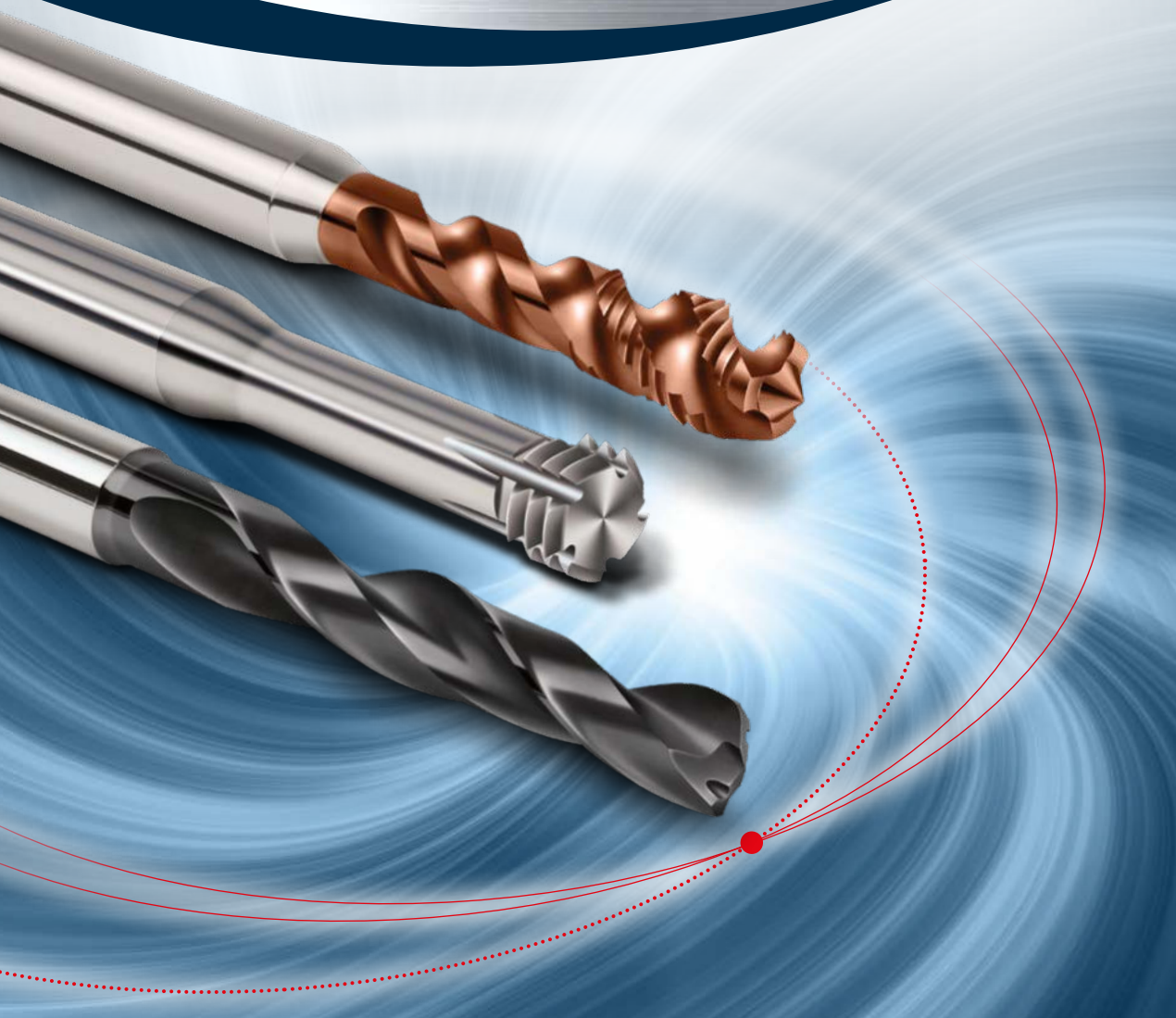
passion
for precision

fraisa

Carbide drills | Thread cutting tools



SUPRADRILL® U
CARBIDE DRILLS

- Universal machining of various types of steel. Safe, reliable drilling processes in steel and stainless steel
- Comprehensive range for a broad spectrum of drilling applications. Basic range consists of 3xd IKZ, 5xd IKZ and 5xd without IKZ
- Nano-U^2 high-performance coating: the outstanding performance coating for all-purpose drilling in steel
- Greater process security, longer tool life and reduced production costs. Thanks to our in-house developed coating concepts and dimension-specific cutting edge design

SUPRADRILL® U

THREAD MILLING

- High degree of process reliability when milling female threads, with milling depths of up to 3xd
- Comprehensive range of thread milling cutters and thread whirlers for the efficient cutting of M, MF, G, UNC, UNF, NPT and NPTF threads
- Low tool costs thanks to universal deployment in a wide variety of materials and with the same pitch
- No jamming of the chips in the thread thanks to their short length. Cutting speed and feed rate can be selected independently of each other

THREAD MILLING

Xtap THREAD CUTTING TOOLS

- Lower tool costs thanks to universal tap known as “Xtap” for high-performance machining in steel and stainless steel
- High process reliability with low torque and long tool life in through-hole and blind-hole machining applications
- Wide range of applications and large selection of application data available to ensure perfect results
- AlCrTiN hard coating
  Greater flexibility by using one tool to machine medium-strength and stainless steel

Xtap

Replaces edition 2021

www.fraisa.com

The raw material surcharges are included in the price.


passion
for precision
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Drilling tools for steel, aluminium, stainless steel and titanium

Spiral flute drills

5xd

N° B62015 / B63015 	**Supradrill® U**	**HM MG10**		**Rm** <850-1100	**Inox** Stainless		17
N° B62014 / B63014 	**Supradrill® U**	**HM MG10**		**Rm** <850-1100			35
N° B72015 	**XDrill®**	**HM MGX**		**Rm** <850-1500			45

3xd

N° B62011 / B63011 	**Supradrill® U**	**HM MG10**		**Rm** <850-1100	**Inox** Stainless		61
N° B72011 	**XDrill®**	**HM MGX**		**Rm** <850-1500			65
N° B52112 	**Supradrill® H**	**HM XA**		**HRC** 48- >60			75

8xd

N° B72020 	**XDrill®**	**HM MGX**		**Rm** <850-1300			87
N° B52020 / B53020 	**Supradrill® N**	**HM MG10**		**Rm** <850-1100			97

Drilling tools for steel, aluminium, stainless steel and titanium

Deep hole drills

15xd

N° B52915

HM MGD²

Rm <850-1100

101

20xd

N° B52920

HM MGD²

Rm <850-1100

103

25xd

N° B52925

HM MGD²

Rm <850-1100

105

30xd

N° B52930

HM MGD²

Rm <850-1100

107

Drilling tools for steel, aluminium, stainless steel and titanium

Micro drills

5xd

N° B57014 **Microdrill NX**

HM MG10 | Rm <850-1100 | 109

N° B57015 **Microdrill NX**

HM MG10 | Rm <850-1100 | Inox Stainless | 115

8xd

N° B57020 **Microdrill NX**

HM MG10 | Rm <850-1100 | 119

Step drills

3xd, for core drill sizes for taps

N° B52801

HM | Rm <850-1100 | 123


passion
for precision
fraisa

Center drills, Countersinks

Center drills

N° B92040

HM MG10	90°	Rm <850-1100			125

N° B92020

HM MG10	120°	Rm <850-1100			127

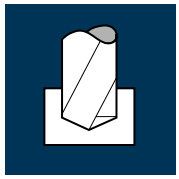
N° B92008

HM MG10	144°	Rm <850-1100			129

Countersinks

N° B92310

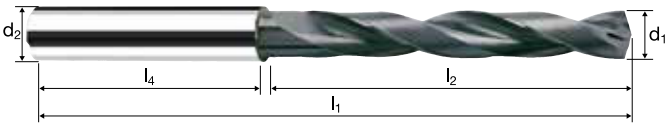
HSS	90°	Rm <850-1100			131

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	2.50	140	0.0600	17825	1070	5.2
		2.60	140	0.0600	17140	1028	5.5
		2.80	140	0.0650	15915	1035	6.4
		2.90	140	0.0700	15365	1076	7.1
		3.00	170	0.0800	18040	1443	10.2
		3.30	170	0.0850	16400	1394	11.9
		3.50	170	0.0900	15460	1391	13.4
		3.70	170	0.0950	14625	1389	14.9
		3.80	170	0.1000	14240	1424	16.1
	Steel 500 - 850 N/mm²	2.50	110	0.0600	14005	840	4.1
		2.60	110	0.0600	13465	808	4.3
		2.80	110	0.0650	12505	813	5.0
		2.90	110	0.0700	12075	845	5.6
		3.00	130	0.0800	13795	1104	7.8
		3.30	130	0.0850	12540	1066	9.1
		3.50	130	0.0900	11825	1064	10.2
		3.70	130	0.0950	11185	1063	11.4
		3.80	130	0.1000	10890	1089	12.4
	Steel 850 - 1100 N/mm²	2.50	80	0.0450	10185	458	2.2
		2.60	80	0.0450	9795	441	2.3
		2.80	80	0.0500	9095	455	2.8
		2.90	80	0.0500	8780	439	2.9
		3.00	110	0.0600	11670	700	4.9
		3.30	110	0.0650	10610	690	5.9
		3.50	110	0.0700	10005	700	6.7
		3.70	110	0.0750	9465	710	7.6
		3.80	110	0.0750	9215	691	7.8
	Steel 1100 - 1300 N/mm²	2.50	55	0.0400	7005	280	1.4
		2.60	55	0.0400	6735	269	1.4
		2.80	55	0.0400	6255	250	1.5
		2.90	55	0.0450	6035	272	1.8
		3.00	70	0.0500	7425	371	2.6
		3.30	70	0.0550	6750	371	3.2
		3.50	70	0.0600	6365	382	3.7
		3.70	70	0.0600	6020	361	3.9
		3.80	70	0.0650	5865	381	4.3
	Steel 1300 - 1500 N/mm²	2.50	25	0.0250	3185	80	0.4
		2.60	25	0.0250	3060	77	0.4
		2.80	25	0.0300	2840	85	0.5
		2.90	25	0.0300	2745	82	0.5
		3.00	40	0.0400	4245	170	1.2
		3.30	40	0.0450	3860	174	1.5
		3.50	40	0.0450	3640	164	1.6
		3.70	40	0.0500	3440	172	1.8
		3.80	40	0.0500	3350	168	1.9
	Stainless steel [Cr-Ni/1.4301]	3.00	60	0.0450	6365	286	2.0
		3.30	60	0.0500	5785	289	2.5
		3.50	60	0.0550	5455	300	2.9
		3.70	60	0.0550	5160	284	3.1
		3.80	60	0.0600	5025	302	3.4
	Cast iron (lamellar / spheroidal)	2.50	160	0.0650	20370	1324	6.5
		2.60	160	0.0650	19590	1273	6.8
		2.80	160	0.0700	18190	1273	7.8
		2.90	160	0.0750	17560	1317	8.7
		3.00	220	0.0850	23345	1984	14.0
		3.30	220	0.0950	21220	2016	17.2
		3.50	220	0.1000	20010	2001	19.3
		3.70	220	0.1050	18925	1987	21.4
		3.80	220	0.1100	18430	2027	23.0
	Wrought aluminium alloys Si < 6% hardened	2.50	220	0.0500	28010	1401	6.9
		2.60	220	0.0500	26935	1347	7.2
		2.80	220	0.0550	25010	1376	8.5
		2.90	220	0.0600	24150	1449	9.6
		3.00	250	0.0650	26525	1724	12.2
		3.30	250	0.0750	24115	1809	15.5
		3.50	250	0.0800	22735	1819	17.5
		3.70	250	0.0800	21505	1720	18.5
		3.80	250	0.0850	20940	1780	20.2

Spiral flute drills Supradrill® U

5xd

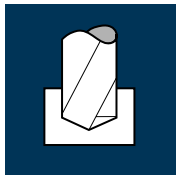
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **0250**

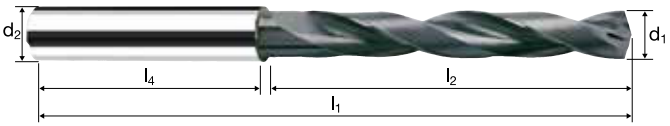
Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015	B63015
0250*	2.50	6.0	66.0	28.0	36	20.8		●	
0255*	2.55	6.0	66.0	28.0	36	20.7		●	
0260*	2.60	6.0	66.0	28.0	36	20.6		●	
0265*	2.65	6.0	66.0	28.0	36	20.6		●	
0270*	2.70	6.0	66.0	28.0	36	20.6		●	
0280*	2.80	6.0	66.0	28.0	36	20.4		●	
0285*	2.85	6.0	66.0	28.0	36	20.4		●	
0290*	2.90	6.0	66.0	28.0	36	20.4		●	
0295*	2.95	6.0	66.0	28.0	36	20.3		●	
0300	3.00	6.0	66.0	28.0	36	20.2		●	
0305	3.05	6.0	66.0	28.0	36	20.2		●	
0310	3.10	6.0	66.0	28.0	36	20.2		●	
0315	3.15	6.0	66.0	28.0	36	20.1		●	
0320	3.20	6.0	66.0	28.0	36	20.0		●	
0330	3.30	6.0	66.0	28.0	36	20.0		●	
0340	3.40	6.0	66.0	28.0	36	19.8		●	
0350	3.50	6.0	66.0	28.0	36	19.8		●	
0360	3.60	6.0	66.0	28.0	36	19.6		●	
0370	3.70	6.0	66.0	28.0	36	19.6		●	
0375	3.75	6.0	66.0	28.0	36	19.5		●	
0380	3.80	6.0	74.0	36.0	36	27.4		●	
0385	3.85	6.0	74.0	36.0	36	27.3		●	
	* without internal cooling								

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	4.00	170	0.1050	13530	1421	17.9
		4.20	170	0.1100	12885	1417	19.6
		4.40	170	0.1150	12300	1415	21.5
		4.50	170	0.1200	12025	1443	22.9
		4.80	170	0.1250	11275	1409	25.5
		5.00	170	0.1300	10825	1407	27.6
		5.20	170	0.1350	10405	1405	29.8
		5.30	170	0.1400	10210	1429	31.5
		5.50	170	0.1450	9840	1427	33.9
	Steel 500 - 850 N/mm²	4.00	130	0.1050	10345	1086	13.6
		4.20	130	0.1100	9850	1084	15.0
		4.40	130	0.1150	9405	1082	16.4
		4.50	130	0.1200	9195	1103	17.5
		4.80	130	0.1250	8620	1078	19.5
		5.00	130	0.1300	8275	1076	21.1
		5.20	130	0.1350	7960	1075	22.8
		5.30	130	0.1400	7810	1093	24.1
		5.50	130	0.1450	7525	1091	25.9
	Steel 850 - 1100 N/mm²	4.00	110	0.0800	8755	700	8.8
		4.20	110	0.0850	8335	709	9.8
		4.40	110	0.0900	7960	716	10.9
		4.50	110	0.0900	7780	700	11.1
		4.80	110	0.0950	7295	693	12.5
		5.00	110	0.1000	7005	701	13.8
		5.20	110	0.1050	6735	707	15.0
		5.30	110	0.1050	6605	694	15.3
		5.50	110	0.1100	6365	700	16.6
	Steel 1100 - 1300 N/mm²	4.00	70	0.0650	5570	362	4.6
		4.20	70	0.0700	5305	371	5.1
		4.40	70	0.0750	5065	380	5.8
		4.50	70	0.0750	4950	371	5.9
		4.80	70	0.0800	4640	371	6.7
		5.00	70	0.0850	4455	379	7.4
		5.20	70	0.0850	4285	364	7.7
		5.30	70	0.0900	4205	379	8.4
		5.50	70	0.0900	4050	365	8.7
	Steel 1300 - 1500 N/mm²	4.00	40	0.0550	3185	175	2.2
		4.20	40	0.0550	3030	167	2.3
		4.40	40	0.0600	2895	174	2.6
		4.50	40	0.0600	2830	170	2.7
		4.80	40	0.0650	2655	173	3.1
		5.00	40	0.0650	2545	165	3.2
		5.20	40	0.0700	2450	172	3.6
		5.30	40	0.0700	2400	168	3.7
		5.50	40	0.0750	2315	174	4.1
	Stainless steel [Cr-Ni/1.4301]	4.00	60	0.0600	4775	287	3.6
		4.20	60	0.0650	4545	295	4.1
		4.40	60	0.0700	4340	304	4.6
		4.50	60	0.0700	4245	297	4.7
		4.80	60	0.0750	3980	299	5.4
		5.00	60	0.0750	3820	287	5.6
		5.20	60	0.0800	3675	294	6.2
		5.30	60	0.0800	3605	288	6.4
		5.50	60	0.0850	3470	295	7.0
	Cast iron (lamellar / spheroidal)	4.00	220	0.1150	17505	2013	25.3
		4.20	220	0.1200	16675	2001	27.7
		4.40	220	0.1250	15915	1989	30.2
		4.50	220	0.1300	15560	2023	32.2
		4.80	220	0.1350	14590	1970	35.6
		5.00	220	0.1450	14005	2031	39.9
		5.20	220	0.1500	13465	2020	42.9
		5.30	220	0.1500	13215	1982	43.7
		5.50	220	0.1550	12730	1973	46.9
	Wrought aluminium alloys Si < 6% hardened	4.00	250	0.0900	19895	1791	22.5
		4.20	250	0.0950	18945	1800	24.9
		4.40	250	0.1000	18085	1809	27.5
		4.50	250	0.1000	17685	1769	28.1
		4.80	250	0.1050	16580	1741	31.5
		5.00	250	0.1100	15915	1751	34.4
		5.20	250	0.1150	15305	1760	37.4
		5.30	250	0.1200	15015	1802	39.8
		5.50	250	0.1200	14470	1736	41.3

Spiral flute drills Supradrill® U

5xd

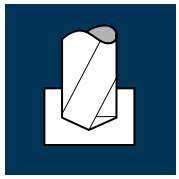
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **0390**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015	B63015
0390	3.90	6.0	74.0	36.0	36	27.4		●	
0400	4.00	6.0	74.0	36.0	36	26.9		●	
0410	4.10	6.0	74.0	36.0	36	26.9		●	
0420	4.20	6.0	74.0	36.0	36	26.8		●	
0430	4.30	6.0	74.0	36.0	36	26.8		●	
0440	4.40	6.0	74.0	36.0	36	26.6		●	
0445	4.45	6.0	74.0	36.0	36	26.6		●	
0450	4.50	6.0	74.0	36.0	36	26.6		●	
0460	4.60	6.0	74.0	36.0	36	26.5		●	
0465	4.65	6.0	74.0	36.0	36	26.5		●	
0470	4.70	6.0	74.0	36.0	36	26.5		●	
0480	4.80	6.0	82.0	44.0	36	34.4		●	
0490	4.90	6.0	82.0	44.0	36	34.4		●	
0495	4.95	6.0	82.0	44.0	36	34.3		●	
0500	5.00	6.0	82.0	44.0	36	34.8		●	
0505	5.05	6.0	82.0	44.0	36	34.7		●	
0510	5.10	6.0	82.0	44.0	36	34.7		●	
0520	5.20	6.0	82.0	44.0	36	34.6		●	
0525	5.25	6.0	82.0	44.0	36	34.6		●	
0530	5.30	6.0	82.0	44.0	36	34.6		●	
0540	5.40	6.0	82.0	44.0	36	34.5		●	
0550	5.50	6.0	82.0	44.0	36	34.5		●	
0555	5.55	6.0	82.0	44.0	36	34.4		●	

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	5.60	170	0.1450	9665	1401	34.5
		5.80	170	0.1550	9330	1446	38.2
		6.00	170	0.1600	9020	1443	40.8
		6.20	170	0.1650	8730	1441	43.5
		6.50	170	0.1700	8325	1415	47.0
		6.80	170	0.1800	7960	1433	52.0
		7.00	170	0.1850	7730	1430	55.0
		7.20	170	0.1900	7515	1428	58.1
		7.40	170	0.1950	7315	1426	61.3
	Steel 500 - 850 N/mm²	5.60	130	0.1450	7390	1072	26.4
		5.80	130	0.1550	7135	1106	29.2
		6.00	130	0.1600	6895	1103	31.2
		6.20	130	0.1650	6675	1101	33.3
		6.50	130	0.1700	6365	1082	35.9
		6.80	130	0.1800	6085	1095	39.8
		7.00	130	0.1850	5910	1093	42.1
		7.20	130	0.1900	5745	1092	44.4
		7.40	130	0.1950	5590	1090	46.9
	Steel 850 - 1100 N/mm²	5.60	110	0.1100	6255	688	16.9
		5.80	110	0.1150	6035	694	18.3
		6.00	110	0.1200	5835	700	19.8
		6.20	110	0.1250	5645	706	21.3
		6.50	110	0.1300	5385	700	23.2
		6.80	110	0.1350	5150	695	25.3
		7.00	110	0.1400	5000	700	26.9
		7.20	110	0.1450	4865	705	28.7
		7.40	110	0.1500	4730	710	30.5
	Steel 1100 - 1300 N/mm²	5.60	70	0.0950	3980	378	9.3
		5.80	70	0.0950	3840	365	9.6
		6.00	70	0.1000	3715	372	10.5
		6.20	70	0.1050	3595	378	11.4
		6.50	70	0.1100	3430	377	12.5
		6.80	70	0.1150	3275	377	13.7
		7.00	70	0.1150	3185	366	14.1
		7.20	70	0.1200	3095	371	15.1
		7.40	70	0.1250	3010	376	16.2
	Steel 1300 - 1500 N/mm²	5.60	40	0.0750	2275	171	4.2
		5.80	40	0.0750	2195	165	4.3
		6.00	40	0.0800	2120	170	4.8
		6.20	40	0.0850	2055	175	5.3
		6.50	40	0.0850	1960	167	5.5
		6.80	40	0.0900	1870	168	6.1
		7.00	40	0.0950	1820	173	6.7
		7.20	40	0.0950	1770	168	6.8
		7.40	40	0.1000	1720	172	7.4
	Stainless steel [Cr-Ni/1.4301]	5.60	60	0.0850	3410	290	7.1
		5.80	60	0.0900	3295	297	7.8
		6.00	60	0.0900	3185	287	8.1
		6.20	60	0.0950	3080	293	8.8
		6.50	60	0.1000	2940	294	9.8
		6.80	60	0.1050	2810	295	10.7
		7.00	60	0.1100	2730	300	11.6
		7.20	60	0.1100	2655	292	11.9
		7.40	60	0.1150	2580	297	12.8
	Cast iron (lamellar / spheroidal)	5.60	220	0.1600	12505	2001	49.3
		5.80	220	0.1650	12075	1992	52.6
		6.00	220	0.1700	11670	1984	56.1
		6.20	220	0.1750	11295	1977	59.7
		6.50	220	0.1850	10775	1993	66.1
		6.80	220	0.1950	10300	2009	72.9
		7.00	220	0.2000	10005	2001	77.0
		7.20	220	0.2050	9725	1994	81.2
		7.40	220	0.2100	9465	1988	85.5
	Wrought aluminium alloys Si < 6% hardened	5.60	250	0.1250	14210	1776	43.8
		5.80	250	0.1300	13720	1784	47.1
		6.00	250	0.1350	13265	1791	50.6
		6.20	250	0.1400	12835	1797	54.2
		6.50	250	0.1450	12245	1776	58.9
		6.80	250	0.1500	11705	1756	63.8
		7.00	250	0.1550	11370	1762	67.8
		7.20	250	0.1600	11050	1768	72.0
		7.40	250	0.1650	10755	1775	76.3

Spiral flute drills Supradrill® U

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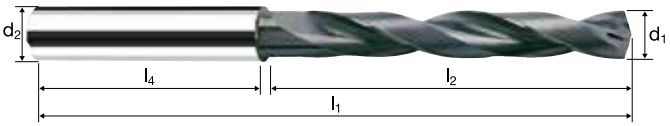
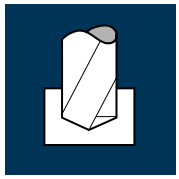
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **0560**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015	B63015
0560	5.60	6.0	82.0	44.0	36	34.4		●	
0565	5.65	6.0	82.0	44.0	36	34.4		●	
0570	5.70	6.0	82.0	44.0	36	34.4		●	
0575	5.75	6.0	82.0	44.0	36	34.5		●	
0580	5.80	6.0	82.0	44.0	36	34.5		●	
0590	5.90	6.0	82.0	44.0	36	34.5		●	
0600	6.00	6.0	82.0	44.0	36	34.5		●	
0610	6.10	8.0	91.0	53.0	36	41.4		●	
0620	6.20	8.0	91.0	53.0	36	41.2		●	
0630	6.30	8.0	91.0	53.0	36	41.2		●	
0640	6.40	8.0	91.0	53.0	36	41.1		●	
0650	6.50	8.0	91.0	53.0	36	41.1		●	
0660	6.60	8.0	91.0	53.0	36	41.0		●	
0670	6.70	8.0	91.0	53.0	36	41.0		●	
0680	6.80	8.0	91.0	53.0	36	40.9		●	
0690	6.90	8.0	91.0	53.0	36	40.9		●	
0700	7.00	8.0	91.0	53.0	36	40.7		●	
0710	7.10	8.0	91.0	53.0	36	40.7		●	
0720	7.20	8.0	91.0	53.0	36	40.6		●	
0725	7.25	8.0	91.0	53.0	36	40.6		●	
0730	7.30	8.0	91.0	53.0	36	40.6		●	
0740	7.40	8.0	91.0	53.0	36	40.5		●	
0745	7.45	8.0	91.0	53.0	36	40.4		●	

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	7.50	170	0.1950	7215	1407	62.2
		7.60	170	0.2000	7120	1424	64.6
		7.80	170	0.2050	6940	1423	68.0
		8.00	170	0.2100	6765	1421	71.4
		8.20	170	0.2150	6600	1419	74.9
		8.50	170	0.2250	6365	1432	81.3
		8.80	170	0.2300	6150	1415	86.0
		9.00	170	0.2350	6015	1414	89.9
		9.20	170	0.2400	5880	1411	93.8
	Steel 500 - 850 N/mm²	7.50	130	0.1950	5515	1075	47.5
		7.60	130	0.2000	5445	1089	49.4
		7.80	130	0.2050	5305	1088	52.0
		8.00	130	0.2100	5175	1087	54.6
		8.20	130	0.2150	5045	1085	57.3
		8.50	130	0.2250	4870	1096	62.2
		8.80	130	0.2300	4700	1081	65.7
		9.00	130	0.2350	4600	1081	68.8
		9.20	130	0.2400	4500	1080	71.8
	Steel 850 - 1100 N/mm²	7.50	110	0.1500	4670	701	30.9
		7.60	110	0.1500	4605	691	31.3
		7.80	110	0.1550	4490	696	33.3
		8.00	110	0.1600	4375	700	35.2
		8.20	110	0.1650	4270	705	37.2
		8.50	110	0.1700	4120	700	39.7
		8.80	110	0.1750	3980	697	42.4
		9.00	110	0.1800	3890	700	44.5
		9.20	110	0.1850	3805	704	46.8
	Steel 1100 - 1300 N/mm²	7.50	70	0.1250	2970	371	16.4
		7.60	70	0.1250	2930	366	16.6
		7.80	70	0.1300	2855	371	17.7
		8.00	70	0.1350	2785	376	18.9
		8.20	70	0.1350	2715	367	19.4
		8.50	70	0.1400	2620	367	20.8
		8.80	70	0.1450	2530	367	22.3
		9.00	70	0.1500	2475	371	23.6
		9.20	70	0.1550	2420	375	24.9
	Steel 1300 - 1500 N/mm²	7.50	40	0.1000	1700	170	7.5
		7.60	40	0.1000	1675	168	7.6
		7.80	40	0.1050	1630	171	8.2
		8.00	40	0.1050	1590	167	8.4
		8.20	40	0.1100	1555	171	9.0
		8.50	40	0.1150	1500	173	9.8
		8.80	40	0.1150	1445	166	10.1
		9.00	40	0.1200	1415	170	10.8
		9.20	40	0.1250	1385	173	11.5
	Stainless steel [Cr-Ni/1.4301]	7.50	60	0.1150	2545	293	12.9
		7.60	60	0.1150	2515	289	13.1
		7.80	60	0.1200	2450	294	14.0
		8.00	60	0.1250	2385	298	15.0
		8.20	60	0.1250	2330	291	15.4
		8.50	60	0.1300	2245	292	16.6
		8.80	60	0.1350	2170	293	17.8
		9.00	60	0.1400	2120	297	18.9
		9.20	60	0.1400	2075	291	19.3
	Cast iron (lamellar / spheroidal)	7.50	220	0.2150	9335	2007	88.7
		7.60	220	0.2150	9215	1981	89.9
		7.80	220	0.2250	8980	2021	96.5
		8.00	220	0.2300	8755	2014	101.2
		8.20	220	0.2350	8540	2007	106.0
		8.50	220	0.2450	8240	2019	114.6
		8.80	220	0.2500	7960	1990	121.0
		9.00	220	0.2550	7780	1984	126.2
		9.20	220	0.2650	7610	2017	134.1
	Wrought aluminium alloys Si < 6% hardened	7.50	250	0.1650	10610	1751	77.3
		7.60	250	0.1700	10470	1780	80.7
		7.80	250	0.1750	10200	1785	85.3
		8.00	250	0.1800	9945	1790	90.0
		8.20	250	0.1800	9705	1747	92.3
		8.50	250	0.1900	9360	1778	100.9
		8.80	250	0.1950	9045	1764	107.3
		9.00	250	0.2000	8840	1768	112.5
		9.20	250	0.2050	8650	1773	117.9

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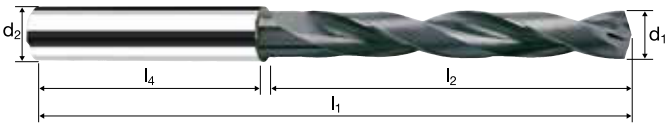
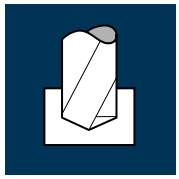


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **0750**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015	B63015
0750	7.50	8.0	91.0	53.0	36	40.5		●	
0755	7.55	8.0	91.0	53.0	36	40.4		●	
0760	7.60	8.0	91.0	53.0	36	40.4		●	
0765	7.65	8.0	91.0	53.0	36	40.4		●	
0770	7.70	8.0	91.0	53.0	36	40.4		●	
0780	7.80	8.0	91.0	53.0	36	40.4		●	
0790	7.90	8.0	91.0	53.0	36	40.4		●	
0800	8.00	8.0	91.0	53.0	36	40.4		●	
0810	8.10	10.0	103.0	61.0	40	46.3		●	
0820	8.20	10.0	103.0	61.0	40	46.2		●	
0830	8.30	10.0	103.0	61.0	40	46.2		●	
0840	8.40	10.0	103.0	61.0	40	46.1		●	
0850	8.50	10.0	103.0	61.0	40	46.1		●	
0860	8.60	10.0	103.0	61.0	40	46.0		●	
0870	8.70	10.0	103.0	61.0	40	46.0		●	
0875	8.75	10.0	103.0	61.0	40	45.9		●	
0880	8.80	10.0	103.0	61.0	40	45.9		●	
0885	8.85	10.0	103.0	61.0	40	45.8		●	
0890	8.90	10.0	103.0	61.0	40	45.8		●	
0900	9.00	10.0	103.0	61.0	40	45.7		●	
0910	9.10	10.0	103.0	61.0	40	45.7		●	
0920	9.20	10.0	103.0	61.0	40	45.6		●	
0925	9.25	10.0	103.0	61.0	40	45.5		●	

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	9.40	170	0.2450	5755	1410	97.9
		9.50	170	0.2500	5695	1424	100.9
		9.60	170	0.2550	5635	1437	104.0
		9.80	170	0.2600	5520	1435	108.3
		10.00	170	0.2650	5410	1434	112.6
		10.20	170	0.2700	5305	1432	117.0
		10.50	170	0.2750	5155	1418	122.8
		10.80	170	0.2850	5010	1428	130.8
		11.00	170	0.2900	4920	1427	135.6
	Steel 500 - 850 N/mm²	9.40	130	0.2450	4400	1078	74.8
		9.50	130	0.2500	4355	1089	77.2
		9.60	130	0.2550	4310	1099	79.6
		9.80	130	0.2600	4220	1097	82.8
		10.00	130	0.2650	4140	1097	86.2
		10.20	130	0.2700	4055	1095	89.5
		10.50	130	0.2750	3940	1084	93.8
		10.80	130	0.2850	3830	1092	100.0
		11.00	130	0.2900	3760	1090	103.6
	Steel 850 - 1100 N/mm²	9.40	110	0.1900	3725	708	49.1
		9.50	110	0.1900	3685	700	49.6
		9.60	110	0.1900	3645	693	50.1
		9.80	110	0.1950	3575	697	52.6
		10.00	110	0.2000	3500	700	55.0
		10.20	110	0.2050	3435	704	57.5
		10.50	110	0.2100	3335	700	60.6
		10.80	110	0.2150	3240	697	63.8
		11.00	110	0.2200	3185	701	66.6
	Steel 1100 - 1300 N/mm²	9.40	70	0.1550	2370	367	25.5
		9.50	70	0.1600	2345	375	26.6
		9.60	70	0.1600	2320	371	26.9
		9.80	70	0.1650	2275	375	28.3
		10.00	70	0.1650	2230	368	28.9
		10.20	70	0.1700	2185	372	30.4
		10.50	70	0.1750	2120	371	32.1
		10.80	70	0.1800	2065	372	34.1
		11.00	70	0.1850	2025	375	35.6
	Steel 1300 - 1500 N/mm²	9.40	40	0.1250	1355	169	11.8
		9.50	40	0.1250	1340	168	11.9
		9.60	40	0.1300	1325	172	12.5
		9.80	40	0.1300	1300	169	12.7
		10.00	40	0.1350	1275	172	13.5
		10.20	40	0.1350	1250	169	13.8
		10.50	40	0.1400	1215	170	14.7
		10.80	40	0.1450	1180	171	15.7
		11.00	40	0.1450	1155	168	15.9
	Stainless steel [Cr-Ni/1.4301]	9.40	60	0.1450	2030	294	20.4
		9.50	60	0.1450	2010	292	20.7
		9.60	60	0.1500	1990	299	21.6
		9.80	60	0.1500	1950	293	22.1
		10.00	60	0.1550	1910	296	23.3
		10.20	60	0.1550	1870	290	23.7
		10.50	60	0.1600	1820	291	25.2
		10.80	60	0.1650	1770	292	26.8
		11.00	60	0.1700	1735	295	28.0
	Cast iron (lamellar / spheroidal)	9.40	220	0.2700	7450	2012	139.6
		9.50	220	0.2700	7370	1990	141.0
		9.60	220	0.2750	7295	2006	145.2
		9.80	220	0.2800	7145	2001	150.9
		10.00	220	0.2850	7005	1996	156.8
		10.20	220	0.2900	6865	1991	162.7
		10.50	220	0.3000	6670	2001	173.3
		10.80	220	0.3100	6485	2010	184.2
		11.00	220	0.3150	6365	2005	190.5
	Wrought aluminium alloys Si < 6% hardened	9.40	250	0.2100	8465	1778	123.4
		9.50	250	0.2100	8375	1759	124.7
		9.60	250	0.2150	8290	1782	129.0
		9.80	250	0.2200	8120	1786	134.7
		10.00	250	0.2200	7960	1751	137.5
		10.20	250	0.2250	7800	1755	143.4
		10.50	250	0.2350	7580	1781	154.2
		10.80	250	0.2400	7370	1769	162.0
		11.00	250	0.2450	7235	1773	168.5

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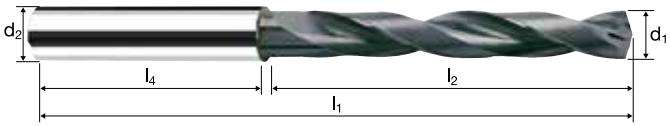
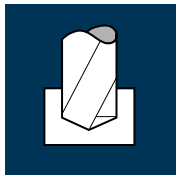
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **0930**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62015	B63015
0930	9.30	10.0	103.0	61.0	40	45.6		●
0940	9.40	10.0	103.0	61.0	40	45.5		●
0950	9.50	10.0	103.0	61.0	40	45.5		●
0955	9.55	10.0	103.0	61.0	40	45.4		●
0960	9.60	10.0	103.0	61.0	40	45.4		●
0965	9.65	10.0	103.0	61.0	40	45.3		●
0970	9.70	10.0	103.0	61.0	40	45.4		●
0980	9.80	10.0	103.0	61.0	40	45.3		●
0990	9.90	10.0	103.0	61.0	40	45.4		●
1000	10.00	10.0	103.0	61.0	40	45.4		●
1010	10.10	12.0	118.0	71.0	45	53.3		●
1020	10.20	12.0	118.0	71.0	45	53.2		●
1030	10.30	12.0	118.0	71.0	45	53.2		●
1040	10.40	12.0	118.0	71.0	45	53.1		●
1050	10.50	12.0	118.0	71.0	45	53.1		●
1060	10.60	12.0	118.0	71.0	45	53.0		●
1070	10.70	12.0	118.0	71.0	45	52.9		●
1080	10.80	12.0	118.0	71.0	45	52.8		●
1090	10.90	12.0	118.0	71.0	45	52.8		●
1100	11.00	12.0	118.0	71.0	45	52.7		●
1110	11.10	12.0	118.0	71.0	45	52.7		●
1120	11.20	12.0	118.0	71.0	45	52.6		●
1130	11.30	12.0	118.0	71.0	45	52.6		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	11.50	170	0.3050	4705	1435	149.1
		11.80	170	0.3100	4585	1421	155.4
		12.00	170	0.3150	4510	1421	160.7
		12.20	170	0.3200	4435	1419	165.9
		12.50	170	0.3300	4330	1429	175.4
		12.80	170	0.3350	4230	1417	182.4
		13.00	170	0.3400	4165	1416	188.0
		13.20	170	0.3450	4100	1415	193.6
		13.50	170	0.3550	4010	1424	203.8
	Steel 500 - 850 N/mm²	11.50	130	0.3050	3600	1098	114.0
		11.80	130	0.3100	3505	1087	118.8
		12.00	130	0.3150	3450	1087	122.9
		12.20	130	0.3200	3390	1085	126.8
		12.50	130	0.3300	3310	1092	134.0
		12.80	130	0.3350	3235	1084	139.5
		13.00	130	0.3400	3185	1083	143.7
		13.20	130	0.3450	3135	1082	148.0
		13.50	130	0.3550	3065	1088	155.7
	Steel 850 - 1100 N/mm²	11.50	110	0.2300	3045	700	72.7
		11.80	110	0.2350	2965	697	76.2
		12.00	110	0.2400	2920	701	79.3
		12.20	110	0.2450	2870	703	82.2
		12.50	110	0.2500	2800	700	85.9
		12.80	110	0.2550	2735	697	89.7
		13.00	110	0.2600	2695	701	93.0
		13.20	110	0.2650	2655	704	96.3
		13.50	110	0.2700	2595	701	100.3
	Steel 1100 - 1300 N/mm²	11.50	70	0.1900	1940	369	38.3
		11.80	70	0.1950	1890	369	40.3
		12.00	70	0.2000	1855	371	42.0
		12.20	70	0.2050	1825	374	43.7
		12.50	70	0.2100	1785	375	46.0
		12.80	70	0.2150	1740	374	48.1
		13.00	70	0.2150	1715	369	48.9
		13.20	70	0.2200	1690	372	50.9
		13.50	70	0.2250	1650	371	53.1
	Steel 1300 - 1500 N/mm²	11.50	40	0.1550	1105	171	17.8
		11.80	40	0.1550	1080	167	18.3
		12.00	40	0.1600	1060	170	19.2
		12.20	40	0.1650	1045	172	20.2
		12.50	40	0.1650	1020	168	20.7
		12.80	40	0.1700	995	169	21.8
		13.00	40	0.1750	980	172	22.8
		13.20	40	0.1750	965	169	23.1
		13.50	40	0.1800	945	170	24.3
	Stainless steel [Cr-Ni/1.4301]	11.50	60	0.1750	1660	291	30.2
		11.80	60	0.1800	1620	292	31.9
		12.00	60	0.1850	1590	294	33.3
		12.20	60	0.1900	1565	297	34.8
		12.50	60	0.1900	1530	291	35.7
		12.80	60	0.1950	1490	291	37.4
		13.00	60	0.2000	1470	294	39.0
		13.20	60	0.2050	1445	296	40.5
		13.50	60	0.2100	1415	297	42.5
	Cast iron (lamellar / spheroidal)	11.50	220	0.3300	6090	2010	208.7
		11.80	220	0.3350	5935	1988	217.4
		12.00	220	0.3450	5835	2013	227.7
		12.20	220	0.3500	5740	2009	234.8
		12.50	220	0.3550	5600	1988	244.0
		12.80	220	0.3650	5470	1997	256.9
		13.00	220	0.3700	5385	1993	264.5
		13.20	220	0.3750	5305	1989	272.2
		13.50	220	0.3850	5185	1996	285.7
	Wrought aluminium alloys Si < 6% hardened	11.50	250	0.2550	6920	1765	183.3
		11.80	250	0.2600	6745	1754	191.8
		12.00	250	0.2650	6630	1757	198.7
		12.20	250	0.2700	6525	1762	206.0
		12.50	250	0.2800	6365	1782	218.7
		12.80	250	0.2850	6215	1771	227.9
		13.00	250	0.2900	6120	1775	235.6
		13.20	250	0.2950	6030	1779	243.4
		13.50	250	0.3000	5895	1769	253.1

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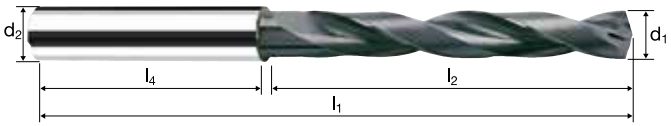
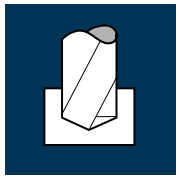
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **1140**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015	B63015
1140	11.40	12.0	118.0	71.0	45	52.5		●	
1150	11.50	12.0	118.0	71.0	45	52.4		●	
1160	11.60	12.0	118.0	71.0	45	52.4		●	
1170	11.70	12.0	118.0	71.0	45	52.4		●	
1180	11.80	12.0	118.0	71.0	45	52.3		●	
1190	11.90	12.0	118.0	71.0	45	52.4		●	
1200	12.00	12.0	118.0	71.0	45	52.3		●	
1210	12.10	14.0	124.0	77.0	45	56.3		●	
1220	12.20	14.0	124.0	77.0	45	56.2		●	
1230	12.30	14.0	124.0	77.0	45	56.2		●	
1240	12.40	14.0	124.0	77.0	45	56.1		●	
1250	12.50	14.0	124.0	77.0	45	56.1		●	
1260	12.60	14.0	124.0	77.0	45	56.0		●	
1270	12.70	14.0	124.0	77.0	45	55.9		●	
1280	12.80	14.0	124.0	77.0	45	55.8		●	
1290	12.90	14.0	124.0	77.0	45	55.8		●	
1300	13.00	14.0	124.0	77.0	45	55.7		●	
1310	13.10	14.0	124.0	77.0	45	55.7		●	
1320	13.20	14.0	124.0	77.0	45	55.6		●	
1330	13.30	14.0	124.0	77.0	45	55.6		●	
1340	13.40	14.0	124.0	77.0	45	55.4		●	
1350	13.50	14.0	124.0	77.0	45	55.4		●	
1360	13.60	14.0	124.0	77.0	45	55.3		●	

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	13.80	170	0.3650	3920	1431	214.0
		14.00	170	0.3700	3865	1430	220.1
		14.20	170	0.3750	3810	1429	226.3
		14.50	170	0.3800	3730	1417	234.1
		14.80	170	0.3900	3655	1426	245.2
		15.00	170	0.3950	3610	1426	252.0
		15.20	170	0.4000	3560	1424	258.4
		15.50	170	0.4100	3490	1431	270.0
		15.80	170	0.4150	3425	1421	278.7
	Steel 500 - 850 N/mm²	13.80	130	0.3650	3000	1095	163.8
		14.00	130	0.3700	2955	1093	168.3
		14.20	130	0.3750	2915	1093	173.1
		14.50	130	0.3800	2855	1085	179.1
		14.80	130	0.3900	2795	1090	187.5
		15.00	130	0.3950	2760	1090	192.7
		15.20	130	0.4000	2720	1088	197.4
		15.50	130	0.4100	2670	1095	206.6
		15.80	130	0.4150	2620	1087	213.2
	Steel 850 - 1100 N/mm²	13.80	110	0.2750	2535	697	104.3
		14.00	110	0.2800	2500	700	107.8
		14.20	110	0.2850	2465	703	111.3
		14.50	110	0.2900	2415	700	115.7
		14.80	110	0.2950	2365	698	120.0
		15.00	110	0.3000	2335	701	123.8
		15.20	110	0.3050	2305	703	127.6
		15.50	110	0.3100	2260	701	132.2
		15.80	110	0.3150	2215	698	136.8
	Steel 1100 - 1300 N/mm²	13.80	70	0.2300	1615	372	55.6
		14.00	70	0.2350	1590	374	57.5
		14.20	70	0.2350	1570	369	58.4
		14.50	70	0.2400	1535	368	60.8
		14.80	70	0.2450	1505	369	63.4
		15.00	70	0.2500	1485	371	65.6
		15.20	70	0.2550	1465	374	67.8
		15.50	70	0.2600	1440	374	70.6
		15.80	70	0.2650	1410	374	73.3
	Steel 1300 - 1500 N/mm²	13.80	40	0.1850	925	171	25.6
		14.00	40	0.1850	910	168	25.9
		14.20	40	0.1900	895	170	26.9
		14.50	40	0.1950	880	172	28.3
		14.80	40	0.1950	860	168	28.9
		15.00	40	0.2000	850	170	30.0
		15.20	40	0.2050	840	172	31.2
		15.50	40	0.2050	820	168	31.7
		15.80	40	0.2100	805	169	33.2
	Stainless steel [Cr-Ni/1.4301]	13.80	60	0.2100	1385	291	43.5
		14.00	60	0.2150	1365	294	45.2
		14.20	60	0.2200	1345	296	46.9
		14.50	60	0.2250	1315	296	48.9
		14.80	60	0.2300	1290	297	51.0
		15.00	60	0.2300	1275	293	51.8
		15.20	60	0.2350	1255	295	53.5
		15.50	60	0.2400	1230	295	55.7
		15.80	60	0.2450	1210	297	58.1
	Cast iron (lamellar / spheroidal)	13.80	220	0.3950	5075	2005	299.8
		14.00	220	0.4000	5000	2000	307.9
		14.20	220	0.4050	4930	1997	316.2
		14.50	220	0.4150	4830	2005	331.0
		14.80	220	0.4250	4730	2010	345.8
		15.00	220	0.4300	4670	2008	354.9
		15.20	220	0.4350	4605	2003	363.5
		15.50	220	0.4450	4520	2011	379.5
		15.80	220	0.4500	4430	1994	390.9
	Wrought aluminium alloys Si < 6% hardened	13.80	250	0.3050	5765	1758	263.0
		14.00	250	0.3100	5685	1762	271.3
		14.20	250	0.3150	5605	1766	279.6
		14.50	250	0.3200	5490	1757	290.1
		14.80	250	0.3300	5375	1774	305.2
		15.00	250	0.3350	5305	1777	314.1
		15.20	250	0.3400	5235	1780	323.0
		15.50	250	0.3450	5135	1772	334.3
		15.80	250	0.3500	5035	1762	345.5

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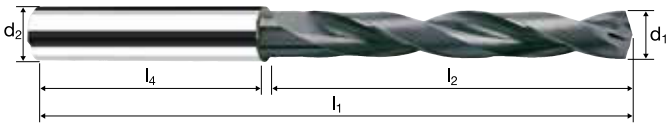
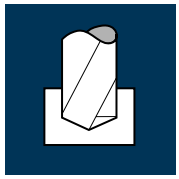
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **1370**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62015	B63015
1370	13.70	14.0	124.0	77.0	45	55.4		●
1380	13.80	14.0	124.0	77.0	45	55.3		●
1390	13.90	14.0	124.0	77.0	45	55.3		●
1400	14.00	14.0	124.0	77.0	45	55.3		●
1410	14.10	16.0	133.0	83.0	48	59.3		●
1420	14.20	16.0	133.0	83.0	48	59.2		●
1430	14.30	16.0	133.0	83.0	48	59.2		●
1440	14.40	16.0	133.0	83.0	48	59.1		●
1450	14.50	16.0	133.0	83.0	48	59.1		●
1460	14.60	16.0	133.0	83.0	48	58.9		●
1470	14.70	16.0	133.0	83.0	48	58.9		●
1480	14.80	16.0	133.0	83.0	48	58.8		●
1490	14.90	16.0	133.0	83.0	48	58.8		●
1500	15.00	16.0	133.0	83.0	48	58.7		●
1510	15.10	16.0	133.0	83.0	48	58.7		●
1520	15.20	16.0	133.0	83.0	48	58.6		●
1530	15.30	16.0	133.0	83.0	48	58.5		●
1540	15.40	16.0	133.0	83.0	48	58.4		●
1550	15.50	16.0	133.0	83.0	48	58.4		●
1560	15.60	16.0	133.0	83.0	48	58.3		●
1570	15.70	16.0	133.0	83.0	48	58.3		●
1580	15.80	16.0	133.0	83.0	48	58.3		●
1590	15.90	16.0	133.0	83.0	48	58.3		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	16.00	170	0.4200	3380	1420	285.4
		16.20	170	0.4250	3340	1420	292.6
		16.50	170	0.4350	3280	1427	305.1
		16.80	170	0.4400	3220	1417	314.1
		17.00	170	0.4450	3185	1417	321.7
		17.20	170	0.4550	3145	1431	332.5
		17.50	170	0.4600	3090	1421	341.9
		17.80	170	0.4700	3040	1429	355.6
		18.00	170	0.4750	3005	1427	363.2
	Steel 500 - 850 N/mm²	16.00	130	0.4200	2585	1086	218.3
		16.20	130	0.4250	2555	1086	223.8
		16.50	130	0.4350	2510	1092	233.5
		16.80	130	0.4400	2465	1085	240.4
		17.00	130	0.4450	2435	1084	246.0
		17.20	130	0.4550	2405	1094	254.3
		17.50	130	0.4600	2365	1088	261.7
		17.80	130	0.4700	2325	1093	271.9
		18.00	130	0.4750	2300	1093	278.0
	Steel 850 - 1100 N/mm²	16.00	110	0.3200	2190	701	140.9
		16.20	110	0.3250	2160	702	144.7
		16.50	110	0.3300	2120	700	149.6
		16.80	110	0.3350	2085	699	154.8
		17.00	110	0.3400	2060	700	159.0
		17.20	110	0.3450	2035	702	163.1
		17.50	110	0.3500	2000	700	168.4
		17.80	110	0.3550	1965	698	173.6
		18.00	110	0.3600	1945	700	178.2
	Steel 1100 - 1300 N/mm²	16.00	70	0.2650	1395	370	74.3
		16.20	70	0.2700	1375	371	76.5
		16.50	70	0.2750	1350	371	79.4
		16.80	70	0.2800	1325	371	82.2
		17.00	70	0.2850	1310	373	84.8
		17.20	70	0.2850	1295	369	85.8
		17.50	70	0.2900	1275	370	88.9
		17.80	70	0.2950	1250	369	91.8
		18.00	70	0.3000	1240	372	94.7
	Steel 1300 - 1500 N/mm²	16.00	40	0.2150	795	171	34.4
		16.20	40	0.2150	785	169	34.8
		16.50	40	0.2200	770	169	36.2
		16.80	40	0.2250	760	171	37.9
		17.00	40	0.2250	750	169	38.3
		17.20	40	0.2300	740	170	39.5
		17.50	40	0.2350	730	172	41.3
		17.80	40	0.2350	715	168	41.8
		18.00	40	0.2400	705	169	43.1
	Stainless steel [Cr-Ni/1.4301]	16.00	60	0.2450	1195	293	58.9
		16.20	60	0.2500	1180	295	60.8
		16.50	60	0.2550	1155	295	63.0
		16.80	60	0.2600	1135	295	65.4
		17.00	60	0.2600	1125	293	66.4
		17.20	60	0.2650	1110	294	68.4
		17.50	60	0.2700	1090	294	70.8
		17.80	60	0.2750	1075	296	73.6
		18.00	60	0.2750	1060	292	74.2
	Cast iron (lamellar / spheroidal)	16.00	220	0.4550	4375	1991	400.2
		16.20	220	0.4650	4325	2011	414.5
		16.50	220	0.4700	4245	1995	426.6
		16.80	220	0.4800	4170	2002	443.7
		17.00	220	0.4850	4120	1998	453.6
		17.20	220	0.4900	4070	1994	463.4
		17.50	220	0.5000	4000	2000	481.1
		17.80	220	0.5100	3935	2007	499.4
		18.00	220	0.5150	3890	2003	509.8
	Wrought aluminium alloys Si < 6% hardened	16.00	250	0.3550	4975	1766	355.1
		16.20	250	0.3600	4910	1768	364.3
		16.50	250	0.3650	4825	1761	376.6
		16.80	250	0.3750	4735	1776	393.6
		17.00	250	0.3800	4680	1778	403.7
		17.20	250	0.3800	4625	1758	408.4
		17.50	250	0.3900	4545	1773	426.4
		17.80	250	0.3950	4470	1766	439.4
		18.00	250	0.4000	4420	1768	449.9

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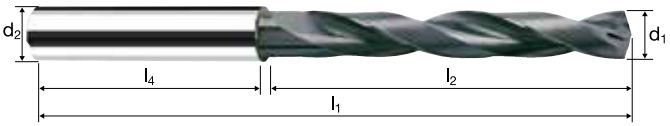
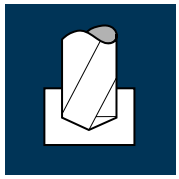
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **1600**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62015	B63015
1600	16.00	16.0	133.0	83.0	48	58.3		●
1610	16.10	18.0	143.0	93.0	48	66.3		●
1620	16.20	18.0	143.0	93.0	48	66.2		●
1630	16.30	18.0	143.0	93.0	48	66.2		●
1640	16.40	18.0	143.0	93.0	48	66.1		●
1650	16.50	18.0	143.0	93.0	48	66.0		●
1660	16.60	18.0	143.0	93.0	48	65.9		●
1670	16.70	18.0	143.0	93.0	48	65.9		●
1680	16.80	18.0	143.0	93.0	48	65.8		●
1690	16.90	18.0	143.0	93.0	48	65.8		●
1700	17.00	18.0	143.0	93.0	48	65.7		●
1710	17.10	18.0	143.0	93.0	48	65.7		●
1720	17.20	18.0	143.0	93.0	48	65.5		●
1730	17.30	18.0	143.0	93.0	48	65.5		●
1740	17.40	18.0	143.0	93.0	48	65.4		●
1750	17.50	18.0	143.0	93.0	48	65.4		●
1760	17.60	18.0	143.0	93.0	48	65.3		●
1770	17.70	18.0	143.0	93.0	48	65.3		●
1780	17.80	18.0	143.0	93.0	48	65.2		●
1790	17.90	18.0	143.0	93.0	48	65.3		●
1800	18.00	18.0	143.0	93.0	48	65.3		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	18.50	170	0.4850	2925	1419	381.3
		18.70	170	0.4900	2895	1419	389.6
		19.00	170	0.5000	2850	1425	404.0
		19.20	170	0.5050	2820	1424	412.3
		19.30	170	0.5100	2805	1431	418.5
		19.50	170	0.5150	2775	1429	426.8
		19.70	170	0.5200	2745	1427	435.1
		19.80	170	0.5200	2735	1422	437.9
		20.00	170	0.5250	2705	1420	446.1
	Steel 500 - 850 N/mm²	18.50	130	0.4850	2235	1084	291.4
		18.70	130	0.4900	2215	1085	298.1
		19.00	130	0.5000	2180	1090	309.0
		19.20	130	0.5050	2155	1088	315.1
		19.30	130	0.5100	2145	1094	320.1
		19.50	130	0.5150	2120	1092	326.1
		19.70	130	0.5200	2100	1092	332.8
		19.80	130	0.5200	2090	1087	334.6
		20.00	130	0.5250	2070	1087	341.4
	Steel 850 - 1100 N/mm²	18.50	110	0.3700	1895	701	188.5
		18.70	110	0.3750	1870	701	192.6
		19.00	110	0.3800	1845	701	198.8
		19.20	110	0.3850	1825	703	203.4
		19.30	110	0.3850	1815	699	204.4
		19.50	110	0.3900	1795	700	209.1
		19.70	110	0.3950	1775	701	213.7
		19.80	110	0.3950	1770	699	215.3
		20.00	110	0.4000	1750	700	219.9
	Steel 1100 - 1300 N/mm²	18.50	70	0.3100	1205	374	100.4
		18.70	70	0.3100	1190	369	101.3
		19.00	70	0.3150	1175	370	104.9
		19.20	70	0.3200	1160	371	107.5
		19.30	70	0.3200	1155	370	108.1
		19.50	70	0.3250	1145	372	111.1
		19.70	70	0.3300	1130	373	113.7
		19.80	70	0.3300	1125	371	114.3
		20.00	70	0.3350	1115	374	117.3
	Steel 1300 - 1500 N/mm²	18.50	40	0.2450	690	169	45.5
		18.70	40	0.2500	680	170	46.7
		19.00	40	0.2550	670	171	48.5
		19.20	40	0.2550	665	170	49.1
		19.30	40	0.2550	660	168	49.2
		19.50	40	0.2600	655	170	50.9
		19.70	40	0.2650	645	171	52.1
		19.80	40	0.2650	645	171	52.6
		20.00	40	0.2650	635	168	52.9
	Stainless steel [Cr-Ni/1.4301]	18.50	60	0.2850	1030	294	78.9
		18.70	60	0.2900	1020	296	81.2
		19.00	60	0.2900	1005	292	82.6
		19.20	60	0.2950	995	294	85.0
		19.30	60	0.2950	990	292	85.5
		19.50	60	0.3000	980	294	87.8
		19.70	60	0.3050	970	296	90.2
		19.80	60	0.3050	965	294	90.6
		20.00	60	0.3100	955	296	93.0
	Cast iron (lamellar / spheroidal)	18.50	220	0.5300	3785	2006	539.2
		18.70	220	0.5350	3745	2004	550.3
		19.00	220	0.5450	3685	2008	569.4
		19.20	220	0.5500	3645	2005	580.4
		19.30	220	0.5500	3630	1997	584.1
		19.50	220	0.5550	3590	1993	595.1
		19.70	220	0.5650	3555	2009	612.2
		19.80	220	0.5650	3535	1997	615.0
		20.00	220	0.5700	3500	1995	626.7
	Wrought aluminium alloys Si < 6% hardened	18.50	250	0.4100	4300	1763	473.9
		18.70	250	0.4150	4255	1766	485.0
		19.00	250	0.4200	4190	1760	499.0
		19.20	250	0.4250	4145	1762	510.0
		19.30	250	0.4300	4125	1774	518.9
		19.50	250	0.4350	4080	1775	530.0
		19.70	250	0.4400	4040	1778	541.8
		19.80	250	0.4400	4020	1769	544.6
		20.00	250	0.4450	3980	1771	556.4

Spiral flute drills Supradrill® U

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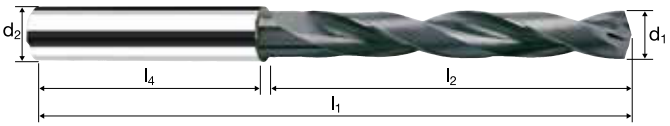
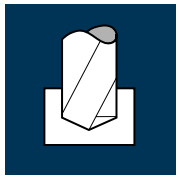
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62015** ø-Code **1850**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62015	B63015
1850	18.50	20.0	153.0	101.0	50	71.0			●
1870	18.70	20.0	153.0	101.0	50	70.9			●
1900	19.00	20.0	153.0	101.0	50	70.7			●
1910	19.10	20.0	153.0	101.0	50	70.6			●
1920	19.20	20.0	153.0	101.0	50	70.5			●
1930	19.30	20.0	153.0	101.0	50	70.5			●
1950	19.50	20.0	153.0	101.0	50	70.4			●
1970	19.70	20.0	153.0	101.0	50	70.3			●
1980	19.80	20.0	153.0	101.0	50	70.2			●
2000	20.00	20.0	153.0	101.0	50	70.2			●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	2.50	140	0.0600	17825	1070	5.3
		2.70	140	0.0650	16505	1075	6.2
		2.90	140	0.0700	15365	1075	7.1
		3.00	140	0.0700	14855	1040	7.4
		3.30	140	0.0800	13505	1080	9.2
		3.50	140	0.0850	12730	1080	10.4
		3.80	140	0.0900	11725	1055	12.0
		4.00	140	0.0950	11140	1060	13.3
		4.20	140	0.1000	10610	1060	14.7
	Steel 500 - 850 N/mm²	2.50	110	0.0600	14005	840	4.1
		2.70	110	0.0650	12970	845	4.8
		2.90	110	0.0700	12075	845	5.6
		3.00	110	0.0700	11670	817	5.8
		3.30	110	0.0800	10610	850	7.3
		3.50	110	0.0850	10005	850	8.2
		3.80	110	0.0900	9215	830	9.4
		4.00	110	0.0950	8755	830	10.4
		4.20	110	0.1000	8335	835	11.6
	Steel 850 - 1100 N/mm²	2.50	80	0.0450	10185	460	2.3
		2.70	80	0.0500	9430	470	2.7
		2.90	80	0.0500	8780	440	2.9
		3.00	80	0.0550	8490	467	3.3
		3.30	80	0.0600	7715	465	4.0
		3.50	80	0.0650	7275	475	4.6
		3.80	80	0.0700	6700	470	5.3
		4.00	80	0.0700	6365	445	5.6
		4.20	80	0.0750	6065	455	6.3
	Steel 1100 - 1300 N/mm²	2.50	55	0.0400	7005	280	1.4
		2.70	55	0.0400	6485	260	1.5
		2.90	55	0.0450	6035	270	1.8
		3.00	55	0.0450	5835	263	1.9
		3.30	55	0.0500	5305	265	2.3
		3.50	55	0.0550	5000	275	2.6
		3.80	55	0.0550	4605	255	2.9
		4.00	55	0.0600	4375	265	3.3
		4.20	55	0.0650	4170	270	3.7
	Steel 1300 - 1500 N/mm²	2.50	25	0.0250	3185	80	0.4
		2.70	25	0.0250	2945	75	0.4
		2.90	25	0.0300	2745	80	0.5
		3.00	25	0.0300	2655	80	0.6
		3.30	25	0.0350	2410	85	0.7
		3.50	25	0.0350	2275	80	0.8
		3.80	25	0.0400	2095	85	1.0
		4.00	25	0.0400	1990	80	1.0
		4.20	25	0.0400	1895	75	1.0
	Cold work tool steel (12% Cr), high alloyed [1.2379]	2.50	50	0.0300	6365	190	0.9
		2.70	50	0.0350	5895	205	1.2
		2.90	50	0.0350	5490	190	1.3
		3.00	50	0.0400	5305	212	1.5
		3.30	50	0.0400	4825	195	1.7
		3.50	50	0.0450	4545	205	2.0
		3.80	50	0.0500	4190	210	2.4
		4.00	50	0.0500	3980	200	2.5
		4.20	50	0.0550	3790	210	2.9
	Cast iron (lamellar / spheroidal)	2.50	160	0.0650	20370	1325	6.5
		2.70	160	0.0700	18865	1320	7.6
		2.90	160	0.0750	17560	1315	8.7
		3.00	160	0.0750	16975	1273	9.0
		3.30	160	0.0850	15435	1310	11.2
		3.50	160	0.0900	14550	1310	12.6
		3.80	160	0.1000	13405	1340	15.2
		4.00	160	0.1050	12730	1335	16.8
		4.20	160	0.1100	12125	1335	18.5
	Wrought aluminium alloys Si < 6% hardened	2.50	220	0.0500	28010	1400	6.9
		2.70	220	0.0550	25935	1425	8.2
		2.90	220	0.0600	24150	1450	9.6
		3.00	220	0.0600	23345	1401	9.9
		3.30	220	0.0650	21220	1380	11.8
		3.50	220	0.0700	20010	1400	13.5
		3.80	220	0.0750	18430	1380	15.7
		4.00	220	0.0800	17505	1400	17.6
		4.20	220	0.0850	16675	1415	19.6

Spiral flute drills Supradrill® U

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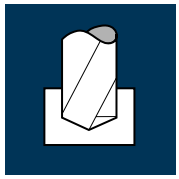
HM MG10

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500						GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0250**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62014	B63014
0250	2.50	6.0	66.0	28.0	36	20.8		●	
0255	2.55	6.0	66.0	28.0	36	20.7		●	
0260	2.60	6.0	66.0	28.0	36	20.6		●	
0265	2.65	6.0	66.0	28.0	36	20.6		●	
0270	2.70	6.0	66.0	28.0	36	20.6		●	
0280	2.80	6.0	66.0	28.0	36	20.4		●	
0285	2.85	6.0	66.0	28.0	36	20.4		●	
0290	2.90	6.0	66.0	28.0	36	20.4		●	
0295	2.95	6.0	66.0	28.0	36	20.3		●	
0300	3.00	6.0	66.0	28.0	36	20.2		●	
0310	3.10	6.0	66.0	28.0	36	20.2		●	
0320	3.20	6.0	66.0	28.0	36	20.0		●	
0330	3.30	6.0	66.0	28.0	36	20.0		●	
0340	3.40	6.0	66.0	28.0	36	19.8		●	
0350	3.50	6.0	66.0	28.0	36	19.8		●	
0360	3.60	6.0	66.0	28.0	36	19.6		●	
0370	3.70	6.0	66.0	28.0	36	19.6		●	
0380	3.80	6.0	74.0	36.0	36	27.4		●	
0390	3.90	6.0	74.0	36.0	36	27.4		●	
0400	4.00	6.0	74.0	36.0	36	26.9		●	
0410	4.10	6.0	74.0	36.0	36	26.9		●	
0420	4.20	6.0	74.0	36.0	36	26.8		●	
0430	4.30	6.0	74.0	36.0	36	26.8		●	

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	4.50	140	0.1050	9905	1040	16.5
		4.80	140	0.1150	9285	1070	19.4
		5.00	140	0.1200	8915	1070	21.0
		5.10	140	0.1200	8740	1050	21.4
		5.50	140	0.1300	8100	1055	25.1
		5.80	140	0.1350	7685	1035	27.3
		6.00	140	0.1400	7425	1040	29.4
		6.10	140	0.1450	7305	1059	31.0
		6.50	140	0.1550	6855	1065	35.3
	Steel 500 - 850 N/mm²	4.50	110	0.1050	7780	815	13.0
		4.80	110	0.1150	7295	840	15.2
		5.00	110	0.1200	7005	840	16.5
		5.10	110	0.1200	6865	825	16.9
		5.50	110	0.1300	6365	825	19.6
		5.80	110	0.1350	6035	815	21.5
		6.00	110	0.1400	5835	815	23.0
		6.10	110	0.1450	5740	832	24.3
		6.50	110	0.1550	5385	835	27.7
	Steel 850 - 1100 N/mm²	4.50	80	0.0800	5660	455	7.2
		4.80	80	0.0850	5305	450	8.1
		5.00	80	0.0900	5095	460	9.0
		5.10	80	0.0900	4995	450	9.2
		5.50	80	0.1000	4630	465	11.0
		5.80	80	0.1050	4390	460	12.2
		6.00	80	0.1100	4245	465	13.1
		6.10	80	0.1100	4175	459	13.4
		6.50	80	0.1150	3920	450	14.9
	Steel 1100 - 1300 N/mm²	4.50	55	0.0700	3890	270	4.3
		4.80	55	0.0700	3645	255	4.6
		5.00	55	0.0750	3500	265	5.2
		5.10	55	0.0750	3435	260	5.3
		5.50	55	0.0850	3185	270	6.4
		5.80	55	0.0850	3020	255	6.7
		6.00	55	0.0900	2920	265	7.5
		6.10	55	0.0900	2870	258	7.5
		6.50	55	0.1000	2695	270	9.0
	Steel 1300 - 1500 N/mm²	4.50	25	0.0450	1770	80	1.3
		4.80	25	0.0500	1660	85	1.5
		5.00	25	0.0500	1590	80	1.6
		5.10	25	0.0500	1560	80	1.6
		5.50	25	0.0550	1445	80	1.9
		5.80	25	0.0600	1370	80	2.1
		6.00	25	0.0600	1325	80	2.3
		6.10	25	0.0600	1305	78	2.3
		6.50	25	0.0650	1225	80	2.7
	Cold work tool steel (12% Cr), high alloyed [1.2379]	4.50	50	0.0600	3535	210	3.3
		4.80	50	0.0600	3315	200	3.6
		5.00	50	0.0650	3185	205	4.0
		5.10	50	0.0650	3120	205	4.2
		5.50	50	0.0700	2895	205	4.9
		5.80	50	0.0750	2745	205	5.4
		6.00	50	0.0750	2655	200	5.7
		6.10	50	0.0800	2610	209	6.1
		6.50	50	0.0850	2450	210	7.0
	Cast iron (lamellar / spheroidal)	4.50	160	0.1150	11320	1300	20.7
		4.80	160	0.1250	10610	1325	24.0
		5.00	160	0.1300	10185	1325	26.0
		5.10	160	0.1300	9985	1300	26.6
		5.50	160	0.1400	9260	1295	30.8
		5.80	160	0.1500	8780	1315	34.7
		6.00	160	0.1550	8490	1315	37.2
		6.10	160	0.1550	8350	1294	37.8
		6.50	160	0.1650	7835	1295	43.0
	Wrought aluminium alloys Si < 6% hardened	4.50	220	0.0900	15560	1400	22.3
		4.80	220	0.0950	14590	1385	25.1
		5.00	220	0.1000	14005	1400	27.5
		5.10	220	0.1000	13730	1375	28.1
		5.50	220	0.1100	12730	1400	33.3
		5.80	220	0.1150	12075	1390	36.7
		6.00	220	0.1200	11670	1400	39.6
		6.10	220	0.1200	11480	1378	40.3
		6.50	220	0.1300	10775	1400	46.5

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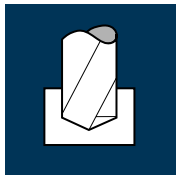
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0440**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
0440	4.40	6.0	74.0	36.0	36	26.6		●
0450	4.50	6.0	74.0	36.0	36	26.6		●
0460	4.60	6.0	74.0	36.0	36	26.5		●
0470	4.70	6.0	74.0	36.0	36	26.5		●
0480	4.80	6.0	82.0	44.0	36	34.4		●
0490	4.90	6.0	82.0	44.0	36	34.4		●
0500	5.00	6.0	82.0	44.0	36	34.8		●
0510	5.10	6.0	82.0	44.0	36	34.7		●
0520	5.20	6.0	82.0	44.0	36	34.6		●
0530	5.30	6.0	82.0	44.0	36	34.6		●
0540	5.40	6.0	82.0	44.0	36	34.5		●
0550	5.50	6.0	82.0	44.0	36	34.5		●
0560	5.60	6.0	82.0	44.0	36	34.4		●
0570	5.70	6.0	82.0	44.0	36	34.4		●
0580	5.80	6.0	82.0	44.0	36	34.4		●
0590	5.90	6.0	82.0	44.0	36	34.5		●
0600	6.00	6.0	82.0	44.0	36	34.5		●
0610	6.10	8.0	91.0	53.0	36	41.4		●
0620	6.20	8.0	91.0	53.0	36	41.2		●
0630	6.30	8.0	91.0	53.0	36	41.2		●
0640	6.40	8.0	91.0	53.0	36	41.1		●
0650	6.50	8.0	91.0	53.0	36	41.1		●
0660	6.60	8.0	91.0	53.0	36	41.0		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	6.80	140	0.1600	6555	1050	38.1
		6.90	140	0.1650	6460	1065	39.8
		7.00	140	0.1650	6365	1050	40.4
		7.50	140	0.1800	5940	1069	47.2
		7.80	140	0.1850	5715	1057	50.5
		8.00	140	0.1900	5570	1058	53.2
		8.20	140	0.1950	5435	1060	56.0
		8.50	140	0.2000	5245	1049	59.5
		8.60	140	0.2050	5180	1062	61.7
	Steel 500 - 850 N/mm²	6.80	110	0.1600	5150	825	30.0
		6.90	110	0.1650	5075	835	31.2
		7.00	110	0.1650	5000	825	31.7
		7.50	110	0.1800	4670	841	37.1
		7.80	110	0.1850	4490	831	39.7
		8.00	110	0.1900	4375	831	41.8
		8.20	110	0.1950	4270	833	44.0
		8.50	110	0.2000	4120	824	46.8
		8.60	110	0.2050	4070	834	48.5
	Steel 850 - 1100 N/mm²	6.80	80	0.1200	3745	450	16.3
		6.90	80	0.1250	3690	460	17.2
		7.00	80	0.1250	3640	455	17.5
		7.50	80	0.1350	3395	458	20.2
		7.80	80	0.1400	3265	457	21.8
		8.00	80	0.1450	3185	462	23.2
		8.20	80	0.1500	3105	466	24.6
		8.50	80	0.1550	2995	464	26.3
		8.60	80	0.1550	2960	459	26.7
	Steel 1100 - 1300 N/mm²	6.80	55	0.1000	2575	260	9.4
		6.90	55	0.1050	2535	265	9.9
		7.00	55	0.1050	2500	263	10.1
		7.50	55	0.1150	2335	269	11.9
		7.80	55	0.1150	2245	258	12.3
		8.00	55	0.1200	2190	263	13.2
		8.20	55	0.1250	2135	267	14.1
		8.50	55	0.1300	2060	268	15.2
		8.60	55	0.1300	2035	265	15.4
	Steel 1300 - 1500 N/mm²	6.80	25	0.0700	1170	80	2.9
		6.90	25	0.0700	1155	80	3.0
		7.00	25	0.0700	1135	80	3.1
		7.50	25	0.0750	1060	80	3.5
		7.80	25	0.0800	1020	82	3.9
		8.00	25	0.0800	995	80	4.0
		8.20	25	0.0800	970	78	4.1
		8.50	25	0.0850	935	80	4.5
		8.60	25	0.0850	925	79	4.6
	Cold work tool steel (12% Cr), high alloyed [1.2379]	6.80	50	0.0850	2340	200	7.3
		6.90	50	0.0900	2305	205	7.7
		7.00	50	0.0900	2275	205	7.9
		7.50	50	0.0950	2120	201	8.9
		7.80	50	0.1000	2040	204	9.7
		8.00	50	0.1050	1990	209	10.5
		8.20	50	0.1050	1940	204	10.8
		8.50	50	0.1100	1870	206	11.7
		8.60	50	0.1100	1850	204	11.8
	Cast iron (lamellar / spheroidal)	6.80	160	0.1750	7490	1310	47.6
		6.90	160	0.1750	7380	1290	48.2
		7.00	160	0.1800	7275	1310	50.4
		7.50	160	0.1950	6790	1324	58.5
		7.80	160	0.2000	6530	1306	62.4
		8.00	160	0.2050	6365	1305	65.6
		8.20	160	0.2100	6210	1304	68.9
		8.50	160	0.2200	5990	1318	74.8
		8.60	160	0.2200	5920	1302	75.7
	Wrought aluminium alloys Si < 6% hardened	6.80	220	0.1350	10300	1390	50.5
		6.90	220	0.1400	10150	1420	53.1
		7.00	220	0.1400	10005	1401	53.9
		7.50	220	0.1500	9335	1400	61.9
		7.80	220	0.1550	8980	1392	66.5
		8.00	220	0.1600	8755	1401	70.4
		8.20	220	0.1650	8540	1409	74.4
		8.50	220	0.1700	8240	1401	79.5
		8.60	220	0.1700	8145	1385	80.4

