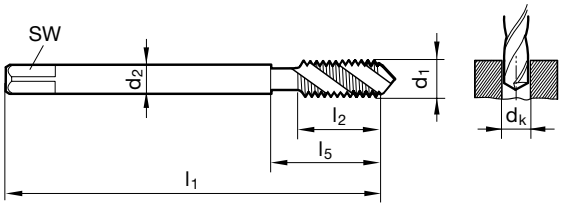
Catalogue no. 73286

Intensiv N | DIN 5156 | C | HSS-E | bright | R

P	M	K	N	S	H
●			○		

Application recommendations page 18

- for blind holes
- flutes with appr. 40° right-hand helix
- chip evacuation in shank direction
- general application
- steel to 800 N/mm²



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28	7.000	5.500	8.80	90.000	11.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	14.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	14.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	18.000	44.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	20.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	24.000	56.000
41.910	G1 1/4	11	32.000	24.000	39.50	170.000	25.000	57.000

Machine taps

Taps for BSP threads

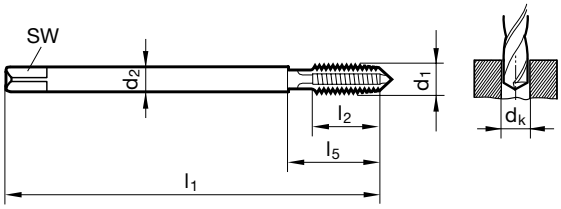
Catalogue no. 73345

GG | DIN 5156 | C | HSS-E | ni-trided | R

P	M	K	N	S	H
		●			

Application recommendations page 20

- for through and blind holes
- cast materials such as grey cast iron, malleable cast iron, spheroidal graphite cast iron



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28	7.000	5.500	8.80	90.000	18.000	35.000
13.157	G1/4	19	11.000	9.000	11.80	100.000	20.000	40.000
16.662	G3/8	19	12.000	9.000	15.25	100.000	22.000	44.000
20.955	G1/2	14	16.000	12.000	19.00	125.000	25.000	44.000
26.441	G3/4	14	20.000	16.000	24.50	140.000	28.000	53.000
33.249	G1	11	25.000	20.000	30.75	160.000	30.000	56.000

Machine taps

Taps for BSP threads

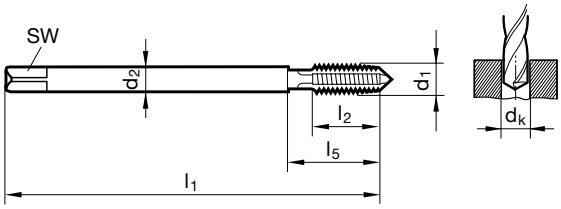
Catalogue no. 53795

Produktiv N-X | DIN 5156 | B | HSS-E | Al-TiZrN | R

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for universal application
- chip evacuation in feed direction
- with spiral point
- for through holes
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
7.723	Rp1/16	28	6.000	4.900	6.55	90.000	18.000	30.000
9.728	Rp1/8	28	7.000	5.500	8.60	90.000	18.000	35.000
13.157	Rp1/4	19	11.000	9.000	11.50	100.000	20.000	40.000
16.662	Rp3/8	19	12.000	9.000	15.00	100.000	22.000	44.000
20.955	Rp1/2	14	16.000	12.000	18.50	125.000	25.000	44.000
26.441	Rp3/4	14	20.000	16.000	24.00	140.000	28.000	53.000

Machine taps

Taps for BSP threads

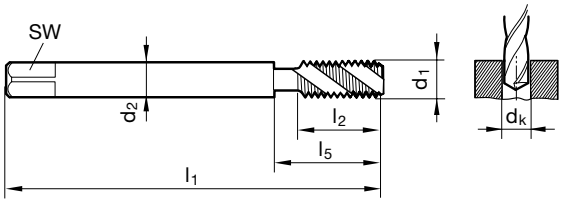
Catalogue no. 53796

Intensiv N-X | DIN 5156 | C | HSS-E | TiAlN-H | R

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for universal application
- chip evacuation in shank direction
- flutes with appr. 45° right-hand helix
- for blind holes
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
7.723	Rp1/16	28	6.000	4.900	6.55	90.000	11.000	30.000
9.728	Rp1/8	28	7.000	5.500	8.60	90.000	11.000	35.000
13.157	Rp1/4	19	11.000	9.000	11.50	100.000	14.000	40.000
16.662	Rp3/8	19	12.000	9.000	15.00	100.000	14.000	44.000
20.955	Rp1/2	14	16.000	12.000	18.50	125.000	18.000	44.000
26.441	Rp3/4	14	20.000	16.000	24.00	140.000	20.000	53.000

Machine taps

Taps for BSW threads

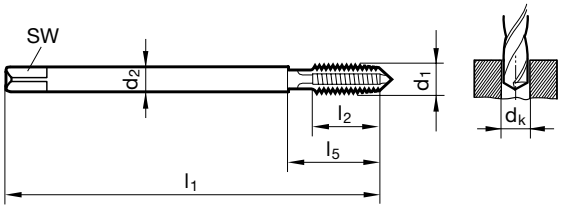
Catalogue no. 53793

~DIN 371 | B | HSS-E | Al-TiZrN | R

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 6

- for universal application
- chip evacuation in feed direction
- with spiral point
- for through holes
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
3.175	W1/8	40	3.500	2.700	2.50	56.000	11.000	18.000
4.762	W3/16	24	6.000	4.900	3.60	70.000	14.000	25.000
6.350	W1/4	20	7.000	5.500	5.10	80.000	16.000	30.000
7.938	W5/16	18	8.000	6.200	6.50	90.000	18.000	35.000
9.525	W3/8	16	10.000	8.000	7.90	100.000	20.000	39.000
11.113	W7/16	14	8.000	6.200	9.20	100.000	22.000	42.000
12.700	W1/2	12	9.000	7.000	10.50	110.000	25.000	49.000
15.876	W5/8	11	12.000	9.000	13.50	110.000	30.000	53.000
22.226	W7/8	9	18.000	14.500	19.25	140.000	35.000	62.000
25.401	W1	8	18.000	14.500	22.00	160.000	38.000	73.000

Machine taps

Taps for BSW threads

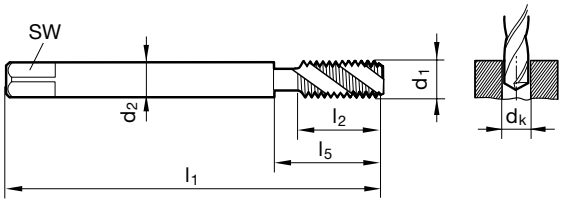
Catalogue no. 53794

~DIN 371 | C | HSS-E | TiAlN-H | R

P	M	K	N	S	H
●	●	○	○	○	

Application recommendations page 8

- for universal application
- chip evacuation in shank direction
- flutes with appr. 45° right-hand helix
- for blind holes
- steel materials up to 1200 N/mm²
- acid resist./stainless steels
- non-ferrous metals
- cast materials



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
3.175	W1/8	40	3.500	2.700	2.50	56.000	7.000	18.000
4.762	W3/16	24	6.000	4.900	3.60	70.000	11.000	25.000
6.350	W1/4	20	7.000	5.500	5.10	80.000	13.000	30.000
7.938	W5/16	18	8.000	6.200	6.50	90.000	14.000	35.000
9.525	W3/8	16	10.000	8.000	7.90	100.000	16.000	39.000
11.113	W7/16	14	8.000	6.200	9.20	100.000	18.000	42.000
12.700	W1/2	12	9.000	7.000	10.50	110.000	20.000	49.000
15.876	W5/8	11	12.000	9.000	13.50	110.000	24.000	53.000
22.226	W7/8	9	18.000	14.500	19.25	140.000	28.000	62.000
25.401	W1	8	18.000	14.500	22.00	160.000	32.000	73.000

Machine taps

Taps for NPT threads

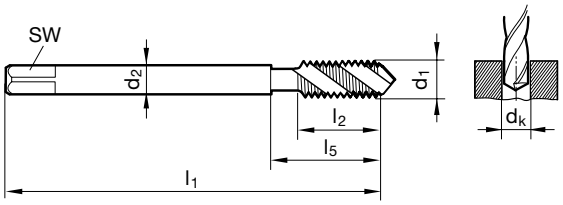
Catalogue no. 73293

VA | WN | C | HSS-E | steam tempered | R

P	M	K	N	S	H
○	●	○		○	

Application recommendations page 12

- for blind holes
- flutes with appr. 25° right-hand helix
- for thread depths up to 2xD
- chip evacuation in shank direction



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
10.620	1/8	27	11.000	9.000	8.50	90.000	15.000	29.000
14.140	1/4	18	14.000	11.000	11.20	100.000	21.000	40.000
17.570	3/8	18	16.000	12.000	14.40	110.000	21.000	35.000
21.900	1/2	14	18.000	14.500	18.00	125.000	27.000	44.000
27.230	3/4	14	22.000	18.000	23.40	140.000	27.000	52.000

Machine taps

Short taps for NPT threads

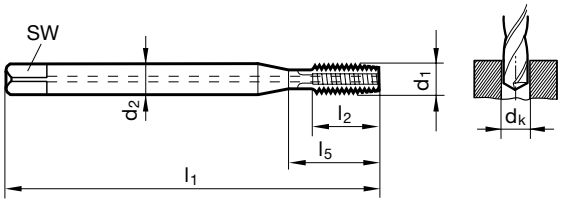
Catalogue no. 73295

N	WN	C	HSS-E	bright	R

P	M	K	N	S	H
●		○	○		

Application recommendations page 21

- for through and blind holes
- for thread depths up to 1xD
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
8.190	1/16	27	6.000	4.900	6.15	56.000	14.000	27.000
10.620	1/8	27	7.000	5.500	8.40	63.000	15.000	29.000
14.140	1/4	18	11.000	9.000	11.10	63.000	21.000	33.000
17.570	3/8	18	12.000	9.000	14.30	70.000	21.000	35.000
21.900	1/2	14	16.000	12.000	17.90	80.000	27.000	41.000
27.230	3/4	14	20.000	16.000	23.30	100.000	27.000	42.000
34.180	1	11	25.000	20.000	29.00	110.000	32.000	53.000

Machine taps

Short taps for PG threads

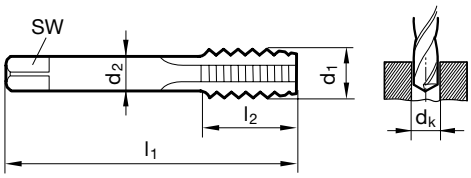
Catalogue no. 73296

N	DIN 40432	B	HSS-E	bright	R

P	M	K	N	S	H
●		○	○		

Application recommendations page 21

- for through holes
- with spiral point
- chip evacuation in feed direction
- for universal application
- steel materials up to 1100 N/mm²



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm
12.500	PG7	20	9.000	7.000	11.40	70.000	22.000
15.200	PG9	18	12.000	9.000	14.00	70.000	22.000
18.600	PG11	18	14.000	11.000	17.30	80.000	22.000
20.400	PG13.5	18	16.000	12.000	19.00	80.000	22.000
22.500	PG16	18	18.000	14.500	21.30	80.000	22.000

Machine nut taps

Machine nut taps for ISO metric threads

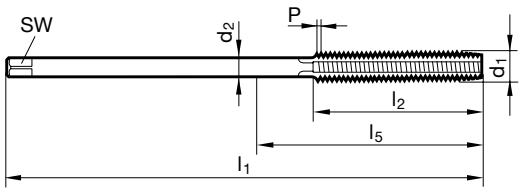
Catalogue no. 73243

N	DIN 357	HSS-E	bright	R	ISO2/6H

P	M	K	N	S	H
●	○	●	●		

Application recommendations page 21

- for through holes
- for nuts with thread depths up to 1xD
- chamfer lead appr. 20 threads



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	2.200	1.800	2.50	70.000	22.000	30.000
M3,5	0.600	2.500	2.100	2.90	80.000	25.000	31.000
M4	0.700	2.800	2.100	3.30	90.000	25.000	33.000
M5	0.800	3.500	2.700	4.20	100.000	28.000	38.000
M6	1.000	4.500	3.400	5.00	110.000	32.000	44.000
M8	1.250	6.000	4.900	6.80	125.000	40.000	61.000
M10	1.500	7.000	5.500	8.50	140.000	45.000	85.000
M12	1.750	9.000	7.000	10.20	180.000	50.000	120.000
M14	2.000	11.000	9.000	12.00	200.000	56.000	130.000
M16	2.000	12.000	9.000	14.00	200.000	63.000	145.000
M18	2.500	14.000	11.000	15.50	220.000	63.000	155.000

Machine combination drill taps

Machine combination drill taps for ISO metric threads

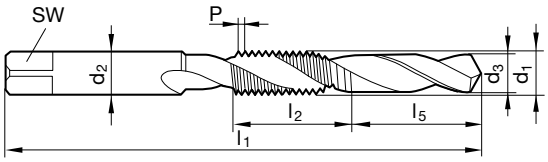
Catalogue no. 73248

N | WN | D | HSS-E | bright | R | ISO2/6H

P	M	K	N	S	H
●	○	●	●		

Application recommendations page 21

- for through holes
- steel to 800 N/mm²

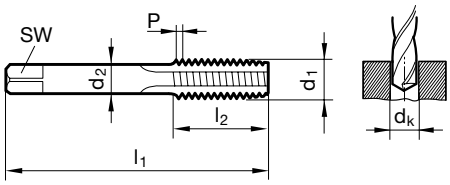


d1	P mm	Code no.	d2 mm	d3 mm	SW mm	l1 mm	l5 mm	l2 mm
M3	0.500	3.000	3.500	2.500	2.700	62.000	11.000	12.000
M4	0.700	4.000	4.500	3.300	3.400	66.000	10.000	16.000
M5	0.800	5.000	6.000	4.200	4.900	75.000	12.000	18.000
M6	1.000	6.000	6.000	5.000	4.900	81.000	14.000	20.000
M8	1.250	8.000	6.000	6.800	4.900	93.000	20.000	12.000
M10	1.500	10.000	7.000	8.500	5.500	99.000	22.000	14.000
M12	1.750	12.000	9.000	10.200	7.000	106.000	25.000	16.000

Hand taps

Hand taps for ISO-metric threads, set, right hand cutting

Catalogue no. 73531



Produktiv N | DIN 352 | A/D/C | HSS | bright | R | ISO2/6H

P	M	K	N	S	H
●	○	●	●		

Application recommendations page 21

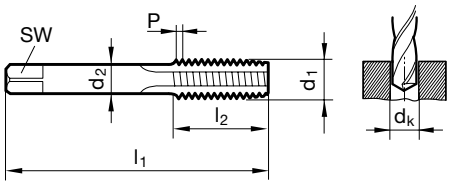
- for through and blind holes
- tap set, straight-fluted, specially for manual use but also for machine application
- first taper and second tap with different outside and flank diameters
- the bottoming tap can be used as a short machine tap
- first tap 73101
- second tap 73102
- bottoming tap 73103

d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm
M1,2	0.250	2.500	2.100	0.95	32.000	5.500
M1,4	0.300	2.500	2.100	1.10	32.000	7.000
M1,6	0.350	2.500	2.100	1.25	32.000	8.000
M1,7	0.350	2.500	2.100	1.35	32.000	8.000
M2,3	0.400	2.800	2.100	1.90	36.000	9.000
M 2	0.400	2.800	2.100	1.60	36.000	8.000
M2,6	0.450	2.800	2.100	2.15	40.000	9.000
M3	0.500	3.500	2.700	2.50	40.000	10.000
M3,5	0.600	4.000	3.000	2.90	45.000	12.000
M4	0.700	4.500	3.400	3.30	45.000	12.000
M4,5	0.750	6.000	4.900	3.70	50.000	14.000
M5	0.800	6.000	4.900	4.20	50.000	14.000
M6	1.000	6.000	4.900	5.00	56.000	16.000
M7	1.000	6.000	4.900	6.00	56.000	16.000
M8	1.250	6.000	4.900	6.80	63.000	17.000
M10	1.500	7.000	5.500	8.50	70.000	20.000
M12	1.750	9.000	7.000	10.20	75.000	24.000
M16	2.000	12.000	9.000	14.00	80.000	26.000
M18	2.500	14.000	11.000	15.50	95.000	30.000
M20	2.500	16.000	12.000	17.50	95.000	32.000

Hand taps

Hand taps for ISO-metric threads, set, left hand cutting

Catalogue no. 73532



N	DIN 352	A/D/C	HSS	bright	L	ISO2/6H

P	M	K	N	S	H
●	○	●	●		

Application recommendations page 21

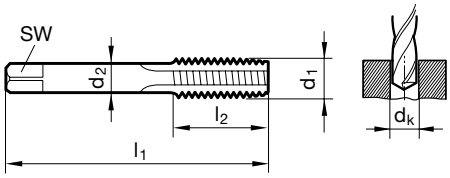
- for through and blind holes
- tap set, straight-fluted, specially for manual use but also for machine application
- first taper and second tap with different outside and flank diameters
- the bottoming tap can be used as a short machine tap
- first tap 73105
- second tap 73106
- bottoming tap 73107

d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm
M4	0.700	4.500	3.400	3.30	45.000	12.000
M6	1.000	6.000	4.900	5.00	56.000	16.000
M8	1.250	6.000	4.900	6.80	63.000	17.000
M10	1.500	7.000	5.500	8.50	70.000	20.000
M12	1.750	9.000	7.000	10.20	75.000	24.000
M14	2.000	11.000	9.000	12.00	80.000	26.000
M16	2.000	12.000	9.000	14.00	80.000	26.000