Spiral flute drills Supradrill® U

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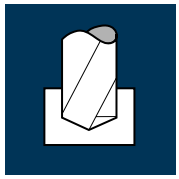
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0670**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
0670	6.70	8.0	91.0	53.0	36	41.0		●
0680	6.80	8.0	91.0	53.0	36	40.9		●
0690	6.90	8.0	91.0	53.0	36	40.9		●
0700	7.00	8.0	91.0	53.0	36	40.7		●
0710	7.10	8.0	91.0	53.0	36	40.7		●
0720	7.20	8.0	91.0	53.0	36	40.6		●
0730	7.30	8.0	91.0	53.0	36	40.6		●
0740	7.40	8.0	91.0	53.0	36	40.5		●
0750	7.50	8.0	91.0	53.0	36	40.5		●
0760	7.60	8.0	91.0	53.0	36	40.4		●
0770	7.70	8.0	91.0	53.0	36	40.4		●
0780	7.80	8.0	91.0	53.0	36	40.4		●
0790	7.90	8.0	91.0	53.0	36	40.4		●
0800	8.00	8.0	91.0	53.0	36	40.4		●
0810	8.10	10.0	103.0	61.0	40	46.3		●
0820	8.20	10.0	103.0	61.0	40	46.2		●
0830	8.30	10.0	103.0	61.0	40	46.2		●
0840	8.40	10.0	103.0	61.0	40	46.1		●
0850	8.50	10.0	103.0	61.0	40	46.1		●
0860	8.60	10.0	103.0	61.0	40	46.0		●
0870	8.70	10.0	103.0	61.0	40	46.0		●
0880	8.80	10.0	103.0	61.0	40	45.9		●
0890	8.90	10.0	103.0	61.0	40	45.8		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	9.00	140	0.2150	4950	1064	67.7
		9.50	140	0.2250	4690	1055	74.8
		9.80	140	0.2300	4545	1045	78.9
		10.00	140	0.2350	4455	1047	82.2
		10.20	140	0.2400	4370	1049	85.7
		10.40	140	0.2450	4285	1050	89.2
		10.50	140	0.2500	4245	1061	91.9
		10.80	140	0.2550	4125	1052	96.4
		11.00	140	0.2600	4050	1053	100.1
	Steel 500 - 850 N/mm²	9.00	110	0.2150	3890	836	53.2
		9.50	110	0.2250	3685	829	58.8
		9.80	110	0.2300	3575	822	62.0
		10.00	110	0.2350	3500	823	64.6
		10.20	110	0.2400	3435	824	67.4
		10.40	110	0.2450	3365	824	70.0
		10.50	110	0.2500	3335	834	72.2
		10.80	110	0.2550	3240	826	75.7
		11.00	110	0.2600	3185	828	78.7
	Steel 850 - 1100 N/mm²	9.00	80	0.1600	2830	453	28.8
		9.50	80	0.1700	2680	456	32.3
		9.80	80	0.1750	2600	455	34.3
		10.00	80	0.1800	2545	458	36.0
		10.20	80	0.1850	2495	462	37.7
		10.40	80	0.1850	2450	453	38.5
		10.50	80	0.1900	2425	461	39.9
		10.80	80	0.1950	2360	460	42.2
		11.00	80	0.2000	2315	463	44.0
	Steel 1100 - 1300 N/mm²	9.00	55	0.1350	1945	263	16.7
		9.50	55	0.1450	1845	268	19.0
		9.80	55	0.1450	1785	259	19.5
		10.00	55	0.1500	1750	263	20.6
		10.20	55	0.1550	1715	266	21.7
		10.40	55	0.1550	1685	261	22.2
		10.50	55	0.1600	1665	266	23.1
		10.80	55	0.1600	1620	259	23.7
		11.00	55	0.1650	1590	262	24.9
	Steel 1300 - 1500 N/mm²	9.00	25	0.0900	885	80	5.1
		9.50	25	0.0950	840	80	5.7
		9.80	25	0.1000	810	81	6.1
		10.00	25	0.1000	795	80	6.2
		10.20	25	0.1000	780	78	6.4
		10.40	25	0.1050	765	80	6.8
		10.50	25	0.1050	760	80	6.9
		10.80	25	0.1100	735	81	7.4
		11.00	25	0.1100	725	80	7.6
	Cold work tool steel (12% Cr), high alloyed [1.2379]	9.00	50	0.1150	1770	204	13.0
		9.50	50	0.1200	1675	201	14.2
		9.80	50	0.1250	1625	203	15.3
		10.00	50	0.1300	1590	207	16.2
		10.20	50	0.1300	1560	203	16.6
		10.40	50	0.1350	1530	207	17.6
		10.50	50	0.1350	1515	205	17.7
		10.80	50	0.1400	1475	207	18.9
		11.00	50	0.1400	1445	202	19.2
	Cast iron (lamellar / spheroidal)	9.00	160	0.2300	5660	1302	82.8
		9.50	160	0.2450	5360	1313	93.1
		9.80	160	0.2500	5195	1299	98.0
		10.00	160	0.2550	5095	1299	102.0
		10.20	160	0.2600	4995	1299	106.1
		10.40	160	0.2650	4895	1297	110.2
		10.50	160	0.2700	4850	1310	113.4
		10.80	160	0.2800	4715	1320	120.9
		11.00	160	0.2850	4630	1320	125.4
	Wrought aluminium alloys Si < 6% hardened	9.00	220	0.1800	7780	1400	89.1
		9.50	220	0.1900	7370	1400	99.3
		9.80	220	0.1950	7145	1393	105.1
		10.00	220	0.2000	7005	1401	110.0
		10.20	220	0.2050	6865	1407	115.0
		10.40	220	0.2100	6735	1414	120.2
		10.50	220	0.2100	6670	1401	121.3
		10.80	220	0.2150	6485	1394	127.7
		11.00	220	0.2200	6365	1400	133.1

Spiral flute drills Supradrill® U

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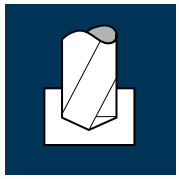
HM MG10

Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B62014** ø-Code **0900**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
0900	9.00	10.0	103.0	61.0	40	45.7		●
0910	9.10	10.0	103.0	61.0	40	45.7		●
0920	9.20	10.0	103.0	61.0	40	45.6		●
0930	9.30	10.0	103.0	61.0	40	45.6		●
0940	9.40	10.0	103.0	61.0	40	45.5		●
0950	9.50	10.0	103.0	61.0	40	45.5		●
0960	9.60	10.0	103.0	61.0	40	45.4		●
0970	9.70	10.0	103.0	61.0	40	45.4		●
0980	9.80	10.0	103.0	61.0	40	45.3		●
0990	9.90	10.0	103.0	61.0	40	45.4		●
1000	10.00	10.0	103.0	61.0	40	45.4		●
1010	10.10	12.0	118.0	71.0	45	53.3		●
1020	10.20	12.0	118.0	71.0	45	53.2		●
1030	10.30	12.0	118.0	71.0	45	53.2		●
1040	10.40	12.0	118.0	71.0	45	53.1		●
1050	10.50	12.0	118.0	71.0	45	53.1		●
1060	10.60	12.0	118.0	71.0	45	53.0		●
1070	10.70	12.0	118.0	71.0	45	52.9		●
1080	10.80	12.0	118.0	71.0	45	52.8		●
1090	10.90	12.0	118.0	71.0	45	52.8		●
1100	11.00	12.0	118.0	71.0	45	52.7		●
1110	11.10	12.0	118.0	71.0	45	52.7		●
1120	11.20	12.0	118.0	71.0	45	52.6		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	11.50	140	0.2700	3875	1046	108.7
		11.70	140	0.2750	3810	1048	112.7
		12.00	140	0.2850	3715	1059	119.7
		12.50	140	0.2950	3565	1052	129.1
		13.00	140	0.3100	3430	1063	141.1
		14.00	140	0.3300	3185	1051	161.8
		15.00	140	0.3550	2970	1054	186.3
		15.50	140	0.3650	2875	1049	198.0
		16.00	140	0.3800	2785	1058	212.8
	Steel 500 - 850 N/mm²	11.50	110	0.2700	3045	822	85.4
		11.70	110	0.2750	2995	824	88.5
		12.00	110	0.2850	2920	832	94.1
		12.50	110	0.2950	2800	826	101.4
		13.00	110	0.3100	2695	836	110.9
		14.00	110	0.3300	2500	825	127.0
		15.00	110	0.3550	2335	829	146.5
		15.50	110	0.3650	2260	825	155.7
		16.00	110	0.3800	2190	832	167.3
	Steel 850 - 1100 N/mm²	11.50	80	0.2050	2215	454	47.2
		11.70	80	0.2100	2175	457	49.1
		12.00	80	0.2150	2120	456	51.5
		12.50	80	0.2250	2035	458	56.2
		13.00	80	0.2350	1960	461	61.1
		14.00	80	0.2500	1820	455	70.0
		15.00	80	0.2700	1700	459	81.1
		15.50	80	0.2800	1645	461	86.9
		16.00	80	0.2900	1590	461	92.7
	Steel 1100 - 1300 N/mm²	11.50	55	0.1750	1520	266	27.6
		11.70	55	0.1750	1495	262	28.1
		12.00	55	0.1800	1460	263	29.7
		12.50	55	0.1900	1400	266	32.6
		13.00	55	0.1950	1345	262	34.8
		14.00	55	0.2100	1250	263	40.4
		15.00	55	0.2250	1165	262	46.3
		15.50	55	0.2350	1130	266	50.1
		16.00	55	0.2400	1095	263	52.8
	Steel 1300 - 1500 N/mm²	11.50	25	0.1150	690	79	8.2
		11.70	25	0.1150	680	78	8.4
		12.00	25	0.1200	665	80	9.0
		12.50	25	0.1250	635	79	9.7
		13.00	25	0.1300	610	79	10.5
		14.00	25	0.1400	570	80	12.3
		15.00	25	0.1500	530	80	14.0
		15.50	25	0.1550	515	80	15.1
		16.00	25	0.1600	495	79	15.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	11.50	50	0.1500	1385	208	21.6
		11.70	50	0.1500	1360	204	21.9
		12.00	50	0.1550	1325	205	23.2
		12.50	50	0.1600	1275	204	25.0
		13.00	50	0.1650	1225	202	26.8
		14.00	50	0.1800	1135	204	31.4
		15.00	50	0.1950	1060	207	36.5
		15.50	50	0.2000	1025	205	38.7
		16.00	50	0.2050	995	204	41.0
	Cast iron (lamellar / spheroidal)	11.50	160	0.2950	4430	1307	135.7
		11.70	160	0.3000	4355	1307	140.5
		12.00	160	0.3100	4245	1316	148.8
		12.50	160	0.3200	4075	1304	160.0
		13.00	160	0.3350	3920	1313	174.3
		14.00	160	0.3600	3640	1310	201.7
		15.00	160	0.3850	3395	1307	231.0
		15.50	160	0.4000	3285	1314	247.9
		16.00	160	0.4100	3185	1306	262.6
	Wrought aluminium alloys Si < 6% hardened	11.50	220	0.2300	6090	1401	145.5
		11.70	220	0.2350	5985	1407	151.2
		12.00	220	0.2400	5835	1400	158.4
		12.50	220	0.2500	5600	1400	171.8
		13.00	220	0.2600	5385	1400	185.8
		14.00	220	0.2800	5000	1400	215.5
		15.00	220	0.3000	4670	1401	247.6
		15.50	220	0.3100	4520	1401	264.4
		16.00	220	0.3200	4375	1400	281.5

Spiral flute drills Supradrill® U

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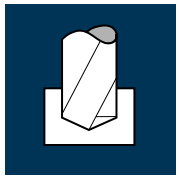
HM MG10

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500						GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62014** ø-Code **1130**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	NANO-U² B62014	B63014
1130	11.30	12.0	118.0	71.0	45	52.6		●
1140	11.40	12.0	118.0	71.0	45	52.5		●
1150	11.50	12.0	118.0	71.0	45	52.4		●
1160	11.60	12.0	118.0	71.0	45	52.4		●
1170	11.70	12.0	118.0	71.0	45	52.4		●
1180	11.80	12.0	118.0	71.0	45	52.3		●
1190	11.90	12.0	118.0	71.0	45	52.4		●
1200	12.00	12.0	118.0	71.0	45	52.3		●
1250	12.50	14.0	124.0	77.0	45	56.1		●
1280	12.80	14.0	124.0	77.0	45	55.8		●
1300	13.00	14.0	124.0	77.0	45	55.7		●
1350	13.50	14.0	124.0	77.0	45	55.4		●
1380	13.80	14.0	124.0	77.0	45	55.3		●
1400	14.00	14.0	124.0	77.0	45	55.3		●
1450	14.50	16.0	133.0	83.0	48	59.1		●
1480	14.80	16.0	133.0	83.0	48	58.8		●
1500	15.00	16.0	133.0	83.0	48	58.7		●
1550	15.50	16.0	133.0	83.0	48	58.4		●
1580	15.80	16.0	133.0	83.0	48	58.3		●
1600	16.00	16.0	133.0	83.0	48	58.3		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	180	0.1350	19100	2579	18.2
		3.30	180	0.1450	17360	2517	21.5
		3.50	180	0.1550	16370	2537	24.4
		3.80	180	0.1700	15080	2564	29.1
		4.00	180	0.1850	14325	2650	33.3
		4.20	180	0.2000	13640	2728	37.8
		4.50	180	0.2300	12730	2928	46.6
		4.80	180	0.2450	11935	2924	52.9
		5.00	180	0.2550	11460	2922	57.4
	Steel 500 - 850 N/mm²	3.00	160	0.1150	16975	1952	13.8
		3.30	160	0.1250	15435	1929	16.5
		3.50	160	0.1350	14550	1964	18.9
		3.80	160	0.1450	13405	1944	22.0
		4.00	160	0.1600	12730	2037	25.6
		4.20	160	0.1700	12125	2061	28.6
		4.50	160	0.1950	11320	2207	35.1
		4.80	160	0.2100	10610	2228	40.3
		5.00	160	0.2150	10185	2190	43.0
	Steel 850 - 1100 N/mm²	3.00	140	0.1050	14855	1560	11.0
		3.30	140	0.1150	13505	1553	13.3
		3.50	140	0.1250	12730	1591	15.3
		3.80	140	0.1350	11725	1583	18.0
		4.00	140	0.1450	11140	1615	20.3
		4.20	140	0.1550	10610	1645	22.8
		4.50	140	0.1800	9905	1783	28.4
		4.80	140	0.1900	9285	1764	31.9
		5.00	140	0.2000	8915	1783	35.0
	Steel 1100 - 1300 N/mm²	3.00	100	0.0800	10610	849	6.0
		3.30	100	0.0900	9645	868	7.4
		3.50	100	0.0950	9095	864	8.3
		3.80	100	0.1000	8375	838	9.5
		4.00	100	0.1100	7960	876	11.0
		4.20	100	0.1200	7580	910	12.6
		4.50	100	0.1350	7075	955	15.2
		4.80	100	0.1450	6630	961	17.4
		5.00	100	0.1500	6365	955	18.7
	Steel 1300 - 1500 N/mm²	3.00	55	0.0600	5835	350	2.5
		3.30	55	0.0700	5305	371	3.2
		3.50	55	0.0700	5000	350	3.4
		3.80	55	0.0800	4605	368	4.2
		4.00	55	0.0850	4375	372	4.7
		4.20	55	0.0900	4170	375	5.2
		4.50	55	0.1050	3890	409	6.5
		4.80	55	0.1100	3645	401	7.3
		5.00	55	0.1150	3500	403	7.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	70	0.0600	7425	446	3.1
		3.30	70	0.0700	6750	473	4.0
		3.50	70	0.0700	6365	446	4.3
		3.80	70	0.0800	5865	469	5.3
		4.00	70	0.0850	5570	474	6.0
		4.20	70	0.0900	5305	478	6.6
		4.50	70	0.1050	4950	520	8.3
		4.80	70	0.1100	4640	510	9.2
		5.00	70	0.1150	4455	512	10.1
	Titanium alloys > 300 HB [Ti6Al4V]	3.00	40	0.0600	4245	255	1.8
		3.30	40	0.0700	3860	270	2.3
		3.50	40	0.0700	3640	255	2.5
		3.80	40	0.0800	3350	268	3.0
		4.00	40	0.0850	3185	271	3.4
		4.20	40	0.0900	3030	273	3.8
		4.50	40	0.1050	2830	297	4.7
		4.80	40	0.1100	2655	292	5.3
		5.00	40	0.1150	2545	293	5.7
	Cast iron (lamellar / spheroidal)	3.00	240	0.1200	25465	3056	21.6
		3.30	240	0.1350	23150	3125	26.7
		3.50	240	0.1400	21825	3056	29.4
		3.80	240	0.1550	20105	3116	35.3
		4.00	240	0.1650	19100	3152	39.6
		4.20	240	0.1800	18190	3274	45.4
		4.50	240	0.2050	16975	3480	55.3
		4.80	240	0.2200	15915	3501	63.4
		5.00	240	0.2300	15280	3514	69.0

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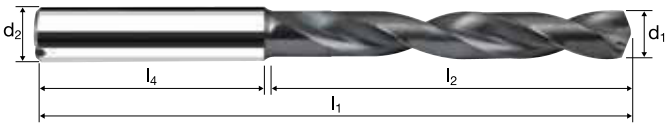
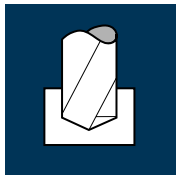


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **0300**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
0300	3.00	6.0	66.0	28.0	36	20.2	●
0310	3.10	6.0	66.0	28.0	36	20.2	●
0320	3.20	6.0	66.0	28.0	36	20.0	●
0330	3.30	6.0	66.0	28.0	36	20.0	●
0340	3.40	6.0	66.0	28.0	36	19.8	●
0350	3.50	6.0	66.0	28.0	36	19.8	●
0360	3.60	6.0	66.0	28.0	36	19.6	●
0370	3.70	6.0	66.0	28.0	36	19.6	●
0380	3.80	6.0	74.0	36.0	36	27.4	●
0390	3.90	6.0	74.0	36.0	36	27.3	●
0400	4.00	6.0	74.0	36.0	36	26.9	●
0410	4.10	6.0	74.0	36.0	36	26.8	●
0420	4.20	6.0	74.0	36.0	36	26.7	●
0430	4.30	6.0	74.0	36.0	36	26.7	●
0440	4.40	6.0	74.0	36.0	36	26.6	●
0450	4.50	6.0	74.0	36.0	36	26.6	●
0460	4.60	6.0	74.0	36.0	36	26.5	●
0470	4.70	6.0	74.0	36.0	36	26.5	●
0480	4.80	6.0	82.0	44.0	36	34.3	●
0490	4.90	6.0	82.0	44.0	36	34.3	●
0500	5.00	6.0	82.0	44.0	36	34.7	●
0510	5.10	6.0	82.0	44.0	36	34.7	●
0520	5.20	6.0	82.0	44.0	36	34.6	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	5.50	180	0.2800	10415	2916	69.3
		5.80	180	0.2950	9880	2915	77.0
		6.00	180	0.3150	9550	3008	85.1
		6.20	180	0.3350	9240	3095	93.5
		6.50	180	0.3500	8815	3085	102.4
		6.80	180	0.3650	8425	3075	111.7
		7.00	180	0.3800	8185	3110	119.7
		7.20	180	0.3900	7960	3104	126.4
		7.50	180	0.4050	7640	3094	136.7
	Steel 500 - 850 N/mm²	5.50	160	0.2400	9260	2222	52.8
		5.80	160	0.2500	8780	2195	58.0
		6.00	160	0.2700	8490	2292	64.8
		6.20	160	0.2850	8215	2341	70.7
		6.50	160	0.3000	7835	2351	78.0
		6.80	160	0.3150	7490	2359	85.7
		7.00	160	0.3250	7275	2364	91.0
		7.20	160	0.3350	7075	2370	96.5
		7.50	160	0.3450	6790	2343	103.5
	Steel 850 - 1100 N/mm²	5.50	140	0.2200	8100	1782	42.3
		5.80	140	0.2300	7685	1768	46.7
		6.00	140	0.2500	7425	1856	52.5
		6.20	140	0.2650	7190	1905	57.5
		6.50	140	0.2750	6855	1885	62.6
		6.80	140	0.2900	6555	1901	69.0
		7.00	140	0.3000	6365	1910	73.5
		7.20	140	0.3050	6190	1888	76.9
		7.50	140	0.3200	5940	1901	84.0
	Steel 1100 - 1300 N/mm²	5.50	100	0.1650	5785	955	22.7
		5.80	100	0.1750	5490	961	25.4
		6.00	100	0.1900	5305	1008	28.5
		6.20	100	0.2000	5135	1027	31.0
		6.50	100	0.2100	4895	1028	34.1
		6.80	100	0.2200	4680	1030	37.4
		7.00	100	0.2250	4545	1023	39.4
		7.20	100	0.2350	4420	1039	42.3
		7.50	100	0.2450	4245	1040	45.9
	Steel 1300 - 1500 N/mm²	5.50	55	0.1300	3185	414	9.8
		5.80	55	0.1350	3020	408	10.8
		6.00	55	0.1450	2920	423	12.0
		6.20	55	0.1550	2825	438	13.2
		6.50	55	0.1600	2695	431	14.3
		6.80	55	0.1700	2575	438	15.9
		7.00	55	0.1750	2500	438	16.8
		7.20	55	0.1800	2430	437	17.8
		7.50	55	0.1850	2335	432	19.1
	Cold work tool steel (12% Cr), high alloyed [1.2379]	5.50	70	0.1300	4050	527	12.5
		5.80	70	0.1350	3840	518	13.7
		6.00	70	0.1450	3715	539	15.2
		6.20	70	0.1550	3595	557	16.8
		6.50	70	0.1600	3430	549	18.2
		6.80	70	0.1700	3275	557	20.2
		7.00	70	0.1750	3185	557	21.5
		7.20	70	0.1800	3095	557	22.7
		7.50	70	0.1850	2970	550	24.3
	Titanium alloys > 300 HB [Ti6Al4V]	5.50	40	0.1300	2315	301	7.2
		5.80	40	0.1350	2195	296	7.8
		6.00	40	0.1450	2120	307	8.7
		6.20	40	0.1550	2055	319	9.6
		6.50	40	0.1600	1960	314	10.4
		6.80	40	0.1700	1870	318	11.5
		7.00	40	0.1750	1820	319	12.3
		7.20	40	0.1800	1770	319	13.0
		7.50	40	0.1850	1700	315	13.9
	Cast iron (lamellar / spheroidal)	5.50	240	0.2550	13890	3542	84.2
		5.80	240	0.2650	13170	3490	92.2
		6.00	240	0.2850	12730	3628	102.6
		6.20	240	0.3050	12320	3758	113.4
		6.50	240	0.3200	11755	3762	124.8
		6.80	240	0.3350	11235	3764	136.7
		7.00	240	0.3450	10915	3766	144.9
		7.20	240	0.3550	10610	3767	153.4
		7.50	240	0.3700	10185	3769	166.5

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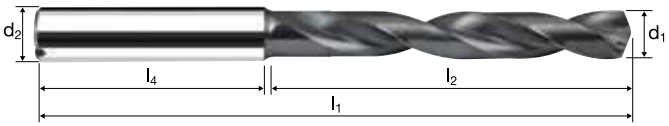
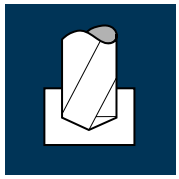


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **0530**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
0530	5.30	6.0	82.0	44.0	36	34.6	●
0540	5.40	6.0	82.0	44.0	36	34.5	●
0550	5.50	6.0	82.0	44.0	36	34.4	●
0560	5.60	6.0	82.0	44.0	36	34.3	●
0570	5.70	6.0	82.0	44.0	36	34.4	●
0580	5.80	6.0	82.0	44.0	36	34.3	●
0590	5.90	6.0	82.0	44.0	36	34.3	●
0600	6.00	6.0	82.0	44.0	36	34.3	●
0610	6.10	8.0	91.0	53.0	36	41.3	●
0620	6.20	8.0	91.0	53.0	36	41.2	●
0630	6.30	8.0	91.0	53.0	36	41.2	●
0640	6.40	8.0	91.0	53.0	36	41.1	●
0650	6.50	8.0	91.0	53.0	36	41.0	●
0660	6.60	8.0	91.0	53.0	36	40.9	●
0670	6.70	8.0	91.0	53.0	36	40.9	●
0680	6.80	8.0	91.0	53.0	36	40.8	●
0690	6.90	8.0	91.0	53.0	36	40.8	●
0700	7.00	8.0	91.0	53.0	36	40.7	●
0710	7.10	8.0	91.0	53.0	36	40.7	●
0720	7.20	8.0	91.0	53.0	36	40.6	●
0730	7.30	8.0	91.0	53.0	36	40.5	●
0740	7.40	8.0	91.0	53.0	36	40.4	●
0750	7.50	8.0	91.0	53.0	36	40.4	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	7.60	180	0.4100	7540	3091	140.2
		8.00	180	0.4300	7160	3079	154.8
		8.20	180	0.4450	6985	3108	164.1
		8.50	180	0.4600	6740	3100	175.9
		8.80	180	0.4750	6510	3092	188.1
		9.00	180	0.4850	6365	3087	196.4
		9.20	180	0.4950	6230	3084	205.0
		9.50	180	0.5150	6030	3106	220.1
		9.80	180	0.5300	5845	3098	233.7
	Steel 500 - 850 N/mm²	7.60	160	0.3500	6700	2345	106.4
		8.00	160	0.3700	6365	2355	118.4
		8.20	160	0.3800	6210	2360	124.6
		8.50	160	0.3950	5990	2366	134.3
		8.80	160	0.4050	5785	2343	142.5
		9.00	160	0.4150	5660	2349	149.4
		9.20	160	0.4250	5535	2352	156.4
		9.50	160	0.4400	5360	2358	167.2
		9.80	160	0.4550	5195	2364	178.3
	Steel 850 - 1100 N/mm²	7.60	140	0.3250	5865	1906	86.5
		8.00	140	0.3400	5570	1894	95.2
		8.20	140	0.3500	5435	1902	100.5
		8.50	140	0.3600	5245	1888	107.1
		8.80	140	0.3750	5065	1899	115.5
		9.00	140	0.3850	4950	1906	121.2
		9.20	140	0.3900	4845	1890	125.6
		9.50	140	0.4050	4690	1900	134.6
		9.80	140	0.4200	4545	1909	144.0
	Steel 1100 - 1300 N/mm²	7.60	100	0.2450	4190	1027	46.6
		8.00	100	0.2600	3980	1035	52.0
		8.20	100	0.2650	3880	1028	54.3
		8.50	100	0.2750	3745	1030	58.4
		8.80	100	0.2850	3615	1030	62.7
		9.00	100	0.2900	3535	1025	65.2
		9.20	100	0.3000	3460	1038	69.0
		9.50	100	0.3100	3350	1039	73.6
		9.80	100	0.3200	3250	1040	78.4
	Steel 1300 - 1500 N/mm²	7.60	55	0.1900	2305	438	19.9
		8.00	55	0.2000	2190	438	22.0
		8.20	55	0.2050	2135	438	23.1
		8.50	55	0.2100	2060	433	24.5
		8.80	55	0.2200	1990	438	26.6
		9.00	55	0.2250	1945	438	27.8
		9.20	55	0.2300	1905	438	29.1
		9.50	55	0.2350	1845	434	30.7
		9.80	55	0.2450	1785	437	33.0
	Cold work tool steel (12% Cr), high alloyed [1.2379]	7.60	70	0.1900	2930	557	25.3
		8.00	70	0.2000	2785	557	28.0
		8.20	70	0.2050	2715	557	29.4
		8.50	70	0.2100	2620	550	31.2
		8.80	70	0.2200	2530	557	33.9
		9.00	70	0.2250	2475	557	35.4
		9.20	70	0.2300	2420	557	37.0
		9.50	70	0.2350	2345	551	39.1
		9.80	70	0.2450	2275	557	42.0
	Titanium alloys > 300 HB [Ti6Al4V]	7.60	40	0.1900	1675	318	14.4
		8.00	40	0.2000	1590	318	16.0
		8.20	40	0.2050	1555	319	16.8
		8.50	40	0.2100	1500	315	17.9
		8.80	40	0.2200	1445	318	19.3
		9.00	40	0.2250	1415	318	20.3
		9.20	40	0.2300	1385	319	21.2
		9.50	40	0.2350	1340	315	22.3
		9.80	40	0.2450	1300	319	24.0
	Cast iron (lamellar / spheroidal)	7.60	240	0.3750	10050	3769	171.0
		8.00	240	0.3950	9550	3772	189.6
		8.20	240	0.4050	9315	3773	199.2
		8.50	240	0.4150	8990	3731	211.7
		8.80	240	0.4300	8680	3732	227.0
		9.00	240	0.4400	8490	3736	237.6
		9.20	240	0.4500	8305	3737	248.4
		9.50	240	0.4650	8040	3739	265.0
		9.80	240	0.4800	7795	3742	282.2

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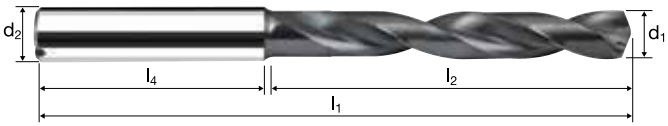
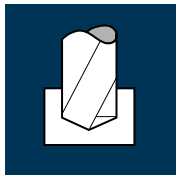


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **0760**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
0760	7.60	8.0	91.0	53.0	36	40.3	●
0770	7.70	8.0	91.0	53.0	36	40.3	●
0780	7.80	8.0	91.0	53.0	36	40.3	●
0790	7.90	8.0	91.0	53.0	36	40.3	●
0800	8.00	8.0	91.0	53.0	36	40.3	●
0810	8.10	10.0	103.0	61.0	40	46.3	●
0820	8.20	10.0	103.0	61.0	40	46.2	●
0830	8.30	10.0	103.0	61.0	40	46.2	●
0840	8.40	10.0	103.0	61.0	40	46.0	●
0850	8.50	10.0	103.0	61.0	40	46.0	●
0860	8.60	10.0	103.0	61.0	40	45.9	●
0870	8.70	10.0	103.0	61.0	40	45.9	●
0880	8.80	10.0	103.0	61.0	40	45.8	●
0890	8.90	10.0	103.0	61.0	40	45.8	●
0900	9.00	10.0	103.0	61.0	40	45.7	●
0910	9.10	10.0	103.0	61.0	40	45.6	●
0920	9.20	10.0	103.0	61.0	40	45.5	●
0930	9.30	10.0	103.0	61.0	40	45.5	●
0940	9.40	10.0	103.0	61.0	40	45.4	●
0950	9.50	10.0	103.0	61.0	40	45.4	●
0960	9.60	10.0	103.0	61.0	40	45.3	●
0970	9.70	10.0	103.0	61.0	40	45.3	●
0980	9.80	10.0	103.0	61.0	40	45.2	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	10.00	180	0.5400	5730	3094	243.0
		10.20	180	0.5450	5615	3060	250.1
		10.50	180	0.5650	5455	3082	266.9
		10.80	180	0.5750	5305	3050	279.4
		11.00	180	0.5850	5210	3048	289.7
		11.20	180	0.5850	5115	2992	294.8
		11.50	180	0.5900	4980	2938	305.2
		11.80	180	0.6000	4855	2913	318.6
		12.00	180	0.6100	4775	2913	329.4
	Steel 500 - 850 N/mm²	10.00	160	0.4650	5095	2369	186.1
		10.20	160	0.4700	4995	2348	191.8
		10.50	160	0.4850	4850	2352	203.7
		10.80	160	0.4950	4715	2334	213.8
		11.00	160	0.5000	4630	2315	220.0
		11.20	160	0.5000	4545	2273	223.9
		11.50	160	0.5050	4430	2237	232.4
		11.80	160	0.5100	4315	2201	240.7
		12.00	160	0.5200	4245	2207	249.7
	Steel 850 - 1100 N/mm²	10.00	140	0.4250	4455	1893	148.7
		10.20	140	0.4300	4370	1879	153.5
		10.50	140	0.4450	4245	1889	163.6
		10.80	140	0.4550	4125	1877	171.9
		11.00	140	0.4600	4050	1863	177.0
		11.20	140	0.4650	3980	1851	182.3
		11.50	140	0.4650	3875	1802	187.2
		11.80	140	0.4700	3775	1774	194.0
		12.00	140	0.4800	3715	1783	201.7
	Steel 1100 - 1300 N/mm²	10.00	100	0.3250	3185	1035	81.3
		10.20	100	0.3300	3120	1030	84.1
		10.50	100	0.3400	3030	1030	89.2
		10.80	100	0.3450	2945	1016	93.1
		11.00	100	0.3500	2895	1013	96.3
		11.20	100	0.3500	2840	994	97.9
		11.50	100	0.3550	2770	983	102.1
		11.80	100	0.3600	2700	972	106.3
		12.00	100	0.3650	2655	969	109.6
	Steel 1300 - 1500 N/mm²	10.00	55	0.2500	1750	438	34.4
		10.20	55	0.2550	1715	437	35.7
		10.50	55	0.2600	1665	433	37.5
		10.80	55	0.2650	1620	429	39.3
		11.00	55	0.2700	1590	429	40.8
		11.20	55	0.2700	1565	423	41.6
		11.50	55	0.2700	1520	410	42.6
		11.80	55	0.2750	1485	408	44.7
		12.00	55	0.2800	1460	409	46.2
	Cold work tool steel (12% Cr), high alloyed [1.2379]	10.00	70	0.2500	2230	558	43.8
		10.20	70	0.2550	2185	557	45.5
		10.50	70	0.2600	2120	551	47.7
		10.80	70	0.2650	2065	547	50.1
		11.00	70	0.2700	2025	547	52.0
		11.20	70	0.2700	1990	537	52.9
		11.50	70	0.2700	1940	524	54.4
		11.80	70	0.2750	1890	520	56.8
		12.00	70	0.2800	1855	519	58.7
	Titanium alloys > 300 HB [Ti6Al4V]	10.00	40	0.2500	1275	319	25.0
		10.20	40	0.2550	1250	319	26.1
		10.50	40	0.2600	1215	316	27.4
		10.80	40	0.2650	1180	313	28.6
		11.00	40	0.2700	1155	312	29.6
		11.20	40	0.2700	1135	307	30.2
		11.50	40	0.2700	1105	298	31.0
		11.80	40	0.2750	1080	297	32.5
		12.00	40	0.2800	1060	297	33.6
	Cast iron (lamellar / spheroidal)	10.00	240	0.4900	7640	3744	294.0
		10.20	240	0.5000	7490	3745	306.0
		10.50	240	0.5100	7275	3710	321.3
		10.80	240	0.5250	7075	3714	340.3
		11.00	240	0.5300	6945	3681	349.8
		11.20	240	0.5350	6820	3649	359.5
		11.50	240	0.5350	6645	3555	369.3
		11.80	240	0.5450	6475	3529	385.9
		12.00	240	0.5550	6365	3533	399.5

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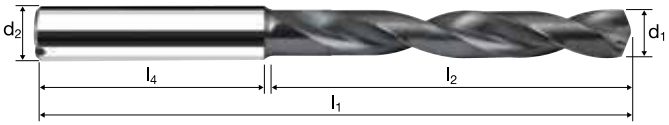
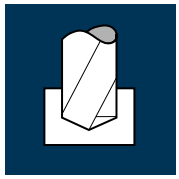


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **0990**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
0990	9.90	10.0	103.0	61.0	40	45.3	●
1000	10.00	10.0	103.0	61.0	40	45.2	●
1010	10.10	12.0	118.0	71.0	45	53.2	●
1020	10.20	12.0	118.0	71.0	45	53.1	●
1030	10.30	12.0	118.0	71.0	45	53.1	●
1040	10.40	12.0	118.0	71.0	45	53.0	●
1050	10.50	12.0	118.0	71.0	45	53.0	●
1060	10.60	12.0	118.0	71.0	45	52.9	●
1070	10.70	12.0	118.0	71.0	45	52.9	●
1080	10.80	12.0	118.0	71.0	45	52.8	●
1090	10.90	12.0	118.0	71.0	45	52.7	●
1100	11.00	12.0	118.0	71.0	45	52.6	●
1110	11.10	12.0	118.0	71.0	45	52.6	●
1120	11.20	12.0	118.0	71.0	45	52.5	●
1130	11.30	12.0	118.0	71.0	45	52.5	●
1140	11.40	12.0	118.0	71.0	45	52.4	●
1150	11.50	12.0	118.0	71.0	45	52.4	●
1160	11.60	12.0	118.0	71.0	45	52.3	●
1170	11.70	12.0	118.0	71.0	45	52.3	●
1180	11.80	12.0	118.0	71.0	45	52.2	●
1190	11.90	12.0	118.0	71.0	45	52.2	●
1200	12.00	12.0	118.0	71.0	45	52.2	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	12.20	180	0.6200	4695	2911	340.3
		12.50	180	0.6350	4585	2912	357.3
		12.60	180	0.6400	4545	2909	362.7
		12.80	180	0.6500	4475	2909	374.3
		13.00	180	0.6600	4405	2907	385.9
		13.20	180	0.6700	4340	2908	397.9
		13.50	180	0.6750	4245	2865	410.1
		13.80	180	0.6750	4150	2801	419.0
		14.00	180	0.6800	4095	2785	428.7
	Steel 500 - 850 N/mm²	12.20	160	0.5300	4175	2213	258.7
		12.50	160	0.5450	4075	2221	272.5
		12.60	160	0.5450	4040	2202	274.5
		12.80	160	0.5550	3980	2209	284.2
		13.00	160	0.5650	3920	2215	294.0
		13.20	160	0.5750	3860	2220	303.7
		13.50	160	0.5800	3775	2190	313.4
		13.80	160	0.5800	3690	2140	320.1
		14.00	160	0.5850	3640	2129	327.8
	Steel 850 - 1100 N/mm²	12.20	140	0.4900	3655	1791	209.4
		12.50	140	0.5000	3565	1783	218.7
		12.60	140	0.5050	3535	1785	222.6
		12.80	140	0.5100	3480	1775	228.4
		13.00	140	0.5200	3430	1784	236.7
		13.20	140	0.5300	3375	1789	244.8
		13.50	140	0.5350	3300	1766	252.7
		13.80	140	0.5350	3230	1728	258.5
		14.00	140	0.5400	3185	1720	264.8
	Steel 1100 - 1300 N/mm²	12.20	100	0.3700	2610	966	112.9
		12.50	100	0.3800	2545	967	118.7
		12.60	100	0.3850	2525	972	121.2
		12.80	100	0.3900	2485	969	124.7
		13.00	100	0.3950	2450	968	128.5
		13.20	100	0.4000	2410	964	131.9
		13.50	100	0.4050	2360	956	136.8
		13.80	100	0.4050	2305	934	139.6
		14.00	100	0.4100	2275	933	143.6
	Steel 1300 - 1500 N/mm²	12.20	55	0.2850	1435	409	47.8
		12.50	55	0.2900	1400	406	49.8
		12.60	55	0.2950	1390	410	51.1
		12.80	55	0.3000	1370	411	52.9
		13.00	55	0.3050	1345	410	54.4
		13.20	55	0.3100	1325	411	56.2
		13.50	55	0.3100	1295	402	57.5
		13.80	55	0.3100	1270	394	58.9
		14.00	55	0.3150	1250	394	60.6
	Cold work tool steel (12% Cr), high alloyed [1.2379]	12.20	70	0.2850	1825	520	60.8
		12.50	70	0.2900	1785	518	63.5
		12.60	70	0.2950	1770	522	65.1
		12.80	70	0.3000	1740	522	67.2
		13.00	70	0.3050	1715	523	69.4
		13.20	70	0.3100	1690	524	71.7
		13.50	70	0.3100	1650	512	73.2
		13.80	70	0.3100	1615	501	74.9
		14.00	70	0.3150	1590	501	77.1
	Titanium alloys > 300 HB [Ti6Al4V]	12.20	40	0.2850	1045	298	34.8
		12.50	40	0.2900	1020	296	36.3
		12.60	40	0.2950	1010	298	37.2
		12.80	40	0.3000	995	299	38.4
		13.00	40	0.3050	980	299	39.7
		13.20	40	0.3100	965	299	40.9
		13.50	40	0.3100	945	293	41.9
		13.80	40	0.3100	925	287	42.9
		14.00	40	0.3150	910	287	44.1
	Cast iron (lamellar / spheroidal)	12.20	240	0.5600	6260	3506	409.8
		12.50	240	0.5750	6110	3513	431.1
		12.60	240	0.5800	6065	3518	438.6
		12.80	240	0.5900	5970	3522	453.2
		13.00	240	0.6000	5875	3525	467.9
		13.20	240	0.6100	5785	3529	482.9
		13.50	240	0.6150	5660	3481	498.3
		13.80	240	0.6150	5535	3404	509.1
		14.00	240	0.6200	5455	3382	520.6

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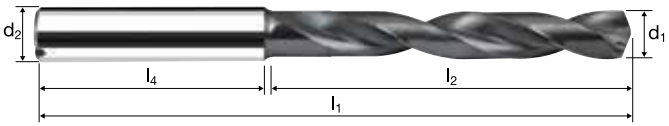
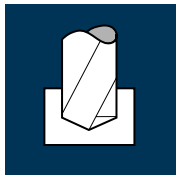


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **1210**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
1210	12.10	14.0	124.0	77.0	45	56.2	●
1220	12.20	14.0	124.0	77.0	45	56.1	●
1230	12.30	14.0	124.0	77.0	45	56.1	●
1240	12.40	14.0	124.0	77.0	45	56.0	●
1250	12.50	14.0	124.0	77.0	45	56.0	●
1260	12.60	14.0	124.0	77.0	45	55.9	●
1270	12.70	14.0	124.0	77.0	45	55.8	●
1280	12.80	14.0	124.0	77.0	45	55.7	●
1290	12.90	14.0	124.0	77.0	45	55.7	●
1300	13.00	14.0	124.0	77.0	45	55.6	●
1310	13.10	14.0	124.0	77.0	45	55.6	●
1320	13.20	14.0	124.0	77.0	45	55.5	●
1330	13.30	14.0	124.0	77.0	45	55.5	●
1340	13.40	14.0	124.0	77.0	45	55.4	●
1350	13.50	14.0	124.0	77.0	45	55.3	●
1360	13.60	14.0	124.0	77.0	45	55.2	●
1370	13.70	14.0	124.0	77.0	45	55.2	●
1380	13.80	14.0	124.0	77.0	45	55.1	●
1390	13.90	14.0	124.0	77.0	45	55.2	●
1400	14.00	14.0	124.0	77.0	45	55.1	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	14.20	180	0.6850	4035	2764	437.7
		14.50	180	0.6900	3950	2726	450.1
		14.80	180	0.7000	3870	2709	466.0
		15.00	180	0.7100	3820	2712	479.3
		15.20	180	0.7200	3770	2714	492.6
		15.50	180	0.7250	3695	2679	505.5
		15.70	180	0.7250	3650	2646	512.3
		15.80	180	0.7300	3625	2646	518.9
		16.00	180	0.7350	3580	2631	529.1
	Steel 500 - 850 N/mm²	14.20	160	0.5900	3585	2115	335.0
		14.50	160	0.5900	3510	2071	342.0
		14.80	160	0.6000	3440	2064	355.1
		15.00	160	0.6100	3395	2071	366.0
		15.20	160	0.6150	3350	2060	373.9
		15.50	160	0.6200	3285	2037	384.3
		15.70	160	0.6250	3245	2028	392.6
		15.80	160	0.6250	3225	2016	395.2
		16.00	160	0.6300	3185	2007	403.5
	Steel 850 - 1100 N/mm²	14.20	140	0.5400	3140	1696	268.5
		14.50	140	0.5450	3075	1676	276.7
		14.80	140	0.5550	3010	1671	287.4
		15.00	140	0.5600	2970	1663	293.9
		15.20	140	0.5700	2930	1670	303.1
		15.50	140	0.5700	2875	1639	309.2
		15.70	140	0.5750	2840	1633	316.1
		15.80	140	0.5800	2820	1636	320.7
		16.00	140	0.5800	2785	1615	324.8
	Steel 1100 - 1300 N/mm²	14.20	100	0.4100	2240	918	145.4
		14.50	100	0.4150	2195	911	150.4
		14.80	100	0.4200	2150	903	155.3
		15.00	100	0.4250	2120	901	159.2
		15.20	100	0.4300	2095	901	163.5
		15.50	100	0.4350	2055	894	168.7
		15.70	100	0.4350	2025	881	170.5
		15.80	100	0.4400	2015	887	173.8
		16.00	100	0.4400	1990	876	176.0
	Steel 1300 - 1500 N/mm²	14.20	55	0.3150	1235	389	61.6
		14.50	55	0.3200	1205	386	63.7
		14.80	55	0.3250	1185	385	66.3
		15.00	55	0.3300	1165	385	67.9
		15.20	55	0.3300	1150	380	68.9
		15.50	55	0.3350	1130	379	71.4
		15.70	55	0.3350	1115	374	72.3
		15.80	55	0.3400	1110	377	74.0
		16.00	55	0.3400	1095	372	74.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	14.20	70	0.3150	1570	495	78.3
		14.50	70	0.3200	1535	491	81.1
		14.80	70	0.3250	1505	489	84.1
		15.00	70	0.3300	1485	490	86.6
		15.20	70	0.3300	1465	484	87.7
		15.50	70	0.3350	1440	482	91.0
		15.70	70	0.3350	1420	476	92.1
		15.80	70	0.3400	1410	479	94.0
		16.00	70	0.3400	1395	474	95.4
	Titanium alloys > 300 HB [Ti6Al4V]	14.20	40	0.3150	895	282	44.6
		14.50	40	0.3200	880	282	46.5
		14.80	40	0.3250	860	280	48.1
		15.00	40	0.3300	850	281	49.6
		15.20	40	0.3300	840	277	50.3
		15.50	40	0.3350	820	275	51.8
		15.70	40	0.3350	810	271	52.5
		15.80	40	0.3400	805	274	53.7
		16.00	40	0.3400	795	270	54.3
	Cast iron (lamellar / spheroidal)	14.20	240	0.6250	5380	3363	532.5
		14.50	240	0.6300	5270	3320	548.2
		14.80	240	0.6350	5160	3277	563.7
		15.00	240	0.6450	5095	3286	580.7
		15.20	240	0.6550	5025	3291	597.3
		15.50	240	0.6600	4930	3254	614.0
		15.70	240	0.6600	4865	3211	621.6
		15.80	240	0.6650	4835	3215	630.4
		16.00	240	0.6700	4775	3199	643.3

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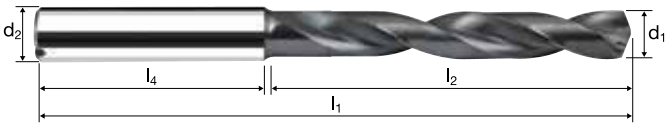
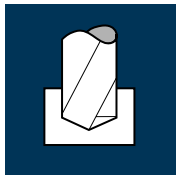


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **1410**

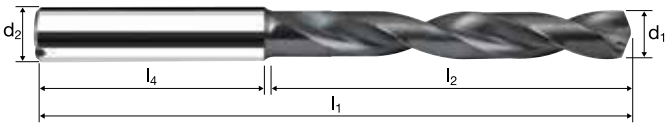
Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
1410	14.10	16.0	133.0	83.0	48	59.2	●
1420	14.20	16.0	133.0	83.0	48	59.1	●
1430	14.30	16.0	133.0	83.0	48	59.1	●
1440	14.40	16.0	133.0	83.0	48	59.0	●
1450	14.50	16.0	133.0	83.0	48	59.0	●
1460	14.60	16.0	133.0	83.0	48	58.8	●
1470	14.70	16.0	133.0	83.0	48	58.8	●
1480	14.80	16.0	133.0	83.0	48	58.7	●
1490	14.90	16.0	133.0	83.0	48	58.7	●
1500	15.00	16.0	133.0	83.0	48	58.6	●
1510	15.10	16.0	133.0	83.0	48	58.6	●
1520	15.20	16.0	133.0	83.0	48	58.5	●
1530	15.30	16.0	133.0	83.0	48	58.5	●
1540	15.40	16.0	133.0	83.0	48	58.3	●
1550	15.50	16.0	133.0	83.0	48	58.3	●
1560	15.60	16.0	133.0	83.0	48	58.2	●
1570	15.70	16.0	133.0	83.0	48	58.2	●
1580	15.80	16.0	133.0	83.0	48	58.1	●
1590	15.90	16.0	133.0	83.0	48	58.1	●
1600	16.00	16.0	133.0	83.0	48	58.1	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	16.20	180	0.7400	3535	2616	539.2
		16.40	180	0.7500	3495	2621	553.7
		16.50	180	0.7550	3470	2620	560.2
		16.80	180	0.7550	3410	2575	570.7
		17.00	180	0.7600	3370	2561	581.3
		17.20	180	0.7650	3330	2548	591.9
		17.50	180	0.7700	3275	2522	606.6
		17.70	180	0.7750	3235	2507	616.9
		18.00	180	0.7800	3185	2484	632.2
	Steel 500 - 850 N/mm²	16.20	160	0.6350	3145	1997	411.6
		16.40	160	0.6400	3105	1987	419.8
		16.50	160	0.6450	3085	1990	425.5
		16.80	160	0.6500	3030	1970	436.6
		17.00	160	0.6500	2995	1947	441.9
		17.20	160	0.6550	2960	1939	450.5
		17.50	160	0.6600	2910	1921	462.0
		17.70	160	0.6600	2875	1898	466.9
		18.00	160	0.6700	2830	1896	482.5
	Steel 850 - 1100 N/mm²	16.20	140	0.5850	2750	1609	331.6
		16.40	140	0.5900	2715	1602	338.4
		16.50	140	0.5950	2700	1607	343.5
		16.80	140	0.5950	2655	1580	350.2
		17.00	140	0.6000	2620	1572	356.8
		17.20	140	0.6000	2590	1554	361.1
		17.50	140	0.6100	2545	1553	373.4
		17.70	140	0.6100	2520	1537	378.2
		18.00	140	0.6150	2475	1522	387.3
	Steel 1100 - 1300 N/mm²	16.20	100	0.4450	1965	874	180.2
		16.40	100	0.4500	1940	873	184.4
		16.50	100	0.4500	1930	869	185.7
		16.80	100	0.4550	1895	862	191.1
		17.00	100	0.4550	1870	851	193.1
		17.20	100	0.4600	1850	851	197.7
		17.50	100	0.4600	1820	837	201.4
		17.70	100	0.4650	1800	837	206.0
		18.00	100	0.4700	1770	832	211.7
	Steel 1300 - 1500 N/mm²	16.20	55	0.3400	1080	367	75.7
		16.40	55	0.3450	1070	369	78.0
		16.50	55	0.3500	1060	371	79.3
		16.80	55	0.3500	1040	364	80.7
		17.00	55	0.3500	1030	361	81.8
		17.20	55	0.3500	1020	357	82.9
		17.50	55	0.3550	1000	355	85.4
		17.70	55	0.3550	990	352	86.5
		18.00	55	0.3600	975	351	89.3
	Cold work tool steel (12% Cr), high alloyed [1.2379]	16.20	70	0.3400	1375	468	96.4
		16.40	70	0.3450	1360	469	99.1
		16.50	70	0.3500	1350	473	101.0
		16.80	70	0.3500	1325	464	102.8
		17.00	70	0.3500	1310	459	104.1
		17.20	70	0.3500	1295	453	105.3
		17.50	70	0.3550	1275	453	108.9
		17.70	70	0.3550	1260	447	110.1
		18.00	70	0.3600	1240	446	113.6
	Titanium alloys > 300 HB [Ti6Al4V]	16.20	40	0.3400	785	267	55.0
		16.40	40	0.3450	775	267	56.5
		16.50	40	0.3500	770	270	57.6
		16.80	40	0.3500	760	266	59.0
		17.00	40	0.3500	750	263	59.6
		17.20	40	0.3500	740	259	60.2
		17.50	40	0.3550	730	259	62.3
		17.70	40	0.3550	720	256	62.9
		18.00	40	0.3600	705	254	64.6
	Cast iron (lamellar / spheroidal)	16.20	240	0.6750	4715	3183	656.0
		16.40	240	0.6800	4660	3169	669.4
		16.50	240	0.6850	4630	3172	678.2
		16.80	240	0.6850	4545	3113	690.1
		17.00	240	0.6900	4495	3102	704.0
		17.20	240	0.6950	4440	3086	717.0
		17.50	240	0.7000	4365	3056	734.9
		17.70	240	0.7050	4315	3042	748.5
		18.00	240	0.7100	4245	3014	767.0

Spiral flute drills XDrill®

5xd

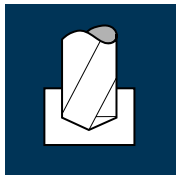
HM MGX



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **1610**

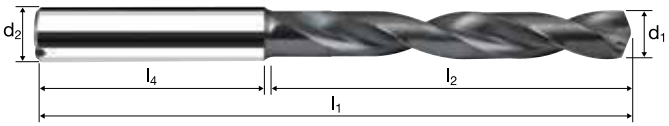
Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
1610	16.10	18.0	143.0	93.0	48	66.2	●
1620	16.20	18.0	143.0	93.0	48	66.1	●
1630	16.30	18.0	143.0	93.0	48	66.1	●
1640	16.40	18.0	143.0	93.0	48	65.9	●
1650	16.50	18.0	143.0	93.0	48	65.9	●
1660	16.60	18.0	143.0	93.0	48	65.8	●
1670	16.70	18.0	143.0	93.0	48	65.8	●
1680	16.80	18.0	143.0	93.0	48	65.7	●
1690	16.90	18.0	143.0	93.0	48	65.7	●
1700	17.00	18.0	143.0	93.0	48	65.6	●
1710	17.10	18.0	143.0	93.0	48	65.5	●
1720	17.20	18.0	143.0	93.0	48	65.4	●
1730	17.30	18.0	143.0	93.0	48	65.4	●
1740	17.40	18.0	143.0	93.0	48	65.3	●
1750	17.50	18.0	143.0	93.0	48	65.3	●
1760	17.60	18.0	143.0	93.0	48	65.2	●
1770	17.70	18.0	143.0	93.0	48	65.2	●
1780	17.80	18.0	143.0	93.0	48	65.1	●
1790	17.90	18.0	143.0	93.0	48	65.1	●
1800	18.00	18.0	143.0	93.0	48	65.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	18.50	180	0.7850	3095	2430	653.1
		18.70	180	0.7850	3065	2406	660.8
		19.00	180	0.7900	3015	2382	675.3
		19.20	180	0.7950	2985	2373	687.1
		19.30	180	0.8000	2970	2376	695.1
		19.50	180	0.8050	2940	2367	706.8
		19.70	180	0.8100	2910	2357	718.5
		19.80	180	0.8100	2895	2345	722.0
		20.00	180	0.8200	2865	2349	738.1
	Steel 500 - 850 N/mm²	18.50	160	0.6700	2755	1846	496.2
		18.70	160	0.6750	2725	1839	505.2
		19.00	160	0.6800	2680	1822	516.7
		19.20	160	0.6800	2655	1805	522.7
		19.30	160	0.6850	2640	1808	529.1
		19.50	160	0.6900	2610	1801	537.8
		19.70	160	0.6900	2585	1784	543.7
		19.80	160	0.6950	2570	1786	550.0
		20.00	160	0.7050	2545	1794	563.7
	Steel 850 - 1100 N/mm²	18.50	140	0.6200	2410	1494	401.6
		18.70	140	0.6200	2385	1479	406.1
		19.00	140	0.6250	2345	1466	415.5
		19.20	140	0.6250	2320	1450	419.8
		19.30	140	0.6300	2310	1455	425.8
		19.50	140	0.6350	2285	1451	433.3
		19.70	140	0.6400	2260	1446	440.9
		19.80	140	0.6400	2250	1440	443.4
		20.00	140	0.6450	2230	1438	451.9
	Steel 1100 - 1300 N/mm²	18.50	100	0.4700	1720	808	217.3
		18.70	100	0.4700	1700	799	219.4
		19.00	100	0.4750	1675	796	225.6
		19.20	100	0.4750	1660	789	228.3
		19.30	100	0.4800	1650	792	231.7
		19.50	100	0.4850	1630	791	236.1
		19.70	100	0.4850	1615	783	238.8
		19.80	100	0.4850	1610	781	240.4
		20.00	100	0.4900	1590	779	244.8
	Steel 1300 - 1500 N/mm²	18.50	55	0.3600	945	340	91.4
		18.70	55	0.3600	935	337	92.4
		19.00	55	0.3650	920	336	95.2
		19.20	55	0.3650	910	332	96.2
		19.30	55	0.3700	905	335	98.0
		19.50	55	0.3700	900	333	99.4
		19.70	55	0.3750	890	334	101.7
		19.80	55	0.3750	885	332	102.2
		20.00	55	0.3800	875	333	104.5
	Cold work tool steel (12% Cr), high alloyed [1.2379]	18.50	70	0.3600	1205	434	116.6
		18.70	70	0.3600	1190	428	117.7
		19.00	70	0.3650	1175	429	121.6
		19.20	70	0.3650	1160	423	122.6
		19.30	70	0.3700	1155	427	125.0
		19.50	70	0.3700	1145	424	126.5
		19.70	70	0.3750	1130	424	129.2
		19.80	70	0.3750	1125	422	129.9
		20.00	70	0.3800	1115	424	133.1
	Titanium alloys > 300 HB [Ti6Al4V]	18.50	40	0.3600	690	248	66.8
		18.70	40	0.3600	680	245	67.2
		19.00	40	0.3650	670	245	69.4
		19.20	40	0.3650	665	243	70.3
		19.30	40	0.3700	660	244	71.4
		19.50	40	0.3700	655	242	72.4
		19.70	40	0.3750	645	242	73.7
		19.80	40	0.3750	645	242	74.5
		20.00	40	0.3800	635	241	75.8
	Cast iron (lamellar / spheroidal)	18.50	240	0.7100	4130	2932	788.2
		18.70	240	0.7150	4085	2921	802.2
		19.00	240	0.7200	4020	2894	820.6
		19.20	240	0.7200	3980	2866	829.7
		19.30	240	0.7250	3960	2871	839.9
		19.50	240	0.7350	3920	2881	860.5
		19.70	240	0.7350	3880	2852	869.2
		19.80	240	0.7400	3860	2856	879.5
		20.00	240	0.7450	3820	2846	894.1

Spiral flute drills XDrill®

5xd

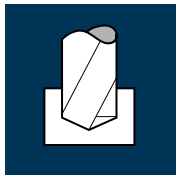
HM MGX



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72015** ø-Code **1850**

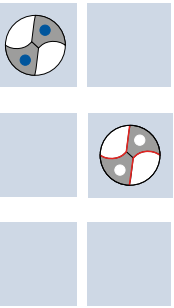
Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72015
1850	18.50	20.0	153.0	101.0	50	70.9	●
1870	18.70	20.0	153.0	101.0	50	70.8	●
1900	19.00	20.0	153.0	101.0	50	70.5	●
1910	19.10	20.0	153.0	101.0	50	70.5	●
1920	19.20	20.0	153.0	101.0	50	70.4	●
1930	19.30	20.0	153.0	101.0	50	70.4	●
1950	19.50	20.0	153.0	101.0	50	70.3	●
1970	19.70	20.0	153.0	101.0	50	70.2	●
1980	19.80	20.0	153.0	101.0	50	70.1	●
2000	20.00	20.0	153.0	101.0	50	70.0	●

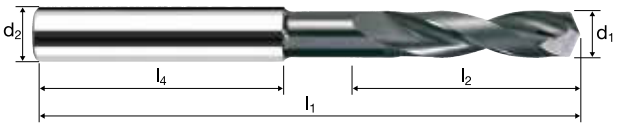
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	170	0.0850	18040	1533	10.8
		3.30	170	0.0950	16400	1560	13.3
		3.50	170	0.1000	15460	1545	14.9
		4.00	170	0.1150	13530	1555	19.5
		4.20	170	0.1200	12885	1545	21.4
		5.00	170	0.1450	10825	1570	30.8
		6.00	170	0.1700	9020	1535	43.4
		6.80	170	0.1950	7960	1550	56.3
		8.50	170	0.2450	6365	1560	88.5
	Steel 500 - 850 N/mm²	3.00	130	0.0850	13795	1173	8.3
		3.30	130	0.0950	12540	1190	10.2
		3.50	130	0.1000	11825	1185	11.4
		4.00	130	0.1150	10345	1190	15.0
		4.20	130	0.1200	9850	1180	16.3
		5.00	130	0.1450	8275	1200	23.6
		6.00	130	0.1700	6895	1170	33.1
		6.80	130	0.1950	6085	1185	43.0
		8.50	130	0.2450	4870	1195	67.8
	Steel 850 - 1100 N/mm²	3.00	110	0.0650	11670	759	5.4
		3.30	110	0.0750	10610	795	6.8
		3.50	110	0.0800	10005	800	7.7
		4.00	110	0.0900	8755	790	9.9
		4.20	110	0.0950	8335	790	10.9
		5.00	110	0.1100	7005	770	15.1
		6.00	110	0.1350	5835	790	22.3
		6.80	110	0.1500	5150	775	28.1
		8.50	110	0.1900	4120	785	44.5
	Steel 1100 - 1300 N/mm²	3.00	70	0.0550	7425	408	2.9
		3.30	70	0.0600	6750	405	3.5
		3.50	70	0.0600	6365	380	3.7
		4.00	70	0.0700	5570	390	4.9
		4.20	70	0.0750	5305	400	5.5
		5.00	70	0.0900	4455	400	7.9
		6.00	70	0.1050	3715	390	11.0
		6.80	70	0.1200	3275	395	14.3
		8.50	70	0.1500	2620	395	22.4
	Steel 1300 - 1500 N/mm²	3.00	40	0.0450	4245	191	1.4
		3.30	40	0.0450	3860	175	1.5
		3.50	40	0.0500	3640	180	1.7
		4.00	40	0.0550	3185	175	2.2
		4.20	40	0.0600	3030	180	2.5
		5.00	40	0.0700	2545	180	3.5
		6.00	40	0.0850	2120	180	5.1
		6.80	40	0.0950	1870	180	6.5
		8.50	40	0.1200	1500	180	10.2
	Stainless steel [Cr-Ni/1.4301]	3.00	60	0.0450	6365	286	2.0
		3.30	60	0.0500	5785	290	2.5
		3.50	60	0.0500	5455	275	2.6
		4.00	60	0.0600	4775	285	3.6
		4.20	60	0.0650	4545	295	4.1
		5.00	60	0.0750	3820	285	5.6
		6.00	60	0.0900	3185	285	8.1
		6.80	60	0.1000	2810	280	10.2
		8.50	60	0.1250	2245	280	15.9
	Cast iron (lamellar / spheroidal)	3.00	220	0.0950	23345	2218	15.7
		3.30	220	0.1050	21220	2230	19.1
		3.50	220	0.1100	20010	2200	21.2
		4.00	220	0.1250	17505	2190	27.5
		4.20	220	0.1300	16675	2170	30.1
		5.00	220	0.1550	14005	2170	42.6
		6.00	220	0.1900	11670	2215	62.6
		6.80	220	0.2150	10300	2215	80.4
		8.50	220	0.2650	8240	2185	124.0
	Wrought aluminium alloys Si < 6% hardened	3.00	250	0.0850	26525	2255	15.9
		3.30	250	0.0950	24115	2290	19.6
		3.50	250	0.1000	22735	2275	21.9
		4.00	250	0.1150	19895	2290	28.8
		4.20	250	0.1200	18945	2275	31.5
		5.00	250	0.1450	15915	2310	45.4
		6.00	250	0.1700	13265	2255	63.8
		6.80	250	0.1950	11705	2280	82.8
		8.50	250	0.2450	9360	2295	130.2

Spiral flute drills Supradrill® U

3xd

HM MG10

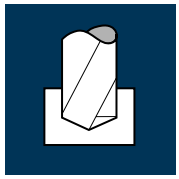




Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62011** ø-Code **0300**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62011	B63011
0300	3.00	6.0	62.0	20.0	36	16.2			●
0330	3.30	6.0	62.0	20.0	36	16.0			●
0340	3.40	6.0	62.0	20.0	36	15.8			●
0350	3.50	6.0	62.0	20.0	36	15.8			●
0370	3.70	6.0	62.0	20.0	36	15.6			●
0380	3.80	6.0	66.0	24.0	36	19.4			●
0400	4.00	6.0	66.0	24.0	36	18.9			●
0420	4.20	6.0	66.0	24.0	36	18.8			●
0450	4.50	6.0	66.0	24.0	36	18.6			●
0480	4.80	6.0	66.0	28.0	36	18.4			●
0500	5.00	6.0	66.0	28.0	36	18.8			●
0550	5.50	6.0	66.0	28.0	36	18.5			●
0580	5.80	6.0	66.0	28.0	36	18.4			●
0600	6.00	6.0	66.0	28.0	36	18.6			●
0650	6.50	8.0	79.0	34.0	36	29.1			●
0680	6.80	8.0	79.0	34.0	36	28.9			●
0700	7.00	8.0	79.0	34.0	36	28.8			●
0750	7.50	8.0	79.0	41.0	36	28.5			●
0780	7.80	8.0	79.0	41.0	36	28.4			●
0800	8.00	8.0	79.0	41.0	36	28.5			●
0850	8.50	10.0	89.0	47.0	40	32.1			●
0880	8.80	10.0	89.0	47.0	40	31.9			●
0900	9.00	10.0	89.0	47.0	40	31.7			●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	10.00	170	0.2850	5410	1540	121.0
		10.20	170	0.2900	5305	1540	125.8
		11.00	170	0.3150	4920	1550	147.3
		12.00	170	0.3450	4510	1555	175.9
		13.00	170	0.3700	4165	1540	204.4
		14.00	170	0.4000	3865	1545	237.8
		15.00	170	0.4300	3610	1550	273.9
		15.50	170	0.4450	3490	1555	293.4
		16.00	170	0.4550	3380	1540	309.6
	Steel 500 - 850 N/mm²	10.00	130	0.2850	4140	1180	92.7
		10.20	130	0.2900	4055	1175	96.0
		11.00	130	0.3150	3760	1185	112.6
		12.00	130	0.3450	3450	1190	134.6
		13.00	130	0.3700	3185	1180	156.6
		14.00	130	0.4000	2955	1180	181.6
		15.00	130	0.4300	2760	1185	209.4
		15.50	130	0.4450	2670	1190	224.5
		16.00	130	0.4550	2585	1175	236.2
	Steel 850 - 1100 N/mm²	10.00	110	0.2200	3500	770	60.5
		10.20	110	0.2250	3435	775	63.3
		11.00	110	0.2450	3185	780	74.1
		12.00	110	0.2650	2920	775	87.7
		13.00	110	0.2900	2695	780	103.5
		14.00	110	0.3100	2500	775	119.3
		15.00	110	0.3350	2335	780	137.8
		15.50	110	0.3450	2260	780	147.2
		16.00	110	0.3550	2190	775	155.8
	Steel 1100 - 1300 N/mm²	10.00	70	0.1750	2230	390	30.6
		10.20	70	0.1800	2185	395	32.3
		11.00	70	0.1950	2025	395	37.5
		12.00	70	0.2100	1855	390	44.1
		13.00	70	0.2300	1715	395	52.4
		14.00	70	0.2450	1590	390	60.0
		15.00	70	0.2650	1485	395	69.8
		15.50	70	0.2700	1440	390	73.6
		16.00	70	0.2800	1395	390	78.4
	Steel 1300 - 1500 N/mm²	10.00	40	0.1450	1275	185	14.5
		10.20	40	0.1450	1250	180	14.7
		11.00	40	0.1550	1155	180	17.1
		12.00	40	0.1700	1060	180	20.4
		13.00	40	0.1850	980	180	23.9
		14.00	40	0.2000	910	180	27.7
		15.00	40	0.2150	850	185	32.7
		15.50	40	0.2200	820	180	34.0
		16.00	40	0.2300	795	185	37.2
	Stainless steel [Cr-Ni/1.4301]	10.00	60	0.1500	1910	285	22.4
		10.20	60	0.1500	1870	280	22.9
		11.00	60	0.1650	1735	285	27.1
		12.00	60	0.1800	1590	285	32.2
		13.00	60	0.1950	1470	285	37.8
		14.00	60	0.2100	1365	285	43.9
		15.00	60	0.2250	1275	285	50.4
		15.50	60	0.2300	1230	285	53.8
		16.00	60	0.2400	1195	285	57.3
	Cast iron (lamellar / spheroidal)	10.00	220	0.3150	7005	2205	173.2
		10.20	220	0.3200	6865	2195	179.4
		11.00	220	0.3450	6365	2195	208.6
		12.00	220	0.3750	5835	2190	247.7
		13.00	220	0.4050	5385	2180	289.4
		14.00	220	0.4400	5000	2200	338.7
		15.00	220	0.4700	4670	2195	387.9
		15.50	220	0.4850	4520	2190	413.2
		16.00	220	0.5000	4375	2190	440.3
	Wrought aluminium alloys Si < 6% hardened	10.00	250	0.2850	7960	2270	178.3
		10.20	250	0.2900	7800	2260	184.7
		11.00	250	0.3150	7235	2280	216.7
		12.00	250	0.3450	6630	2285	258.4
		13.00	250	0.3700	6120	2265	300.6
		14.00	250	0.4000	5685	2275	350.2
		15.00	250	0.4300	5305	2280	402.9
		15.50	250	0.4450	5135	2285	431.2
		16.00	250	0.4550	4975	2265	455.4

Spiral flute drills Supradrill® U

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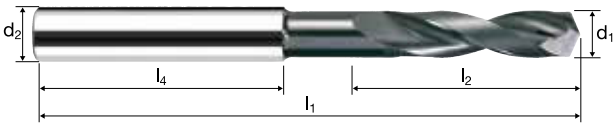
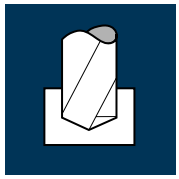
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B62011** ø-Code **0950**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}		NANO-U² B62011	B63011
0950	9.50	10.0	89.0	47.0	40	31.5			●
0980	9.80	10.0	89.0	47.0	40	31.4			●
1000	10.00	10.0	89.0	47.0	40	31.5			●
1020	10.20	12.0	102.0	55.0	45	37.2			●
1050	10.50	12.0	102.0	55.0	45	37.1			●
1080	10.80	12.0	102.0	55.0	45	36.9			●
1100	11.00	12.0	102.0	55.0	45	36.7			●
1150	11.50	12.0	102.0	55.0	45	36.5			●
1180	11.80	12.0	102.0	55.0	45	36.3			●
1200	12.00	12.0	102.0	55.0	45	36.4			●
1250	12.50	14.0	107.0	60.0	45	39.1			●
1280	12.80	14.0	107.0	60.0	45	38.9			●
1300	13.00	14.0	107.0	60.0	45	38.7			●
1350	13.50	14.0	107.0	60.0	45	38.5			●
1380	13.80	14.0	107.0	60.0	45	38.3			●
1400	14.00	14.0	107.0	60.0	45	38.4			●
1450	14.50	16.0	115.0	65.0	48	41.1			●
1480	14.80	16.0	115.0	65.0	48	40.8			●
1500	15.00	16.0	115.0	65.0	48	40.7			●
1550	15.50	16.0	115.0	65.0	48	40.5			●
1580	15.80	16.0	115.0	65.0	48	40.3			●
1600	16.00	16.0	115.0	65.0	48	40.4			●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	180	0.1400	19100	2674	18.9
		3.30	180	0.1550	17360	2691	23.0
		3.50	180	0.1650	16370	2701	26.0
		3.80	180	0.1750	15080	2639	29.9
		4.00	180	0.1950	14325	2793	35.1
		4.20	180	0.2100	13640	2864	39.7
		4.50	180	0.2400	12730	3055	48.6
		4.80	180	0.2550	11935	3043	55.1
		5.00	180	0.2650	11460	3037	59.6
	Steel 500 - 850 N/mm²	3.00	160	0.1200	16975	2037	14.4
		3.30	160	0.1300	15435	2007	17.2
		3.50	160	0.1400	14550	2037	19.6
		3.80	160	0.1500	13405	2011	22.8
		4.00	160	0.1650	12730	2101	26.4
		4.20	160	0.1800	12125	2183	30.2
		4.50	160	0.2050	11320	2321	36.9
		4.80	160	0.2200	10610	2334	42.2
		5.00	160	0.2300	10185	2343	46.0
	Steel 850 - 1100 N/mm²	3.00	140	0.1100	14855	1634	11.6
		3.30	140	0.1200	13505	1621	13.9
		3.50	140	0.1300	12730	1655	15.9
		3.80	140	0.1400	11725	1642	18.6
		4.00	140	0.1550	11140	1727	21.7
		4.20	140	0.1650	10610	1751	24.3
		4.50	140	0.1900	9905	1882	29.9
		4.80	140	0.2000	9285	1857	33.6
		5.00	140	0.2100	8915	1872	36.8
	Steel 1100 - 1300 N/mm²	3.00	100	0.0850	10610	902	6.4
		3.30	100	0.0900	9645	868	7.4
		3.50	100	0.1000	9095	910	8.8
		3.80	100	0.1050	8375	879	10.0
		4.00	100	0.1150	7960	915	11.5
		4.20	100	0.1250	7580	948	13.1
		4.50	100	0.1450	7075	1026	16.3
		4.80	100	0.1550	6630	1028	18.6
		5.00	100	0.1600	6365	1018	20.0
	Steel 1300 - 1500 N/mm²	3.00	55	0.0650	5835	379	2.7
		3.30	55	0.0700	5305	371	3.2
		3.50	55	0.0750	5000	375	3.6
		3.80	55	0.0800	4605	368	4.2
		4.00	55	0.0900	4375	394	4.9
		4.20	55	0.0950	4170	396	5.5
		4.50	55	0.1100	3890	428	6.8
		4.80	55	0.1200	3645	437	7.9
		5.00	55	0.1250	3500	438	8.6
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	70	0.0650	7425	483	3.4
		3.30	70	0.0700	6750	473	4.0
		3.50	70	0.0750	6365	477	4.6
		3.80	70	0.0800	5865	469	5.3
		4.00	70	0.0900	5570	501	6.3
		4.20	70	0.0950	5305	504	7.0
		4.50	70	0.1100	4950	545	8.7
		4.80	70	0.1200	4640	557	10.1
		5.00	70	0.1250	4455	557	10.9
	Titanium alloys > 300 HB [Ti6Al4V]	3.00	40	0.0650	4245	276	2.0
		3.30	40	0.0700	3860	270	2.3
		3.50	40	0.0750	3640	273	2.6
		3.80	40	0.0800	3350	268	3.0
		4.00	40	0.0900	3185	287	3.6
		4.20	40	0.0950	3030	288	4.0
		4.50	40	0.1100	2830	311	5.0
		4.80	40	0.1200	2655	319	5.8
		5.00	40	0.1250	2545	318	6.2
	Cast iron (lamellar / spheroidal)	3.00	240	0.1250	25465	3183	22.5
		3.30	240	0.1400	23150	3241	27.7
		3.50	240	0.1500	21825	3274	31.5
		3.80	240	0.1600	20105	3217	36.5
		4.00	240	0.1750	19100	3343	42.0
		4.20	240	0.1900	18190	3456	47.9
		4.50	240	0.2200	16975	3735	59.4
		4.80	240	0.2350	15915	3740	67.7
		5.00	240	0.2400	15280	3667	72.0

Spiral flute drills XDrill®

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HM MGX

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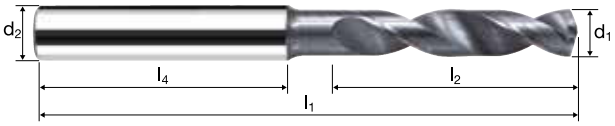
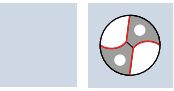
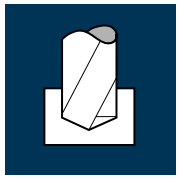




Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72011** ø-Code **0300**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72011
0300	3.00	6.0	62.0	20.0	36	16.2	●
0310	3.10	6.0	62.0	20.0	36	16.2	●
0320	3.20	6.0	62.0	20.0	36	16.0	●
0330	3.30	6.0	62.0	20.0	36	16.0	●
0340	3.40	6.0	62.0	20.0	36	15.8	●
0350	3.50	6.0	62.0	20.0	36	15.8	●
0360	3.60	6.0	62.0	20.0	36	15.6	●
0370	3.70	6.0	62.0	20.0	36	15.6	●
0380	3.80	6.0	66.0	24.0	36	19.4	●
0390	3.90	6.0	66.0	24.0	36	19.4	●
0400	4.00	6.0	66.0	24.0	36	18.9	●
0410	4.10	6.0	66.0	24.0	36	18.9	●
0420	4.20	6.0	66.0	24.0	36	18.8	●
0430	4.30	6.0	66.0	24.0	36	18.7	●
0440	4.40	6.0	66.0	24.0	36	18.6	●
0450	4.50	6.0	66.0	24.0	36	18.6	●
0460	4.60	6.0	66.0	24.0	36	18.5	●
0470	4.70	6.0	66.0	24.0	36	18.5	●
0480	4.80	6.0	66.0	28.0	36	18.4	●
0490	4.90	6.0	66.0	28.0	36	18.4	●
0500	5.00	6.0	66.0	28.0	36	18.7	●
0510	5.10	6.0	66.0	28.0	36	18.7	●
0520	5.20	6.0	66.0	28.0	36	18.6	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	5.50	180	0.2950	10415	3072	73.0
		5.80	180	0.3100	9880	3063	80.9
		6.00	180	0.3300	9550	3152	89.1
		6.20	180	0.3500	9240	3234	97.6
		6.50	180	0.3700	8815	3262	108.2
		6.80	180	0.3850	8425	3244	117.8
		7.00	180	0.3950	8185	3233	124.4
		7.20	180	0.4100	7960	3264	132.9
		7.50	180	0.4250	7640	3247	143.4
	Steel 500 - 850 N/mm²	5.50	160	0.2500	9260	2315	55.0
		5.80	160	0.2650	8780	2327	61.5
		6.00	160	0.2850	8490	2420	68.4
		6.20	160	0.3000	8215	2465	74.4
		6.50	160	0.3150	7835	2468	81.9
		6.80	160	0.3300	7490	2472	89.8
		7.00	160	0.3400	7275	2474	95.2
		7.20	160	0.3500	7075	2476	100.8
		7.50	160	0.3650	6790	2478	109.5
	Steel 850 - 1100 N/mm²	5.50	140	0.2300	8100	1863	44.3
		5.80	140	0.2450	7685	1883	49.7
		6.00	140	0.2600	7425	1931	54.6
		6.20	140	0.2750	7190	1977	59.7
		6.50	140	0.2900	6855	1988	66.0
		6.80	140	0.3050	6555	1999	72.6
		7.00	140	0.3150	6365	2005	77.2
		7.20	140	0.3200	6190	1981	80.6
		7.50	140	0.3350	5940	1990	87.9
	Steel 1100 - 1300 N/mm²	5.50	100	0.1750	5785	1012	24.1
		5.80	100	0.1850	5490	1016	26.8
		6.00	100	0.2000	5305	1061	30.0
		6.20	100	0.2100	5135	1078	32.6
		6.50	100	0.2200	4895	1077	35.7
		6.80	100	0.2300	4680	1076	39.1
		7.00	100	0.2400	4545	1091	42.0
		7.20	100	0.2450	4420	1083	44.1
		7.50	100	0.2550	4245	1083	47.8
	Steel 1300 - 1500 N/mm²	5.50	55	0.1350	3185	430	10.2
		5.80	55	0.1450	3020	438	11.6
		6.00	55	0.1500	2920	438	12.4
		6.20	55	0.1600	2825	452	13.6
		6.50	55	0.1700	2695	458	15.2
		6.80	55	0.1800	2575	464	16.8
		7.00	55	0.1850	2500	463	17.8
		7.20	55	0.1900	2430	462	18.8
		7.50	55	0.1950	2335	455	20.1
	Cold work tool steel (12% Cr), high alloyed [1.2379]	5.50	70	0.1350	4050	547	13.0
		5.80	70	0.1450	3840	557	14.7
		6.00	70	0.1500	3715	557	15.8
		6.20	70	0.1600	3595	575	17.4
		6.50	70	0.1700	3430	583	19.3
		6.80	70	0.1800	3275	590	21.4
		7.00	70	0.1850	3185	589	22.7
		7.20	70	0.1900	3095	588	23.9
		7.50	70	0.1950	2970	579	25.6
	Titanium alloys > 300 HB [Ti6Al4V]	5.50	40	0.1350	2315	313	7.4
		5.80	40	0.1450	2195	318	8.4
		6.00	40	0.1500	2120	318	9.0
		6.20	40	0.1600	2055	329	9.9
		6.50	40	0.1700	1960	333	11.1
		6.80	40	0.1800	1870	337	12.2
		7.00	40	0.1850	1820	337	13.0
		7.20	40	0.1900	1770	336	13.7
		7.50	40	0.1950	1700	332	14.6
	Cast iron (lamellar / spheroidal)	5.50	240	0.2650	13890	3681	87.5
		5.80	240	0.2800	13170	3688	97.4
		6.00	240	0.3000	12730	3819	108.0
		6.20	240	0.3200	12320	3942	119.0
		6.50	240	0.3350	11755	3938	130.7
		6.80	240	0.3500	11235	3932	142.8
		7.00	240	0.3600	10915	3929	151.2
		7.20	240	0.3700	10610	3926	159.8
		7.50	240	0.3850	10185	3921	173.2

Spiral flute drills XDrill®

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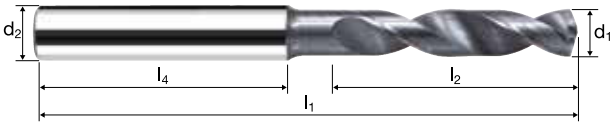
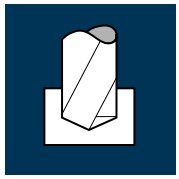


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72011** ø-Code **0530**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72011
0530	5.30	6.0	66.0	28.0	36	18.6	●
0540	5.40	6.0	66.0	28.0	36	18.5	●
0550	5.50	6.0	66.0	28.0	36	18.5	●
0560	5.60	6.0	66.0	28.0	36	18.4	●
0570	5.70	6.0	66.0	28.0	36	18.4	●
0580	5.80	6.0	66.0	28.0	36	18.4	●
0590	5.90	6.0	66.0	28.0	36	18.4	●
0600	6.00	6.0	66.0	28.0	36	18.5	●
0610	6.10	8.0	79.0	34.0	36	29.3	●
0620	6.20	8.0	79.0	34.0	36	29.2	●
0630	6.30	8.0	79.0	34.0	36	29.2	●
0640	6.40	8.0	79.0	34.0	36	29.1	●
0650	6.50	8.0	79.0	34.0	36	29.1	●
0660	6.60	8.0	79.0	34.0	36	29.0	●
0670	6.70	8.0	79.0	34.0	36	29.0	●
0680	6.80	8.0	79.0	34.0	36	28.8	●
0690	6.90	8.0	79.0	34.0	36	28.8	●
0700	7.00	8.0	79.0	34.0	36	28.7	●
0710	7.10	8.0	79.0	41.0	36	28.7	●
0720	7.20	8.0	79.0	41.0	36	28.6	●
0730	7.30	8.0	79.0	41.0	36	28.6	●
0740	7.40	8.0	79.0	41.0	36	28.5	●
0750	7.50	8.0	79.0	41.0	36	28.5	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	7.60	180	0.4300	7540	3242	147.1
		8.00	180	0.4550	7160	3258	163.8
		8.20	180	0.4650	6985	3248	171.5
		8.50	180	0.4800	6740	3235	183.6
		8.80	180	0.5000	6510	3255	198.0
		9.00	180	0.5100	6365	3246	206.5
		9.20	180	0.5200	6230	3240	215.4
		9.50	180	0.5400	6030	3256	230.8
		9.80	180	0.5550	5845	3244	244.7
	Steel 500 - 850 N/mm²	7.60	160	0.3700	6700	2479	112.5
		8.00	160	0.3900	6365	2482	124.8
		8.20	160	0.4000	6210	2484	131.2
		8.50	160	0.4150	5990	2486	141.1
		8.80	160	0.4250	5785	2459	149.5
		9.00	160	0.4350	5660	2462	156.6
		9.20	160	0.4450	5535	2463	163.7
		9.50	160	0.4600	5360	2466	174.8
		9.80	160	0.4750	5195	2468	186.1
	Steel 850 - 1100 N/mm²	7.60	140	0.3400	5865	1994	90.5
		8.00	140	0.3600	5570	2005	100.8
		8.20	140	0.3650	5435	1984	104.8
		8.50	140	0.3800	5245	1993	113.1
		8.80	140	0.3950	5065	2001	121.7
		9.00	140	0.4050	4950	2005	127.5
		9.20	140	0.4100	4845	1987	132.1
		9.50	140	0.4250	4690	1993	141.3
		9.80	140	0.4400	4545	2000	150.8
	Steel 1100 - 1300 N/mm²	7.60	100	0.2600	4190	1089	49.4
		8.00	100	0.2700	3980	1075	54.0
		8.20	100	0.2800	3880	1086	57.4
		8.50	100	0.2900	3745	1086	61.6
		8.80	100	0.3000	3615	1085	66.0
		9.00	100	0.3050	3535	1078	68.6
		9.20	100	0.3150	3460	1090	72.5
		9.50	100	0.3250	3350	1089	77.2
		9.80	100	0.3350	3250	1089	82.1
	Steel 1300 - 1500 N/mm²	7.60	55	0.2000	2305	461	20.9
		8.00	55	0.2100	2190	460	23.1
		8.20	55	0.2150	2135	459	24.2
		8.50	55	0.2200	2060	453	25.7
		8.80	55	0.2300	1990	458	27.8
		9.00	55	0.2350	1945	457	29.1
		9.20	55	0.2400	1905	457	30.4
		9.50	55	0.2500	1845	461	32.7
		9.80	55	0.2550	1785	455	34.3
	Cold work tool steel (12% Cr), high alloyed [1.2379]	7.60	70	0.2000	2930	586	26.6
		8.00	70	0.2100	2785	585	29.4
		8.20	70	0.2150	2715	584	30.8
		8.50	70	0.2200	2620	576	32.7
		8.80	70	0.2300	2530	582	35.4
		9.00	70	0.2350	2475	582	37.0
		9.20	70	0.2400	2420	581	38.6
		9.50	70	0.2500	2345	586	41.6
		9.80	70	0.2550	2275	580	43.8
	Titanium alloys > 300 HB [Ti6Al4V]	7.60	40	0.2000	1675	335	15.2
		8.00	40	0.2100	1590	334	16.8
		8.20	40	0.2150	1555	334	17.7
		8.50	40	0.2200	1500	330	18.7
		8.80	40	0.2300	1445	332	20.2
		9.00	40	0.2350	1415	333	21.2
		9.20	40	0.2400	1385	332	22.1
		9.50	40	0.2500	1340	335	23.7
		9.80	40	0.2550	1300	332	25.0
	Cast iron (lamellar / spheroidal)	7.60	240	0.3900	10050	3920	177.8
		8.00	240	0.4100	9550	3916	196.8
		8.20	240	0.4200	9315	3912	206.6
		8.50	240	0.4400	8990	3956	224.5
		8.80	240	0.4550	8680	3949	240.2
		9.00	240	0.4650	8490	3948	251.2
		9.20	240	0.4750	8305	3945	262.2
		9.50	240	0.4900	8040	3940	279.2
		9.80	240	0.5050	7795	3937	296.9

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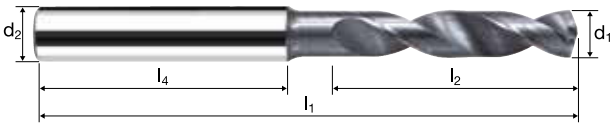
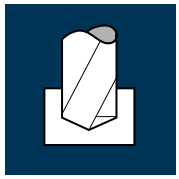


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72011** ø-Code **0760**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72011
0760	7.60	8.0	79.0	41.0	36	28.4	●
0770	7.70	8.0	79.0	41.0	36	28.4	●
0780	7.80	8.0	79.0	41.0	36	28.3	●
0790	7.90	8.0	79.0	41.0	36	28.4	●
0800	8.00	8.0	79.0	41.0	36	28.4	●
0810	8.10	10.0	89.0	47.0	40	32.3	●
0820	8.20	10.0	89.0	47.0	40	32.2	●
0830	8.30	10.0	89.0	47.0	40	32.2	●
0840	8.40	10.0	89.0	47.0	40	32.1	●
0850	8.50	10.0	89.0	47.0	40	32.1	●
0860	8.60	10.0	89.0	47.0	40	31.9	●
0870	8.70	10.0	89.0	47.0	40	31.9	●
0880	8.80	10.0	89.0	47.0	40	31.8	●
0890	8.90	10.0	89.0	47.0	40	31.8	●
0900	9.00	10.0	89.0	47.0	40	31.7	●
0910	9.10	10.0	89.0	47.0	40	31.7	●
0920	9.20	10.0	89.0	47.0	40	31.6	●
0930	9.30	10.0	89.0	47.0	40	31.6	●
0940	9.40	10.0	89.0	47.0	40	31.4	●
0950	9.50	10.0	89.0	47.0	40	31.4	●
0960	9.60	10.0	89.0	47.0	40	31.3	●
0970	9.70	10.0	89.0	47.0	40	31.3	●
0980	9.80	10.0	89.0	47.0	40	31.3	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	10.00	180	0.5650	5730	3238	254.3
		10.20	180	0.5750	5615	3229	263.8
		10.50	180	0.5900	5455	3219	278.7
		10.80	180	0.6050	5305	3210	294.0
		11.00	180	0.6100	5210	3178	302.0
		11.20	180	0.6150	5115	3146	309.9
		11.50	180	0.6200	4980	3088	320.7
		11.80	180	0.6300	4855	3059	334.5
		12.00	180	0.6400	4775	3056	345.6
	Steel 500 - 850 N/mm²	10.00	160	0.4850	5095	2471	194.1
		10.20	160	0.4950	4995	2473	202.0
		10.50	160	0.5050	4850	2449	212.1
		10.80	160	0.5200	4715	2452	224.6
		11.00	160	0.5250	4630	2431	231.0
		11.20	160	0.5300	4545	2409	237.3
		11.50	160	0.5300	4430	2348	243.9
		11.80	160	0.5400	4315	2330	254.8
		12.00	160	0.5500	4245	2335	264.1
	Steel 850 - 1100 N/mm²	10.00	140	0.4450	4455	1983	155.7
		10.20	140	0.4550	4370	1988	162.5
		10.50	140	0.4650	4245	1974	170.9
		10.80	140	0.4750	4125	1959	179.5
		11.00	140	0.4850	4050	1964	186.7
		11.20	140	0.4850	3980	1930	190.2
		11.50	140	0.4900	3875	1899	197.2
		11.80	140	0.4950	3775	1869	204.3
		12.00	140	0.5050	3715	1876	212.2
	Steel 1100 - 1300 N/mm²	10.00	100	0.3400	3185	1083	85.1
		10.20	100	0.3450	3120	1076	88.0
		10.50	100	0.3550	3030	1076	93.1
		10.80	100	0.3650	2945	1075	98.5
		11.00	100	0.3650	2895	1057	100.4
		11.20	100	0.3700	2840	1051	103.5
		11.50	100	0.3750	2770	1039	107.9
		11.80	100	0.3800	2700	1026	112.2
		12.00	100	0.3850	2655	1022	115.6
	Steel 1300 - 1500 N/mm²	10.00	55	0.2600	1750	455	35.7
		10.20	55	0.2650	1715	455	37.1
		10.50	55	0.2750	1665	458	39.6
		10.80	55	0.2800	1620	454	41.6
		11.00	55	0.2850	1590	453	43.1
		11.20	55	0.2850	1565	446	43.9
		11.50	55	0.2850	1520	433	45.0
		11.80	55	0.2900	1485	431	47.1
		12.00	55	0.2950	1460	431	48.7
	Cold work tool steel (12% Cr), high alloyed [1.2379]	10.00	70	0.2600	2230	580	45.5
		10.20	70	0.2650	2185	579	47.3
		10.50	70	0.2750	2120	583	50.5
		10.80	70	0.2800	2065	578	53.0
		11.00	70	0.2850	2025	577	54.8
		11.20	70	0.2850	1990	567	55.9
		11.50	70	0.2850	1940	553	57.4
		11.80	70	0.2900	1890	548	59.9
		12.00	70	0.2950	1855	547	61.9
	Titanium alloys > 300 HB [Ti6Al4V]	10.00	40	0.2600	1275	332	26.0
		10.20	40	0.2650	1250	331	27.1
		10.50	40	0.2750	1215	334	28.9
		10.80	40	0.2800	1180	330	30.3
		11.00	40	0.2850	1155	329	31.3
		11.20	40	0.2850	1135	324	31.9
		11.50	40	0.2850	1105	315	32.7
		11.80	40	0.2900	1080	313	34.3
		12.00	40	0.2950	1060	313	35.4
	Cast iron (lamellar / spheroidal)	10.00	240	0.5150	7640	3935	309.0
		10.20	240	0.5200	7490	3895	318.3
		10.50	240	0.5400	7275	3929	340.2
		10.80	240	0.5500	7075	3891	356.5
		11.00	240	0.5550	6945	3855	366.3
		11.20	240	0.5600	6820	3819	376.3
		11.50	240	0.5650	6645	3754	390.0
		11.80	240	0.5700	6475	3691	403.6
		12.00	240	0.5800	6365	3692	417.5

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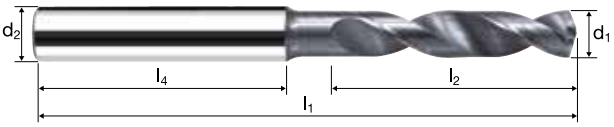
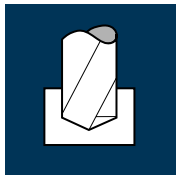


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72011** ø-Code **0990**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72011
0990	9.90	10.0	89.0	47.0	40	31.3	●
1000	10.00	10.0	89.0	47.0	40	31.3	●
1010	10.10	12.0	102.0	55.0	45	37.3	●
1020	10.20	12.0	102.0	55.0	45	37.2	●
1030	10.30	12.0	102.0	55.0	45	37.2	●
1040	10.40	12.0	102.0	55.0	45	37.1	●
1050	10.50	12.0	102.0	55.0	45	37.0	●
1060	10.60	12.0	102.0	55.0	45	36.9	●
1070	10.70	12.0	102.0	55.0	45	36.9	●
1080	10.80	12.0	102.0	55.0	45	36.8	●
1090	10.90	12.0	102.0	55.0	45	36.8	●
1100	11.00	12.0	102.0	55.0	45	36.7	●
1110	11.10	12.0	102.0	55.0	45	36.7	●
1120	11.20	12.0	102.0	55.0	45	36.5	●
1130	11.30	12.0	102.0	55.0	45	36.5	●
1140	11.40	12.0	102.0	55.0	45	36.4	●
1150	11.50	12.0	102.0	55.0	45	36.4	●
1160	11.60	12.0	102.0	55.0	45	36.3	●
1170	11.70	12.0	102.0	55.0	45	36.3	●
1180	11.80	12.0	102.0	55.0	45	36.2	●
1190	11.90	12.0	102.0	55.0	45	36.3	●
1200	12.00	12.0	102.0	55.0	45	36.3	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	12.50	180	0.6650	4585	3049	374.2
		13.00	180	0.6950	4405	3062	406.4
		13.50	180	0.7050	4245	2993	428.4
		14.00	180	0.7150	4095	2928	450.7
		14.50	180	0.7250	3950	2864	472.9
		15.00	180	0.7450	3820	2846	502.9
		15.50	180	0.7600	3695	2808	529.9
		15.80	180	0.7700	3625	2791	547.3
		16.00	180	0.7750	3580	2775	557.8
	Steel 500 - 850 N/mm²	12.50	160	0.5700	4075	2323	285.1
		13.00	160	0.5950	3920	2332	309.6
		13.50	160	0.6050	3775	2284	326.9
		14.00	160	0.6100	3640	2220	341.8
		14.50	160	0.6200	3510	2176	359.4
		15.00	160	0.6400	3395	2173	384.0
		15.50	160	0.6500	3285	2135	402.9
		15.80	160	0.6600	3225	2129	417.3
		16.00	160	0.6650	3185	2118	425.8
	Steel 850 - 1100 N/mm²	12.50	140	0.5250	3565	1872	229.7
		13.00	140	0.5450	3430	1869	248.1
		13.50	140	0.5550	3300	1832	262.2
		14.00	140	0.5650	3185	1800	277.0
		14.50	140	0.5700	3075	1753	289.4
		15.00	140	0.5900	2970	1752	309.7
		15.50	140	0.6000	2875	1725	325.5
		15.80	140	0.6050	2820	1706	334.5
		16.00	140	0.6100	2785	1699	341.6
	Steel 1100 - 1300 N/mm²	12.50	100	0.4000	2545	1018	124.9
		13.00	100	0.4150	2450	1017	135.0
		13.50	100	0.4200	2360	991	141.9
		14.00	100	0.4300	2275	978	150.6
		14.50	100	0.4350	2195	955	157.7
		15.00	100	0.4450	2120	943	166.7
		15.50	100	0.4550	2055	935	176.4
		15.80	100	0.4600	2015	927	181.7
		16.00	100	0.4650	1990	925	186.1
	Steel 1300 - 1500 N/mm²	12.50	55	0.3100	1400	434	53.3
		13.00	55	0.3200	1345	430	57.1
		13.50	55	0.3250	1295	421	60.2
		14.00	55	0.3300	1250	413	63.5
		14.50	55	0.3350	1205	404	66.7
		15.00	55	0.3450	1165	402	71.0
		15.50	55	0.3500	1130	396	74.6
		15.80	55	0.3550	1110	394	77.3
		16.00	55	0.3550	1095	389	78.2
	Cold work tool steel (12% Cr), high alloyed [1.2379]	12.50	70	0.3100	1785	553	67.9
		13.00	70	0.3200	1715	549	72.8
		13.50	70	0.3250	1650	536	76.8
		14.00	70	0.3300	1590	525	80.8
		14.50	70	0.3350	1535	514	84.9
		15.00	70	0.3450	1485	512	90.5
		15.50	70	0.3500	1440	504	95.1
		15.80	70	0.3550	1410	501	98.2
		16.00	70	0.3550	1395	495	99.6
	Titanium alloys > 300 HB [Ti6Al4V]	12.50	40	0.3100	1020	316	38.8
		13.00	40	0.3200	980	314	41.6
		13.50	40	0.3250	945	307	44.0
		14.00	40	0.3300	910	300	46.2
		14.50	40	0.3350	880	295	48.7
		15.00	40	0.3450	850	293	51.8
		15.50	40	0.3500	820	287	54.2
		15.80	40	0.3550	805	286	56.0
		16.00	40	0.3550	795	282	56.7
	Cast iron (lamellar / spheroidal)	12.50	240	0.6050	6110	3697	453.6
		13.00	240	0.6300	5875	3701	491.3
		13.50	240	0.6400	5660	3622	518.5
		14.00	240	0.6500	5455	3546	545.8
		14.50	240	0.6600	5270	3478	574.4
		15.00	240	0.6750	5095	3439	607.7
		15.50	240	0.6900	4930	3402	641.9
		15.80	240	0.7000	4835	3385	663.6
		16.00	240	0.7050	4775	3366	676.9

Spiral flute drills XDrill®

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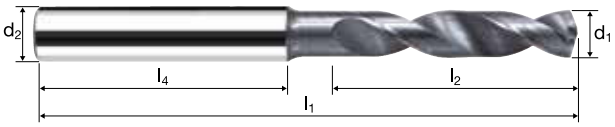
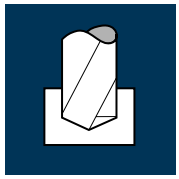
HM MGX



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	GG(G)

Example: **Order-N°.** Article-N°. **B72011** ø-Code **1250**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72011
1250	12.50	14.0	107.0	60.0	45	39.0	●
1280	12.80	14.0	107.0	60.0	45	38.8	●
1300	13.00	14.0	107.0	60.0	45	38.7	●
1350	13.50	14.0	107.0	60.0	45	38.4	●
1380	13.80	14.0	107.0	60.0	45	38.2	●
1400	14.00	14.0	107.0	60.0	45	38.2	●
1450	14.50	16.0	115.0	65.0	48	41.0	●
1480	14.80	16.0	115.0	65.0	48	40.8	●
1500	15.00	16.0	115.0	65.0	48	40.6	●
1550	15.50	16.0	115.0	65.0	48	40.4	●
1580	15.80	16.0	115.0	65.0	48	40.2	●
1600	16.00	16.0	115.0	65.0	48	40.2	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Hardened tool steel 42 - 48 HRC	2.55	35	0.0490	4370	214	1.1
		2.80	35	0.0520	3980	207	1.3
		3.00	35	0.0540	3715	201	1.4
		3.30	35	0.0580	3375	196	1.7
		3.60	35	0.0610	3095	189	1.9
		4.00	35	0.0650	2785	181	2.3
		4.30	35	0.0690	2590	179	2.6
		4.50	35	0.0710	2475	176	2.8
		4.65	35	0.0720	2395	172	2.9
	Hardened tool steel 48 - 52 HRC	2.55	30	0.0490	3745	184	0.9
		2.80	30	0.0520	3410	177	1.1
		3.00	30	0.0540	3185	172	1.2
		3.30	30	0.0580	2895	168	1.4
		3.60	30	0.0610	2655	162	1.6
		4.00	30	0.0650	2385	155	1.9
		4.30	30	0.0690	2220	153	2.2
		4.50	30	0.0710	2120	151	2.4
		4.65	30	0.0720	2055	148	2.5
	Hardened tool steel 52 - 56 HRC	2.55	30	0.0490	3745	184	0.9
		2.80	30	0.0520	3410	177	1.1
		3.00	30	0.0540	3185	172	1.2
		3.30	30	0.0580	2895	168	1.4
		3.60	30	0.0610	2655	162	1.6
		4.00	30	0.0650	2385	155	1.9
		4.30	30	0.0690	2220	153	2.2
		4.50	30	0.0710	2120	151	2.4
		4.65	30	0.0720	2055	148	2.5
	Hardened tool steel 56 - 60 HRC	2.55	25	0.0320	3120	100	0.5
		2.80	25	0.0340	2840	97	0.6
		3.00	25	0.0350	2655	93	0.7
		3.30	25	0.0370	2410	89	0.8
		3.60	25	0.0400	2210	88	0.9
		4.00	25	0.0430	1990	86	1.1
		4.30	25	0.0450	1850	83	1.2
		4.50	25	0.0460	1770	81	1.3
		4.65	25	0.0470	1710	80	1.4
	Hardened tool steel > 60 HRC	2.55	20	0.0270	2495	67	0.3
		2.80	20	0.0290	2275	66	0.4
		3.00	20	0.0300	2120	64	0.4
		3.30	20	0.0320	1930	62	0.5
		3.60	20	0.0340	1770	60	0.6
		4.00	20	0.0360	1590	57	0.7
		4.30	20	0.0380	1480	56	0.8
		4.50	20	0.0390	1415	55	0.9
		4.65	20	0.0400	1370	55	0.9

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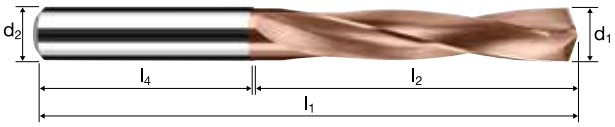
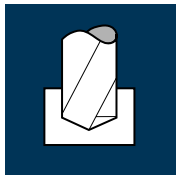


HRC 48-56 | **HRC 56-60** | **HRC > 60**

Example: **Order-N°.** Article-N°. **B52112** ø-Code **0255**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-VD B52112
0255	2.55	6.0	62.0	20.0	36	14.0	●
0260	2.60	6.0	62.0	20.0	36	14.0	●
0270	2.70	6.0	62.0	20.0	36	14.0	●
0280	2.80	6.0	62.0	20.0	36	14.0	●
0290	2.90	6.0	62.0	20.0	36	14.0	●
0300	3.00	6.0	62.0	20.0	36	14.0	●
0310	3.10	6.0	62.0	20.0	36	14.0	●
0320	3.20	6.0	62.0	20.0	36	14.0	●
0330	3.30	6.0	62.0	20.0	36	14.0	●
0340	3.40	6.0	62.0	20.0	36	14.0	●
0350	3.50	6.0	62.0	20.0	36	14.0	●
0360	3.60	6.0	62.0	20.0	36	14.0	●
0370	3.70	6.0	62.0	20.0	36	14.0	●
0380	3.80	6.0	66.0	24.0	36	17.0	●
0390	3.90	6.0	66.0	24.0	36	17.0	●
0400	4.00	6.0	66.0	24.0	36	17.0	●
0410	4.10	6.0	66.0	24.0	36	17.0	●
0420	4.20	6.0	66.0	24.0	36	17.0	●
0430	4.30	6.0	66.0	24.0	36	17.0	●
0440	4.40	6.0	66.0	24.0	36	17.0	●
0450	4.50	6.0	66.0	24.0	36	17.0	●
0460	4.60	6.0	66.0	24.0	36	17.0	●
0465	4.65	6.0	66.0	24.0	36	17.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Hardened tool steel 42 - 48 HRC	4.80	35	0.0740	2320	172	3.1
		5.00	35	0.0760	2230	170	3.3
		5.20	35	0.0780	2140	167	3.5
		5.50	35	0.0810	2025	164	3.9
		5.70	35	0.0840	1955	164	4.2
		6.00	35	0.0870	1855	161	4.6
		6.30	35	0.0900	1770	159	5.0
		6.50	35	0.0920	1715	158	5.2
		6.80	35	0.0950	1640	156	5.7
	Hardened tool steel 48 - 52 HRC	4.80	30	0.0740	1990	147	2.7
		5.00	30	0.0760	1910	145	2.9
		5.20	30	0.0780	1835	143	3.0
		5.50	30	0.0810	1735	141	3.3
		5.70	30	0.0840	1675	141	3.6
		6.00	30	0.0870	1590	138	3.9
		6.30	30	0.0900	1515	136	4.3
		6.50	30	0.0920	1470	135	4.5
		6.80	30	0.0950	1405	134	4.8
	Hardened tool steel 52 - 56 HRC	4.80	30	0.0740	1990	147	2.7
		5.00	30	0.0760	1910	145	2.9
		5.20	30	0.0780	1835	143	3.0
		5.50	30	0.0810	1735	141	3.3
		5.70	30	0.0840	1675	141	3.6
		6.00	30	0.0870	1590	138	3.9
		6.30	30	0.0900	1515	136	4.3
		6.50	30	0.0920	1470	135	4.5
		6.80	30	0.0950	1405	134	4.8
	Hardened tool steel 56 - 60 HRC	4.80	25	0.0480	1660	80	1.4
		5.00	25	0.0500	1590	80	1.6
		5.20	25	0.0510	1530	78	1.7
		5.50	25	0.0530	1445	77	1.8
		5.70	25	0.0540	1395	75	1.9
		6.00	25	0.0560	1325	74	2.1
		6.30	25	0.0580	1265	73	2.3
		6.50	25	0.0600	1225	74	2.4
		6.80	25	0.0620	1170	73	2.6
	Hardened tool steel > 60 HRC	4.80	20	0.0410	1325	54	1.0
		5.00	20	0.0420	1275	54	1.1
		5.20	20	0.0430	1225	53	1.1
		5.50	20	0.0450	1155	52	1.2
		5.70	20	0.0460	1115	51	1.3
		6.00	20	0.0480	1060	51	1.4
		6.30	20	0.0490	1010	50	1.5
		6.50	20	0.0500	980	49	1.6
		6.80	20	0.0520	935	49	1.8

Spiral flute drills Supradrill® H

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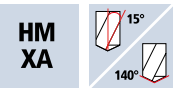
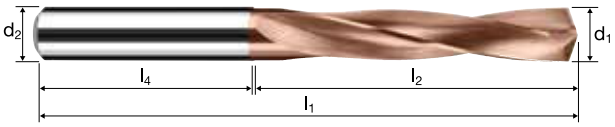
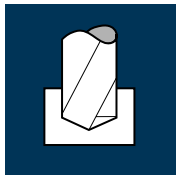




HRC 48-56 | HRC 56-60 | HRC > 60

Example: **Order-N°.** Article-N°. **B52112** ø-Code **0470**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-VD B52112
0470	4.70	6.0	66.0	24.0	36	17.0	●
0480	4.80	6.0	66.0	28.0	36	20.0	●
0490	4.90	6.0	66.0	28.0	36	20.0	●
0500	5.00	6.0	66.0	28.0	36	20.0	●
0510	5.10	6.0	66.0	28.0	36	20.0	●
0520	5.20	6.0	66.0	28.0	36	20.0	●
0530	5.30	6.0	66.0	28.0	36	20.0	●
0540	5.40	6.0	66.0	28.0	36	20.0	●
0550	5.50	6.0	66.0	28.0	36	20.0	●
0555	5.55	6.0	66.0	28.0	36	20.0	●
0560	5.60	6.0	66.0	28.0	36	20.0	●
0570	5.70	6.0	66.0	28.0	36	20.0	●
0580	5.80	6.0	66.0	28.0	36	20.0	●
0590	5.90	6.0	66.0	28.0	36	20.0	●
0600	6.00	6.0	66.0	28.0	36	20.0	●
0610	6.10	8.0	79.0	34.0	36	24.0	●
0620	6.20	8.0	79.0	34.0	36	24.0	●
0630	6.30	8.0	79.0	34.0	36	24.0	●
0640	6.40	8.0	79.0	34.0	36	24.0	●
0650	6.50	8.0	79.0	34.0	36	24.0	●
0660	6.60	8.0	79.0	34.0	36	24.0	●
0670	6.70	8.0	79.0	34.0	36	24.0	●
0680	6.80	8.0	79.0	34.0	36	24.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Hardened tool steel 42 - 48 HRC	6.90	35	0.0960	1615	155	5.8
		7.10	35	0.0980	1570	154	6.1
		7.40	35	0.1000	1505	151	6.5
		7.70	35	0.1030	1445	149	6.9
		8.00	35	0.1060	1395	148	7.4
		8.30	35	0.1090	1340	146	7.9
		8.60	35	0.1120	1295	145	8.4
		8.90	35	0.1140	1250	143	8.9
		9.10	35	0.1160	1225	142	9.2
	Hardened tool steel 48 - 52 HRC	6.90	30	0.0960	1385	133	5.0
		7.10	30	0.0980	1345	132	5.2
		7.40	30	0.1000	1290	129	5.5
		7.70	30	0.1030	1240	128	5.9
		8.00	30	0.1060	1195	127	6.4
		8.30	30	0.1090	1150	125	6.8
		8.60	30	0.1120	1110	124	7.2
		8.90	30	0.1140	1075	123	7.6
		9.10	30	0.1160	1050	122	7.9
	Hardened tool steel 52 - 56 HRC	6.90	30	0.0960	1385	133	5.0
		7.10	30	0.0980	1345	132	5.2
		7.40	30	0.1000	1290	129	5.5
		7.70	30	0.1030	1240	128	5.9
		8.00	30	0.1060	1195	127	6.4
		8.30	30	0.1090	1150	125	6.8
		8.60	30	0.1120	1110	124	7.2
		8.90	30	0.1140	1075	123	7.6
		9.10	30	0.1160	1050	122	7.9
	Hardened tool steel 56 - 60 HRC	6.90	25	0.0620	1155	72	2.7
		7.10	25	0.0630	1120	71	2.8
		7.40	25	0.0650	1075	70	3.0
		7.70	25	0.0670	1035	69	3.2
		8.00	25	0.0690	995	69	3.5
		8.30	25	0.0710	960	68	3.7
		8.60	25	0.0730	925	68	3.9
		8.90	25	0.0740	895	66	4.1
		9.10	25	0.0760	875	67	4.3
	Hardened tool steel > 60 HRC	6.90	20	0.0530	925	49	1.8
		7.10	20	0.0540	895	48	1.9
		7.40	20	0.0550	860	47	2.0
		7.70	20	0.0570	825	47	2.2
		8.00	20	0.0580	795	46	2.3
		8.30	20	0.0600	765	46	2.5
		8.60	20	0.0610	740	45	2.6
		8.90	20	0.0630	715	45	2.8
		9.10	20	0.0640	700	45	2.9

Spiral flute drills Supradrill® H

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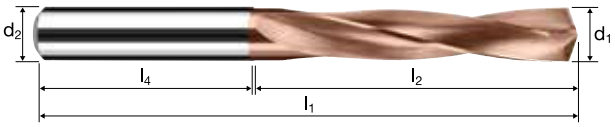
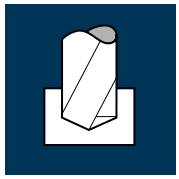
HM XA



HRC 48-56 | **HRC 56-60** | **HRC > 60**

Example: **Order-N°.** Article-N°. **B52112** ø-Code **0690**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-VD B52112
0690	6.90	8.0	79.0	34.0	36	24.0	●
0700	7.00	8.0	79.0	34.0	36	24.0	●
0710	7.10	8.0	79.0	41.0	36	29.0	●
0720	7.20	8.0	79.0	41.0	36	29.0	●
0730	7.30	8.0	79.0	41.0	36	29.0	●
0740	7.40	8.0	79.0	41.0	36	29.0	●
0750	7.50	8.0	79.0	41.0	36	29.0	●
0760	7.60	8.0	79.0	41.0	36	29.0	●
0770	7.70	8.0	79.0	41.0	36	29.0	●
0780	7.80	8.0	79.0	41.0	36	29.0	●
0790	7.90	8.0	79.0	41.0	36	29.0	●
0800	8.00	8.0	79.0	41.0	36	29.0	●
0810	8.10	10.0	89.0	47.0	40	35.0	●
0820	8.20	10.0	89.0	47.0	40	35.0	●
0830	8.30	10.0	89.0	47.0	40	35.0	●
0840	8.40	10.0	89.0	47.0	40	35.0	●
0850	8.50	10.0	89.0	47.0	40	35.0	●
0860	8.60	10.0	89.0	47.0	40	35.0	●
0870	8.70	10.0	89.0	47.0	40	35.0	●
0880	8.80	10.0	89.0	47.0	40	35.0	●
0890	8.90	10.0	89.0	47.0	40	35.0	●
0900	9.00	10.0	89.0	47.0	40	35.0	●
0910	9.10	10.0	89.0	47.0	40	35.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Hardened tool steel 42 - 48 HRC	9.20	35	0.1170	1210	142	9.4
		9.50	35	0.1200	1175	141	10.0
		9.70	35	0.1220	1150	140	10.4
		10.00	35	0.1240	1115	138	10.9
		10.20	35	0.1260	1090	137	11.2
		10.40	35	0.1280	1070	137	11.6
		10.70	35	0.1300	1040	135	12.2
		11.00	35	0.1330	1015	135	12.8
		11.30	35	0.1350	985	133	13.3
	Hardened tool steel 48 - 52 HRC	9.20	30	0.1170	1040	122	8.1
		9.50	30	0.1200	1005	121	8.5
		9.70	30	0.1220	985	120	8.9
		10.00	30	0.1240	955	118	9.3
		10.20	30	0.1260	935	118	9.6
		10.40	30	0.1280	920	118	10.0
		10.70	30	0.1300	890	116	10.4
		11.00	30	0.1330	870	116	11.0
		11.30	30	0.1350	845	114	11.4
	Hardened tool steel 52 - 56 HRC	9.20	30	0.1170	1040	122	8.1
		9.50	30	0.1200	1005	121	8.5
		9.70	30	0.1220	985	120	8.9
		10.00	30	0.1240	955	118	9.3
		10.20	30	0.1260	935	118	9.6
		10.40	30	0.1280	920	118	10.0
		10.70	30	0.1300	890	116	10.4
		11.00	30	0.1330	870	116	11.0
		11.30	30	0.1350	845	114	11.4
	Hardened tool steel 56 - 60 HRC	9.20	25	0.0760	865	66	4.4
		9.50	25	0.0780	840	66	4.6
		9.70	25	0.0790	820	65	4.8
		10.00	25	0.0810	795	64	5.1
		10.20	25	0.0820	780	64	5.2
		10.40	25	0.0830	765	64	5.4
		10.70	25	0.0850	745	63	5.7
		11.00	25	0.0860	725	62	5.9
		11.30	25	0.0880	705	62	6.2
	Hardened tool steel > 60 HRC	9.20	15	0.0640	520	33	2.2
		9.50	15	0.0660	505	33	2.4
		9.70	15	0.0670	490	33	2.4
		10.00	15	0.0680	475	32	2.5
		10.20	15	0.0690	470	32	2.6
		10.40	15	0.0700	460	32	2.7
		10.70	15	0.0720	445	32	2.9
		11.00	15	0.0730	435	32	3.0
		11.30	15	0.0740	425	32	3.2

Spiral flute drills Supradrill® H

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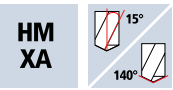
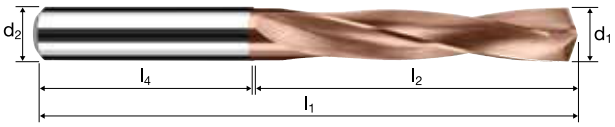
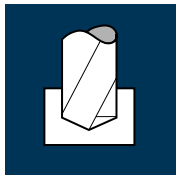




HRC 48-56 | HRC 56-60 | HRC > 60

Example: **Order-N°.** Article-N°. **B52112** ø-Code **0920**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-VD B52112
0920	9.20	10.0	89.0	47.0	40	35.0	●
0930	9.30	10.0	89.0	47.0	40	35.0	●
0940	9.40	10.0	89.0	47.0	40	35.0	●
0950	9.50	10.0	89.0	47.0	40	35.0	●
0960	9.60	10.0	89.0	47.0	40	35.0	●
0970	9.70	10.0	89.0	47.0	40	35.0	●
0980	9.80	10.0	89.0	47.0	40	35.0	●
0990	9.90	10.0	89.0	47.0	40	35.0	●
1000	10.00	10.0	89.0	47.0	40	35.0	●
1010	10.10	12.0	102.0	55.0	45	40.0	●
1020	10.20	12.0	102.0	55.0	45	40.0	●
1030	10.30	12.0	102.0	55.0	45	40.0	●
1040	10.40	12.0	102.0	55.0	45	40.0	●
1050	10.50	12.0	102.0	55.0	45	40.0	●
1060	10.60	12.0	102.0	55.0	45	40.0	●
1070	10.70	12.0	102.0	55.0	45	40.0	●
1080	10.80	12.0	102.0	55.0	45	40.0	●
1090	10.90	12.0	102.0	55.0	45	40.0	●
1100	11.00	12.0	102.0	55.0	45	40.0	●
1110	11.10	12.0	102.0	55.0	45	40.0	●
1120	11.20	12.0	102.0	55.0	45	40.0	●
1130	11.30	12.0	102.0	55.0	45	40.0	●
1140	11.40	12.0	102.0	55.0	45	40.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Hardened tool steel 42 - 48 HRC	11.50	35	0.1370	970	133	13.8
		11.80	35	0.1390	945	131	14.4
		12.00	35	0.1410	930	131	14.8
		12.50	35	0.1440	890	128	15.7
		13.00	35	0.1480	855	127	16.8
		14.00	35	0.1550	795	123	19.0
		14.80	35	0.1610	755	122	20.9
		15.50	35	0.1650	720	119	22.4
		16.50	35	0.1720	675	116	24.8
	Hardened tool steel 48 - 52 HRC	11.50	30	0.1370	830	114	11.8
		11.80	30	0.1390	810	113	12.3
		12.00	30	0.1410	795	112	12.7
		12.50	30	0.1440	765	110	13.5
		13.00	30	0.1480	735	109	14.4
		14.00	30	0.1550	680	105	16.2
		14.80	30	0.1610	645	104	17.9
		15.50	30	0.1650	615	102	19.2
		16.50	30	0.1720	580	100	21.3
	Hardened tool steel 52 - 56 HRC	11.50	30	0.1370	830	114	11.8
		11.80	30	0.1390	810	113	12.3
		12.00	30	0.1410	795	112	12.7
		12.50	30	0.1440	765	110	13.5
		13.00	30	0.1480	735	109	14.4
		14.00	30	0.1550	680	105	16.2
		14.80	30	0.1610	645	104	17.9
		15.50	30	0.1650	615	102	19.2
		16.50	30	0.1720	580	100	21.3
	Hardened tool steel 56 - 60 HRC	11.50	25	0.0890	690	61	6.4
		11.80	25	0.0900	675	61	6.6
		12.00	25	0.0910	665	61	6.8
		12.50	25	0.0940	635	60	7.3
		13.00	25	0.0960	610	59	7.8
		14.00	25	0.1010	570	58	8.9
		14.80	25	0.1050	540	57	9.8
		15.50	25	0.1080	515	56	10.5
		16.50	25	0.1120	480	54	11.5
	Hardened tool steel > 60 HRC	11.50	10	0.0750	275	21	2.1
		11.80	10	0.0760	270	21	2.2
		12.00	10	0.0770	265	20	2.3
		12.50	10	0.0790	255	20	2.5
		13.00	10	0.0820	245	20	2.7
		14.00	10	0.0850	225	19	2.9
		14.80	10	0.0880	215	19	3.3
		15.50	10	0.0910	205	19	3.5
		16.50	10	0.0940	195	18	3.9

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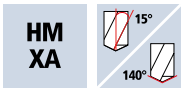
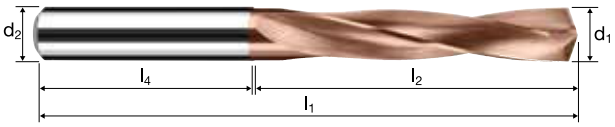
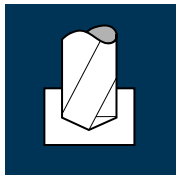




HRC 48-56 | **HRC** 56-60 | **HRC** > 60

Example: **Order-N°.** Article-N°. **B52112** ø-Code **1150**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-VD **B52112**
1150	11.50	12.0	102.0	55.0	45	40.0	●
1160	11.60	12.0	102.0	55.0	45	40.0	●
1170	11.70	12.0	102.0	55.0	45	40.0	●
1180	11.80	12.0	102.0	55.0	45	40.0	●
1190	11.90	12.0	102.0	55.0	45	40.0	●
1200	12.00	12.0	102.0	55.0	45	40.0	●
1220	12.20	14.0	107.0	60.0	45	43.0	●
1250	12.50	14.0	107.0	60.0	45	43.0	●
1280	12.80	14.0	107.0	60.0	45	43.0	●
1300	13.00	14.0	107.0	60.0	45	43.0	●
1350	13.50	14.0	107.0	60.0	45	43.0	●
1380	13.80	14.0	107.0	60.0	45	43.0	●
1400	14.00	14.0	107.0	60.0	45	43.0	●
1420	14.20	16.0	115.0	65.0	48	45.0	●
1450	14.50	16.0	115.0	65.0	48	45.0	●
1480	14.80	16.0	115.0	65.0	48	45.0	●
1500	15.00	16.0	115.0	65.0	48	45.0	●
1520	15.20	16.0	115.0	65.0	48	45.0	●
1550	15.50	16.0	115.0	65.0	48	45.0	●
1580	15.80	16.0	115.0	65.0	48	45.0	●
1600	16.00	16.0	115.0	65.0	48	45.0	●
1650	16.50	18.0	123.0	73.0	48	51.0	●
1680	16.80	18.0	123.0	73.0	48	51.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Hardened tool steel 42 - 48 HRC	17.00	35	0.1750	655	115	26.0
		17.50	35	0.1770	635	112	27.0
		17.80	35	0.1790	625	112	27.8
		18.00	35	0.1800	620	112	28.4
		18.50	35	0.1830	600	110	29.5
		18.80	35	0.1840	595	110	30.4
		19.00	35	0.1850	585	108	30.7
		19.50	35	0.1880	570	107	32.0
		20.00	35	0.1900	555	106	33.1
	Hardened tool steel 48 - 52 HRC	17.00	30	0.1750	560	98	22.2
		17.50	30	0.1770	545	97	23.2
		17.80	30	0.1790	535	96	23.8
		18.00	30	0.1800	530	95	24.3
		18.50	30	0.1830	515	94	25.3
		18.80	30	0.1840	510	94	26.0
		19.00	30	0.1850	505	93	26.5
		19.50	30	0.1880	490	92	27.5
		20.00	30	0.1900	475	90	28.4
	Hardened tool steel 52 - 56 HRC	17.00	30	0.1750	560	98	22.2
		17.50	30	0.1770	545	97	23.2
		17.80	30	0.1790	535	96	23.8
		18.00	30	0.1800	530	95	24.3
		18.50	30	0.1830	515	94	25.3
		18.80	30	0.1840	510	94	26.0
		19.00	30	0.1850	505	93	26.5
		19.50	30	0.1880	490	92	27.5
		20.00	30	0.1900	475	90	28.4
	Hardened tool steel 56 - 60 HRC	17.00	25	0.1130	470	53	12.1
		17.50	25	0.1150	455	52	12.6
		17.80	25	0.1160	445	52	12.8
		18.00	25	0.1170	440	52	13.1
		18.50	25	0.1190	430	51	13.8
		18.80	25	0.1200	425	51	14.2
		19.00	25	0.1210	420	51	14.4
		19.50	25	0.1220	410	50	14.9
		20.00	25	0.1240	400	50	15.6
	Hardened tool steel > 60 HRC	17.00	10	0.0960	185	18	4.0
		17.50	10	0.0980	180	18	4.2
		17.80	10	0.0990	180	18	4.4
		18.00	10	0.0990	175	17	4.4
		18.50	10	0.1010	170	17	4.6
		18.80	10	0.1010	170	17	4.8
		19.00	10	0.1020	170	17	4.9
		19.50	10	0.1030	165	17	5.1
		20.00	10	0.1050	160	17	5.3

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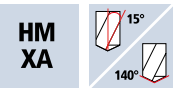
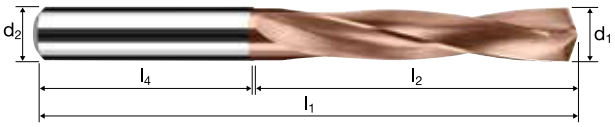
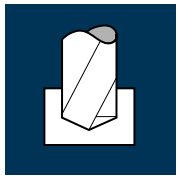




HRC 48-56 | HRC 56-60 | HRC > 60

Example: **Order-N°.** Article-N°. **B52112** ø-Code **1700**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-VD B52112
1700	17.00	18.0	123.0	73.0	48	51.0	●
1750	17.50	18.0	123.0	73.0	48	51.0	●
1780	17.80	18.0	123.0	73.0	48	51.0	●
1800	18.00	18.0	123.0	73.0	48	51.0	●
1850	18.50	20.0	131.0	79.0	50	55.0	●
1880	18.80	20.0	131.0	79.0	50	55.0	●
1900	19.00	20.0	131.0	79.0	50	55.0	●
1950	19.50	20.0	131.0	79.0	50	55.0	●
1980	19.80	20.0	131.0	79.0	50	55.0	●
2000	20.00	20.0	131.0	79.0	50	55.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	150	0.0800	15915	1273	9.0
		3.30	150	0.0900	14470	1302	11.1
		3.50	150	0.0950	13640	1296	12.5
		3.80	150	0.1050	12565	1319	15.0
		4.00	150	0.1100	11935	1313	16.5
		4.20	150	0.1200	11370	1364	18.9
		4.50	150	0.1400	10610	1485	23.6
		4.80	150	0.1450	9945	1442	26.1
		5.00	150	0.1550	9550	1480	29.1
	Steel 500 - 850 N/mm²	3.00	120	0.0700	12730	891	6.3
		3.30	120	0.0750	11575	868	7.4
		3.50	120	0.0800	10915	873	8.4
		3.80	120	0.0900	10050	905	10.3
		4.00	120	0.0950	9550	907	11.4
		4.20	120	0.1050	9095	955	13.2
		4.50	120	0.1200	8490	1019	16.2
		4.80	120	0.1250	7960	995	18.0
		5.00	120	0.1300	7640	993	19.5
	Steel 850 - 1100 N/mm²	3.00	100	0.0650	10610	690	4.9
		3.30	100	0.0700	9645	675	5.8
		3.50	100	0.0750	9095	682	6.6
		3.80	100	0.0800	8375	670	7.6
		4.00	100	0.0900	7960	716	9.0
		4.20	100	0.0950	7580	720	10.0
		4.50	100	0.1100	7075	778	12.4
		4.80	100	0.1150	6630	763	13.8
		5.00	100	0.1200	6365	764	15.0
	Steel 1100 - 1300 N/mm²	3.00	70	0.0500	7425	371	2.6
		3.30	70	0.0550	6750	371	3.2
		3.50	70	0.0550	6365	350	3.4
		3.80	70	0.0600	5865	352	4.0
		4.00	70	0.0650	5570	362	4.6
		4.20	70	0.0700	5305	371	5.1
		4.50	70	0.0850	4950	421	6.7
		4.80	70	0.0900	4640	418	7.6
		5.00	70	0.0900	4455	401	7.9
	Steel 1300 - 1500 N/mm²	3.00	40	0.0350	4245	149	1.1
		3.30	40	0.0400	3860	154	1.3
		3.50	40	0.0450	3640	164	1.6
		3.80	40	0.0450	3350	151	1.7
		4.00	40	0.0500	3185	159	2.0
		4.20	40	0.0550	3030	167	2.3
		4.50	40	0.0650	2830	184	2.9
		4.80	40	0.0700	2655	186	3.4
		5.00	40	0.0700	2545	178	3.5
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	60	0.0350	6365	223	1.6
		3.30	60	0.0400	5785	231	2.0
		3.50	60	0.0450	5455	246	2.4
		3.80	60	0.0450	5025	226	2.6
		4.00	60	0.0500	4775	239	3.0
		4.20	60	0.0550	4545	250	3.5
		4.50	60	0.0650	4245	276	4.4
		4.80	60	0.0700	3980	279	5.0
		5.00	60	0.0700	3820	267	5.3
	Titanium alloys > 300 HB [Ti6Al4V]	3.00	35	0.0350	3715	130	0.9
		3.30	35	0.0400	3375	135	1.2
		3.50	35	0.0450	3185	143	1.4
		3.80	35	0.0450	2930	132	1.5
		4.00	35	0.0500	2785	139	1.8
		4.20	35	0.0550	2655	146	2.0
		4.50	35	0.0650	2475	161	2.6
		4.80	35	0.0700	2320	162	2.9
		5.00	35	0.0700	2230	156	3.1
	Cast iron (lamellar / spheroidal)	3.00	220	0.0750	23345	1751	12.4
		3.30	220	0.0800	21220	1698	14.5
		3.50	220	0.0850	20010	1701	16.4
		3.80	220	0.0950	18430	1751	19.9
		4.00	220	0.1000	17505	1751	22.0
		4.20	220	0.1100	16675	1834	25.4
		4.50	220	0.1250	15560	1945	30.9
		4.80	220	0.1350	14590	1970	35.6
		5.00	220	0.1400	14005	1961	38.5

Spiral flute drills XDrill®

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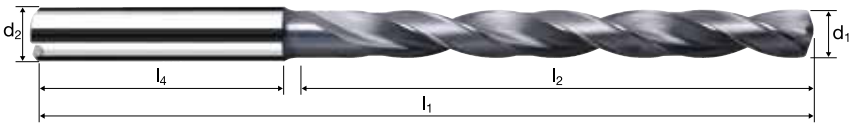
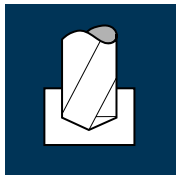
HM MGX



Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **Ti** Titanium | **GG(G)**

Example: **Order-N°.** Article-N°. **B72020** ø-Code **0300**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020
0300	3.00	6.0	73.0	34.0	36	27.2	●
0310	3.10	6.0	73.0	34.0	36	27.2	●
0320	3.20	6.0	73.0	34.0	36	27.0	●
0330	3.30	6.0	73.0	34.0	36	27.0	●
0340	3.40	6.0	73.0	34.0	36	26.8	●
0350	3.50	6.0	73.0	34.0	36	26.8	●
0360	3.60	6.0	73.0	34.0	36	26.6	●
0370	3.70	6.0	73.0	34.0	36	26.6	●
0380	3.80	6.0	82.0	43.0	36	35.4	●
0390	3.90	6.0	82.0	43.0	36	35.4	●
0400	4.00	6.0	82.0	43.0	36	34.9	●
0410	4.10	6.0	82.0	43.0	36	34.9	●
0420	4.20	6.0	82.0	43.0	36	34.8	●
0430	4.30	6.0	82.0	43.0	36	34.7	●
0440	4.40	6.0	82.0	43.0	36	34.6	●
0450	4.50	6.0	82.0	43.0	36	34.6	●
0460	4.60	6.0	82.0	43.0	36	34.5	●
0470	4.70	6.0	82.0	43.0	36	34.5	●
0480	4.80	6.0	95.0	56.0	36	47.4	●
0490	4.90	6.0	95.0	56.0	36	47.3	●
0500	5.00	6.0	95.0	56.0	36	47.7	●
0510	5.10	6.0	95.0	56.0	36	47.7	●
0520	5.20	6.0	95.0	56.0	36	47.6	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	5.50	150	0.1700	8680	1476	35.1
		5.80	150	0.1800	8230	1481	39.1
		6.00	150	0.1900	7960	1512	42.8
		6.20	150	0.2050	7700	1579	47.7
		6.50	150	0.2100	7345	1543	51.2
		6.80	150	0.2200	7020	1544	56.1
		7.00	150	0.2300	6820	1569	60.4
		7.20	150	0.2350	6630	1558	63.4
		7.50	150	0.2450	6365	1559	68.9
	Steel 500 - 850 N/mm²	5.50	120	0.1450	6945	1007	23.9
		5.80	120	0.1500	6585	988	26.1
		6.00	120	0.1650	6365	1050	29.7
		6.20	120	0.1750	6160	1078	32.5
		6.50	120	0.1800	5875	1058	35.1
		6.80	120	0.1900	5615	1067	38.7
		7.00	120	0.1950	5455	1064	40.9
		7.20	120	0.2000	5305	1061	43.2
		7.50	120	0.2100	5095	1070	47.3
	Steel 850 - 1100 N/mm²	5.50	100	0.1350	5785	781	18.6
		5.80	100	0.1400	5490	769	20.3
		6.00	100	0.1500	5305	796	22.5
		6.20	100	0.1600	5135	822	24.8
		6.50	100	0.1700	4895	832	27.6
		6.80	100	0.1750	4680	819	29.7
		7.00	100	0.1800	4545	818	31.5
		7.20	100	0.1850	4420	818	33.3
		7.50	100	0.1950	4245	828	36.6
	Steel 1100 - 1300 N/mm²	5.50	70	0.1000	4050	405	9.6
		5.80	70	0.1050	3840	403	10.7
		6.00	70	0.1150	3715	427	12.1
		6.20	70	0.1200	3595	431	13.0
		6.50	70	0.1250	3430	429	14.2
		6.80	70	0.1350	3275	442	16.1
		7.00	70	0.1350	3185	430	16.5
		7.20	70	0.1400	3095	433	17.6
		7.50	70	0.1450	2970	431	19.0
	Steel 1300 - 1500 N/mm²	5.50	40	0.0800	2315	185	4.4
		5.80	40	0.0800	2195	176	4.6
		6.00	40	0.0900	2120	191	5.4
		6.20	40	0.0950	2055	195	5.9
		6.50	40	0.1000	1960	196	6.5
		6.80	40	0.1050	1870	196	7.1
		7.00	40	0.1050	1820	191	7.4
		7.20	40	0.1100	1770	195	7.9
		7.50	40	0.1150	1700	196	8.6
	Cold work tool steel (12% Cr), high alloyed [1.2379]	5.50	60	0.0800	3470	278	6.6
		5.80	60	0.0800	3295	264	7.0
		6.00	60	0.0900	3185	287	8.1
		6.20	60	0.0950	3080	293	8.8
		6.50	60	0.1000	2940	294	9.8
		6.80	60	0.1050	2810	295	10.7
		7.00	60	0.1050	2730	287	11.0
		7.20	60	0.1100	2655	292	11.9
		7.50	60	0.1150	2545	293	12.9
	Titanium alloys > 300 HB [Ti6Al4V]	5.50	35	0.0800	2025	162	3.8
		5.80	35	0.0800	1920	154	4.1
		6.00	35	0.0900	1855	167	4.7
		6.20	35	0.0950	1795	171	5.1
		6.50	35	0.1000	1715	172	5.7
		6.80	35	0.1050	1640	172	6.3
		7.00	35	0.1050	1590	167	6.4
		7.20	35	0.1100	1545	170	6.9
		7.50	35	0.1150	1485	171	7.5
	Cast iron (lamellar / spheroidal)	5.50	220	0.1550	12730	1973	46.9
		5.80	220	0.1600	12075	1932	51.0
		6.00	220	0.1750	11670	2042	57.7
		6.20	220	0.1850	11295	2090	63.1
		6.50	220	0.1950	10775	2101	69.7
		6.80	220	0.2000	10300	2060	74.8
		7.00	220	0.2100	10005	2101	80.9
		7.20	220	0.2150	9725	2091	85.1
		7.50	220	0.2250	9335	2100	92.8

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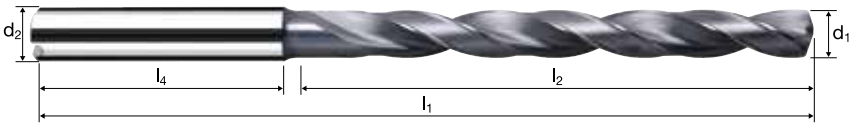
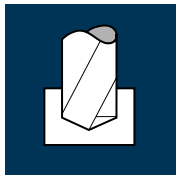


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	GG(G)

Example:
Order-N°. Article-N°. **B72020** ø-Code **0530**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020
0530	5.30	6.0	95.0	56.0	36	47.6	●
0540	5.40	6.0	95.0	56.0	36	47.5	●
0550	5.50	6.0	95.0	56.0	36	47.5	●
0560	5.60	6.0	95.0	56.0	36	47.4	●
0570	5.70	6.0	95.0	56.0	36	47.4	●
0580	5.80	6.0	95.0	56.0	36	47.3	●
0590	5.90	6.0	95.0	56.0	36	47.4	●
0600	6.00	6.0	95.0	56.0	36	47.2	●
0610	6.10	8.0	105.0	66.0	36	55.3	●
0620	6.20	8.0	105.0	66.0	36	55.2	●
0630	6.30	8.0	105.0	66.0	36	55.2	●
0640	6.40	8.0	105.0	66.0	36	55.1	●
0650	6.50	8.0	105.0	66.0	36	55.1	●
0660	6.60	8.0	105.0	66.0	36	55.0	●
0670	6.70	8.0	105.0	66.0	36	55.0	●
0680	6.80	8.0	105.0	66.0	36	54.8	●
0690	6.90	8.0	105.0	66.0	36	54.8	●
0700	7.00	8.0	105.0	66.0	36	54.7	●
0710	7.10	8.0	115.0	76.0	36	64.7	●
0720	7.20	8.0	115.0	76.0	36	64.6	●
0730	7.30	8.0	115.0	76.0	36	64.6	●
0740	7.40	8.0	115.0	76.0	36	64.4	●
0750	7.50	8.0	115.0	76.0	36	64.4	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	7.60	150	0.2500	6280	1570	71.2
		8.00	150	0.2600	5970	1552	78.0
		8.20	150	0.2700	5825	1573	83.1
		8.50	150	0.2800	5615	1572	89.2
		8.80	150	0.2850	5425	1546	94.0
		9.00	150	0.2950	5305	1565	99.6
		9.20	150	0.3000	5190	1557	103.5
		9.50	150	0.3100	5025	1558	110.4
		9.80	150	0.3200	4870	1558	117.5
	Steel 500 - 850 N/mm²	7.60	120	0.2150	5025	1080	49.0
		8.00	120	0.2250	4775	1074	54.0
		8.20	120	0.2300	4660	1072	56.6
		8.50	120	0.2400	4495	1079	61.2
		8.80	120	0.2450	4340	1063	64.7
		9.00	120	0.2500	4245	1061	67.5
		9.20	120	0.2600	4150	1079	71.7
		9.50	120	0.2650	4020	1065	75.5
		9.80	120	0.2750	3900	1073	80.9
	Steel 850 - 1100 N/mm²	7.60	100	0.1950	4190	817	37.1
		8.00	100	0.2050	3980	816	41.0
		8.20	100	0.2100	3880	815	43.0
		8.50	100	0.2200	3745	824	46.8
		8.80	100	0.2250	3615	813	49.5
		9.00	100	0.2300	3535	813	51.7
		9.20	100	0.2350	3460	813	54.1
		9.50	100	0.2450	3350	821	58.2
		9.80	100	0.2550	3250	829	62.5
	Steel 1100 - 1300 N/mm²	7.60	70	0.1500	2930	440	19.9
		8.00	70	0.1550	2785	432	21.7
		8.20	70	0.1600	2715	434	22.9
		8.50	70	0.1650	2620	432	24.5
		8.80	70	0.1700	2530	430	26.2
		9.00	70	0.1750	2475	433	27.6
		9.20	70	0.1800	2420	436	29.0
		9.50	70	0.1850	2345	434	30.7
		9.80	70	0.1900	2275	432	32.6
	Steel 1300 - 1500 N/mm²	7.60	40	0.1150	1675	193	8.7
		8.00	40	0.1200	1590	191	9.6
		8.20	40	0.1250	1555	194	10.3
		8.50	40	0.1300	1500	195	11.1
		8.80	40	0.1350	1445	195	11.9
		9.00	40	0.1350	1415	191	12.2
		9.20	40	0.1400	1385	194	12.9
		9.50	40	0.1450	1340	194	13.8
		9.80	40	0.1500	1300	195	14.7
	Cold work tool steel (12% Cr), high alloyed [1.2379]	7.60	60	0.1150	2515	289	13.1
		8.00	60	0.1200	2385	286	14.4
		8.20	60	0.1250	2330	291	15.4
		8.50	60	0.1300	2245	292	16.6
		8.80	60	0.1350	2170	293	17.8
		9.00	60	0.1350	2120	286	18.2
		9.20	60	0.1400	2075	291	19.3
		9.50	60	0.1450	2010	292	20.7
		9.80	60	0.1500	1950	293	22.1
	Titanium alloys > 300 HB [Ti6Al4V]	7.60	35	0.1150	1465	169	7.6
		8.00	35	0.1200	1395	167	8.4
		8.20	35	0.1250	1360	170	9.0
		8.50	35	0.1300	1310	170	9.7
		8.80	35	0.1350	1265	171	10.4
		9.00	35	0.1350	1240	167	10.6
		9.20	35	0.1400	1210	169	11.3
		9.50	35	0.1450	1175	170	12.1
		9.80	35	0.1500	1135	170	12.8
	Cast iron (lamellar / spheroidal)	7.60	220	0.2250	9215	2073	94.1
		8.00	220	0.2400	8755	2101	105.6
		8.20	220	0.2450	8540	2092	110.5
		8.50	220	0.2500	8240	2060	116.9
		8.80	220	0.2600	7960	2070	125.9
		9.00	220	0.2650	7780	2062	131.2
		9.20	220	0.2750	7610	2093	139.1
		9.50	220	0.2800	7370	2064	146.3
		9.80	220	0.2900	7145	2072	156.3

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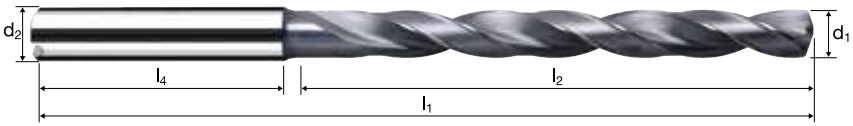
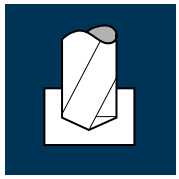


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Rm** 1300-1500 | **Inox** Stainless | **Ti** Titanium | **GG(G)**

Example: **Order-N°.** Article-N°. **B72020** ø-Code **0760**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020
0760	7.60	8.0	115.0	76.0	36	64.3	●
0770	7.70	8.0	115.0	76.0	36	64.4	●
0780	7.80	8.0	115.0	76.0	36	64.3	●
0790	7.90	8.0	115.0	76.0	36	64.3	●
0800	8.00	8.0	115.0	76.0	36	64.1	●
0810	8.10	10.0	129.0	86.0	40	72.3	●
0820	8.20	10.0	129.0	86.0	40	72.2	●
0830	8.30	10.0	129.0	86.0	40	72.2	●
0840	8.40	10.0	129.0	86.0	40	72.1	●
0850	8.50	10.0	129.0	86.0	40	72.0	●
0860	8.60	10.0	129.0	86.0	40	71.9	●
0870	8.70	10.0	129.0	86.0	40	71.9	●
0880	8.80	10.0	129.0	86.0	40	71.8	●
0890	8.90	10.0	129.0	86.0	40	71.8	●
0900	9.00	10.0	129.0	86.0	40	71.7	●
0910	9.10	10.0	138.0	95.0	40	80.7	●
0920	9.20	10.0	138.0	95.0	40	80.5	●
0930	9.30	10.0	138.0	95.0	40	80.5	●
0940	9.40	10.0	138.0	95.0	40	80.4	●
0950	9.50	10.0	138.0	95.0	40	80.4	●
0960	9.60	10.0	138.0	95.0	40	80.3	●
0970	9.70	10.0	138.0	95.0	40	80.3	●
0980	9.80	10.0	138.0	95.0	40	80.2	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	10.00	150	0.3250	4775	1552	121.9
		10.20	150	0.3350	4680	1568	128.1
		10.50	150	0.3450	4545	1568	135.8
		10.80	150	0.3500	4420	1547	141.7
		11.00	150	0.3550	4340	1541	146.4
		11.50	150	0.3600	4150	1494	155.2
		11.80	150	0.3600	4045	1456	159.2
		12.00	150	0.3700	3980	1473	166.5
		12.50	150	0.3850	3820	1471	180.5
	Steel 500 - 850 N/mm²	10.00	120	0.2800	3820	1070	84.0
		10.20	120	0.2850	3745	1067	87.2
		10.50	120	0.2950	3640	1074	93.0
		10.80	120	0.3000	3535	1061	97.2
		11.00	120	0.3050	3470	1058	100.6
		11.50	120	0.3100	3320	1029	106.9
		11.80	120	0.3100	3235	1003	109.7
		12.00	120	0.3150	3185	1003	113.5
		12.50	120	0.3300	3055	1008	123.7
	Steel 850 - 1100 N/mm²	10.00	100	0.2600	3185	828	65.0
		10.20	100	0.2650	3120	827	67.6
		10.50	100	0.2700	3030	818	70.8
		10.80	100	0.2750	2945	810	74.2
		11.00	100	0.2800	2895	811	77.0
		11.50	100	0.2850	2770	790	82.0
		11.80	100	0.2850	2700	770	84.2
		12.00	100	0.2900	2655	770	87.1
		12.50	100	0.3050	2545	776	95.3
	Steel 1100 - 1300 N/mm²	10.00	70	0.1950	2230	435	34.2
		10.20	70	0.2000	2185	437	35.7
		10.50	70	0.2050	2120	435	37.6
		10.80	70	0.2100	2065	434	39.7
		11.00	70	0.2150	2025	435	41.4
		11.50	70	0.2150	1940	417	43.3
		11.80	70	0.2150	1890	406	44.4
		12.00	70	0.2200	1855	408	46.2
		12.50	70	0.2300	1785	411	50.4
	Steel 1300 - 1500 N/mm²	10.00	40	0.1500	1275	191	15.0
		10.20	40	0.1550	1250	194	15.8
		10.50	40	0.1600	1215	194	16.8
		10.80	40	0.1600	1180	189	17.3
		11.00	40	0.1650	1155	191	18.1
		11.50	40	0.1650	1105	182	18.9
		11.80	40	0.1650	1080	178	19.5
		12.00	40	0.1700	1060	180	20.4
		12.50	40	0.1750	1020	179	21.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	10.00	60	0.1500	1910	287	22.5
		10.20	60	0.1550	1870	290	23.7
		10.50	60	0.1600	1820	291	25.2
		10.80	60	0.1600	1770	283	25.9
		11.00	60	0.1650	1735	286	27.2
		11.50	60	0.1650	1660	274	28.4
		11.80	60	0.1650	1620	267	29.2
		12.00	60	0.1700	1590	270	30.6
		12.50	60	0.1750	1530	268	32.9
	Titanium alloys > 300 HB [Ti6Al4V]	10.00	35	0.1500	1115	167	13.1
		10.20	35	0.1550	1090	169	13.8
		10.50	35	0.1600	1060	170	14.7
		10.80	35	0.1600	1030	165	15.1
		11.00	35	0.1650	1015	168	15.9
		11.50	35	0.1650	970	160	16.6
		11.80	35	0.1650	945	156	17.0
		12.00	35	0.1700	930	158	17.9
		12.50	35	0.1750	890	156	19.1
	Cast iron (lamellar / spheroidal)	10.00	220	0.2950	7005	2067	162.3
		10.20	220	0.3050	6865	2094	171.1
		10.50	220	0.3100	6670	2068	179.0
		10.80	220	0.3150	6485	2043	187.1
		11.00	220	0.3250	6365	2069	196.6
		11.50	220	0.3300	6090	2010	208.7
		11.80	220	0.3300	5935	1959	214.2
		12.00	220	0.3350	5835	1955	221.1
		12.50	220	0.3500	5600	1960	240.5

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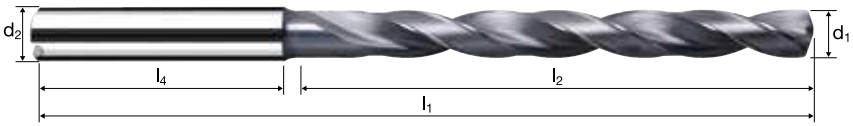
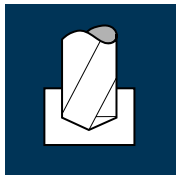


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	GG(G)

Example:
Order-N°. Article-N°. **B72020** ø-Code **0990**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020
0990	9.90	10.0	138.0	95.0	40	80.3	●
1000	10.00	10.0	138.0	95.0	40	80.0	●
1010	10.10	12.0	153.0	105.0	45	88.3	●
1020	10.20	12.0	153.0	105.0	45	88.2	●
1030	10.30	12.0	153.0	105.0	45	88.1	●
1040	10.40	12.0	153.0	105.0	45	88.0	●
1050	10.50	12.0	153.0	105.0	45	88.0	●
1060	10.60	12.0	153.0	105.0	45	87.9	●
1070	10.70	12.0	153.0	105.0	45	87.9	●
1080	10.80	12.0	153.0	105.0	45	87.8	●
1090	10.90	12.0	153.0	105.0	45	87.8	●
1100	11.00	12.0	153.0	105.0	45	87.6	●
1110	11.10	12.0	162.0	114.0	45	96.6	●
1120	11.20	12.0	162.0	114.0	45	96.5	●
1130	11.30	12.0	162.0	114.0	45	96.5	●
1140	11.40	12.0	162.0	114.0	45	96.4	●
1150	11.50	12.0	162.0	114.0	45	96.4	●
1160	11.60	12.0	162.0	114.0	45	96.3	●
1170	11.70	12.0	162.0	114.0	45	96.3	●
1180	11.80	12.0	162.0	114.0	45	96.2	●
1190	11.90	12.0	162.0	114.0	45	96.2	●
1200	12.00	12.0	162.0	114.0	45	95.9	●
1250	12.50	14.0	181.0	133.0	45	113.0	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	12.80	150	0.3950	3730	1473	189.6
		13.00	150	0.4000	3675	1470	195.1
		13.50	150	0.4050	3535	1432	204.9
		14.00	150	0.4100	3410	1398	215.2
		14.50	150	0.4200	3295	1384	228.5
		14.80	150	0.4250	3225	1371	235.8
		15.00	150	0.4300	3185	1370	242.0
		15.50	150	0.4400	3080	1355	255.7
		16.00	150	0.4500	2985	1343	270.1
	Steel 500 - 850 N/mm²	12.80	120	0.3350	2985	1000	128.7
		13.00	120	0.3400	2940	1000	132.7
		13.50	120	0.3450	2830	976	139.8
		14.00	120	0.3500	2730	956	147.1
		14.50	120	0.3600	2635	949	156.6
		14.80	120	0.3650	2580	942	162.0
		15.00	120	0.3700	2545	942	166.4
		15.50	120	0.3750	2465	924	174.4
		16.00	120	0.3850	2385	918	184.6
	Steel 850 - 1100 N/mm²	12.80	100	0.3100	2485	770	99.1
		13.00	100	0.3150	2450	772	102.4
		13.50	100	0.3200	2360	755	108.1
		14.00	100	0.3250	2275	739	113.8
		14.50	100	0.3300	2195	724	119.6
		14.80	100	0.3350	2150	720	123.9
		15.00	100	0.3400	2120	721	127.4
		15.50	100	0.3450	2055	709	133.8
		16.00	100	0.3550	1990	707	142.1
	Steel 1100 - 1300 N/mm²	12.80	70	0.2350	1740	409	52.6
		13.00	70	0.2400	1715	412	54.6
		13.50	70	0.2450	1650	404	57.9
		14.00	70	0.2450	1590	390	60.0
		14.50	70	0.2500	1535	384	63.4
		14.80	70	0.2550	1505	384	66.0
		15.00	70	0.2600	1485	386	68.2
		15.50	70	0.2650	1440	382	72.0
		16.00	70	0.2700	1395	377	75.7
	Steel 1300 - 1500 N/mm²	12.80	40	0.1800	995	179	23.0
		13.00	40	0.1850	980	181	24.1
		13.50	40	0.1850	945	175	25.0
		14.00	40	0.1900	910	173	26.6
		14.50	40	0.1950	880	172	28.3
		14.80	40	0.1950	860	168	28.9
		15.00	40	0.2000	850	170	30.0
		15.50	40	0.2050	820	168	31.7
		16.00	40	0.2050	795	163	32.8
	Cold work tool steel (12% Cr), high alloyed [1.2379]	12.80	60	0.1800	1490	268	34.5
		13.00	60	0.1850	1470	272	36.1
		13.50	60	0.1850	1415	262	37.5
		14.00	60	0.1900	1365	259	39.9
		14.50	60	0.1950	1315	256	42.3
		14.80	60	0.1950	1290	252	43.3
		15.00	60	0.2000	1275	255	45.1
		15.50	60	0.2050	1230	252	47.6
		16.00	60	0.2050	1195	245	49.3
	Titanium alloys > 300 HB [Ti6Al4V]	12.80	35	0.1800	870	157	20.2
		13.00	35	0.1850	855	158	21.0
		13.50	35	0.1850	825	153	21.8
		14.00	35	0.1900	795	151	23.3
		14.50	35	0.1950	770	150	24.8
		14.80	35	0.1950	755	147	25.3
		15.00	35	0.2000	745	149	26.3
		15.50	35	0.2050	720	148	27.9
		16.00	35	0.2050	695	143	28.7
	Cast iron (lamellar / spheroidal)	12.80	220	0.3550	5470	1942	249.9
		13.00	220	0.3600	5385	1939	257.3
		13.50	220	0.3700	5185	1919	274.6
		14.00	220	0.3750	5000	1875	288.6
		14.50	220	0.3800	4830	1835	303.1
		14.80	220	0.3850	4730	1821	313.3
		15.00	220	0.3900	4670	1821	321.9
		15.50	220	0.4000	4520	1808	341.2
		16.00	220	0.4050	4375	1772	356.3

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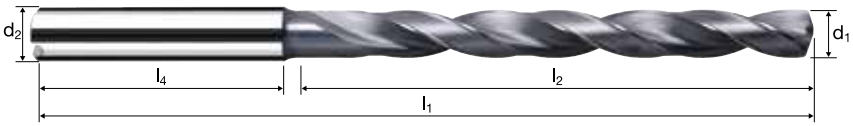
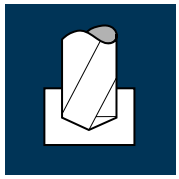


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	GG(G)