Hand taps

Hand taps for ISO-metric fine threads, set

Catalogue no. 73521



N	DIN 2181	D/C	HSS	bright	R	ISO2/6H

P	M	K	N	S	H
●	○	●	●		

Application recommendations page 21

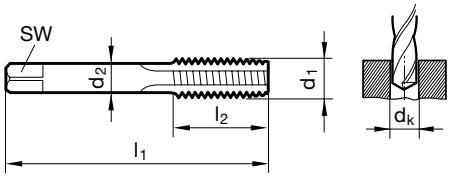
- for through and blind holes
- tap set, straight-fluted, specially for manual use but also for machine application
- the bottoming tap can be used as a short machine tap
- first tap 73110
- bottoming tap 73111

Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm
5.003	M5 x 0,5	6.000	4.900	4.50	50.000	11.000
6.004	M6 x 0,75	6.000	4.900	5.20	56.000	12.000
10.006	M10 x 1,25	7.000	5.500	8.80	63.000	20.000
11.005	M11 x 1	8.000	6.200	10.00	63.000	18.000

Hand taps

Hand taps for UNC threads, set

Catalogue no. 73535



N	~DIN 352	A/D/C	HSS	bright	R	2B

P	M	K	N	S	H
●	○	●	●		

Application recommendations page 21

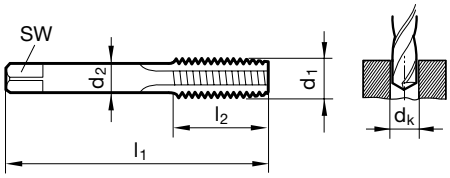
- for through and blind holes
- tap set, straight-fluted, specially for manual use but also for machine application
- first taper and second tap with different outside and flank diameters
- the bottoming tap can be used as a short machine tap
- first tap 73301
- second tap 73302
- bottoming tap 73303

Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm
3.175	5 - 40	3.500	2.700	2.65	40.000	11.000
3.505	6 - 32	4.000	3.000	2.85	45.000	12.000
4.166	8 - 32	4.500	3.400	3.50	45.000	12.000
6.350	1/4 - 20	6.000	4.900	5.10	56.000	16.000
7.938	5/16 - 18	6.000	4.900	6.60	63.000	18.000
9.525	3/8 - 16	7.000	5.500	8.00	70.000	20.000
11.113	7/16 - 14	8.000	6.200	9.40	70.000	22.000
12.700	1/2 - 13	9.000	7.000	10.80	75.000	25.000
15.875	5/8 - 11	12.000	9.000	13.50	80.000	30.000
19.050	3/4 - 10	14.000	11.000	16.50	95.000	33.000

Hand taps

Hand taps for BSW threads, set

Catalogue no. 73534



N | ~DIN 352 | A/D/C | HSS | bright | R

P	M	K	N	S	H
●	○	●	●		

Application recommendations page 21

- for through and blind holes
- tap set, straight-fluted, specially for manual use but also for machine application
- first taper and second tap with different outside and flank diameters
- the bottoming tap can be used as a short machine tap
- first tap 73311
- second tap 73312
- bottoming tap 73313

Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm
3.175	W1/8	3.500	2.700	2.50	40.000	11.000
3.969	W5/32	4.500	3.400	3.20	45.000	12.000
4.762	W3/16	6.000	4.900	3.60	50.000	14.000
11.113	W7/16	8.000	6.200	9.20	70.000	22.000
14.287	W9/16	11.000	9.000	12.00	80.000	28.000

Fluteless taps with oil grooves

Fluteless taps for ISO metric threads

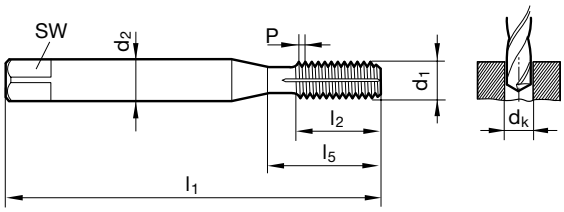
Catalogue no. 53630

Durativ N-X | ~DIN 371/376 | C | HSS-E-PM | TiCN | R | 4HX/6HX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M1	0.250	2.500	2.100	0.90	40.000	4.000	4.000
M1,2	0.250	2.500	2.100	1.10	40.000	4.800	4.800
M1,4	0.300	2.500	2.100	1.25	40.000	5.600	5.600
M1,6	0.350	2.500	2.100	1.45	40.000	6.400	6.400
M1,7	0.350	2.500	2.100	1.55	40.000	6.800	6.800
M1,8	0.350	2.500	2.100	1.65	40.000	7.300	7.300
M 2	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
M3,5	0.600	4.000	3.000	3.25	56.000	12.000	20.000
M4	0.700	4.500	3.400	3.70	63.000	12.000	21.000
M4,5	0.750	6.000	4.900	4.20	70.000	14.000	25.000
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
M7	1.000	7.000	5.500	6.55	80.000	16.000	30.000
M8	1.250	8.000	6.200	7.40	90.000	17.000	35.000
M9	1.250	9.000	7.000	8.40	90.000	17.000	35.000
M10	1.500	10.000	8.000	9.30	100.000	20.000	39.000
M11	1.500	8.000	6.200	10.30	100.000	20.000	42.000
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

Fluteless taps with coolant ducts for metric ISO threads

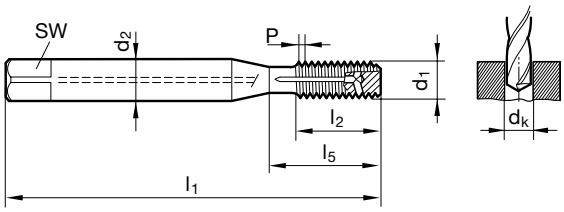
Catalogue no. 53610

Durativ N-X | ~DIN 371/376 | C | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- radial coolant exit



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps with coolant ducts for metric ISO threads

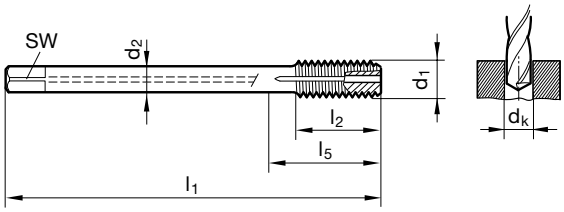
Catalogue no. 53618

Durativ N-X | ~DIN 371/376 | E | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- with internal coolant duct ≥ M5
- short chamfer for thread depths close to bottom of the hole



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	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

Fluteless taps for ISO metric threads

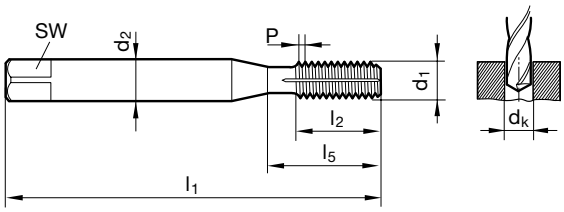
Catalogue no. 53631

Durativ N-X | ~DIN 371/376 | C | HSS-E-PM | TiCN | R | 6GX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	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

Fluteless taps with oil grooves for ISO metric threads

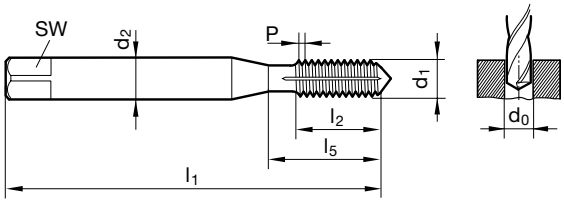
Catalogue no. 73120

Durativ | ~DIN 371 | C | HSS-E | bright | R | 6HX

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/mm²
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M3	0.500	3.500	2.700	2.80	56.000	10.000	18.000
M3,5	0.600	4.000	3.000	3.25	56.000	12.000	20.000
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

Fluteless taps with oil grooves for ISO metric threads

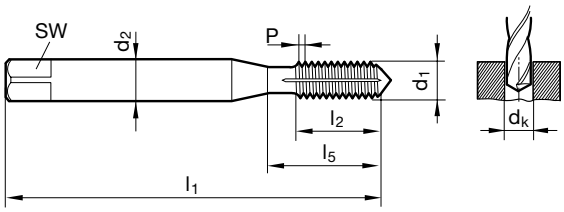
Catalogue no. 63120

Durativ | ~DIN 371 | C | HSS-E | TiN | R | 6HX

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/mm²
- 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

Fluteless taps with oil grooves for ISO metric threads

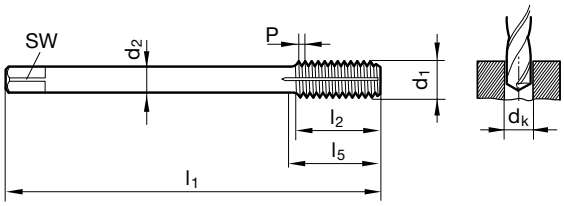
Catalogue no. 63122

Durativ | ~DIN 376 | C | HSS-E | TiN | R | 6HX

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/mm²
- acid resist./stainless steels
- tough, long-chipping materials



d1	P	d2	SW	dk	l1	l2	l5
	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

Fluteless taps with oil grooves for ISO metric threads

Catalogue no. 53620

Durativ | ~DIN 371 | C | HSS-E-PM | Al-CrN | R | 6HX

P	M	K	N	S	H
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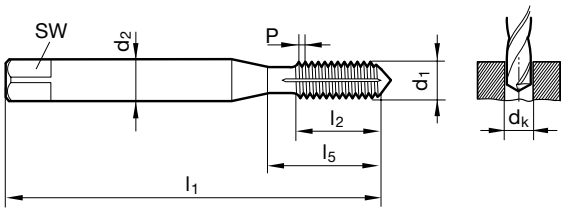
Application recommendations page 24

- for through and blind holes
- for large thread depths
- for universal application
- steel materials up to 1000 N/mm²
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps with oil grooves for ISO metric threads

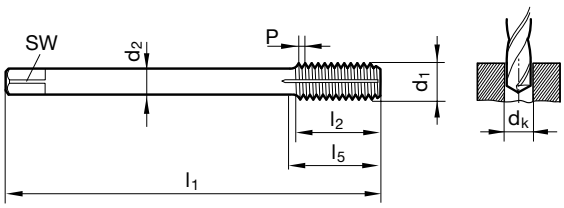
Catalogue no. 53622

Durativ | ~DIN 376 | C | HSS-E-PM | Al-CrN | R | 6HX

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/mm²
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps with coolant ducts for metric ISO threads

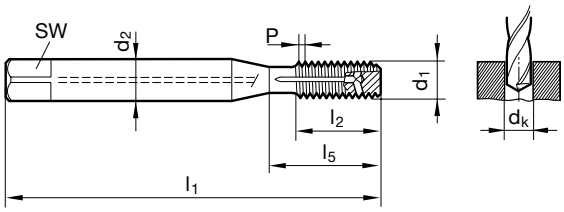
Catalogue no. 63013

Durativ | ~DIN 371 | C | VHM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	○	●	●	

Application recommendations page 24

- for through and blind holes
- for large thread depths
- for universal application
- radial coolant exit
- steel materials up to 1000 N/mm²
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps with oil grooves for ISO metric threads

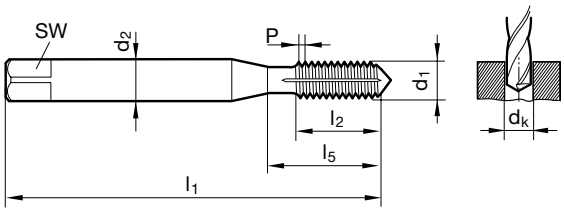
Catalogue no. 63119

Durativ | ~DIN 371 | C | HSS-E | TiN | R | 6GX

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/mm²
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps with oil grooves for ISO metric threads

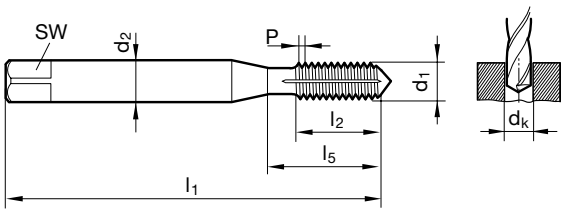
Catalogue no. 53621

Durativ | ~DIN 371 | C | HSS-E-PM | Al-CrN | R | 6GX

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/mm²
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps for ISO metric fine threads

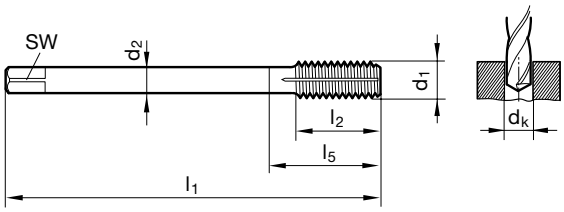
Catalogue no. 53632

Durativ **N-X** | ~DIN **374** | **C** | **HSS-E-PM** | **TiCN** | **R** | **6HX**

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- 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
3.002	M3 x 0,35	2.200	1.800	2.85	56.000	7.000	18.000
4.002	M4 x 0,35	2.800	2.100	3.85	63.000	8.000	21.000
4.003	M4 x 0,5	2.800	2.100	3.80	63.000	8.000	21.000
5.003	M5 x 0,5	3.500	2.700	4.80	70.000	10.000	25.000
6.003	M6 x 0,5	4.500	3.400	5.75	80.000	13.000	30.000
6.004	M6 x 0,75	4.500	3.400	5.65	80.000	13.000	30.000
8.004	M8 x 0,75	6.000	4.900	7.65	80.000	14.000	30.000
8.005	M8 x 1	6.000	4.900	7.55	90.000	17.000	35.000
9.005	M9 x 1	7.000	5.500	8.55	90.000	16.000	35.000
10.004	M10 x 0,75	7.000	5.500	9.65	90.000	16.000	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
11.005	M11 x 1	8.000	6.200	10.55	90.000	20.000	33.000
12.005	M12 x 1	9.000	7.000	11.55	100.000	20.000	40.000
12.006	M12 x 1,25	9.000	7.000	11.40	100.000	20.000	40.000
12.007	M12 x 1,5	9.000	7.000	11.30	100.000	20.000	40.000
14.005	M14 x 1	11.000	9.000	13.55	100.000	20.000	40.000
14.006	M14 x 1,25	11.000	9.000	13.40	100.000	20.000	40.000
14.007	M14 x 1,5	11.000	9.000	13.30	100.000	20.000	40.000
16.005	M16 x 1	12.000	9.000	15.55	100.000	22.000	44.000
16.007	M16 x 1,5	12.000	9.000	15.30	100.000	22.000	44.000
18.005	M18 x 1	14.000	11.000	17.55	110.000	25.000	44.000
18.007	M18 x 1,5	14.000	11.000	17.30	110.000	25.000	44.000
18.008	M18 x 2	14.000	11.000	17.10	125.000	30.000	58.000
20.005	M20 x 1	16.000	12.000	19.55	125.000	25.000	44.000
20.007	M20 x 1,5	16.000	12.000	19.30	125.000	25.000	44.000
20.008	M20 x 2	16.000	12.000	19.10	140.000	32.000	60.000
22.005	M22 x 1	18.000	14.500	21.55	125.000	25.000	44.000
22.007	M22 x 1,5	18.000	14.500	21.30	125.000	25.000	44.000
22.008	M22 x 2	18.000	14.500	21.10	140.000	32.000	62.000
24.005	M24 x 1	18.000	14.500	23.55	140.000	28.000	48.000
24.007	M24 x 1,5	18.000	14.500	23.30	140.000	28.000	48.000
24.008	M24 x 2	18.000	14.500	23.10	140.000	28.000	48.000

Fluteless taps with oil grooves

Fluteless taps with coolant ducts for ISO metric fine threads

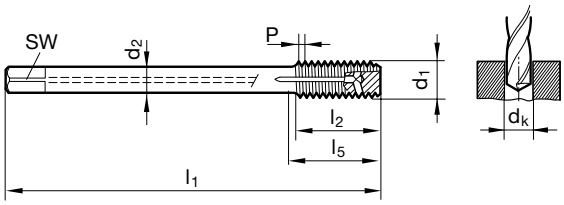
Catalogue no. 53612

Durativ N-X | ~DIN 374 | C | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- radial coolant exit



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps with coolant ducts for ISO metric fine threads

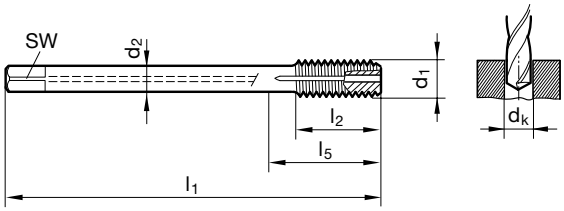
Catalogue no. 53619

Durativ N-X | ~DIN 374 | E | HSS-E-PM | TiCN | R | 6HX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys
- with axial coolant duct



Code no.	d1	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Fluteless taps for ISO metric fine threads