Example:
Order-N°. Article-N°. **B72020** ø-Code **1280**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	l_4	L_{max}	DURO-X B72020
1280	12.80	14.0	181.0	133.0	45	112.7	●
1300	13.00	14.0	181.0	133.0	45	112.6	●
1350	13.50	14.0	181.0	133.0	45	112.3	●
1380	13.80	14.0	181.0	133.0	45	112.1	●
1400	14.00	14.0	181.0	133.0	45	111.9	●
1450	14.50	16.0	203.0	152.0	48	128.9	●
1480	14.80	16.0	203.0	152.0	48	128.7	●
1500	15.00	16.0	203.0	152.0	48	128.6	●
1550	15.50	16.0	203.0	152.0	48	128.3	●
1580	15.80	16.0	203.0	152.0	48	128.1	●
1600	16.00	16.0	203.0	152.0	48	127.8	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	4.00	130	0.0850	10345	879	11.0
		5.00	130	0.1050	8275	869	17.1
		6.00	130	0.1250	6895	862	24.4
		7.00	130	0.1450	5910	857	33.0
		8.00	130	0.1700	5175	880	44.2
		9.00	130	0.1900	4600	874	55.6
		10.00	130	0.2100	4140	869	68.3
		11.00	130	0.2300	3760	865	82.2
		12.00	130	0.2550	3450	880	99.5
	Steel 500 - 850 N/mm²	4.00	100	0.0850	7960	677	8.5
		5.00	100	0.1050	6365	668	13.1
		6.00	100	0.1250	5305	663	18.7
		7.00	100	0.1450	4545	659	25.4
		8.00	100	0.1700	3980	677	34.0
		9.00	100	0.1900	3535	672	42.7
		10.00	100	0.2100	3185	669	52.5
		11.00	100	0.2300	2895	666	63.3
		12.00	100	0.2550	2655	677	76.6
	Steel 850 - 1100 N/mm²	4.00	70	0.0650	5570	362	4.6
		5.00	70	0.0800	4455	356	7.0
		6.00	70	0.0950	3715	353	10.0
		7.00	70	0.1100	3185	350	13.5
		8.00	70	0.1300	2785	362	18.2
		9.00	70	0.1450	2475	359	22.8
		10.00	70	0.1600	2230	357	28.0
		11.00	70	0.1750	2025	354	33.7
		12.00	70	0.1900	1855	353	39.9
	Steel 1100 - 1300 N/mm²	4.00	50	0.0550	3980	219	2.8
		5.00	50	0.0650	3185	207	4.1
		6.00	50	0.0800	2655	212	6.0
		7.00	50	0.0950	2275	216	8.3
		8.00	50	0.1050	1990	209	10.5
		9.00	50	0.1200	1770	212	13.5
		10.00	50	0.1350	1590	215	16.9
		11.00	50	0.1450	1445	210	19.9
		12.00	50	0.1600	1325	212	24.0
	Stainless steel [Cr-Ni/1.4301]	4.00	50	0.0450	3980	179	2.3
		5.00	50	0.0550	3185	175	3.4
		6.00	50	0.0700	2655	186	5.3
		7.00	50	0.0800	2275	182	7.0
		8.00	50	0.0900	1990	179	9.0
		9.00	50	0.1050	1770	186	11.8
		10.00	50	0.1150	1590	183	14.4
		11.00	50	0.1250	1445	181	17.2
		12.00	50	0.1350	1325	179	20.2
	Cast iron (lamellar / spheroidal)	4.00	150	0.0900	11935	1074	13.5
		5.00	150	0.1150	9550	1098	21.6
		6.00	150	0.1350	7960	1075	30.4
		7.00	150	0.1600	6820	1091	42.0
		8.00	150	0.1850	5970	1105	55.5
		9.00	150	0.2050	5305	1088	69.2
		10.00	150	0.2300	4775	1098	86.3
		11.00	150	0.2500	4340	1085	103.1
		12.00	150	0.2750	3980	1095	123.8
	Wrought aluminium alloys Si < 6% hardened	4.00	200	0.0800	15915	1273	16.0
		5.00	200	0.1000	12730	1273	25.0
		6.00	200	0.1200	10610	1273	36.0
		7.00	200	0.1400	9095	1273	49.0
		8.00	200	0.1600	7960	1274	64.0
		9.00	200	0.1800	7075	1274	81.0
		10.00	200	0.2000	6365	1273	100.0
		11.00	200	0.2200	5785	1273	120.9
		12.00	200	0.2400	5305	1273	144.0

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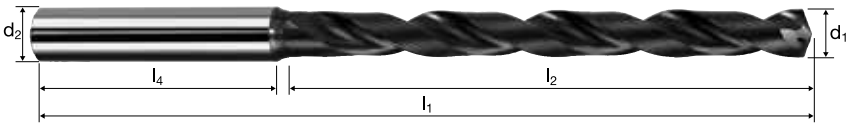
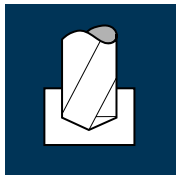
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B52020** ø-Code **0400**

Ø Code	d_1 m7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-SD B52020	DURO-SD B53020
0400	4.00	6.0	82.0	44.0	36	34.9		●
0420	4.20	6.0	82.0	44.0	36	34.8		●
0450	4.50	6.0	82.0	44.0	36	34.6		●
0480	4.80	6.0	82.0	44.0	36	34.4		●
0500	5.00	6.0	95.0	57.0	36	47.7		●
0550	5.50	6.0	95.0	57.0	36	47.5		●
0580	5.80	6.0	95.0	57.0	36	47.3		●
0600	6.00	6.0	95.0	57.0	36	47.4		●
0650	6.50	8.0	115.0	76.0	36	65.0		●
0680	6.80	8.0	115.0	76.0	36	64.8		●
0700	7.00	8.0	115.0	76.0	36	64.7		●
0750	7.50	8.0	115.0	76.0	36	64.4		●
0780	7.80	8.0	115.0	76.0	36	64.3		●
0800	8.00	8.0	115.0	76.0	36	64.3		●
0850	8.50	10.0	138.0	95.0	40	81.0		●
0900	9.00	10.0	138.0	95.0	40	80.7		●
0950	9.50	10.0	138.0	95.0	40	80.4		●
1000	10.00	10.0	138.0	95.0	40	80.2		●
1050	10.50	12.0	162.0	114.0	45	97.0		●
1100	11.00	12.0	162.0	114.0	45	96.6		●
1150	11.50	12.0	162.0	114.0	45	96.4		●
1200	12.00	12.0	162.0	114.0	45	96.2		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	12.50	130	0.2650	3310	877	107.6
		13.00	130	0.2750	3185	876	116.3
		13.50	130	0.2850	3065	874	125.0
		14.00	130	0.2950	2955	872	134.2
		14.50	130	0.3050	2855	871	143.8
		15.00	130	0.3150	2760	869	153.6
		16.00	130	0.3350	2585	866	174.1
	Steel 500 - 850 N/mm²	12.50	100	0.2650	2545	674	82.8
		13.00	100	0.2750	2450	674	89.4
		13.50	100	0.2850	2360	673	96.3
		14.00	100	0.2950	2275	671	103.3
		14.50	100	0.3050	2195	670	110.6
		15.00	100	0.3150	2120	668	118.0
		16.00	100	0.3350	1990	667	134.0
	Steel 850 - 1100 N/mm²	12.50	70	0.2000	1785	357	43.8
		13.00	70	0.2100	1715	360	47.8
		13.50	70	0.2150	1650	355	50.8
		14.00	70	0.2250	1590	358	55.1
		14.50	70	0.2300	1535	353	58.3
		15.00	70	0.2400	1485	356	63.0
		16.00	70	0.2550	1395	356	71.5
	Steel 1100 - 1300 N/mm²	12.50	50	0.1650	1275	210	25.8
		13.00	50	0.1750	1225	214	28.5
		13.50	50	0.1800	1180	212	30.4
		14.00	50	0.1850	1135	210	32.3
		14.50	50	0.1950	1100	215	35.4
		15.00	50	0.2000	1060	212	37.5
		16.00	50	0.2150	995	214	43.0
	Stainless steel [Cr-Ni/1.4301]	12.50	50	0.1450	1275	185	22.7
		13.00	50	0.1500	1225	184	24.4
		13.50	50	0.1550	1180	183	26.2
		14.00	50	0.1600	1135	182	28.0
		14.50	50	0.1650	1100	182	30.0
		15.00	50	0.1700	1060	180	31.8
		16.00	50	0.1850	995	184	37.0
	Cast iron (lamellar / spheroidal)	12.50	150	0.2850	3820	1089	133.6
		13.00	150	0.2950	3675	1084	143.9
		13.50	150	0.3100	3535	1096	156.9
		14.00	150	0.3200	3410	1091	168.0
		14.50	150	0.3300	3295	1087	179.6
		15.00	150	0.3450	3185	1099	194.2
		16.00	150	0.3650	2985	1090	219.1
	Wrought aluminium alloys Si < 6% hardened	12.50	200	0.2500	5095	1274	156.3
		13.00	200	0.2600	4895	1273	168.9
		13.50	200	0.2700	4715	1273	182.2
		14.00	200	0.2800	4545	1273	195.9
		14.50	200	0.2900	4390	1273	210.2
		15.00	200	0.3000	4245	1274	225.0
		16.00	200	0.3200	3980	1274	256.1

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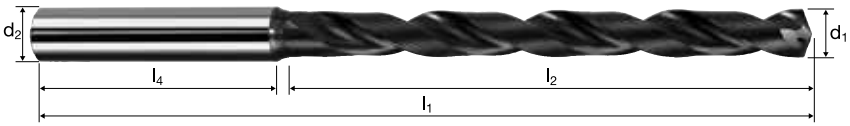
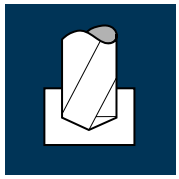
HM MG10



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B52020** ø-Code **1250**

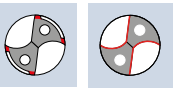
Ø Code	d_1 m7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-SD **B52020**	DURO-SD **B53020**
1250	12.50	14.0	181.0	133.0	45	113.0		●
1300	13.00	14.0	181.0	133.0	45	112.6		●
1350	13.50	14.0	181.0	133.0	45	112.3		●
1400	14.00	14.0	181.0	133.0	45	112.1		●
1450	14.50	16.0	203.0	152.0	48	128.9		●
1500	15.00	16.0	203.0	152.0	48	128.6		●
1600	16.00	16.0	203.0	152.0	48	128.0		●

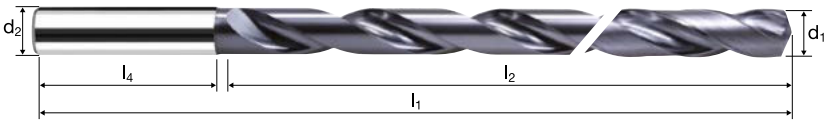
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	100	0.1200	10610	1273	9.0
		4.00	100	0.1200	7960	955	12.0
		5.00	100	0.1200	6365	764	15.0
		6.00	100	0.1500	5305	796	22.5
		8.00	100	0.1500	3980	597	30.0
		10.00	100	0.2000	3185	637	50.0
		12.00	100	0.2000	2655	531	60.1
		14.00	100	0.2400	2275	546	84.1
		16.00	100	0.2400	1990	478	96.0
	Steel 500 - 850 N/mm²	3.00	75	0.1150	7960	915	6.5
		4.00	75	0.1150	5970	687	8.6
		5.00	75	0.1150	4775	549	10.8
		6.00	75	0.1450	3980	577	16.3
		8.00	75	0.1450	2985	433	21.8
		10.00	75	0.1900	2385	453	35.6
		12.00	75	0.1900	1990	378	42.8
		14.00	75	0.2300	1705	392	60.4
		16.00	75	0.2300	1490	343	68.9
	Steel 850 - 1100 N/mm²	3.00	50	0.1000	5305	531	3.7
		4.00	50	0.1000	3980	398	5.0
		5.00	50	0.1000	3185	319	6.3
		6.00	50	0.1400	2655	372	10.5
		8.00	50	0.1400	1990	279	14.0
		10.00	50	0.1800	1590	286	22.5
		12.00	50	0.1800	1325	239	27.0
		14.00	50	0.2200	1135	250	38.4
		16.00	50	0.2200	995	219	44.0
	Steel 1100 - 1300 N/mm²	3.00	35	0.0900	3715	334	2.4
		4.00	35	0.0900	2785	251	3.2
		5.00	35	0.0900	2230	201	3.9
		6.00	35	0.1250	1855	232	6.6
		8.00	35	0.1250	1395	174	8.8
		10.00	35	0.1600	1115	178	14.0
		12.00	35	0.1600	930	149	16.8
		14.00	35	0.2000	795	159	24.5
		16.00	35	0.2000	695	139	27.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	40	0.1000	4245	425	3.0
		4.00	40	0.1000	3185	319	4.0
		5.00	40	0.1000	2545	255	5.0
		6.00	40	0.1400	2120	297	8.4
		8.00	40	0.1400	1590	223	11.2
		10.00	40	0.1800	1275	230	18.0
		12.00	40	0.1800	1060	191	21.6
		14.00	40	0.2200	910	200	30.8
		16.00	40	0.2200	795	175	35.2
	Cast iron (lamellar / spheroidal)	3.00	80	0.1600	8490	1358	9.6
		4.00	80	0.1600	6365	1018	12.8
		5.00	80	0.1600	5095	815	16.0
		6.00	80	0.2100	4245	892	25.2
		8.00	80	0.2100	3185	669	33.6
		10.00	80	0.2600	2545	662	52.0
		12.00	80	0.2600	2120	551	62.3
		14.00	80	0.3200	1820	582	89.7
		16.00	80	0.3200	1590	509	102.3

Deep hole drills

15xd

HM MGD²





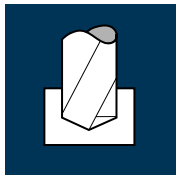
Rm < 850	Rm 850-1100	Rm 1100-1300							GG(G)

Example: **Order-N°.** Article-N°. **B52915** ø-Code **0300**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-D² B52915
0300	3.00	4.0	90.0	56.0	32	51.5	●
0350	3.50	4.0	100.0	66.0	32	61.0	●
0400	4.00	4.0	100.0	66.0	32	60.0	●
0450	4.50	5.0	110.0	74.0	34	67.5	●
0500	5.00	5.0	120.0	84.0	34	76.5	●
0550	5.50	6.0	130.0	92.0	36	84.0	●
0600	6.00	6.0	140.0	102.0	36	93.0	●
0700	7.00	7.0	155.0	115.0	38	104.5	●
0800	8.00	8.0	175.0	133.0	40	121.0	●
0900	9.00	9.0	190.0	148.0	40	134.5	●
1000	10.00	10.0	210.0	168.0	40	153.0	●
1100	11.00	11.0	230.0	183.0	45	166.5	●
1200	12.00	12.0	250.0	203.0	45	185.0	●
1300	13.00	13.0	265.0	218.0	45	198.5	●
1400	14.00	14.0	285.0	233.0	50	212.0	●
1500	15.00	15.0	305.0	253.0	50	230.5	●
1600	16.00	16.0	320.0	268.0	50	244.0	●

See page «Technical notes regarding use of deep hole drills»

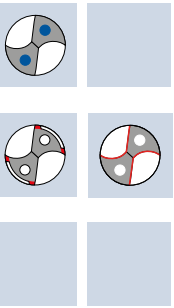
A pilot hole is required!

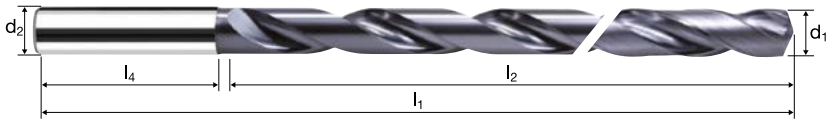
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	100	0.1200	10610	1273	9.0
		4.00	100	0.1200	7960	955	12.0
		5.00	100	0.1200	6365	764	15.0
		6.00	100	0.1500	5305	796	22.5
		8.00	100	0.1500	3980	597	30.0
		10.00	100	0.2000	3185	637	50.0
		12.00	100	0.2000	2655	531	60.1
		14.00	100	0.2400	2275	546	84.1
		16.00	100	0.2400	1990	478	96.0
	Steel 500 - 850 N/mm²	3.00	75	0.1150	7960	915	6.5
		4.00	75	0.1150	5970	687	8.6
		5.00	75	0.1150	4775	549	10.8
		6.00	75	0.1450	3980	577	16.3
		8.00	75	0.1450	2985	433	21.8
		10.00	75	0.1900	2385	453	35.6
		12.00	75	0.1900	1990	378	42.8
		14.00	75	0.2300	1705	392	60.4
		16.00	75	0.2300	1490	343	68.9
	Steel 850 - 1100 N/mm²	3.00	50	0.1000	5305	531	3.7
		4.00	50	0.1000	3980	398	5.0
		5.00	50	0.1000	3185	319	6.3
		6.00	50	0.1400	2655	372	10.5
		8.00	50	0.1400	1990	279	14.0
		10.00	50	0.1800	1590	286	22.5
		12.00	50	0.1800	1325	239	27.0
		14.00	50	0.2200	1135	250	38.4
		16.00	50	0.2200	995	219	44.0
	Steel 1100 - 1300 N/mm²	3.00	35	0.0900	3715	334	2.4
		4.00	35	0.0900	2785	251	3.2
		5.00	35	0.0900	2230	201	3.9
		6.00	35	0.1250	1855	232	6.6
		8.00	35	0.1250	1395	174	8.8
		10.00	35	0.1600	1115	178	14.0
		12.00	35	0.1600	930	149	16.8
		14.00	35	0.2000	795	159	24.5
		16.00	35	0.2000	695	139	27.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	40	0.1000	4245	425	3.0
		4.00	40	0.1000	3185	319	4.0
		5.00	40	0.1000	2545	255	5.0
		6.00	40	0.1400	2120	297	8.4
		8.00	40	0.1400	1590	223	11.2
		10.00	40	0.1800	1275	230	18.0
		12.00	40	0.1800	1060	191	21.6
		14.00	40	0.2200	910	200	30.8
		16.00	40	0.2200	795	175	35.2
	Cast iron (lamellar / spheroidal)	3.00	80	0.1600	8490	1358	9.6
		4.00	80	0.1600	6365	1018	12.8
		5.00	80	0.1600	5095	815	16.0
		6.00	80	0.2100	4245	892	25.2
		8.00	80	0.2100	3185	669	33.6
		10.00	80	0.2600	2545	662	52.0
		12.00	80	0.2600	2120	551	62.3
		14.00	80	0.3200	1820	582	89.7
		16.00	80	0.3200	1590	509	102.3

Deep hole drills

20xd

HM MGD²





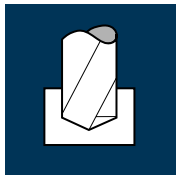
Rm < 850	Rm 850-1100	Rm 1100-1300							GG(G)

Example: **Order-N°.** Article-N°. **B52920** ø-Code **0300**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-D² B52920
0300	3.00	4.0	110.0	74.0	32	69.5	●
0350	3.50	4.0	120.0	86.0	32	81.0	●
0400	4.00	4.0	120.0	86.0	32	80.0	●
0450	4.50	5.0	135.0	98.0	34	91.5	●
0500	5.00	5.0	145.0	109.0	34	101.5	●
0550	5.50	6.0	160.0	120.0	36	112.0	●
0600	6.00	6.0	170.0	130.0	36	121.0	●
0700	7.00	7.0	190.0	150.0	38	139.5	●
0800	8.00	8.0	215.0	173.0	40	161.0	●
0900	9.00	9.0	240.0	196.0	40	182.5	●
1000	10.00	10.0	260.0	218.0	40	203.0	●
1100	11.00	11.0	285.0	238.0	45	221.5	●
1200	12.00	12.0	305.0	258.0	45	240.0	●
1300	13.00	13.0	330.0	283.0	45	263.5	●
1400	14.00	14.0	355.0	303.0	50	282.0	●
1500	15.00	15.0	375.0	323.0	50	300.5	●
1600	16.00	16.0	400.0	348.0	50	324.0	●

See page «Technical notes regarding use of deep hole drills»

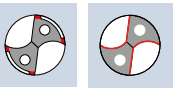
A pilot hole is required!

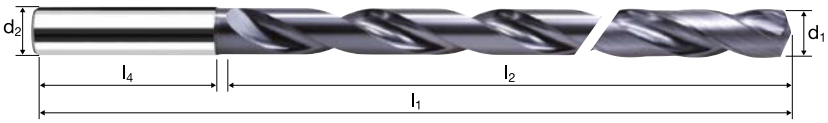
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	90	0.1200	9550	1146	8.1
		4.00	90	0.1200	7160	859	10.8
		5.00	90	0.1200	5730	688	13.5
		6.00	90	0.1500	4775	716	20.3
		8.00	90	0.1500	3580	537	27.0
		9.00	90	0.2000	3185	637	40.5
		10.00	90	0.2000	2865	573	45.0
		12.00	90	0.2000	2385	477	53.9
		14.00	90	0.2400	2045	491	75.6
	Steel 500 - 850 N/mm²	3.00	70	0.1150	7425	854	6.0
		4.00	70	0.1150	5570	641	8.1
		5.00	70	0.1150	4455	512	10.1
		6.00	70	0.1450	3715	539	15.2
		8.00	70	0.1450	2785	404	20.3
		9.00	70	0.1900	2475	470	29.9
		10.00	70	0.1900	2230	424	33.3
		12.00	70	0.1900	1855	353	39.9
		14.00	70	0.2300	1590	366	56.3
	Steel 850 - 1100 N/mm²	3.00	45	0.1000	4775	478	3.4
		4.00	45	0.1000	3580	358	4.5
		5.00	45	0.1000	2865	287	5.6
		6.00	45	0.1400	2385	334	9.4
		8.00	45	0.1400	1790	251	12.6
		9.00	45	0.1800	1590	286	18.2
		10.00	45	0.1800	1430	257	20.2
		12.00	45	0.1800	1195	215	24.3
		14.00	45	0.2200	1025	226	34.7
	Steel 1100 - 1300 N/mm²	3.00	30	0.0900	3185	287	2.0
		4.00	30	0.0900	2385	215	2.7
		5.00	30	0.0900	1910	172	3.4
		6.00	30	0.1250	1590	199	5.6
		8.00	30	0.1250	1195	149	7.5
		9.00	30	0.1600	1060	170	10.8
		10.00	30	0.1600	955	153	12.0
		12.00	30	0.1600	795	127	14.4
		14.00	30	0.2000	680	136	20.9
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	35	0.1000	3715	372	2.6
		4.00	35	0.1000	2785	279	3.5
		5.00	35	0.1000	2230	223	4.4
		6.00	35	0.1400	1855	260	7.3
		8.00	35	0.1400	1395	195	9.8
		9.00	35	0.1800	1240	223	14.2
		10.00	35	0.1800	1115	201	15.8
		12.00	35	0.1800	930	167	18.9
		14.00	35	0.2200	795	175	26.9
	Cast iron (lamellar / spheroidal)	3.00	70	0.1600	7425	1188	8.4
		4.00	70	0.1600	5570	891	11.2
		5.00	70	0.1600	4455	713	14.0
		6.00	70	0.2100	3715	780	22.1
		8.00	70	0.2100	2785	585	29.4
		9.00	70	0.2600	2475	644	40.9
		10.00	70	0.2600	2230	580	45.5
		12.00	70	0.2600	1855	482	54.5
		14.00	70	0.3200	1590	509	78.3

Deep hole drills

25xd

HM MGD²





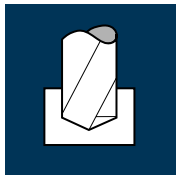
Rm < 850	Rm 850-1100	Rm 1100-1300							GG(G)

Example:
Order-N°. Article-N°. **B52925** ø-Code **0300**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-D² B52925
0300	3.00	4.0	125.0	91.0	32	86.5	●
0350	3.50	4.0	140.0	106.0	32	101.0	●
0400	4.00	4.0	140.0	106.0	32	100.0	●
0450	4.50	5.0	155.0	119.0	34	112.5	●
0500	5.00	5.0	170.0	134.0	34	126.5	●
0550	5.50	6.0	185.0	147.0	36	139.0	●
0600	6.00	6.0	200.0	160.0	36	151.0	●
0700	7.00	7.0	225.0	185.0	38	174.5	●
0800	8.00	8.0	255.0	213.0	40	201.0	●
0900	9.00	9.0	280.0	238.0	40	224.5	●
1000	10.00	10.0	310.0	268.0	40	253.0	●
1100	11.00	11.0	340.0	293.0	45	276.5	●
1200	12.00	12.0	365.0	318.0	45	300.0	●
1300	13.00	13.0	390.0	343.0	45	323.5	●
1400	14.00	14.0	425.0	373.0	50	352.0	●

See page «Technical notes regarding use of deep hole drills»

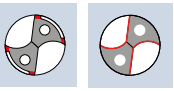
A pilot hole is required!

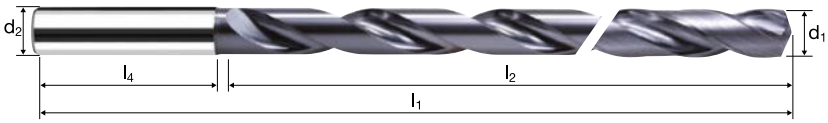
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	3.00	90	0.1200	9550	1146	8.1
		4.00	90	0.1200	7160	859	10.8
		5.00	90	0.1200	5730	688	13.5
		6.00	90	0.1500	4775	716	20.3
		7.00	90	0.1500	4095	614	23.6
		8.00	90	0.1500	3580	537	27.0
		9.00	90	0.2000	3185	637	40.5
		10.00	90	0.2000	2865	573	45.0
		12.00	90	0.2000	2385	477	53.9
	Steel 500 - 850 N/mm²	3.00	70	0.1150	7425	854	6.0
		4.00	70	0.1150	5570	641	8.1
		5.00	70	0.1150	4455	512	10.1
		6.00	70	0.1450	3715	539	15.2
		7.00	70	0.1450	3185	462	17.8
		8.00	70	0.1450	2785	404	20.3
		9.00	70	0.1900	2475	470	29.9
		10.00	70	0.1900	2230	424	33.3
		12.00	70	0.1900	1855	353	39.9
	Steel 850 - 1100 N/mm²	3.00	45	0.1000	4775	478	3.4
		4.00	45	0.1000	3580	358	4.5
		5.00	45	0.1000	2865	287	5.6
		6.00	45	0.1400	2385	334	9.4
		7.00	45	0.1400	2045	286	11.0
		8.00	45	0.1400	1790	251	12.6
		9.00	45	0.1800	1590	286	18.2
		10.00	45	0.1800	1430	257	20.2
		12.00	45	0.1800	1195	215	24.3
	Steel 1100 - 1300 N/mm²	3.00	30	0.0900	3185	287	2.0
		4.00	30	0.0900	2385	215	2.7
		5.00	30	0.0900	1910	172	3.4
		6.00	30	0.1250	1590	199	5.6
		7.00	30	0.1250	1365	171	6.6
		8.00	30	0.1250	1195	149	7.5
		9.00	30	0.1600	1060	170	10.8
		10.00	30	0.1600	955	153	12.0
		12.00	30	0.1600	795	127	14.4
	Cold work tool steel (12% Cr), high alloyed [1.2379]	3.00	35	0.1000	3715	372	2.6
		4.00	35	0.1000	2785	279	3.5
		5.00	35	0.1000	2230	223	4.4
		6.00	35	0.1400	1855	260	7.3
		7.00	35	0.1400	1590	223	8.6
		8.00	35	0.1400	1395	195	9.8
		9.00	35	0.1800	1240	223	14.2
		10.00	35	0.1800	1115	201	15.8
		12.00	35	0.1800	930	167	18.9
	Cast iron (lamellar / spheroidal)	3.00	70	0.1600	7425	1188	8.4
		4.00	70	0.1600	5570	891	11.2
		5.00	70	0.1600	4455	713	14.0
		6.00	70	0.2100	3715	780	22.1
		7.00	70	0.2100	3185	669	25.7
		8.00	70	0.2100	2785	585	29.4
		9.00	70	0.2600	2475	644	40.9
		10.00	70	0.2600	2230	580	45.5
		12.00	70	0.2600	1855	482	54.5

Deep hole drills

30xd

HM MGD²





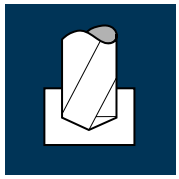
Rm < 850	Rm 850-1100	Rm 1100-1300							GG(G)

Example: **Order-N°.** Article-N°. **B52930** ø-Code **0300**

Ø Code	d_1 h7	d_2 h6	l_1	l_2	l_4	L_{max}	DURO-D² B52930
0300	3.00	4.0	145.0	110.0	32	105.5	●
0350	3.50	4.0	160.0	126.0	32	121.0	●
0400	4.00	4.0	160.0	126.0	32	120.0	●
0450	4.50	5.0	180.0	144.0	34	137.5	●
0500	5.00	5.0	195.0	159.0	34	151.5	●
0550	5.50	6.0	210.0	172.0	36	164.0	●
0600	6.00	6.0	230.0	192.0	36	183.0	●
0700	7.00	7.0	260.0	220.0	38	209.5	●
0800	8.00	8.0	295.0	253.0	40	241.0	●
0900	9.00	9.0	325.0	283.0	40	269.5	●
1000	10.00	10.0	360.0	318.0	40	303.0	●
1100	11.00	11.0	400.0	353.0	45	336.5	●
1200	12.00	12.0	430.0	383.0	45	365.0	●

See page «Technical notes regarding use of deep hole drills»

A pilot hole is required!

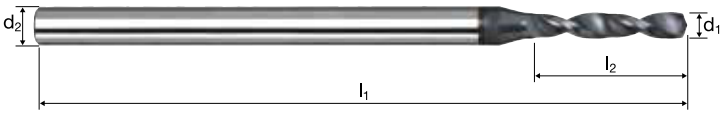
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [mm^3/min]
	Steel < 500 N/mm²	0.20	100	0.0040	60000	240	7.5
		0.30	100	0.0060	60000	360	25.5
		0.40	100	0.0080	60000	480	60.5
		0.50	100	0.0100	60000	600	118.0
		0.60	100	0.0120	53050	637	180.0
		0.70	100	0.0140	45475	637	245.0
		0.80	100	0.0160	39790	637	320.0
		0.90	100	0.0180	35370	637	405.0
		1.00	100	0.0200	31830	637	500.0
	Steel 500 - 850 N/mm²	0.20	80	0.0040	60000	240	7.5
		0.30	80	0.0070	60000	420	29.5
		0.40	80	0.0090	60000	540	68.0
		0.50	80	0.0110	50930	560	110.0
		0.60	80	0.0130	42440	552	156.0
		0.70	80	0.0160	36380	582	224.0
		0.80	80	0.0180	31830	573	288.0
		0.90	80	0.0200	28295	566	360.0
		1.00	80	0.0220	25465	560	440.0
	Steel 850 - 1100 N/mm²	0.20	40	0.0030	60000	180	5.5
		0.30	40	0.0050	42440	212	15.0
		0.40	40	0.0060	31830	191	24.0
		0.50	40	0.0080	25465	204	40.0
		0.60	40	0.0090	21220	191	54.0
		0.70	40	0.0110	18190	200	77.0
		0.80	40	0.0120	15915	191	96.0
		0.90	40	0.0140	14145	198	126.0
		1.00	40	0.0150	12730	191	150.0
	Steel 1100 - 1300 N/mm²	0.20	50	0.0040	60000	240	7.5
		0.30	50	0.0050	53050	265	19.0
		0.40	50	0.0070	39790	279	35.0
		0.50	50	0.0090	31830	287	56.5
		0.60	50	0.0110	26525	292	82.5
		0.70	50	0.0130	22735	296	114.0
		0.80	35	0.0100	13925	139	70.0
		0.90	35	0.0110	12380	136	86.5
		1.00	35	0.0120	11140	134	105.0
	Stainless steel [Cr-Ni/1.4301]	0.80	30	0.0120	11935	143	72.0
		0.90	30	0.0140	10610	149	94.5
		1.00	30	0.0150	9550	143	112.5
	Cast iron (lamellar / spheroidal)	0.20	130	0.0040	60000	240	7.5
		0.30	130	0.0070	60000	420	29.5
		0.40	130	0.0090	60000	540	68.0
		0.50	130	0.0110	60000	660	129.5
		0.60	130	0.0130	60000	780	220.5
		0.70	130	0.0160	59115	946	364.0
		0.80	130	0.0180	51725	931	468.0
		0.90	130	0.0200	45980	920	585.0
		1.00	130	0.0220	41380	910	715.0
	Wrought aluminium alloys Si < 6% hardened	0.20	160	0.0040	60000	240	7.5
		0.30	160	0.0070	60000	420	29.5
		0.40	160	0.0090	60000	540	68.0
		0.50	160	0.0110	60000	660	129.5
		0.60	160	0.0130	60000	780	220.5
		0.70	160	0.0160	60000	960	369.5
		0.80	160	0.0180	60000	1080	543.0
		0.90	160	0.0200	56590	1132	720.0
		1.00	160	0.0220	50930	1121	880.0

Micro drills Microdrill NX

5xd

HM MG10

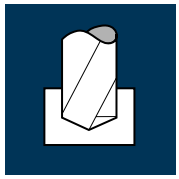
h5



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B57014** ø-Code **0020**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57014
0020	0.20	3.0	42.0	1.3	1.0	●
0025	0.25	3.0	42.0	1.6	1.2	●
0030	0.30	3.0	42.0	2.0	1.6	●
0035	0.35	3.0	42.0	2.3	1.8	●
0040	0.40	3.0	42.0	2.6	2.0	●
0045	0.45	3.0	42.0	2.9	2.2	●
0050	0.50	3.0	42.0	3.3	2.6	●
0055	0.55	3.0	42.0	3.6	2.8	●
0060	0.60	3.0	42.0	3.9	3.0	●
0065	0.65	3.0	42.0	4.2	3.2	●
0070	0.70	3.0	42.0	4.6	3.6	●
0075	0.75	3.0	42.0	4.9	3.8	●
0080	0.80	3.0	42.0	5.2	4.0	●
0085	0.85	3.0	42.0	5.5	4.2	●
0087	0.87	3.0	42.0	5.7	4.4	●
0090	0.90	3.0	42.0	5.9	4.6	●
0095	0.95	3.0	42.0	6.2	4.8	●
0100	1.00	3.0	42.0	6.5	5.0	●
0105	1.05	3.0	42.0	6.8	5.2	●
0107	1.07	3.0	42.0	7.0	5.4	●

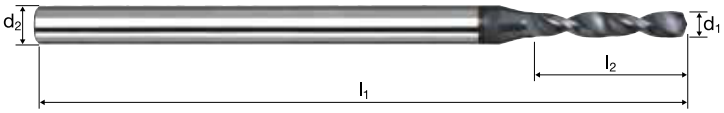
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [mm^3/min]
	Steel < 500 N/mm²	1.10	100	0.0220	28935	637	605.0
		1.20	100	0.0240	26525	637	720.0
		1.30	100	0.0260	24485	637	845.0
		1.40	100	0.0280	22735	637	980.0
		1.50	100	0.0300	21220	637	1125.0
		1.60	100	0.0320	19895	637	1280.0
		1.70	100	0.0340	18725	637	1445.0
		1.80	100	0.0360	17685	637	1620.0
		1.90	100	0.0380	16755	637	1805.5
	Steel 500 - 850 N/mm²	1.10	80	0.0240	23150	556	528.0
		1.20	80	0.0270	21220	573	648.0
		1.30	80	0.0290	19590	568	754.0
		1.40	80	0.0310	18190	564	868.0
		1.50	80	0.0330	16975	560	990.0
		1.60	80	0.0360	15915	573	1152.0
		1.70	80	0.0380	14980	569	1292.0
		1.80	80	0.0400	14145	566	1440.0
		1.90	80	0.0420	13405	563	1596.5
	Steel 850 - 1100 N/mm²	1.10	40	0.0170	11575	197	187.0
		1.20	40	0.0180	10610	191	216.0
		1.30	40	0.0200	9795	196	260.0
		1.40	40	0.0220	9095	200	308.0
		1.50	40	0.0230	8490	195	345.0
		1.60	40	0.0250	7960	199	400.0
		1.70	40	0.0260	7490	195	442.0
		1.80	40	0.0280	7075	198	504.0
		1.90	40	0.0290	6700	194	551.0
	Steel 1100 - 1300 N/mm²	1.10	35	0.0140	10130	142	135.0
		1.20	35	0.0140	9285	130	147.0
		1.30	35	0.0160	8570	137	182.0
		1.40	35	0.0180	7960	143	220.5
		1.50	35	0.0180	7425	134	236.5
		1.60	35	0.0200	6965	139	280.0
		1.70	35	0.0210	6555	138	312.5
		1.80	35	0.0220	6190	136	346.5
		1.90	35	0.0230	5865	135	382.5
	Stainless steel [Cr-Ni/1.4301]	1.10	30	0.0170	8680	148	140.5
		1.20	30	0.0180	7960	143	162.0
		1.30	30	0.0200	7345	147	195.0
		1.40	30	0.0220	6820	150	231.0
		1.50	30	0.0230	6365	146	258.5
		1.60	30	0.0250	5970	149	300.0
		1.70	30	0.0260	5615	146	331.5
		1.80	30	0.0280	5305	149	378.0
		1.90	30	0.0290	5025	146	413.0
	Cast iron (lamellar / spheroidal)	1.10	130	0.0240	37620	903	858.0
		1.20	130	0.0270	34485	931	1053.0
		1.30	130	0.0290	31830	923	1225.5
		1.40	130	0.0310	29555	916	1410.5
		1.50	130	0.0330	27585	910	1608.5
		1.60	130	0.0360	25865	931	1872.0
		1.70	130	0.0380	24340	925	2099.5
		1.80	130	0.0400	22990	920	2340.0
		1.90	130	0.0420	21780	915	2593.5
	Wrought aluminium alloys Si < 6% hardened	1.10	160	0.0240	46300	1111	1056.0
		1.20	160	0.0270	42440	1146	1296.0
		1.30	160	0.0290	39175	1136	1508.0
		1.40	160	0.0310	36380	1128	1736.0
		1.50	160	0.0330	33955	1121	1980.0
		1.60	160	0.0360	31830	1146	2304.0
		1.70	160	0.0380	29960	1139	2584.0
		1.80	160	0.0400	28295	1132	2880.0
		1.90	160	0.0420	26805	1126	3192.0

Micro drills Microdrill NX

5xd

HM MG10

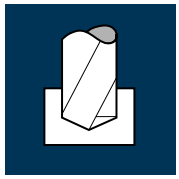
h5



Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B57014** ø-Code **0110**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57014
0110	1.10	3.0	42.0	7.2	5.6	●
0115	1.15	3.0	42.0	7.5	5.8	●
0120	1.20	3.0	42.0	7.8	6.0	●
0125	1.25	3.0	42.0	8.1	6.2	●
0130	1.30	3.0	42.0	8.5	6.6	●
0135	1.35	3.0	42.0	8.8	6.8	●
0140	1.40	3.0	42.0	9.1	7.0	●
0142	1.42	3.0	42.0	9.2	7.1	●
0145	1.45	3.0	42.0	9.4	7.2	●
0150	1.50	3.0	42.0	9.8	7.6	●
0155	1.55	3.0	42.0	10.1	7.8	●
0160	1.60	3.0	42.0	10.4	8.0	●
0162	1.62	3.0	42.0	10.5	8.1	●
0165	1.65	3.0	42.0	10.7	8.2	●
0170	1.70	3.0	42.0	11.1	8.6	●
0175	1.75	3.0	42.0	11.4	8.8	●
0180	1.80	3.0	42.0	11.7	9.0	●
0185	1.85	3.0	50.0	12.0	9.2	●
0190	1.90	3.0	50.0	12.4	9.6	●
0195	1.95	3.0	50.0	12.7	9.8	●

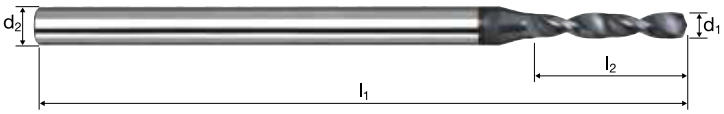
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	2.00	100	0.0400	15915	637	2.0
		2.10	100	0.0420	15160	637	2.2
		2.20	100	0.0440	14470	637	2.4
		2.35	100	0.0470	13545	637	2.8
		2.50	100	0.0500	12730	637	3.1
		2.60	100	0.0520	12245	637	3.4
		2.75	100	0.0550	11575	637	3.8
		2.85	100	0.0570	11170	637	4.1
		2.95	100	0.0590	10790	637	4.4
	Steel 500 - 850 N/mm²	2.00	80	0.0440	12730	560	1.8
		2.10	80	0.0470	12125	570	2.0
		2.20	80	0.0490	11575	567	2.2
		2.35	80	0.0520	10835	563	2.4
		2.50	80	0.0560	10185	570	2.8
		2.60	80	0.0580	9795	568	3.0
		2.75	80	0.0610	9260	565	3.4
		2.85	80	0.0630	8935	563	3.6
		2.95	80	0.0660	8630	570	3.9
	Steel 850 - 1100 N/mm²	2.00	40	0.0310	6365	197	0.6
		2.10	40	0.0320	6065	194	0.7
		2.20	40	0.0340	5785	197	0.7
		2.35	40	0.0360	5420	195	0.8
		2.50	40	0.0380	5095	194	1.0
		2.60	40	0.0400	4895	196	1.0
		2.75	40	0.0420	4630	195	1.2
		2.85	40	0.0440	4470	197	1.3
		2.95	40	0.0450	4315	194	1.3
	Steel 1100 - 1300 N/mm²	2.00	35	0.0250	5570	139	0.4
		2.10	35	0.0260	5305	138	0.5
		2.20	35	0.0270	5065	137	0.5
		2.35	35	0.0290	4740	138	0.6
		2.50	35	0.0300	4455	134	0.7
		2.60	35	0.0320	4285	137	0.7
		2.75	35	0.0340	4050	138	0.8
		2.85	35	0.0350	3910	137	0.9
		2.95	35	0.0360	3775	136	0.9
	Stainless steel [Cr-Ni/1.4301]	2.00	30	0.0310	4775	148	0.5
		2.10	30	0.0320	4545	145	0.5
		2.20	30	0.0340	4340	148	0.6
		2.35	30	0.0360	4065	146	0.6
		2.50	30	0.0380	3820	145	0.7
		2.60	30	0.0400	3675	147	0.8
		2.75	30	0.0420	3470	146	0.9
		2.85	30	0.0440	3350	147	0.9
		2.95	30	0.0450	3235	146	1.0
	Cast iron (lamellar / spheroidal)	2.00	130	0.0440	20690	910	2.9
		2.10	130	0.0470	19705	926	3.2
		2.20	130	0.0490	18810	922	3.5
		2.35	130	0.0520	17610	916	4.0
		2.50	130	0.0560	16550	927	4.5
		2.60	130	0.0580	15915	923	4.9
		2.75	130	0.0610	15045	918	5.5
		2.85	130	0.0630	14520	915	5.8
		2.95	130	0.0660	14025	926	6.3
	Wrought aluminium alloys Si < 6% hardened	2.00	160	0.0440	25465	1121	3.5
		2.10	160	0.0470	24250	1140	3.9
		2.20	160	0.0490	23150	1134	4.3
		2.35	160	0.0520	21670	1127	4.9
		2.50	160	0.0560	20370	1141	5.6
		2.60	160	0.0580	19590	1136	6.0
		2.75	160	0.0610	18520	1130	6.7
		2.85	160	0.0630	17870	1126	7.2
		2.95	160	0.0660	17265	1140	7.8

Micro drills Microdrill NX

5xd

HM MG10

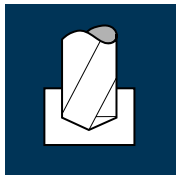
h5



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B57014** ø-Code **0200**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57014
0200	2.00	3.0	50.0	13.0	10.0	●
0205	2.05	3.0	50.0	13.3	10.2	●
0210	2.10	3.0	50.0	13.7	10.6	●
0215	2.15	3.0	50.0	14.0	10.8	●
0220	2.20	3.0	50.0	14.3	11.0	●
0225	2.25	3.0	50.0	14.6	11.2	●
0230	2.30	3.0	50.0	15.0	11.6	●
0235	2.35	3.0	50.0	15.3	11.8	●
0240	2.40	3.0	50.0	15.6	12.0	●
0245	2.45	3.0	50.0	15.9	12.2	●
0250	2.50	3.0	50.0	16.3	12.6	●
0255	2.55	3.0	50.0	16.6	12.8	●
0260	2.60	3.0	50.0	16.9	13.0	●
0265	2.65	3.0	50.0	17.2	13.2	●
0270	2.70	3.0	50.0	17.6	13.6	●
0275	2.75	3.0	50.0	17.9	13.8	●
0280	2.80	3.0	50.0	18.2	14.0	●
0285	2.85	3.0	50.0	18.5	14.2	●
0290	2.90	3.0	50.0	18.9	14.6	●
0295	2.95	3.0	50.0	19.2	14.8	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [mm^3/min]
	Steel < 500 N/mm²	0.80	160	0.0180	60000	1080	543.0
		0.90	160	0.0200	56590	1132	720.0
		1.00	160	0.0220	50930	1121	880.0
		1.10	160	0.0240	46300	1111	1056.0
		1.25	160	0.0280	40745	1141	1400.0
		1.40	160	0.0320	36380	1164	1792.0
		1.50	160	0.0340	33955	1155	2040.0
		1.65	160	0.0390	30865	1204	2574.0
		1.80	160	0.0440	28295	1245	3168.0
	Steel 500 - 850 N/mm²	0.80	120	0.0180	47745	859	432.0
		0.90	120	0.0200	42440	849	540.0
		1.00	120	0.0220	38195	840	660.0
		1.10	120	0.0240	34725	833	792.0
		1.25	120	0.0280	30560	856	1050.0
		1.40	120	0.0320	27285	873	1344.0
		1.50	120	0.0340	25465	866	1530.0
		1.65	120	0.0390	23150	903	1930.5
		1.80	120	0.0440	21220	934	2376.0
	Steel 850 - 1100 N/mm²	0.80	100	0.0180	39790	716	360.0
		0.90	100	0.0200	35370	707	450.0
		1.00	100	0.0220	31830	700	550.0
		1.10	100	0.0240	28935	694	660.0
		1.25	100	0.0280	25465	713	875.0
		1.40	100	0.0320	22735	728	1120.0
		1.50	100	0.0340	21220	722	1275.0
		1.65	100	0.0390	19290	752	1608.5
		1.80	100	0.0440	17685	778	1980.0
	Stainless steel [Cr-Ni-Mo-.../1.4571]	0.80	70	0.0140	27850	390	196.0
		0.90	70	0.0160	24755	396	252.0
		1.00	70	0.0180	22280	401	315.0
		1.10	70	0.0200	20255	405	385.0
		1.25	70	0.0230	17825	410	503.0
		1.40	70	0.0260	15915	414	637.0
		1.50	70	0.0290	14855	431	761.5
		1.65	70	0.0320	13505	432	924.0
		1.80	70	0.0360	12380	446	1134.0
	Cast iron (lamellar / spheroidal)	0.80	200	0.0210	60000	1260	633.5
		0.90	200	0.0230	60000	1380	878.0
		1.00	200	0.0260	60000	1560	1225.0
		1.10	200	0.0280	57875	1621	1540.0
		1.25	200	0.0330	50930	1681	2062.5
		1.40	200	0.0370	45475	1683	2590.0
		1.50	200	0.0410	42440	1740	3075.0
		1.65	200	0.0450	38585	1736	3712.5
		1.80	200	0.0500	35370	1769	4500.5
	Wrought aluminium alloys Si < 6% hardened	0.80	250	0.0210	60000	1260	633.5
		0.90	250	0.0230	60000	1380	878.0
		1.00	250	0.0260	60000	1560	1225.0
		1.10	250	0.0280	60000	1680	1596.5
		1.25	250	0.0330	60000	1980	2430.0
		1.40	250	0.0370	56840	2103	3237.5
		1.50	250	0.0410	53050	2175	3843.5
		1.65	250	0.0450	48230	2170	4641.0
		1.80	250	0.0500	44210	2211	5625.0

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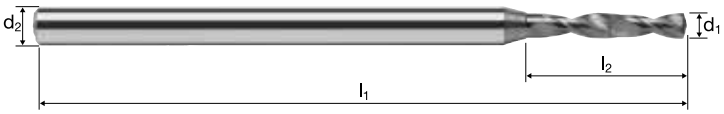
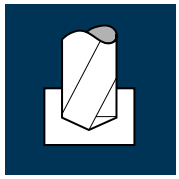


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G)** **Aluminium**

Example: **Order-N°.** Article-N°. **B57015** ø-Code **0080**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57015
0080	0.80	3.0	46.0	5.2	4.0	●
0085	0.85	3.0	46.0	5.5	4.2	●
0090	0.90	3.0	46.0	5.9	4.6	●
0095	0.95	3.0	46.0	6.2	4.8	●
0100	1.00	3.0	48.0	6.5	5.0	●
0105	1.05	3.0	48.0	6.8	5.2	●
0110	1.10	3.0	48.0	7.2	5.6	●
0115	1.15	3.0	48.0	7.5	5.8	●
0120	1.20	3.0	48.0	7.8	6.0	●
0125	1.25	3.0	48.0	8.1	6.2	●
0130	1.30	3.0	48.0	8.5	6.6	●
0135	1.35	3.0	48.0	8.8	6.8	●
0140	1.40	3.0	50.0	9.1	7.0	●
0145	1.45	3.0	50.0	9.4	7.2	●
0150	1.50	3.0	50.0	9.8	7.6	●
0155	1.55	3.0	50.0	10.1	7.8	●
0160	1.60	3.0	50.0	10.4	8.0	●
0165	1.65	3.0	50.0	10.7	8.2	●
0170	1.70	3.0	52.0	11.1	8.6	●
0175	1.75	3.0	52.0	11.4	8.8	●
0180	1.80	3.0	52.0	11.7	9.0	●
0185	1.85	3.0	52.0	12.0	9.2	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	2.00	160	0.0490	25465	1248	3.9
		2.10	160	0.0510	24250	1237	4.3
		2.20	160	0.0540	23150	1250	4.8
		2.35	160	0.0590	21670	1279	5.5
		2.50	160	0.0640	20370	1304	6.4
		2.60	160	0.0670	19590	1313	7.0
		2.75	160	0.0720	18520	1333	7.9
		2.85	160	0.0750	17870	1340	8.6
		2.95	160	0.0800	17265	1381	9.4
	Steel 500 - 850 N/mm²	2.00	120	0.0490	19100	936	2.9
		2.10	120	0.0510	18190	928	3.2
		2.20	120	0.0540	17360	937	3.6
		2.35	120	0.0590	16255	959	4.2
		2.50	120	0.0640	15280	978	4.8
		2.60	120	0.0670	14690	984	5.2
		2.75	120	0.0720	13890	1000	5.9
		2.85	120	0.0750	13405	1005	6.4
		2.95	120	0.0800	12950	1036	7.1
	Steel 850 - 1100 N/mm²	2.00	100	0.0490	15915	780	2.4
		2.10	100	0.0510	15160	773	2.7
		2.20	100	0.0540	14470	781	3.0
		2.35	100	0.0590	13545	799	3.5
		2.50	100	0.0640	12730	815	4.0
		2.60	100	0.0670	12245	820	4.4
		2.75	100	0.0720	11575	833	5.0
		2.85	100	0.0750	11170	838	5.3
		2.95	100	0.0800	10790	863	5.9
	Stainless steel [Cr-Ni-Mo-.../1.4571]	2.00	70	0.0450	11140	501	1.6
		2.10	70	0.0480	10610	509	1.8
		2.20	70	0.0500	10130	507	1.9
		2.35	70	0.0550	9480	521	2.3
		2.50	70	0.0580	8915	517	2.5
		2.60	70	0.0620	8570	531	2.8
		2.75	70	0.0670	8100	543	3.2
		2.85	70	0.0710	7820	555	3.5
		2.95	70	0.0740	7555	559	3.8
	Cast iron (lamellar / spheroidal)	2.00	200	0.0570	31830	1814	5.7
		2.10	200	0.0600	30315	1819	6.3
		2.20	200	0.0630	28935	1823	6.9
		2.35	200	0.0690	27090	1869	8.1
		2.50	200	0.0740	25465	1884	9.3
		2.60	200	0.0790	24485	1934	10.3
		2.75	200	0.0830	23150	1922	11.4
		2.85	200	0.0860	22340	1921	12.3
		2.95	200	0.0890	21580	1921	13.1
	Wrought aluminium alloys Si < 6% hardened	2.00	250	0.0570	39790	2268	7.1
		2.10	250	0.0600	37895	2274	7.9
		2.20	250	0.0630	36170	2279	8.7
		2.35	250	0.0690	33865	2337	10.1
		2.50	250	0.0740	31830	2355	11.6
		2.60	250	0.0790	30605	2418	12.8
		2.75	250	0.0830	28935	2402	14.3
		2.85	250	0.0860	27920	2401	15.3
		2.95	250	0.0890	26975	2401	16.4

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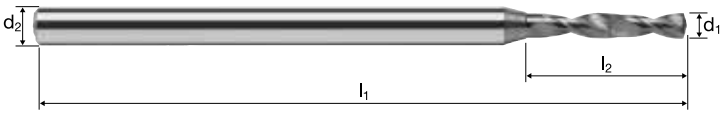
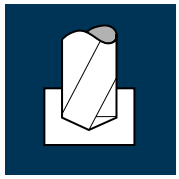


Rm < 850 | **Rm** 850-1100 | **Rm** 1100-1300 | **Inox** Stainless | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B57015** ø-Code **0190**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57015
0190	1.90	3.0	52.0	12.4	9.6	●
0195	1.95	3.0	52.0	12.7	9.8	●
0200	2.00	3.0	56.0	13.0	10.0	●
0205	2.05	3.0	56.0	13.3	10.2	●
0210	2.10	3.0	56.0	13.7	10.6	●
0215	2.15	3.0	56.0	14.0	10.8	●
0220	2.20	3.0	56.0	14.3	11.0	●
0225	2.25	3.0	56.0	14.6	11.2	●
0230	2.30	3.0	56.0	15.0	11.6	●
0235	2.35	3.0	56.0	15.3	11.8	●
0240	2.40	3.0	56.0	15.6	12.0	●
0245	2.45	3.0	56.0	15.9	12.2	●
0250	2.50	3.0	56.0	16.3	12.6	●
0255	2.55	3.0	60.0	16.6	12.8	●
0260	2.60	3.0	60.0	16.9	13.0	●
0265	2.65	3.0	60.0	17.2	13.2	●
0270	2.70	3.0	60.0	17.6	13.6	●
0275	2.75	3.0	60.0	17.9	13.8	●
0280	2.80	3.0	60.0	18.2	14.0	●
0285	2.85	3.0	60.0	18.5	14.2	●
0290	2.90	3.0	60.0	18.9	14.6	●
0295	2.95	3.0	60.0	19.2	14.8	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [mm^3/min]
	Steel < 500 N/mm²	0.80	140	0.0140	55705	780	392.0
		0.90	140	0.0160	49515	792	504.0
		1.00	140	0.0180	44565	802	630.0
		1.10	140	0.0190	40510	770	731.5
		1.25	140	0.0230	35650	820	1006.5
		1.40	140	0.0260	31830	828	1274.0
		1.50	140	0.0280	29710	832	1470.0
		1.65	140	0.0320	27010	864	1848.0
		1.80	140	0.0350	24755	866	2204.5
	Steel 500 - 850 N/mm²	0.80	100	0.0140	39790	557	280.0
		0.90	100	0.0160	35370	566	360.0
		1.00	100	0.0180	31830	573	450.0
		1.10	100	0.0190	28935	550	522.5
		1.25	100	0.0230	25465	586	719.0
		1.40	100	0.0260	22735	591	910.0
		1.50	100	0.0280	21220	594	1050.0
		1.65	100	0.0320	19290	617	1320.0
		1.80	100	0.0350	17685	619	1575.0
	Steel 850 - 1100 N/mm²	0.80	80	0.0140	31830	446	224.0
		0.90	80	0.0160	28295	453	288.0
		1.00	80	0.0180	25465	458	360.0
		1.10	80	0.0190	23150	440	418.0
		1.25	80	0.0230	20370	469	575.0
		1.40	80	0.0260	18190	473	728.0
		1.50	80	0.0280	16975	475	840.0
		1.65	80	0.0320	15435	494	1056.0
		1.80	80	0.0350	14145	495	1260.0
	Stainless steel [Cr-Ni-Mo-.../1.4571]	0.80	60	0.0120	23875	287	144.0
		0.90	60	0.0130	21220	276	175.5
		1.00	60	0.0140	19100	267	210.0
		1.10	60	0.0160	17360	278	264.0
		1.25	60	0.0180	15280	275	337.5
		1.40	60	0.0210	13640	286	441.0
		1.50	60	0.0230	12730	293	517.5
		1.65	60	0.0260	11575	301	643.5
		1.80	60	0.0290	10610	308	783.0
	Cast iron (lamellar / spheroidal)	0.80	150	0.0160	59685	955	480.0
		0.90	150	0.0190	53050	1008	641.5
		1.00	150	0.0210	47745	1003	787.5
		1.10	150	0.0230	43405	998	948.5
		1.25	150	0.0260	38195	993	1218.5
		1.40	150	0.0300	34105	1023	1575.0
		1.50	150	0.0320	31830	1019	1800.0
		1.65	150	0.0360	28935	1042	2227.5
		1.80	150	0.0400	26525	1061	2700.0
	Wrought aluminium alloys Si < 6% hardened	0.80	200	0.0160	60000	960	482.5
		0.90	200	0.0190	60000	1140	725.5
		1.00	200	0.0210	60000	1260	989.5
		1.10	200	0.0230	57875	1331	1265.0
		1.25	200	0.0260	50930	1324	1625.0
		1.40	200	0.0300	45475	1364	2100.0
		1.50	200	0.0320	42440	1358	2400.0
		1.65	200	0.0360	38585	1389	2970.5
		1.80	200	0.0400	35370	1415	3600.5

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HM MG10

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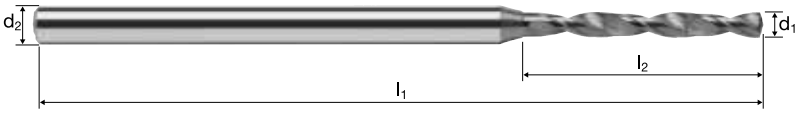
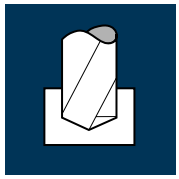


Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B57020** ø-Code **0080**

Ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57020
0080	0.80	3.0	46.0	7.6	6.4	●
0085	0.85	3.0	46.0	8.1	6.8	●
0090	0.90	3.0	46.0	8.5	7.2	●
0095	0.95	3.0	46.0	9.0	7.6	●
0100	1.00	3.0	48.0	9.5	8.0	●
0105	1.05	3.0	48.0	10.0	8.4	●
0110	1.10	3.0	48.0	10.4	8.8	●
0115	1.15	3.0	48.0	10.9	9.2	●
0120	1.20	3.0	48.0	11.4	9.6	●
0125	1.25	3.0	48.0	11.9	10.0	●
0130	1.30	3.0	48.0	12.3	10.4	●
0135	1.35	3.0	48.0	12.8	10.8	●
0140	1.40	3.0	50.0	13.3	11.2	●
0145	1.45	3.0	50.0	13.8	11.6	●
0150	1.50	3.0	50.0	14.2	12.0	●
0155	1.55	3.0	50.0	14.7	12.4	●
0160	1.60	3.0	50.0	15.2	12.8	●
0165	1.65	3.0	50.0	15.7	13.2	●
0170	1.70	3.0	52.0	16.1	13.6	●
0175	1.75	3.0	52.0	16.6	14.0	●
0180	1.80	3.0	52.0	17.1	14.4	●
0185	1.85	3.0	52.0	17.6	14.8	●

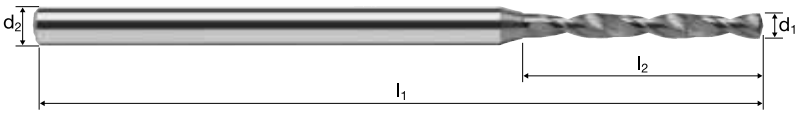
Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]	Q [cm^3/min]
	Steel < 500 N/mm²	2.00	140	0.0390	22280	869	2.7
		2.10	140	0.0410	21220	870	3.0
		2.20	140	0.0430	20255	871	3.3
		2.35	140	0.0470	18965	891	3.9
		2.50	140	0.0510	17825	909	4.5
		2.60	140	0.0530	17140	908	4.8
		2.75	140	0.0580	16205	940	5.6
		2.85	140	0.0600	15635	938	6.0
		2.95	140	0.0640	15105	967	6.6
	Steel 500 - 850 N/mm²	2.00	100	0.0390	15915	621	2.0
		2.10	100	0.0410	15160	622	2.2
		2.20	100	0.0430	14470	622	2.4
		2.35	100	0.0470	13545	637	2.8
		2.50	100	0.0510	12730	649	3.2
		2.60	100	0.0530	12245	649	3.4
		2.75	100	0.0580	11575	671	4.0
		2.85	100	0.0600	11170	670	4.3
		2.95	100	0.0640	10790	691	4.7
	Steel 850 - 1100 N/mm²	2.00	80	0.0390	12730	497	1.6
		2.10	80	0.0410	12125	497	1.7
		2.20	80	0.0430	11575	498	1.9
		2.35	80	0.0470	10835	509	2.2
		2.50	80	0.0510	10185	519	2.5
		2.60	80	0.0530	9795	519	2.8
		2.75	80	0.0580	9260	537	3.2
		2.85	80	0.0600	8935	536	3.4
		2.95	80	0.0640	8630	552	3.8
	Stainless steel [Cr-Ni-Mo-.../1.4571]	2.00	60	0.0360	9550	344	1.1
		2.10	60	0.0380	9095	346	1.2
		2.20	60	0.0400	8680	347	1.3
		2.35	60	0.0440	8125	358	1.6
		2.50	60	0.0470	7640	359	1.8
		2.60	60	0.0500	7345	367	2.0
		2.75	60	0.0540	6945	375	2.2
		2.85	60	0.0570	6700	382	2.4
		2.95	60	0.0590	6475	382	2.6
	Cast iron (lamellar / spheroidal)	2.00	150	0.0460	23875	1098	3.5
		2.10	150	0.0480	22735	1091	3.8
		2.20	150	0.0500	21705	1085	4.1
		2.35	150	0.0550	20320	1118	4.8
		2.50	150	0.0590	19100	1127	5.5
		2.60	150	0.0630	18365	1157	6.1
		2.75	150	0.0670	17360	1163	6.9
		2.85	150	0.0690	16755	1156	7.4
		2.95	150	0.0720	16185	1165	8.0
	Wrought aluminium alloys Si < 6% hardened	2.00	200	0.0460	31830	1464	4.6
		2.10	200	0.0480	30315	1455	5.0
		2.20	200	0.0500	28935	1447	5.5
		2.35	200	0.0550	27090	1490	6.5
		2.50	200	0.0590	25465	1502	7.4
		2.60	200	0.0630	24485	1543	8.2
		2.75	200	0.0670	23150	1551	9.2
		2.85	200	0.0690	22340	1542	9.8
		2.95	200	0.0720	21580	1554	10.6

Micro drills Microdrill NX

8xd

HM MG10

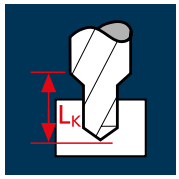
h5



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **B57020** ø-Code **0190**

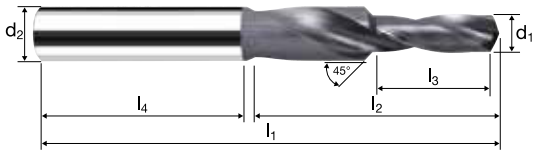
Ø Code	d_1 m7	d_2 h5	l_1	l_2	L_{max}	DURO-SD B57020
0190	1.90	3.0	52.0	18.0	15.2	●
0195	1.95	3.0	52.0	18.5	15.6	●
0200	2.00	3.0	56.0	19.0	16.0	●
0205	2.05	3.0	56.0	19.5	16.4	●
0210	2.10	3.0	56.0	20.0	16.9	●
0215	2.15	3.0	56.0	20.4	17.2	●
0220	2.20	3.0	56.0	20.9	17.6	●
0225	2.25	3.0	56.0	21.4	18.0	●
0230	2.30	3.0	56.0	21.9	18.5	●
0235	2.35	3.0	56.0	22.3	18.8	●
0240	2.40	3.0	56.0	22.8	19.2	●
0245	2.45	3.0	56.0	23.3	19.6	●
0250	2.50	3.0	56.0	23.8	20.1	●
0255	2.55	3.0	60.0	24.2	20.4	●
0260	2.60	3.0	60.0	24.7	20.8	●
0265	2.65	3.0	60.0	25.2	21.2	●
0270	2.70	3.0	60.0	25.7	21.7	●
0275	2.75	3.0	60.0	26.1	22.0	●
0280	2.80	3.0	60.0	26.6	22.4	●
0285	2.85	3.0	60.0	27.1	22.8	●
0290	2.90	3.0	60.0	27.6	23.3	●
0295	2.95	3.0	60.0	28.0	23.6	●

Application	Material	d_1 [mm]	d	v_c [m/min]	f [mm]	LK [mm]	n [min⁻¹]	v_f [mm/min]	Q [cm³/min]
	Steel < 500 N/mm²	2.50	M 3	110	0.0450	9.6	14005	630	3.1
		3.30	M 4	110	0.0550	12.5	10610	584	5.0
		4.20	M 5	110	0.0700	14.9	8335	584	8.1
		5.00	M 6	110	0.0850	18.1	7005	595	11.7
		6.80	M 8	110	0.1150	23.0	5150	592	21.5
		8.50	M 10	110	0.1450	28.0	4120	597	33.9
		10.20	M 12	110	0.1700	33.1	3435	584	47.7
		14.00	M 16	110	0.2300	42.4	2500	575	88.5
	Steel 500 - 850 N/mm²	2.50	M 3	80	0.0450	9.6	10185	458	2.2
		3.30	M 4	80	0.0550	12.5	7715	424	3.6
		4.20	M 5	80	0.0700	14.9	6065	425	5.9
		5.00	M 6	80	0.0850	18.1	5095	433	8.5
		6.80	M 8	80	0.1150	23.0	3745	431	15.6
		8.50	M 10	80	0.1450	28.0	2995	434	24.6
		10.20	M 12	80	0.1700	33.1	2495	424	34.7
		14.00	M 16	80	0.2300	42.4	1820	419	64.4
	Steel 850 - 1100 N/mm²	2.50	M 3	55	0.0400	9.6	7005	280	1.4
		3.30	M 4	55	0.0500	12.5	5305	265	2.3
		4.20	M 5	55	0.0650	14.9	4170	271	3.8
		5.00	M 6	55	0.0750	18.1	3500	263	5.2
		6.80	M 8	55	0.1000	23.0	2575	258	9.4
		8.50	M 10	55	0.1250	28.0	2060	258	14.6
		10.20	M 12	55	0.1500	33.1	1715	257	21.0
		14.00	M 16	55	0.2000	42.4	1250	250	38.5
	Cast iron (lamellar / spheroidal)	2.50	M 3	160	0.0800	9.6	20370	1630	8.0
		3.30	M 4	160	0.1050	12.5	15435	1621	13.9
		4.20	M 5	160	0.1300	14.9	12125	1576	21.8
		5.00	M 6	160	0.1600	18.1	10185	1630	32.0
		6.80	M 8	160	0.2100	23.0	7490	1573	57.1
		8.50	M 10	160	0.2650	28.0	5990	1587	90.1
		10.20	M 12	160	0.3150	33.1	4995	1573	128.6
		14.00	M 16	160	0.4200	42.4	3640	1529	235.3
	Wrought aluminium alloys Si < 6% hardened	2.50	M 3	200	0.0800	9.6	25465	2037	10.0
		3.30	M 4	200	0.1050	12.5	19290	2026	17.3
		4.20	M 5	200	0.1300	14.9	15160	1971	27.3
		5.00	M 6	200	0.1600	18.1	12730	2037	40.0
		6.80	M 8	200	0.2100	23.0	9360	1966	71.4
		8.50	M 10	200	0.2650	28.0	7490	1985	112.6
		10.20	M 12	200	0.3150	33.1	6240	1966	160.6
		14.00	M 16	200	0.4200	42.4	4545	1909	293.9

Step drills

3xd, for core drill sizes for taps

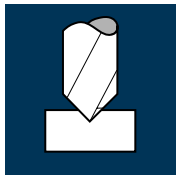
HM



Rm < 850	Rm 850-1100	Rm 1100-1300							GG(G) Aluminium

Example:
Order-N°. Article-N°. **B52801** ø-Code **0250**

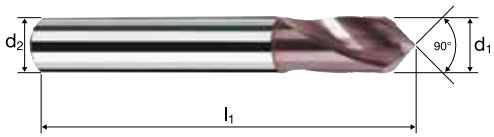
Ø Code	d	d_1 m7	d_2 h6	l_1	l_2	l_3	l_4	DURO-D² B52801
0250	M 3	2.50	6.0	62.0	20.0	8.8	36	●
0330	M 4	3.30	6.0	62.0	24.0	11.4	36	●
0420	M 5	4.20	6.0	66.0	28.0	13.6	36	●
0500	M 6	5.00	8.0	79.0	34.0	16.5	36	●
0680	M 8	6.80	10.0	89.0	47.0	21.0	40	●
0850	M 10	8.50	12.0	102.0	55.0	25.5	45	●
1020	M 12	10.20	14.0	107.0	60.0	30.0	45	●
1400	M 16	14.00	18.0	123.0	73.0	38.5	48	●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
	Steel < 500 N/mm²	3.00	160	0.0700	16975	1188
		4.00	160	0.0950	12730	1209
		5.00	160	0.1200	10185	1222
		6.00	160	0.1450	8490	1231
		8.00	160	0.1900	6365	1209
		10.00	160	0.2400	5095	1223
		12.00	160	0.2850	4245	1210
		16.00	160	0.3800	3185	1210
	Steel 500 - 850 N/mm²	3.00	120	0.0700	12730	891
		4.00	120	0.0950	9550	907
		5.00	120	0.1200	7640	917
		6.00	120	0.1450	6365	923
		8.00	120	0.1900	4775	907
		10.00	120	0.2400	3820	917
		12.00	120	0.2850	3185	908
		16.00	120	0.3800	2385	906
	Steel 850 - 1100 N/mm²	3.00	90	0.0300	9550	287
		4.00	90	0.0400	7160	286
		5.00	90	0.0500	5730	287
		6.00	90	0.0600	4775	287
		8.00	90	0.0800	3580	286
		10.00	90	0.0950	2865	272
		12.00	90	0.1150	2385	274
		16.00	90	0.1550	1790	278
	Steel 1100 - 1300 N/mm²	3.00	60	0.0250	6365	159
		4.00	60	0.0350	4775	167
		5.00	60	0.0400	3820	153
		6.00	60	0.0500	3185	159
		8.00	60	0.0650	2385	155
		10.00	60	0.0800	1910	153
		12.00	60	0.0950	1590	151
		16.00	60	0.1300	1195	155
	Steel 1300 - 1500 N/mm²	3.00	30	0.0250	3185	80
		4.00	30	0.0350	2385	84
		5.00	30	0.0400	1910	76
		6.00	30	0.0500	1590	80
		8.00	30	0.0650	1195	78
		10.00	30	0.0800	955	76
		12.00	30	0.0950	795	76
		16.00	30	0.1300	595	77
	Stainless steel [Cr-Ni/1.4301]	3.00	60	0.0150	6365	96
		4.00	60	0.0200	4775	96
		5.00	60	0.0250	3820	96
		6.00	60	0.0300	3185	96
		8.00	60	0.0400	2385	95
		10.00	60	0.0450	1910	86
		12.00	60	0.0600	1590	95
		16.00	60	0.0750	1195	90
	Cast iron (lamellar / spheroidal)	3.00	180	0.0800	19100	1528
		4.00	180	0.1050	14325	1504
		5.00	180	0.1300	11460	1490
		6.00	180	0.1600	9550	1528
		8.00	180	0.2100	7160	1504
		10.00	180	0.2650	5730	1519
		12.00	180	0.3150	4775	1504
		16.00	180	0.4200	3580	1504
	Wrought aluminium alloys Si < 6% hardened	3.00	220	0.0800	23345	1868
		4.00	220	0.1050	17505	1838
		5.00	220	0.1300	14005	1821
		6.00	220	0.1600	11670	1867
		8.00	220	0.2100	8755	1839
		10.00	220	0.2650	7005	1856
		12.00	220	0.3150	5835	1838
		16.00	220	0.4200	4375	1838

Center drills

90°

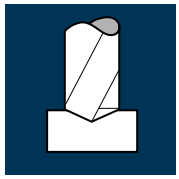
HM
MG10



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example:
Order-N°. Article-N°. **B92040** ø-Code **0300**

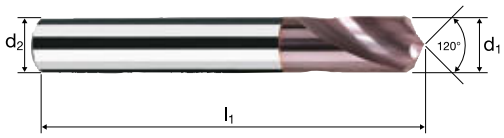
Ø Code	d_1 h6	d_2 h6	l_1		U-4XD B92040
0300	3.00	3.0	50.0		●
0400	4.00	4.0	50.0		●
0500	5.00	5.0	50.0		●
0600	6.00	6.0	57.0		●
0800	8.00	8.0	63.0		●
1000	10.00	10.0	72.0		●
1200	12.00	12.0	83.0		●
1600	16.00	16.0	92.0		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
	Steel < 500 N/mm²	3.00	160	0.0700	16975	1188
		4.00	160	0.0950	12730	1209
		5.00	160	0.1200	10185	1222
		6.00	160	0.1450	8490	1231
		8.00	160	0.1900	6365	1209
		10.00	160	0.2400	5095	1223
		12.00	160	0.2850	4245	1210
		16.00	160	0.3800	3185	1210
	Steel 500 - 850 N/mm²	3.00	120	0.0700	12730	891
		4.00	120	0.0950	9550	907
		5.00	120	0.1200	7640	917
		6.00	120	0.1450	6365	923
		8.00	120	0.1900	4775	907
		10.00	120	0.2400	3820	917
		12.00	120	0.2850	3185	908
		16.00	120	0.3800	2385	906
	Steel 850 - 1100 N/mm²	3.00	90	0.0600	9550	573
		4.00	90	0.0750	7160	537
		5.00	90	0.0950	5730	544
		6.00	90	0.1150	4775	549
		8.00	90	0.1550	3580	555
		10.00	90	0.1900	2865	544
		12.00	90	0.2300	2385	549
		16.00	90	0.3100	1790	555
	Steel 1100 - 1300 N/mm²	3.00	60	0.0500	6365	318
		4.00	60	0.0650	4775	310
		5.00	60	0.0800	3820	306
		6.00	60	0.0950	3185	303
		8.00	60	0.1250	2385	298
		10.00	60	0.1600	1910	306
		12.00	60	0.1900	1590	302
		16.00	60	0.2550	1195	305
	Steel 1300 - 1500 N/mm²	3.00	30	0.0500	3185	159
		4.00	30	0.0650	2385	155
		5.00	30	0.0800	1910	153
		6.00	30	0.0950	1590	151
		8.00	30	0.1250	1195	149
		10.00	30	0.1600	955	153
		12.00	30	0.1900	795	151
		16.00	30	0.2550	595	152
	Stainless steel [Cr-Ni/1.4301]	3.00	60	0.0400	6365	255
		4.00	60	0.0550	4775	263
		5.00	60	0.0700	3820	267
		6.00	60	0.0800	3185	255
		8.00	60	0.1100	2385	262
		10.00	60	0.1350	1910	258
		12.00	60	0.1650	1590	262
		16.00	60	0.2200	1195	263
	Cast iron (lamellar / spheroidal)	3.00	180	0.0800	19100	1528
		4.00	180	0.1050	14325	1504
		5.00	180	0.1300	11460	1490
		6.00	180	0.1600	9550	1528
		8.00	180	0.2100	7160	1504
		10.00	180	0.2650	5730	1519
		12.00	180	0.3150	4775	1504
		16.00	180	0.4200	3580	1504
	Wrought aluminium alloys Si < 6% hardened	3.00	220	0.0800	23345	1868
		4.00	220	0.1050	17505	1838
		5.00	220	0.1300	14005	1821
		6.00	220	0.1600	11670	1867
		8.00	220	0.2100	8755	1839
		10.00	220	0.2650	7005	1856
		12.00	220	0.3150	5835	1838
		16.00	220	0.4200	4375	1838

Center drills

120°

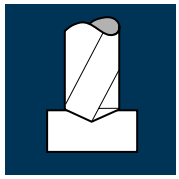
HM
MG10



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example:
Order-N°. Article-N°. **B92020** ø-Code **0300**

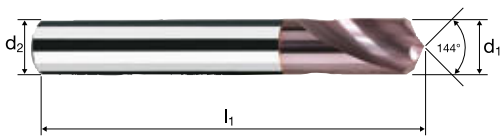
Ø Code	d_1 h6	d_2 h6	l_1		U-4XD B92020
0300	3.00	3.0	50.0		●
0400	4.00	4.0	50.0		●
0500	5.00	5.0	50.0		●
0600	6.00	6.0	57.0		●
0800	8.00	8.0	63.0		●
1000	10.00	10.0	72.0		●
1200	12.00	12.0	83.0		●
1600	16.00	16.0	92.0		●

Application	Material	d_1 [mm]	v_c [m/min]	f [mm]	n [min^{-1}]	v_f [mm/min]
	Steel < 500 N/mm²	3.00	160	0.0700	16975	1188
		4.00	160	0.0950	12730	1209
		5.00	160	0.1200	10185	1222
		6.00	160	0.1450	8490	1231
		8.00	160	0.1900	6365	1209
		10.00	160	0.2400	5095	1223
		12.00	160	0.2850	4245	1210
		16.00	160	0.3800	3185	1210
	Steel 500 - 850 N/mm²	3.00	120	0.0700	12730	891
		4.00	120	0.0950	9550	907
		5.00	120	0.1200	7640	917
		6.00	120	0.1450	6365	923
		8.00	120	0.1900	4775	907
		10.00	120	0.2400	3820	917
		12.00	120	0.2850	3185	908
		16.00	120	0.3800	2385	906
	Steel 850 - 1100 N/mm²	3.00	90	0.0600	9550	573
		4.00	90	0.0750	7160	537
		5.00	90	0.0950	5730	544
		6.00	90	0.1150	4775	549
		8.00	90	0.1550	3580	555
		10.00	90	0.1900	2865	544
		12.00	90	0.2300	2385	549
		16.00	90	0.3100	1790	555
	Steel 1100 - 1300 N/mm²	3.00	60	0.0500	6365	318
		4.00	60	0.0650	4775	310
		5.00	60	0.0800	3820	306
		6.00	60	0.0950	3185	303
		8.00	60	0.1250	2385	298
		10.00	60	0.1600	1910	306
		12.00	60	0.1900	1590	302
		16.00	60	0.2550	1195	305
	Steel 1300 - 1500 N/mm²	3.00	30	0.0500	3185	159
		4.00	30	0.0650	2385	155
		5.00	30	0.0800	1910	153
		6.00	30	0.0950	1590	151
		8.00	30	0.1250	1195	149
		10.00	30	0.1600	955	153
		12.00	30	0.1900	795	151
		16.00	30	0.2550	595	152
	Stainless steel [Cr-Ni/1.4301]	3.00	60	0.0400	6365	255
		4.00	60	0.0550	4775	263
		5.00	60	0.0700	3820	267
		6.00	60	0.0800	3185	255
		8.00	60	0.1100	2385	262
		10.00	60	0.1350	1910	258
		12.00	60	0.1650	1590	262
		16.00	60	0.2200	1195	263
	Cast iron (lamellar / spheroidal)	3.00	180	0.0800	19100	1528
		4.00	180	0.1050	14325	1504
		5.00	180	0.1300	11460	1490
		6.00	180	0.1600	9550	1528
		8.00	180	0.2100	7160	1504
		10.00	180	0.2650	5730	1519
		12.00	180	0.3150	4775	1504
		16.00	180	0.4200	3580	1504
	Wrought aluminium alloys Si < 6% hardened	3.00	220	0.0800	23345	1868
		4.00	220	0.1050	17505	1838
		5.00	220	0.1300	14005	1821
		6.00	220	0.1600	11670	1867
		8.00	220	0.2100	8755	1839
		10.00	220	0.2650	7005	1856
		12.00	220	0.3150	5835	1838
		16.00	220	0.4200	4375	1838

Center drills

144°

HM
MG10



Rm < 850	Rm 850-1100	Rm 1100-1300					Inox Stainless		GG(G) Aluminium

Example:
Order-N°. Article-N°. **B92008** ø-Code **0300**

Ø Code	d_1 h6	d_2 h6	l_1		U-4XD B92008
0300	3.00	3.0	50.0		●
0400	4.00	4.0	50.0		●
0500	5.00	5.0	50.0		●
0600	6.00	6.0	57.0		●
0800	8.00	8.0	63.0		●
1000	10.00	10.0	72.0		●
1200	12.00	12.0	83.0		●
1600	16.00	16.0	92.0		●


passion
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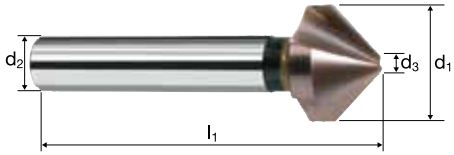
Rose countersinks

90°

HSS



Rm < 850 | **Rm** 850-1100 | **Inox** Stainless | **GG(G) Aluminium**

Example: **Order-N°.** Article-N°. **B92310** ø-Code **0530**

Ø Code	d_1 z9	d_2 h9	d_3	l_1	z	U-4XD B92310
0530	5.30	4.0	1.5	40.0	3	●
0580	5.80	5.0	1.5	45.0	3	●
0630	6.30	5.0	1.5	45.0	3	●
0730	7.30	6.0	1.8	50.0	3	●
0830	8.30	6.0	2.0	50.0	3	●
0940	9.40	6.0	2.2	50.0	3	●
1040	10.40	6.0	2.5	50.0	3	●
1150	11.50	8.0	2.8	56.0	3	●
1240	12.40	8.0	2.8	56.0	3	●
1340	13.40	8.0	2.9	56.0	3	●
1500	15.00	10.0	3.2	60.0	3	●
1650	16.50	10.0	3.2	60.0	3	●
1900	19.00	10.0	3.5	63.0	3	●
2050	20.50	10.0	3.5	63.0	3	●
2500	25.00	10.0	3.8	67.0	3	●
3100	31.00	12.0	4.2	71.0	3	●
9999	**Assortment of rose countersinks containing:**					●
	1 Stk. ø 6.3 / 8.3 / 10.4 / 12.4 / 16.5 / 20.5					


passion
for precision
fraisa

Thread milling cutters M / MF / G / UNC / UNF / UN / NPT / NPTF

Thread whirler

N° EH27500 	**M**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	139
N° EH27502 	**M**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	141
N° EI27504 	**M**	**3xd**		**HRC** 48- >60		143
N° E28500 ToolSchool 	**M**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	145
N° EH27540 	**G**	**3xd**		**Rm** <850-1500	**Inox Ti Ni**	147
N° EH27560 	**UN**	**3xd**		**Rm** <850-1500	**Inox** Stainless	149

TM

Thread milling cutters M / MF / G / UNC / UNF / UN / NPT / NPTF

Thread milling cutters

N° EH20300 / EH20306

N° EH20320 / EH20326

N° EH20340

N° EH20360

N° EH20370

N° EH20380

N° EH20390

M	**2xd**		**Rm** <850-1500	**Al / Cu GG(G)**	151
MF	**2xd**		**Rm** <850-1500	**Al / Cu GG(G)**	153
G	**2xd**		**Rm** <850-1500	**Al / Cu GG(G)**	155
UNC	**2xd**		**Rm** <850-1500	**Al / Cu GG(G)**	157
UNF	**2xd**		**Rm** <850-1500	**Al / Cu GG(G)**	159
NPT			**Rm** <850-1500	**Al / Cu GG(G)**	161
NPTF			**Rm** <850-1500	**Al / Cu GG(G)**	163

Thread milling cutters M / MF / G / UNC / UNF / UN / NPT / NPTF

Thread milling cutters with 45° chamfer

N° EH24300 	M	2xd		Rm <850-1500	Al / Cu GG(G)	165
N° EH24320 	MF	2xd		Rm <850-1500	Al / Cu GG(G)	167
N° EH24340 	G	2xd		Rm <850-1500	Al / Cu GG(G)	169
N° EH24360 	UNC	2xd		Rm <850-1500	Al / Cu GG(G)	171
N° EH24370 	UNF	2xd		Rm <850-1500	Al / Cu GG(G)	173
N° EH24200 	M	1.5xd		HRC < 56	Al / Cu GG(G)	175
N° EH24220 	MF	1.5xd		Rm <850-1500	Al / Cu GG(G)	177

TM

Thread milling cutters M / MF / G / UNC / UNF / UN / NPT / NPTF

Drill / thread milling cutters with 45° chamfer

N° E22300

M	**2xd**		**Al** Aluminium Cast	**GG(G)** Cast iron	179

N° E22200

M	**1.5xd**		**Al** Aluminium Cast	**GG(G)** Cast iron	181

Thread milling cutters M / MF / G / UNC / UNF / UN / NPT / NPTF

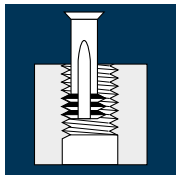
Multi-range thread milling cutters

N° EH26020

N° EH26040

M			**Rm** <850-1500	**Al / Cu GG(G)**	183
G			**Rm** <850-1500	**Al / Cu GG(G)**	185

TM

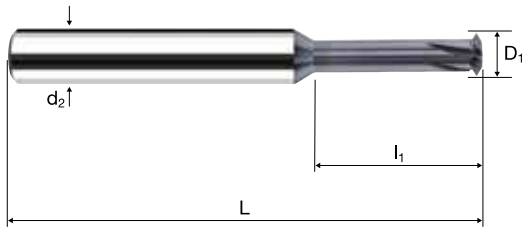
Application	Material	M	D_1 [mm]	P max.	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	M 1.4 - M 1.8	1.05	0.35	3	80	0.0100	24250	250	728
		M 2 - M 2.4	1.50	0.40	3	80	0.0100	16975	127	509
		M 2.5 - M 3	2.00	0.50	4	80	0.0200	12730	339	1018
		M 3.5 - M 4.5	2.80	0.75	4	80	0.0200	9095	275	728
		M 5 - M 7	4.00	1.00	4	80	0.0250	6365	212	637
		M 8 - M 10	6.40	1.50	5	80	0.0350	3980	251	697
	Steel 1300 - 1500 N/mm²	M 1.4 - M 1.8	1.05	0.35	3	45	0.0100	13640	141	409
		M 2 - M 2.4	1.50	0.40	3	45	0.0100	9550	72	287
		M 2.5 - M 3	2.00	0.50	4	45	0.0200	7160	191	573
		M 3.5 - M 4.5	2.80	0.75	4	45	0.0200	5115	155	409
		M 5 - M 7	4.00	1.00	4	45	0.0300	3580	143	430
		M 8 - M 10	6.40	1.50	5	45	0.0300	2240	121	336
	Stainless steel [Cr-Ni/1.4301]	M 1.4 - M 1.8	1.05	0.35	3	55	0.0100	16675	172	500
		M 2 - M 2.4	1.50	0.40	3	55	0.0100	11670	88	350
		M 2.5 - M 3	2.00	0.50	4	55	0.0200	8755	233	700
		M 3.5 - M 4.5	2.80	0.75	4	55	0.0250	6255	236	626
		M 5 - M 7	4.00	1.00	4	55	0.0300	4375	175	525
		M 8 - M 10	6.40	1.50	5	55	0.0300	2735	148	410
	Nickel base alloys	M 1.4 - M 1.8	1.05	0.35	3	30	0.0100	9095	94	273
		M 2 - M 2.4	1.50	0.40	3	30	0.0100	6365	48	191
		M 2.5 - M 3	2.00	0.50	4	30	0.0100	4775	64	191
		M 3.5 - M 4.5	2.80	0.75	4	30	0.0150	3410	77	205
		M 5 - M 7	4.00	1.00	4	30	0.0200	2385	64	191
		M 8 - M 10	6.40	1.50	5	30	0.0300	1490	80	224
	Wrought aluminium alloys Si < 6%	M 1.4 - M 1.8	1.05	0.35	3	150	0.0200	45475	938	2729
		M 2 - M 2.4	1.50	0.40	3	150	0.0200	31830	477	1910
		M 2.5 - M 3	2.00	0.50	4	150	0.0300	23875	955	2865
		M 3.5 - M 4.5	2.80	0.75	4	150	0.0350	17050	902	2387
		M 5 - M 7	4.00	1.00	4	150	0.0400	11935	637	1910
		M 8 - M 10	6.40	1.50	5	150	0.0500	7460	671	1865
	Cast iron GG(G)	M 1.4 - M 1.8	1.05	0.35	3	120	0.0100	36380	375	1091
		M 2 - M 2.4	1.50	0.40	3	120	0.0100	25465	191	764
		M 2.5 - M 3	2.00	0.50	4	120	0.0200	19100	509	1528
		M 3.5 - M 4.5	2.80	0.75	4	120	0.0250	13640	515	1364
		M 5 - M 7	4.00	1.00	4	120	0.0300	9550	382	1146
		M 8 - M 10	6.40	1.50	5	120	0.0400	5970	430	1194
	Unalloyed copper	M 1.4 - M 1.8	1.05	0.35	3	130	0.0100	39410	406	1182
		M 2 - M 2.4	1.50	0.40	3	130	0.0100	27585	207	828
		M 2.5 - M 3	2.00	0.50	4	130	0.0200	20690	552	1655
		M 3.5 - M 4.5	2.80	0.75	4	130	0.0250	14780	558	1478
		M 5 - M 7	4.00	1.00	4	130	0.0300	10345	414	1241
		M 8 - M 10	6.40	1.50	5	130	0.0400	6465	465	1293
	Titanium alloys > 300 HB [Ti6Al4V]	M 1.4 - M 1.8	1.05	0.35	3	40	0.0100	12125	125	364
		M 2 - M 2.4	1.50	0.40	3	40	0.0100	8490	64	255
		M 2.5 - M 3	2.00	0.50	4	40	0.0100	6365	85	255
		M 3.5 - M 4.5	2.80	0.75	4	40	0.0150	4545	103	273
		M 5 - M 7	4.00	1.00	4	40	0.0200	3185	85	255
		M 8 - M 10	6.40	1.50	5	40	0.0300	1990	107	299

Thread whirler

3xd

M

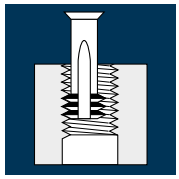
HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium/Copper GG(G) Nickel-Alloys

Example: **Order-N°.** Article-N°. **EH27500** ø-Code **020**

Ø Code	d	P max.	L	l_1	d_2 h6	D1	Rk 6H			TiCN EH27500
020	M 1.4 - M 1.8	0.35	39	3.8	3.0	1.05	0.500	3	1	●
034	M 2 - M 2.4	0.40	39	7.0	3.0	1.50	0.720	3	1	●
040	M 2.5 - M 3	0.50	39	9.0	3.0	2.00	0.970	4	1	●
056	M 3.5 - M 4.5	0.75	58	14.0	6.0	2.80	1.370	4	1	●
084	M 5 - M 7	1.00	58	19.0	6.0	4.00	1.970	4	1	●
160	M 8 - M 10	1.50	64	24.0	8.0	6.40	3.140	5	1	●

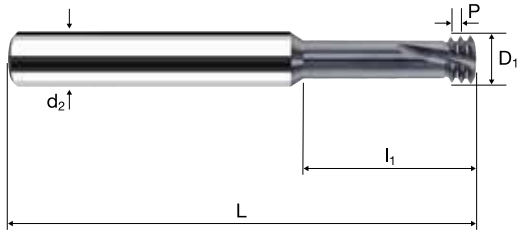
Application	Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	M 2	1.55	0.40	4	80	0.0100	16430	148	657
		M 3	2.40	0.50	4	80	0.0200	10610	170	849
		M 4	3.20	0.70	4	80	0.0200	7960	127	637
		M 5	4.00	0.80	4	80	0.0250	6365	127	637
		M 6	4.80	1.00	4	80	0.0300	5305	127	637
		M 8	5.95	1.25	4	80	0.0350	4280	154	599
		M 10	7.80	1.50	4	80	0.0500	3265	144	653
		M 12	9.00	1.75	4	80	0.0550	2830	156	623
		M 16	11.80	2.00	5	80	0.0600	2160	170	648
	Steel 1300 - 1500 N/mm²	M 2	1.55	0.40	4	45	0.0100	9240	83	370
		M 3	2.40	0.50	4	45	0.0200	5970	96	478
		M 4	3.20	0.70	4	45	0.0250	4475	90	448
		M 5	4.00	0.80	4	45	0.0300	3580	86	430
		M 6	4.80	1.00	4	45	0.0300	2985	72	358
		M 8	5.95	1.25	4	45	0.0300	2405	74	289
		M 10	7.80	1.50	4	45	0.0400	1835	65	294
		M 12	9.00	1.75	4	45	0.0500	1590	80	318
		M 16	11.80	2.00	5	45	0.0550	1215	88	334
	Stainless steel [Cr-Ni/1.4301]	M 2	1.55	0.40	4	55	0.0100	11295	102	452
		M 3	2.40	0.50	4	55	0.0200	7295	117	584
		M 4	3.20	0.70	4	55	0.0250	5470	109	547
		M 5	4.00	0.80	4	55	0.0300	4375	105	525
		M 6	4.80	1.00	4	55	0.0300	3645	87	437
		M 8	5.95	1.25	4	55	0.0300	2940	90	353
		M 10	7.80	1.50	4	55	0.0350	2245	69	314
		M 12	9.00	1.75	4	55	0.0500	1945	97	389
		M 16	11.80	2.00	5	55	0.0550	1485	107	408
	Nickel base alloys	M 2	1.55	0.40	4	30	0.0100	6160	55	246
		M 3	2.40	0.50	4	30	0.0100	3980	32	159
		M 4	3.20	0.70	4	30	0.0150	2985	36	179
		M 5	4.00	0.80	4	30	0.0200	2385	38	191
		M 6	4.80	1.00	4	30	0.0250	1990	40	199
		M 8	5.95	1.25	4	30	0.0300	1605	49	193
		M 10	7.80	1.50	4	30	0.0350	1225	38	172
		M 12	9.00	1.75	4	30	0.0400	1060	42	170
		M 16	11.80	2.00	5	30	0.0450	810	48	182
	Wrought aluminium alloys Si < 6%	M 2	1.55	0.40	4	150	0.0200	30805	554	2464
		M 3	2.40	0.50	4	150	0.0300	19895	477	2387
		M 4	3.20	0.70	4	150	0.0350	14920	418	2089
		M 5	4.00	0.80	4	150	0.0400	11935	382	1910
		M 6	4.80	1.00	4	150	0.0450	9945	358	1790
		M 8	5.95	1.25	4	150	0.0500	8025	411	1605
		M 10	7.80	1.50	4	150	0.0550	6120	296	1346
		M 12	9.00	1.75	4	150	0.0650	5305	345	1379
		M 16	11.80	2.00	5	150	0.0750	4045	398	1517
	Cast iron (lamellar / spheroidal)	M 2	1.55	0.40	4	120	0.0100	24645	222	986
		M 3	2.40	0.50	4	120	0.0200	15915	255	1273
		M 4	3.20	0.70	4	120	0.0250	11935	239	1194
		M 5	4.00	0.80	4	120	0.0300	9550	229	1146
		M 6	4.80	1.00	4	120	0.0350	7960	223	1114
		M 8	5.95	1.25	4	120	0.0400	6420	263	1027
		M 10	7.80	1.50	4	120	0.0500	4895	215	979
		M 12	9.00	1.75	4	120	0.0600	4245	255	1019
		M 16	11.80	2.00	5	120	0.0700	3235	297	1132
	Unalloyed copper	M 2	1.55	0.40	4	130	0.0100	26695	240	1068
		M 3	2.40	0.50	4	130	0.0200	17240	276	1379
		M 4	3.20	0.70	4	130	0.0250	12930	259	1293
		M 5	4.00	0.80	4	130	0.0300	10345	248	1241
		M 6	4.80	1.00	4	130	0.0350	8620	241	1207
		M 8	5.95	1.25	4	130	0.0400	6955	285	1113
		M 10	7.80	1.50	4	130	0.0450	5305	210	955
		M 12	9.00	1.75	4	130	0.0550	4600	253	1012
		M 16	11.80	2.00	5	130	0.0600	3505	276	1052
	Titanium alloys > 300 HB [Ti6Al4V]	M 2	1.55	0.40	4	40	0.0100	8215	74	329
		M 3	2.40	0.50	4	40	0.0100	5305	42	212
		M 4	3.20	0.70	4	40	0.0150	3980	48	239
		M 5	4.00	0.80	4	40	0.0200	3185	51	255
		M 6	4.80	1.00	4	40	0.0250	2655	53	266
		M 8	5.95	1.25	4	40	0.0300	2140	66	257
		M 10	7.80	1.50	4	40	0.0350	1630	50	228
		M 12	9.00	1.75	4	40	0.0400	1415	57	226
		M 16	11.80	2.00	5	40	0.0450	1080	64	243

Thread whirler

3xd

M

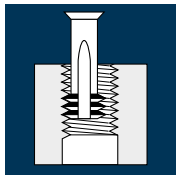
HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium/Copper GG(G) Nickel-Alloys

Example: **Order-N°.** Article-N°. **EH27502** ø-Code **022**

Ø Code	d	P	L	l_1	d_2 h6	D1	Rk 6H			TiCN EH27502
022	M 1.6	0.35	39	4.8	3.0	1.20	0.570	3	3	●
026	M 1.8	0.35	39	5.4	3.0	1.40	0.670	3	3	●
034	M 2	0.40	39	6.0	3.0	1.55	0.750	4	3	●
040	M 2.5	0.45	39	7.5	3.0	1.95	0.950	4	3	●
044	M 3	0.50	58	9.5	6.0	2.40	1.170	4	3	●
056	M 3.5	0.60	58	11.0	6.0	2.80	1.370	4	3	●
058	M 4	0.70	58	12.5	6.0	3.20	1.570	4	3	●
084	M 5	0.80	58	16.0	6.0	4.00	1.970	4	3	●
088	M 6	1.00	58	20.0	6.0	4.80	2.370	4	3	●
160	M 8	1.25	58	24.0	6.0	5.95	2.950	4	3	●
174	M 10	1.50	73	33.0	8.0	7.80	3.840	4	3	●
240	M 12	1.75	84	38.0	10.0	9.00	4.440	4	3	●
246	M 16	2.00	84	35.0	12.0	11.80	5.840	5	3	●

Application	Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Hardened tool steel 48 - 52 HRC	M 2	1.55	0.40	4	45	0.0100	9240	83	370
		M 2.5	1.95	0.45	4	45	0.0100	7345	65	294
		M 3	2.35	0.50	4	45	0.0100	6095	53	244
		M 4	3.10	0.70	4	45	0.0150	4620	62	277
		M 5	3.80	0.80	4	45	0.0200	3770	72	302
		M 6	4.80	1.00	4	45	0.0250	2985	60	299
		M 8	5.95	1.25	4	45	0.0300	2405	74	289
		M 10	7.80	1.50	4	45	0.0350	1835	57	257
		M 12	9.00	1.75	5	45	0.0400	1590	80	318
	Hardened tool steel 52 - 56 HRC	M 2	1.55	0.40	4	45	0.0100	9240	83	370
		M 2.5	1.95	0.45	4	45	0.0100	7345	65	294
		M 3	2.35	0.50	4	45	0.0100	6095	53	244
		M 4	3.10	0.70	4	45	0.0150	4620	62	277
		M 5	3.80	0.80	4	45	0.0200	3770	72	302
		M 6	4.80	1.00	4	45	0.0250	2985	60	299
		M 8	5.95	1.25	4	45	0.0300	2405	74	289
		M 10	7.80	1.50	4	45	0.0350	1835	57	257
		M 12	9.00	1.75	5	45	0.0400	1590	80	318
	Hardened tool steel 56 - 60 HRC	M 2	1.55	0.40	4	40	0.0100	8215	74	329
		M 2.5	1.95	0.45	4	40	0.0100	6530	57	261
		M 3	2.35	0.50	4	40	0.0100	5420	47	217
		M 4	3.10	0.70	4	40	0.0150	4105	55	246
		M 5	3.80	0.80	4	40	0.0200	3350	64	268
		M 6	4.80	1.00	4	40	0.0250	2655	53	266
		M 8	5.95	1.25	4	40	0.0300	2140	66	257
		M 10	7.80	1.50	4	40	0.0350	1630	50	228
		M 12	9.00	1.75	5	40	0.0400	1415	71	283
	Hardened tool steel > 60 HRC	M 2	1.55	0.40	4	35	0.0100	7190	65	288
		M 2.5	1.95	0.45	4	35	0.0100	5715	50	229
		M 3	2.35	0.50	4	35	0.0100	4740	41	190
		M 4	3.10	0.70	4	35	0.0150	3595	49	216
		M 5	3.80	0.80	4	35	0.0200	2930	56	234
		M 6	4.80	1.00	4	35	0.0250	2320	46	232
		M 8	5.95	1.25	4	35	0.0300	1870	58	224
		M 10	7.80	1.50	4	35	0.0350	1430	44	200
		M 12	9.00	1.75	5	35	0.0400	1240	62	248

Thread whirler

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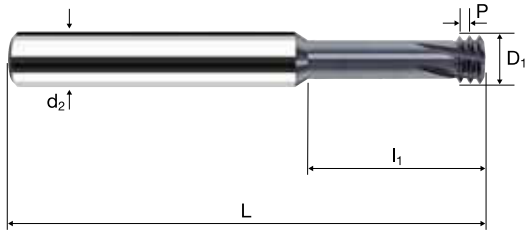
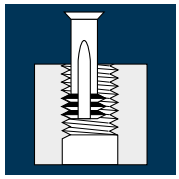


Rm 1300-1500 | HRC 48-56 | HRC 56-60 | HRC > 60

Example: **Order-N°.** Article-N°. **EI27504** ø-Code **034**

Ø Code	d	P	L	l_1	d_2 h6	D1	Rk 6H			INTEGRAL
										EI27504
034	M 2	0.40	39	6.0	3.0	1.55	0.750	4	3	●
040	M 2.5	0.45	39	7.5	3.0	1.95	0.950	4	3	●
044	M 3	0.50	58	9.5	6.0	2.35	1.150	4	3	●
058	M 4	0.70	58	12.5	6.0	3.10	1.520	4	3	●
084	M 5	0.80	58	16.0	6.0	3.80	1.870	4	3	●
088	M 6	1.00	58	20.0	6.0	4.80	2.370	4	3	●
160	M 8	1.25	58	24.0	6.0	5.95	2.950	4	3	●
174	M 10	1.50	64	23.0	8.0	7.80	3.840	4	3	●
240	M 12	1.75	73	26.0	10.0	9.00	4.440	5	3	●

Application	Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	M 1	0.70	0.25	3	120	0.0020	54565	98	327
		M 2	1.50	0.40	3	120	0.0040	25465	76	306
		M 3	2.20	0.50	3	120	0.0055	17360	76	286
		M 4	3.10	0.70	3	120	0.0080	12320	67	296
		M 5	3.80	0.80	3	120	0.0095	10050	69	286
		M 6	4.70	1.00	3	120	0.0120	8125	63	293
		M 8	5.90	1.25	5	120	0.0150	6475	127	486
		M 10	7.90	1.50	5	120	0.0200	4835	102	484
	Steel 1300 - 1500 N/mm²	M 1	0.70	0.25	3	100	0.0010	45475	41	136
		M 2	1.50	0.40	3	100	0.0025	21220	40	159
		M 3	2.20	0.50	3	100	0.0035	14470	41	152
		M 4	3.10	0.70	3	100	0.0050	10270	35	154
		M 5	3.80	0.80	3	100	0.0065	8375	39	163
		M 6	4.70	1.00	3	100	0.0080	6775	35	163
		M 8	5.90	1.25	5	100	0.0100	5395	71	270
		M 10	7.90	1.50	5	100	0.0130	4030	55	262
	Stainless steel [Cr-Ni/1.4301]	M 1	0.70	0.25	3	80	0.0010	36380	33	109
		M 2	1.50	0.40	3	80	0.0025	16975	32	127
		M 3	2.20	0.50	3	80	0.0035	11575	32	122
		M 4	3.10	0.70	3	80	0.0050	8215	28	123
		M 5	3.80	0.80	3	80	0.0060	6700	29	121
		M 6	4.70	1.00	3	80	0.0070	5420	25	114
		M 8	5.90	1.25	5	80	0.0090	4315	51	194
		M 10	7.90	1.50	5	80	0.0120	3225	41	194
	Nickel base alloys	M 1	0.70	0.25	3	60	0.0010	27285	25	82
		M 2	1.50	0.40	3	60	0.0025	12730	24	96
		M 3	2.20	0.50	3	60	0.0035	8680	24	91
		M 4	3.10	0.70	3	60	0.0050	6160	21	92
		M 5	3.80	0.80	3	60	0.0060	5025	22	91
		M 6	4.70	1.00	3	60	0.0070	4065	19	85
		M 8	5.90	1.25	5	60	0.0090	3235	38	146
		M 10	7.90	1.50	5	60	0.0120	2420	30	145
	Wrought aluminium alloys Si < 6%	M 1	0.70	0.25	3	150	0.0015	68210	92	307
		M 2	1.50	0.40	3	150	0.0035	31830	84	334
		M 3	2.20	0.50	3	150	0.0050	21705	87	326
		M 4	3.10	0.70	3	150	0.0070	15400	73	323
		M 5	3.80	0.80	3	150	0.0085	12565	77	320
		M 6	4.70	1.00	3	150	0.0105	10160	69	320
		M 8	5.90	1.25	5	150	0.0130	8095	138	526
		M 10	7.90	1.50	5	150	0.0175	6045	111	529
	Cast aluminium	M 1	0.70	0.25	3	180	0.0020	81850	147	491
		M 2	1.50	0.40	3	180	0.0040	38195	115	458
		M 3	2.20	0.50	3	180	0.0055	26045	115	430
		M 4	3.10	0.70	3	180	0.0080	18485	100	444
		M 5	3.80	0.80	3	180	0.0095	15080	103	430
		M 6	4.70	1.00	3	180	0.0120	12190	95	439
		M 8	5.90	1.25	5	180	0.0150	9710	191	728
		M 10	7.90	1.50	5	180	0.0200	7255	152	726
	Unalloyed copper	M 1	0.70	0.25	3	100	0.0015	45475	61	205
		M 2	1.50	0.40	3	100	0.0030	21220	48	191
		M 3	2.20	0.50	3	100	0.0045	14470	52	195
		M 4	3.10	0.70	3	100	0.0060	10270	42	185
		M 5	3.80	0.80	3	100	0.0075	8375	45	188
		M 6	4.70	1.00	3	100	0.0095	6775	42	193
		M 8	5.90	1.25	5	100	0.0120	5395	85	324
		M 10	7.90	1.50	5	100	0.0160	4030	68	322
	Titanium alloys > 300 HB [Ti6Al4V]	M 1	0.70	0.25	3	70	0.0010	31830	29	96
		M 2	1.50	0.40	3	70	0.0025	14855	28	111
		M 3	2.20	0.50	3	70	0.0035	10130	28	106
		M 4	3.10	0.70	3	70	0.0050	7190	24	108
		M 5	3.80	0.80	3	70	0.0060	5865	25	106
		M 6	4.70	1.00	3	70	0.0070	4740	22	100
		M 8	5.90	1.25	5	70	0.0090	3775	45	170
		M 10	7.90	1.50	5	70	0.0120	2820	36	169

Thread whirler

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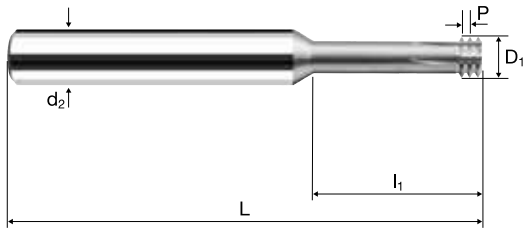
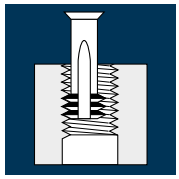


ToolSchool EH27500 / EH27502

Rm < 850 | Rm 850-1100 | Rm 1100-1300 | Rm 1300-1500 | Inox Stainless | Ti Titanium | Aluminium/Copper GG(G) Nickel-Alloys

Example: **Order-N°.** Article-N°. **E28500** ø-Code **010**

Ø Code	d	P	L	l_1	d_2 h6	D1	Rk 6H			UNICUT-4X E28500	UNICUT-4X EU28500
010	M 1	0.25	38	3.0	3.0	0.70	0.337	3	1	●	●
020	M 1.4	0.30	38	4.2	3.0	1.00	0.485	3	1	●	●
022	M 1.6	0.35	38	4.8	3.0	1.20	0.583	3	1	●	●
034	M 2	0.40	38	6.0	3.0	1.50	0.730	3	1	●	●
040	M 2.5	0.45	38	7.5	3.0	1.80	0.878	3	1	●	●
044	M 3	0.50	42	9.0	3.0	2.20	1.075	3	3	●	●
058	M 4	0.70	47	12.0	4.0	3.10	1.515	3	3	●	●
084	M 5	0.80	57	15.0	6.0	3.80	1.860	3	3	●	●
088	M 6	1.00	62	18.0	6.0	4.70	2.300	3	3	●	●
160	M 8	1.25	65	24.0	6.0	5.90	2.888	5	3	●	●
174	M 10	1.50	86	30.0	8.0	7.90	3.875	5	3	●	●

Application	Material	G	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	G 1/8	6.20	28.0	4	80	0.0350	4105	208	575
		G 3/8	9.95	19.0	4	80	0.0600	2560	248	614
		G 7/8	11.95	14.0	4	80	0.0600	2130	309	511
		G 2"	15.95	11.0	5	80	0.0650	1595	380	518
	Steel 1300 - 1500 N/mm²	G 1/8	6.20	28.0	4	45	0.0300	2310	101	277
		G 3/8	9.95	19.0	4	45	0.0550	1440	128	317
		G 7/8	11.95	14.0	4	45	0.0600	1200	174	288
		G 2"	15.95	11.0	5	45	0.0650	900	214	293
	Stainless steel [Cr-Ni/1.4301]	G 1/8	6.20	28.0	4	55	0.0300	2825	123	339
		G 3/8	9.95	19.0	4	55	0.0550	1760	156	387
		G 7/8	11.95	14.0	4	55	0.0600	1465	212	352
		G 2"	15.95	11.0	5	55	0.0650	1100	262	358
	Nickel base alloys	G 1/8	6.20	28.0	4	30	0.0300	1540	67	185
		G 3/8	9.95	19.0	4	30	0.0400	960	62	154
		G 7/8	11.95	14.0	4	30	0.0500	800	97	160
		G 2"	15.95	11.0	5	30	0.0600	600	132	180
	Wrought aluminium alloys Si < 6%	G 1/8	6.20	28.0	4	150	0.0500	7700	559	1540
		G 3/8	9.95	19.0	4	150	0.0700	4800	541	1344
		G 7/8	11.95	14.0	4	150	0.0800	3995	773	1278
		G 2"	15.95	11.0	5	150	0.0900	2995	987	1348
	Cast iron (lamellar / spheroidal)	G 1/8	6.20	28.0	4	120	0.0400	6160	357	986
		G 3/8	9.95	19.0	4	120	0.0650	3840	402	998
		G 7/8	11.95	14.0	4	120	0.0700	3195	541	895
		G 2"	15.95	11.0	5	120	0.0900	2395	789	1078
	Unalloyed copper	G 1/8	6.20	28.0	4	130	0.0400	6675	387	1068
		G 3/8	9.95	19.0	4	130	0.0600	4160	402	998
		G 7/8	11.95	14.0	4	130	0.0650	3465	544	901
		G 2"	15.95	11.0	5	130	0.0750	2595	713	973
	Titanium alloys > 300 HB [Ti6Al4V]	G 1/8	6.20	28.0	4	40	0.0300	2055	89	247
		G 3/8	9.95	19.0	4	40	0.0400	1280	83	205
		G 7/8	11.95	14.0	4	40	0.0500	1065	129	213
		G 2"	15.95	11.0	5	40	0.0600	800	176	240

Thread whirler

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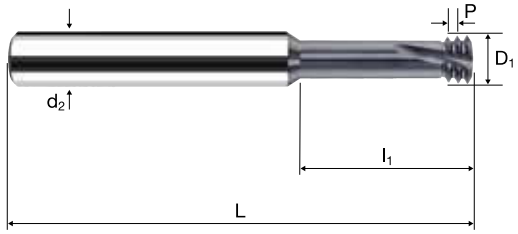
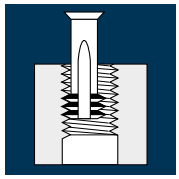


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium/Copper GG(G) Nickel-Alloys

Example: **Order-N°.** Article-N°. **EH27540** ø-Code **550**

Ø Code	d	P(TPI)	L	l_1	d_2 h6	D1	Rk			TiCN EH27540
550	G 1/8	28.0	64	19.5	8.0	6.20	3.070	4	3	●
552	G 3/8	19.0	73	25.0	10.0	9.95	4.920	4	3	●
554	G 7/8	14.0	84	37.0	12.0	11.95	5.920	4	3	●
558	G 2''	11.0	105	44.0	16.0	15.95	7.930	5	3	●

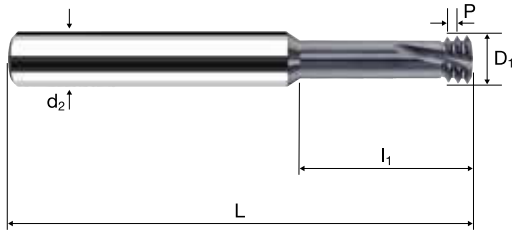
Application	Material	UN	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	UNC Nr.1 UNF Nr.2	1.40	64.0	3	90	0.0100	20465	150	614
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	90	0.0200	15080	295	1206
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	90	0.0200	11695	214	936
		UNC Nr.8	3.20	32.0	4	90	0.0200	8950	166	716
		UNC Nr.10-12	3.50	24.0	4	90	0.0250	8185	225	819
		UNC 1/4	4.75	20.0	4	90	0.0300	6030	182	724
		UNF 7/16	8.00	20.0	4	90	0.0500	3580	201	716
		UNF 5/8	12.00	18.0	4	90	0.0600	2385	140	572
		UNC 3/8	6.70	16.0	4	90	0.0450	4275	228	770
	Steel 850 - 1100 N/mm²	UNC Nr.1 UNF Nr.2	1.40	64.0	3	80	0.0100	18190	134	546
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	80	0.0200	13405	262	1072
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	80	0.0200	10395	190	832
		UNC Nr.8	3.20	32.0	4	80	0.0200	7960	148	637
		UNC Nr.10-12	3.50	24.0	4	80	0.0250	7275	200	728
		UNC 1/4	4.75	20.0	4	80	0.0300	5360	162	643
		UNF 7/16	8.00	20.0	4	80	0.0500	3185	178	637
		UNF 5/8	12.00	18.0	4	80	0.0600	2120	124	509
		UNC 3/8	6.70	16.0	4	80	0.0450	3800	203	684
	Steel 1100 - 1300 N/mm²	UNC Nr.1 UNF Nr.2	1.40	64.0	3	60	0.0100	13640	100	409
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	60	0.0200	10050	197	804
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	60	0.0200	7795	142	624
		UNC Nr.8	3.20	32.0	4	60	0.0250	5970	138	597
		UNC Nr.10-12	3.50	24.0	4	60	0.0250	5455	150	546
		UNC 1/4	4.75	20.0	4	60	0.0300	4020	122	482
		UNF 7/16	8.00	20.0	4	60	0.0400	2385	107	382
		UNF 5/8	12.00	18.0	4	60	0.0600	1590	93	382
		UNC 3/8	6.70	16.0	4	60	0.0350	2850	118	399
	Steel 1300 - 1500 N/mm²	UNC Nr.1 UNF Nr.2	1.40	64.0	3	45	0.0100	10230	75	307
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	45	0.0200	7540	148	603
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	45	0.0200	5845	107	468
		UNC Nr.8	3.20	32.0	4	45	0.0250	4475	104	448
		UNC Nr.10-12	3.50	24.0	4	45	0.0250	4095	113	410
		UNC 1/4	4.75	20.0	4	45	0.0300	3015	91	362
		UNF 7/16	8.00	20.0	4	45	0.0400	1790	80	286
		UNF 5/8	12.00	18.0	4	45	0.0600	1195	70	287
		UNC 3/8	6.70	16.0	4	45	0.0350	2140	89	300
	Wrought aluminium alloys Si < 6%	UNC Nr.1 UNF Nr.2	1.40	64.0	3	150	0.0200	34105	501	2046
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	150	0.0300	25130	737	3016
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	150	0.0300	19490	534	2339
		UNC Nr.8	3.20	32.0	4	150	0.0350	14920	484	2089
		UNC Nr.10-12	3.50	24.0	4	150	0.0400	13640	600	2182
		UNC 1/4	4.75	20.0	4	150	0.0450	10050	456	1809
		UNF 7/16	8.00	20.0	4	150	0.0600	5970	401	1433
		UNF 5/8	12.00	18.0	4	150	0.0800	3980	311	1274
		UNC 3/8	6.70	16.0	4	150	0.0550	7125	465	1568
	Cast iron (lamellar / spheroidal)	UNC Nr.1 UNF Nr.2	1.40	64.0	3	120	0.0100	27285	200	819
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	120	0.0200	20105	393	1608
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	120	0.0200	15590	285	1247
		UNC Nr.8	3.20	32.0	4	120	0.0250	11935	277	1194
		UNC Nr.10-12	3.50	24.0	4	120	0.0250	10915	300	1092
		UNC 1/4	4.75	20.0	4	120	0.0350	8040	284	1126
		UNF 7/16	8.00	20.0	4	120	0.0500	4775	267	955
		UNF 5/8	12.00	18.0	4	120	0.0700	3185	218	892
		UNC 3/8	6.70	16.0	4	120	0.0450	5700	304	1026
	Unalloyed copper	UNC Nr.1 UNF Nr.2	1.40	64.0	3	130	0.0100	29555	217	887
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	130	0.0100	21780	213	871
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	130	0.0200	16890	309	1351
		UNC Nr.8	3.20	32.0	4	130	0.0250	12930	300	1293
		UNC Nr.10-12	3.50	24.0	4	130	0.0250	11825	325	1183
		UNC 1/4	4.75	20.0	4	130	0.0350	8710	307	1219
		UNF 7/16	8.00	20.0	4	130	0.0500	5175	290	1035
		UNF 5/8	12.00	18.0	4	130	0.0650	3450	219	897
		UNC 3/8	6.70	16.0	4	130	0.0400	6175	293	988
	Stainless steel [Cr-Ni/1.4301]	UNC Nr.1 UNF Nr.2	1.40	64.0	3	55	0.0100	12505	92	375
		UNC Nr.3 UNF Nr.4	1.90	48.0	4	55	0.0200	9215	180	737
		UNC Nr.5 UNF Nr.6	2.45	40.0	4	55	0.0200	7145	131	572
		UNC Nr.8	3.20	32.0	4	55	0.0250	5470	127	547
		UNC Nr.10-12	3.50	24.0	4	55	0.0250	5000	137	500
		UNC 1/4	4.75	20.0	4	55	0.0300	3685	111	442
		UNF 7/16	8.00	20.0	4	55	0.0400	2190	98	350
		UNF 5/8	12.00	18.0	4	55	0.0600	1460	86	350
		UNC 3/8	6.70	16.0	4	55	0.0350	2615	109	366

Thread whirler

3xd

UN

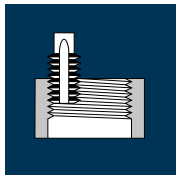
HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless		Aluminium / Copper GG(G)

Example:
Order-N°. Article-N°. **EH27560** ø-Code **750**

Ø Code	d	P(TPI)	L	l_1	d_2 h6	D1	Rk 2B			TiCN EH27560
750	UNF Nr.1	72.0	39	5.8	3.0	1.45	0.700	3	3	●
751	UNC Nr.1 UNF Nr.2	64.0	39	6.0	3.0	1.40	0.670	3	3	●
752	UNC Nr.2 UNF Nr.3	56.0	39	7.0	3.0	1.65	0.800	4	3	●
753	UNC Nr.3 UNF Nr.4	48.0	39	8.0	3.0	1.90	0.920	4	3	●
755	UNC Nr.4	40.0	58	9.0	6.0	2.10	1.020	4	3	●
756	UNC Nr.5 UNF Nr.6	40.0	58	10.0	6.0	2.45	1.200	4	3	●
757	UNF Nr.8	36.0	58	12.0	6.0	3.30	1.620	4	3	●
758	UNC Nr.6	32.0	58	11.0	6.0	2.55	1.250	4	3	●
759	UNC Nr.8	32.0	58	13.0	6.0	3.20	1.570	4	3	●
760	UNF Nr.10	32.0	58	15.0	6.0	3.70	1.820	4	3	●
761	UNF Nr.12	28.0	58	16.0	6.0	4.20	2.070	4	3	●
762	UNF 1/4	28.0	58	19.6	6.0	5.00	2.470	4	3	●
763	UNC Nr.10-12	24.0	58	16.0	6.0	3.50	1.720	4	3	●
764	UNF 5/16-3/8	24.0	64	24.0	8.0	6.60	3.270	4	3	●
765	UNC 1/4	20.0	58	20.0	6.0	4.75	2.320	4	3	●
766	UNF 7/16	20.0	64	34.6	8.0	8.00	3.940	4	3	●
767	UNC 5/16	18.0	58	23.0	6.0	6.00	2.940	4	3	●
768	UNF 5/8	18.0	84	35.0	12.0	12.00	5.940	4	3	●
769	UNC 3/8	16.0	64	25.0	8.0	6.70	3.290	4	3	●
770	UNC 7/16	14.0	64	25.0	8.0	7.70	3.790	4	3	●

Application	Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	M 3	2.30	0.50	3	90	0.0160	12455	139	598
		M 4	3.00	0.70	3	90	0.0160	9550	115	458
		M 5	4.00	0.80	3	90	0.0200	7160	86	430
		M 6	4.80	1.00	3	90	0.0240	5970	86	430
		M 8	6.40	1.25	3	90	0.0280	4475	75	376
		M 10	7.95	1.50	3	90	0.0400	3605	89	433
		M 12	9.95	1.75	4	90	0.0480	2880	94	553
		M 14	11.20	2.00	4	90	0.0480	2560	98	492
		M 16	12.80	2.00	4	90	0.0480	2240	86	430
	Steel 850 - 1100 N/mm²	M 3	2.30	0.50	3	80	0.0160	11070	124	531
		M 4	3.00	0.70	3	80	0.0160	8490	102	408
		M 5	4.00	0.80	3	80	0.0200	6365	76	382
		M 6	4.80	1.00	3	80	0.0240	5305	76	382
		M 8	6.40	1.25	3	80	0.0280	3980	67	334
		M 10	7.95	1.50	3	80	0.0400	3205	79	385
		M 12	9.95	1.75	4	80	0.0480	2560	84	492
		M 14	11.20	2.00	4	80	0.0480	2275	87	437
		M 16	12.80	2.00	4	80	0.0480	1990	76	382
	Steel 1100 - 1300 N/mm²	M 3	2.30	0.50	3	60	0.0160	8305	93	399
		M 4	3.00	0.70	3	60	0.0160	6365	76	306
		M 5	4.00	0.80	3	60	0.0200	4775	57	287
		M 6	4.80	1.00	3	60	0.0200	3980	48	239
		M 8	6.40	1.25	3	60	0.0240	2985	43	215
		M 10	7.95	1.50	3	60	0.0320	2400	47	230
		M 12	9.95	1.75	4	60	0.0440	1920	58	338
		M 14	11.20	2.00	4	60	0.0440	1705	60	300
		M 16	12.80	2.00	4	60	0.0480	1490	57	286
	Steel 1300 - 1500 N/mm²	M 3	2.30	0.50	3	45	0.0080	6230	35	150
		M 4	3.00	0.70	3	45	0.0120	4775	43	172
		M 5	4.00	0.80	3	45	0.0160	3580	34	172
		M 6	4.80	1.00	3	45	0.0200	2985	36	179
		M 8	6.40	1.25	3	45	0.0240	2240	32	161
		M 10	7.95	1.50	3	45	0.0280	1800	31	151
		M 12	9.95	1.75	4	45	0.0360	1440	35	207
		M 14	11.20	2.00	4	45	0.0360	1280	37	184
		M 16	12.80	2.00	4	45	0.0400	1120	36	179
	Wrought aluminium alloys Si < 6% hardened	M 3	2.30	0.50	3	150	0.0240	20760	349	1495
		M 4	3.00	0.70	3	150	0.0280	15915	334	1337
		M 5	4.00	0.80	3	150	0.0320	11935	229	1146
		M 6	4.80	1.00	3	150	0.0360	9945	215	1074
		M 8	6.40	1.25	3	150	0.0400	7460	179	895
		M 10	7.95	1.50	3	150	0.0480	6005	177	865
		M 12	9.95	1.75	4	150	0.0560	4800	184	1075
		M 14	11.20	2.00	4	150	0.0560	4265	191	955
		M 16	12.80	2.00	4	150	0.0640	3730	191	955
	Cast iron (lamellar / spheroidal)	M 3	2.30	0.50	3	120	0.0160	16605	186	797
		M 4	3.00	0.70	3	120	0.0200	12730	191	764
		M 5	4.00	0.80	3	120	0.0240	9550	138	688
		M 6	4.80	1.00	3	120	0.0280	7960	134	669
		M 8	6.40	1.25	3	120	0.0320	5970	115	573
		M 10	7.95	1.50	3	120	0.0400	4805	118	577
		M 12	9.95	1.75	4	120	0.0520	3840	136	799
		M 14	11.20	2.00	4	120	0.0520	3410	142	709
		M 16	12.80	2.00	4	120	0.0560	2985	134	669
	Unalloyed copper	M 3	2.30	0.50	3	130	0.0160	17990	201	864
		M 4	3.00	0.70	3	130	0.0200	13795	207	828
		M 5	4.00	0.80	3	130	0.0240	10345	149	745
		M 6	4.80	1.00	3	130	0.0280	8620	145	724
		M 8	6.40	1.25	3	130	0.0320	6465	124	621
		M 10	7.95	1.50	3	130	0.0400	5205	128	625
		M 12	9.95	1.75	4	130	0.0520	4160	148	865
		M 14	11.20	2.00	4	130	0.0520	3695	154	769
		M 16	12.80	2.00	4	130	0.0560	3235	145	725
	Stainless steel [Cr-Ni/1.4301]	M 3	2.30	0.50	3	55	0.0160	7610	85	365
		M 4	3.00	0.70	3	55	0.0200	5835	88	350
		M 5	4.00	0.80	3	55	0.0240	4375	63	315
		M 6	4.80	1.00	3	55	0.0240	3645	52	262
		M 8	6.40	1.25	3	55	0.0240	2735	39	197
		M 10	7.95	1.50	3	55	0.0320	2200	43	211
		M 12	9.95	1.75	4	55	0.0440	1760	53	310
		M 14	11.20	2.00	4	55	0.0440	1565	55	275
		M 16	12.80	2.00	4	55	0.0480	1370	53	263

Thread milling cutters

2xd, Incool

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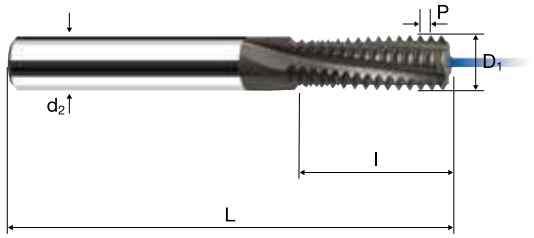
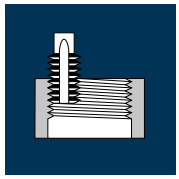


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH20300** ø-Code **044**

Ø Code	d	P	L	l	d_2 h6	D1	Rk 6H		TiCN EH20300	TiCN EH20306
044*	M 3	0.50	40	6.80	4.0	2.30	1.120	3		●
058	M 4	0.70	48	8.80	6.0	3.00	1.470	3		●
084	M 5	0.80	54	10.80	6.0	4.00	1.970	3		●
088	M 6	1.00	54	13.50	6.0	4.80	2.370	3		●
160	M 8	1.25	62	18.10	8.0	6.40	3.170	3		●
174	M 10	1.50	74	21.80	10.0	7.95	3.920	3		●
240	M 12	1.75	74	25.40	10.0	9.95	4.920	4		●
244	M 14	2.00	90	31.00	12.0	11.20	5.540	4		●
246	M 16	2.00	90	35.00	14.0	12.80	6.340	4		●
314	M 20	2.50	102	41.30	16.0	14.95	7.430	4		●

* without clamping flat only, without Incool

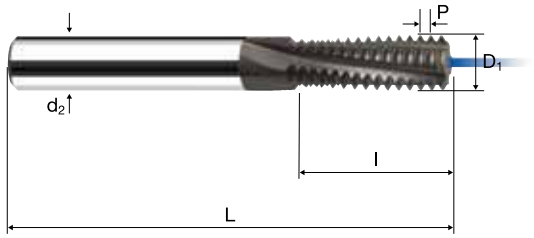
Application	Material	MF	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	M 8	6.40	1.00	3	90	0.0280	4475	75	376
		M 10	7.95	1.00	3	90	0.0400	3605	89	433
		M 10	7.95	1.25	3	90	0.0400	3605	89	433
		M 12	9.95	1.50	4	90	0.0480	2880	94	553
		M 14	11.20	1.50	4	90	0.0480	2560	98	492
		M 16	12.80	1.50	4	90	0.0480	2240	86	430
		M 20	14.95	1.50	4	90	0.0520	1915	101	398
	Steel 850 - 1100 N/mm²	M 8	6.40	1.00	3	80	0.0280	3980	67	334
		M 10	7.95	1.00	3	80	0.0400	3205	79	385
		M 10	7.95	1.25	3	80	0.0400	3205	79	385
		M 12	9.95	1.50	4	80	0.0480	2560	84	492
		M 14	11.20	1.50	4	80	0.0480	2275	87	437
		M 16	12.80	1.50	4	80	0.0480	1990	76	382
		M 20	14.95	1.50	4	80	0.0520	1705	90	355
	Steel 1100 - 1300 N/mm²	M 8	6.40	1.00	3	60	0.0240	2985	43	215
		M 10	7.95	1.00	3	60	0.0320	2400	47	230
		M 10	7.95	1.25	3	60	0.0320	2400	47	230
		M 12	9.95	1.50	4	60	0.0440	1920	58	338
		M 14	11.20	1.50	4	60	0.0440	1705	60	300
		M 16	12.80	1.50	4	60	0.0480	1490	57	286
		M 20	14.95	1.50	4	60	0.0480	1275	62	245
	Steel 1300 - 1500 N/mm²	M 8	6.40	1.00	3	45	0.0240	2240	32	161
		M 10	7.95	1.00	3	45	0.0320	1800	35	173
		M 10	7.95	1.25	3	45	0.0320	1800	35	173
		M 12	9.95	1.50	4	45	0.0440	1440	43	253
		M 14	11.20	1.50	4	45	0.0440	1280	45	225
		M 16	12.80	1.50	4	45	0.0480	1120	43	215
		M 20	14.95	1.50	4	45	0.0480	960	47	184
	Wrought aluminium alloys Si < 6% hardened	M 8	6.40	1.00	3	150	0.0400	7460	179	895
		M 10	7.95	1.00	3	150	0.0480	6005	177	865
		M 10	7.95	1.25	3	150	0.0480	6005	177	865
		M 12	9.95	1.50	4	150	0.0560	4800	184	1075
		M 14	11.20	1.50	4	150	0.0560	4265	191	955
		M 16	12.80	1.50	4	150	0.0640	3730	191	955
		M 20	14.95	1.50	4	150	0.0680	3195	219	869
	Cast iron (lamellar / spheroidal)	M 8	6.40	1.00	3	120	0.0320	5970	115	573
		M 10	7.95	1.00	3	120	0.0400	4805	118	577
		M 10	7.95	1.25	3	120	0.0400	4805	118	577
		M 12	9.95	1.50	4	120	0.0520	3840	136	799
		M 14	11.20	1.50	4	120	0.0520	3410	142	709
		M 16	12.80	1.50	4	120	0.0560	2985	134	669
		M 20	14.95	1.50	4	120	0.0640	2555	165	654
	Unalloyed copper	M 8	6.40	1.00	3	130	0.0320	6465	124	621
		M 10	7.95	1.00	3	130	0.0400	5205	128	625
		M 10	7.95	1.25	3	130	0.0400	5205	128	625
		M 12	9.95	1.50	4	130	0.0520	4160	148	865
		M 14	11.20	1.50	4	130	0.0520	3695	154	769
		M 16	12.80	1.50	4	130	0.0560	3235	145	725
		M 20	14.95	1.50	4	130	0.0640	2770	179	709
	Stainless steel [Cr-Ni/1.4301]	M 8	6.40	1.00	3	55	0.0240	2735	39	197
		M 10	7.95	1.00	3	55	0.0320	2200	43	211
		M 10	7.95	1.25	3	55	0.0320	2200	43	211
		M 12	9.95	1.50	4	55	0.0440	1760	53	310
		M 14	11.20	1.50	4	55	0.0440	1565	55	275
		M 16	12.80	1.50	4	55	0.0480	1370	53	263
		M 20	14.95	1.50	4	55	0.0520	1170	61	243

Thread milling cutters

2xd, Incool

MF

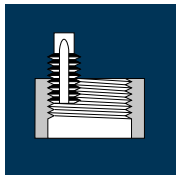
HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH20320** ø-Code **090**

Ø Code	d	P	L	l	d_2 h6	D1	Rk 6H		TiCN
									EH20320
									EH20326
090	**M 8**	**1.00**	62	17.50	8.0	6.40	3.170	3	●
092	**M 10**	**1.00**	74	21.50	10.0	7.95	3.950	3	●
162	**M 10**	**1.25**	74	21.90	10.0	7.95	3.950	3	●
176	**M 12**	**1.50**	74	26.30	10.0	9.95	4.920	4	●
178	**M 14**	**1.50**	90	30.80	12.0	11.20	5.540	4	●
180	**M 16**	**1.50**	90	33.80	14.0	12.80	6.340	4	●
184	**M 20**	**1.50**	102	42.80	16.0	14.95	7.420	4	●

Application	Material	G	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	G 1/8	7.95	28.0	3	90	0.0400	3605	79	433
		G 1/4	10.50	19.0	4	90	0.0480	2730	106	524
		G 3/8	13.60	19.0	4	90	0.0520	2105	80	438
	Steel 850 - 1100 N/mm²	G 1/8	7.95	28.0	3	80	0.0400	3205	70	385
		G 1/4	10.50	19.0	4	80	0.0480	2425	94	466
		G 3/8	13.60	19.0	4	80	0.0520	1870	71	389
	Steel 1100 - 1300 N/mm²	G 1/8	7.95	28.0	3	60	0.0320	2400	42	230
		G 1/4	10.50	19.0	4	60	0.0440	1820	65	320
		G 3/8	13.60	19.0	4	60	0.5200	1405	537	2922
	Steel 1300 - 1500 N/mm²	G 1/8	7.95	28.0	3	45	0.0320	1800	32	173
		G 1/4	10.50	19.0	4	45	0.0440	1365	49	240
		G 3/8	13.60	19.0	4	45	0.0520	1055	40	219
	Wrought aluminium alloys Si < 6% hardened	G 1/8	7.95	28.0	3	150	0.0480	6005	158	865
		G 1/4	10.50	19.0	4	150	0.0560	4545	206	1018
		G 3/8	13.60	19.0	4	150	0.0680	3510	175	955
	Cast iron (lamellar / spheroidal)	G 1/8	7.95	28.0	3	120	0.0400	4805	105	577
		G 1/4	10.50	19.0	4	120	0.0520	3640	153	757
		G 3/8	13.60	19.0	4	120	0.0640	2810	132	719
	Unalloyed copper	G 1/8	7.95	28.0	3	130	0.0400	5205	114	625
		G 1/4	10.50	19.0	4	130	0.0520	3940	165	820
		G 3/8	13.60	19.0	4	130	0.0640	3045	143	780
	Stainless steel [Cr-Ni/1.4301]	G 1/8	7.95	28.0	3	55	0.0320	2200	39	211
		G 1/4	10.50	19.0	4	55	0.0440	1665	59	293
		G 3/8	13.60	19.0	4	55	0.0520	1285	49	267

Thread milling cutters

2xd, Incool

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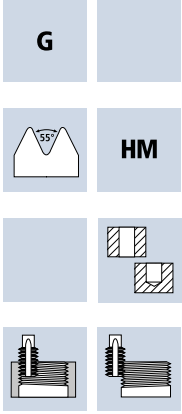
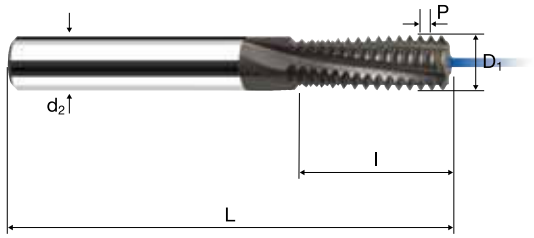
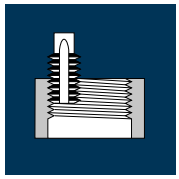




Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH20340** ø-Code **551**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk		TiCN
									EH20340
551	G 1/8	28.0	64	21.30	8.0	7.95	3.950	3	●
552	G 1/4	19.0	90	28.70	12.0	10.50	5.190	4	●
553	G 3/8	19.0	90	35.40	14.0	13.60	6.740	4	●

Application	Material	UNC	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	Nr.10	3.40	24.0	3	90	0.0160	8425	119	404
		Nr.12	4.10	24.0	3	90	0.0200	6985	106	419
		1/4	4.70	20.0	3	90	0.0240	6095	114	439
		5/16	6.10	18.0	3	90	0.0280	4695	91	394
		3/8	7.60	16.0	3	90	0.0360	3770	82	407
		7/16	9.00	14.0	3	90	0.0440	3185	80	420
		1/2	9.95	13.0	4	90	0.0480	2880	120	553
		9/16	11.40	12.0	4	90	0.0480	2515	98	483
		5/8	12.70	11.0	4	90	0.0480	2255	87	433
	Steel 850 - 1100 N/mm²	Nr.10	3.40	24.0	3	80	0.0160	7490	106	360
		Nr.12	4.10	24.0	3	80	0.0200	6210	94	373
		1/4	4.70	20.0	3	80	0.0240	5420	101	390
		5/16	6.10	18.0	3	80	0.0280	4175	81	351
		3/8	7.60	16.0	3	80	0.0360	3350	73	362
		7/16	9.00	14.0	3	80	0.0440	2830	71	374
		1/2	9.95	13.0	4	80	0.0480	2560	106	492
		9/16	11.40	12.0	4	80	0.0480	2235	87	429
		5/8	12.70	11.0	4	80	0.0480	2005	77	385
	Steel 1100 - 1300 N/mm²	Nr.10	3.40	24.0	3	60	0.0160	5615	80	270
		Nr.12	4.10	24.0	3	60	0.0200	4660	71	280
		1/4	4.70	20.0	3	60	0.0240	4065	76	293
		5/16	6.10	18.0	3	60	0.0240	3130	52	225
		3/8	7.60	16.0	3	60	0.0320	2515	49	241
		7/16	9.00	14.0	3	60	0.0400	2120	48	254
		1/2	9.95	13.0	4	60	0.0440	1920	73	338
		9/16	11.40	12.0	4	60	0.0440	1675	60	295
		5/8	12.70	11.0	4	60	0.0480	1505	58	289
	Steel 1300 - 1500 N/mm²	Nr.10	3.40	24.0	3	45	0.0160	4215	60	202
		Nr.12	4.10	24.0	3	45	0.0200	3495	53	210
		1/4	4.70	20.0	3	45	0.0240	3050	57	220
		5/16	6.10	18.0	3	45	0.0240	2350	39	169
		3/8	7.60	16.0	3	45	0.0320	1885	37	181
		7/16	9.00	14.0	3	45	0.0400	1590	36	191
		1/2	9.95	13.0	4	45	0.0440	1440	55	253
		9/16	11.40	12.0	4	45	0.0440	1255	45	221
		5/8	12.70	11.0	4	45	0.0480	1130	43	217
	Wrought aluminium alloys Si < 6% hardened	Nr.10	3.40	24.0	3	150	0.0280	14045	349	1180
		Nr.12	4.10	24.0	3	150	0.0320	11645	282	1118
		1/4	4.70	20.0	3	150	0.0360	10160	285	1097
		5/16	6.10	18.0	3	150	0.0400	7825	217	939
		3/8	7.60	16.0	3	150	0.0440	6280	168	829
		7/16	9.00	14.0	3	150	0.0520	5305	157	828
		1/2	9.95	13.0	4	150	0.0560	4800	233	1075
		9/16	11.40	12.0	4	150	0.0560	4190	190	939
		5/8	12.70	11.0	4	150	0.0640	3760	193	963
	Cast iron (lamellar / spheroidal)	Nr.10	3.40	24.0	3	120	0.0200	11235	199	674
		Nr.12	4.10	24.0	3	120	0.0240	9315	169	671
		1/4	4.70	20.0	3	120	0.0280	8125	177	683
		5/16	6.10	18.0	3	120	0.0320	6260	139	601
		3/8	7.60	16.0	3	120	0.0360	5025	110	543
		7/16	9.00	14.0	3	120	0.0480	4245	116	611
		1/2	9.95	13.0	4	120	0.0520	3840	173	799
		9/16	11.40	12.0	4	120	0.0520	3350	141	697
		5/8	12.70	11.0	4	120	0.0560	3010	135	674
	Unalloyed copper	Nr.10	3.40	24.0	3	130	0.0200	12170	216	730
		Nr.12	4.10	24.0	3	130	0.0240	10095	184	727
		1/4	4.70	20.0	3	130	0.0280	8805	192	740
		5/16	6.10	18.0	3	130	0.0320	6785	151	651
		3/8	7.60	16.0	3	130	0.0360	5445	119	588
		7/16	9.00	14.0	3	130	0.0480	4600	126	662
		1/2	9.95	13.0	4	130	0.0520	4160	187	865
		9/16	11.40	12.0	4	130	0.0520	3630	153	755
		5/8	12.70	11.0	4	130	0.0560	3260	146	730
	Stainless steel [Cr-Ni/1.4301]	Nr.10	3.40	24.0	3	55	0.0200	5150	91	309
		Nr.12	4.10	24.0	3	55	0.0240	4270	78	307
		1/4	4.70	20.0	3	55	0.0240	3725	70	268
		5/16	6.10	18.0	3	55	0.0240	2870	48	207
		3/8	7.60	16.0	3	55	0.0280	2305	39	194
		7/16	9.00	14.0	3	55	0.0400	1945	44	233
		1/2	9.95	13.0	4	55	0.0440	1760	67	310
		9/16	11.40	12.0	4	55	0.0440	1535	55	270
		5/8	12.70	11.0	4	55	0.0480	1380	53	265

Thread milling cutters

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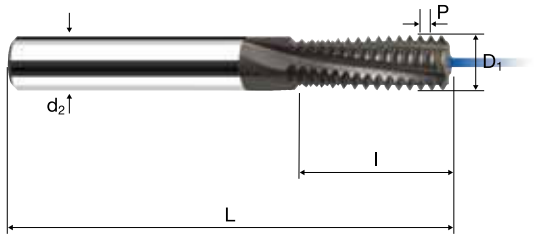
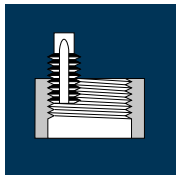


TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH20360** ø-Code **707**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk 2B		TiCN EH20360
707	Nr.10	24.0	54	11.10	6.0	3.40	1.670	3	●
708	Nr.12	24.0	54	12.20	6.0	4.10	2.020	3	●
709	1/4	20.0	54	14.60	6.0	4.70	2.290	3	●
710	5/16	18.0	64	17.60	8.0	6.10	2.990	3	●
711	3/8	16.0	64	21.40	8.0	7.60	3.740	3	●
712	7/16	14.0	74	24.50	10.0	9.00	4.440	3	●
713	1/2	13.0	74	28.30	10.0	9.95	4.920	4	●
714	9/16	12.0	90	30.70	12.0	11.40	5.650	4	●
715	5/8	11.0	90	35.80	14.0	12.70	6.300	4	●

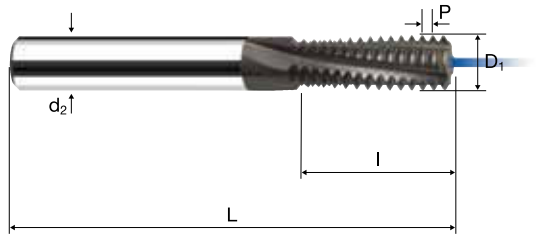
Application	Material	UNF	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	Nr.10	3.80	32.0	3	90	0.0200	7540	96	452
		Nr.12	4.30	28.0	3	90	0.0200	6660	86	400
		1/4	5.10	28.0	3	90	0.0240	5615	80	404
		5/16	6.30	24.0	3	90	0.0280	4545	79	382
		3/8	7.80	24.0	3	90	0.0400	3675	80	441
		7/16	9.40	20.0	3	90	0.0440	3050	62	403
		1/2	9.95	20.0	4	90	0.0480	2880	120	553
		9/16	11.40	18.0	4	90	0.0480	2515	98	483
		5/8	12.70	18.0	4	90	0.0480	2255	87	433
	Steel 850 - 1100 N/mm²	Nr.10	3.80	32.0	3	80	0.0200	6700	85	402
		Nr.12	4.30	28.0	3	80	0.0200	5920	77	355
		1/4	5.10	28.0	3	80	0.0240	4995	71	360
		5/16	6.30	24.0	3	80	0.0280	4040	70	339
		3/8	7.80	24.0	3	80	0.0400	3265	71	392
		7/16	9.40	20.0	3	80	0.0440	2710	55	358
		1/2	9.95	20.0	4	80	0.0480	2560	106	492
		9/16	11.40	18.0	4	80	0.0480	2235	87	429
		5/8	12.70	18.0	4	80	0.0480	2005	77	385
	Steel 1100 - 1300 N/mm²	Nr.10	3.80	32.0	3	60	0.0200	5025	64	302
		Nr.12	4.30	28.0	3	60	0.0200	4440	58	266
		1/4	5.10	28.0	3	60	0.0240	3745	53	270
		5/16	6.30	24.0	3	60	0.0240	3030	45	218
		3/8	7.80	24.0	3	60	0.0320	2450	43	235
		7/16	9.40	20.0	3	60	0.0400	2030	38	244
		1/2	9.95	20.0	4	60	0.0440	1920	73	338
		9/16	11.40	18.0	4	60	0.0440	1675	60	295
		5/8	12.70	18.0	4	60	0.0480	1505	58	289
	Steel 1300 - 1500 N/mm²	Nr.10	3.80	32.0	3	45	0.0200	3770	48	226
		Nr.12	4.30	28.0	3	45	0.0200	3330	43	200
		1/4	5.10	28.0	3	45	0.0240	2810	40	202
		5/16	6.30	24.0	3	45	0.0240	2275	34	164
		3/8	7.80	24.0	3	45	0.0320	1835	32	176
		7/16	9.40	20.0	3	45	0.0400	1525	28	183
		1/2	9.95	20.0	4	45	0.0440	1440	55	253
		9/16	11.40	18.0	4	45	0.0440	1255	45	221
		5/8	12.70	18.0	4	45	0.0480	1130	43	217
	Wrought aluminium alloys Si < 6% hardened	Nr.10	3.80	32.0	3	150	0.0320	12565	256	1206
		Nr.12	4.30	28.0	3	150	0.0320	11105	230	1066
		1/4	5.10	28.0	3	150	0.0360	9360	199	1011
		5/16	6.30	24.0	3	150	0.0400	7580	188	910
		3/8	7.80	24.0	3	150	0.0480	6120	160	881
		7/16	9.40	20.0	3	150	0.0520	5080	122	793
		1/2	9.95	20.0	4	150	0.0560	4800	233	1075
		9/16	11.40	18.0	4	150	0.0560	4190	190	939
		5/8	12.70	18.0	4	150	0.0640	3760	193	963
	Cast iron (lamellar / spheroidal)	Nr.10	3.80	32.0	3	120	0.0240	10050	154	724
		Nr.12	4.30	28.0	3	120	0.0240	8885	138	640
		1/4	5.10	28.0	3	120	0.0280	7490	124	629
		5/16	6.30	24.0	3	120	0.0320	6065	120	582
		3/8	7.80	24.0	3	120	0.0400	4895	106	587
		7/16	9.40	20.0	3	120	0.0480	4065	90	585
		1/2	9.95	20.0	4	120	0.0520	3840	173	799
		9/16	11.40	18.0	4	120	0.0520	3350	141	697
		5/8	12.70	18.0	4	120	0.0560	3010	135	674
	Unalloyed copper	Nr.10	3.80	32.0	3	130	0.0240	10890	167	784
		Nr.12	4.30	28.0	3	130	0.0240	9625	150	693
		1/4	5.10	28.0	3	130	0.0280	8115	134	682
		5/16	6.30	24.0	3	130	0.0320	6570	130	631
		3/8	7.80	24.0	3	130	0.0400	5305	115	637
		7/16	9.40	20.0	3	130	0.0480	4400	98	634
		1/2	9.95	20.0	4	130	0.0520	4160	187	865
		9/16	11.40	18.0	4	130	0.0520	3630	153	755
		5/8	12.70	18.0	4	130	0.0560	3260	146	730
	Stainless steel [Cr-Ni/1.4301]	Nr.10	3.80	32.0	3	55	0.0240	4605	70	332
		Nr.12	4.30	28.0	3	55	0.0240	4070	63	293
		1/4	5.10	28.0	3	55	0.0240	3435	49	247
		5/16	6.30	24.0	3	55	0.0240	2780	41	200
		3/8	7.80	24.0	3	55	0.0320	2245	39	216
		7/16	9.40	20.0	3	55	0.0400	1860	34	223
		1/2	9.95	20.0	4	55	0.0440	1760	67	310
		9/16	11.40	18.0	4	55	0.0440	1535	55	270
		5/8	12.70	18.0	4	55	0.0480	1380	53	265

Thread milling cutters

2xd, Incool

UNF

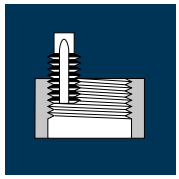
HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH20370** ø-Code **758**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk 2B		TiCN EH20370
758	Nr.10	32.0	54	11.50	6.0	3.80	1.870	3	●
759	Nr.12	28.0	54	12.20	6.0	4.30	2.120	3	●
760	1/4	28.0	54	14.10	6.0	5.10	2.520	3	●
761	5/16	24.0	64	17.50	8.0	6.30	3.120	3	●
762	3/8	24.0	64	20.60	8.0	7.80	3.870	3	●
763	7/16	20.0	74	24.80	10.0	9.40	4.640	3	●
764	1/2	20.0	74	27.30	10.0	9.95	4.920	4	●
765	9/16	18.0	90	30.30	12.0	11.40	5.640	4	●
766	5/8	18.0	90	33.20	14.0	12.70	6.290	4	●

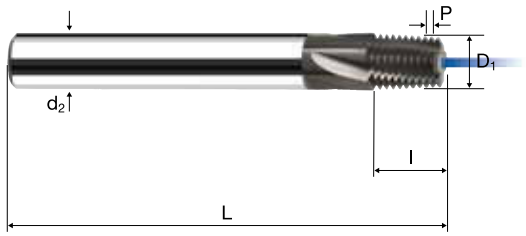
Application	Material	NPT	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	1/16	5.90	27.0	3	90	0.0240	4855	98	350
		1/8	7.30	27.0	3	90	0.0360	3925	133	424
		1/4	9.95	18.0	4	90	0.0440	2880	150	507
		3/8	12.50	18.0	4	90	0.0480	2290	127	440
		≥1/2	14.50	14.0	5	90	0.0520	1975	174	514
		≥1	18.50	11.5	5	90	0.0560	1550	199	434
	Steel 850 - 1100 N/mm²	1/16	5.90	27.0	3	80	0.0240	4315	87	311
		1/8	7.30	27.0	3	80	0.0360	3490	118	377
		1/4	9.95	18.0	4	80	0.0440	2560	134	451
		3/8	12.50	18.0	4	80	0.0480	2035	113	391
		≥1/2	14.50	14.0	5	80	0.0520	1755	154	456
		≥1	18.50	11.5	5	80	0.0560	1375	177	385
	Steel 1100 - 1300 N/mm²	1/16	5.90	27.0	3	60	0.0240	3235	65	233
		1/8	7.30	27.0	3	60	0.0280	2615	69	220
		1/4	9.95	18.0	4	60	0.0400	1920	91	307
		3/8	12.50	18.0	4	60	0.0480	1530	85	294
		≥1/2	14.50	14.0	5	60	0.0520	1315	116	342
		≥1	18.50	11.5	5	60	0.0560	1030	132	288
	Steel 1300 - 1500 N/mm²	1/16	5.90	27.0	3	45	0.0240	2430	49	175
		1/8	7.30	27.0	3	45	0.0280	1960	51	165
		1/4	9.95	18.0	4	45	0.0400	1440	68	230
		3/8	12.50	18.0	4	45	0.0480	1145	63	220
		≥1/2	14.50	14.0	5	45	0.0520	990	87	257
		≥1	18.50	11.5	5	45	0.0560	775	100	217
	Wrought aluminium alloys Si < 6% hardened	1/16	5.90	27.0	3	150	0.0360	8095	244	874
		1/8	7.30	27.0	3	150	0.0440	6540	270	863
		1/4	9.95	18.0	4	150	0.0520	4800	296	998
		3/8	12.50	18.0	4	150	0.0640	3820	282	978
		≥1/2	14.50	14.0	5	150	0.0680	3295	379	1120
		≥1	18.50	11.5	5	150	0.0800	2580	473	1032
	Cast iron (lamellar / spheroidal)	1/16	5.90	27.0	3	120	0.0280	6475	152	544
		1/8	7.30	27.0	3	120	0.0360	5230	177	565
		1/4	9.95	18.0	4	120	0.0480	3840	218	737
		3/8	12.50	18.0	4	120	0.0560	3055	197	684
		≥1/2	14.50	14.0	5	120	0.0640	2635	285	843
		≥1	18.50	11.5	5	120	0.0800	2065	379	826
	Unalloyed copper	1/16	5.90	27.0	3	130	0.0280	7015	165	589
		1/8	7.30	27.0	3	130	0.0360	5670	191	612
		1/4	9.95	18.0	4	130	0.0480	4160	237	799
		3/8	12.50	18.0	4	130	0.0560	3310	214	741
		≥1/2	14.50	14.0	5	130	0.0640	2855	309	914
		≥1	18.50	11.5	5	130	0.0800	2235	410	894
	Stainless steel [Cr-Ni/1.4301]	1/16	5.90	27.0	3	55	0.0240	2965	60	214
		1/8	7.30	27.0	3	55	0.0280	2400	63	202
		1/4	9.95	18.0	4	55	0.0400	1760	83	282
		3/8	12.50	18.0	4	55	0.0480	1400	78	269
		≥1/2	14.50	14.0	5	55	0.0520	1205	106	313
		≥1	18.50	11.5	5	55	0.0560	945	121	265

Thread milling cutters

Incool

NPT

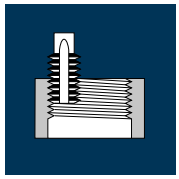
HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH20380** ø-Code **840**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk		TiCN
									EH20380
840	**1/16**	**27.0**	54	9.90	8.0	5.90	2.920	3	●
841	**1/8**	**27.0**	64	9.90	8.0	7.30	3.620	3	●
842	**1/4**	**18.0**	72	19.00	12.0	9.95	4.920	4	●
843	**3/8**	**18.0**	80	14.80	14.0	12.50	6.190	4	●
844	**≥1/2**	**14.0**	90	19.05	16.0	14.50	7.190	5	●
846	**≥1**	**11.5**	90	23.19	20.0	18.50	9.200	5	●