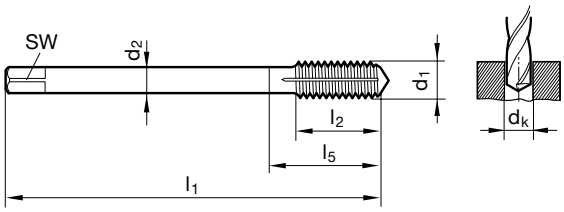
Catalogue no. 63703

Durativ | ~DIN 374 | C | HSS-E | TiN | R | 6HX

P	M	K	N	S	H
●	●	●	○		

Application recommendations page 24

- for through and blind holes
- steel materials of up to 1200 N/mm²
- 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
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

Fluteless taps with oil grooves

Fluteless taps for UNC threads

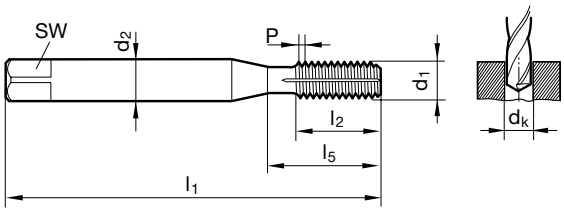
Catalogue no. 53633

Durativ N-X | ~DIN 371/376 | C | HSS-E-PM | TiCN | R | 2BX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- 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

Fluteless taps for UNF threads

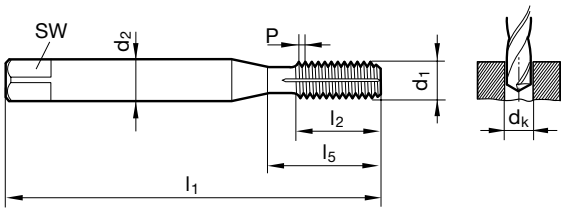
Catalogue no. 53634

Durativ N-X | ~DIN 371/374 | C | HSS-E-PM | TiCN | R | 2BX

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- 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 - 48	3.500	2.700	2.60	56.000	10.000	18.000
3.505	6 - 40	4.000	3.000	3.20	56.000	11.000	20.000
4.166	8 - 36	4.500	3.400	3.85	63.000	12.000	21.000
4.826	10 - 32	6.000	4.900	4.45	70.000	14.000	25.000
5.486	12 - 28	6.000	4.900	5.10	80.000	16.000	30.000
6.350	1/4 - 28	7.000	5.500	5.95	80.000	16.000	30.000
7.938	5/16 - 24	8.000	6.200	7.45	90.000	18.000	35.000
9.525	3/8 - 24	10.000	8.000	9.05	100.000	18.000	39.000
11.113	7/16 - 20	8.000	6.200	10.55	100.000	22.000	42.000
12.700	1/2 - 20	9.000	7.000	12.10	100.000	20.000	40.000
14.288	9/16 - 18	11.000	9.000	13.65	100.000	22.000	40.000
15.875	5/8 - 18	12.000	9.000	15.25	100.000	22.000	44.000
19.050	3/4 - 16	14.000	11.000	18.35	110.000	25.000	44.000

Fluteless taps w/o oil grooves

Fluteless taps for BSP threads

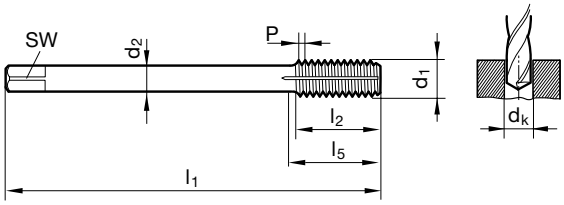
Catalogue no. 53635

Durativ N-X | DIN 2189 | C | HSS-E-PM | TiCN | R

P	M	K	N	S	H
●	●	●	○	●	

Application recommendations page 22

- for through and blind holes
- steel materials of up to 1200 N/mm²
- acid resist./stainless steels
- malleable cast materials
- malleable non-ferrous metals
- special alloys



Code no.	d1	P G/inch	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
9.728	G1/8	28	7.000	5.500	9.30	90.000	18.000	35.000
13.157	G1/4	19	11.000	9.000	12.50	100.000	20.000	40.000
16.662	G3/8	19	12.000	9.000	16.00	100.000	22.000	44.000
20.955	G1/2	14	16.000	12.000	20.00	125.000	25.000	44.000

Fluteless taps

Fluteless taps w/o oil grooves for ISO metric threads

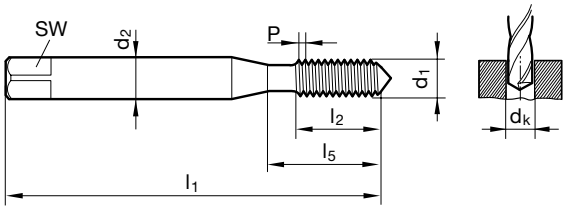
Catalogue no. 63121

Durativ | DIN 371 | C | HSS-E | TiN | R | 6HX

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/mm²
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 mm
M 2	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

Fluteless taps w/o oil grooves for ISO metric threads

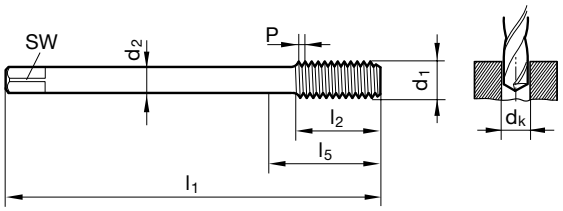
Catalogue no. 63123

Durativ | ~DIN 376 | C | HSS-E | TiN | R | 6HX

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/mm²
- acid resist./stainless steels
- tough, long-chipping materials



d1	P mm	d2 mm	SW mm	dk mm	l1 mm	l2 mm	l5 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

Thread milling cutters

Thread milling cutters with chamfer for ISO metric threads

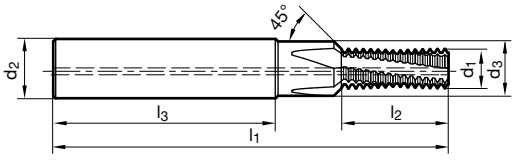
Catalogue no. 53890

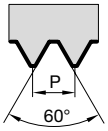
TMC-NX SP | WN | VHM | Al-CrN | R | HB

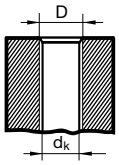
P	M	K	N	S	H
●	●	●	○	○	

Application recommendations page 26

- for universal application
- with internal cooling ≥ M4
- increased number of cutting edges for shortest machining times
- very high process reliability thanks to new geometry
- for thread depths up to 2xD







Code no.	D	P mm	d1 mm	d2 mm	d3 mm	dk mm	l1 mm	l2 mm	l3 mm	Z
3.000	M3	0.500	2.300	6.000	3.400	2.50	48.000	6.800	36.000	5
4.000	M4	0.700	3.100	6.000	4.500	3.30	48.000	8.800	36.000	5
4.003	M4 x 0,5	0.500	3.100	6.000	4.500	3.50	48.000	8.800	36.000	5
5.000	M5	0.800	4.000	6.000	5.500	4.20	54.000	10.800	36.000	5
5.003	M5 x 0,5	0.500	4.000	6.000	5.500	4.50	54.000	10.800	36.000	5
6.000	M6	1.000	4.700	8.000	6.600	5.00	62.000	13.500	36.000	6
6.003	M6 x 0,5	0.500	4.700	8.000	6.600	5.50	62.000	12.800	36.000	6
6.004	M6 x 0,75	0.750	4.700	8.000	6.600	5.20	62.000	13.100	36.000	6
8.000	M8	1.250	6.300	10.000	9.000	6.80	74.000	18.100	40.000	7
8.005	M8 x 1	1.000	6.300	10.000	9.000	7.00	74.000	17.500	40.000	7
10.000	M10	1.500	7.800	12.000	11.000	8.50	80.000	21.800	45.000	7
10.005	M10 x 1	1.000	7.800	12.000	11.000	9.00	80.000	21.500	45.000	7
10.006	M10 x 1,25	1.250	7.800	12.000	11.000	8.80	80.000	21.900	45.000	7
12.000	M12	1.750	9.500	14.000	13.500	10.20	90.000	25.400	45.000	7
12.005	M12 x 1	1.000	9.500	14.000	13.500	11.00	90.000	25.500	45.000	7
12.007	M12 x 1,5	1.500	9.500	14.000	13.500	10.50	90.000	26.300	45.000	7
14.000	M14	2.000	10.800	16.000	15.500	12.00	102.000	31.000	48.000	7
14.007	M14 x 1,5	1.500	10.800	16.000	15.500	12.50	102.000	30.800	48.000	7
16.000	M16	2.000	12.700	18.000	17.500	14.00	102.000	35.000	48.000	8
16.007	M16 x 1,5	1.500	12.700	18.000	17.500	14.50	102.000	33.800	48.000	8

Thread milling cutters

Thread milling cutters with chamfer for ISO metric threads

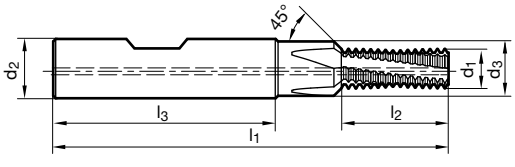
Catalogue no. 53810

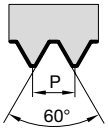
TMC SP | WN | VHM | TiCN | R | HB

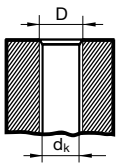
P	M	K	N	S	H
●	●	●	●	●	○

Application recommendations page 30

- thread milling cutter with 45° chamfer, with spiral flutes and internal coolant supply (axial)
- for universal application
- for thread depths up to 2xD







Code no.	D	P mm	d1 mm	d2 mm	d3 mm	dk mm	l1 mm	l2 mm	l3 mm	Z
3.000	M3	0.500	2.300	6.000	3.400	2.50	48.000	6.800	36.000	3
4.000	M4	0.700	3.000	6.000	4.500	3.30	48.000	8.800	36.000	3
5.000	M5	0.800	4.000	6.000	5.500	4.20	54.000	10.800	36.000	3
6.000	M6	1.000	4.800	8.000	6.600	5.00	62.000	13.500	36.000	3
8.000	M8	1.250	6.400	10.000	9.000	6.80	74.000	18.100	40.000	3
10.000	M10	1.500	7.950	12.000	11.000	8.50	80.000	21.800	45.000	4
12.000	M12	1.750	9.950	14.000	13.500	10.20	90.000	25.400	45.000	4
14.000	M14	2.000	11.200	16.000	15.500	12.00	102.000	31.000	48.000	4
16.000	M16	2.000	12.800	18.000	17.500	14.00	102.000	35.000	48.000	4
20.000	M20	2.500	14.500	20.000	21.500	17.50	125.000	41.300	50.000	4

Thread milling cutters

Thread milling cutters without chamfer for ISO metric threads

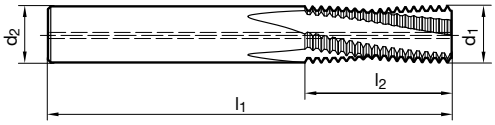
Catalogue no. 53860

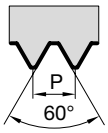
TM SP | WN | VHM | TiCN | R | HB

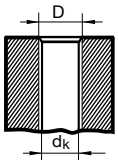
P	M	K	N	S	H
●	○	●	●	○	≤ 55

Application recommendations page 30

- thread milling cutter without chamfer, with spiral flute and internal coolant (axial)
- for universal application
- extra long version for thread depths up to 2.5xD







Code no.	D	P mm	d1 mm	d2 mm	dk mm	l1 mm	l2 mm	Z
6.000	M6	1.000	4.800	6.000	5.00	54.000	16.500	3
8.000	M8	1.250	6.400	8.000	6.80	62.000	21.900	3
10.000	M10	1.500	7.950	10.000	8.50	74.000	26.300	3
12.000	M12	1.750	9.950	10.000	10.20	74.000	32.400	4
14.000	M14	2.000	11.200	12.000	12.00	90.000	37.000	4
16.000	M16	2.000	12.800	14.000	14.00	90.000	43.000	4
20.000	M20	2.500	14.950	16.000	17.50	102.000	48.800	4

Thread milling cutters

Thread milling cutters without chamfer for ISO metric threads

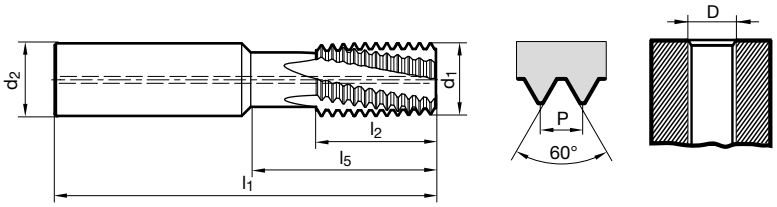
Catalogue no. 73830

TMU SP | WN | VHM | TiCN | R | HB

P	M	K	N	S	H
●	●	●	●	●	≤ 55

Application recommendations page 30

- thread milling cutter without chamfer, with spiral flute and internal coolant (axial)
- universal thread milling cutters for internal threads M / MF
- for thread depths up to 2xD



Code no.	D	P mm	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z
8.050	> 10	0.500	7.950	8.000	64.000	20.000	20.000	4
10.100	> 12	1.000	9.950	10.000	70.000	16.000	25.000	4
10.125	> 14	1.250	9.950	10.000	70.000	16.000	25.000	4
10.150	> 14	1.500	9.950	10.000	70.000	16.000	25.000	4
12.100	> 16	1.000	11.950	12.000	80.000	20.000	31.000	4
12.125	> 16	1.250	11.950	12.000	80.000	20.000	31.000	4
12.150	> 16	1.500	11.950	12.000	80.000	20.000	31.000	4
16.100	> 18	1.000	15.950	16.000	90.000	25.000	40.000	5
16.150	> 20	1.500	15.950	16.000	90.000	25.000	40.000	5
16.200	> 22	2.000	15.950	16.000	90.000	25.000	40.000	5
18.300	> 24	3.000	17.950	18.000	102.000	33.000	50.000	5
20.100	> 24	1.000	19.950	20.000	105.000	33.000	50.000	5
20.150	> 26	1.500	19.950	20.000	105.000	33.000	50.000	5
20.200	> 26	2.000	19.950	20.000	105.000	33.000	50.000	5
20.250	> 26	2.500	19.950	20.000	105.000	33.000	50.000	5
20.300	> 27	3.000	19.950	20.000	105.000	33.000	50.000	5
20.350	> 30	3.500	19.950	20.000	105.000	33.000	50.000	5

Thread milling cutters

Thread milling cutters without chamfer for ISO metric threads

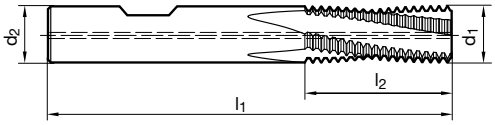
Catalogue no. 53830

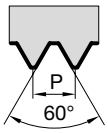
TM SP | WN | VHM | TiCN | R | ~HB

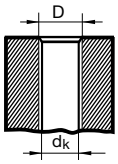
P	M	K	N	S	H
●	●	●	●	●	○

Application recommendations page 30

- thread milling cutter without chamfer, with spiral flute and internal coolant (axial)
- for universal application
- for thread depths up to 2xD







Code no.	D	P mm	d1 mm	d2 mm	dk mm	l1 mm	l2 mm	Z
4.000	M4	0.700	3.000	6.000	3.30	48.000	8.800	3
5.000	M5	0.800	4.000	6.000	4.20	54.000	10.800	3
6.000	M6	1.000	4.800	6.000	5.00	54.000	13.500	3
8.000	M8	1.250	6.400	8.000	6.80	62.000	18.100	3
8.005	M8 x 1	1.000	6.400	8.000	7.00	62.000	17.500	3
10.000	M10	1.500	7.950	10.000	8.50	74.000	21.800	3
10.005	M10 x 1	1.000	7.950	10.000	9.00	74.000	21.500	3
10.006	M10 x 1,25	1.250	7.950	10.000	8.80	74.000	21.900	3
12.000	M12	1.750	9.950	10.000	10.20	74.000	25.400	4
12.007	M12 x 1,5	1.500	9.950	10.000	10.50	74.000	26.300	4
14.000	M14	2.000	11.200	12.000	12.00	90.000	31.000	4
14.007	M14 x 1,5	1.500	11.200	12.000	12.50	90.000	30.800	4
16.000	M16	2.000	12.800	14.000	14.00	90.000	35.000	4
16.007	M16 x 1,5	1.500	12.800	14.000	14.50	90.000	33.800	4
20.000	M20	2.500	14.950	16.000	17.50	102.000	41.300	4
20.007	M20 x 1,5	1.500	14.950	16.000	18.50	102.000	42.800	4

Thread milling cutters

Thread milling cutters with chamfer for ISO metric fine threads

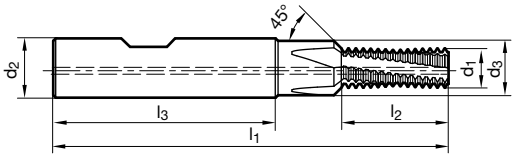
Catalogue no. 53820

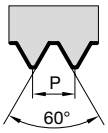
TMC SP | WN | VHM | TiCN | R | HB

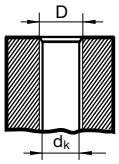
P	M	K	N	S	H
●	●	●	●	●	○

Application recommendations page 30

- thread milling cutter with 45° chamfer, with spiral flutes and internal coolant supply (axial)
- for universal application
- for thread depths up to 2xD







Code no.	D	d1 mm	d2 mm	d3 mm	dk mm	l1 mm	l2 mm	l3 mm	Z
4.003	M4 x 0,5	3.000	6.000	4.500	3.50	48.000	8.800	36.000	3
5.003	M5 x 0,5	4.000	6.000	5.500	4.50	54.000	10.800	36.000	3
6.003	M6 x 0,5	4.800	8.000	6.600	5.50	62.000	12.800	36.000	3
6.004	M6 x 0,75	4.800	8.000	6.600	5.20	62.000	13.100	36.000	3
8.004	M8 x 0,75	6.400	10.000	9.000	7.20	74.000	16.900	40.000	3
8.005	M8 x 1	6.400	10.000	9.000	7.00	74.000	17.500	40.000	3
10.005	M10 x 1	7.950	12.000	11.000	9.00	80.000	21.500	45.000	4
10.006	M10 x 1,25	7.950	12.000	11.000	8.80	80.000	21.900	45.000	4
12.005	M12 x 1	9.950	14.000	13.500	11.00	90.000	25.500	45.000	4
12.007	M12 x 1,5	9.950	14.000	13.500	10.50	90.000	26.300	45.000	4
14.007	M14 x 1,5	11.200	16.000	15.500	12.50	102.000	30.800	48.000	4
16.007	M16 x 1,5	12.800	18.000	17.500	14.50	102.000	33.800	48.000	4

Thread milling cutters

Thread milling cutters without chamfer for BSP threads

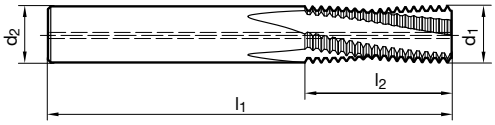
Catalogue no. 53831

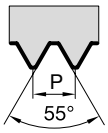
TM SP | WN | VHM | TiCN | R | ~HB

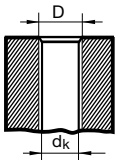
P	M	K	N	S	H
●	○	●	●	○	≤ 55

Application recommendations page 30

- thread milling cutter without chamfer, with spiral flute and internal coolant (axial)
- for universal application
- for thread depths up to 2xD







Code no.	D	P G/inch	d1 mm	d2 mm	dk mm	l1 mm	l2 mm	Z
9.728	G1/8	28	7.950	8.000	8.80	64.000	21.300	3
13.157	G1/4	19	10.500	12.000	11.80	90.000	28.700	4
16.662	G3/8	19	13.600	14.000	15.25	90.000	35.400	4

Thread milling cutters

Universal thread milling cutters for BSP threads

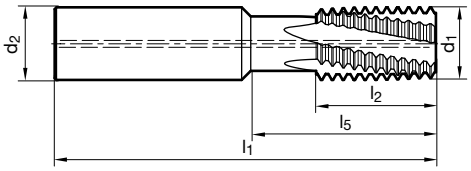
Catalogue no. 53832

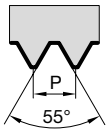
TMU SP | WN | VHM | TiCN | R | ~HB

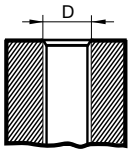
P	M	K	N	S	H
●	●	●	●	●	≤ 55

Application recommendations page 30

- thread milling cutter without chamfer, with spiral flute and internal coolant (axial)
- universal thread milling cutters for internal threads
- for thread depths up to 2xD







Code no.	D	P G/inch	d1 mm	d2 mm	l1 mm	l5 mm	l2 mm	Z
10.190	≥ 1/4	19	9.950	10.000	70.000	25.000	16.000	4
16.140	≥ 1/2	14	15.950	16.000	90.000	40.000	25.000	5
20.110	≥ 1	11	19.950	20.000	105.000	50.000	33.000	5

Thread milling cutters

Micro thread milling cutters for ISO metric threads

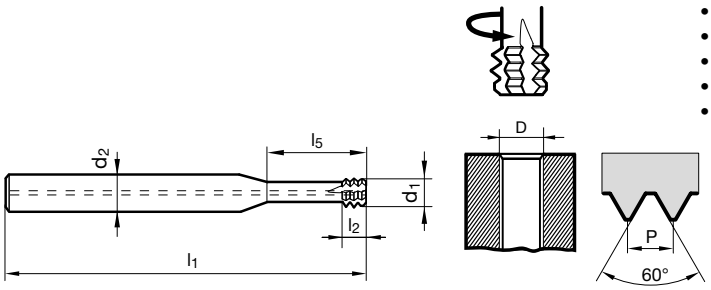
Catalogue no. 53892

MTM-NX SP | WN | VHM | TiCN | L | ~HA

P	M	K	N	S	H
●	●	●	●	●	≤ 55

Application recommendations page 26

- for universal application
- M1.6 - M3 with 2 cooling grooves
- with internal cooling ≥ M3.5
- left hand cutting geometry
- increased number of cutting edges for shortest machining times
- for thread depths up to 2.5xD



Code no.	D	P mm	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z
1.600	M1,6	0.350	1.200	3.000	39.000	1.100	4.000	3
1.800	M1,8	0.350	1.400	3.000	39.000	1.100	4.500	4
2.000	M 2	0.400	1.550	3.000	39.000	1.200	5.000	4
2.500	M2,5	0.450	1.950	3.000	39.000	1.400	6.500	4
3.000	M3	0.500	2.400	3.000	39.000	1.500	8.000	5
3.500	M3,5	0.600	2.800	6.000	58.000	1.800	9.000	5
4.000	M4	0.700	3.200	6.000	58.000	2.100	11.000	5
5.000	M5	0.800	4.000	6.000	58.000	2.400	13.500	6
6.000	M6	1.000	4.800	6.000	58.000	3.000	16.000	6
8.000	M8	1.250	5.950	6.000	58.000	3.800	21.000	7
10.000	M10	1.500	7.800	8.000	73.000	4.500	26.000	7
12.000	M12	1.750	9.000	10.000	84.000	5.300	31.000	7
16.000	M16	2.000	11.800	12.000	90.000	6.000	41.000	8
20.000	M20	2.500	15.000	16.000	105.000	7.500	51.000	8

Thread milling cutters

Micro thread milling cutters for ISO metric threads

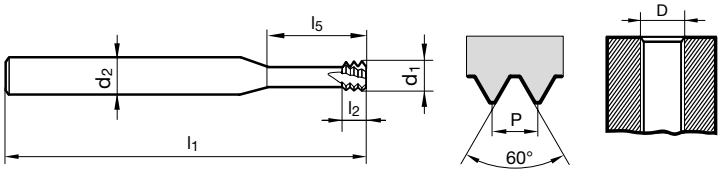
Catalogue no. 53840

TM SP | WN | VHM | TiCN | R | ~HA

P	M	K	N	S	H
●	●	●	●	●	

Application recommendations page 25

- for universal application
- long version
- for thread depths up to 3xD



Code no.	D	P mm	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z
1.600	M1,6	0.350	1.200	3.000	39.000	1.100	4.800	3
1.800	M1,8	0.350	1.400	3.000	39.000	1.100	5.400	3
2.000	M 2	0.400	1.550	3.000	39.000	1.200	6.000	4
2.500	M2,5	0.450	1.950	3.000	39.000	1.400	7.500	4
3.000	M3	0.500	2.400	6.000	58.000	1.500	9.500	4
3.500	M3,5	0.600	2.800	6.000	58.000	1.800	11.000	4
4.000	M4	0.700	3.200	6.000	58.000	2.100	12.500	4
5.000	M5	0.800	4.000	6.000	58.000	2.400	16.000	4
6.000	M6	1.000	4.800	6.000	58.000	3.000	20.000	4
8.000	M8	1.250	5.950	6.000	58.000	3.800	24.000	4
10.000	M10	1.500	7.800	8.000	73.000	4.500	33.000	4
12.000	M12	1.750	9.000	10.000	84.000	5.300	38.000	4
16.000	M16	2.000	11.800	12.000	84.000	6.000	35.000	5

Thread milling cutters

Micro thread milling cutters for ISO metric threads

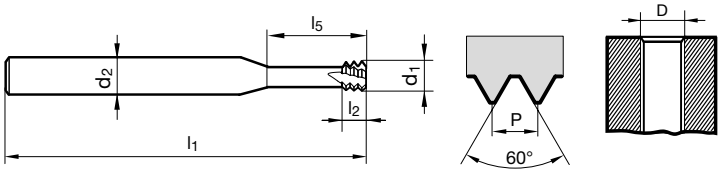
Catalogue no. 53850

TM SP | WN | VHM | TiSiN+ | R | ~HA

P	M	K	N	S	H
				○	●

Application recommendations page 25

- for hard machining 45-65 HRC
- long version
- for thread depths up to 3xD



Code no.	D	P mm	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z
2.000	M 2	0.400	1.550	3.000	39.000	1.200	6.000	4
2.500	M2,5	0.450	1.950	3.000	39.000	1.400	7.500	4
3.000	M3	0.500	2.350	6.000	58.000	1.500	9.500	4
4.000	M4	0.700	3.100	6.000	58.000	2.100	12.500	4
5.000	M5	0.800	3.800	6.000	58.000	2.400	16.000	4
6.000	M6	1.000	4.800	6.000	58.000	3.000	20.000	4
8.000	M8	1.250	5.950	6.000	58.000	3.800	24.000	4
10.000	M10	1.500	7.800	8.000	64.000	4.500	23.000	4
12.000	M12	1.750	9.000	10.000	73.000	5.300	26.000	5

Thread milling cutters

Micro thread milling cutters for BSP-threads

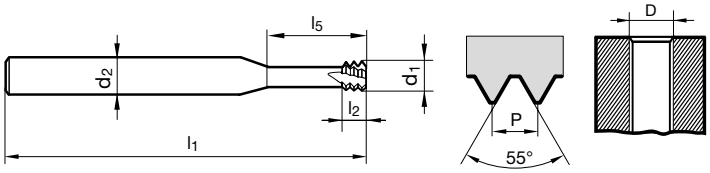
Catalogue no. 53841

TM SP | WN | VHM | TiCN | R | ~HA

P	M	K	N	S	H
●	●	●	●	●	

Application recommendations page 25

- for universal application
- long version
- for thread depths up to 3xD



Code no.	D	P G/inch	d1 mm	d2 mm	dk mm	l1 mm	l2 mm	l5 mm	Z
9.728	G1/16-G1/8	28	6.200	8.000	8.80	64.000	2.700	19.500	4
16.662	G1/4-G3/8	19	9.950	10.000	15.25	73.000	4.000	25.000	4
30.201	G1/2-G7/8	14	11.950	12.000	28.25	84.000	5.400	37.000	4
59.614	G1-G2	11	15.950	16.000	57.00	105.000	6.900	44.000	5

Drill thread milling cutters

Drill thread milling cutters for ISO metric threads

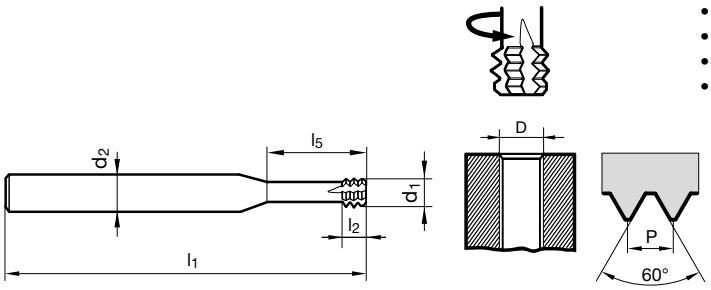
Catalogue no. 53948

TMD-NX | WN | VHM | Ti-SiN | L | HA/HB

P	M	K	N	S	H
●	●	●	●	●	≤ 66

Application recommendations page 28

- helical drill thread milling, core hole and thread production in one step
- for universal application and also hardened steels up to 66 HRC
- left-hand cutting tool for highest stability during the climb milling process
- oil grooves at the shank
- for thread depths up to 2.5xD



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

Drill thread milling cutters

Drill thread milling cutters for UNC/UNF threads

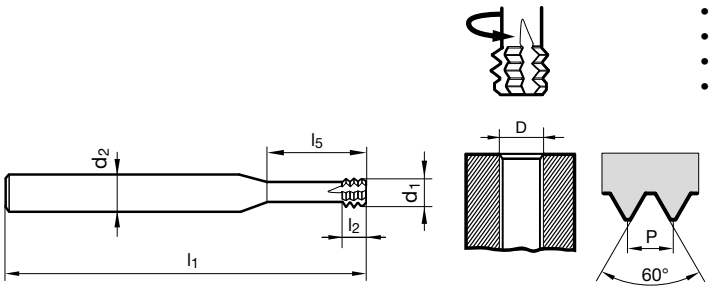
Catalogue no. 53949

TMD-NX | WN | VHM | Ti-SiN | L | HA/HB

P	M	K	N	S	H
●	●	●	●	●	≤ 66

Application recommendations page 28

- helical drill thread milling, core hole and thread production in one step
- for universal application and also hardened steels up to 66 HRC
- left-hand cutting tool for highest stability during the climb milling process
- oil grooves at the shank
- for thread depths up to 2.5xD



Code no.	D	P G/inch	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z	PR mm
1.853	UNF No 1	72	1.400	3.000	39.000	1.100	5.000	4	0.670
1.854	UNC No 1+UNF No 2	64	1.400	3.000	39.000	1.200	5.000	4	0.670
2.184	UNC No 2+UNF No 3	56	1.600	3.000	39.000	1.400	5.500	4	0.770
2.515	UNC No 3+UNF No 4	48	1.900	3.000	39.000	1.600	6.500	4	0.920
2.845	UNC No 4	40	2.100	6.000	58.000	1.900	7.500	4	1.020
3.175	UNC No 5+UNF No 6	40	2.400	6.000	58.000	1.900	8.000	4	1.170
3.505	UNC No 6	32	2.600	6.000	58.000	2.400	9.000	4	1.270
4.165	UNF No 8	36	3.200	6.000	58.000	2.100	10.500	4	1.570
4.166	UNC No 8	32	3.100	6.000	58.000	2.400	10.500	4	1.520
4.825	UNF No10	32	3.600	6.000	58.000	2.400	12.500	4	1.770
4.826	UNC No10+UNC No12	24	3.600	6.000	58.000	3.200	12.500	4	1.770
5.485	UNF No12	28	4.100	6.000	58.000	2.700	14.000	4	2.020
6.349	UNF 1/4	28	4.800	6.000	58.000	2.700	16.000	4	2.370
6.350	UNC 1/4	20	4.800	6.000	58.000	3.800	16.000	4	2.340
7.937	UNF 5/16+UNF 3/8	24	6.300	8.000	64.000	3.200	20.000	4	3.120
7.938	UNC 5/16	18	6.300	8.000	64.000	4.200	20.000	4	3.090
9.525	UNC 3/8	16	7.200	8.000	64.000	4.800	24.000	4	3.540
11.112	UNF 7/16	20	8.300	10.000	73.000	3.800	28.000	4	4.090
11.113	UNC 7/16	14	8.300	10.000	73.000	5.400	28.000	4	4.090
12.700	UNF 1/2	20	9.700	10.000	73.000	3.800	31.000	4	4.790
15.874	UNF 5/8	18	11.800	12.000	90.000	4.200	40.000	4	5.840

Drill thread milling cutters

Drill thread milling cutters for BSP threads

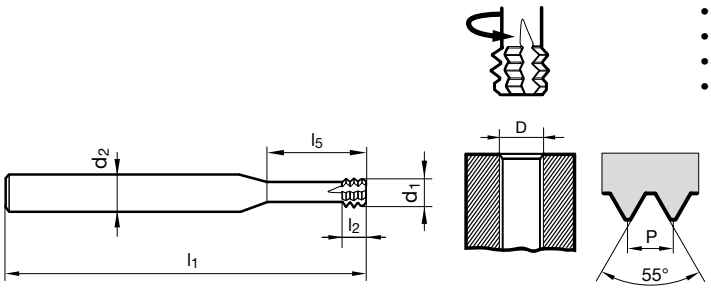
Catalogue no. 53950

TMD-NX | WN | VHM | Ti-SiN | L | ~HB

P	M	K	N	S	H
●	●	●	●	●	≤ 66

Application recommendations page 28

- helical drill thread milling, core hole and thread production in one step
- for universal application and also hardened steels up to 66 HRC
- left-hand cutting tool for highest stability during the climb milling process
- oil grooves at the shank
- for thread depths up to 2.5xD



Code no.	D	P G/inch	d1 mm	d2 mm	l1 mm	l2 mm	l5 mm	Z	PR mm
9.728	G1/16-G1/8	28	6.100	8.000	64.000	2.700	24.000	4	3.020
16.662	G1/4-G3/8	19	10.300	12.000	90.000	4.000	40.000	4	5.090
26.441	G1/2-G5/8-G3/4	14	15.700	16.000	105.000	5.400	50.000	4	7.790

TECHNICAL INFORMATION

Hard machining
Taps and drills

For difficult cases

With taps type HX and HCX STOCK offers special solutions for the machining of high-tensile materials. Their special hard coating adds high wear resistance for the high requirements of hard machining.