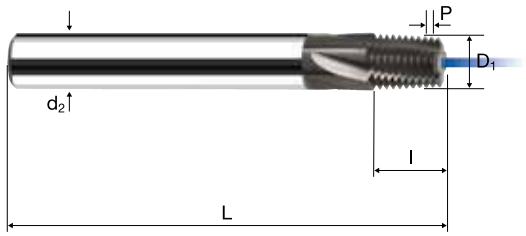
Application	Material	NPTF	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel < 850 N/mm²	1/16	5.90	27.0	3	90	0.0240	4855	98	350
		1/8	7.30	27.0	3	90	0.0360	3925	133	424
		1/4	9.95	18.0	4	90	0.0440	2880	150	507
		3/8	12.50	18.0	4	90	0.0480	2290	127	440
		≥1/2	14.50	14.0	5	90	0.0520	1975	174	514
		≥1	18.50	11.5	5	90	0.0560	1550	199	434
	Steel 850 - 1100 N/mm²	1/16	5.90	27.0	3	80	0.0240	4315	87	311
		1/8	7.30	27.0	3	80	0.0360	3490	118	377
		1/4	9.95	18.0	4	80	0.0440	2560	134	451
		3/8	12.50	18.0	4	80	0.0480	2035	113	391
		≥1/2	14.50	14.0	5	80	0.0520	1755	154	456
		≥1	18.50	11.5	5	80	0.0560	1375	177	385
	Steel 1100 - 1300 N/mm²	1/16	5.90	27.0	3	60	0.0240	3235	65	233
		1/8	7.30	27.0	3	60	0.0280	2615	69	220
		1/4	9.95	18.0	4	60	0.0400	1920	91	307
		3/8	12.50	18.0	4	60	0.0480	1530	85	294
		≥1/2	14.50	14.0	5	60	0.0520	1315	116	342
		≥1	18.50	11.5	5	60	0.0560	1030	132	288
	Steel 1300 - 1500 N/mm²	1/16	5.90	27.0	3	45	0.0240	2430	49	175
		1/8	7.30	27.0	3	45	0.0280	1960	51	165
		1/4	9.95	18.0	4	45	0.0400	1440	68	230
		3/8	12.50	18.0	4	45	0.0480	1145	63	220
		≥1/2	14.50	14.0	5	45	0.0520	990	87	257
		≥1	18.50	11.5	5	45	0.0560	775	100	217
	Wrought aluminium alloys Si < 6% hardened	1/16	5.90	27.0	3	150	0.0360	8095	244	874
		1/8	7.30	27.0	3	150	0.0440	6540	270	863
		1/4	9.95	18.0	4	150	0.0520	4800	296	998
		3/8	12.50	18.0	4	150	0.0640	3820	282	978
		≥1/2	14.50	14.0	5	150	0.0680	3295	379	1120
		≥1	18.50	11.5	5	150	0.0800	2580	473	1032
	Cast iron (lamellar / spheroidal)	1/16	5.90	27.0	3	120	0.0280	6475	152	544
		1/8	7.30	27.0	3	120	0.0360	5230	177	565
		1/4	9.95	18.0	4	120	0.0480	3840	218	737
		3/8	12.50	18.0	4	120	0.0560	3055	197	684
		≥1/2	14.50	14.0	5	120	0.0640	2635	285	843
		≥1	18.50	11.5	5	120	0.0800	2065	379	826
	Unalloyed copper	1/16	5.90	27.0	3	130	0.0280	7015	165	589
		1/8	7.30	27.0	3	130	0.0360	5670	191	612
		1/4	9.95	18.0	4	130	0.0480	4160	237	799
		3/8	12.50	18.0	4	130	0.0560	3310	214	741
		≥1/2	14.50	14.0	5	130	0.0640	2855	309	914
		≥1	18.50	11.5	5	130	0.0800	2235	410	894
	Stainless steel [Cr-Ni/1.4301]	1/16	5.90	27.0	3	55	0.0240	2965	60	214
		1/8	7.30	27.0	3	55	0.0280	2400	63	202
		1/4	9.95	18.0	4	55	0.0400	1760	83	282
		3/8	12.50	18.0	4	55	0.0480	1400	78	269
		≥1/2	14.50	14.0	5	55	0.0520	1205	106	313
		≥1	18.50	11.5	5	55	0.0560	945	121	265

Thread milling cutters

Incool

NPTF

HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH20390** ø-Code **840**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk		TiCN
									EH20390
840	**1/16**	**27.0**	54	9.90	8.0	5.90	2.920	3	●
841	**1/8**	**27.0**	64	9.90	8.0	7.30	3.620	3	●
842	**1/4**	**18.0**	72	19.00	12.0	9.95	4.920	4	●
843	**3/8**	**18.0**	80	14.80	14.0	12.50	6.190	4	●
844	**≥1/2**	**14.0**	90	19.05	16.0	14.50	7.190	5	●
846	**≥1**	**11.5**	90	23.19	20.0	18.50	9.200	5	●

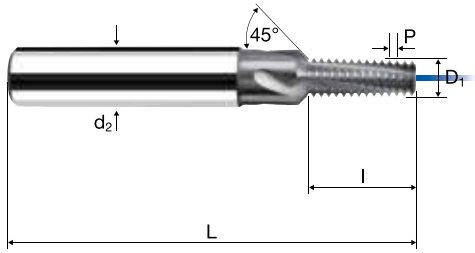
Application	Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [min⁻¹]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	M 3	2.30	0.50	3	80	0.0055	7.2	11070	43	183
		M 4	3.00	0.70	3	80	0.0070	9.4	8490	45	178
		M 5	4.00	0.80	3	80	0.0090	11.4	6365	34	172
		M 6	4.80	1.00	3	80	0.0110	14.3	5305	35	175
		M 8	6.40	1.25	3	80	0.0145	19.1	3980	35	173
		M 10	7.95	1.50	4	80	0.0180	23.1	3205	47	231
		M 12	9.95	1.75	4	80	0.0225	26.7	2560	39	230
		M 16	12.80	2.00	4	80	0.0290	37.0	1990	46	231
	Steel 1300 - 1500 N/mm²	M 3	2.30	0.50	3	50	0.0045	7.2	6920	22	93
		M 4	3.00	0.70	3	50	0.0060	9.4	5305	24	96
		M 5	4.00	0.80	3	50	0.0080	11.4	3980	19	96
		M 6	4.80	1.00	3	50	0.0095	14.3	3315	19	95
		M 8	6.40	1.25	3	50	0.0125	19.1	2485	19	93
		M 10	7.95	1.50	4	50	0.0160	23.1	2000	26	128
		M 12	9.95	1.75	4	50	0.0200	26.7	1600	22	128
		M 16	12.80	2.00	4	50	0.0255	37.0	1245	25	127
	Hardened tool steel 48 - 52 HRC	M 3	2.30	0.50	3	30	0.0035	7.2	4150	10	44
		M 4	3.00	0.70	3	30	0.0045	9.4	3185	11	43
		M 5	4.00	0.80	3	30	0.0060	11.4	2385	9	43
		M 6	4.80	1.00	3	30	0.0070	14.3	1990	8	42
		M 8	6.40	1.25	3	30	0.0095	19.1	1490	9	43
		M 10	7.95	1.50	4	30	0.0120	23.1	1200	12	58
		M 12	9.95	1.75	4	30	0.0150	26.7	960	10	58
		M 16	12.80	2.00	4	30	0.0195	37.0	745	12	58
	Stainless steel [Cr-Ni/1.4301]	M 3	2.30	0.50	3	50	0.0035	7.2	6920	17	73
		M 4	3.00	0.70	3	50	0.0045	9.4	5305	18	72
		M 5	4.00	0.80	3	50	0.0060	11.4	3980	14	72
		M 6	4.80	1.00	3	50	0.0070	14.3	3315	14	70
		M 8	6.40	1.25	3	50	0.0095	19.1	2485	14	71
		M 10	7.95	1.50	4	50	0.0120	23.1	2000	20	96
		M 12	9.95	1.75	4	50	0.0150	26.7	1600	16	96
		M 16	12.80	2.00	4	50	0.0195	37.0	1245	19	97
	Cast iron (lamellar / spheroidal)	M 3	2.30	0.50	3	120	0.0055	7.2	16605	64	274
		M 4	3.00	0.70	3	120	0.0070	9.4	12730	67	267
		M 5	4.00	0.80	3	120	0.0090	11.4	9550	52	258
		M 6	4.80	1.00	3	120	0.0110	14.3	7960	53	263
		M 8	6.40	1.25	3	120	0.0145	19.1	5970	52	260
		M 10	7.95	1.50	4	120	0.0180	23.1	4805	71	346
		M 12	9.95	1.75	4	120	0.0225	26.7	3840	59	346
		M 16	12.80	2.00	4	120	0.0290	37.0	2985	69	346
	Wrought aluminium alloys Si < 6% hardened	M 3	2.30	0.50	3	150	0.0070	7.2	20760	102	436
		M 4	3.00	0.70	3	150	0.0095	9.4	15915	113	454
		M 5	4.00	0.80	3	150	0.0125	11.4	11935	90	448
		M 6	4.80	1.00	3	150	0.0155	14.3	9945	92	462
		M 8	6.40	1.25	3	150	0.0205	19.1	7460	92	459
		M 10	7.95	1.50	4	150	0.0250	23.1	6005	123	601
		M 12	9.95	1.75	4	150	0.0315	26.7	4800	103	605
		M 16	12.80	2.00	4	150	0.0405	37.0	3730	121	604
	Cast aluminium	M 3	2.30	0.50	3	200	0.0070	7.2	27680	136	581
		M 4	3.00	0.70	3	200	0.0095	9.4	21220	151	605
		M 5	4.00	0.80	3	200	0.0125	11.4	15915	119	597
		M 6	4.80	1.00	3	200	0.0155	14.3	13265	123	617
		M 8	6.40	1.25	3	200	0.0205	19.1	9945	122	612
		M 10	7.95	1.50	4	200	0.0250	23.1	8010	164	801
		M 12	9.95	1.75	4	200	0.0315	26.7	6400	138	806
		M 16	12.80	2.00	4	200	0.0405	37.0	4975	161	806
	Titanium alloys > 300 HB [Ti6Al4V]	M 3	2.30	0.50	3	40	0.0035	7.2	5535	14	58
		M 4	3.00	0.70	3	40	0.0045	9.4	4245	14	57
		M 5	4.00	0.80	3	40	0.0060	11.4	3185	11	57
		M 6	4.80	1.00	3	40	0.0070	14.3	2655	11	56
		M 8	6.40	1.25	3	40	0.0095	19.1	1990	11	57
		M 10	7.95	1.50	4	40	0.0120	23.1	1600	16	77
		M 12	9.95	1.75	4	40	0.0150	26.7	1280	13	77
		M 16	12.80	2.00	4	40	0.0195	37.0	995	16	78

Thread milling cutters

2xd, chamfer 45°, Incool

M

HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH24300** ø-Code **044**

Ø Code	d	P	L	l	d_2 h6	D1	Rk 6H		TiCN EH24300
044*	M 3	0.50	48	6.80	6.0	2.30	1.125	3	●
058	M 4	0.70	48	8.80	6.0	3.00	1.465	3	●
084	M 5	0.80	54	10.80	6.0	4.00	1.960	3	●
088	M 6	1.00	62	13.50	8.0	4.80	2.350	3	●
160	M 8	1.25	74	18.10	10.0	6.40	3.138	3	●
174	M 10	1.50	80	21.80	12.0	7.95	3.900	4	●
240	M 12	1.75	90	25.40	14.0	9.95	4.887	4	●
246	M 16	2.00	102	35.00	18.0	12.80	6.300	4	●

* without internal cooling

Application	Material	MF	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	M 4	3.00	0.50	3	80	0.0070	9.4	8490	45	178
		M 5	4.00	0.50	3	80	0.0090	11.4	6365	34	172
		M 6	4.80	0.50	3	80	0.0110	13.6	5305	35	175
		M 6	4.80	0.75	3	80	0.0110	13.9	5305	35	175
		M 8	6.40	0.75	3	80	0.0145	17.9	3980	35	173
		M 8	6.40	1.00	3	80	0.0145	18.5	3980	35	173
		M 10	7.95	1.00	4	80	0.0180	22.8	3205	47	231
		M 10	7.95	1.25	4	80	0.0180	23.2	3205	47	231
		M 12	9.95	1.00	4	80	0.0225	26.8	2560	39	230
	Steel 850 - 1100 N/mm²	M 12	9.95	1.50	4	80	0.0225	27.6	2560	39	230
		M 14	11.20	1.50	4	80	0.0250	32.6	2275	46	228
		M 16	12.80	1.50	4	80	0.0290	35.8	1990	46	231
	Steel 1300 - 1500 N/mm²	M 4	3.00	0.50	3	50	0.0060	9.4	5305	24	96
		M 5	4.00	0.50	3	50	0.0080	11.4	3980	19	96
		M 6	4.80	0.50	3	50	0.0095	13.6	3315	19	95
		M 6	4.80	0.75	3	50	0.0095	13.9	3315	19	95
		M 8	6.40	0.75	3	50	0.0125	17.9	2485	19	93
		M 8	6.40	1.00	3	50	0.0125	18.5	2485	19	93
		M 10	7.95	1.00	4	50	0.0160	22.8	2000	26	128
		M 10	7.95	1.25	4	50	0.0160	23.2	2000	26	128
		M 12	9.95	1.00	4	50	0.0200	26.8	1600	22	128
	Steel 1300 - 1500 N/mm²	M 12	9.95	1.50	4	50	0.0200	27.6	1600	22	128
		M 14	11.20	1.50	4	50	0.0225	32.6	1420	26	128
		M 16	12.80	1.50	4	50	0.0255	35.8	1245	25	127
	Wrought aluminium alloys Si < 6% hardened	M 4	3.00	0.50	3	150	0.0095	9.4	15915	113	454
		M 5	4.00	0.50	3	150	0.0125	11.4	11935	90	448
		M 6	4.80	0.50	3	150	0.0155	13.6	9945	92	462
		M 6	4.80	0.75	3	150	0.0155	13.9	9945	92	462
		M 8	6.40	0.75	3	150	0.0205	17.9	7460	92	459
		M 8	6.40	1.00	3	150	0.0205	18.5	7460	92	459
		M 10	7.95	1.00	4	150	0.0250	22.8	6005	123	601
		M 10	7.95	1.25	4	150	0.0250	23.2	6005	123	601
		M 12	9.95	1.00	4	150	0.0315	26.8	4800	103	605
	Wrought aluminium alloys Si < 6% hardened	M 12	9.95	1.50	4	150	0.0315	27.6	4800	103	605
		M 14	11.20	1.50	4	150	0.0355	32.6	4265	121	606
		M 16	12.80	1.50	4	150	0.0405	35.8	3730	121	604
	Cast iron (lamellar / spheroidal)	M 4	3.00	0.50	3	120	0.0070	9.4	12730	67	267
		M 5	4.00	0.50	3	120	0.0090	11.4	9550	52	258
		M 6	4.80	0.50	3	120	0.0110	13.6	7960	53	263
		M 6	4.80	0.75	3	120	0.0110	13.9	7960	53	263
		M 8	6.40	0.75	3	120	0.0145	17.9	5970	52	260
		M 8	6.40	1.00	3	120	0.0145	18.5	5970	52	260
		M 10	7.95	1.00	4	120	0.0180	22.8	4805	71	346
		M 10	7.95	1.25	4	120	0.0180	23.2	4805	71	346
		M 12	9.95	1.00	4	120	0.0225	26.8	3840	59	346
	Cast iron (lamellar / spheroidal)	M 12	9.95	1.50	4	120	0.0225	27.6	3840	59	346
		M 14	11.20	1.50	4	120	0.0250	32.6	3410	68	341
		M 16	12.80	1.50	4	120	0.0290	35.8	2985	69	346

Thread milling cutters

2xd, chamfer 45°, Incool

MF

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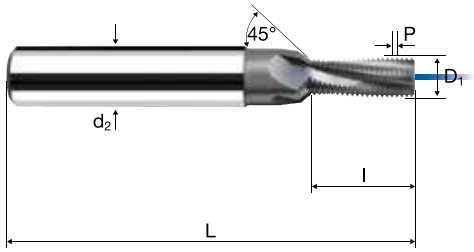

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500				Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH24320** ø-Code **046**

Ø Code	d	P	L	l	d_2 h6	D1	Rk 6H		TiCN EH24320
046	M 4	0.50	48	8.80	6.0	3.00	1.475	3	●
048	M 5	0.50	54	10.80	6.0	4.00	1.975	3	●
050	M 6	0.50	62	12.80	8.0	4.80	2.375	3	●
064	M 6	0.75	62	13.10	8.0	4.80	2.363	3	●
066	M 8	0.75	74	16.90	10.0	6.40	3.163	3	●
090	M 8	1.00	74	17.50	10.0	6.40	3.150	3	●
092	M 10	1.00	80	21.50	12.0	7.95	3.925	4	●
162	M 10	1.25	80	21.90	12.0	7.95	3.913	4	●
094	M 12	1.00	90	25.50	14.0	9.95	4.925	4	●
176	M 12	1.50	90	26.30	14.0	9.95	4.900	4	●
178	M 14	1.50	102	30.80	16.0	11.20	5.525	4	●
180	M 16	1.50	102	33.80	18.0	12.80	6.325	4	●

Application	Material	G	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [min⁻¹]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	G 1/8	7.95	28.0	4	80	0.0180	22.4	3205	42	231
		G 1/4	9.95	19.0	4	80	0.0240	30.4	2560	60	246
		G 3/8	13.60	19.0	4	80	0.0310	37.3	1870	43	232
	Steel 1300 - 1500 N/mm²	G 1/8	7.95	28.0	4	50	0.0160	22.4	2000	23	128
		G 1/4	9.95	19.0	4	50	0.0210	30.4	1600	33	134
		G 3/8	13.60	19.0	4	50	0.0275	37.3	1170	24	129
	Hardened tool steel 48 - 52 HRC	G 1/8	7.95	28.0	4	30	0.0120	22.4	1200	11	58
		G 1/4	9.95	19.0	4	30	0.0160	30.4	960	15	61
		G 3/8	13.60	19.0	4	30	0.0205	37.3	700	11	57
	Stainless steel [Cr-Ni/1.4301]	G 1/8	7.95	28.0	4	50	0.0120	22.4	2000	18	96
		G 1/4	9.95	19.0	4	50	0.0160	30.4	1600	25	102
		G 3/8	13.60	19.0	4	50	0.0205	37.3	1170	18	96
	Cast iron (lamellar / spheroidal)	G 1/8	7.95	28.0	4	120	0.0180	22.4	4805	63	346
		G 1/4	9.95	19.0	4	120	0.0240	30.4	3840	90	369
		G 3/8	13.60	19.0	4	120	0.0310	37.3	2810	64	348
	Wrought aluminium alloys Si < 6% hardened	G 1/8	7.95	28.0	4	150	0.0250	22.4	6005	110	601
		G 1/4	9.95	19.0	4	150	0.0335	30.4	4800	157	643
		G 3/8	13.60	19.0	4	150	0.0430	37.3	3510	111	604
	Cast aluminium	G 1/8	7.95	28.0	4	200	0.0250	22.4	8010	146	801
		G 1/4	9.95	19.0	4	200	0.0335	30.4	6400	209	858
		G 3/8	13.60	19.0	4	200	0.0430	37.3	4680	148	805
	Titanium alloys > 300 HB [Ti6Al4V]	G 1/8	7.95	28.0	4	40	0.0120	22.4	1600	14	77
		G 1/4	9.95	19.0	4	40	0.0160	30.4	1280	20	82
		G 3/8	13.60	19.0	4	40	0.0205	37.3	935	14	77

Thread milling cutters

2xd, chamfer 45°, Incool

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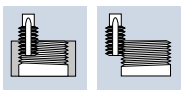

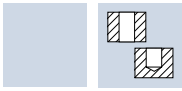

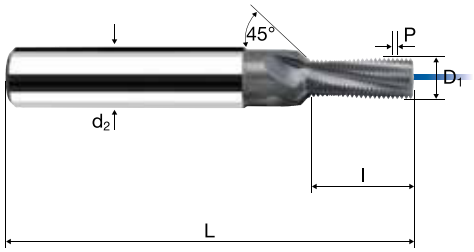

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH24340** ø-Code **551**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk		TiCN
									EH24340
551	G 1/8	28.0	80	21.30	12.0	7.95	3.930	4	●
552	G 1/4	19.0	90	28.70	14.0	9.95	5.183	4	●
553	G 3/8	19.0	102	35.40	18.0	13.60	6.733	4	●

Application	Material	UNC	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	1/4	4.80	20.0	3	80	0.0110	15.5	5305	43	175
		5/16	5.95	18.0	3	80	0.0135	18.8	4280	43	173
		3/8	7.10	16.0	4	80	0.0160	22.9	3585	58	229
		7/16	7.95	14.0	4	80	0.0180	26.4	3205	66	231
		1/2	9.95	13.0	4	80	0.0225	30.0	2560	50	230
	Steel 1300 - 1500 N/mm²	1/4	4.80	20.0	3	50	0.0095	15.5	3315	23	95
		5/16	5.95	18.0	3	50	0.0120	18.8	2675	24	96
		3/8	7.10	16.0	4	50	0.0145	22.9	2240	33	130
		7/16	7.95	14.0	4	50	0.0160	26.4	2000	36	128
		1/2	9.95	13.0	4	50	0.0200	30.0	1600	28	128
	Hardened tool steel 48 - 52 HRC	1/4	4.80	20.0	3	30	0.0075	15.5	1990	11	45
		5/16	5.95	18.0	3	30	0.0090	18.8	1605	11	43
		3/8	7.10	16.0	4	30	0.0110	22.9	1345	15	59
		7/16	7.95	14.0	4	30	0.0120	26.4	1200	16	58
		1/2	9.95	13.0	4	30	0.0150	30.0	960	12	58
	Stainless steel [Cr-Ni/1.4301]	1/4	4.80	20.0	3	50	0.0075	15.5	3315	18	75
		5/16	5.95	18.0	3	50	0.0090	18.8	2675	18	72
		3/8	7.10	16.0	4	50	0.0110	22.9	2240	25	99
		7/16	7.95	14.0	4	50	0.0120	26.4	2000	27	96
		1/2	9.95	13.0	4	50	0.0150	30.0	1600	21	96
	Cast iron (lamellar / spheroidal)	1/4	4.80	20.0	3	120	0.0110	15.5	7960	64	263
		5/16	5.95	18.0	3	120	0.0135	18.8	6420	65	260
		3/8	7.10	16.0	4	120	0.0160	22.9	5380	88	344
		7/16	7.95	14.0	4	120	0.0180	26.4	4805	98	346
		1/2	9.95	13.0	4	120	0.0225	30.0	3840	75	346
	Wrought aluminium alloys Si < 6% hardened	1/4	4.80	20.0	3	150	0.0150	15.5	9945	109	448
		5/16	5.95	18.0	3	150	0.0190	18.8	8025	115	457
		3/8	7.10	16.0	4	150	0.0225	22.9	6725	154	605
		7/16	7.95	14.0	4	150	0.0250	26.4	6005	171	601
		1/2	9.95	13.0	4	150	0.0315	30.0	4800	131	605
	Cast aluminium	1/4	4.80	20.0	3	200	0.0150	15.5	13265	146	597
		5/16	5.95	18.0	3	200	0.0190	18.8	10700	153	610
		3/8	7.10	16.0	4	200	0.0225	22.9	8965	205	807
		7/16	7.95	14.0	4	200	0.0250	26.4	8010	228	801
		1/2	9.95	13.0	4	200	0.0315	30.0	6400	175	806
	Titanium alloys > 300 HB [Ti6Al4V]	1/4	4.80	20.0	3	40	0.0075	15.5	2655	15	60
		5/16	5.95	18.0	3	40	0.0090	18.8	2140	14	58
		3/8	7.10	16.0	4	40	0.0110	22.9	1795	20	79
		7/16	7.95	14.0	4	40	0.0120	26.4	1600	22	77
		1/2	9.95	13.0	4	40	0.0150	30.0	1280	17	77

Thread milling cutters

2xd, chamfer 45°, Incool

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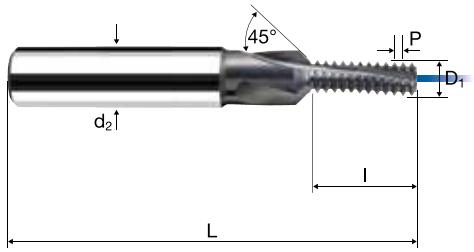

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH24360** ø-Code **709**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk 2B		TiCN
									EH24360
709	**1/4**	**20.0**	62	14.60	8.0	4.80	2.337	3	●
710	**5/16**	**18.0**	74	17.60	10.0	5.95	2.904	3	●
711	**3/8**	**16.0**	80	21.40	12.0	7.10	3.471	4	●
712	**7/16**	**14.0**	80	24.50	12.0	7.95	3.884	4	●
713	**1/2**	**13.0**	90	28.30	14.0	9.95	4.877	4	●

Application	Material	UNF	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	1/4	4.80	28.0	3	80	0.0110	15.0	5305	43	175
		5/16	5.95	24.0	3	80	0.0135	18.7	4280	43	173
		3/8	7.95	24.0	4	80	0.0180	21.6	3205	38	231
		7/16	7.95	20.0	4	80	0.0180	26.7	3205	66	231
		1/2	9.95	20.0	4	80	0.0225	29.0	2560	50	230
	Steel 1300 - 1500 N/mm²	1/4	4.80	28.0	3	50	0.0095	15.0	3315	23	95
		5/16	5.95	24.0	3	50	0.0120	18.7	2675	24	96
		3/8	7.95	24.0	4	50	0.0160	21.6	2000	21	128
		7/16	7.95	20.0	4	50	0.0160	26.7	2000	36	128
		1/2	9.95	20.0	4	50	0.0200	29.0	1600	28	128
	Hardened tool steel 48 - 52 HRC	1/4	4.80	28.0	3	30	0.0075	15.0	1990	11	45
		5/16	5.95	24.0	3	30	0.0090	18.7	1605	11	43
		3/8	7.95	24.0	4	30	0.0120	21.6	1200	10	58
		7/16	7.95	20.0	4	30	0.0120	26.7	1200	16	58
		1/2	9.95	20.0	4	30	0.0150	29.0	960	12	58
	Stainless steel [Cr-Ni/1.4301]	1/4	4.80	28.0	3	50	0.0075	15.0	3315	18	75
		5/16	5.95	24.0	3	50	0.0090	18.7	2675	18	72
		3/8	7.95	24.0	4	50	0.0120	21.6	2000	16	96
		7/16	7.95	20.0	4	50	0.0120	26.7	2000	27	96
		1/2	9.95	20.0	4	50	0.0150	29.0	1600	21	96
	Cast iron (lamellar / spheroidal)	1/4	4.80	28.0	3	120	0.0110	15.0	7960	64	263
		5/16	5.95	24.0	3	120	0.0135	18.7	6420	65	260
		3/8	7.95	24.0	4	120	0.0180	21.6	4805	57	346
		7/16	7.95	20.0	4	120	0.0180	26.7	4805	98	346
		1/2	9.95	20.0	4	120	0.0225	29.0	3840	75	346
	Wrought aluminium alloys Si < 6% hardened	1/4	4.80	28.0	3	150	0.0150	15.0	9945	109	448
		5/16	5.95	24.0	3	150	0.0190	18.7	8025	115	457
		3/8	7.95	24.0	4	150	0.0250	21.6	6005	99	601
		7/16	7.95	20.0	4	150	0.0250	26.7	6005	171	601
		1/2	9.95	20.0	4	150	0.0315	29.0	4800	131	605
	Cast aluminium	1/4	4.80	28.0	3	200	0.0150	15.0	13265	146	597
		5/16	5.95	24.0	3	200	0.0190	18.7	10700	153	610
		3/8	7.95	24.0	4	200	0.0250	21.6	8010	132	801
		7/16	7.95	20.0	4	200	0.0250	26.7	8010	228	801
		1/2	9.95	20.0	4	200	0.0315	29.0	6400	175	806
	Titanium alloys > 300 HB [Ti6Al4V]	1/4	4.80	28.0	3	40	0.0075	15.0	2655	15	60
		5/16	5.95	24.0	3	40	0.0090	18.7	2140	14	58
		3/8	7.95	24.0	4	40	0.0120	21.6	1600	13	77
		7/16	7.95	20.0	4	40	0.0120	26.7	1600	22	77
		1/2	9.95	20.0	4	40	0.0150	29.0	1280	17	77

Thread milling cutters

2xd, chamfer 45°, Incool

UNF

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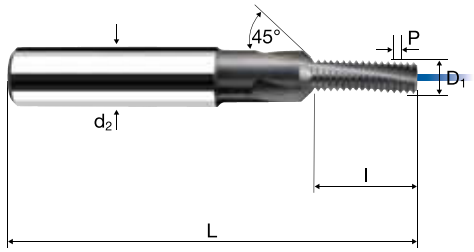


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH24370** ø-Code **760**

Ø Code	d	P(TPI)	L	l	d_2 h6	D1	Rk 2B		TiCN
									EH24370
760	**1/4**	**28.0**	62	14.10	8.0	4.80	2.355	3	●
761	**5/16**	**24.0**	74	17.50	10.0	5.95	2.922	3	●
762	**3/8**	**24.0**	80	20.60	12.0	7.95	3.922	4	●
763	**7/16**	**20.0**	80	24.80	12.0	7.95	3.912	4	●
764	**1/2**	**20.0**	90	27.30	14.0	9.95	4.911	4	●

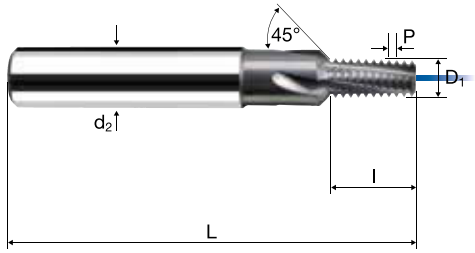
Application	Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	M 3	2.30	0.50	3	80	0.0060	5.7	11070	47	199
		M 4	3.00	0.70	3	80	0.0075	8.0	8490	48	191
		M 5	4.00	0.80	3	80	0.0100	9.8	6365	38	191
		M 6	4.80	1.00	3	80	0.0120	11.3	5305	38	191
		M 8	6.40	1.25	3	80	0.0160	14.1	3980	38	191
		M 10	7.95	1.50	4	80	0.0200	18.6	3205	53	256
		M 12	9.95	1.75	4	80	0.0250	21.4	2560	44	256
		M 16	12.80	2.00	4	80	0.0320	29.0	1990	51	255
	Steel 1300 - 1500 N/mm²	M 3	2.30	0.50	3	50	0.0050	5.7	6920	24	104
		M 4	3.00	0.70	3	50	0.0065	8.0	5305	26	103
		M 5	4.00	0.80	3	50	0.0090	9.8	3980	22	108
		M 6	4.80	1.00	3	50	0.0105	11.3	3315	21	104
		M 8	6.40	1.25	3	50	0.0140	14.1	2485	21	104
		M 10	7.95	1.50	4	50	0.0175	18.6	2000	29	140
		M 12	9.95	1.75	4	50	0.0220	21.4	1600	24	141
		M 16	12.80	2.00	4	50	0.0285	29.0	1245	28	142
	Hardened tool steel 48 - 52 HRC	M 3	2.30	0.50	3	30	0.0040	5.7	4150	12	50
		M 4	3.00	0.70	3	30	0.0050	8.0	3185	12	48
		M 5	4.00	0.80	3	30	0.0065	9.8	2385	9	47
		M 6	4.80	1.00	3	30	0.0080	11.3	1990	10	48
		M 8	6.40	1.25	3	30	0.0105	14.1	1490	9	47
		M 10	7.95	1.50	4	30	0.0135	18.6	1200	13	65
		M 12	9.95	1.75	4	30	0.0165	21.4	960	11	63
		M 16	12.80	2.00	4	30	0.0215	29.0	745	13	64
	Stainless steel [Cr-Ni/1.4301]	M 3	2.30	0.50	3	50	0.0040	5.7	6920	19	83
		M 4	3.00	0.70	3	50	0.0050	8.0	5305	20	80
		M 5	4.00	0.80	3	50	0.0065	9.8	3980	16	78
		M 6	4.80	1.00	3	50	0.0080	11.3	3315	16	80
		M 8	6.40	1.25	3	50	0.0105	14.1	2485	16	78
		M 10	7.95	1.50	4	50	0.0135	18.6	2000	22	108
		M 12	9.95	1.75	4	50	0.0165	21.4	1600	18	106
		M 16	12.80	2.00	4	50	0.0215	29.0	1245	21	107
	Cast iron (lamellar / spheroidal)	M 3	2.30	0.50	3	120	0.0060	5.7	16605	70	299
		M 4	3.00	0.70	3	120	0.0075	8.0	12730	72	286
		M 5	4.00	0.80	3	120	0.0100	9.8	9550	57	287
		M 6	4.80	1.00	3	120	0.0120	11.3	7960	57	287
		M 8	6.40	1.25	3	120	0.0160	14.1	5970	57	287
		M 10	7.95	1.50	4	120	0.0200	18.6	4805	79	384
		M 12	9.95	1.75	4	120	0.0250	21.4	3840	66	384
		M 16	12.80	2.00	4	120	0.0320	29.0	2985	76	382
	Wrought aluminium alloys Si < 6% hardened	M 3	2.30	0.50	3	150	0.0080	5.7	20760	116	498
		M 4	3.00	0.70	3	150	0.0105	8.0	15915	125	501
		M 5	4.00	0.80	3	150	0.0140	9.8	11935	100	501
		M 6	4.80	1.00	3	150	0.0170	11.3	9945	101	507
		M 8	6.40	1.25	3	150	0.0225	14.1	7460	101	504
		M 10	7.95	1.50	4	150	0.0280	18.6	6005	138	673
		M 12	9.95	1.75	4	150	0.0350	21.4	4800	115	672
		M 16	12.80	2.00	4	150	0.0450	29.0	3730	134	671
	Cast aluminium	M 3	2.30	0.50	3	200	0.0080	5.7	27680	155	664
		M 4	3.00	0.70	3	200	0.0105	8.0	21220	167	668
		M 5	4.00	0.80	3	200	0.0140	9.8	15915	134	668
		M 6	4.80	1.00	3	200	0.0170	11.3	13265	135	677
		M 8	6.40	1.25	3	200	0.0225	14.1	9945	134	671
		M 10	7.95	1.50	4	200	0.0280	18.6	8010	184	897
		M 12	9.95	1.75	4	200	0.0350	21.4	6400	153	896
		M 16	12.80	2.00	4	200	0.0450	29.0	4975	179	896
	Titanium alloys > 300 HB [Ti6Al4V]	M 3	2.30	0.50	3	40	0.0040	5.7	5535	15	66
		M 4	3.00	0.70	3	40	0.0050	8.0	4245	16	64
		M 5	4.00	0.80	3	40	0.0065	9.8	3185	12	62
		M 6	4.80	1.00	3	40	0.0080	11.3	2655	13	64
		M 8	6.40	1.25	3	40	0.0105	14.1	1990	13	63
		M 10	7.95	1.50	4	40	0.0135	18.6	1600	18	86
		M 12	9.95	1.75	4	40	0.0165	21.4	1280	14	85
		M 16	12.80	2.00	4	40	0.0215	29.0	995	17	86

Thread milling cutters

1.5xd, chamfer 45°, Incool

M

HM



Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH24200** ø-Code **044**

Ø Code	d	P	L	l	d_2 h6	D1	Rk 6H		TiCN EH24200
044*	M 3	0.50	48	5.30	6.0	2.30	1.125	3	●
058	M 4	0.70	48	7.40	6.0	3.00	1.465	3	●
084	M 5	0.80	54	9.20	6.0	4.00	1.960	3	●
088	M 6	1.00	62	10.50	8.0	4.80	2.350	3	●
160	M 8	1.25	74	13.10	10.0	6.40	3.138	3	●
174	M 10	1.50	80	17.30	12.0	7.95	3.900	4	●
240	M 12	1.75	90	20.10	14.0	9.95	4.887	4	●
246	M 16	2.00	102	27.00	18.0	12.80	6.300	4	●

* without internal cooling

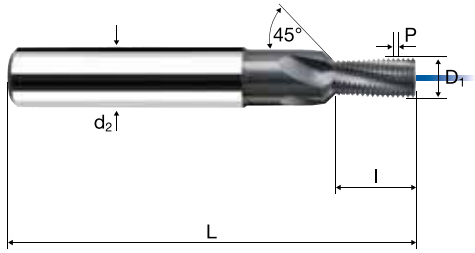
Application	Material	MF	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	L_K [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
	Steel 850 - 1100 N/mm²	M 4	3.00	0.50	3	80	0.0075	7.9	8490	48	191
		M 5	4.00	0.50	3	80	0.0100	9.4	6365	38	191
		M 6	4.80	0.50	3	80	0.0120	10.6	5305	38	191
		M 6	4.80	0.75	3	80	0.0120	10.8	5305	38	191
		M 8	6.40	0.75	3	80	0.0160	14.1	3980	38	191
		M 8	6.40	1.00	3	80	0.0160	14.5	3980	38	191
		M 10	7.95	1.00	4	80	0.0200	17.8	3205	53	256
		M 10	7.95	1.25	4	80	0.0200	18.2	3205	53	256
		M 12	9.95	1.00	4	80	0.0250	20.8	2560	44	256
	Steel 850 - 1100 N/mm²	M 12	9.95	1.50	4	80	0.0250	21.6	2560	44	256
		M 14	11.20	1.50	4	80	0.0280	25.1	2275	51	255
		M 16	12.80	1.50	4	80	0.0320	28.3	1990	51	255
	Steel 1300 - 1500 N/mm²	M 4	3.00	0.50	3	50	0.0065	7.9	5305	26	103
		M 5	4.00	0.50	3	50	0.0090	9.4	3980	22	108
		M 6	4.80	0.50	3	50	0.0105	10.6	3315	21	104
		M 6	4.80	0.75	3	50	0.0105	10.8	3315	21	104
		M 8	6.40	0.75	3	50	0.0140	14.1	2485	21	104
		M 8	6.40	1.00	3	50	0.0140	14.5	2485	21	104
		M 10	7.95	1.00	4	50	0.0175	17.8	2000	29	140
		M 10	7.95	1.25	4	50	0.0175	18.2	2000	29	140
		M 12	9.95	1.00	4	50	0.0220	20.8	1600	24	141
	Steel 1300 - 1500 N/mm²	M 12	9.95	1.50	4	50	0.0220	21.6	1600	24	141
		M 14	11.20	1.50	4	50	0.0250	25.1	1420	28	142
		M 16	12.80	1.50	4	50	0.0285	28.3	1245	28	142
	Wrought aluminium alloys Si < 6% hardened	M 4	3.00	0.50	3	150	0.0105	7.9	15915	125	501
		M 5	4.00	0.50	3	150	0.0140	9.4	11935	100	501
		M 6	4.80	0.50	3	150	0.0170	10.6	9945	101	507
		M 6	4.80	0.75	3	150	0.0170	10.8	9945	101	507
		M 8	6.40	0.75	3	150	0.0225	14.1	7460	101	504
		M 8	6.40	1.00	3	150	0.0225	14.5	7460	101	504
		M 10	7.95	1.00	4	150	0.0280	17.8	6005	138	673
		M 10	7.95	1.25	4	150	0.0280	18.2	6005	138	673
		M 12	9.95	1.00	4	150	0.0350	20.8	4800	115	672
	Wrought aluminium alloys Si < 6% hardened	M 12	9.95	1.50	4	150	0.0350	21.6	4800	115	672
		M 14	11.20	1.50	4	150	0.0395	25.1	4265	135	674
		M 16	12.80	1.50	4	150	0.0450	28.3	3730	134	671
	Cast iron (lamellar / spheroidal)	M 4	3.00	0.50	3	120	0.0075	7.9	12730	72	286
		M 5	4.00	0.50	3	120	0.0100	9.4	9550	57	287
		M 6	4.80	0.50	3	120	0.0120	10.6	7960	57	287
		M 6	4.80	0.75	3	120	0.0120	10.8	7960	57	287
		M 8	6.40	0.75	3	120	0.0160	14.1	5970	57	287
		M 8	6.40	1.00	3	120	0.0160	14.5	5970	57	287
		M 10	7.95	1.00	4	120	0.0200	17.8	4805	79	384
		M 10	7.95	1.25	4	120	0.0200	18.2	4805	79	384
		M 12	9.95	1.00	4	120	0.0250	20.8	3840	66	384
	Cast iron (lamellar / spheroidal)	M 12	9.95	1.50	4	120	0.0250	21.6	3840	66	384
		M 14	11.20	1.50	4	120	0.0280	25.1	3410	76	382
		M 16	12.80	1.50	4	120	0.0320	28.3	2985	76	382

Thread milling cutters

1.5xd, chamfer 45°, Incool

MF

HM



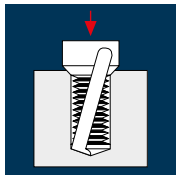
TM

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH24220** ø-Code **046**

Ø Code	d	P	L	l	d_2 h6	D1	Rk 6H		TiCN EH24220
046	M 4	0.50	48	7.30	6.0	3.00	1.475	3	●
048	M 5	0.50	54	8.80	6.0	4.00	1.975	3	●
050	M 6	0.50	62	9.80	8.0	4.80	2.375	3	●
064	M 6	0.75	62	10.10	8.0	4.80	2.363	3	●
066	M 8	0.75	74	13.10	10.0	6.40	3.163	3	●
090	M 8	1.00	74	13.50	10.0	6.40	3.150	3	●
092	M 10	1.00	80	16.50	12.0	7.95	3.925	4	●
162	M 10	1.25	80	16.90	12.0	7.95	3.913	4	●
094	M 12	1.00	90	19.50	14.0	9.95	4.925	4	●
176	M 12	1.50	90	20.30	14.0	9.95	4.900	4	●
178	M 14	1.50	102	23.30	16.0	11.20	5.525	4	●
180	M 16	1.50	102	26.30	18.0	12.80	6.325	4	●

Application



Material

Material	M	d_1 [mm]	v_c [m/min]	f_z [mm]	L_K [mm]	n [min^{-1}]	v_f [mm/min]
Cast iron GG(G)	M 4	3.30	100	0.0500	9.5	9645	482
	M 5	4.20	100	0.0650	11.8	7580	493
	M 6	5.00	100	0.0750	14.7	6365	477
	M 8	6.80	100	0.1000	19.7	4680	468
	M 10	8.50	100	0.1250	23.8	3745	468
	M 12	10.20	100	0.1500	27.4	3120	468
	M 16	14.00	100	0.2100	37.8	2275	478
Cast aluminium	M 4	3.30	250	0.0600	9.5	24115	1447
	M 5	4.20	250	0.0750	11.8	18945	1421
	M 6	5.00	250	0.0900	14.7	15915	1432
	M 8	6.80	250	0.1200	19.7	11705	1405
	M 10	8.50	250	0.1500	23.8	9360	1404
	M 12	10.20	250	0.1800	27.4	7800	1404
	M 16	14.00	250	0.2500	37.8	5685	1421
Wrought aluminium alloys Si < 6% hardened	M 4	3.30	200	0.0600	9.5	19290	1157
	M 5	4.20	200	0.0750	11.8	15160	1137
	M 6	5.00	200	0.0900	14.7	12730	1146
	M 8	6.80	200	0.1200	19.7	9360	1123
	M 10	8.50	200	0.1500	23.8	7490	1124
	M 12	10.20	200	0.1800	27.4	6240	1123
	M 16	14.00	200	0.2500	37.8	4545	1136
Short-chipping brass [CuZn]	M 4	3.30	250	0.0600	9.5	24115	1447
	M 5	4.20	250	0.0750	11.8	18945	1421
	M 6	5.00	250	0.0900	14.7	15915	1432
	M 8	6.80	250	0.1200	19.7	11705	1405
	M 10	8.50	250	0.1500	23.8	9360	1404
	M 12	10.20	250	0.1800	27.4	7800	1404
	M 16	14.00	250	0.2500	37.8	5685	1421

Application

Material

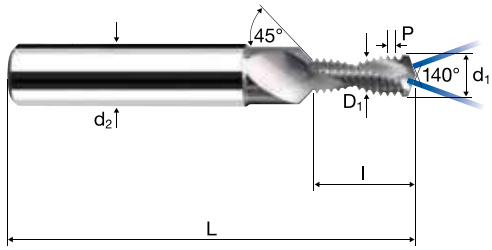
Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Cast iron GG(G)	M 4	3.20	0.70	2	100	0.0200	9945	80	398
	M 5	4.00	0.80	2	100	0.0250	7960	80	398
	M 6	4.75	1.00	2	100	0.0300	6700	84	402
	M 8	6.35	1.25	2	100	0.0400	5015	83	401
	M 10	7.95	1.50	2	100	0.0550	4005	90	441
	M 12	9.95	1.75	2	100	0.0650	3200	71	416
	M 16	13.20	2.00	2	100	0.0900	2410	76	434
Cast aluminium	M 4	3.20	0.70	2	250	0.0250	24870	249	1244
	M 5	4.00	0.80	2	250	0.0300	19895	239	1194
	M 6	4.75	1.00	2	250	0.0350	16755	244	1173
	M 8	6.35	1.25	2	250	0.0500	12530	258	1253
	M 10	7.95	1.50	2	250	0.0600	10010	246	1201
	M 12	9.95	1.75	2	250	0.0750	8000	205	1200
	M 16	13.20	2.00	2	250	0.1000	6030	211	1206
Wrought aluminium alloys Si < 6% hardened	M 4	3.20	0.70	2	200	0.0250	19895	199	995
	M 5	4.00	0.80	2	200	0.0300	15915	191	955
	M 6	4.75	1.00	2	200	0.0350	13405	196	938
	M 8	6.35	1.25	2	200	0.0500	10025	207	1003
	M 10	7.95	1.50	2	200	0.0600	8010	197	961
	M 12	9.95	1.75	2	200	0.0750	6400	164	960
	M 16	13.20	2.00	2	200	0.1000	4825	169	965
Short-chipping brass [CuZn]	M 4	3.20	0.70	2	250	0.0250	24870	249	1244
	M 5	4.00	0.80	2	250	0.0300	19895	239	1194
	M 6	4.75	1.00	2	250	0.0350	16755	244	1173
	M 8	6.35	1.25	2	250	0.0500	12530	258	1253
	M 10	7.95	1.50	2	250	0.0600	10010	246	1201
	M 12	9.95	1.75	2	250	0.0750	8000	205	1200
	M 16	13.20	2.00	2	250	0.1000	6030	211	1206

Drill/thread milling cutters

2xd, chamfer 45°, Incool

M

HM

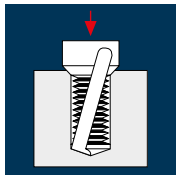


				Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermo-plast	GG(G) CuZn Brass

Example: **Order-N°.** Article-N°. **E22300** ø-Code **058**

Ø Code	d	P	L	l	d_2 h6	d_1	D1	Rk 6H		E22300	TiCN EH22300
058	M 4	0.70	48	9.00	6.0	3.30	3.20	1.560	2	●	●
084	M 5	0.80	54	11.20	6.0	4.20	4.00	1.950	2	●	●
088	M 6	1.00	62	13.90	8.0	5.00	4.75	2.315	2	●	●
160	M 8	1.25	74	18.70	10.0	6.80	6.35	3.095	2	●	●
174	M 10	1.50	80	22.50	12.0	8.50	7.95	3.875	2	●	●
240	M 12	1.75	90	26.10	14.0	10.20	9.95	4.855	2	●	●
246	M 16	2.00	102	36.00	18.0	14.00	13.20	6.440	2	●	●

Application



Material

M	d_1 [mm]	v_c [m/min]	f_z [mm]	L_K [mm]	n [min^{-1}]	v_f [mm/min]
Cast iron GG(G)						
M 4	3.30	100	0.0500	7.4	9645	482
M 5	4.20	100	0.0650	9.4	7580	493
M 6	5.00	100	0.0750	11.7	6365	477
M 8	6.80	100	0.1000	14.7	4680	468
M 10	8.50	100	0.1250	19.3	3745	468
M 12	10.20	100	0.1500	22.2	3120	468
M 16	14.00	100	0.2100	27.8	2275	478
Cast aluminium						
M 4	3.30	250	0.0600	7.4	24115	1447
M 5	4.20	250	0.0750	9.4	18945	1421
M 6	5.00	250	0.0900	11.7	15915	1432
M 8	6.80	250	0.1200	14.7	11705	1405
M 10	8.50	250	0.1500	19.3	9360	1404
M 12	10.20	250	0.1800	22.2	7800	1404
M 16	14.00	250	0.2500	27.8	5685	1421
Wrought aluminium alloys Si < 6% hardened						
M 4	3.30	200	0.0600	7.4	19290	1157
M 5	4.20	200	0.0750	9.4	15160	1137
M 6	5.00	200	0.0900	11.7	12730	1146
M 8	6.80	200	0.1200	14.7	9360	1123
M 10	8.50	200	0.1500	19.3	7490	1124
M 12	10.20	200	0.1800	22.2	6240	1123
M 16	14.00	200	0.2500	27.8	4545	1136
Short-chipping brass [CuZn]						
M 4	3.30	250	0.0600	7.4	24115	1447
M 5	4.20	250	0.0750	9.4	18945	1421
M 6	5.00	250	0.0900	11.7	15915	1432
M 8	6.80	250	0.1200	14.7	11705	1405
M 10	8.50	250	0.1500	19.3	9360	1404
M 12	10.20	250	0.1800	22.2	7800	1404
M 16	14.00	250	0.2500	27.8	5685	1421

Application

Material

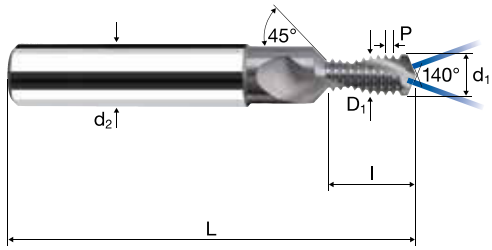
M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} [mm/min]	v_f [mm/min]
Cast iron GG(G)								
M 4	3.20	0.70	2	100	0.0250	9945	99	497
M 5	4.00	0.80	2	100	0.0300	7960	96	478
M 6	4.75	1.00	2	100	0.0350	6700	98	469
M 8	6.35	1.25	2	100	0.0500	5015	103	502
M 10	7.95	1.50	2	100	0.0600	4005	99	481
M 12	9.95	1.75	2	100	0.0750	3200	82	480
M 16	13.20	2.00	2	100	0.1000	2410	84	482
Cast aluminium								
M 4	3.20	0.70	2	250	0.0300	24870	298	1492
M 5	4.00	0.80	2	250	0.0350	19895	279	1393
M 6	4.75	1.00	2	250	0.0450	16755	314	1508
M 8	6.35	1.25	2	250	0.0600	12530	310	1504
M 10	7.95	1.50	2	250	0.0700	10010	287	1401
M 12	9.95	1.75	2	250	0.0900	8000	246	1440
M 16	13.20	2.00	2	250	0.1200	6030	253	1447
Wrought aluminium alloys Si < 6% hardened								
M 4	3.20	0.70	2	200	0.0300	19895	239	1194
M 5	4.00	0.80	2	200	0.0350	15915	223	1114
M 6	4.75	1.00	2	200	0.0450	13405	251	1207
M 8	6.35	1.25	2	200	0.0600	10025	248	1203
M 10	7.95	1.50	2	200	0.0700	8010	230	1121
M 12	9.95	1.75	2	200	0.0900	6400	197	1152
M 16	13.20	2.00	2	200	0.1200	4825	203	1158
Short-chipping brass [CuZn]								
M 4	3.20	0.70	2	250	0.0300	24870	298	1492
M 5	4.00	0.80	2	250	0.0350	19895	279	1393
M 6	4.75	1.00	2	250	0.0450	16755	314	1508
M 8	6.35	1.25	2	250	0.0600	12530	310	1504
M 10	7.95	1.50	2	250	0.0700	10010	287	1401
M 12	9.95	1.75	2	250	0.0900	8000	246	1440
M 16	13.20	2.00	2	250	0.1200	6030	253	1447

Drill/thread milling cutters

1.5xd, chamfer 45°, Incool

M

HM

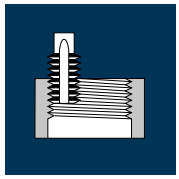


Al Aluminium Alloy | **Al Aluminium Cast** | Cu Copper | Plastic Thermo-plast | **GG(G) CuZn Brass**

Example: **Order-N°.** Article-N°. **E22200** ø-Code **058**

Ø Code	d	P	L	l	d_2 h6	d_1	D1	Rk 6H		E22200	TiCN EH22200
058	M 4	0.70	48	6.90	6.0	3.30	3.20	1.560	2	●	●
084	M 5	0.80	54	8.80	6.0	4.20	4.00	1.950	2	●	●
088	M 6	1.00	62	10.90	8.0	5.00	4.75	2.315	2	●	●
160	M 8	1.25	74	13.70	10.0	6.80	6.35	3.095	2	●	●
174	M 10	1.50	80	18.00	12.0	8.50	7.95	3.875	2	●	●
240	M 12	1.75	90	20.90	14.0	10.20	9.95	4.855	2	●	●
246	M 16	2.00	102	26.00	18.0	14.00	13.20	6.440	2	●	●

Application



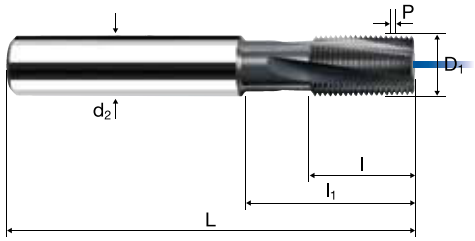
Material	M	D_1 [mm]	P [mm]	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 5/1	v_f [mm/min]
Steel 850 - 1100 N/mm²	≥ M14	9.95	1.00	4	80	0.0250	2560	85	128	171	192	205	256
	≥ M14	9.95	1.25	4	80	0.0250	2560	85	128	171	192	205	256
	≥ M14	9.95	1.50	4	80	0.0250	2560	85	128	171	192	205	256
	≥ M18	11.95	1.00	4	80	0.0300	2130	85	128	170	192	204	256
	≥ M18	11.95	1.50	4	80	0.0300	2130	85	128	170	192	204	256
	≥ M24	15.95	1.00	5	80	0.0400	1595	106	160	213	239	255	319
	≥ M24	15.95	1.50	5	80	0.0400	1595	106	160	213	239	255	319
	≥ M30	19.95	1.50	5	80	0.0500	1275	106	159	213	239	255	319
	≥ M30	19.95	2.00	5	80	0.0500	1275	106	159	213	239	255	319
Steel 1300 - 1500 N/mm²	≥ M14	9.95	1.00	4	50	0.0200	1600	43	64	85	96	102	128
	≥ M14	9.95	1.25	4	50	0.0200	1600	43	64	85	96	102	128
	≥ M14	9.95	1.50	4	50	0.0200	1600	43	64	85	96	102	128
	≥ M18	11.95	1.00	4	50	0.0240	1330	43	64	85	96	102	128
	≥ M18	11.95	1.50	4	50	0.0240	1330	43	64	85	96	102	128
	≥ M24	15.95	1.00	5	50	0.0320	1000	53	80	107	120	128	160
	≥ M24	15.95	1.50	5	50	0.0320	1000	53	80	107	120	128	160
	≥ M30	19.95	1.50	5	50	0.0400	800	53	80	107	120	128	160
	≥ M30	19.95	2.00	5	50	0.0400	800	53	80	107	120	128	160
Hardened tool steel 48 - 52 HRC	≥ M14	9.95	1.00	4	30	0.0165	960	21	32	42	48	51	63
	≥ M14	9.95	1.25	4	30	0.0165	960	21	32	42	48	51	63
	≥ M14	9.95	1.50	4	30	0.0165	960	21	32	42	48	51	63
	≥ M18	11.95	1.00	4	30	0.0200	800	21	32	43	48	51	64
	≥ M18	11.95	1.50	4	30	0.0200	800	21	32	43	48	51	64
	≥ M24	15.95	1.00	5	30	0.0265	600	27	40	53	60	64	80
	≥ M24	15.95	1.50	5	30	0.0265	600	27	40	53	60	64	80
	≥ M30	19.95	1.50	5	30	0.0335	480	27	40	54	60	64	80
	≥ M30	19.95	2.00	5	30	0.0335	480	27	40	54	60	64	80
Stainless steel [Cr-Ni/1.4301]	≥ M14	9.95	1.00	4	45	0.0200	1440	38	58	77	86	92	115
	≥ M14	9.95	1.25	4	45	0.0200	1440	38	58	77	86	92	115
	≥ M14	9.95	1.50	4	45	0.0200	1440	38	58	77	86	92	115
	≥ M18	11.95	1.00	4	45	0.0240	1200	38	58	77	86	92	115
	≥ M18	11.95	1.50	4	45	0.0240	1200	38	58	77	86	92	115
	≥ M24	15.95	1.00	5	45	0.0320	900	48	72	96	108	115	144
	≥ M24	15.95	1.50	5	45	0.0320	900	48	72	96	108	115	144
	≥ M30	19.95	1.50	5	45	0.0400	720	48	72	96	108	115	144
	≥ M30	19.95	2.00	5	45	0.0400	720	48	72	96	108	115	144
Cast iron (lamellar / spheroidal)	≥ M14	9.95	1.00	4	120	0.0250	3840	128	192	256	288	307	384
	≥ M14	9.95	1.25	4	120	0.0250	3840	128	192	256	288	307	384
	≥ M14	9.95	1.50	4	120	0.0250	3840	128	192	256	288	307	384
	≥ M18	11.95	1.00	4	120	0.0300	3195	128	192	256	288	307	383
	≥ M18	11.95	1.50	4	120	0.0300	3195	128	192	256	288	307	383
	≥ M24	15.95	1.00	5	120	0.0400	2395	160	240	319	359	383	479
	≥ M24	15.95	1.50	5	120	0.0400	2395	160	240	319	359	383	479
	≥ M30	19.95	1.50	5	120	0.0500	1915	160	239	319	359	383	479
	≥ M30	19.95	2.00	5	120	0.0500	1915	160	239	319	359	383	479
Wrought aluminium alloys Si < 6% hardened	≥ M14	9.95	1.00	4	150	0.0285	4800	182	274	365	410	438	547
	≥ M14	9.95	1.25	4	150	0.0285	4800	182	274	365	410	438	547
	≥ M14	9.95	1.50	4	150	0.0285	4800	182	274	365	410	438	547
	≥ M18	11.95	1.00	4	150	0.0340	3995	181	272	362	407	435	543
	≥ M18	11.95	1.50	4	150	0.0340	3995	181	272	362	407	435	543
	≥ M24	15.95	1.00	5	150	0.0455	2995	227	341	454	511	545	681
	≥ M24	15.95	1.50	5	150	0.0455	2995	227	341	454	511	545	681
	≥ M30	19.95	1.50	5	150	0.0570	2395	228	341	455	512	546	683
	≥ M30	19.95	2.00	5	150	0.0570	2395	228	341	455	512	546	683
Cast aluminium	≥ M14	9.95	1.00	4	200	0.0285	6400	243	365	486	547	584	730
	≥ M14	9.95	1.25	4	200	0.0285	6400	243	365	486	547	584	730
	≥ M14	9.95	1.50	4	200	0.0285	6400	243	365	486	547	584	730
	≥ M18	11.95	1.00	4	200	0.0340	5325	241	362	483	543	579	724
	≥ M18	11.95	1.50	4	200	0.0340	5325	241	362	483	543	579	724
	≥ M24	15.95	1.00	5	200	0.0455	3990	303	454	605	681	726	908
	≥ M24	15.95	1.50	5	200	0.0455	3990	303	454	605	681	726	908
	≥ M30	19.95	1.50	5	200	0.0570	3190	303	455	606	682	727	909
	≥ M30	19.95	2.00	5	200	0.0570	3190	303	455	606	682	727	909
Titanium alloys > 300 HB [Ti6Al4V]	≥ M14	9.95	1.00	4	35	0.0200	1120	30	45	60	67	72	90
	≥ M14	9.95	1.25	4	35	0.0200	1120	30	45	60	67	72	90
	≥ M14	9.95	1.50	4	35	0.0200	1120	30	45	60	67	72	90
	≥ M18	11.95	1.00	4	35	0.0240	930	30	45	60	67	71	89
	≥ M18	11.95	1.50	4	35	0.0240	930	30	45	60	67	71	89
	≥ M24	15.95	1.00	5	35	0.0320	700	37	56	75	84	90	112
	≥ M24	15.95	1.50	5	35	0.0320	700	37	56	75	84	90	112
	≥ M30	19.95	1.50	5	35	0.0400	560	37	56	75	84	90	112
	≥ M30	19.95	2.00	5	35	0.0400	560	37	56	75	84	90	112

Multi-range thread milling cutters

Incool

M

HM

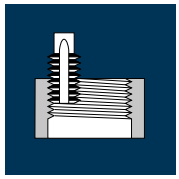


Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH26020** ø-Code **096**

Ø Code	d min.	P	L	l	l_1	d_2 h6	D1		TiCN EH26020
096	14	1.00	70	16.00	25.0	10.0	9.95	4	●
166	14	1.25	70	16.00	25.0	10.0	9.95	4	●
178	14	1.50	70	16.00	25.0	10.0	9.95	4	●
100	18	1.00	80	20.00	31.0	12.0	11.95	4	●
182	18	1.50	80	20.00	31.0	12.0	11.95	4	●
106	24	1.00	90	25.00	40.0	16.0	15.95	5	●
188	24	1.50	90	25.00	40.0	16.0	15.95	5	●
254	24	2.00	90	25.00	40.0	16.0	15.95	5	●
194	30	1.50	105	33.00	50.0	20.0	19.95	5	●
260	30	2.00	105	33.00	50.0	20.0	19.95	5	●

Application



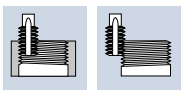
Material	G	D_1 [mm]	P(TPI)	z	v_c [m/min]	f_z [mm]	n [min^{-1}]	v_{fc} d/D_1 3/2	v_{fc} d/D_1 2/1	v_{fc} d/D_1 3/1	v_{fc} d/D_1 4/1	v_{fc} d/D_1 5/1	v_f [mm/min]
Steel 850 - 1100 N/mm²	G1/4	9.95	19.0	4	80	0.0250	2560	85	128	171	192	205	256
	G1/2	15.95	14.0	5	80	0.0400	1595	106	160	213	239	255	319
	G1“	19.95	11.0	5	80	0.0500	1275	106	159	213	239	255	319
Steel 1300 - 1500 N/mm²	G1/4	9.95	19.0	4	50	0.0200	1600	43	64	85	96	102	128
	G1/2	15.95	14.0	5	50	0.0320	1000	53	80	107	120	128	160
	G1“	19.95	11.0	5	50	0.0400	800	53	80	107	120	128	160
Hardened tool steel 48 - 52 HRC	G1/4	9.95	19.0	4	30	0.0165	960	21	32	42	48	51	63
	G1/2	15.95	14.0	5	30	0.0265	600	27	40	53	60	64	80
	G1“	19.95	11.0	5	30	0.0335	480	27	40	54	60	64	80
Stainless steel [Cr-Ni/1.4301]	G1/4	9.95	19.0	4	45	0.0200	1440	38	58	77	86	92	115
	G1/2	15.95	14.0	5	45	0.0320	900	48	72	96	108	115	144
	G1“	19.95	11.0	5	45	0.0400	720	48	72	96	108	115	144
Cast iron (lamellar / spheroidal)	G1/4	9.95	19.0	4	120	0.0250	3840	128	192	256	288	307	384
	G1/2	15.95	14.0	5	120	0.0400	2395	160	240	319	359	383	479
	G1“	19.95	11.0	5	120	0.0500	1915	160	239	319	359	383	479
Wrought aluminium alloys Si < 6% hardened	G1/4	9.95	19.0	4	150	0.0285	4800	182	274	365	410	438	547
	G1/2	15.95	14.0	5	150	0.0455	2995	227	341	454	511	545	681
	G1“	19.95	11.0	5	150	0.0570	2395	228	341	455	512	546	683
Cast aluminium	G1/4	9.95	19.0	4	200	0.0285	6400	243	365	486	547	584	730
	G1/2	15.95	14.0	5	200	0.0455	3990	303	454	605	681	726	908
	G1“	19.95	11.0	5	200	0.0570	3190	303	455	606	682	727	909
Titanium alloys > 300 HB [Ti6Al4V]	G1/4	9.95	19.0	4	35	0.0200	1120	30	45	60	67	72	90
	G1/2	15.95	14.0	5	35	0.0320	700	37	56	75	84	90	112
	G1“	19.95	11.0	5	35	0.0400	560	37	56	75	84	90	112

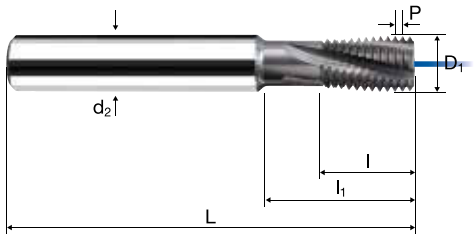
Multi-range thread milling cutters

Incool

G

HM





Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56			Inox Stainless	Ti Titanium	Aluminium / Copper GG(G)

Example: **Order-N°.** Article-N°. **EH26040** ø-Code **552**

Ø Code	d min.	P(TPI)	L	l	l_1	d_2 h6	D1		TiCN EH26040
552	1/4	19.0	70	16.00	25.0	10.0	9.95	4	●
554	1/2	14.0	90	25.00	40.0	16.0	15.95	5	●
558	1''	11.0	105	33.00	50.0	20.0	19.95	5	●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for precision
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Metric coarse thread M

Tolerance ISO 2 (6H)

N° EC10540 / EC10541 	Xtap new!	P	HSS PM/F		Rm 850-1100	Inox Stainless	193
N° EC10550 / EC10551 	Xtap new!	P	HSS PM/F		Rm 850-1100	Inox Stainless	195
N° EH0100 / EH0101 		08	HSS PM/F		Rm <850		197
N° EH10310 / EH10311 	s-tap	08	HSS-E Co5		Rm <850		199
N° EH0502 / EH0503 ToolSchool 	x-tap	11	HSS PM/F		Rm 850-1100		201
N° EH0570 / EH0571 ToolSchool 	x-tap	11	HSS PM/F		Rm 850-1100		203
N° EH0580 / EH0581 	x-tap	11	HSS PM/F		Rm 850-1100		207
N° EH0590 	x-tap-R	11	HSS PM/F		Rm 850-1500		209
N° EH0591 	x-tap-R	11	HSS PM/F		Rm 850-1500		211
N° EH0512 / EH0513 		15	HSS PM/F		Rm 1100-1500		213
N° EH0595 / EH0596 	h-tap	15	HSS PM/F		Rm 1100-1500		215
N° EH6900 / EH6901 	durotap H	60	HM MG10		HRC 48- >60		217
N° ET0400 / ET0401 ToolSchool 	Inotap	In	HSS PM/F		Inox Stainless		219
N° ET0570 / ET0571 ToolSchool 	x-tap	In	HSS PM/F		Inox Stainless		221
N° ET0580 / ET0581 	x-tap	In	HSS PM/F		Inox Stainless		223
N° ET0590 	x-tap-R	In	HSS PM/F		Inox Stainless		225

M

Metric coarse thread M

Tolerance ISO 2 (6H)

N° ET0591 	**x-tap-R**	In	HSS PM/F		**Inox** Stainless		227
N° EH0600 / EH0601 	**c-tap**	GG	HSS PM/F		**GG(G)** Cast iron		229
N° EH0620 / EH0621 	**c-tap**	GG	HSS PM/F		**GG(G)** Cast iron		231
N° EH6500 	**durotap GG-R**	GG	HM MG10		**GG(G)** Cast iron		233
N° EH6501 	**durotap GG-R**	GG	HM MG10		**GG(G)** Cast iron		235
N° EH6550 / EH6551 	**durotap GG**	GG	HM MG10		**GG(G)** Cast iron		237
N° EI0020 / EI0021 		Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	239
N° EI0050 / EI0051 		Al	HSS PM/F		**Al** Aluminium Alloy	**Cu** Copper	241
N° EH6300 	**durotap A-R**	Al	HM MG10		**Al** Aluminium Cast		243
N° EH6301 	**durotap A-R**	Al	HM MG10		**Al** Aluminium Cast		245
N° EH6350 / EH6351 	**durotap A**	Al	HM MG10		**Al** Aluminium Cast		247
N° ET0705 / ET0706 	**titap**	Ti	HSS PM/F		**Ti** Titanium		249
N° ET0755 / ET0756 	**titap**	Ti	HSS PM/F		**Ti** Titanium		253
N° E0598 	**n-tap**	Ni	HSS PM/F		**Ni** Nickel Alloy		255
N° EH0109 	**polytap-R**	R	HSS PM/F		**Rm** <850-1100	**Inox** Stainless	257
N° EH0110 	**polytap-R**	R	HSS PM/F		**Rm** <850-1100	**Inox** Stainless	259

Metric coarse thread M

Tolerance ISO 2 (6H)

N° EH0229

polytap-R | R | HSS PM/F | Rm <850-1100 | Inox Stainless | 261

N° EH0230

polytap-R | R | HSS PM/F | Rm <850-1100 | Inox Stainless | 263

Tolerance ISO 2 (6H)

N° E10800 / E10801

u-tap | U | HSS-E Co5 | Rm <850 | | 265

N° E10820 / E10821

u-tap | U | HSS-E Co5 | Rm <850 | | 269

M

Tolerance ISO 2 (6H) extra long

N° E10340

U | HSS PM/F | Rm <850 | | 273

N° E10350

U | HSS PM/F | Rm <850 | | 275

Tolerance ISO 2 (6H) LH

N° E10122 / E10123

U | HSS-E Co5 | Rm <850 | | 277

N° E10222 / E10223

U | HSS-E Co5 | Rm <850 | | 279

Metric coarse thread M

Tolerance ISO 2 +0.1

N° E10118 / E10119

N° E10220 / E10221

	U	HSS-E Co5		Rm <850		281
	U	HSS-E Co5		Rm <850		283

Tolerance ISO 3 (6G)

N° EH0504 / EH0505

N° EH0572 / EH0573

x-tap	11	HSS PM/F		Rm 850-1100		285
x-tap	11	HSS PM/F		Rm 850-1100		287

Tolerance ISO 1 (4H)

N° E10110

N° E10214

	U	HSS-E Co5		Rm <850		289
	U	HSS-E Co5		Rm <850		291

Metric coarse thread M / MJ

Tolerance 7G

N° E10114 / E10115

N° E10218 / E10219

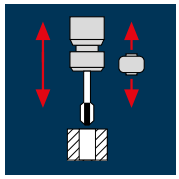
U	HSS-E Co5		Rm <850		293
U	HSS-E Co5		Rm <850		295

MJ Tolerance 4H

N° E0599

Ni	HSS PM/F		Ni Nickel Alloy		297

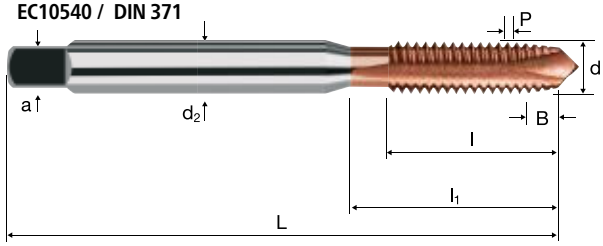
M

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	26	4140	1656	22	3500	1400	18	2865	1146
		M 2.5	2.500	0.45	26	3310	1490	22	2800	1260	18	2290	1031
		M 3	3.000	0.50	26	2760	1380	22	2335	1168	18	1910	955
		M 4	4.000	0.70	26	2070	1449	22	1750	1225	18	1430	1001
		M 5	5.000	0.80	26	1655	1324	22	1400	1120	18	1145	916
		M 6	6.000	1.00	26	1380	1380	22	1165	1165	18	955	955
		M 8	8.000	1.25	26	1035	1294	22	875	1094	18	715	894
		M 10	10.000	1.50	26	830	1245	22	700	1050	18	575	863
		M 12	12.000	1.75	26	690	1208	22	585	1024	18	475	831
	Steel 500 - 850 N/mm²	M 14	14.000	2.00	26	590	1180	22	500	1000	18	410	820
		M 16	16.000	2.00	26	515	1030	22	440	880	18	360	720
		M 18	18.000	2.50	26	460	1150	22	390	975	18	320	800
		M 20	20.000	2.50	26	415	1038	22	350	875	18	285	713
		M 22	22.000	2.50	26	375	938	22	320	800	18	260	650
		M 24	24.000	3.00	26	345	1035	22	290	870	18	240	720
	Steel 850 - 1100 N/mm²	M 2	2.000	0.40	22	3500	1400	18	2865	1146	14	2230	892
		M 2.5	2.500	0.45	22	2800	1260	18	2290	1031	14	1785	803
		M 3	3.000	0.50	22	2335	1168	18	1910	955	14	1485	743
		M 4	4.000	0.70	22	1750	1225	18	1430	1001	14	1115	781
		M 5	5.000	0.80	22	1400	1120	18	1145	916	14	890	712
		M 6	6.000	1.00	22	1165	1165	18	955	955	14	745	745
		M 8	8.000	1.25	22	875	1094	18	715	894	14	555	694
		M 10	10.000	1.50	22	700	1050	18	575	863	14	445	668
		M 12	12.000	1.75	22	585	1024	18	475	831	14	370	648
	Steel 850 - 1100 N/mm²	M 14	14.000	2.00	22	500	1000	18	410	820	14	320	640
		M 16	16.000	2.00	22	440	880	18	360	720	14	280	560
		M 18	18.000	2.50	22	390	975	18	320	800	14	250	625
		M 20	20.000	2.50	22	350	875	18	285	713	14	225	563
		M 22	22.000	2.50	22	320	800	18	260	650	14	205	513
		M 24	24.000	3.00	22	290	870	18	240	720	14	185	555
	Stainless steel ferritc/martensitic	M 2	2.000	0.40	14	2230	892	12	1910	764	10	1590	636
		M 2.5	2.500	0.45	14	1785	803	12	1530	689	10	1275	574
		M 3	3.000	0.50	14	1485	743	12	1275	638	10	1060	530
		M 4	4.000	0.70	14	1115	781	12	955	669	10	795	557
		M 5	5.000	0.80	14	890	712	12	765	612	10	635	508
		M 6	6.000	1.00	14	745	745	12	635	635	10	530	530
		M 8	8.000	1.25	14	555	694	12	475	594	10	400	500
		M 10	10.000	1.50	14	445	668	12	380	570	10	320	480
		M 12	12.000	1.75	14	370	648	12	320	560	10	265	464
	Stainless steel ferritc/martensitic	M 14	14.000	2.00	14	320	640	12	275	550	10	225	450
		M 16	16.000	2.00	14	280	560	12	240	480	10	200	400
		M 18	18.000	2.50	14	250	625	12	210	525	10	175	438
		M 20	20.000	2.50	14	225	563	12	190	475	10	160	400
		M 22	22.000	2.50	14	205	513	12	175	438	10	145	363
		M 24	24.000	3.00	14	185	555	12	160	480	10	135	405
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	8	1275	510	6	955	382	5	795	318
		M 2.5	2.500	0.45	8	1020	459	6	765	344	5	635	286
		M 3	3.000	0.50	8	850	425	6	635	318	5	530	265
		M 4	4.000	0.70	8	635	445	6	475	333	5	400	280
		M 5	5.000	0.80	8	510	408	6	380	304	5	320	256
		M 6	6.000	1.00	8	425	425	6	320	320	5	265	265
		M 8	8.000	1.25	8	320	400	6	240	300	5	200	250
		M 10	10.000	1.50	8	255	383	6	190	285	5	160	240
		M 12	12.000	1.75	8	210	368	6	160	280	5	135	236
	Stainless steel [Cr-Ni/1.4301]	M 14	14.000	2.00	8	180	360	6	135	270	5	115	230
		M 16	16.000	2.00	8	160	320	6	120	240	5	100	200
		M 18	18.000	2.50	8	140	350	6	105	263	5	90	225
		M 20	20.000	2.50	8	125	313	6	95	238	5	80	200
		M 22	22.000	2.50	8	115	288	6	85	213	5	70	175
		M 24	24.000	3.00	8	105	315	6	80	240	5	65	195

Taps Xtap

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form B

EC10540 / DIN 371



new!