Application range HX

- Inconel
- Hastelloy
- Waspalloy
- Nickel based alloys

Application range HDX

- Titanium
- Titanium alloys

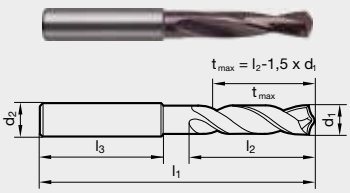
Application range HCX

- Tool steels
- Alloyed heat-treatable steels
- High speed steels
- Malleable cast iron
- Cast with vermicular graphite
- Cast with spheroidal graphite
- Bronze, hard
- Special materials, hard
- Ampco >21

The Stock drill for core holes in hard materials!

The Stock hard drill enables economically efficient and process reliable drilling in hardened steels at hardness levels of up to 62 HRC. Due to convex-shaped cutting edges the tool provides an extremely high stability and guarantees a perfect chip breaking. The flute profile has been adapted to hard machining and evacuates chips safely out of the hole. The Stock hard drill is equipped with a straight shank according to DIN 6535 HA and is available as a standard tool with diameters from 2.6 to 14.1 mm.

Catalogue no. 51146



H	~3xD	DIN 6537 K	VHM	Al-TiN	120°	m7	R	HA

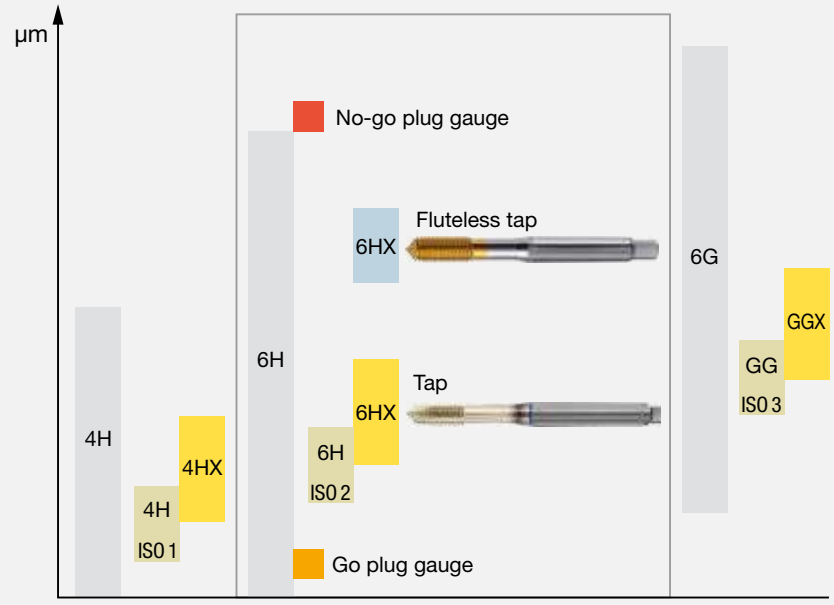
P	M	K	N	S	H
○		○			●

d1 mm	d2 mm	l1 mm	l2 mm	l3 mm
2.600	6.000	62.000	20.000	36.000
3.000	6.000	62.000	20.000	36.000
3.400	6.000	62.000	20.000	36.000
4.000	6.000	66.000	24.000	36.000
4.300	6.000	66.000	24.000	36.000
5.000	6.000	66.000	28.000	36.000
5.100	6.000	66.000	28.000	36.000
5.600	6.000	66.000	28.000	36.000
6.000	6.000	66.000	28.000	36.000
6.900	8.000	79.000	34.000	36.000
7.100	8.000	79.000	41.000	36.000
8.000	8.000	79.000	41.000	36.000

d1 mm	d2 mm	l1 mm	l2 mm	l3 mm
8.600	10.000	89.000	47.000	40.000
9.100	10.000	89.000	47.000	40.000
10.000	10.000	89.000	47.000	40.000
10.400	12.000	102.000	55.000	45.000
10.600	12.000	102.000	55.000	45.000
11.100	12.000	102.000	55.000	45.000
12.000	12.000	102.000	55.000	45.000
14.100	16.000	115.000	65.000	48.000

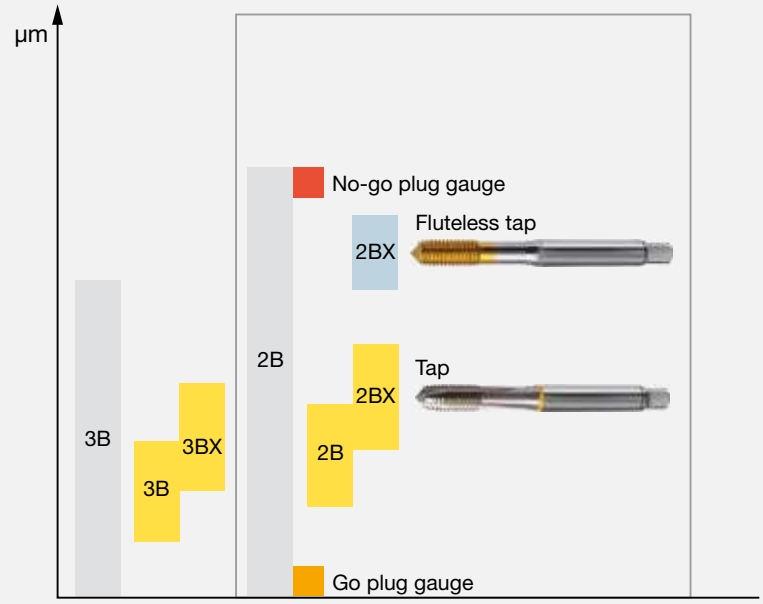
Tolerance fields
to DIN EN 22857

Metric threads



- Tolerance field internal threads to DIN ISO 965-1
- Tolerance class taps to DIN EN 22857
- Tolerance class taps to company std.
- Tolerance class fluteless taps to company std.
- Tolerance class no-go plug gauge to DIN ISO 1502
- Tolerance class go plug gauge to DIN ISO 1502

Unified threads



- Tolerance field internal threads to ASME B1.1
- Tolerance class taps to company std.
- Tolerance class fluteless taps to company std.
- Tolerance class no-go plug gauge to ANSI/ASME B1.2
- Tolerance class go plug gauge to ANSI/ASME B1.2

Tapping hole size diameter

Thread cutting tools

Std. ISO metric threads DIN 13

nom.- Ø	Pitch P mm	Tapping hole size Ø DIN 336 mm	Core diameter of int. thread 6H* min. mm	Core diameter of int. thread 6H* max. mm
M 1	0.25	**0.75**	0.729	0.785
M 1.1	0.25	**0.85**	0.829	0.885
M 1.2	0.25	**0.95**	0.929	0.985
M 1.4	0.30	**1.10**	1.075	1.142
M 1.6	0.35	**1.25**	1.221	1.321
M 1.8	0.35	**1.45**	1.421	1.521
M 2	0.40	**1.60**	1.567	1.679
M 2.2	0.45	**1.75**	1.713	1.838
M 2.5	0.45	**2.05**	2.013	2.138
M 3	0.50	**2.50**	2.459	2.599
M 3.5	0.60	**2.90**	2.850	3.010
M 4	0.70	**3.30**	3.242	3.422
M 4.5	0.75	**3.70**	3.688	3.878
M 5	0.80	**4.20**	4.134	4.334
M 6	1.00	**5.00**	4.917	5.153
M 7	1.00	**6.00**	5.917	6.153
M 8	1.25	**6.80**	6.647	6.912
M 9	1.25	**7.80**	7.647	7.912
M 10	1.50	**8.50**	8.376	8.676
M 11	1.50	**9.50**	9.376	9.676
M 12	1.75	**10.20**	10.106	10.441
M 14	2.00	**12.00**	11.835	12.210
M 16	2.00	**14.00**	13.835	14.210
M 18	2.50	**15.50**	15.294	15.744
M 20	2.50	**17.50**	17.294	17.744
M 22	2.50	**19.50**	19.294	19.744
M 24	3.00	**21.00**	20.752	21.252
M 27	3.00	**24.00**	23.752	24.252
M 30	3.50	**26.50**	26.211	26.771
M 33	3.50	**29.50**	29.211	29.771
M 36	4.00	**32.00**	31.670	32.270
M 39	4.00	**35.00**	34.670	35.270
M 42	4.50	**37.50**	37.129	37.799
M 45	4.50	**40.50**	40.129	40.799
M 48	5.00	**43.00**	42.587	43.297
M 52	5.00	**47.00**	46.587	47.297
M 56	5.50	**50.50**	50.046	50.796

* M 1.1 to M 1.4 core diameter of int. thread 5H

Std. ISO metric fine threads DIN 13

nom.- x Pitch Ø P mm	Tapping hole size Ø DIN 336 mm	Core diameter of int. thread 6H* min. mm	Core diameter of int. thread 6H* max. mm
M 2.5 x 0.35	**2.15**	2.121	2.221
M 3.0 x 0.35	**2.65**	2.621	2.721
M 3.5 x 0.35	**3.15**	3.121	3.221
M 4.0 x 0.50	**3.50**	3.459	3.599
M 4.5 x 0.50	**4.00**	3.959	4.099
M 5.0 x 0.50	**4.50**	4.459	4.599
M 5.5 x 0.50	**5.00**	4.959	5.099
M 6.0 x 0.75	**5.20**	5.188	5.378
M 7.0 x 0.75	**6.20**	6.188	6.378
M 8.0 x 0.50	**7.50**	7.459	7.599
M 8.0 x 0.75	**7.20**	7.188	7.378
M 8.0 x 1.00	**7.00**	6.917	7.153
M 9.0 x 0.75	**8.20**	8.188	8.378
M 9.0 x 1.00	**8.00**	7.917	8.153
M 10 x 0.75	**9.20**	9.188	9.378
M 10 x 1.00	**9.00**	8.917	9.153
M 10 x 1.25	**8.80**	8.647	8.912
M 11 x 0.75	**10.20**	10.188	10.378
M 11 x 1.00	**10.00**	9.917	10.153
M 12 x 1.00	**11.00**	10.917	11.153
M 12 x 1.25	**10.80**	10.647	10.912
M 12 x 1.50	**10.50**	10.376	10.676
M 14 x 1.00	**13.00**	12.917	13.153
M 14 x 1.25	**12.80**	12.647	12.912
M 14 x 1.50	**12.50**	12.376	12.676
M 15 x 1.00	**14.00**	13.917	14.153
M 15 x 1.50	**13.50**	13.376	13.676
M 16 x 1.00	**15.00**	14.917	15.153
M 16 x 1.25	**14.80**	14.647	14.912
M 16 x 1.50	**14.50**	14.376	14.676
M 17 x 1.00	**16.00**	15.917	16.153
M 17 x 1.50	**15.50**	15.376	15.676
M 18 x 1.00	**17.00**	16.917	17.153
M 18 x 1.50	**16.50**	16.376	16.676
M 20 x 1.00	**19.00**	18.917	19.153
M 20 x 1.50	**18.50**	18.376	18.676
M 20 x 2.00	**18.00**	17.835	18.210
M 22 x 1.00	**21.00**	20.917	21.153
M 22 x 1.50	**20.50**	20.376	20.676
M 22 x 2.00	**20.00**	19.835	20.210
M 24 x 1.00	**23.00**	22.917	23.153
M 24 x 1.50	**22.50**	22.376	22.676
M 24 x 2.00	**22.00**	21.835	22.210
M 25 x 1.00	**24.00**	23.917	24.153
M 25 x 1.50	**23.50**	23.376	23.676
M 25 x 2.00	**23.00**	22.835	23.210
M 27 x 1.00	**26.00**	25.917	26.153
M 27 x 1.50	**25.50**	25.376	25.676
M 27 x 2.00	**25.00**	24.835	25.210
M 28 x 1.00	**27.00**	26.917	27.153
M 28 x 1.50	**26.50**	26.376	26.676
M 28 x 2.00	**26.00**	25.835	26.210
M 30 x 1.00	**29.00**	28.917	29.153
M 30 x 1.50	**28.50**	28.376	28.676
M 30 x 2.00	**28.00**	27.835	28.210
M 30 x 3.00	**27.00**	26.752	27.252
M 32 x 1.50	**30.50**	30.376	30.676
M 32 x 2.00	**30.00**	29.835	30.210
M 33 x 1.50	**31.50**	31.376	31.676
M 33 x 2.00	**31.00**	30.835	31.210
M 33 x 3.00	**30.00**	29.752	30.252
M 35 x 1.50	**33.50**	33.376	33.676
M 36 x 1.50	**34.50**	34.376	34.676

UNC threads ASME B1.1

nom.- Ø	Threads per inch	Tapping hole size Ø DIN 336 mm	Core diameter of int. thread 2B min. mm	Core diameter of int. thread 2B max. mm
No 1	64	**1.55**	1.425	1.580
No 2	56	**1.85**	1.694	1.872
No 3	48	**2.10**	1.941	2.146
No 4	40	**2.35**	2.157	2.385
No 5	40	**2.65**	2.487	2.698
No 6	32	**2.85**	2.642	2.896
No 8	32	**3.50**	3.302	3.531
No 10	24	**3.90**	3.683	3.937
No 12	24	**4.50**	4.343	4.597
1/4	20	**5.10**	4.978	5.258
5/16	18	**6.60**	6.401	6.731
3/8	16	**8.00**	7.798	8.153
7/16	14	**9.40**	9.144	9.550
1/2	13	**10.80**	10.592	11.024
9/16	12	**12.20**	11.989	12.446
5/8	11	**13.50**	13.386	13.868
3/4	10	**16.50**	16.307	16.840
7/8	9	**19.50**	19.177	19.761
1	8	**22.25**	21.971	22.606
1 1/8	7	**25.00**	24.638	25.349
1 1/4	7	**28.00**	27.813	28.524
1 3/8	6	**30.75**	30.353	31.115
1 1/2	6	**34.00**	33.528	34.290
1 3/4	5	**39.50**	38.938	39.802
2 - 4.5		**45.00**	44.679	45.593

The compatible twist drills can be found in our general catalogue or webshop (www.stock.de).

MJ threads DIN ISO 5855

nom.- Ø	x	Pitch P mm	Tapping hole size Ø mm	Core diameter of int. thread 5H* min. mm	Core diameter of int. thread 5H* max. mm
MJ 3	x	0.50	**2.60**	2.513	2.653
MJ 4	x	0.70	**3.40**	3.318	3.498
MJ 5	x	0.80	**4.30**	4.221	4.421
MJ 6	x	0.50	**5.55**	5.513	5.625
MJ 6	x	0.75	**5.35**	5.269	5.419
MJ 6	x	1.00	**5.10**	5.026	5.216
MJ 8	x	0.50	**7.55**	7.513	7.625
MJ 8	x	0.75	**7.35**	7.269	7.419
MJ 8	x	1.00	**7.10**	7.026	7.216
MJ 8	x	1.25	**6.90**	6.782	6.994
MJ 10	x	1.00	**9.10**	9.026	9.216
MJ 10	x	1.25	**8.90**	8.782	8.994
MJ 10	x	1.50	**8.60**	8.539	8.775
MJ 12	x	1.75	**10.40**	10.295	10.560
MJ 16	x	2.00	**14.20**	14.051	14.351

* MJ 3 x 0.50 to MJ 5 x 0.80 core diameter of int. thread 6H

UNJC threads ISO 3161

nom.- Ø	Threads per inch	Tapping hole size Ø mm	Core diameter of int. thread 3B min. mm	Core diameter of int. thread 3B max. mm
No 6	32	**2.85**	2.733	2.939
No 8	32	**3.55**	3.393	3.599
No 10	24	**4.00**	3.795	4.064
No 12	24	**4.60**	4.455	4.704
1/4	20	**5.30**	5.113	5.387
5/16	18	**6.75**	6.563	6.833
3/8	16	**8.20**	7.978	8.255
7/16	14	**9.60**	9.346	9.639
1/2	13	**11.00**	10.798	11.095
9/16	12	**12.40**	12.228	12.482
5/8	11	**13.80**	13.627	13.904

UNJF threads ISO 3161

nom.- Ø	Threads per inch	Tapping hole size Ø mm	Core diameter of int. thread 3B min. mm	Core diameter of int. thread 3B max. mm
No 6	40	**3.00**	2.888	3.053
No 8	36	**3.60**	3.480	3.663
No 10	32	**4.20**	4.054	4.255
No 12	28	**4.75**	4.602	4.816
1/4	28	**5.60**	5.466	5.662
5/16	24	**7.00**	6.906	7.109
3/8	24	**8.60**	8.494	8.679
7/16	20	**10.00**	9.876	10.084
1/2	20	**11.60**	11.463	11.661
9/16	18	**13.00**	12.913	13.122
5/8	18	**14.60**	14.501	14.702

UNF threads ASME B1.1

nom.-Ø	Threads per inch	Tapping hole size Ø DIN 336 mm	Core diameter of int. thread 2B min. mm	Core diameter of int. thread 2B max. mm
No 1	72	**1.55**	1.473	1.610
No 2	64	**1.85**	1.755	1.910
No 3	56	**2.15**	2.024	2.197
No 4	48	**2.40**	2.271	2.459
No 5	44	**2.70**	2.550	2.741
No 6	40	**2.95**	2.819	3.023
No 8	36	**3.50**	3.404	3.607
No 10	32	**4.10**	3.962	4.166
No 12	28	**4.60**	4.496	4.724
1/4	28	**5.50**	5.359	5.588
5/16	24	**6.90**	6.782	7.036
3/8	24	**8.50**	8.382	8.636
7/16	20	**9.90**	9.728	10.033
1/2	20	**11.50**	11.328	11.608
9/16	18	**12.90**	12.751	13.081
5/8	18	**14.50**	14.351	14.681
3/4	16	**17.50**	17.323	17.678
7/8	14	**20.40**	20.269	20.650
1	12	**23.25**	23.114	23.571
1 1/8	12	**26.50**	26.289	26.746
1 1/4	12	**29.50**	29.464	29.921
1 3/8	12	**32.75**	32.639	33.096
1 1/2	12	**36.00**	35.814	36.271

BSW (Whitworth) threads BS84

nom.-Ø inch	Threads per inch	Tapping hole size Ø mm	Core diameter of int. thread min. mm	Core diameter of int. thread max. mm
W 1/16	60	**1.20**	1.045	1.230
W 3/32	48	**1.80**	1.704	1.912
W 1/8	40	**2.50**	2.362	2.591
W 5/32	32	**3.20**	2.952	3.214
W 3/16	24	**3.60**	3.407	3.745
W 7/32	24	**4.50**	4.201	4.539
W 1/4	20	**5.10**	4.724	5.156
W 5/16	18	**6.50**	6.130	6.590
W 3/8	16	**7.90**	7.492	7.987
W 7/16	14	**9.20**	8.789	9.330
W 1/2	12	**10.50**	9.989	10.591
W 9/16	12	**12.00**	11.577	12.179
W 5/8	11	**13.50**	12.918	13.558
W 3/4	10	**16.25**	15.797	16.483
W 7/8	9	**19.25**	18.611	19.353
W 1	8	**22.00**	21.334	22.147
W 1 1/8	7	**24.50**	23.928	24.832
W 1 1/4	7	**27.75**	27.103	28.007
W 1 3/8	6	**30.50**	29.504	30.528
W 1 1/2	6	**33.50**	32.679	33.703
W 1 5/8	5	**35.50**	34.769	35.963
W 1 3/4	5	**39.00**	37.944	39.138
W 2	4.5	**44.50**	43.571	44.877

(Whitworth) BSP threads (acc. to DIN-ISO 228-1)

nom.-Ø inch	Threads per inch	Tapping hole size Ø DIN 336 mm	Core diameter of int. thread min. mm	Core diameter of int. thread max. mm
G 1/16	28	**6.80**	6.561	6.843
G 1/8	28	**8.80**	8.566	8.848
G 1/4	19	**11.80**	11.445	11.890
G 3/8	19	**15.25**	14.950	15.395
G 1/2	14	**19.00**	18.631	19.172
G 5/8	14	**21.00**	20.587	21.128
G 3/4	14	**24.50**	24.117	24.658
G 7/8	14	**28.25**	27.877	28.418
G 1	11	**30.75**	30.291	30.931
G 1 1/8	11	**35.50**	34.939	35.579
G 1 1/4	11	**39.50**	38.952	39.592
G 1 1/2	11	**45.25**	44.845	45.485
G 1 3/4	11	**51.00**	50.788	51.428
G 2	11	**57.00**	56.656	57.296

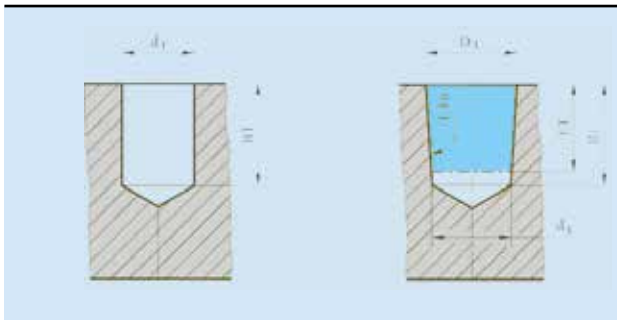
PG threads acc. to DIN 40430

nom.-Ø	Threads per inch	Tapping hole size Ø mm	Core diameter of int. thread min. mm	Core diameter of int. thread max. mm
Pg 7	20	**11.40**	11.280	11.430
Pg 9	18	**14.00**	13.860	14.010
Pg 11	18	**17.30**	17.260	17.410
Pg 13.5	18	**19.00**	19.060	19.210
Pg 16	18	**21.30**	21.160	21.310
Pg 21	16	**26.90**	26.780	27.030
Pg 29	16	**35.50**	35.480	35.730
Pg 36	16	**45.50**	45.480	45.730
Pg 42	16	**52.50**	52.480	52.730
Pg 48	16	**57.80**	57.780	58.030

NPT ANSI B 2.1 American tapered pipe thread 1:16

Version A (to avoid if possible)

Version B



nom.-Ø	Threads per inch	Tapp. hole Ø cyl. (A) d_1	Core diameter conical (B) D_1	Cutting depth ET mm	Drill depth BT (min) mm
1/16	27	**6.15**	6.39	9.29	10.7
1/8	27	**8.40**	8.74	9.32	10.8
1/4	18	**11.10**	11.36	13.52	15.6
3/8	18	**14.30**	14.80	13.83	16.0
1/2	14	**17.90**	18.32	18.07	20.8
3/4	14	**23.30**	23.67	18.55	21.3
1	11.5	**29.00**	29.69	22.29	25.6
1 1/4	11.5	**37.70**	38.45	22.80	26.1
1 1/2	11.5	**43.70**	44.52	22.80	26.1
2	11.5	**55.60**	56.56	23.20	26.5
2 1/2	8	**66.30**	67.62	31.75	36.3
3	8	**82.30**	83.52	33.74	38.5

EG threads Metr./Metr. fine (EG M 14 x 1,25) for wire thread inserts DIN 8140

nom.-Ø	x Pitch P mm	Tapping hole size Ø mm	Core diameter of int. thread min. mm	Core diameter of int. thread max. mm
EG M 4	0.70	**4.20**	4.152	4.292
EG M 5	0.80	**5.25**	5.174	5.334
EG M 6	1.00	**6.30**	6.217	6.407
EG M 8	1.25	**8.40**	8.271	8.483
EG M10	1.50	**10.50**	10.324	10.560
EG M12	1.75	**12.50**	12.379	12.644
EG M14 x	1.25	**14.40**	14.271	14.483
EG M16	2.00	**16.50**	16.433	16.733

EG UNC (UNC-STI) threads for wire thread inserts ASME B18.29.1

nom.-Ø	Threads per inch	Tapping hole size Ø mm	Core diameter of int. thread min. mm	Core diameter of int. thread max. mm
EG No 6	32	**3.80**	3.678	3.879
EG No 8	32	**4.40**	4.338	4.524
EG No 10	24	**5.20**	5.055	5.283
EG No 12	24	**5.80**	5.715	5.944
EG 1/4	20	**6.70**	6.624	6.868
EG 5/16	18	**8.40**	8.242	8.489
EG 3/8	16	**10.00**	9.868	10.127
EG 7/16	14	**11.60**	11.506	11.783
EG 1/2	13	**13.30**	13.122	13.393
EG 9/16	12	**14.90**	14.747	15.032
EG 5/8	11	**16.50**	16.375	16.673

EG UNF (UNF-STI) threads for wire thread inserts ASME B18.29.1

nom.-Ø	Threads per inch	Tapping hole size Ø mm	Core diameter of int. thread min. mm	Core diameter of int. thread max. mm
EG No 6	40	**3.70**	3.644	3.818
EG No 8	36	**4.40**	4.321	4.498
EG No 10	32	**5.10**	4.999	5.184
EG No 12	28	**5.70**	5.682	5.809
EG 1/4	28	**6.60**	6.546	6.721
EG 5/16	24	**8.25**	8.166	8.352
EG 3/8	24	**9.80**	9.754	9.931
EG 7/16	20	**11.50**	11.389	11.585
EG 1/2	20	**13.10**	12.974	13.172
EG 9/16	18	**14.70**	14.592	14.798
EG 5/8	18	**16.25**	16.180	16.386

Recommended hole size diameter

Cold forming taps

Std. ISO metric threads DIN 13

nom.-Ø mm	Pitch P	Tapp. hole size Ø mm	Tapping hole size Ø min. mm	Tapping hole size Ø max. mm	Core-Ø of int. thread 7H* min. mm	Core-Ø of int. thread 7H* max. mm
M1	0.25	**0.90**	0.89	0.92	0.729	0.819
M1.2	0.25	**1.10**	1.09	1.12	0.929	1.019
M1.4	0.30	**1.28**	1.27	1.30	1.075	1.181
M1.6	0.35	**1.46**	1.45	1.48	1.221	1.346
M1.7	0.35	**1.56**	1.55	1.58	1.321	1.446
M1.8	0.35	**1.66**	1.65	1.68	1.421	1.546
M 2	0.40	**1.85**	1.84	1.88	1.567	1.679
M 2.2	0.45	**2.00**	2.01	2.05	1.713	1.838
M 2.5	0.45	**2.30**	2.28	2.32	2.013	2.138
M 3	0.50	**2.80**	2.78	2.85	2.459	2.639
M 3.5	0.60	**3.25**	3.23	3.30	2.850	3.050
M 4	0.70	**3.70**	3.68	3.76	3.242	3.466
M 4.5	0.75	**4.20**				
M 5	0.80	**4.65**	4.62	4.71	4.134	4.384
M 6	1.00	**5.55**	5.52	5.62	4.917	5.217
M 7	1.00	**6.55**	6.52	6.62	5.917	6.217
M 8	1.25	**7.40**	7.36	7.47	6.647	6.982
M 9	1.25	**8.40**	8.36	8.47	7.647	7.982
M 10	1.50	**9.30**	9.26	9.38	8.376	8.751
M 11	1.50	**10.30**	10.26	10.38	9.376	9.751
M 12	1.75	**11.20**	11.15	11.29	10.106	10.531
M 14	2.00	**13.10**	13.05	13.20	11.835	12.310
M 16	2.00	**15.10**	15.05	15.20	13.835	14.310
M 18	2.50	**16.90**	16.83	17.02	15.294	15.854
M 20	2.50	**18.90**	18.83	19.02	17.294	17.854
M 22	2.50	**20.90**	20.83	21.02	19.294	19.854
M 24	3.00	**22.70**	22.62	22.80	20.752	21.382
M 27	3.00	**25.70**	25.62	25.80	23.752	24.382
M 30	3.50	**28.50**	28.40	28.60	26.211	26.921
M 33	3.50	**31.50**	31.40	31.60	29.211	29.921
M 36	4.00	**34.30**	34.17	34.40	31.670	32.420
M 39	4.00	**37.30**	37.17	37.40	34.670	35.420
M 42	4.50	**40.10**	39.95	40.20	37.129	37.979

* M 2 to M 2.5 core-Ø of int. thread 6H

Std. ISO metric fine threads DIN 13

nom.-Ø mm	x Pitch P	Tapp. hole size Ø mm	Tapping hole size Ø min. mm	Tapping hole size Ø max. mm	Core-Ø of int. thread 7H* min. mm	Core-Ø of int. thread 7H* max. mm
M 2.5	x 0.35	**2.35**	2.35	2.38	2.121	2.221
M 3	x 0.35	**2.85**	2.85	2.88	2.621	2.721
M 4	x 0.35	**3.85**	3.85	3.88	3.621	3.721
M 4	x 0.50	**3.80**	3.78	3.83	3.459	3.639
M 5	x 0.50	**4.80**	4.78	4.83	4.459	4.639
M 5.5	x 0.50	**5.30**	5.28	5.33	4.959	5.139
M 6	x 0.75	**5.65**	5.62	5.70	5.188	5.424
M 7	x 0.75	**6.65**	6.62	6.70	6.188	6.424
M 8	x 0.75	**7.65**	7.62	7.70	7.188	7.424
M 8	x 1.00	**7.55**	7.52	7.62	6.917	7.217
M 9	x 0.75	**8.65**	8.62	8.70	8.188	8.424
M 9	x 1.00	**8.55**	8.52	8.62	7.917	8.217
M 10	x 0.75	**9.65**	9.62	9.70	9.188	9.424
M 10	x 1.00	**9.55**	9.52	9.62	8.917	9.217
M 10	x 1.25	**9.40**	9.36	9.47	8.647	8.982
M 11	x 0.75	**10.65**	10.62	10.70	10.188	10.424
M 11	x 1.00	**10.55**	10.52	10.62	9.917	10.217
M 12	x 1.00	**11.55**	11.52	11.62	10.917	11.217
M 12	x 1.25	**11.40**	11.36	11.47	10.647	10.982
M 12	x 1.50	**11.30**	11.26	11.38	10.376	10.751
M 14	x 1.00	**13.55**	13.52	13.62	12.917	13.217
M 14	x 1.25	**13.40**	13.36	13.47	12.647	12.982
M 14	x 1.50	**13.30**	13.26	13.38	12.376	12.751
M 15	x 1.00	**14.55**	14.52	14.62	13.917	14.217
M 15	x 1.50	**14.30**	14.26	14.38	13.376	13.751
M 16	x 1.00	**15.55**	15.52	15.62	14.917	15.217
M 16	x 1.50	**15.30**	15.26	15.38	14.376	14.751

* M 2.5 x 0.35 to M 4 x 0.35 core-Ø of int. thread 6H

nom.-Ø mm	x Pitch P	Tapp. hole size Ø mm	Tapping hole size Ø min. mm	Tapping hole size Ø max. mm	Core-Ø of int. thread 7H* min. mm	Core-Ø of int. thread 7H* max. mm
M 17	x 1.00	**16.55**	16.52	16.62	15.917	16.217
M 17	x 1.50	**16.30**	16.26	16.38	15.376	15.751
M 18	x 1.00	**17.55**	17.52	17.62	16.917	17.217
M 18	x 1.50	**17.30**	17.26	17.38	16.376	16.751
M 18	x 2.00	**17.10**	17.05	17.20	15.835	16.310
M 20	x 1.00	**19.55**	19.52	19.62	18.917	19.217
M 20	x 1.50	**19.30**	19.26	19.38	18.376	19.751
M 24	x 1.00	**23.55**	23.52	23.62	22.917	23.217
M 24	x 1.50	**23.30**	23.26	23.38	22.376	22.751
M 24	x 2.00	**23.10**	23.05	23.20	21.835	22.310
M 27	x 1.50	**26.30**	26.26	26.38	25.376	25.751
M 30	x 1.50	**29.30**	29.26	29.38	28.376	28.751
M 33	x 1.50	**32.30**	32.26	32.38	31.376	31.751
M 36	x 1.50	**35.30**	35.26	35.38	34.376	34.751
M 39	x 1.50	**38.30**	38.26	38.38	37.376	37.751
M 42	x 1.50	**41.30**	41.26	41.38	42.376	42.751

Tapping hole size diameter tolerance zone for thread forming (to DIN 13, section 50)
Due to the tensile strength it is not necessary to adhere to the tapping hole size diameter tolerance class 6H; tolerance class 7H satisfies the requirement that the flank coverage of external and internal threads should not fall below 0.32 x P. In addition, formed threads generally possess a higher tensile strength in comparison to cut threads thanks to an uninterrupted grain flow and subsequent work hardening.