EC10541 / DIN 376

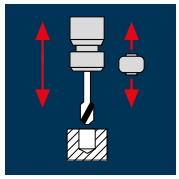
Rm < 850	Rm 850-1100						Inox Stainless		

Example: **Order-N°.** Article-N°. **EC10540** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			AlCrTiN EC10540
034	M 2	0.40	45	9.00	-	2.8	2.1	2	1.60	●
040	M 2.5	0.45	50	11.00	-	2.8	2.1	2	2.05	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EC10541** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			AlCrTiN EC10541
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.00	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.00	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	4	19.50	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 2.5 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	32	5095	2038	28	4455	1782	22	3500	1400
		M 2.5	2.500	0.45	32	4075	1834	28	3565	1604	22	2800	1260
		M 3	3.000	0.50	32	3395	1698	28	2970	1485	22	2335	1168
		M 4	4.000	0.70	32	2545	1782	28	2230	1561	22	1750	1225
		M 5	5.000	0.80	32	2035	1628	28	1785	1428	22	1400	1120
		M 6	6.000	1.00	32	1700	1700	28	1485	1485	22	1165	1165
		M 8	8.000	1.25	32	1275	1594	28	1115	1394	22	875	1094
		M 10	10.000	1.50	32	1020	1530	28	890	1335	22	700	1050
		M 10	10.000	1.50	32	1020	1530	28	890	1335	22	700	1050
	Steel 500 - 850 N/mm²	M 12	12.000	1.75	32	850	1488	28	745	1304	22	585	1024
		M 14	14.000	2.00	32	730	1460	28	635	1270	22	500	1000
		M 16	16.000	2.00	32	635	1270	28	555	1110	22	440	880
		M 18	18.000	2.50	32	565	1413	28	495	1238	22	390	975
		M 20	20.000	2.50	32	510	1275	28	445	1113	22	350	875
		M 22	22.000	2.50	32	465	1163	28	405	1013	22	320	800
		M 24	24.000	3.00	32	425	1275	28	370	1110	22	290	870
	Steel 850 - 1100 N/mm²	M 2	2.000	0.40	20	3185	1274	16	2545	1018	10	1590	636
		M 2.5	2.500	0.45	20	2545	1145	16	2035	916	10	1275	574
		M 3	3.000	0.50	20	2120	1060	16	1700	850	10	1060	530
		M 4	4.000	0.70	20	1590	1113	16	1275	893	10	795	557
		M 5	5.000	0.80	20	1275	1020	16	1020	816	10	635	508
		M 6	6.000	1.00	20	1060	1060	16	850	850	10	530	530
		M 8	8.000	1.25	20	795	994	16	635	794	10	400	500
		M 10	10.000	1.50	20	635	953	16	510	765	10	320	480
		M 10	10.000	1.50	20	635	953	16	510	765	10	320	480
	Steel 850 - 1100 N/mm²	M 12	12.000	1.75	20	530	928	16	425	744	10	265	464
		M 14	14.000	2.00	20	455	910	16	365	730	10	225	450
		M 16	16.000	2.00	20	400	800	16	320	640	10	200	400
		M 18	18.000	2.50	20	355	888	16	285	713	10	175	438
		M 20	20.000	2.50	20	320	800	16	255	638	10	160	400
		M 22	22.000	2.50	20	290	725	16	230	575	10	145	363
		M 24	24.000	3.00	20	265	795	16	210	630	10	135	405
	Stainless steel ferritc/martensitic	M 2	2.000	0.40	10	1590	636	8	1275	510	6	955	382
		M 2.5	2.500	0.45	10	1275	574	8	1020	459	6	765	344
		M 3	3.000	0.50	10	1060	530	8	850	425	6	635	318
		M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
	Stainless steel ferritc/martensitic	M 12	12.000	1.75	10	265	464	8	210	368	6	160	280
		M 14	14.000	2.00	10	225	450	8	180	360	6	135	270
		M 16	16.000	2.00	10	200	400	8	160	320	6	120	240
		M 18	18.000	2.50	10	175	438	8	140	350	6	105	263
		M 20	20.000	2.50	10	160	400	8	125	313	6	95	238
		M 22	22.000	2.50	10	145	363	8	115	288	6	85	213
		M 24	24.000	3.00	10	135	405	8	105	315	6	80	240
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	5	795	318	4	635	254	3	475	190
		M 2.5	2.500	0.45	5	635	286	4	510	230	3	380	171
		M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
		M 14	14.000	2.00	5	115	230	4	90	180	3	70	140
		M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
		M 18	18.000	2.50	5	90	225	4	70	175	3	55	138
		M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
		M 22	22.000	2.50	5	70	175	4	60	150	3	45	113
		M 24	24.000	3.00	5	65	195	4	55	165	3	40	120

Taps Xtap

P

M

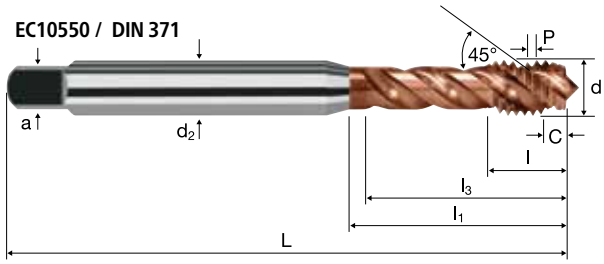
ISO 2 (6H)

HSS PM/F

DIN 371/376

Form C

EC10550 / DIN 371



new!

EC10551 / DIN 376

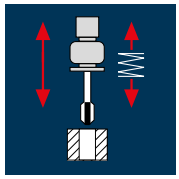
Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

Example: **Order-N°.** Article-N°. **EC10550** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			AlCrTiN EC10550
034	M 2	0.40	45	8.00	12.5	10.5	2.8	2.1	3	1.60	●
040	M 2.5	0.45	50	9.00	15.0	13.0	2.8	2.1	3	2.05	●
044	M 3	0.50	56	4.00	18.0	16.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	5.60	21.0	19.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	6.40	25.0	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	8.00	30.0	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	10.00	35.0	33.0	8.0	6.2	3	6.80	●
173	M 10	1.50	100	12.00	39.0	37.0	10.0	8.0	3	8.50	●
174	M 10	1.50	100	12.00	39.0	37.0	10.0	8.0	4	8.50	●

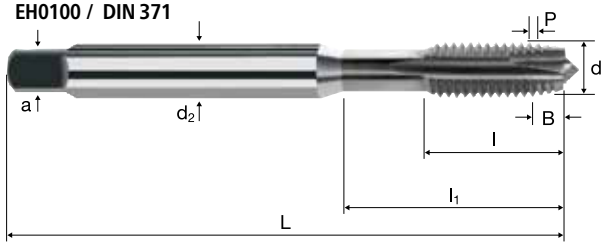
Example: **Order-N°.** Article-N°. **EC10551** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			AlCrTiN EC10551
240	M 12	1.75	110	14.00	50.0	48.0	9.0	7.0	4	10.20	●
244	M 14	2.00	110	16.00	58.0	56.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	16.00	58.0	56.0	12.0	9.0	4	14.00	●
312	M 18	2.50	125	20.00	65.0	63.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	20.00	72.0	70.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	20.00	72.0	70.0	18.0	14.5	5	19.50	●
320	M 24	3.00	160	24.00	74.0	72.0	18.0	14.5	5	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	28	4455	1782	23	3660	1464	18	2865	1146
		M 2.5	2.500	0.45	28	3565	1604	23	2930	1319	18	2290	1031
		M 3	3.000	0.50	28	2970	1485	23	2440	1220	18	1910	955
		M 4	4.000	0.70	28	2230	1561	23	1830	1281	18	1430	1001
		M 5	5.000	0.80	28	1785	1428	23	1465	1172	18	1145	916
		M 6	6.000	1.00	28	1485	1485	23	1220	1220	18	955	955
		M 8	8.000	1.25	28	1115	1394	23	915	1144	18	715	894
		M 10	10.000	1.50	28	890	1335	23	730	1095	18	575	863
		M 12	12.000	1.75	28	745	1304	23	610	1068	18	475	831
	Steel < 500 N/mm²	M 14	14.000	2.00	28	635	1270	23	525	1050	18	410	820
		M 16	16.000	2.00	28	555	1110	23	460	920	18	360	720
		M 18	18.000	2.50	28	495	1238	23	405	1013	18	320	800
		M 20	20.000	2.50	28	445	1113	23	365	913	18	285	713
		M 22	22.000	2.50	28	405	1013	23	335	838	18	260	650
		M 24	24.000	3.00	28	370	1110	23	305	915	18	240	720
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	25	3980	1592	20	3185	1274	15	2385	954
		M 2.5	2.500	0.45	25	3185	1433	20	2545	1145	15	1910	860
		M 3	3.000	0.50	25	2655	1328	20	2120	1060	15	1590	795
		M 4	4.000	0.70	25	1990	1393	20	1590	1113	15	1195	837
		M 5	5.000	0.80	25	1590	1272	20	1275	1020	15	955	764
		M 6	6.000	1.00	25	1325	1325	20	1060	1060	15	795	795
		M 8	8.000	1.25	25	995	1244	20	795	994	15	595	744
		M 10	10.000	1.50	25	795	1193	20	635	953	15	475	713
		M 12	12.000	1.75	25	665	1164	20	530	928	15	400	700
	Steel 500 - 850 N/mm²	M 14	14.000	2.00	25	570	1140	20	455	910	15	340	680
		M 16	16.000	2.00	25	495	990	20	400	800	15	300	600
		M 18	18.000	2.50	25	440	1100	20	355	888	15	265	663
		M 20	20.000	2.50	25	400	1000	20	320	800	15	240	600
		M 22	22.000	2.50	25	360	900	20	290	725	15	215	538
		M 24	24.000	3.00	25	330	990	20	265	795	15	200	600

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form B

EH0100 / DIN 371



EH0101 / DIN 376

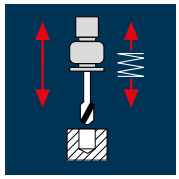
Rm < 850	Rm 850-1100

Example: **Order-N°.** Article-N°. **EH0100** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0100
034	M 2	0.40	45	8.00	-	2.8	2.1	2	1.60	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	2.05	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EH0101** ø-Code **240**

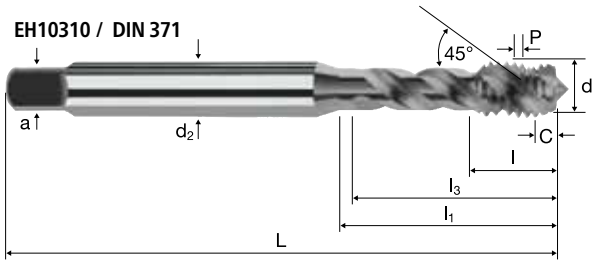
Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0101
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.00	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.00	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	4	19.50	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	25	3980	1592	20	3185	1274	18	2865	1146
		M 2.5	2.500	0.45	25	3185	1433	20	2545	1145	18	2290	1031
		M 3	3.000	0.50	25	2655	1328	20	2120	1060	18	1910	955
		M 4	4.000	0.70	25	1990	1393	20	1590	1113	18	1430	1001
		M 5	5.000	0.80	25	1590	1272	20	1275	1020	18	1145	916
		M 6	6.000	1.00	25	1325	1325	20	1060	1060	18	955	955
		M 8	8.000	1.25	25	995	1244	20	795	994	18	715	894
		M 10	10.000	1.50	25	795	1193	20	635	953	18	575	863
		M 12	12.000	1.75	25	665	1164	20	530	928	18	475	831
	Steel < 500 N/mm²	M 14	14.000	2.00	25	570	1140	20	455	910	18	410	820
		M 16	16.000	2.00	25	495	990	20	400	800	18	360	720
		M 18	18.000	2.50	25	440	1100	20	355	888	18	320	800
		M 20	20.000	2.50	25	400	1000	20	320	800	18	285	713
		M 22	22.000	2.50	25	360	900	20	290	725	18	260	650
		M 24	24.000	3.00	25	330	990	20	265	795	18	240	720
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	16	2545	1018	14	2230	892	12	1910	764
		M 2.5	2.500	0.45	16	2035	916	14	1785	803	12	1530	689
		M 3	3.000	0.50	16	1700	850	14	1485	743	12	1275	638
		M 4	4.000	0.70	16	1275	893	14	1115	781	12	955	669
		M 5	5.000	0.80	16	1020	816	14	890	712	12	765	612
		M 6	6.000	1.00	16	850	850	14	745	745	12	635	635
		M 8	8.000	1.25	16	635	794	14	555	694	12	475	594
		M 10	10.000	1.50	16	510	765	14	445	668	12	380	570
		M 12	12.000	1.75	16	425	744	14	370	648	12	320	560
	Steel 500 - 850 N/mm²	M 14	14.000	2.00	16	365	730	14	320	640	12	275	550
		M 16	16.000	2.00	16	320	640	14	280	560	12	240	480
		M 18	18.000	2.50	16	285	713	14	250	625	12	210	525
		M 20	20.000	2.50	16	255	638	14	225	563	12	190	475
		M 22	22.000	2.50	16	230	575	14	205	513	12	175	438
		M 24	24.000	3.00	16	210	630	14	185	555	12	160	480
	Cast iron GG	M 2	2.000	0.40	14	2230	892	12	1910	764	10	1590	636
		M 2.5	2.500	0.45	14	1785	803	12	1530	689	10	1275	574
		M 3	3.000	0.50	14	1485	743	12	1275	638	10	1060	530
		M 4	4.000	0.70	14	1115	781	12	955	669	10	795	557
		M 5	5.000	0.80	14	890	712	12	765	612	10	635	508
		M 6	6.000	1.00	14	745	745	12	635	635	10	530	530
		M 8	8.000	1.25	14	555	694	12	475	594	10	400	500
		M 10	10.000	1.50	14	445	668	12	380	570	10	320	480
		M 12	12.000	1.75	14	370	648	12	320	560	10	265	464
	Cast iron GG	M 14	14.000	2.00	14	320	640	12	275	550	10	225	450
		M 16	16.000	2.00	14	280	560	12	240	480	10	200	400
		M 18	18.000	2.50	14	250	625	12	210	525	10	175	438
		M 20	20.000	2.50	14	225	563	12	190	475	10	160	400
		M 22	22.000	2.50	14	205	513	12	175	438	10	145	363
		M 24	24.000	3.00	14	185	555	12	160	480	10	135	405
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	3	475	190	2	320	128	2	320	128
		M 2.5	2.500	0.45	3	380	171	2	255	115	2	255	115
		M 3	3.000	0.50	3	320	160	2	210	105	2	210	105
		M 4	4.000	0.70	3	240	168	2	160	112	2	160	112
		M 5	5.000	0.80	3	190	152	2	125	100	2	125	100
		M 6	6.000	1.00	3	160	160	2	105	105	2	105	105
		M 8	8.000	1.25	3	120	150	2	80	100	2	80	100
		M 10	10.000	1.50	3	95	143	2	65	98	2	65	98
		M 12	12.000	1.75	3	80	140	2	55	96	2	55	96
	Stainless steel [Cr-Ni/1.4301]	M 14	14.000	2.00	3	70	140	2	45	90	2	45	90
		M 16	16.000	2.00	3	60	120	2	40	80	2	40	80
		M 18	18.000	2.50	3	55	138	2	35	88	2	35	88
		M 20	20.000	2.50	3	50	125	2	30	75	2	30	75
		M 22	22.000	2.50	3	45	113	2	30	75	2	30	75
		M 24	24.000	3.00	3	40	120	2	25	75	2	25	75

Taps s-tap

M	**ISO 2** (6H)
60°	**HSS-E Co5**
DIN 371/376	
	X · P Form C

EH10310 / DIN 371



EH10311 / DIN 376

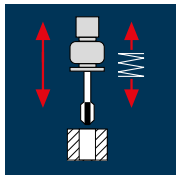
Rm < 850	**Rm** 850-1100						**Inox** Stainless		**GG(G)**

Example: **Order-N°.** Article-N°. **EH10310** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH10310
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	1.60	●
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	2.05	●
044	M 3	0.50	56	4.00	18.0	16.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	5.60	21.0	19.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	6.40	25.0	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	8.00	30.0	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	10.00	35.0	33.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	12.00	39.0	37.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EH10311** ø-Code **240**

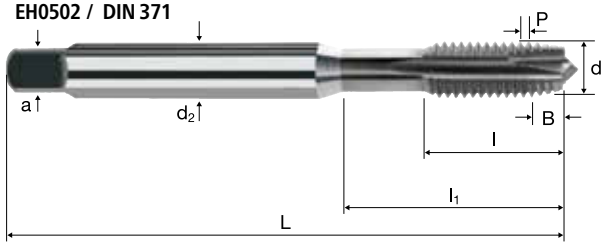
Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH10311
240	M 12	1.75	110	14.00	50.0	48.0	9.0	7.0	3	10.20	●
244	M 14	2.00	110	16.00	58.0	56.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	16.00	58.0	56.0	12.0	9.0	4	14.00	●
312	M 18	2.50	125	20.00	65.0	63.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	20.00	72.0	70.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	20.00	72.0	70.0	18.0	14.5	4	19.50	●
320	M 24	3.00	160	24.00	74.0	72.0	18.0	14.5	4	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	25	3980	1592	20	3185	1274	15	2385	954
		M 2.5	2.500	0.45	25	3185	1433	20	2545	1145	15	1910	860
		M 3	3.000	0.50	25	2655	1328	20	2120	1060	15	1590	795
		M 4	4.000	0.70	25	1990	1393	20	1590	1113	15	1195	837
		M 5	5.000	0.80	25	1590	1272	20	1275	1020	15	955	764
		M 6	6.000	1.00	25	1325	1325	20	1060	1060	15	795	795
		M 8	8.000	1.25	25	995	1244	20	795	994	15	595	744
		M 10	10.000	1.50	25	795	1193	20	635	953	15	475	713
		M 12	12.000	1.75	25	665	1164	20	530	928	15	400	700
	Steel 500 - 850 N/mm²	M 14	14.000	2.00	25	570	1140	20	455	910	15	340	680
		M 16	16.000	2.00	25	495	990	20	400	800	15	300	600
		M 18	18.000	2.50	25	440	1100	20	355	888	15	265	663
		M 20	20.000	2.50	25	400	1000	20	320	800	15	240	600
		M 22	22.000	2.50	25	360	900	20	290	725	15	215	538
		M 24	24.000	3.00	25	330	990	20	265	795	15	200	600
	Steel 850 - 1100 N/mm²	M 2	2.000	0.40	20	3185	1274	15	2385	954	12	1910	764
		M 2.5	2.500	0.45	20	2545	1145	15	1910	860	12	1530	689
		M 3	3.000	0.50	20	2120	1060	15	1590	795	12	1275	638
		M 4	4.000	0.70	20	1590	1113	15	1195	837	12	955	669
		M 5	5.000	0.80	20	1275	1020	15	955	764	12	765	612
		M 6	6.000	1.00	20	1060	1060	15	795	795	12	635	635
		M 8	8.000	1.25	20	795	994	15	595	744	12	475	594
		M 10	10.000	1.50	20	635	953	15	475	713	12	380	570
		M 12	12.000	1.75	20	530	928	15	400	700	12	320	560
	Steel 850 - 1100 N/mm²	M 14	14.000	2.00	20	455	910	15	340	680	12	275	550
		M 16	16.000	2.00	20	400	800	15	300	600	12	240	480
		M 18	18.000	2.50	20	355	888	15	265	663	12	210	525
		M 20	20.000	2.50	20	320	800	15	240	600	12	190	475
		M 22	22.000	2.50	20	290	725	15	215	538	12	175	438
		M 24	24.000	3.00	20	265	795	15	200	600	12	160	480
	Steel 1100 - 1300 N/mm²	M 2	2.000	0.40	7	1115	446	4	635	254	-	-	-
		M 2.5	2.500	0.45	7	890	401	4	510	230	-	-	-
		M 3	3.000	0.50	7	745	373	4	425	213	-	-	-
		M 4	4.000	0.70	7	555	389	4	320	224	-	-	-
		M 5	5.000	0.80	7	445	356	4	255	204	-	-	-
		M 6	6.000	1.00	7	370	370	4	210	210	-	-	-
		M 8	8.000	1.25	7	280	350	4	160	200	-	-	-
		M 10	10.000	1.50	7	225	338	4	125	188	-	-	-
		M 12	12.000	1.75	7	185	324	4	105	184	-	-	-
	Steel 1100 - 1300 N/mm²	M 14	14.000	2.00	7	160	320	4	90	180	-	-	-
		M 16	16.000	2.00	7	140	280	4	80	160	-	-	-
		M 18	18.000	2.50	7	125	313	4	70	175	-	-	-
		M 20	20.000	2.50	7	110	275	4	65	163	-	-	-
		M 22	22.000	2.50	7	100	250	4	60	150	-	-	-
		M 24	24.000	3.00	7	95	285	4	55	165	-	-	-

Taps x-tap

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form B

EH0502 / DIN 371



EH0503 / DIN 376

ToolSchool EC10540 / EC10541

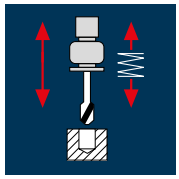
Rm < 850	Rm 850-1100	Rm 1100-1300							

Example: **Order-N°.** Article-N°. **EH0502** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0502
034	M 2	0.40	45	8.00	-	2.8	2.1	2	1.60	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	2.05	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EH0503** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0503
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.00	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.00	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	4	19.50	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	21.00	●

Application	Material
	**Steel** **500 - 850 N/mm²**

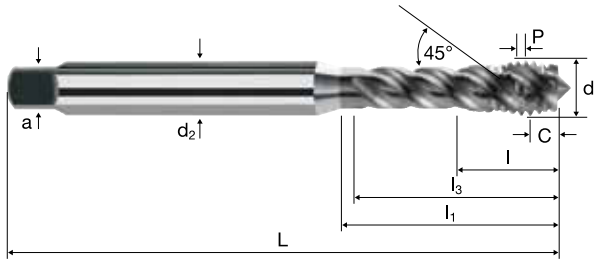
M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
M 2	2.000	0.40	32	5095	2038	28	4455	1782	22	3500	1400
M 2.5	2.500	0.45	32	4075	1834	28	3565	1604	22	2800	1260
M 3	3.000	0.50	32	3395	1698	28	2970	1485	22	2335	1168
M 4	4.000	0.70	32	2545	1782	28	2230	1561	22	1750	1225
M 5	5.000	0.80	32	2035	1628	28	1785	1428	22	1400	1120
M 6	6.000	1.00	32	1700	1700	28	1485	1485	22	1165	1165
M 8	8.000	1.25	32	1275	1594	28	1115	1394	22	875	1094
M 10	10.000	1.50	32	1020	1530	28	890	1335	22	700	1050

Material
Steel **850 - 1100 N/mm²**

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
M 2	2.000	0.40	20	3185	1274	16	2545	1018	10	1590	636
M 2.5	2.500	0.45	20	2545	1145	16	2035	916	10	1275	574
M 3	3.000	0.50	20	2120	1060	16	1700	850	10	1060	530
M 4	4.000	0.70	20	1590	1113	16	1275	893	10	795	557
M 5	5.000	0.80	20	1275	1020	16	1020	816	10	635	508
M 6	6.000	1.00	20	1060	1060	16	850	850	10	530	530
M 8	8.000	1.25	20	795	994	16	635	794	10	400	500
M 10	10.000	1.50	20	635	953	16	510	765	10	320	480

Taps x-tap

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371	
	X · P Form C



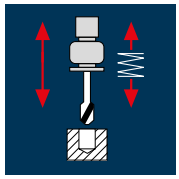
ToolSchool EC10550 / EC10551

Rm < 850	Rm 850-1100

Example: **Order-N°.** Article-N°. **EH0570** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN
											EH0570
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	1.60	●
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	2.05	●
044	M 3	0.50	56	5.00	-	16.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	7.00	-	19.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	8.00	-	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	10.00	-	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.80	●
173	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	3	8.50	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	4	8.50	●

For larger dimensions see article no. EH0571

Application	Material
	**Steel** **500 - 850 N/mm²**

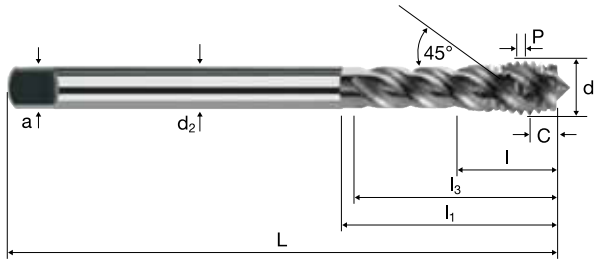
M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
M 12	12.000	1.75	32	850	1488	28	745	1304	22	585	1024
M 14	14.000	2.00	32	730	1460	28	635	1270	22	500	1000
M 16	16.000	2.00	32	635	1270	28	555	1110	22	440	880
M 18	18.000	2.50	32	565	1413	28	495	1238	22	390	975
M 20	20.000	2.50	32	510	1275	28	445	1113	22	350	875
M 22	22.000	2.50	32	465	1163	28	405	1013	22	320	800
M 24	24.000	3.00	32	425	1275	28	370	1110	22	290	870

Material
Steel **850 - 1100 N/mm²**

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
M 12	12.000	1.75	20	530	928	16	425	744	10	265	464
M 14	14.000	2.00	20	455	910	16	365	730	10	225	450
M 16	16.000	2.00	20	400	800	16	320	640	10	200	400
M 18	18.000	2.50	20	355	888	16	285	713	10	175	438
M 20	20.000	2.50	20	320	800	16	255	638	10	160	400
M 22	22.000	2.50	20	290	725	16	230	575	10	145	363
M 24	24.000	3.00	20	265	795	16	210	630	10	135	405

Taps x-tap

M	ISO 2 (6H)
60°	HSS PM/F
DIN 376	
	X · P Form C

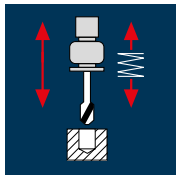


ToolSchool EC10550 / EC10551

Rm < 850	Rm 850-1100

Example: **Order-N°.** Article-N°. **EH0571** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN
											EH0571
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	4	10.20	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.00	●
312	M 18	2.50	125	25.00	65.0	63.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	25.00	72.0	70.0	18.0	14.5	5	19.50	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	5	21.00	●

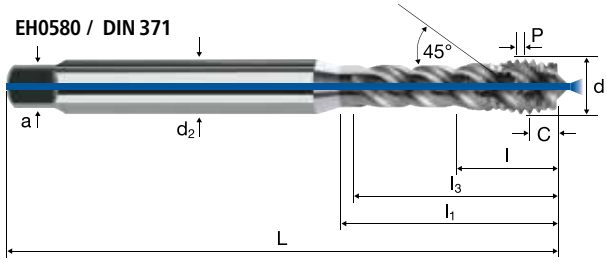
Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 4	4.000	0.70	32	2545	1782	28	2230	1561	22	1750	1225
		M 5	5.000	0.80	32	2035	1628	28	1785	1428	22	1400	1120
		M 6	6.000	1.00	32	1700	1700	28	1485	1485	22	1165	1165
		M 8	8.000	1.25	32	1275	1594	28	1115	1394	22	875	1094
		M 10	10.000	1.50	32	1020	1530	28	890	1335	22	700	1050
		M 12	12.000	1.75	32	850	1488	28	745	1304	22	585	1024
		M 14	14.000	2.00	32	730	1460	28	635	1270	22	500	1000
		M 16	16.000	2.00	32	635	1270	28	555	1110	22	440	880
		M 18	18.000	2.50	32	565	1413	28	495	1238	22	390	975
	Steel 500 - 850 N/mm²	M 20	20.000	2.50	32	510	1275	28	445	1113	22	350	875
		M 22	22.000	2.50	32	465	1163	28	405	1013	22	320	800
		M 24	24.000	3.00	32	425	1275	28	370	1110	22	290	870
	Steel 850 - 1100 N/mm²	M 4	4.000	0.70	20	1590	1113	16	1275	893	10	795	557
		M 5	5.000	0.80	20	1275	1020	16	1020	816	10	635	508
		M 6	6.000	1.00	20	1060	1060	16	850	850	10	530	530
		M 8	8.000	1.25	20	795	994	16	635	794	10	400	500
		M 10	10.000	1.50	20	635	953	16	510	765	10	320	480
		M 12	12.000	1.75	20	530	928	16	425	744	10	265	464
		M 14	14.000	2.00	20	455	910	16	365	730	10	225	450
		M 16	16.000	2.00	20	400	800	16	320	640	10	200	400
		M 18	18.000	2.50	20	355	888	16	285	713	10	175	438
	Steel 850 - 1100 N/mm²	M 20	20.000	2.50	20	320	800	16	255	638	10	160	400
		M 22	22.000	2.50	20	290	725	16	230	575	10	145	363
		M 24	24.000	3.00	20	265	795	16	210	630	10	135	405

Taps x-tap

Incool

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form C

EH0580 / DIN 371



EH0581 / DIN 376

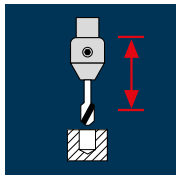
Rm < 850	Rm 850-1100								

Example: **Order-N°.** Article-N°. **EH0580** ø-Code **058**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH0580
058	M 4	0.70	63	7.00	-	19.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	8.00	-	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	10.00	-	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	4	8.50	●

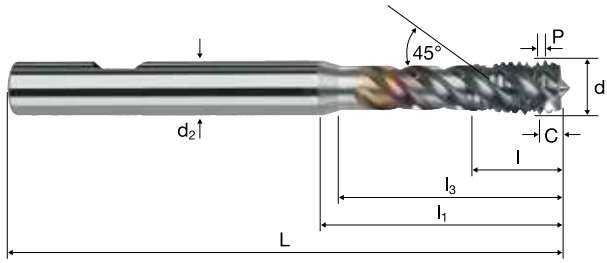
Example: **Order-N°.** Article-N°. **EH0581** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH0581
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	4	10.20	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.00	●
312	M 18	2.50	125	25.00	65.0	63.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	25.00	72.0	70.0	18.0	14.5	5	19.50	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	5	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Steel 500 - 850 N/mm²	M 3	3.000	0.50	34	3610	30	3185	24	2545
		M 4	4.000	0.70	34	2705	30	2385	24	1910
		M 5	5.000	0.80	34	2165	30	1910	24	1530
		M 6	6.000	1.00	34	1805	30	1590	24	1275
		M 8	8.000	1.25	34	1355	30	1195	24	955
		M 10	10.000	1.50	34	1080	30	955	24	765
		M 12	12.000	1.75	34	900	30	795	24	635
		M 14	14.000	2.00	34	775	30	680	24	545
		M 16	16.000	2.00	34	675	30	595	24	475
	Steel 500 - 850 N/mm²	M 18	18.000	2.50	34	600	30	530	24	425
		M 20	20.000	2.50	34	540	30	475	24	380
		M 22	22.000	2.50	34	490	30	435	24	345
		M 24	24.000	3.00	34	450	30	400	24	320
	Steel 850 - 1100 N/mm²	M 3	3.000	0.50	22	2335	18	1910	12	1275
		M 4	4.000	0.70	22	1750	18	1430	12	955
		M 5	5.000	0.80	22	1400	18	1145	12	765
		M 6	6.000	1.00	22	1165	18	955	12	635
		M 8	8.000	1.25	22	875	18	715	12	475
		M 10	10.000	1.50	22	700	18	575	12	380
		M 12	12.000	1.75	22	585	18	475	12	320
		M 14	14.000	2.00	22	500	18	410	12	275
		M 16	16.000	2.00	22	440	18	360	12	240
	Steel 850 - 1100 N/mm²	M 18	18.000	2.50	22	390	18	320	12	210
		M 20	20.000	2.50	22	350	18	285	12	190
		M 22	22.000	2.50	22	320	18	260	12	175
		M 24	24.000	3.00	22	290	18	240	12	160

Taps x-tap-R

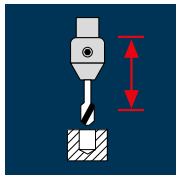
M	ISO 2 (6H)
60°	HSS PM/F
DIN 1835B ISO 3338	
	X · P Form C



Rm < 850	Rm 850-1100								

Example: **Order-N°.** Article-N°. **EH0590** ø-Code **044**

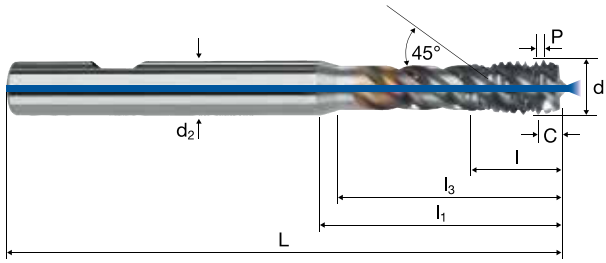
Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH0590
044	M 3	0.50	63	5.00	-	16.0	6.0	3	2.50	●
058	M 4	0.70	66	7.00	-	19.0	6.0	3	3.30	●
084	M 5	0.80	70	8.00	-	23.0	6.0	3	4.20	●
088	M 6	1.00	80	10.00	-	28.0	6.0	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	4	8.50	●
240	M 12	1.75	110	18.00	45.0	43.0	12.0	4	10.20	●
244	M 14	2.00	110	20.00	46.0	44.0	16.0	4	12.00	●
246	M 16	2.00	110	20.00	50.0	48.0	16.0	4	14.00	●
312	M 18	2.50	125	25.00	60.0	58.0	16.0	4	15.50	●
314	M 20	2.50	140	25.00	64.0	62.0	16.0	4	17.50	●
316	M 22	2.50	140	25.00	64.0	62.0	20.0	5	19.50	●
320	M 24	3.00	160	30.00	74.0	72.0	20.0	5	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Steel 500 - 850 N/mm²	M 4	4.000	0.70	28	2230	24	1910	18	1430
		M 5	5.000	0.80	28	1785	24	1530	18	1145
		M 6	6.000	1.00	28	1485	24	1275	18	955
		M 8	8.000	1.25	28	1115	24	955	18	715
		M 10	10.000	1.50	28	890	24	765	18	575
		M 12	12.000	1.75	28	745	24	635	18	475
		M 14	14.000	2.00	28	635	24	545	18	410
		M 16	16.000	2.00	28	555	24	475	18	360
		M 18	18.000	2.50	28	495	24	425	18	320
	Steel 500 - 850 N/mm²	M 20	20.000	2.50	28	445	24	380	18	285
		M 22	22.000	2.50	28	405	24	345	18	260
		M 24	24.000	3.00	28	370	24	320	18	240
	Steel 850 - 1100 N/mm²	M 4	4.000	0.70	22	1750	18	1430	12	955
		M 5	5.000	0.80	22	1400	18	1145	12	765
		M 6	6.000	1.00	22	1165	18	955	12	635
		M 8	8.000	1.25	22	875	18	715	12	475
		M 10	10.000	1.50	22	700	18	575	12	380
		M 12	12.000	1.75	22	585	18	475	12	320
		M 14	14.000	2.00	22	500	18	410	12	275
		M 16	16.000	2.00	22	440	18	360	12	240
		M 18	18.000	2.50	22	390	18	320	12	210
	Steel 850 - 1100 N/mm²	M 20	20.000	2.50	22	350	18	285	12	190
		M 22	22.000	2.50	22	320	18	260	12	175
		M 24	24.000	3.00	22	290	18	240	12	160

Taps x-tap-R

Incool

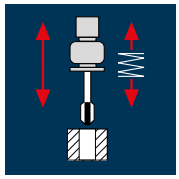
M	ISO 2 (6H)
60°	HSS PM/F
DIN 1835B ISO 3338	
	X · P Form C



Rm < 850	Rm 850-1100

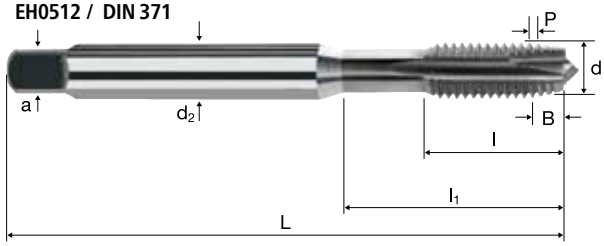
Example: **Order-N°.** Article-N°. **EH0591** ø-Code **058**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH0591
058	M 4	0.70	66	7.00	-	19.0	6.0	3	3.30	●
084	M 5	0.80	70	8.00	-	23.0	6.0	3	4.20	●
088	M 6	1.00	80	10.00	-	28.0	6.0	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	4	8.50	●
240	M 12	1.75	110	18.00	45.0	43.0	12.0	4	10.20	●
244	M 14	2.00	110	20.00	46.0	44.0	16.0	4	12.00	●
246	M 16	2.00	110	20.00	50.0	48.0	16.0	4	14.00	●
312	M 18	2.50	125	25.00	60.0	58.0	16.0	4	15.50	●
314	M 20	2.50	140	25.00	64.0	62.0	16.0	4	17.50	●
316	M 22	2.50	140	25.00	64.0	62.0	20.0	5	19.50	●
320	M 24	3.00	160	30.00	74.0	72.0	20.0	5	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]
	Steel 1100 - 1300 N/mm²	M 2	2.000	0.40	10	1590	636	8	1275	510	5	795	318
		M 2.5	2.500	0.45	10	1275	574	8	1020	459	5	635	286
		M 3	3.000	0.50	10	1060	530	8	850	425	5	530	265
		M 4	4.000	0.70	10	795	557	8	635	445	5	400	280
		M 5	5.000	0.80	10	635	508	8	510	408	5	320	256
		M 6	6.000	1.00	10	530	530	8	425	425	5	265	265
		M 8	8.000	1.25	10	400	500	8	320	400	5	200	250
		M 10	10.000	1.50	10	320	480	8	255	383	5	160	240
		M 12	12.000	1.75	10	265	464	8	210	368	5	135	236
	Steel 1100 - 1300 N/mm²	M 14	14.000	2.00	10	225	450	8	180	360	5	115	230
		M 16	16.000	2.00	10	200	400	8	160	320	5	100	200
		M 18	18.000	2.50	10	175	438	8	140	350	5	90	225
		M 20	20.000	2.50	10	160	400	8	125	313	5	80	200
		M 22	22.000	2.50	10	145	363	8	115	288	5	70	175
		M 24	24.000	3.00	10	135	405	8	105	315	5	65	195
	Steel 1300 - 1500 N/mm²	M 2	2.000	0.40	6	955	382	4	635	254	3	475	190
		M 2.5	2.500	0.45	6	765	344	4	510	230	3	380	171
		M 3	3.000	0.50	6	635	318	4	425	213	3	320	160
		M 4	4.000	0.70	6	475	333	4	320	224	3	240	168
		M 5	5.000	0.80	6	380	304	4	255	204	3	190	152
		M 6	6.000	1.00	6	320	320	4	210	210	3	160	160
		M 8	8.000	1.25	6	240	300	4	160	200	3	120	150
		M 10	10.000	1.50	6	190	285	4	125	188	3	95	143
		M 12	12.000	1.75	6	160	280	4	105	184	3	80	140
	Steel 1300 - 1500 N/mm²	M 14	14.000	2.00	6	135	270	4	90	180	3	70	140
		M 16	16.000	2.00	6	120	240	4	80	160	3	60	120
		M 18	18.000	2.50	6	105	263	4	70	175	3	55	138
		M 20	20.000	2.50	6	95	238	4	65	163	3	50	125
		M 22	22.000	2.50	6	85	213	4	60	150	3	45	113
		M 24	24.000	3.00	6	80	240	4	55	165	3	40	120

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form B

EH0512 / DIN 371



EH0513 / DIN 376

		Rm 1100-1300	Rm 1300-1500						

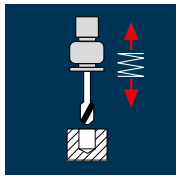
Example: **Order-N°.** Article-N°. **EH0512** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0512
034	M 2	0.40	45	8.00	-	2.8	2.1	2	1.70*	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	2.10	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.60*	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.40	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.30	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	5.10	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	6.90	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	8.60	●

Example: **Order-N°.** Article-N°. **EH0513** ø-Code **240**

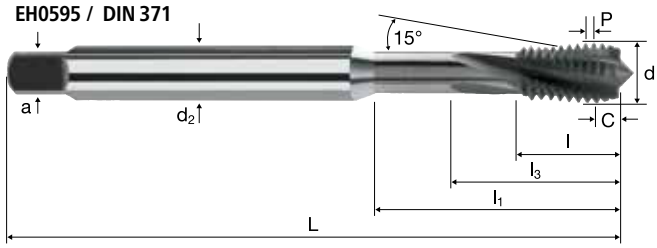
Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0513
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.40	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.20	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.20	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.70	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.70	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	4	19.70	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	21.20	●

* The given dimension is out of norm

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
	Steel 1100 - 1300 N/mm²	M 3	3.000	0.50	6	635	318	5	530	265
		M 4	4.000	0.70	6	475	333	5	400	280
		M 5	5.000	0.80	6	380	304	5	320	256
		M 6	6.000	1.00	6	320	320	5	265	265
		M 8	8.000	1.25	6	240	300	5	200	250
		M 10	10.000	1.50	6	190	285	5	160	240
		M 12	12.000	1.75	6	160	280	5	135	236
		M 14	14.000	2.00	6	135	270	5	115	230
		M 16	16.000	2.00	6	120	240	5	100	200
	Steel 1100 - 1300 N/mm²	M 18	18.000	2.50	6	105	263	5	90	225
		M 20	20.000	2.50	6	95	238	5	80	200
		M 22	22.000	2.50	6	85	213	5	70	175
		M 24	24.000	3.00	6	80	240	5	65	195
	Steel 1300 - 1500 N/mm²	M 3	3.000	0.50	5	530	265	4	425	213
		M 4	4.000	0.70	5	400	280	4	320	224
		M 5	5.000	0.80	5	320	256	4	255	204
		M 6	6.000	1.00	5	265	265	4	210	210
		M 8	8.000	1.25	5	200	250	4	160	200
		M 10	10.000	1.50	5	160	240	4	125	188
		M 12	12.000	1.75	5	135	236	4	105	184
		M 14	14.000	2.00	5	115	230	4	90	180
		M 16	16.000	2.00	5	100	200	4	80	160
	Steel 1300 - 1500 N/mm²	M 18	18.000	2.50	5	90	225	4	70	175
		M 20	20.000	2.50	5	80	200	4	65	163
		M 22	22.000	2.50	5	70	175	4	60	150
		M 24	24.000	3.00	5	65	195	4	55	165

Taps h-tap

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	X · P Form C



			Rm 1100-1300	Rm 1300-1500						

Example: **Order-N°.** Article-N°. **EH0595** ø-Code **044**

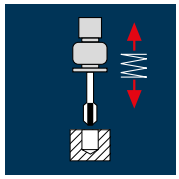
Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH0595
044	M 3	0.50	56	5.00	18.0	16.0	3.5	2.7	3	2.60*	●
058	M 4	0.70	63	7.00	21.0	19.0	4.5	3.4	3	3.40	●
084	M 5	0.80	70	8.00	25.0	23.0	6.0	4.9	3	4.30	●
088	M 6	1.00	80	10.00	30.0	28.0	6.0	4.9	3	5.10	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.90	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	4	8.60	●

Example: **Order-N°.** Article-N°. **EH0596** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH0596
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	4	10.40	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.20	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.20	●
312	M 18	2.50	125	25.00	65.0	63.0	14.0	11.0	4	15.70	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	4	17.70	●
316	M 22	2.50	140	25.00	72.0	70.0	18.0	14.5	4	19.70	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	5	21.20	●

* The given dimension is out of norm

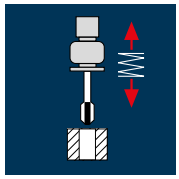
Application



Material

M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Hardened tool steel 48 - 52 HRC											
M 4	4.000	0.70	8	635	445	6	475	333	4	320	224
M 5	5.000	0.80	8	510	408	6	380	304	4	255	204
M 6	6.000	1.00	8	425	425	6	320	320	4	210	210
M 8	8.000	1.25	8	320	400	6	240	300	4	160	200
M 10	10.000	1.50	8	255	383	6	190	285	4	125	188
M 12	12.000	1.75	8	210	368	6	160	280	4	105	184
M 14	14.000	2.00	8	180	360	6	135	270	4	90	180
M 16	16.000	2.00	8	160	320	6	120	240	4	80	160
Hardened tool steel 52 - 56 HRC											
M 4	4.000	0.70	6	475	333	4	320	224	3	240	168
M 5	5.000	0.80	6	380	304	4	255	204	3	190	152
M 6	6.000	1.00	6	320	320	4	210	210	3	160	160
M 8	8.000	1.25	6	240	300	4	160	200	3	120	150
M 10	10.000	1.50	6	190	285	4	125	188	3	95	143
M 12	12.000	1.75	6	160	280	4	105	184	3	80	140
M 14	14.000	2.00	6	135	270	4	90	180	3	70	140
M 16	16.000	2.00	6	120	240	4	80	160	3	60	120
Hardened tool steel 56 - 60 HRC											
M 4	4.000	0.70	4	320	224	2	160	112	-	-	-
M 5	5.000	0.80	4	255	204	2	125	100	-	-	-
M 6	6.000	1.00	4	210	210	2	105	105	-	-	-
M 8	8.000	1.25	4	160	200	2	80	100	-	-	-
M 10	10.000	1.50	4	125	188	2	65	98	-	-	-
M 12	12.000	1.75	4	105	184	2	55	96	-	-	-
M 14	14.000	2.00	4	90	180	2	45	90	-	-	-
M 16	16.000	2.00	4	80	160	2	40	80	-	-	-
Hardened tool steel > 60 HRC											
M 4	4.000	0.70	2	160	112	1.5	120	84	-	-	-
M 5	5.000	0.80	2	125	100	1.5	95	76	-	-	-
M 6	6.000	1.00	2	105	105	1.5	80	80	-	-	-
M 8	8.000	1.25	2	80	100	1.5	60	75	-	-	-
M 10	10.000	1.50	2	65	98	1.5	50	75	-	-	-
M 12	12.000	1.75	2	55	96	1.5	40	70	-	-	-
M 14	14.000	2.00	2	45	90	1.5	35	70	-	-	-
M 16	16.000	2.00	2	40	80	1.5	30	60	-	-	-

Application



Material

M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Hardened tool steel 48 - 52 HRC											
M 4	4.000	0.70	8	635	445	6	475	333	4	320	224
M 5	5.000	0.80	8	510	408	6	380	304	4	255	204
M 6	6.000	1.00	8	425	425	6	320	320	4	210	210
M 8	8.000	1.25	8	320	400	6	240	300	4	160	200
M 10	10.000	1.50	8	255	383	6	190	285	4	125	188
M 12	12.000	1.75	8	210	368	6	160	280	4	105	184
M 14	14.000	2.00	8	180	360	6	135	270	4	90	180
M 16	16.000	2.00	8	160	320	6	120	240	4	80	160
Hardened tool steel 52 - 56 HRC											
M 4	4.000	0.70	6	475	333	4	320	224	3	240	168
M 5	5.000	0.80	6	380	304	4	255	204	3	190	152
M 6	6.000	1.00	6	320	320	4	210	210	3	160	160
M 8	8.000	1.25	6	240	300	4	160	200	3	120	150
M 10	10.000	1.50	6	190	285	4	125	188	3	95	143
M 12	12.000	1.75	6	160	280	4	105	184	3	80	140
M 14	14.000	2.00	6	135	270	4	90	180	3	70	140
M 16	16.000	2.00	6	120	240	4	80	160	3	60	120
Hardened tool steel 56 - 60 HRC											
M 4	4.000	0.70	4	320	224	2	160	112	-	-	-
M 5	5.000	0.80	4	255	204	2	125	100	-	-	-
M 6	6.000	1.00	4	210	210	2	105	105	-	-	-
M 8	8.000	1.25	4	160	200	2	80	100	-	-	-
M 10	10.000	1.50	4	125	188	2	65	98	-	-	-
M 12	12.000	1.75	4	105	184	2	55	96	-	-	-
M 14	14.000	2.00	4	90	180	2	45	90	-	-	-
M 16	16.000	2.00	4	80	160	2	40	80	-	-	-
Hardened tool steel > 60 HRC											
M 4	4.000	0.70	2	160	112	1.5	120	84	-	-	-
M 5	5.000	0.80	2	125	100	1.5	95	76	-	-	-
M 6	6.000	1.00	2	105	105	1.5	80	80	-	-	-
M 8	8.000	1.25	2	80	100	1.5	60	75	-	-	-
M 10	10.000	1.50	2	65	98	1.5	50	75	-	-	-
M 12	12.000	1.75	2	55	96	1.5	40	70	-	-	-
M 14	14.000	2.00	2	45	90	1.5	35	70	-	-	-
M 16	16.000	2.00	2	40	80	1.5	30	60	-	-	-

Taps durotap H

60

M

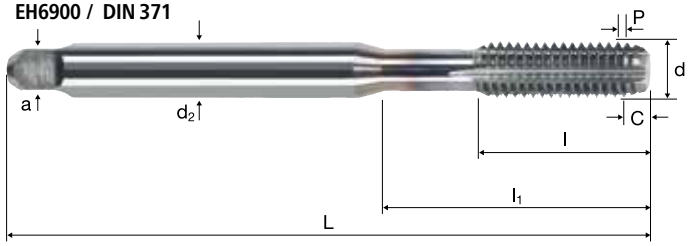
ISO 2 (6H)

HM MG10

DIN 371/376

Form C

EH6900 / DIN 371



EH6901 / DIN 376

HRC 48-56 | HRC 56-60 | HRC > 60

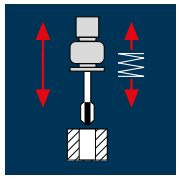
Example: **Order-N°.** Article-N°. **EH6900** ø-Code **058**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN
										EH6900
058	M 4	0.70	63	13.00	21.0	4.5	3.4	4	3.40	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.30	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.10	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	5	6.90	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	5	8.60	●

Example: **Order-N°.** Article-N°. **EH6901** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN
										EH6901
240	M 12	1.75	110	24.00	40.0	9.0	7.0	5	10.40	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	5	12.20	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	5	14.20	●

Application



Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Stainless steel ferritc/martensitic	M 2	2.000	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.500	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.000	0.50	12	1275	638	10	1060	530	8	850	425
	M 4	4.000	0.70	12	955	669	10	795	557	8	635	445
	M 5	5.000	0.80	12	765	612	10	635	508	8	510	408
	M 6	6.000	1.00	12	635	635	10	530	530	8	425	425
	M 8	8.000	1.25	12	475	594	10	400	500	8	320	400
	M 10	10.000	1.50	12	380	570	10	320	480	8	255	383
	M 12	12.000	1.75	12	320	560	10	265	464	8	210	368
Stainless steel ferritc/martensitic	M 14	14.000	2.00	12	275	550	10	225	450	8	180	360
	M 16	16.000	2.00	12	240	480	10	200	400	8	160	320
	M 18	18.000	2.50	12	210	525	10	175	438	8	140	350
	M 20	20.000	2.50	12	190	475	10	160	400	8	125	313
	M 22	22.000	2.50	12	175	438	10	145	363	8	115	288
	M 24	24.000	3.00	12	160	480	10	135	405	8	105	315
Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	7	1115	446	5	795	318	4	635	254
	M 2.5	2.500	0.45	7	890	401	5	635	286	4	510	230
	M 3	3.000	0.50	7	745	373	5	530	265	4	425	213
	M 4	4.000	0.70	7	555	389	5	400	280	4	320	224
	M 5	5.000	0.80	7	445	356	5	320	256	4	255	204
	M 6	6.000	1.00	7	370	370	5	265	265	4	210	210
	M 8	8.000	1.25	7	280	350	5	200	250	4	160	200
	M 10	10.000	1.50	7	225	338	5	160	240	4	125	188
	M 12	12.000	1.75	7	185	324	5	135	236	4	105	184
Stainless steel [Cr-Ni/1.4301]	M 14	14.000	2.00	7	160	320	5	115	230	4	90	180
	M 16	16.000	2.00	7	140	280	5	100	200	4	80	160
	M 18	18.000	2.50	7	125	313	5	90	225	4	70	175
	M 20	20.000	2.50	7	110	275	5	80	200	4	65	163
	M 22	22.000	2.50	7	100	250	5	70	175	4	60	150
	M 24	24.000	3.00	7	95	285	5	65	195	4	55	165
Stainless steel [Cr-Ni-Mo-.../1.4571]	M 2	2.000	0.40	8	1275	510	6	955	382	5	795	318
	M 2.5	2.500	0.45	8	1020	459	6	765	344	5	635	286
	M 3	3.000	0.50	8	850	425	6	635	318	5	530	265
	M 4	4.000	0.70	8	635	445	6	475	333	5	400	280
	M 5	5.000	0.80	8	510	408	6	380	304	5	320	256
	M 6	6.000	1.00	8	425	425	6	320	320	5	265	265
	M 8	8.000	1.25	8	320	400	6	240	300	5	200	250
	M 10	10.000	1.50	8	255	383	6	190	285	5	160	240
	M 12	12.000	1.75	8	210	368	6	160	280	5	135	236
Stainless steel [Cr-Ni-Mo-.../1.4571]	M 14	14.000	2.00	8	180	360	6	135	270	5	115	230
	M 16	16.000	2.00	8	160	320	6	120	240	5	100	200
	M 18	18.000	2.50	8	140	350	6	105	263	5	90	225
	M 20	20.000	2.50	8	125	313	6	95	238	5	80	200
	M 22	22.000	2.50	8	115	288	6	85	213	5	70	175
	M 24	24.000	3.00	8	105	315	6	80	240	5	65	195
Heat resistant steel [17-4 PH]	M 2	2.000	0.40	5	795	318	4	635	254	3	475	190
	M 2.5	2.500	0.45	5	635	286	4	510	230	3	380	171
	M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
	M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
	M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
Heat resistant steel [17-4 PH]	M 14	14.000	2.00	5	115	230	4	90	180	3	70	140
	M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
	M 18	18.000	2.50	5	90	225	4	70	175	3	55	138
	M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
	M 22	22.000	2.50	5	70	175	4	60	150	3	45	113
	M 24	24.000	3.00	5	65	195	4	55	165	3	40	120

Taps Inotap

M

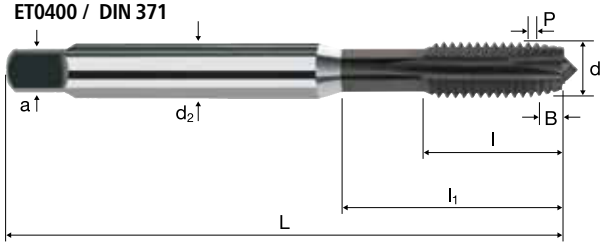
ISO 2 (6H)

HSS PM/F

DIN 371/376

Form B

ET0400 / DIN 371



ET0401 / DIN 376

ToolSchool EC10540 / EC10541

M

Inox Stainless

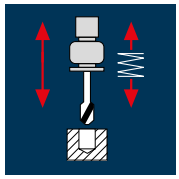
Example: **Order-N°.** Article-N°. **ET0400** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			TRIBO ET0400
034	M 2	0.40	45	8.00	-	2.8	2.1	2	1.70*	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	2.10	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.60*	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.40	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.30	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	5.10	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	6.90	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	8.60	●

Example: **Order-N°.** Article-N°. **ET0401** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TRIBO ET0401
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.40	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.20	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.20	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.70	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.70	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	4	19.70	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	21.20	●

* The given dimension is out of norm

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Stainless steel ferritc/martensitic	M 2	2.000	0.40	10	1590	636	8	1275	510	6	955	382
		M 2.5	2.500	0.45	10	1275	574	8	1020	459	6	765	344
		M 3	3.000	0.50	10	1060	530	8	850	425	6	635	318
		M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
		M 12	12.000	1.75	10	265	464	8	210	368	6	160	280
	Stainless steel ferritc/martensitic	M 14	14.000	2.00	10	225	450	8	180	360	6	135	270
		M 16	16.000	2.00	10	200	400	8	160	320	6	120	240
		M 18	18.000	2.50	10	175	438	8	140	350	6	105	263
		M 20	20.000	2.50	10	160	400	8	125	313	6	95	238
		M 22	22.000	2.50	10	145	363	8	115	288	6	85	213
		M 24	24.000	3.00	10	135	405	8	105	315	6	80	240
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	5	795	318	4	635	254	3	475	190
		M 2.5	2.500	0.45	5	635	286	4	510	230	3	380	171
		M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
		M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
	Stainless steel [Cr-Ni/1.4301]	M 14	14.000	2.00	5	115	230	4	90	180	3	70	140
		M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
		M 18	18.000	2.50	5	90	225	4	70	175	3	55	138
		M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
		M 22	22.000	2.50	5	70	175	4	60	150	3	45	113
		M 24	24.000	3.00	5	65	195	4	55	165	3	40	120
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 2	2.000	0.40	6	955	382	5	795	318	4	635	254
		M 2.5	2.500	0.45	6	765	344	5	635	286	4	510	230
		M 3	3.000	0.50	6	635	318	5	530	265	4	425	213
		M 4	4.000	0.70	6	475	333	5	400	280	4	320	224
		M 5	5.000	0.80	6	380	304	5	320	256	4	255	204
		M 6	6.000	1.00	6	320	320	5	265	265	4	210	210
		M 8	8.000	1.25	6	240	300	5	200	250	4	160	200
		M 10	10.000	1.50	6	190	285	5	160	240	4	125	188
		M 12	12.000	1.75	6	160	280	5	135	236	4	105	184
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 14	14.000	2.00	6	135	270	5	115	230	4	90	180
		M 16	16.000	2.00	6	120	240	5	100	200	4	80	160
		M 18	18.000	2.50	6	105	263	5	90	225	4	70	175
		M 20	20.000	2.50	6	95	238	5	80	200	4	65	163
		M 22	22.000	2.50	6	85	213	5	70	175	4	60	150
		M 24	24.000	3.00	6	80	240	5	65	195	4	55	165
	Heat resistant steel [17-4 PH]	M 2	2.000	0.40	4	635	254	3	475	190	-	-	-
		M 2.5	2.500	0.45	4	510	230	3	380	171	-	-	-
		M 3	3.000	0.50	4	425	213	3	320	160	-	-	-
		M 4	4.000	0.70	4	320	224	3	240	168	-	-	-
		M 5	5.000	0.80	4	255	204	3	190	152	-	-	-
		M 6	6.000	1.00	4	210	210	3	160	160	-	-	-
		M 8	8.000	1.25	4	160	200	3	120	150	-	-	-
		M 10	10.000	1.50	4	125	188	3	95	143	-	-	-
		M 12	12.000	1.75	4	105	184	3	80	140	-	-	-
	Heat resistant steel [17-4 PH]	M 14	14.000	2.00	4	90	180	3	70	140	-	-	-
		M 16	16.000	2.00	4	80	160	3	60	120	-	-	-
		M 18	18.000	2.50	4	70	175	3	55	138	-	-	-
		M 20	20.000	2.50	4	65	163	3	50	125	-	-	-
		M 22	22.000	2.50	4	60	150	3	45	113	-	-	-
		M 24	24.000	3.00	4	55	165	3	40	120	-	-	-

Taps x-tap

In

M

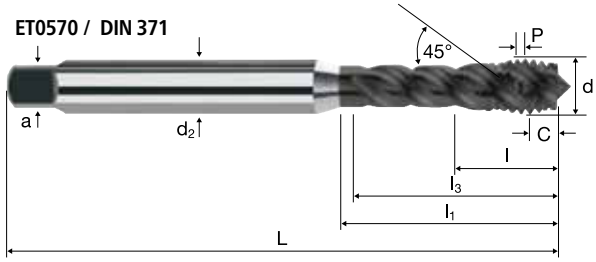
ISO 2 (6H)

HSS PM/F

DIN 371/376

Form C

ET0570 / DIN 371



ET0571 / DIN 376

ToolSchool EC10550 / EC10551

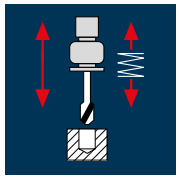
M

Inox Stainless

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET0570
Example: **Order-N°.**			**ET0570** (Article-N°.)	**034** (ø-Code)							
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	1.70*	●
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	2.10	●
044	M 3	0.50	56	5.00	-	16.0	3.5	2.7	3	2.60*	●
058	M 4	0.70	63	7.00	-	19.0	4.5	3.4	3	3.40	●
084	M 5	0.80	70	8.00	-	23.0	6.0	4.9	3	4.30	●
088	M 6	1.00	80	10.00	-	28.0	6.0	4.9	3	5.10	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.90	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	4	8.60	●

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET0571
Example: **Order-N°.**			**ET0571** (Article-N°.)	**240** (ø-Code)							
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	4	10.40	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.20	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.20	●
312	M 18	2.50	125	25.00	65.0	63.0	14.0	11.0	4	15.70	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	4	17.70	●
316	M 22	2.50	140	25.00	72.0	70.0	18.0	14.5	5	19.70	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	5	21.20	●

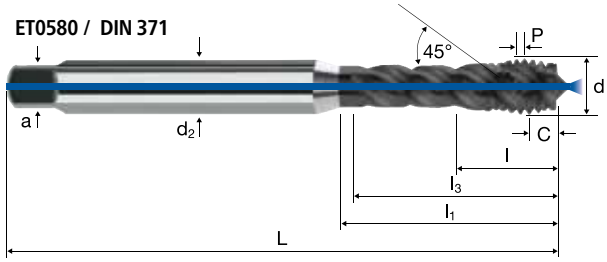
* The given dimension is out of norm

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Stainless steel ferritc/martensitic	M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
		M 12	12.000	1.75	10	265	464	8	210	368	6	160	280
		M 14	14.000	2.00	10	225	450	8	180	360	6	135	270
		M 16	16.000	2.00	10	200	400	8	160	320	6	120	240
		M 18	18.000	2.50	10	175	438	8	140	350	6	105	263
	Stainless steel ferritc/martensitic	M 20	20.000	2.50	10	160	400	8	125	313	6	95	238
		M 22	22.000	2.50	10	145	363	8	115	288	6	85	213
		M 24	24.000	3.00	10	135	405	8	105	315	6	80	240
	Stainless steel [Cr-Ni/1.4301]	M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
		M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
		M 14	14.000	2.00	5	115	230	4	90	180	3	70	140
		M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
		M 18	18.000	2.50	5	90	225	4	70	175	3	55	138
	Stainless steel [Cr-Ni/1.4301]	M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
		M 22	22.000	2.50	5	70	175	4	60	150	3	45	113
		M 24	24.000	3.00	5	65	195	4	55	165	3	40	120
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 4	4.000	0.70	6	475	333	5	400	280	4	320	224
		M 5	5.000	0.80	6	380	304	5	320	256	4	255	204
		M 6	6.000	1.00	6	320	320	5	265	265	4	210	210
		M 8	8.000	1.25	6	240	300	5	200	250	4	160	200
		M 10	10.000	1.50	6	190	285	5	160	240	4	125	188
		M 12	12.000	1.75	6	160	280	5	135	236	4	105	184
		M 14	14.000	2.00	6	135	270	5	115	230	4	90	180
		M 16	16.000	2.00	6	120	240	5	100	200	4	80	160
		M 18	18.000	2.50	6	105	263	5	90	225	4	70	175
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 20	20.000	2.50	6	95	238	5	80	200	4	65	163
		M 22	22.000	2.50	6	85	213	5	70	175	4	60	150
		M 24	24.000	3.00	6	80	240	5	65	195	4	55	165
	Heat resistant steel [17-4 PH]	M 4	4.000	0.70	4	320	224	3	240	168	-	-	-
		M 5	5.000	0.80	4	255	204	3	190	152	-	-	-
		M 6	6.000	1.00	4	210	210	3	160	160	-	-	-
		M 8	8.000	1.25	4	160	200	3	120	150	-	-	-
		M 10	10.000	1.50	4	125	188	3	95	143	-	-	-
		M 12	12.000	1.75	4	105	184	3	80	140	-	-	-
		M 14	14.000	2.00	4	90	180	3	70	140	-	-	-
		M 16	16.000	2.00	4	80	160	3	60	120	-	-	-
		M 18	18.000	2.50	4	70	175	3	55	138	-	-	-
	Heat resistant steel [17-4 PH]	M 20	20.000	2.50	4	65	163	3	50	125	-	-	-
		M 22	22.000	2.50	4	60	150	3	45	113	-	-	-
		M 24	24.000	3.00	4	55	165	3	40	120	-	-	-

Taps x-tap

Incool

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form C



M

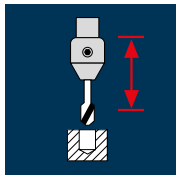
Inox Stainless

Example: **Order-N°.** Article-N°. **ET0580** ø-Code **058**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET0580
058	M 4	0.70	63	7.00	-	19.0	4.5	3.4	3	3.40	●
084	M 5	0.80	70	8.00	-	23.0	6.0	4.9	3	4.30	●
088	M 6	1.00	80	10.00	-	28.0	6.0	4.9	3	5.10	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.90	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	4	8.60	●

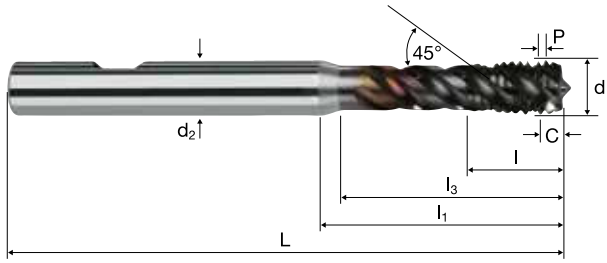
Example: **Order-N°.** Article-N°. **ET0581** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET0581
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	4	10.40	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.20	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.20	●
312	M 18	2.50	125	25.00	65.0	63.0	14.0	11.0	4	15.70	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	4	17.70	●
316	M 22	2.50	140	25.00	72.0	70.0	18.0	14.5	5	19.70	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	5	21.20	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Stainless steel ferritc/martensitic	M 3	3.000	0.50	12	1275	10	1060	8	850
		M 4	4.000	0.70	12	955	10	795	8	635
		M 5	5.000	0.80	12	765	10	635	8	510
		M 6	6.000	1.00	12	635	10	530	8	425
		M 8	8.000	1.25	12	475	10	400	8	320
		M 10	10.000	1.50	12	380	10	320	8	255
		M 12	12.000	1.75	12	320	10	265	8	210
		M 14	14.000	2.00	12	275	10	225	8	180
		M 16	16.000	2.00	12	240	10	200	8	160
	Stainless steel ferritc/martensitic	M 18	18.000	2.50	12	210	10	175	8	140
		M 20	20.000	2.50	12	190	10	160	8	125
		M 22	22.000	2.50	12	175	10	145	8	115
		M 24	24.000	3.00	12	160	10	135	8	105
	Stainless steel [Cr-Ni/1.4301]	M 3	3.000	0.50	7	745	5	530	4	425
		M 4	4.000	0.70	7	555	5	400	4	320
		M 5	5.000	0.80	7	445	5	320	4	255
		M 6	6.000	1.00	7	370	5	265	4	210
		M 8	8.000	1.25	7	280	5	200	4	160
		M 10	10.000	1.50	7	225	5	160	4	125
		M 12	12.000	1.75	7	185	5	135	4	105
		M 14	14.000	2.00	7	160	5	115	4	90
		M 16	16.000	2.00	7	140	5	100	4	80
	Stainless steel [Cr-Ni/1.4301]	M 18	18.000	2.50	7	125	5	90	4	70
		M 20	20.000	2.50	7	110	5	80	4	65
		M 22	22.000	2.50	7	100	5	70	4	60
		M 24	24.000	3.00	7	95	5	65	4	55
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 3	3.000	0.50	8	850	6	635	5	530
		M 4	4.000	0.70	8	635	6	475	5	400
		M 5	5.000	0.80	8	510	6	380	5	320
		M 6	6.000	1.00	8	425	6	320	5	265
		M 8	8.000	1.25	8	320	6	240	5	200
		M 10	10.000	1.50	8	255	6	190	5	160
		M 12	12.000	1.75	8	210	6	160	5	135
		M 14	14.000	2.00	8	180	6	135	5	115
		M 16	16.000	2.00	8	160	6	120	5	100
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 18	18.000	2.50	8	140	6	105	5	90
		M 20	20.000	2.50	8	125	6	95	5	80
		M 22	22.000	2.50	8	115	6	85	5	70
		M 24	24.000	3.00	8	105	6	80	5	65
	Heat resistant steel [17-4 PH]	M 3	3.000	0.50	5	530	4	425	-	-
		M 4	4.000	0.70	5	400	4	320	-	-
		M 5	5.000	0.80	5	320	4	255	-	-
		M 6	6.000	1.00	5	265	4	210	-	-
		M 8	8.000	1.25	5	200	4	160	-	-
		M 10	10.000	1.50	5	160	4	125	-	-
		M 12	12.000	1.75	5	135	4	105	-	-
		M 14	14.000	2.00	5	115	4	90	-	-
		M 16	16.000	2.00	5	100	4	80	-	-
	Heat resistant steel [17-4 PH]	M 18	18.000	2.50	5	90	4	70	-	-
		M 20	20.000	2.50	5	80	4	65	-	-
		M 22	22.000	2.50	5	70	4	60	-	-
		M 24	24.000	3.00	5	65	4	55	-	-

Taps x-tap-R

M	ISO 2 (6H)
60°	HSS PM/F
DIN 1835B ISO 3338	
	Form C

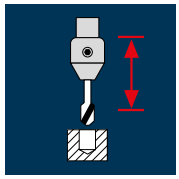


Inox Stainless

Example: **Order-N°.** Article-N°. **ET0590** ø-Code **044**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TRIBO ET0590
044	M 3	0.50	63	5.00	-	16.0	6.0	3	2.60*	●
058	M 4	0.70	66	7.00	-	19.0	6.0	3	3.40	●
084	M 5	0.80	70	8.00	-	23.0	6.0	3	4.30	●
088	M 6	1.00	80	10.00	-	28.0	6.0	3	5.10	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	3	6.90	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	4	8.60	●
240	M 12	1.75	110	18.00	45.0	43.0	12.0	4	10.40	●
244	M 14	2.00	110	20.00	46.0	44.0	16.0	4	12.20	●
246	M 16	2.00	110	20.00	50.0	48.0	16.0	4	14.20	●
312	M 18	2.50	125	25.00	60.0	58.0	16.0	4	15.70	●
314	M 20	2.50	140	25.00	64.0	62.0	16.0	4	17.70	●
316	M 22	2.50	140	25.00	64.0	62.0	20.0	5	19.70	●
320	M 24	3.00	160	30.00	74.0	72.0	20.0	5	21.20	●

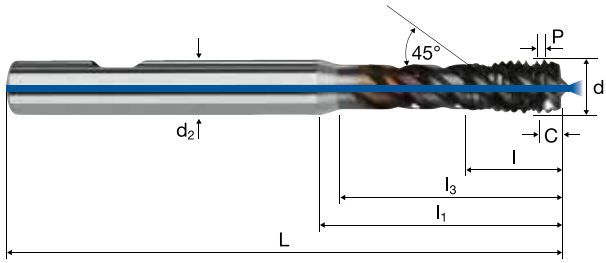
* The given dimension is out of norm

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Stainless steel ferritc/martensitic	M 4	4.000	0.70	12	955	10	795	8	635
		M 5	5.000	0.80	12	765	10	635	8	510
		M 6	6.000	1.00	12	635	10	530	8	425
		M 8	8.000	1.25	12	475	10	400	8	320
		M 10	10.000	1.50	12	380	10	320	8	255
		M 12	12.000	1.75	12	320	10	265	8	210
		M 14	14.000	2.00	12	275	10	225	8	180
		M 16	16.000	2.00	12	240	10	200	8	160
		M 18	18.000	2.50	12	210	10	175	8	140
	Stainless steel ferritc/martensitic	M 20	20.000	2.50	12	190	10	160	8	125
		M 22	22.000	2.50	12	175	10	145	8	115
		M 24	24.000	3.00	12	160	10	135	8	105
	Stainless steel [Cr-Ni/1.4301]	M 4	4.000	0.70	7	555	5	400	4	320
		M 5	5.000	0.80	7	445	5	320	4	255
		M 6	6.000	1.00	7	370	5	265	4	210
		M 8	8.000	1.25	7	280	5	200	4	160
		M 10	10.000	1.50	7	225	5	160	4	125
		M 12	12.000	1.75	7	185	5	135	4	105
		M 14	14.000	2.00	7	160	5	115	4	90
		M 16	16.000	2.00	7	140	5	100	4	80
		M 18	18.000	2.50	7	125	5	90	4	70
	Stainless steel [Cr-Ni/1.4301]	M 20	20.000	2.50	7	110	5	80	4	65
		M 22	22.000	2.50	7	100	5	70	4	60
		M 24	24.000	3.00	7	95	5	65	4	55
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 4	4.000	0.70	8	635	6	475	5	400
		M 5	5.000	0.80	8	510	6	380	5	320
		M 6	6.000	1.00	8	425	6	320	5	265
		M 8	8.000	1.25	8	320	6	240	5	200
		M 10	10.000	1.50	8	255	6	190	5	160
		M 12	12.000	1.75	8	210	6	160	5	135
		M 14	14.000	2.00	8	180	6	135	5	115
		M 16	16.000	2.00	8	160	6	120	5	100
		M 18	18.000	2.50	8	140	6	105	5	90
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 20	20.000	2.50	8	125	6	95	5	80
		M 22	22.000	2.50	8	115	6	85	5	70
		M 24	24.000	3.00	8	105	6	80	5	65
	Heat resistant steel [17-4 PH]	M 4	4.000	0.70	5	400	4	320	-	-
		M 5	5.000	0.80	5	320	4	255	-	-
		M 6	6.000	1.00	5	265	4	210	-	-
		M 8	8.000	1.25	5	200	4	160	-	-
		M 10	10.000	1.50	5	160	4	125	-	-
		M 12	12.000	1.75	5	135	4	105	-	-
		M 14	14.000	2.00	5	115	4	90	-	-
		M 16	16.000	2.00	5	100	4	80	-	-
		M 18	18.000	2.50	5	90	4	70	-	-
	Heat resistant steel [17-4 PH]	M 20	20.000	2.50	5	80	4	65	-	-
		M 22	22.000	2.50	5	70	4	60	-	-
		M 24	24.000	3.00	5	65	4	55	-	-

Taps x-tap-R

Incool

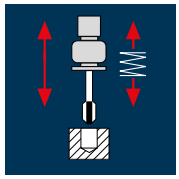
M	ISO 2 (6H)
60°	HSS PM/F
DIN 1835B ISO 3338	
	X · P Form C

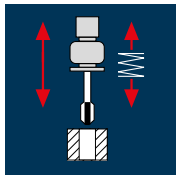


Inox Stainless

Example: **Order-N°.** Article-N°. **ET0591** ø-Code **058**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TRIBO ET0591
058	M 4	0.70	66	7.00	-	19.0	6.0	3	3.40	●
084	M 5	0.80	70	8.00	-	23.0	6.0	3	4.30	●
088	M 6	1.00	80	10.00	-	28.0	6.0	3	5.10	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	3	6.90	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	4	8.60	●
240	M 12	1.75	110	18.00	45.0	43.0	12.0	4	10.40	●
244	M 14	2.00	110	20.00	46.0	44.0	16.0	4	12.20	●
246	M 16	2.00	110	20.00	50.0	48.0	16.0	4	14.20	●
312	M 18	2.50	125	25.00	60.0	58.0	16.0	4	15.70	●
314	M 20	2.50	140	25.00	64.0	62.0	16.0	4	17.70	●
316	M 22	2.50	140	25.00	64.0	62.0	20.0	5	19.70	●
320	M 24	3.00	160	30.00	74.0	72.0	20.0	5	21.20	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Cast iron GG	M 2	2.000	0.40	28	4455	1782	24	3820	1528	20	3185	1274
		M 2.5	2.500	0.45	28	3565	1604	24	3055	1375	20	2545	1145
		M 3	3.000	0.50	28	2970	1485	24	2545	1273	20	2120	1060
		M 4	4.000	0.70	28	2230	1561	24	1910	1337	20	1590	1113
		M 5	5.000	0.80	28	1785	1428	24	1530	1224	20	1275	1020
		M 6	6.000	1.00	28	1485	1485	24	1275	1275	20	1060	1060
		M 8	8.000	1.25	28	1115	1394	24	955	1194	20	795	994
		M 10	10.000	1.50	28	890	1335	24	765	1148	20	635	953
		M 12	12.000	1.75	28	745	1304	24	635	1111	20	530	928
	Cast iron GG	M 14	14.000	2.00	28	635	1270	24	545	1090	20	455	910
		M 16	16.000	2.00	28	555	1110	24	475	950	20	400	800
		M 18	18.000	2.50	28	495	1238	24	425	1063	20	355	888
		M 20	20.000	2.50	28	445	1113	24	380	950	20	320	800
		M 22	22.000	2.50	28	405	1013	24	345	863	20	290	725
		M 24	24.000	3.00	28	370	1110	24	320	960	20	265	795
	Cast iron GGG	M 2	2.000	0.40	20	3185	1274	18	2865	1146	15	2385	954
		M 2.5	2.500	0.45	20	2545	1145	18	2290	1031	15	1910	860
		M 3	3.000	0.50	20	2120	1060	18	1910	955	15	1590	795
		M 4	4.000	0.70	20	1590	1113	18	1430	1001	15	1195	837
		M 5	5.000	0.80	20	1275	1020	18	1145	916	15	955	764
		M 6	6.000	1.00	20	1060	1060	18	955	955	15	795	795
		M 8	8.000	1.25	20	795	994	18	715	894	15	595	744
		M 10	10.000	1.50	20	635	953	18	575	863	15	475	713
		M 12	12.000	1.75	20	530	928	18	475	831	15	400	700
	Cast iron GGG	M 14	14.000	2.00	20	455	910	18	410	820	15	340	680
		M 16	16.000	2.00	20	400	800	18	360	720	15	300	600
		M 18	18.000	2.50	20	355	888	18	320	800	15	265	663
		M 20	20.000	2.50	20	320	800	18	285	713	15	240	600
		M 22	22.000	2.50	20	290	725	18	260	650	15	215	538
		M 24	24.000	3.00	20	265	795	18	240	720	15	200	600