UNC threads ASME B1.1

nom.-Ø	Threads per inch	Tapp. hole size Ø mm	Tapping hole size Ø min. mm	Tapping hole size Ø max. mm	Core-Ø of int. thread 2B min. mm	Core-Ø of int. thread 2B max. mm
No 1	- 64	**1.68**	1.67	1.70	1.425	1.580
No 2	- 56	**1.98**	1.97	2.01	1.694	1.872
No 3	- 48	**2.28**	2.27	2.32	1.941	2.146
No 4	- 40	**2.55**	2.54	2.59	2.157	2.385
No 5	- 40	**2.90**	2.89	2.94	2.487	2.698
No 6	- 32	**3.15**	3.14	3.19	2.642	2.896
No 8	- 32	**3.80**	3.78	3.82	3.302	3.531
No 10	- 24	**4.35**	4.33	4.39	3.683	3.937
No 12	- 24	**5.00**	4.97	5.03	4.343	4.597
1/4	- 20	**5.75**	5.72	5.80	4.978	5.258
5/16	- 18	**7.30**	7.26	7.37	6.401	6.731
3/8	- 16	**8.80**	8.77	8.88	7.798	8.153
7/16	- 14	**10.30**	10.27	10.37	9.144	9.550
1/2	- 13	**11.80**	11.77	11.88	10.592	11.024
9/16	- 12	**13.30**	13.28	13.39	11.989	12.446
5/8	- 11	**14.80**	14.78	14.90	13.386	13.868
3/4	- 10	**17.90**	17.85	17.97	16.307	16.840
7/8	- 9	**21.00**	20.95	21.10	19.177	19.761
1	- 8	**24.00**	23.95	24.12	21.971	22.606

UNF threads ASME B1.1

nom.-Ø	Threads per inch	Tapp. hole size Ø mm	Tapping hole size Ø min. mm	Tapping hole size Ø max. mm	Core-Ø of int. thread 2B min. mm	Core-Ø of int. thread 2B max. mm
No 1	- 72	**1.70**	1.69	1.72	1.473	1.610
No 2	- 64	**2.00**	1.99	2.03	1.755	1.910
No 3	- 56	**2.30**	2.29	2.34	2.024	2.197
No 4	- 48	**2.60**	2.59	2.63	2.271	2.459
No 5	- 44	**2.90**	2.89	2.93	2.550	2.741
No 6	- 40	**3.20**	3.19	3.24	2.819	3.023
No 8	- 36	**3.85**	3.83	3.88	3.404	3.607
No 10	- 32	**4.45**	3.43	4.49	3.962	4.166
No 12	- 28	**5.10**	5.07	5.13	4.496	4.724
1/4	- 28	**5.95**	5.92	5.99	5.359	5.588
5/16	- 24	**7.45**	7.42	7.50	6.782	7.036
3/8	- 24	**9.05**	9.02	9.10	8.838	8.636
7/16	- 20	**10.55**	10.48	10.58	9.728	10.033
1/2	- 20	**12.10**	12.08	12.18	11.328	11.608
9/16	- 18	**13.65**	13.61	13.72	12.751	13.081
5/8	- 18	**15.25**	15.21	15.32	14.351	14.681
3/4	- 16	**18.35**	15.30	18.41	17.323	17.678
7/8	- 14	**21.40**	21.35	21.49	20.269	20.650
1	- 12	**24.45**	24.40	24.54	23.114	23.571

(Whitworth-) BSP threads DIN EN ISO 228-1

nom.-Ø inch	Threads per inch	Tapp. hole size Ø mm	Tapping hole size Ø min. mm	Tapping hole size Ø max. mm	Core-Ø of int. thread min. mm	Core-Ø of int. thread max. mm
G 1/16	28	**7.30**	7.28	7.35	6.561	6.843
G 1/8	28	**9.30**	9.28	9.35	8.566	8.848
G 1/4	19	**12.50**	12.48	12.55	11.445	11.890
G 3/8	19	**16.00**	15.98	16.05	14.950	15.395
G 1/2	14	**20.00**	19.98	20.12	18.631	19.172
G 5/8	14	**22.00**	21.98	22.12	20.587	21.128
G 3/4	14	**25.50**	25.48	25.62	24.117	24.658
G 7/8	14	**29.25**	29.23	29.37	27.877	28.418
G 1	11	**32.00**	31.98	32.15	30.291	30.931
G 1 1/4	11	**40.75**	40.70	40.85	38.952	39.592

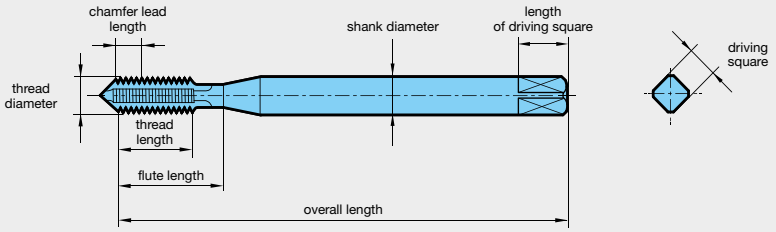
Taps
Produktiv N-X
Intensiv N-X

- steels up to 1200 N/mm²
- acid and heat resistant steels
- non-ferrous metals
- cast materials
- thread types: metric, metric fine, UNC, UNF, RP, G (BSP)

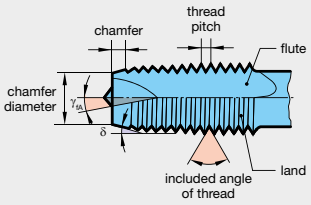
An all-rounder for the production of internal threads with an extremely wide range of application. For the machining of carbon, case-hardening, heat treatable, stainless and acid-resistant steels as well as cast materials and diverse non-ferrous metals in a tensile strength range from < 600 N/mm² to 1200 N/mm² with efficient chip evacuation, long tool life and high dimensional accuracy for the threads produced.

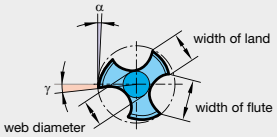
The innovative cutting edge geometry in combination with the controlled application of a wear-resistant TiAlN based coating and compliance with internal thread tolerances provides high quality threads of the correct size. The production of threads to manufacturing tolerance 6HX is achieved with far more economic efficiency thanks to the increased performance and for even wider universal applications and complete process reliability.

Definitions and angles, centres and flute forms to DIN EN 25967



δ = try square
γ_{fA} = spiral point angle
α = clearance angle
γ = rake angle





Flute forms

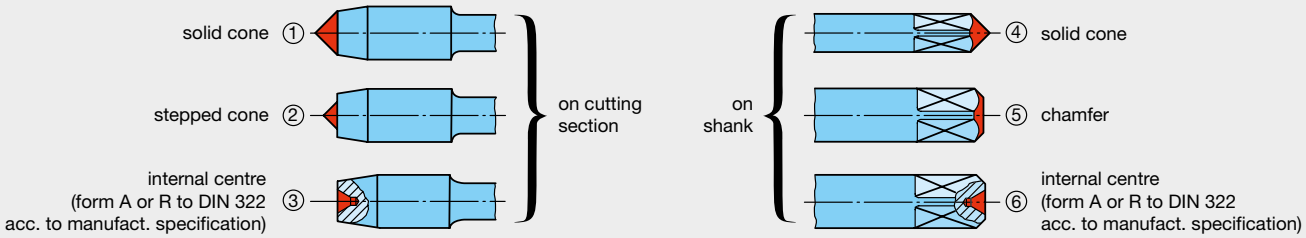

straight fluted, form C **without spiral point**


helix angle **15°**


straight fluted, form B **with spiral point**


helix angle **40°**

Types of centres (standard, to DIN 2197/DIN 2175)



	Centre on cutting section		
Thread diameter range mm	with chamfer form A, C, D, E	with chamfer form B	Centre on shank
≤ 4.2	①	①	④ ⑤ ⑥
> 4.2 … 5.6	① ②	①	④ ⑤ ⑥
> 5.6 … 10.0	① ② ③	① ② ③	④ ⑤ ⑥
> 10.0	③	③	⑥

Coolant duct geometries


axial coolant supply with axial coolant duct exit


axial coolant supply with radial coolant duct exit in the flutes at the chamfer

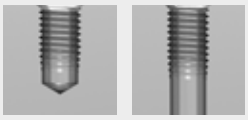
Chamfer forms
Selection and application

When cutting internal threads, all the machining is carried out by the cutting teeth of the chamfer. Therefore, a decision on the best type of chamfer form has to be carefully made as both tool life and quality of thread are thereby greatly affected.

Generally speaking, the form and length of chamfer depend on the type of hole to be tapped. The tapping of through holes does not normally give rise to any difficulties whereas the production of blind holes can create certain problems associated with the need to evacuate swarf in the reverse direction to the feed, i.e. up to the flutes of the tap and then cut off such swarf when the tap is reversed out of the hole.

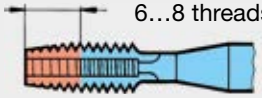
The length of chamfer is determined by taking into account various conflicting factors. To avoid overloading, premature bluntness and oversize threads the number of chamfer cutting threads must not be kept too low. A too long chamfer lead, however, increases the torque and thus the danger of breakage. The spiral point with form B ensures a chip removal always in the direction of feed.

Through hole



Blind hole

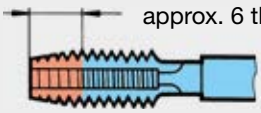
Chamfer forms to DIN 2197

Form A	 6…8 threads	long, 6 - 8 threads for short through holes
Form B	 3.5…5.5 threads	medium, 3.5 - 5.5 threads,with spiral point, for all through holes and deep tapping holes in medium and long-chipping materials
Form C	 2…3 threads	short, 2 - 3 threads for blind holes and generally for aluminium, grey cast iron and brass
Form D	 3.5…5 threads	medium, 3.5 - 5 threads for short through holes
Form E	 1.5…2 threads	extremely short, 1.5 - 2 threads, for blind holes with little run-out depth
Form F	 1…1.5 threads	extremely short, 1 - 1.5 threads, for blind holes with little run-out depth. Whenever possible, do not use.

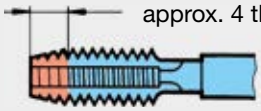
Chamfer forms
Selection and application

Chamfer lead length for sets of 3 taps

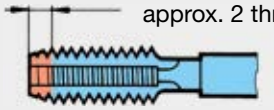
Form A
first tap



Form D
second tap

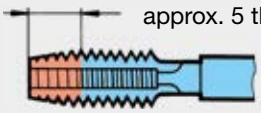


Form C
bottoming tap

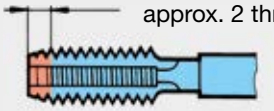


Chamfer lead length for sets of 2 taps

Form D
first tap



Form C
bottoming tap



Application recommendations

While in the first instance, the type of tapped hole required determines the chamfer, generally the tap geometry - i.e. form, number and direction of flutes, cutting angle, etc. - depend on the material to be machined and on the application. Basically, taps up to M16 for tapping ISO metric threads or for the engineering industry in general, have 3 flutes, and above this size 4 or more flutes.

Taps with left-hand flutes and taps with spiral points remove the chips in the cutting direction or direction of feed and are therefore especially suitable for tapping through holes. Taps with straight flutes and long chamfer lead (form D) also give good results.

As far as blind holes are concerned we recommend taps with right-hand spiral flutes or straight fluted taps with a short chamfer lead length. Tools with right-hand spiral flutes have the chip flow in the backward direction, i.e. up the flutes. The chamfer lead length is designed in such a way so that during the return movement chips do not jam and are reliably sheared off.

The tapping of aluminium, grey cast iron and brass requires taps with a short chamfer lead length, regardless of whether through or blind holes are required. In these materials a long chamfer lead length would act as a core drill with chip breaker grooves and would only drill the tapping size hole to the major diameter instead of cutting a thread.


Straight fluted tap with spiral point


Left-hand spiral fluted tap


Straight fluted tap with long chamfer lead


Right-hand spiral fluted tap


Straight fluted tap with short chamfer lead

Questionnaire
Special solution taps

Quantity _____ **Required number of threads** _____

Material

Material to be cut _____ Tensile strength / hardness _____ N/mm² HRC

Workpiece

Thread length _____ mm Nom. thread size _____ f.ex. M18x0.5 ISO3/6H

Tool material

☐ Solid carbide ☐ HSS-E-PM ☐ HSS-E

Coolant

☐ internal ☐ external

☐ similar to standard item

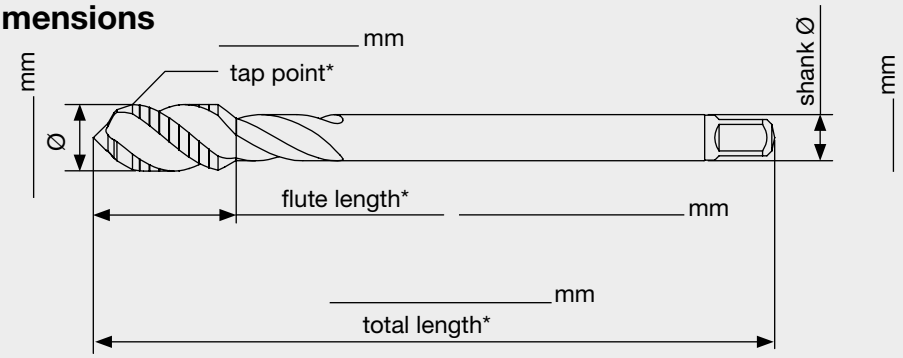
_____

Shank

☐ DIN 371 reinforced shank

☐ DIN 374 / DIN 376 reduced shank

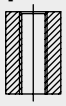
Dimensions

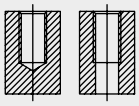


Special feature _____

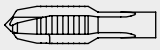
*(deviation from standard)

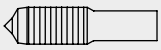
Hole type

☐  Through hole

☐  Blind hole

Threading process

☐  Threading

☐  Thread forming

Surface

☐ bright ☐ coated ☐ others: _____

Contact

Company _____ Company stamp

Contact person _____

Telephone/Fax _____ Date _____

Mail _____ Signature _____

Troubleshooting with new taps

Problem	Possible causes	Solution
1. Thread surface doesn't meet requirements 	Cutting edge geometry not suitable for the application	Apply "correct" tap for the material to be machined
	Cutting speed too high	Reduce cutting speed, optimise lubrication
	Insufficient coolant (concentration and supply)	Ensure suitable coolant and sufficient volume
	Chip congestion	Apply suitable tap type
	Tapping size hole too small	Observe tapping size hole diameter specifications to DIN 336 or respective standards. Observe table for fluteless taps
	With tough, hard materials loading on tool too much or pitch too steep	Apply hand tap sets
	Built-up edge	Apply coated tap
	Cold welding	Improve coolant supply
2. Tool life insufficient	Surface hardening of tappinge size hole	Check drill (cutting edge) for wear Heat or surface treatment following thread production
	Reasons listed under: "thread surface not according to requirements"	Reasons listed under: thread surface "not according to requirements"
	Chip congestion	Apply correct tap
3. Tool breakage during advance or return 	Tapping size hole too small	Observe tapping size hole dia. acc. to DIN 336 or respective standards
	Teeth of chamfer lead overloaded	Longer chamfer lead (blind or through hole) Increase no. of teeth of chamfer lead by increasing no. of flutes Apply tap sets
	Tap hits bottom of tapping size hole	Check hole depth Apply tension/compression tap chuck
	Lack of or incorrect chamfer of tapping size hole postional or angle error of tapping size hole	Correct chamfer angle of tapping size hole Ensure correct tool clamping Apply floating tap holder Check core drill
	Tool hardness not suitable for the application Cutting edge geometry not suitable for the application	Apply suitable tap for the individual application

Troubleshooting with reground taps

Problem	Possible causes	Solution
1. Thread produced is too large	Burrs	Remove burrs
	Cutting edge geometry (chamfer lead, rake-, chamfer-, spiral point angle) not retained	Observe technical specifications when regrinding Observe regrinding instruction
2. Thread produced is too small	Worn section has not been reground correctly	Regrind again or apply new tool Observe max. regrinding limits
	Tap too small due to no. of regrinds	Max. regrinding limit reached apply new tap
3. Thread produced not according to requirements	Burrs	Remove burrs
	Cutting edge geometry (chamfer lead, rake-, chamfer-,spiral point angle) not retained	Observe technical specifications when regrinding Observe regrinding instruction
	Peak-to-valley height of the reground tap too large	Regrind again or apply new tool Observe max. regrinding limits
	Cold welding at the flanks	Remove cold welding marks
4. Tool life insufficient	Cutting edge geometry (chamfer lead, rake-, chamfer-, spiral point angle) not retained	Check quality of grinding wheel Check coolant supply
	Loss of tap hardness due to heat development during the regrinding process	Check quality of grinding wheel Check coolant supply
	Loss of coating	Recoat Check coating of the material to be machined

Catalogue no.	Page	Standard	Surface	Description	Tool material	Type
53050	76	DIN 371	TiCN	Taps for ISO metric threads	HSS-E-PM	Intensiv Synchro
53051	76	DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	Intensiv Synchro
53052	123	DIN 374	TiCN	Taps for ISO metric fine threads	HSS-E-PM	Intensiv Synchro
53053	75	DIN 371	TiCN	Taps for ISO metric threads	HSS-E-PM	Produktiv Synchro
53054	75	DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	Produktiv Synchro
53055	123	DIN 374	TiCN	Taps for ISO metric fine threads	HSS-E-PM	Produktiv Synchro
53610	165	~DIN 371/~DIN 376	TiCN	Fluteless taps with coolant ducts for metric ISO threads	HSS-E-PM	Durativ N-X
53612	173	~DIN 374	TiCN	Fluteless taps with coolant ducts for ISO metric fine threads	HSS-E-PM	Durativ N-X
53618	165	~DIN 371/~DIN 376	TiCN	Fluteless taps with coolant ducts for metric ISO threads	HSS-E-PM	Durativ N-X
53619	173	~DIN 374	TiCN	Fluteless taps with coolant ducts for ISO metric fine threads	HSS-E-PM	Durativ N-X
53620	169	~DIN 371	AlCrN	Fluteless taps with oil grooves for ISO metric threads	HSS-E-PM	Durativ
53621	171	~DIN 371	AlCrN	Fluteless taps with oil grooves for ISO metric threads	HSS-E-PM	Durativ
53622	169	~DIN 376	AlCrN	Fluteless taps with oil grooves for ISO metric threads	HSS-E-PM	Durativ
53630	164	~DIN 371/~DIN 376	TiCN	Fluteless taps for ISO metric threads	HSS-E-PM	Durativ N-X
53631	166	~DIN 371/~DIN 376	TiCN	Fluteless taps for ISO metric threads	HSS-E-PM	Durativ N-X
53632	172	~DIN 374	TiCN	Fluteless taps for ISO metric fine threads	HSS-E-PM	Durativ N-X
53633	175	~DIN 371/~DIN 376	TiCN	Fluteless taps for UNC threads	HSS-E-PM	Durativ N-X
53634	176	~DIN 371/~DIN 374	TiCN	Fluteless taps for UNF threads	HSS-E-PM	Durativ N-X
53635	177	DIN 2189	TiCN	Fluteless taps for BSP threads	HSS-E-PM	Durativ N-X
53640	92	DIN 371/DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	Produktiv H
53641	81	DIN 371	TiCN	Taps for ISO metric threads	HSS-E-PM	VA
53642	91	DIN 371/DIN 376	TiCN	Taps for ISO metric threads	HSS-E	Produktiv H
53643	81	DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	VA
53646	77	DIN 376	TiCN	Taps for ISO metric threads	HSS-E	H
53647	77	~DIN 376	TiCN	Taps for ISO metric threads	HSS-E	H
53661	95	DIN 371/DIN 376	TiCN	Taps for ISO metric threads	HSS-E	Intensiv H
53662	84	DIN 371	TiCN	Taps for ISO metric threads	HSS-E-PM	Intensiv HD
53664	96	DIN 371/DIN 376	TiAlN	Taps for ISO metric threads	HSS-E-PM	Intensiv H
53665	84	DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	Intensiv HD
53666	87	DIN 371/DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	Intensiv HDX
53667	86	DIN 371/DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	Intensiv HDX
53668	89	DIN 371/DIN 376	TiAlN	Taps for ISO metric threads	HSS-E-PM	Intensiv HX
53669	88	DIN 371/DIN 376	TiAlN	Taps for ISO metric threads	HSS-E-PM	Produktiv HX
53670	98	DIN 371	TiCN	Taps for ISO metric threads	HSS-E-PM	HCX
53676	97	DIN 371/DIN 376	TiCN	Taps for ISO metric threads	HSS-E-PM	H
53733	55	~DIN 371/~DIN 376	AlTiZrN	Taps for ISO metric threads	HSS-E	Produktiv N-X
53734	56	DIN 371/DIN 376	AlTiZrN	Taps for ISO metric threads	HSS-E	Produktiv N-X LH
53735	57	DIN 371/DIN 376	AlTiZrN	Taps for ISO metric threads	HSS-E-PM	Produktiv N-X
53736	58	DIN 371/DIN 376	AlTiZrN	Taps for ISO metric threads	HSS-E-PM	Produktiv N-X
53737	59	DIN 371/DIN 376	AlTiZrN	Taps for ISO metric threads	HSS-E	Produktiv N-X
53738	60	DIN 371/DIN 376	AlTiZrN	Taps for ISO metric threads	HSS-E	Produktiv N-X
53739	61	Company std.	AlTiZrN	Taps for ISO metric threads	HSS-E	Produktiv N-X
53746	62	~DIN 371/~DIN 376	TiAlN-H	Taps for ISO metric threads	HSS-E	Intensiv N-X
53747	63	DIN 371/DIN 376	TiAlN-H	Taps for ISO metric threads	HSS-E	Intensiv N-X LH
53748	64	DIN 371/DIN 376	TiAlN-H	Taps for ISO metric threads	HSS-E-PM	Intensiv N-X
53749	65	DIN 371/DIN 376	TiAlN-H	Taps for ISO metric threads	HSS-E-PM	Intensiv N-X
53750	67	DIN 371/DIN 376	TiAlN-H	Taps for ISO metric threads	HSS-E	Intensiv N-X
53751	68	DIN 371/DIN 376	TiAlN-H	Taps for ISO metric threads	HSS-E	Intensiv N-X
53752	69	Company std.	TiAlN-H	Taps for ISO metric threads	HSS-E	Intensiv N-X
53760	66	DIN 371/DIN 376	TiAlN-H	Taps for ISO metric threads	HSS-E	Intensiv N-X
53770	120	DIN 374	TiAlN-H	Taps for ISO metric fine threads	HSS-E	Intensiv N-X
53775	145	DIN 5156	TiAlN-H	Taps for BSP threads	HSS-E	Intensiv N-X
53778	113	DIN 374	AlTiZrN	Taps for ISO metric fine threads	HSS-E	Produktiv N-X
53779	116	DIN 374	AlTiZrN	Taps for ISO metric fine threads	HSS-E	Produktiv N-X
53780	117	DIN 374	TiAlN-H	Taps for ISO metric fine threads	HSS-E	Intensiv N-X
53781	121	DIN 374	TiAlN-H	Taps for ISO metric fine threads	HSS-E	Intensiv N-X
53782	132	DIN 371/DIN 376	AlTiZrN	Taps for UNC threads	HSS-E	Produktiv N-X
53783	133	DIN 371/DIN 376	TiAlN-H	Taps for UNC threads	HSS-E	Intensiv N-X
53784	139	~DIN 371/~DIN 374	AlTiZrN	Taps for UNF threads	HSS-E	Produktiv N-X
53785	140	~DIN 371/~DIN 374	TiAlN-H	Taps for UNF threads	HSS-E	Intensiv N-X
53787	143	DIN 5156	AlTiZrN	Taps for BSP threads	HSS-E	Produktiv N-X
53788	144	DIN 5156	TiAlN-H	Taps for BSP threads	HSS-E	Intensiv N-X
53789	114	DIN 374	AlTiZrN	Taps for ISO metric fine threads	HSS-E-PM	Produktiv N-X
53790	115	DIN 374	AlTiZrN	Taps for ISO metric fine threads	HSS-E-PM	Produktiv N-X
53791	118	DIN 374	TiAlN-H	Taps for ISO metric fine threads	HSS-E-PM	Intensiv N-X
53792	119	DIN 374	TiAlN-H	Taps for ISO metric fine threads	HSS-E-PM	Intensiv N-X
53793	152	~DIN 371	AlTiZrN	Taps for BSW threads	HSS-E	Produktiv-N-X
53794	153	~DIN 371	TiAlN-H	Taps for BSW threads	HSS-E	Intensiv-N-X
53795	150	DIN 5156	AlTiZrN	Taps for BSP threads	HSS-E	Produktiv-N-X
53796	151	DIN 5156	TiAlN-H	Taps for BSP threads	HSS-E	Intensiv-N-X
53810	180	Company std.	TiCN	Thread milling cutters with chamfer for ISO metric threads	Solid carbide	TMC SP
53820	184	Company std.	TiCN	Thread milling cutters with chamfer for ISO metric fine threads	Solid carbide	TMC SP

Catalogue no.	Page	Standard	Surface	Description	Tool material	Type
53830	183	Company std.	TiCN	Thread milling cutters without chamfer for ISO metric threads	Solid carbide	TM SP
53831	185	Company std.	TiCN	Thread milling cutters without chamfer for BSP threads	Solid carbide	TM SP
53832	186	Company std.	TiCN	Universal thread milling cutters for BSP threads	Solid carbide	TMU SP
53840	188	Company std.	TiCN	Micro thread milling cutters for ISO metric threads	Solid carbide	TM SP
53841	190	Company std.	TiCN	Micro thread milling cutters for BSP-threads	Solid carbide	TM SP
53850	189	Company std.	TiAlSiN	Micro thread milling cutters for ISO metric threads	Solid carbide	TM SP
53860	181	Company std.	TiCN	Thread milling cutters without chamfer for ISO metric threads	Solid carbide	TM SP
53890	179	Company std.	AlCrN	Thread milling cutters with chamfer for ISO metric threads	Solid carbide	TMC-NX SP
53892	187	Company std.	TiCN	Micro thread milling cutters for ISO metric threads	Solid carbide	MTM-NX SP
53948	191	Company std.	TiSiN	Drill thread milling cutters for ISO metric threads	Solid carbide	TMD-NX
53949	192	Company std.	TiSiN	Drill thread milling cutters for UNC/UNF threads	Solid carbide	TMD-NX
53950	193	Company std.	TiSiN	Drill thread milling cutters for BSP threads	Solid carbide	TMD-NX
63010	97	~DIN 371	TiCN	Taps for ISO metric threads	Solid carbide	H
63013	170	~DIN 371	TiCN	Fluteless taps with coolant ducts and oil grooves f. ISO metric threads	Solid carbide	Durativ
63033	71	DIN 371/DIN 376	TiN	Taps for ISO metric threads	HSS-E	Produktiv N
63046	73	DIN 371	TiN	Taps for ISO metric threads	HSS-E	Intensiv N
63048	73	DIN 376	TiN	Taps for ISO metric threads	HSS-E	Intensiv N
63119	171	~DIN 371	TiN	Fluteless taps with oil grooves for ISO metric threads	HSS-E	Durativ
63120	168	~DIN 371	TiN	Fluteless taps with oil grooves for ISO metric threads	HSS-E	Durativ
63121	178	DIN 371	TiN	Fluteless taps w/o oil grooves for ISO metric threads	HSS-E	Durativ
63122	168	~DIN 376	TiN	Fluteless taps with oil grooves for ISO metric threads	HSS-E	Durativ
63123	178	~DIN 376	TiN	Fluteless taps w/o oil grooves for ISO metric threads	HSS-E	Durativ
63133	103	DIN 371	TiN	Taps for ISO metric threads	HSS-E	N
63138	103	DIN 376	TiN	Taps for ISO metric threads	HSS-E	N
63146	107	DIN 371	TiN	Taps for ISO metric threads	HSS-E	Intensiv N
63148	107	DIN 376	TiN	Taps for ISO metric threads	HSS-E	Intensiv N
63173	130	DIN 374	TiN	Taps for ISO metric fine threads	HSS-E	Intensiv N
63176	79	DIN 371	TiN	Taps for ISO metric threads	HSS-E	VA
63177	79	DIN 376	TiN	Taps for ISO metric threads	HSS-E	VA
63201	112	DIN 371	TiAlN	Taps for ISO metric threads	HSS-E	GG
63662	85	DIN 371	TiN	Taps for ISO metric threads	HSS-E-PM	Intensiv HD
63665	85	DIN 376	TiN	Taps for ISO metric threads	HSS-E-PM	Intensiv HD
63703	174	~DIN 374	TiN	Fluteless taps for ISO metric fine threads	HSS-E	Durativ
73011	98	DIN 371	bright	Taps for ISO metric threads	Solid carbide	H
73033	70	DIN 371	steam tempered	Taps for ISO metric threads	HSS-E	Produktiv N
73038	70	DIN 376	steam tempered	Taps for ISO metric threads	HSS-E	Produktiv N
73046	72	DIN 371	steam tempered	Taps for ISO metric threads	HSS-E	Intensiv N
73047	74	DIN 371	bright	Taps for ISO metric threads	HSS-E	Intensiv N
73048	72	DIN 376	steam tempered	Taps for ISO metric threads	HSS-E	Intensiv N
73120	167	~DIN 371	bright	Fluteless taps with oil grooves for ISO metric threads	HSS-E	Durativ
73126	99	DIN 371	bright	Taps for ISO metric threads	HSS-E	Massiv N
73131	109	DIN 371	bright	Taps for ISO metric threads	HSS-E	Produktiv W
73132	108	DIN 371	bright	Taps for ISO metric threads	HSS-E	N
73133	101	DIN 371	bright	Taps for ISO metric threads	HSS-E	N
73136	110	DIN 376	bright	Taps for ISO metric threads	HSS-E	Intensiv W
73138	102	DIN 376	bright	Taps for ISO metric threads	HSS-E	N
73145	108	DIN 371	bright	Taps for ISO metric threads	HSS-E	Intensiv N
73146	105	DIN 371	bright	Taps for ISO metric threads	HSS-E	Intensiv N
73148	106	DIN 376	bright	Taps for ISO metric threads	HSS-E	Intensiv N
73156	110	DIN 371	bright	Taps for ISO metric threads	HSS-E	Intensiv W
73173	129	DIN 374	bright	Taps for ISO metric fine threads	HSS-E	Intensiv N
73176	78	DIN 371	steam tempered	Taps for ISO metric threads	HSS-E	VA
73177	78	DIN 376	steam tempered	Taps for ISO metric threads	HSS-E	VA
73178	124	DIN 374	steam tempered	Taps for ISO metric fine threads	HSS-E	VA
73180	125	DIN 374	steam tempered	Taps for ISO metric fine threads	HSS-E	Intensiv HD
73183	122	DIN 374	steam tempered	Taps for ISO metric fine threads	HSS-E	Produktiv N
73185	100	DIN 371	bright	Taps for ISO metric threads	HSS-E	N
73187	122	DIN 374	steam tempered	Taps for ISO metric fine threads	HSS-E	Intensiv N
73189	109	DIN 376	bright	Taps for ISO metric threads	HSS-E	Produktiv W
73194	131	DIN 374	nitrided	Taps for ISO metric fine threads	HSS-E	GG
73201	111	DIN 371	nitrided	Taps for ISO metric threads	HSS-E	GG
73211	111	DIN 376	nitrided	Taps for ISO metric threads	HSS-E	GG
73221	104	DIN 371	bright	Taps for ISO metric threads	HSS-E	Intensiv N
73227	104	DIN 376	bright	Taps for ISO metric threads	HSS-E	Intensiv N
73243	157	DIN 357	bright	Machine nut taps for ISO metric threads	HSS-E	N
73248	158	Company std.	bright	Machine combination drill taps for ISO metric threads	HSS-E	N
73250	128	DIN 374	bright	Taps for ISO metric fine threads	HSS-E	N
73286	148	DIN 5156	bright	Taps for BSP threads	HSS-E	Intensiv N
73288	147	DIN 5156	steam tempered	Taps for BSP threads	HSS-E	Intensiv HD
73293	154	Company std.	steam tempered	Taps for NPT threads	HSS-E	VA
73295	155	Company std.	bright	Short taps for NPT threads	HSS-E	N
73296	156	DIN 40432	bright	Short taps for PG threads	HSS-E	N

Catalogue no.	Page	Standard	Surface	Description	Tool material	Type
73297	136	~DIN 371	steam tempered	Taps for UNC threads	HSS-E	VA
73298	136	~DIN 376	steam tempered	Taps for UNC threads	HSS-E	VA
73299	142	~DIN 374	steam tempered	Taps for UNF threads	HSS-E	VA
73300	147	DIN 5156	steam tempered	Taps for BSP threads	HSS-E	VA
73304	137	~DIN 371	steam tempered	Taps for UNC threads	HSS-E	Intensiv HD
73305	137	~DIN 376	steam tempered	Taps for UNC threads	HSS-E	Intensiv HD
73306	142	~DIN 374	steam tempered	Taps for UNF threads	HSS-E	Intensiv HD
73308	134	~DIN 371	steam tempered	Taps for UNC threads	HSS-E	Produktiv N
73309	134	~DIN 376	steam tempered	Taps for UNC threads	HSS-E	Produktiv N
73321	146	DIN 5156	steam tempered	Taps for BSP threads	HSS-E	Produktiv N
73322	135	~DIN 371	steam tempered	Taps for UNC threads	HSS-E	Intensiv N
73323	135	~DIN 376	steam tempered	Taps for UNC threads	HSS-E	Intensiv N
73324	141	~DIN 374	steam tempered	Taps for UNF threads	HSS-E	Intensiv N
73325	146	DIN 5156	steam tempered	Taps for BSP threads	HSS-E	Intensiv N
73326	138	~DIN 371	nitrided	Taps for UNC threads	HSS-E	GG
73327	138	~DIN 376	nitrided	Taps for UNC threads	HSS-E	GG
73345	149	DIN 5156	nitrided	Taps for BSP threads	HSS-E	GG
73521	161	DIN 2181	bright	Hand taps for ISO-metric fine threads, set	HSS	N
73531	159	DIN 352	bright	Hand taps for ISO-metric threads, set, right hand cutting	HSS	Produktiv N
73532	160	DIN 352	bright	Hand taps for ISO-metric threads, set, left hand cutting	HSS	N
73534	163	~DIN 352	bright	Hand taps for BSW threads, set	HSS	N
73535	162	~DIN 352	bright	Hand taps for UNC threads, set	HSS	N
73640	93	DIN 371	bright	Taps for ISO metric threads	HSS-E-PM	Produktiv H
73641	80	DIN 371	bright	Taps for ISO metric threads	HSS-E-PM	VA
73642	90	DIN 371	nitrided	Taps for ISO metric threads	HSS-E	Produktiv H
73643	80	DIN 376	bright	Taps for ISO metric threads	HSS-E-PM	VA
73645	90	DIN 376	nitrided	Taps for ISO metric threads	HSS-E	Produktiv H
73646	126	DIN 374	nitrided	Taps for ISO metric fine threads	HSS-E	Produktiv H
73647	127	DIN 374	nitrided	Taps for ISO metric fine threads	HSS-E	Intensiv H
73659	82	DIN 376	steam tempered	Taps for ISO metric threads	HSS-E	Intensiv HD
73660	82	DIN 371	steam tempered	Taps for ISO metric threads	HSS-E	Intensiv HD
73661	94	DIN 371	nitrided	Taps for ISO metric threads	HSS-E	Intensiv H
73662	83	DIN 371	bright	Taps for ISO metric threads	HSS-E-PM	Intensiv HD
73664	94	DIN 376	nitrided	Taps for ISO metric threads	HSS-E	Intensiv H
73665	83	DIN 376	bright	Taps for ISO metric threads	HSS-E-PM	Intensiv HD
73830	182	Company std.	TiCN	Thread milling cutters without chamfer for ISO metric threads	Solid carbide	TMU SP

Notes

Threading tools

Our Programme

Products

Twist Drills
Taps
Milling Cutters
Reamers
Countersinks & -bores
Chamfering Tools
Special HSS and Carbide Tools
(according to your specification or Stock solution)
Tool holders

Services

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

Your local contact:

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