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Cast iron GG	M 2	2.000	0.40	30	4775	1910	28	4455	1782	25	3980	1592
		M 2.5	2.500	0.45	30	3820	1719	28	3565	1604	25	3185	1433
		M 3	3.000	0.50	30	3185	1593	28	2970	1485	25	2655	1328
		M 4	4.000	0.70	30	2385	1670	28	2230	1561	25	1990	1393
		M 5	5.000	0.80	30	1910	1528	28	1785	1428	25	1590	1272
		M 6	6.000	1.00	30	1590	1590	28	1485	1485	25	1325	1325
		M 8	8.000	1.25	30	1195	1494	28	1115	1394	25	995	1244
		M 10	10.000	1.50	30	955	1433	28	890	1335	25	795	1193
		M 12	12.000	1.75	30	795	1391	28	745	1304	25	665	1164
	Cast iron GG	M 14	14.000	2.00	30	680	1360	28	635	1270	25	570	1140
		M 16	16.000	2.00	30	595	1190	28	555	1110	25	495	990
		M 18	18.000	2.50	30	530	1325	28	495	1238	25	440	1100
		M 20	20.000	2.50	30	475	1188	28	445	1113	25	400	1000
		M 22	22.000	2.50	30	435	1088	28	405	1013	25	360	900
		M 24	24.000	3.00	30	400	1200	28	370	1110	25	330	990
	Cast iron GGG	M 2	2.000	0.40	25	3980	1592	22	3500	1400	20	3185	1274
		M 2.5	2.500	0.45	25	3185	1433	22	2800	1260	20	2545	1145
		M 3	3.000	0.50	25	2655	1328	22	2335	1168	20	2120	1060
		M 4	4.000	0.70	25	1990	1393	22	1750	1225	20	1590	1113
		M 5	5.000	0.80	25	1590	1272	22	1400	1120	20	1275	1020
		M 6	6.000	1.00	25	1325	1325	22	1165	1165	20	1060	1060
		M 8	8.000	1.25	25	995	1244	22	875	1094	20	795	994
		M 10	10.000	1.50	25	795	1193	22	700	1050	20	635	953
		M 12	12.000	1.75	25	665	1164	22	585	1024	20	530	928
	Cast iron GGG	M 14	14.000	2.00	25	570	1140	22	500	1000	20	455	910
		M 16	16.000	2.00	25	495	990	22	440	880	20	400	800
		M 18	18.000	2.50	25	440	1100	22	390	975	20	355	888
		M 20	20.000	2.50	25	400	1000	22	350	875	20	320	800
		M 22	22.000	2.50	25	360	900	22	320	800	20	290	725
		M 24	24.000	3.00	25	330	990	22	290	870	20	265	795

Taps c-tap

GG

M

ISO 2 (6H)

60°

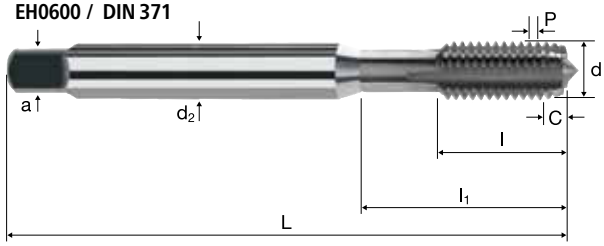
HSS PM/F

DIN 371/376

X · P

Form C

EH0600 / DIN 371



EH0601 / DIN 376

M

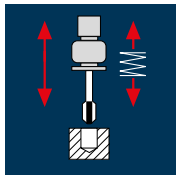
GG(G)

Example: **Order-N°.** Article-N°. **EH0600** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0600
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.60	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.05	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.00	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	4	6.80	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	4	8.50	●

Example: **Order-N°.** Article-N°. **EH0601** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0601
240	M 12	1.75	110	24.00	40.0	9.0	7.0	4	10.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	4	14.00	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	5	19.50	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	5	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Cast iron GG	M 4	4.000	0.70	28	2230	1561	24	1910	1337	20	1590	1113
		M 5	5.000	0.80	28	1785	1428	24	1530	1224	20	1275	1020
		M 6	6.000	1.00	28	1485	1485	24	1275	1275	20	1060	1060
		M 8	8.000	1.25	28	1115	1394	24	955	1194	20	795	994
		M 10	10.000	1.50	28	890	1335	24	765	1148	20	635	953
		M 12	12.000	1.75	28	745	1304	24	635	1111	20	530	928
		M 14	14.000	2.00	28	635	1270	24	545	1090	20	455	910
		M 16	16.000	2.00	28	555	1110	24	475	950	20	400	800
		M 18	18.000	2.50	28	495	1238	24	425	1063	20	355	888
	Cast iron GG	M 20	20.000	2.50	28	445	1113	24	380	950	20	320	800
		M 22	22.000	2.50	28	405	1013	24	345	863	20	290	725
		M 24	24.000	3.00	28	370	1110	24	320	960	20	265	795
	Cast iron GGG	M 4	4.000	0.70	20	1590	1113	18	1430	1001	15	1195	837
		M 5	5.000	0.80	20	1275	1020	18	1145	916	15	955	764
		M 6	6.000	1.00	20	1060	1060	18	955	955	15	795	795
		M 8	8.000	1.25	20	795	994	18	715	894	15	595	744
		M 10	10.000	1.50	20	635	953	18	575	863	15	475	713
		M 12	12.000	1.75	20	530	928	18	475	831	15	400	700
		M 14	14.000	2.00	20	455	910	18	410	820	15	340	680
		M 16	16.000	2.00	20	400	800	18	360	720	15	300	600
		M 18	18.000	2.50	20	355	888	18	320	800	15	265	663
	Cast iron GGG	M 20	20.000	2.50	20	320	800	18	285	713	15	240	600
		M 22	22.000	2.50	20	290	725	18	260	650	15	215	538
		M 24	24.000	3.00	20	265	795	18	240	720	15	200	600

Taps c-tap

Incool

GG

M

ISO 2 (6H)

60°

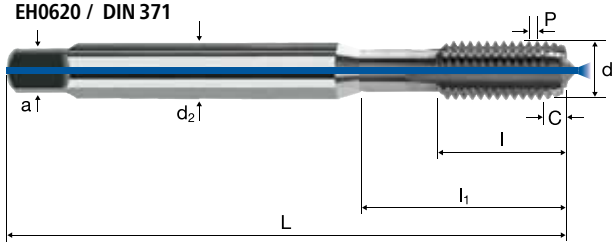
HSS PM/F

DIN 371/376

X · P

Form C

EH0620 / DIN 371



EH0621 / DIN 376

M

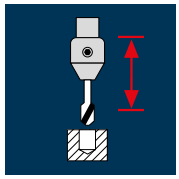
GG(G)

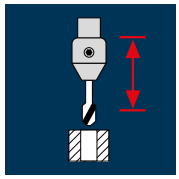
Example: **Order-N°.** Article-N°. **EH0620** ø-Code **058**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0620
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.00	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	4	6.80	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	4	8.50	●

Example: **Order-N°.** Article-N°. **EH0621** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH0621
240	M 12	1.75	110	24.00	40.0	9.0	7.0	4	10.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	4	14.00	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	5	19.50	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	5	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Cast iron GG	M 3	3.000	0.50	80	8490	70	7425	50	5305
		M 4	4.000	0.70	80	6365	70	5570	50	3980
		M 5	5.000	0.80	80	5095	70	4455	50	3185
		M 6	6.000	1.00	80	4245	70	3715	50	2655
		M 8	8.000	1.25	80	3185	70	2785	50	1990
		M 10	10.000	1.50	80	2545	70	2230	50	1590
		M 12	12.000	1.75	80	2120	70	1855	50	1325
	Cast iron GGG	M 3	3.000	0.50	60	6365	40	4245	30	3185
		M 4	4.000	0.70	60	4775	40	3185	30	2385
		M 5	5.000	0.80	60	3820	40	2545	30	1910
		M 6	6.000	1.00	60	3185	40	2120	30	1590
		M 8	8.000	1.25	60	2385	40	1590	30	1195
		M 10	10.000	1.50	60	1910	40	1275	30	955
		M 12	12.000	1.75	60	1590	40	1060	30	795

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]	v_c 3.0 x d	n [min⁻¹]
	Cast iron GG	M 3	3.000	0.50	80	8490	60	6365	50	5305
		M 4	4.000	0.70	80	6365	60	4775	50	3980
		M 5	5.000	0.80	80	5095	60	3820	50	3185
		M 6	6.000	1.00	80	4245	60	3185	50	2655
		M 8	8.000	1.25	80	3185	60	2385	50	1990
		M 10	10.000	1.50	80	2545	60	1910	50	1590
		M 12	12.000	1.75	80	2120	60	1590	50	1325
	Cast iron GGG	M 3	3.000	0.50	60	6365	50	5305	40	4245
		M 4	4.000	0.70	60	4775	50	3980	40	3185
		M 5	5.000	0.80	60	3820	50	3185	40	2545
		M 6	6.000	1.00	60	3185	50	2655	40	2120
		M 8	8.000	1.25	60	2385	50	1990	40	1590
		M 10	10.000	1.50	60	1910	50	1590	40	1275
		M 12	12.000	1.75	60	1590	50	1325	40	1060

Taps durotap GG-R

GG

M

ISO 2 (6H)

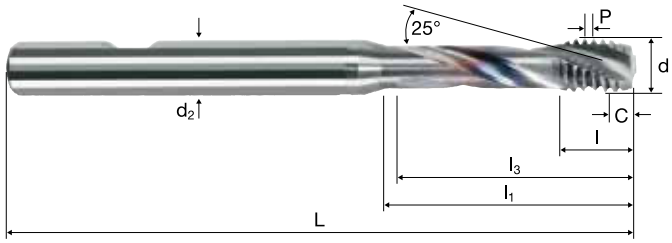
60°

HM MG10

DIN 6535 HB

X · P

Form C

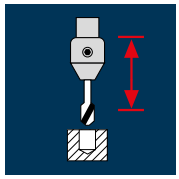


M

GG(G)

Example: **Order-N°.** Article-N°. **EH6500** ø-Code **044**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH6500
044	M 3	0.50	63	2.50	18.0	16.0	6.0	3	2.50	●
058	M 4	0.70	63	3.50	21.0	19.0	6.0	3	3.30	●
084	M 5	0.80	70	4.00	25.0	23.0	6.0	3	4.20	●
088	M 6	1.00	80	5.00	30.0	28.0	6.0	3	5.00	●
160	M 8	1.25	90	6.50	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	7.50	39.0	37.0	10.0	3	8.50	●
240	M 12	1.75	110	9.00	45.0	43.0	12.0	3	10.20	●

Application	Material
	Cast iron GG

M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
M 6	6.000	1.00	80	4245	70	3715	50	2655
M 8	8.000	1.25	80	3185	70	2785	50	1990
M 10	10.000	1.50	80	2545	70	2230	50	1590
M 12	12.000	1.75	80	2120	70	1855	50	1325

Material
Cast iron GGG

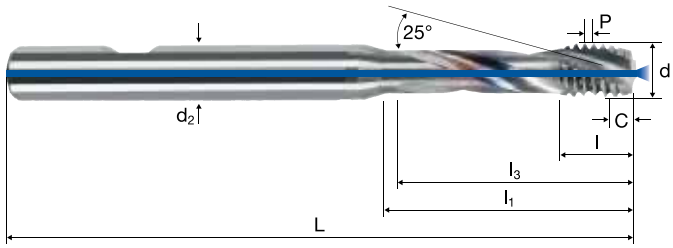
M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
M 6	6.000	1.00	60	3185	40	2120	30	1590
M 8	8.000	1.25	60	2385	40	1590	30	1195
M 10	10.000	1.50	60	1910	40	1275	30	955
M 12	12.000	1.75	60	1590	40	1060	30	795

Taps durotap GG-R

Incool

GG

M	ISO 2 (6H)
60°	HM MG10
DIN 6535 HB	
	X · P Form C

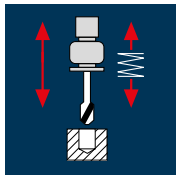


M

GG(G)

Example:
Order-N°. Article-N°. **EH6501** ø-Code **088**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH6501
088	M 6	1.00	80	5.00	30.0	28.0	6.0	3	5.00	●
160	M 8	1.25	90	6.50	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	7.50	39.0	37.0	10.0	3	8.50	●
240	M 12	1.75	110	9.00	45.0	43.0	12.0	3	10.20	●

Application	Material
	Cast iron GG

M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
M 3	3.000	0.50	80	8490	70	7425	50	5305
M 4	4.000	0.70	80	6365	70	5570	50	3980
M 5	5.000	0.80	80	5095	70	4455	50	3185
M 6	6.000	1.00	80	4245	70	3715	50	2655
M 8	8.000	1.25	80	3185	70	2785	50	1990
M 10	10.000	1.50	80	2545	70	2230	50	1590
M 12	12.000	1.75	80	2120	70	1855	50	1325

Material
Cast iron GGG

M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
M 3	3.000	0.50	60	6365	40	4245	30	3185
M 4	4.000	0.70	60	4775	40	3185	30	2385
M 5	5.000	0.80	60	3820	40	2545	30	1910
M 6	6.000	1.00	60	3185	40	2120	30	1590
M 8	8.000	1.25	60	2385	40	1590	30	1195
M 10	10.000	1.50	60	1910	40	1275	30	955
M 12	12.000	1.75	60	1590	40	1060	30	795

Taps durotap GG-R

Incool

GG

M

ISO 2 (6H)

60°

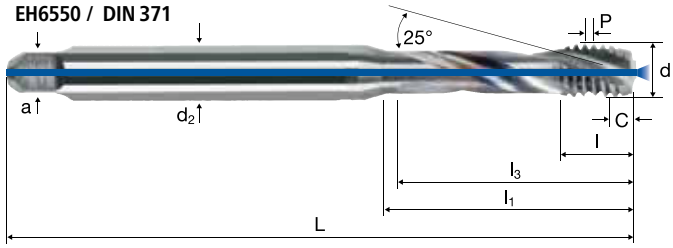
HM MG10

DIN 371/376

X · P

Form C

EH6550 / DIN 371



EH6551 / DIN 376

M

GG(G)

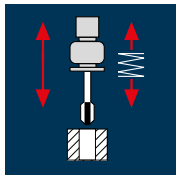
Example: **Order-N°.** Article-N°. **EH6550** ø-Code **044**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH6550
044*	M 3	0.50	56	5.00	18.0	16.0	3.5	2.7	3	2.50	●
058*	M 4	0.70	63	7.00	21.0	19.0	4.5	3.4	3	3.30	●
084*	M 5	0.80	70	8.00	25.0	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	10.00	30.0	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EH6551** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH6551
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	3	10.20	●

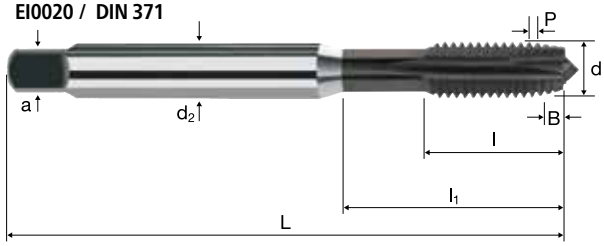
* without internal cooling

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Unalloyed aluminium	M 2	2.000	0.40	23	3660	1464	19	3025	1210	16	2545	1018
		M 2.5	2.500	0.45	23	2930	1319	19	2420	1089	16	2035	916
		M 3	3.000	0.50	23	2440	1220	19	2015	1008	16	1700	850
		M 4	4.000	0.70	23	1830	1281	19	1510	1057	16	1275	893
		M 5	5.000	0.80	23	1465	1172	19	1210	968	16	1020	816
		M 6	6.000	1.00	23	1220	1220	19	1010	1010	16	850	850
		M 8	8.000	1.25	23	915	1144	19	755	944	16	635	794
		M 10	10.000	1.50	23	730	1095	19	605	908	16	510	765
		M 12	12.000	1.75	23	610	1068	19	505	884	16	425	744
	Unalloyed aluminium	M 14	14.000	2.00	23	525	1050	19	430	860	16	365	730
		M 16	16.000	2.00	23	460	920	19	380	760	16	320	640
		M 18	18.000	2.50	23	405	1013	19	335	838	16	285	713
		M 20	20.000	2.50	23	365	913	19	300	750	16	255	638
		M 22	22.000	2.50	23	335	838	19	275	688	16	230	575
		M 24	24.000	3.00	23	305	915	19	250	750	16	210	630
	Wrought aluminium alloys Si < 6% not hardened	M 2	2.000	0.40	35	5570	2228	30	4775	1910	25	3980	1592
		M 2.5	2.500	0.45	35	4455	2005	30	3820	1719	25	3185	1433
		M 3	3.000	0.50	35	3715	1858	30	3185	1593	25	2655	1328
		M 4	4.000	0.70	35	2785	1950	30	2385	1670	25	1990	1393
		M 5	5.000	0.80	35	2230	1784	30	1910	1528	25	1590	1272
		M 6	6.000	1.00	35	1855	1855	30	1590	1590	25	1325	1325
		M 8	8.000	1.25	35	1395	1744	30	1195	1494	25	995	1244
		M 10	10.000	1.50	35	1115	1673	30	955	1433	25	795	1193
		M 12	12.000	1.75	35	930	1628	30	795	1391	25	665	1164
	Wrought aluminium alloys Si < 6% not hardened	M 14	14.000	2.00	35	795	1590	30	680	1360	25	570	1140
		M 16	16.000	2.00	35	695	1390	30	595	1190	25	495	990
		M 18	18.000	2.50	35	620	1550	30	530	1325	25	440	1100
		M 20	20.000	2.50	35	555	1388	30	475	1188	25	400	1000
		M 22	22.000	2.50	35	505	1263	30	435	1088	25	360	900
		M 24	24.000	3.00	35	465	1395	30	400	1200	25	330	990
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	20	3185	1274	17	2705	1082	14	2230	892
		M 2.5	2.500	0.45	20	2545	1145	17	2165	974	14	1785	803
		M 3	3.000	0.50	20	2120	1060	17	1805	903	14	1485	743
		M 4	4.000	0.70	20	1590	1113	17	1355	949	14	1115	781
		M 5	5.000	0.80	20	1275	1020	17	1080	864	14	890	712
		M 6	6.000	1.00	20	1060	1060	17	900	900	14	745	745
		M 8	8.000	1.25	20	795	994	17	675	844	14	555	694
		M 10	10.000	1.50	20	635	953	17	540	810	14	445	668
		M 12	12.000	1.75	20	530	928	17	450	788	14	370	648
	Wrought aluminium alloys Si < 6% hardened	M 14	14.000	2.00	20	455	910	17	385	770	14	320	640
		M 16	16.000	2.00	20	400	800	17	340	680	14	280	560
		M 18	18.000	2.50	20	355	888	17	300	750	14	250	625
		M 20	20.000	2.50	20	320	800	17	270	675	14	225	563
		M 22	22.000	2.50	20	290	725	17	245	613	14	205	513
		M 24	24.000	3.00	20	265	795	17	225	675	14	185	555
	Unalloyed copper	M 2	2.000	0.40	21	3340	1336	18	2865	1146	15	2385	954
		M 2.5	2.500	0.45	21	2675	1204	18	2290	1031	15	1910	860
		M 3	3.000	0.50	21	2230	1115	18	1910	955	15	1590	795
		M 4	4.000	0.70	21	1670	1169	18	1430	1001	15	1195	837
		M 5	5.000	0.80	21	1335	1068	18	1145	916	15	955	764
		M 6	6.000	1.00	21	1115	1115	18	955	955	15	795	795
		M 8	8.000	1.25	21	835	1044	18	715	894	15	595	744
		M 10	10.000	1.50	21	670	1005	18	575	863	15	475	713
		M 12	12.000	1.75	21	555	971	18	475	831	15	400	700
	Unalloyed copper	M 14	14.000	2.00	21	475	950	18	410	820	15	340	680
		M 16	16.000	2.00	21	420	840	18	360	720	15	300	600
		M 18	18.000	2.50	21	370	925	18	320	800	15	265	663
		M 20	20.000	2.50	21	335	838	18	285	713	15	240	600
		M 22	22.000	2.50	21	305	763	18	260	650	15	215	538
		M 24	24.000	3.00	21	280	840	18	240	720	15	200	600

Taps

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form B

EI0020 / DIN 371



EI0021 / DIN 376

M

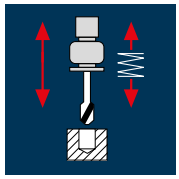
			Al Aluminium > 99%	Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermo-plast	

Example: **Order-N°.** Article-N°. **EI0020** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			INTEGRAL EI0020
034	M 2	0.40	45	8.00	-	2.8	2.1	2	1.60	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	2.05	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	2	2.50	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	2	3.30	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	2	4.20	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	2	5.00	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	2	6.80	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	2	8.50	●

Example: **Order-N°.** Article-N°. **EI0021** ø-Code **240**

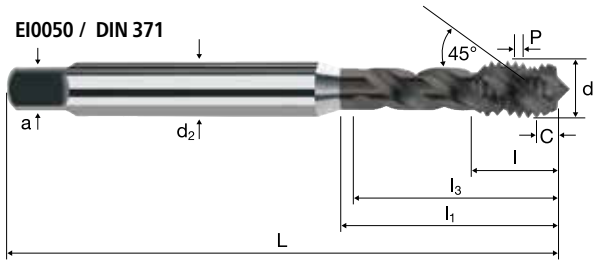
Ø Code	d	P	L	l	l_1	d_2	a			INTEGRAL EI0021
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.00	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.00	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	3	15.50	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	3	17.50	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	3	19.50	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	3	21.00	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Unalloyed aluminium	M 2	2.000	0.40	25	3980	1592	21	3340	1336	17	2705	1082
		M 2.5	2.500	0.45	25	3185	1433	21	2675	1204	17	2165	974
		M 3	3.000	0.50	25	2655	1328	21	2230	1115	17	1805	903
		M 4	4.000	0.70	25	1990	1393	21	1670	1169	17	1355	949
		M 5	5.000	0.80	25	1590	1272	21	1335	1068	17	1080	864
		M 6	6.000	1.00	25	1325	1325	21	1115	1115	17	900	900
		M 8	8.000	1.25	25	995	1244	21	835	1044	17	675	844
		M 10	10.000	1.50	25	795	1193	21	670	1005	17	540	810
		M 12	12.000	1.75	25	665	1164	21	555	971	17	450	788
	Unalloyed aluminium	M 14	14.000	2.00	25	570	1140	21	475	950	17	385	770
		M 16	16.000	2.00	25	495	990	21	420	840	17	340	680
		M 18	18.000	2.50	25	440	1100	21	370	925	17	300	750
		M 20	20.000	2.50	25	400	1000	21	335	838	17	270	675
		M 22	22.000	2.50	25	360	900	21	305	763	17	245	613
		M 24	24.000	3.00	25	330	990	21	280	840	17	225	675
	Wrought aluminium alloys Si < 6% not hardened	M 2	2.000	0.40	27	4295	1718	24	3820	1528	18	2865	1146
		M 2.5	2.500	0.45	27	3440	1548	24	3055	1375	18	2290	1031
		M 3	3.000	0.50	27	2865	1433	24	2545	1273	18	1910	955
		M 4	4.000	0.70	27	2150	1505	24	1910	1337	18	1430	1001
		M 5	5.000	0.80	27	1720	1376	24	1530	1224	18	1145	916
		M 6	6.000	1.00	27	1430	1430	24	1275	1275	18	955	955
		M 8	8.000	1.25	27	1075	1344	24	955	1194	18	715	894
		M 10	10.000	1.50	27	860	1290	24	765	1148	18	575	863
		M 12	12.000	1.75	27	715	1251	24	635	1111	18	475	831
	Wrought aluminium alloys Si < 6% not hardened	M 14	14.000	2.00	27	615	1230	24	545	1090	18	410	820
		M 16	16.000	2.00	27	535	1070	24	475	950	18	360	720
		M 18	18.000	2.50	27	475	1188	24	425	1063	18	320	800
		M 20	20.000	2.50	27	430	1075	24	380	950	18	285	713
		M 22	22.000	2.50	27	390	975	24	345	863	18	260	650
		M 24	24.000	3.00	27	360	1080	24	320	960	18	240	720
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	21	3340	1336	18	2865	1146	15	2385	954
		M 2.5	2.500	0.45	21	2675	1204	18	2290	1031	15	1910	860
		M 3	3.000	0.50	21	2230	1115	18	1910	955	15	1590	795
		M 4	4.000	0.70	21	1670	1169	18	1430	1001	15	1195	837
		M 5	5.000	0.80	21	1335	1068	18	1145	916	15	955	764
		M 6	6.000	1.00	21	1115	1115	18	955	955	15	795	795
		M 8	8.000	1.25	21	835	1044	18	715	894	15	595	744
		M 10	10.000	1.50	21	670	1005	18	575	863	15	475	713
		M 12	12.000	1.75	21	555	971	18	475	831	15	400	700
	Wrought aluminium alloys Si < 6% hardened	M 14	14.000	2.00	21	475	950	18	410	820	15	340	680
		M 16	16.000	2.00	21	420	840	18	360	720	15	300	600
		M 18	18.000	2.50	21	370	925	18	320	800	15	265	663
		M 20	20.000	2.50	21	335	838	18	285	713	15	240	600
		M 22	22.000	2.50	21	305	763	18	260	650	15	215	538
		M 24	24.000	3.00	21	280	840	18	240	720	15	200	600
	Unalloyed copper	M 2	2.000	0.40	20	3185	1274	18	2865	1146	16	2545	1018
		M 2.5	2.500	0.45	20	2545	1145	18	2290	1031	16	2035	916
		M 3	3.000	0.50	20	2120	1060	18	1910	955	16	1700	850
		M 4	4.000	0.70	20	1590	1113	18	1430	1001	16	1275	893
		M 5	5.000	0.80	20	1275	1020	18	1145	916	16	1020	816
		M 6	6.000	1.00	20	1060	1060	18	955	955	16	850	850
		M 8	8.000	1.25	20	795	994	18	715	894	16	635	794
		M 10	10.000	1.50	20	635	953	18	575	863	16	510	765
		M 12	12.000	1.75	20	530	928	18	475	831	16	425	744
	Unalloyed copper	M 14	14.000	2.00	20	455	910	18	410	820	16	365	730
		M 16	16.000	2.00	20	400	800	18	360	720	16	320	640
		M 18	18.000	2.50	20	355	888	18	320	800	16	285	713
		M 20	20.000	2.50	20	320	800	18	285	713	16	255	638
		M 22	22.000	2.50	20	290	725	18	260	650	16	230	575
		M 24	24.000	3.00	20	265	795	18	240	720	16	210	630

Taps

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form C

EI0050 / DIN 371



EI0051 / DIN 376

Al Aluminium > 99%	Al Aluminium Alloy	Al Aluminium Cast	Cu Copper	Plastic Thermo-plast
●	●	●	●	●

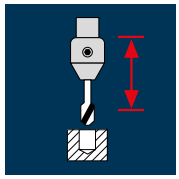
Example: **Order-N°.** Article-N°. **EI0050** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			INTEGRAL EI0050
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	1.60	●
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	2.05	●
044	M 3	0.50	56	5.00	18.0	16.0	3.5	2.7	3	2.50	●
058	M 4	0.70	63	7.00	21.0	19.0	4.5	3.4	3	3.30	●
084	M 5	0.80	70	8.00	25.0	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	10.00	30.0	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EI0051** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			INTEGRAL EI0051
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	3	10.20	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.00	●
312	M 18	2.50	125	25.00	65.0	63.0	14.0	11.0	4	15.50	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	4	17.50	●
316	M 22	2.50	140	25.00	72.0	70.0	18.0	14.5	4	19.50	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	4	21.00	●

Application



Material

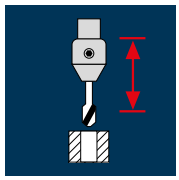
Cast aluminium

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
M 5	5.000	0.80	80	5095	60	3820	40	2545
M 6	6.000	1.00	80	4245	60	3185	40	2120
M 7	7.000	1.00	80	3640	60	2730	40	1820
M 8	8.000	1.25	80	3185	60	2385	40	1590
M 10	10.000	1.50	80	2545	60	1910	40	1275

CuAlFe (Ampco)

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
M 5	5.000	0.80	10	635	8	510	7	445
M 6	6.000	1.00	10	530	8	425	7	370
M 7	7.000	1.00	10	455	8	365	7	320
M 8	8.000	1.25	10	400	8	320	7	280
M 10	10.000	1.50	10	320	8	255	7	225

Application



Material

Cast aluminium

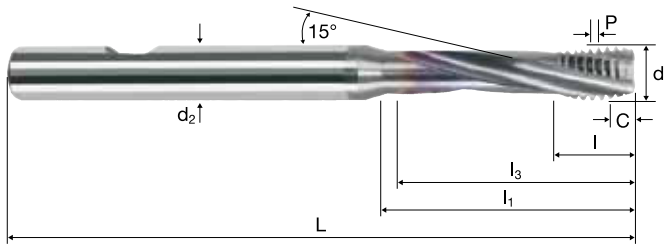
M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]	v_c 3.0 x d	n [min⁻¹]
M 5	5.000	0.80	100	6365	80	5095	60	3820
M 6	6.000	1.00	100	5305	80	4245	60	3185
M 7	7.000	1.00	100	4545	80	3640	60	2730
M 8	8.000	1.25	100	3980	80	3185	60	2385
M 10	10.000	1.50	100	3185	80	2545	60	1910

CuAlFe (Ampco)

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
M 5	5.000	0.80	12	765	10	635	9	575
M 6	6.000	1.00	12	635	10	530	9	475
M 7	7.000	1.00	12	545	10	455	9	410
M 8	8.000	1.25	12	475	10	400	9	360
M 10	10.000	1.50	12	380	10	320	9	285

Taps durotap A-R

M	ISO 2 (6H)
60°	HM MG10
DIN 6535 HB	
	X · P Form C

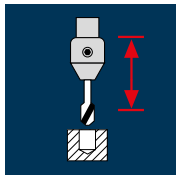


M

					Al Aluminium Cast		Cu Copper		GG(G)

Example: **Order-N°.** Article-N°. **EH6300** ø-Code **084**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH6300
084	M 5	0.80	70	4.00	25.0	23.0	6.0	3	4.20	●
088	M 6	1.00	80	5.00	30.0	28.0	6.0	3	5.00	●
089	M 7	1.00	80	5.00	30.0	28.0	8.0	3	6.00	●
160	M 8	1.25	90	6.50	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	7.50	39.0	37.0	10.0	3	8.50	●

Application	Material
	Cast aluminium

M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
M 6	6.000	1.00	80	4245	60	3185	40	2120
M 7	7.000	1.00	80	3640	60	2730	40	1820
M 8	8.000	1.25	80	3185	60	2385	40	1590
M 10	10.000	1.50	80	2545	60	1910	40	1275

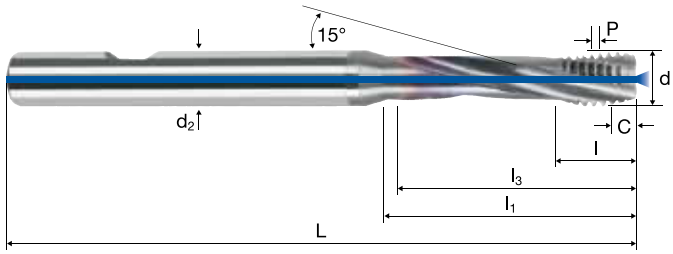
Material
CuAlFe (Ampco)

M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_c 1.5 x d	n [min^{-1}]	v_c 2.0 x d	n [min^{-1}]
M 6	6.000	1.00	10	530	8	425	7	370
M 7	7.000	1.00	10	455	8	365	7	320
M 8	8.000	1.25	10	400	8	320	7	280
M 10	10.000	1.50	10	320	8	255	7	225

Taps durotap A-R

Incool

M	ISO 2 (6H)
60°	HM MG10
DIN 6535 HB	
	X · P Form C

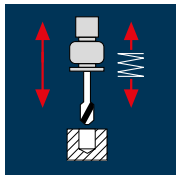


M

					Al Aluminium Cast		Cu Copper		GG(G)

Example: **Order-N°.** Article-N°. **EH6301** ø-Code **088**

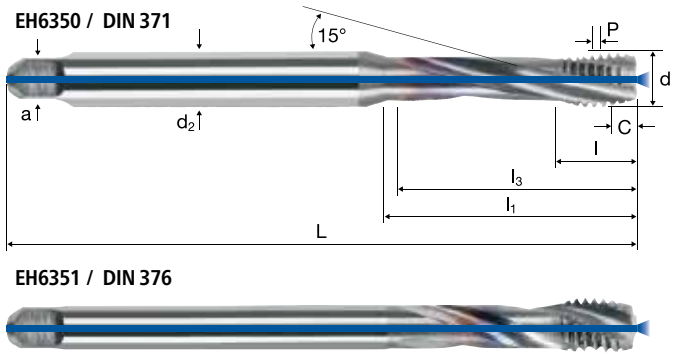
Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH6301
088	M 6	1.00	80	5.00	30.0	28.0	6.0	3	5.00	●
089	M 7	1.00	80	5.00	30.0	28.0	8.0	3	6.00	●
160	M 8	1.25	90	6.50	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	7.50	39.0	37.0	10.0	3	8.50	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Cast aluminium	M 4	4.000	0.70	80	6365	4456	60	4775	3343	40	3185	2230
		M 5	5.000	0.80	80	5095	4076	60	3820	3056	40	2545	2036
		M 6	6.000	1.00	80	4245	4245	60	3185	3185	40	2120	2120
		M 8	8.000	1.25	80	3185	3981	60	2385	2981	40	1590	1988
		M 10	10.000	1.50	80	2545	3818	60	1910	2865	40	1275	1913
		M 12	12.000	1.75	80	2120	3710	60	1590	2783	40	1060	1855
		M 14	14.000	2.00	80	1820	3640	60	1365	2730	40	910	1820
		M 16	16.000	2.00	80	1590	3180	60	1195	2390	40	795	1590
	CuAlFe (Ampco)	M 4	4.000	0.70	10	795	557	8	635	445	7	555	389
		M 5	5.000	0.80	10	635	508	8	510	408	7	445	356
		M 6	6.000	1.00	10	530	530	8	425	425	7	370	370
		M 8	8.000	1.25	10	400	500	8	320	400	7	280	350
		M 10	10.000	1.50	10	320	480	8	255	383	7	225	338
		M 12	12.000	1.75	10	265	464	8	210	368	7	185	324
		M 14	14.000	2.00	10	225	450	8	180	360	7	160	320
		M 16	16.000	2.00	10	200	400	8	160	320	7	140	280

Taps durotap A

Incool

M	ISO 2 (6H)
60°	HM MG10
DIN 371/376	
	Form C



M

					Al Aluminium Cast		Cu Copper		GG(G)

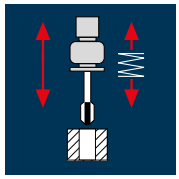
Example: **Order-N°.** Article-N°. **EH6350** ø-Code **058**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH6350
058*	M 4	0.70	63	7.00	21.0	19.0	4.5	3.4	3	3.30	●
084*	M 5	0.80	70	8.00	25.0	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	80	10.00	30.0	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EH6351** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH6351
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	3	10.20	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.00	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.00	●

* without internal cooling

Application	Material
	Titanium alloys > 300 HB [Ti6Al4V]
	Titanium alloys > 300 HB [Ti6Al4V]

M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
M 1.2	1.200	0.25	4	1060	265	3	795	199	2	530	133
M 1.4	1.400	0.30	4	910	273	3	680	204	2	455	137
M 1.6	1.600	0.35	4	795	278	3	595	208	2	400	140
M 1.8	1.800	0.35	4	705	247	3	530	186	2	355	124
M 2	2.000	0.40	4	635	254	3	475	190	2	320	128
M 2.5	2.500	0.45	4	510	230	3	380	171	2	255	115
M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
M 3.5	3.500	0.60	5	455	273	4	365	219	3	275	165
M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
M 10	10.000	1.50	5	160	240	4	125	188	3	95	143

Taps titap

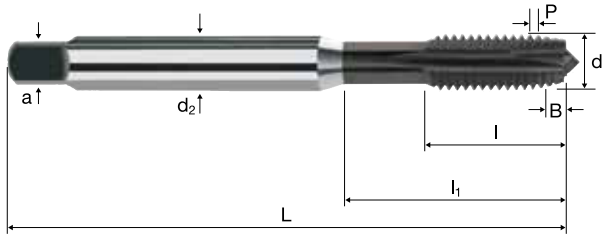
Ti

M | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form B



M

Ti Titanium

Example: **Order-N°.** Article-N°. **ET0705** ø-Code **012**

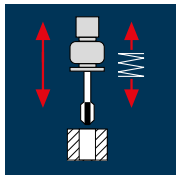
Ø Code	d	P	L	l	l_1	d_2	a			TRIBO ET0705
012	M 1.2	0.25	40	5.50	-	2.5	2.1	2	1.00*	●
020	M 1.4	0.30	40	7.00	-	2.5	2.1	2	1.15*	●
022	M 1.6	0.35	40	8.00	-	2.5	2.1	2	1.30	●
026	M 1.8	0.35	40	8.00	-	2.5	2.1	2	1.50	●
034	M 2	0.40	45	8.00	-	2.8	2.1	2	1.70*	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	2.10	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.60*	●
056	M 3.5	0.60	56	12.00	20.0	4.0	3.0	3	3.00	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.40	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.30	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	5.10	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	6.90	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	8.60	●

≤ M 1.4 Tolerance ISO 1 (4H)

* The given dimension is out of norm

For larger dimensions see article no. ET0706

Application



Material

Titanium alloys
> 300 HB
[Ti6Al4V]

M	d [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
M 14	14.000	2.00	5	115	230	4	90	180	3	70	140
M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
M 18	18.000	2.50	5	90	225	4	70	175	3	55	138
M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
M 22	22.000	2.50	5	70	175	4	60	150	3	45	113
M 24	24.000	3.00	5	65	195	4	55	165	3	40	120

Taps titap

Ti

M

ISO 2 (6H)

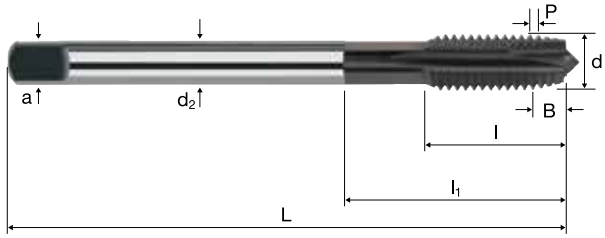
60°

HSS PM/F

DIN 376

X · P

Form B

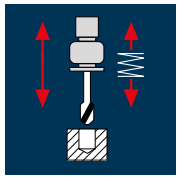


M

Ti Titanium

Example: **Order-N°.** Article-N°. **ET0706** ø-Code **240**

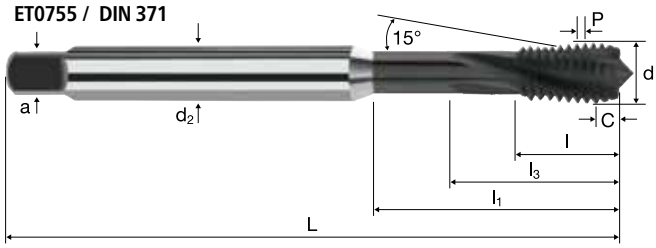
Ø Code	d	P	L	l	l_1	d_2	a			TRIBO ET0706
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.40	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.20	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.20	●
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.70	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.70	●
316	M 22	2.50	140	32.00	50.0	18.0	14.5	4	19.70	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	21.20	●

Application	Material
	Titanium alloys > 300 HB [Ti6Al4V]
	Titanium alloys > 300 HB [Ti6Al4V]

M	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
M 2	2.000	0.40	4	635	254	3	475	190
M 2.5	2.500	0.45	4	510	230	3	380	171
M 3	3.000	0.50	5	530	265	4	425	213
M 3.5	3.500	0.60	5	455	273	4	365	219
M 4	4.000	0.70	5	400	280	4	320	224
M 5	5.000	0.80	5	320	256	4	255	204
M 6	6.000	1.00	5	265	265	4	210	210
M 8	8.000	1.25	5	200	250	4	160	200
M 10	10.000	1.50	5	160	240	4	125	188
M 12	12.000	1.75	5	135	236	4	105	184
M 14	14.000	2.00	5	115	230	4	90	180
M 16	16.000	2.00	5	100	200	4	80	160
M 18	18.000	2.50	5	90	225	4	70	175
M 20	20.000	2.50	5	80	200	4	65	163
M 22	22.000	2.50	5	70	175	4	60	150
M 24	24.000	3.00	5	65	195	4	55	165

Taps titap

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form C



M

Ti
Titanium

Example: **Order-N°.** Article-N°. **ET0755** ø-Code **034**

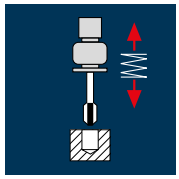
Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET0755
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	1.70*	●
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	2.10	●
044	M 3	0.50	56	5.00	18.0	16.0	3.5	2.7	3	2.60*	●
056	M 3.5	0.60	56	6.00	20.0	18.0	4.0	3.0	3	3.00	●
058	M 4	0.70	63	7.00	21.0	19.0	4.5	3.4	3	3.40	●
084	M 5	0.80	70	8.00	25.0	23.0	6.0	4.9	3	4.30	●
088	M 6	1.00	80	10.00	30.0	28.0	6.0	4.9	3	5.10	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	6.90	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	4	8.60	●

Example: **Order-N°.** Article-N°. **ET0756** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET0756
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	4	10.40	●
244	M 14	2.00	110	20.00	58.0	56.0	11.0	9.0	4	12.20	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	14.20	●
312	M 18	2.50	125	25.00	65.0	63.0	14.0	11.0	5	15.70	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	5	17.70	●
316	M 22	2.50	140	25.00	72.0	70.0	18.0	14.5	5	19.70	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	5	21.20	●

* The given dimension is out of norm

Application



Material

Nickel base alloys hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.000	0.40	2	320	128	2	320	128
M 2.5	2.500	0.45	2	255	115	2	255	115
M 3	3.000	0.50	2	210	105	2	210	105
M 4	4.000	0.70	2	160	112	2	160	112
M 5	5.000	0.80	2	125	100	2	125	100
M 6	6.000	1.00	2	105	105	2	105	105
M 8	8.000	1.25	2	80	100	2	80	100
M 10	10.000	1.50	2	65	98	2	65	98
M 12	12.000	1.75	2	55	96	2	55	96

Nickel base alloys hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 14	14.000	2.00	2	45	90	2	45	90
M 16	16.000	2.00	2	40	80	2	40	80
M 18	18.000	2.50	2	35	88	2	35	88
M 20	20.000	2.50	2	30	75	2	30	75
M 22	22.000	2.50	2	30	75	2	30	75
M 24	24.000	3.00	2	25	75	2	25	75

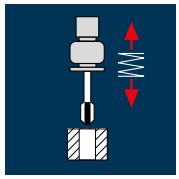
Nickel base alloys not hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.000	0.40	3	475	190	2	320	128
M 2.5	2.500	0.45	3	380	171	2	255	115
M 3	3.000	0.50	3	320	160	2	210	105
M 4	4.000	0.70	3	240	168	2	160	112
M 5	5.000	0.80	3	190	152	2	125	100
M 6	6.000	1.00	3	160	160	2	105	105
M 8	8.000	1.25	3	120	150	2	80	100
M 10	10.000	1.50	3	95	143	2	65	98
M 12	12.000	1.75	3	80	140	2	55	96

Nickel base alloys not hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 14	14.000	2.00	3	70	140	2	45	90
M 16	16.000	2.00	3	60	120	2	40	80
M 18	18.000	2.50	3	55	138	2	35	88
M 20	20.000	2.50	3	50	125	2	30	75
M 22	22.000	2.50	3	45	113	2	30	75
M 24	24.000	3.00	3	40	120	2	25	75

Application



Material

Nickel base alloys hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.000	0.40	2	320	128	2	320	128
M 2.5	2.500	0.45	2	255	115	2	255	115
M 3	3.000	0.50	2	210	105	2	210	105
M 4	4.000	0.70	2	160	112	2	160	112
M 5	5.000	0.80	2	125	100	2	125	100
M 6	6.000	1.00	2	105	105	2	105	105
M 8	8.000	1.25	2	80	100	2	80	100
M 10	10.000	1.50	2	65	98	2	65	98
M 12	12.000	1.75	2	55	96	2	55	96

Nickel base alloys hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 14	14.000	2.00	2	45	90	2	45	90
M 16	16.000	2.00	2	40	80	2	40	80
M 18	18.000	2.50	2	35	88	2	35	88
M 20	20.000	2.50	2	30	75	2	30	75
M 22	22.000	2.50	2	30	75	2	30	75
M 24	24.000	3.00	2	25	75	2	25	75

Nickel base alloys not hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 2	2.000	0.40	3	475	190	2	320	128
M 2.5	2.500	0.45	3	380	171	2	255	115
M 3	3.000	0.50	3	320	160	2	210	105
M 4	4.000	0.70	3	240	168	2	160	112
M 5	5.000	0.80	3	190	152	2	125	100
M 6	6.000	1.00	3	160	160	2	105	105
M 8	8.000	1.25	3	120	150	2	80	100
M 10	10.000	1.50	3	95	143	2	65	98
M 12	12.000	1.75	3	80	140	2	55	96

Nickel base alloys not hardened

M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
M 14	14.000	2.00	3	70	140	2	45	90
M 16	16.000	2.00	3	60	120	2	40	80
M 18	18.000	2.50	3	55	138	2	35	88
M 20	20.000	2.50	3	50	125	2	30	75
M 22	22.000	2.50	3	45	113	2	30	75
M 24	24.000	3.00	3	40	120	2	25	75

Taps n-tap

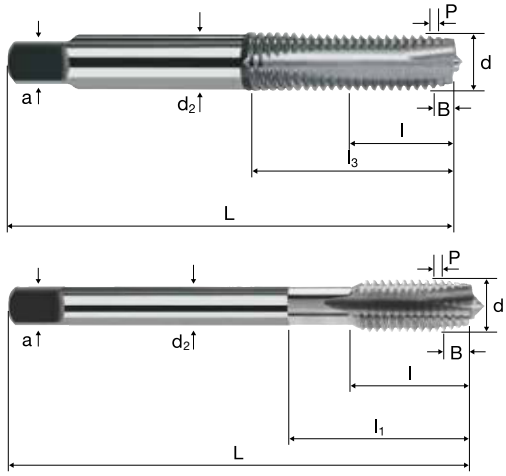
Ni

M

ISO 2 (6H)

HSS PM/F

Form B

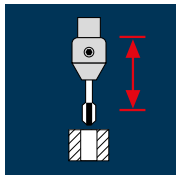


Nickel-Alloys

Example:
Order-N°. Article-N°. **E0598** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			E0598	
034	M 2	0.40	41	8.00	-	11.0	2.8	2.1	2	1.70*	●	
040	M 2.5	0.45	44	9.00	-	13.0	2.8	2.1	2	2.10	●	
044	M 3	0.50	48	11.00	-	16.0	3.5	2.7	3	2.60*	●	
058	M 4	0.70	53	13.00	-	19.0	4.5	3.4	3	3.40	●	
084	M 5	0.80	58	15.00	-	22.0	6.0	4.9	3	4.30	●	
088	M 6	1.00	66	17.00	-	28.0	6.0	4.9	3	5.10	●	
160	M 8	1.25	72	20.00	-	34.0	8.0	6.2	3	6.90	●	
174	M 10	1.50	80	22.00	-	37.0	10.0	8.0	3	8.60	●	
240	M 12	1.75	89	24.00	40.0	-	9.0	7.0	3	10.40	●	
244	M 14	2.00	95	26.00	40.0	-	11.0	9.0	3	12.20	●	
246	M 16	2.00	102	27.00	40.0	-	12.0	9.0	3	14.20	●	
312	M 18	2.50	112	30.00	45.0	-	14.0	11.0	3	15.70	●	
314	M 20	2.50	112	32.00	45.0	-	16.0	12.0	3	17.70	●	
316	M 22	2.50	118	32.00	50.0	-	18.0	14.5	4	19.70	●	
320	M 24	3.00	130	34.00	60.0	-	18.0	14.5	4	21.20	●	

* The given dimension is out of norm

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]	v_c 3.0 x d	n [min⁻¹]
	Steel < 500 N/mm²	M 3	3.000	0.50	25	2655	20	2120	15	1590
		M 4	4.000	0.70	25	1990	20	1590	15	1195
		M 5	5.000	0.80	25	1590	20	1275	15	955
		M 6	6.000	1.00	25	1325	20	1060	15	795
		M 8	8.000	1.25	25	995	20	795	15	595
		M 10	10.000	1.50	25	795	20	635	15	475
		M 12	12.000	1.75	25	665	20	530	15	400
		M 16	16.000	2.00	25	495	20	400	15	300
		M 20	20.000	2.50	25	400	20	320	15	240
	Steel 500 - 850 N/mm²	M 3	3.000	0.50	22	2335	18	1910	12	1275
		M 4	4.000	0.70	22	1750	18	1430	12	955
		M 5	5.000	0.80	22	1400	18	1145	12	765
		M 6	6.000	1.00	22	1165	18	955	12	635
		M 8	8.000	1.25	22	875	18	715	12	475
		M 10	10.000	1.50	22	700	18	575	12	380
		M 12	12.000	1.75	22	585	18	475	12	320
		M 16	16.000	2.00	22	440	18	360	12	240
		M 20	20.000	2.50	22	350	18	285	12	190
	Steel 850 - 1100 N/mm²	M 3	3.000	0.50	18	1910	12	1275	10	1060
		M 4	4.000	0.70	18	1430	12	955	10	795
		M 5	5.000	0.80	18	1145	12	765	10	635
		M 6	6.000	1.00	18	955	12	635	10	530
		M 8	8.000	1.25	18	715	12	475	10	400
		M 10	10.000	1.50	18	575	12	380	10	320
		M 12	12.000	1.75	18	475	12	320	10	265
		M 16	16.000	2.00	18	360	12	240	10	200
		M 20	20.000	2.50	18	285	12	190	10	160
	Cast iron GG	M 3	3.000	0.50	22	2335	20	2120	18	1910
		M 4	4.000	0.70	22	1750	20	1590	18	1430
		M 5	5.000	0.80	22	1400	20	1275	18	1145
		M 6	6.000	1.00	22	1165	20	1060	18	955
		M 8	8.000	1.25	22	875	20	795	18	715
		M 10	10.000	1.50	22	700	20	635	18	575
		M 12	12.000	1.75	22	585	20	530	18	475
		M 16	16.000	2.00	22	440	20	400	18	360
		M 20	20.000	2.50	22	350	20	320	18	285
	Stainless steel [Cr-Ni/1.4301]	M 3	3.000	0.50	6	635	4	425	3	320
		M 4	4.000	0.70	6	475	4	320	3	240
		M 5	5.000	0.80	6	380	4	255	3	190
		M 6	6.000	1.00	6	320	4	210	3	160
		M 8	8.000	1.25	6	240	4	160	3	120
		M 10	10.000	1.50	6	190	4	125	3	95
		M 12	12.000	1.75	6	160	4	105	3	80
		M 16	16.000	2.00	6	120	4	80	3	60
		M 20	20.000	2.50	6	95	4	65	3	50
	Wrought aluminium alloys Si < 6% hardened	M 3	3.000	0.50	25	2655	20	2120	15	1590
		M 4	4.000	0.70	25	1990	20	1590	15	1195
		M 5	5.000	0.80	25	1590	20	1275	15	955
		M 6	6.000	1.00	25	1325	20	1060	15	795
		M 8	8.000	1.25	25	995	20	795	15	595
		M 10	10.000	1.50	25	795	20	635	15	475
		M 12	12.000	1.75	25	665	20	530	15	400
		M 16	16.000	2.00	25	495	20	400	15	300
		M 20	20.000	2.50	25	400	20	320	15	240

Taps polytap-R

R

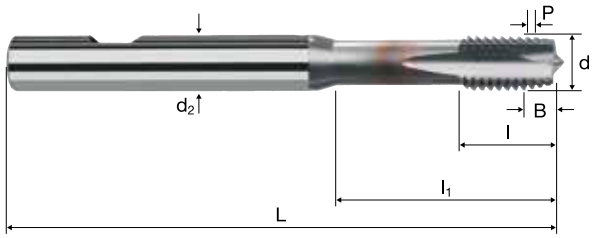
M

ISO 2 (6H)

HSS PM/F

DIN 1835B ISO 3338

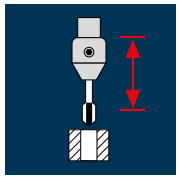
Form B



Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **EH0109** ø-Code **044**

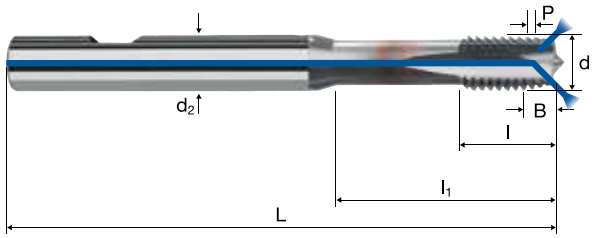
Ø Code	d	P	L	l	l_1	d_2 h6			TiCN EH0109
044	M 3	0.50	63	5.00	18.0	6.0	3	2.50	●
058	M 4	0.70	66	7.00	21.0	6.0	3	3.30	●
084	M 5	0.80	70	8.00	25.0	6.0	3	4.20	●
088	M 6	1.00	80	10.00	30.0	6.0	3	5.00	●
160	M 8	1.25	90	13.00	35.0	8.0	3	6.80	●
174	M 10	1.50	100	15.00	39.0	10.0	3	8.50	●
240	M 12	1.75	110	18.00	45.0	12.0	3	10.20	●
244	M 14	2.00	110	20.00	46.0	16.0	3	12.00	●
246	M 16	2.00	110	20.00	50.0	16.0	3	14.00	●
312	M 18	2.50	125	25.00	60.0	16.0	4	15.50	●
314	M 20	2.50	140	25.00	64.0	16.0	4	17.50	●

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]	v_c 3.0 x d	n [min⁻¹]
	Steel < 500 N/mm²	M 6	6.000	1.00	25	1325	20	1060	15	795
		M 8	8.000	1.25	25	995	20	795	15	595
		M 10	10.000	1.50	25	795	20	635	15	475
		M 12	12.000	1.75	25	665	20	530	15	400
		M 14	14.000	2.00	25	570	20	455	15	340
		M 16	16.000	2.00	25	495	20	400	15	300
		M 18	18.000	2.50	25	440	20	355	15	265
		M 20	20.000	2.50	25	400	20	320	15	240
	Steel 500 - 850 N/mm²	M 6	6.000	1.00	22	1165	18	955	12	635
		M 8	8.000	1.25	22	875	18	715	12	475
		M 10	10.000	1.50	22	700	18	575	12	380
		M 12	12.000	1.75	22	585	18	475	12	320
		M 14	14.000	2.00	22	500	18	410	12	275
		M 16	16.000	2.00	22	440	18	360	12	240
		M 18	18.000	2.50	22	390	18	320	12	210
		M 20	20.000	2.50	22	350	18	285	12	190
	Steel 850 - 1100 N/mm²	M 6	6.000	1.00	18	955	12	635	10	530
		M 8	8.000	1.25	18	715	12	475	10	400
		M 10	10.000	1.50	18	575	12	380	10	320
		M 12	12.000	1.75	18	475	12	320	10	265
		M 14	14.000	2.00	18	410	12	275	10	225
		M 16	16.000	2.00	18	360	12	240	10	200
		M 18	18.000	2.50	18	320	12	210	10	175
		M 20	20.000	2.50	18	285	12	190	10	160
	Cast iron GG	M 6	6.000	1.00	22	1165	20	1060	18	955
		M 8	8.000	1.25	22	875	20	795	18	715
		M 10	10.000	1.50	22	700	20	635	18	575
		M 12	12.000	1.75	22	585	20	530	18	475
		M 14	14.000	2.00	22	500	20	455	18	410
		M 16	16.000	2.00	22	440	20	400	18	360
		M 18	18.000	2.50	22	390	20	355	18	320
		M 20	20.000	2.50	22	350	20	320	18	285
	Stainless steel [Cr-Ni/1.4301]	M 6	6.000	1.00	6	320	4	210	3	160
		M 8	8.000	1.25	6	240	4	160	3	120
		M 10	10.000	1.50	6	190	4	125	3	95
		M 12	12.000	1.75	6	160	4	105	3	80
		M 14	14.000	2.00	6	135	4	90	3	70
		M 16	16.000	2.00	6	120	4	80	3	60
		M 18	18.000	2.50	6	105	4	70	3	55
		M 20	20.000	2.50	6	95	4	65	3	50
	Wrought aluminium alloys Si < 6% hardened	M 6	6.000	1.00	25	1325	20	1060	15	795
		M 8	8.000	1.25	25	995	20	795	15	595
		M 10	10.000	1.50	25	795	20	635	15	475
		M 12	12.000	1.75	25	665	20	530	15	400
		M 14	14.000	2.00	25	570	20	455	15	340
		M 16	16.000	2.00	25	495	20	400	15	300
		M 18	18.000	2.50	25	440	20	355	15	265
		M 20	20.000	2.50	25	400	20	320	15	240

Taps polytap-R

Incool

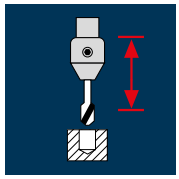
M	ISO 2 (6H)
60°	HSS PM/F
DIN 1835B ISO 3338	
	X · P Form B



Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **EH0110** ø-Code **088**

Ø Code	d	P	L	l	l_1	d_2 h6			TiCN EH0110
088	M 6	1.00	80	10.00	30.0	6.0	3	5.00	●
160	M 8	1.25	90	13.00	35.0	8.0	3	6.80	●
174	M 10	1.50	100	15.00	39.0	10.0	3	8.50	●
240	M 12	1.75	110	18.00	45.0	12.0	3	10.20	●
244	M 14	2.00	110	20.00	46.0	16.0	3	12.00	●
246	M 16	2.00	110	20.00	50.0	16.0	3	14.00	●
312	M 18	2.50	125	25.00	60.0	16.0	4	15.50	●
314	M 20	2.50	140	25.00	64.0	16.0	4	17.50	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Steel < 500 N/mm²	M 3	3.000	0.50	25	2655	22	2335	15	1590
		M 4	4.000	0.70	25	1990	22	1750	15	1195
		M 5	5.000	0.80	25	1590	22	1400	15	955
		M 6	6.000	1.00	25	1325	22	1165	15	795
		M 8	8.000	1.25	25	995	22	875	15	595
		M 10	10.000	1.50	25	795	22	700	15	475
		M 12	12.000	1.75	25	665	22	585	15	400
		M 16	16.000	2.00	25	495	22	440	15	300
		M 20	20.000	2.50	25	400	22	350	15	240
	Steel 500 - 850 N/mm²	M 3	3.000	0.50	22	2335	20	2120	12	1275
		M 4	4.000	0.70	22	1750	20	1590	12	955
		M 5	5.000	0.80	22	1400	20	1275	12	765
		M 6	6.000	1.00	22	1165	20	1060	12	635
		M 8	8.000	1.25	22	875	20	795	12	475
		M 10	10.000	1.50	22	700	20	635	12	380
		M 12	12.000	1.75	22	585	20	530	12	320
		M 16	16.000	2.00	22	440	20	400	12	240
		M 20	20.000	2.50	22	350	20	320	12	190
	Steel 850 - 1100 N/mm²	M 3	3.000	0.50	18	1910	12	1275	8	850
		M 4	4.000	0.70	18	1430	12	955	8	635
		M 5	5.000	0.80	18	1145	12	765	8	510
		M 6	6.000	1.00	18	955	12	635	8	425
		M 8	8.000	1.25	18	715	12	475	8	320
		M 10	10.000	1.50	18	575	12	380	8	255
		M 12	12.000	1.75	18	475	12	320	8	210
		M 16	16.000	2.00	18	360	12	240	8	160
		M 20	20.000	2.50	18	285	12	190	8	125
	Cast iron GG	M 3	3.000	0.50	18	1910	15	1590	12	1275
		M 4	4.000	0.70	18	1430	15	1195	12	955
		M 5	5.000	0.80	18	1145	15	955	12	765
		M 6	6.000	1.00	18	955	15	795	12	635
		M 8	8.000	1.25	18	715	15	595	12	475
		M 10	10.000	1.50	18	575	15	475	12	380
		M 12	12.000	1.75	18	475	15	400	12	320
		M 16	16.000	2.00	18	360	15	300	12	240
		M 20	20.000	2.50	18	285	15	240	12	190
	Stainless steel [Cr-Ni/1.4301]	M 3	3.000	0.50	4	425	3	320	2	210
		M 4	4.000	0.70	4	320	3	240	2	160
		M 5	5.000	0.80	4	255	3	190	2	125
		M 6	6.000	1.00	4	210	3	160	2	105
		M 8	8.000	1.25	4	160	3	120	2	80
		M 10	10.000	1.50	4	125	3	95	2	65
		M 12	12.000	1.75	4	105	3	80	2	55
		M 16	16.000	2.00	4	80	3	60	2	40
		M 20	20.000	2.50	4	65	3	50	2	30
	Wrought aluminium alloys Si < 6% hardened	M 3	3.000	0.50	25	2655	22	2335	15	1590
		M 4	4.000	0.70	25	1990	22	1750	15	1195
		M 5	5.000	0.80	25	1590	22	1400	15	955
		M 6	6.000	1.00	25	1325	22	1165	15	795
		M 8	8.000	1.25	25	995	22	875	15	595
		M 10	10.000	1.50	25	795	22	700	15	475
		M 12	12.000	1.75	25	665	22	585	15	400
		M 16	16.000	2.00	25	495	22	440	15	300
		M 20	20.000	2.50	25	400	22	350	15	240

Taps polytap-R

R

M

ISO 2 (6H)

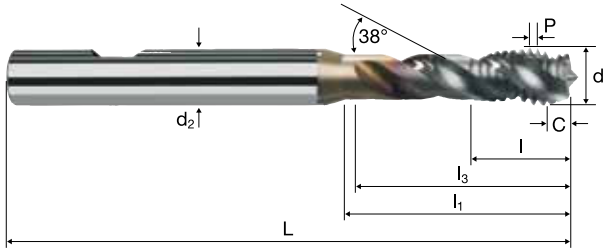
60°

HSS PM/F

DIN 1835B ISO 3338

X · P

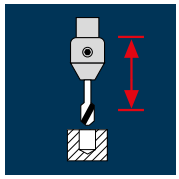
Form C



Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Example: **Order-N°.** Article-N°. **EH0229** ø-Code **044**

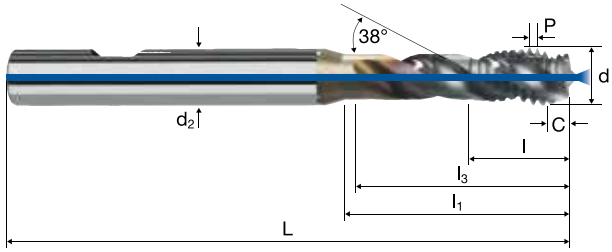
Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH0229
044	M 3	0.50	63	5.00	18.0	16.0	6.0	3	2.50	●
058	M 4	0.70	66	7.00	21.0	19.0	6.0	3	3.30	●
084	M 5	0.80	70	8.00	25.0	23.0	6.0	3	4.20	●
088	M 6	1.00	80	10.00	30.0	28.0	6.0	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	3	8.50	●
240	M 12	1.75	110	18.00	45.0	43.0	12.0	3	10.20	●
244	M 14	2.00	110	20.00	46.0	44.0	16.0	4	12.00	●
246	M 16	2.00	110	20.00	50.0	48.0	16.0	4	14.00	●
312	M 18	2.50	125	25.00	60.0	58.0	16.0	4	15.50	●
314	M 20	2.50	140	25.00	64.0	62.0	16.0	4	17.50	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Steel < 500 N/mm²	M 4	4.000	0.70	25	1990	22	1750	15	1195
		M 5	5.000	0.80	25	1590	22	1400	15	955
		M 6	6.000	1.00	25	1325	22	1165	15	795
		M 8	8.000	1.25	25	995	22	875	15	595
		M 10	10.000	1.50	25	795	22	700	15	475
		M 12	12.000	1.75	25	665	22	585	15	400
		M 14	14.000	2.00	25	570	22	500	15	340
		M 16	16.000	2.00	25	495	22	440	15	300
		M 20	20.000	2.50	25	400	22	350	15	240
	Steel 500 - 850 N/mm²	M 4	4.000	0.70	22	1750	20	1590	12	955
		M 5	5.000	0.80	22	1400	20	1275	12	765
		M 6	6.000	1.00	22	1165	20	1060	12	635
		M 8	8.000	1.25	22	875	20	795	12	475
		M 10	10.000	1.50	22	700	20	635	12	380
		M 12	12.000	1.75	22	585	20	530	12	320
		M 14	14.000	2.00	22	500	20	455	12	275
		M 16	16.000	2.00	22	440	20	400	12	240
		M 20	20.000	2.50	22	350	20	320	12	190
	Steel 850 - 1100 N/mm²	M 4	4.000	0.70	18	1430	12	955	8	635
		M 5	5.000	0.80	18	1145	12	765	8	510
		M 6	6.000	1.00	18	955	12	635	8	425
		M 8	8.000	1.25	18	715	12	475	8	320
		M 10	10.000	1.50	18	575	12	380	8	255
		M 12	12.000	1.75	18	475	12	320	8	210
		M 14	14.000	2.00	18	410	12	275	8	180
		M 16	16.000	2.00	18	360	12	240	8	160
		M 20	20.000	2.50	18	285	12	190	8	125
	Cast iron GG	M 4	4.000	0.70	18	1430	15	1195	12	955
		M 5	5.000	0.80	18	1145	15	955	12	765
		M 6	6.000	1.00	18	955	15	795	12	635
		M 8	8.000	1.25	18	715	15	595	12	475
		M 10	10.000	1.50	18	575	15	475	12	380
		M 12	12.000	1.75	18	475	15	400	12	320
		M 14	14.000	2.00	18	410	15	340	12	275
		M 16	16.000	2.00	18	360	15	300	12	240
		M 20	20.000	2.50	18	285	15	240	12	190
	Stainless steel [Cr-Ni/1.4301]	M 4	4.000	0.70	4	320	3	240	2	160
		M 5	5.000	0.80	4	255	3	190	2	125
		M 6	6.000	1.00	4	210	3	160	2	105
		M 8	8.000	1.25	4	160	3	120	2	80
		M 10	10.000	1.50	4	125	3	95	2	65
		M 12	12.000	1.75	4	105	3	80	2	55
		M 14	14.000	2.00	4	90	3	70	2	45
		M 16	16.000	2.00	4	80	3	60	2	40
		M 20	20.000	2.50	4	65	3	50	2	30
	Wrought aluminium alloys Si < 6% hardened	M 4	4.000	0.70	25	1990	22	1750	15	1195
		M 5	5.000	0.80	25	1590	22	1400	15	955
		M 6	6.000	1.00	25	1325	22	1165	15	795
		M 8	8.000	1.25	25	995	22	875	15	595
		M 10	10.000	1.50	25	795	22	700	15	475
		M 12	12.000	1.75	25	665	22	585	15	400
		M 14	14.000	2.00	25	570	22	500	15	340
		M 16	16.000	2.00	25	495	22	440	15	300
		M 20	20.000	2.50	25	400	22	350	15	240

Taps polytap-R

Incool

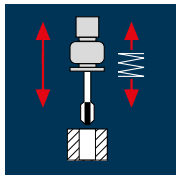
M	ISO 2 (6H)
60°	HSS PM/F
DIN 1835B ISO 3338	
	X · P Form C



Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

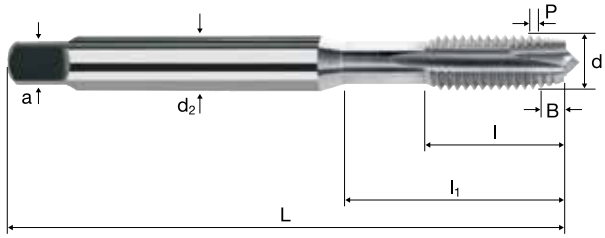
Example: **Order-N°.** Article-N°. **EH0230** ø-Code **058**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH0230
058	M 4	0.70	66	7.00	21.0	19.0	6.0	3	3.30	●
084	M 5	0.80	70	8.00	25.0	23.0	6.0	3	4.20	●
088	M 6	1.00	80	10.00	30.0	28.0	6.0	3	5.00	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	3	6.80	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	3	8.50	●
240	M 12	1.75	110	18.00	45.0	43.0	12.0	3	10.20	●
244	M 14	2.00	110	20.00	46.0	44.0	16.0	4	12.00	●
246	M 16	2.00	110	20.00	50.0	48.0	16.0	4	14.00	●
312	M 18	2.50	125	25.00	60.0	58.0	16.0	4	15.50	●
314	M 20	2.50	140	25.00	64.0	62.0	16.0	4	17.50	●

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 1	1.000	0.25	14	4455	1114	12	3820	955	10	3185	796
		M 1.2	1.200	0.25	14	3715	929	12	3185	796	10	2655	664
		M 1.4	1.400	0.30	14	3185	956	12	2730	819	10	2275	683
		M 1.6	1.600	0.35	14	2785	975	12	2385	835	10	1990	697
		M 1.8	1.800	0.35	14	2475	866	12	2120	742	10	1770	620
		M 2	2.000	0.40	14	2230	892	12	1910	764	10	1590	636
		M 2.2	2.200	0.45	14	2025	911	12	1735	781	10	1445	650
		M 2.3	2.300	0.40	14	1940	776	12	1660	664	10	1385	554
		M 2.5	2.500	0.45	14	1785	803	12	1530	689	10	1275	574
	Steel < 500 N/mm²	M 2.6	2.600	0.45	18	2205	992	15	1835	826	12	1470	662
		M 3	3.000	0.50	18	1910	955	15	1590	795	12	1275	638
		M 3.5	3.500	0.60	18	1635	981	15	1365	819	12	1090	654
		M 4	4.000	0.70	18	1430	1001	15	1195	837	12	955	669
		M 4.5	4.500	0.75	18	1275	956	15	1060	795	12	850	638
		M 5	5.000	0.80	18	1145	916	15	955	764	12	765	612
		M 6	6.000	1.00	18	955	955	15	795	795	12	635	635
		M 8	8.000	1.25	18	715	894	15	595	744	12	475	594
		M 10	10.000	1.50	18	575	863	15	475	713	12	380	570
	Steel 500 - 850 N/mm²	M 1	1.000	0.25	12	3820	955	8	2545	636	6	1910	478
		M 1.2	1.200	0.25	12	3185	796	8	2120	530	6	1590	398
		M 1.4	1.400	0.30	12	2730	819	8	1820	546	6	1365	410
		M 1.6	1.600	0.35	12	2385	835	8	1590	557	6	1195	418
		M 1.8	1.800	0.35	12	2120	742	8	1415	495	6	1060	371
		M 2	2.000	0.40	12	1910	764	8	1275	510	6	955	382
		M 2.2	2.200	0.45	12	1735	781	8	1155	520	6	870	392
		M 2.3	2.300	0.40	12	1660	664	8	1105	442	6	830	332
		M 2.5	2.500	0.45	12	1530	689	8	1020	459	6	765	344
	Steel 500 - 850 N/mm²	M 2.6	2.600	0.45	15	1835	826	10	1225	551	8	980	441
		M 3	3.000	0.50	15	1590	795	10	1060	530	8	850	425
		M 3.5	3.500	0.60	15	1365	819	10	910	546	8	730	438
		M 4	4.000	0.70	15	1195	837	10	795	557	8	635	445
		M 4.5	4.500	0.75	15	1060	795	10	705	529	8	565	424
		M 5	5.000	0.80	15	955	764	10	635	508	8	510	408
		M 6	6.000	1.00	15	795	795	10	530	530	8	425	425
		M 8	8.000	1.25	15	595	744	10	400	500	8	320	400
		M 10	10.000	1.50	15	475	713	10	320	480	8	255	383
	Wrought aluminium alloys Si < 6% hardened	M 1	1.000	0.25	12	3820	955	10	3185	796	8	2545	636
		M 1.2	1.200	0.25	12	3185	796	10	2655	664	8	2120	530
		M 1.4	1.400	0.30	12	2730	819	10	2275	683	8	1820	546
		M 1.6	1.600	0.35	12	2385	835	10	1990	697	8	1590	557
		M 1.8	1.800	0.35	12	2120	742	10	1770	620	8	1415	495
		M 2	2.000	0.40	12	1910	764	10	1590	636	8	1275	510
		M 2.2	2.200	0.45	12	1735	781	10	1445	650	8	1155	520
		M 2.3	2.300	0.40	12	1660	664	10	1385	554	8	1105	442
		M 2.5	2.500	0.45	12	1530	689	10	1275	574	8	1020	459
	Wrought aluminium alloys Si < 6% hardened	M 2.6	2.600	0.45	15	1835	826	12	1470	662	10	1225	551
		M 3	3.000	0.50	15	1590	795	12	1275	638	10	1060	530
		M 3.5	3.500	0.60	15	1365	819	12	1090	654	10	910	546
		M 4	4.000	0.70	15	1195	837	12	955	669	10	795	557
		M 4.5	4.500	0.75	15	1060	795	12	850	638	10	705	529
		M 5	5.000	0.80	15	955	764	12	765	612	10	635	508
		M 6	6.000	1.00	15	795	795	12	635	635	10	530	530
		M 8	8.000	1.25	15	595	744	12	475	594	10	400	500
		M 10	10.000	1.50	15	475	713	12	380	570	10	320	480
	Stainless steel [Cr-Ni/1.4301]	M 1	1.000	0.25	4	1275	319	3	955	239	2	635	159
		M 1.2	1.200	0.25	4	1060	265	3	795	199	2	530	133
		M 1.4	1.400	0.30	4	910	273	3	680	204	2	455	137
		M 1.6	1.600	0.35	4	795	278	3	595	208	2	400	140
		M 1.8	1.800	0.35	4	705	247	3	530	186	2	355	124
		M 2	2.000	0.40	4	635	254	3	475	190	2	320	128
		M 2.2	2.200	0.45	4	580	261	3	435	196	2	290	131
		M 2.3	2.300	0.40	4	555	222	3	415	166	2	275	110
		M 2.5	2.500	0.45	4	510	230	3	380	171	2	255	115
	Stainless steel [Cr-Ni/1.4301]	M 2.6	2.600	0.45	5	610	275	4	490	221	3	365	164
		M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 3.5	3.500	0.60	5	455	273	4	365	219	3	275	165
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 4.5	4.500	0.75	5	355	266	4	285	214	3	210	158
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143

Taps u-tap

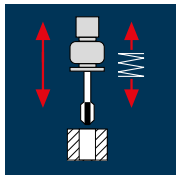
M	ISO 2 (6H)
60°	HSS-E Co5
DIN 371	
	X · P Form B



Rm < 850							Inox Stainless		GG(G) Aluminium Copper

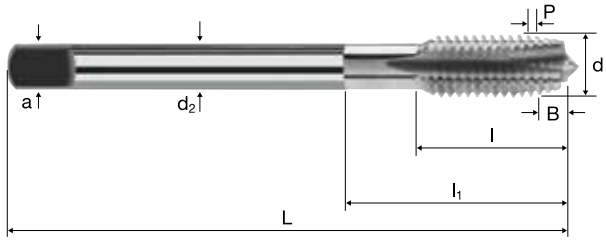
Example: **Order-N°.** Article-N°. **E10800** ø-Code **010**

Ø Code	d	P	L	l	l_1	d_2	a			E10800	
010	M 1	0.25	40	5.50	-	2.5	2.1	2	0.80*	●	
012	M 1.2	0.25	40	5.50	-	2.5	2.1	2	1.00	●	
020	M 1.4	0.30	40	7.00	-	2.5	2.1	2	1.15*	●	
022	M 1.6	0.35	40	8.00	-	2.5	2.1	2	1.30	●	
024	M 1.7	0.35	40	8.00	-	2.5	2.1	2	1.40	●	
026	M 1.8	0.35	40	8.00	-	2.5	2.1	2	1.50	●	
034	M 2	0.40	45	8.00	-	2.8	2.1	2	1.60	●	
036	M 2.2	0.45	45	9.00	-	2.8	2.1	2	1.75	●	
038	M 2.3	0.40	45	9.00	-	2.8	2.1	2	1.90	●	
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	2.05	●	
042	M 2.6	0.45	50	9.00	-	2.8	2.1	2	2.15	●	
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.50	●	
056	M 3.5	0.60	56	12.00	20.0	4.0	3.0	3	2.90	●	
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.30	●	
061	M 4.5	0.75	70	14.00	25.0	6.0	4.9	3	3.75	●	
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	4.20	●	
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	5.00	●	
089	M 7	1.00	80	17.00	30.0	7.0	6.2	3	6.00	●	
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	6.80	●	
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	8.50	●	
	≤ M 1.4 Tolerance ISO 1 (4H)										
	* The given dimension is out of norm										
	For larger dimensions see article no. E10801										

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 12	12.000	1.75	18	475	831	15	400	700	12	320	560
		M 14	14.000	2.00	18	410	820	15	340	680	12	275	550
		M 16	16.000	2.00	18	360	720	15	300	600	12	240	480
		M 18	18.000	2.50	18	320	800	15	265	663	12	210	525
		M 20	20.000	2.50	18	285	713	15	240	600	12	190	475
		M 22	22.000	2.50	18	260	650	15	215	538	12	175	438
		M 24	24.000	3.00	18	240	720	15	200	600	12	160	480
	Steel 500 - 850 N/mm²	M 12	12.000	1.75	15	400	700	10	265	464	8	210	368
		M 14	14.000	2.00	15	340	680	10	225	450	8	180	360
		M 16	16.000	2.00	15	300	600	10	200	400	8	160	320
		M 18	18.000	2.50	15	265	663	10	175	438	8	140	350
		M 20	20.000	2.50	15	240	600	10	160	400	8	125	313
		M 22	22.000	2.50	15	215	538	10	145	363	8	115	288
		M 24	24.000	3.00	15	200	600	10	135	405	8	105	315
	Wrought aluminium alloys Si < 6% hardened	M 12	12.000	1.75	15	400	700	12	320	560	10	265	464
		M 14	14.000	2.00	15	340	680	12	275	550	10	225	450
		M 16	16.000	2.00	15	300	600	12	240	480	10	200	400
		M 18	18.000	2.50	15	265	663	12	210	525	10	175	438
		M 20	20.000	2.50	15	240	600	12	190	475	10	160	400
		M 22	22.000	2.50	15	215	538	12	175	438	10	145	363
		M 24	24.000	3.00	15	200	600	12	160	480	10	135	405
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
		M 14	14.000	2.00	5	115	230	4	90	180	3	70	140
		M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
		M 18	18.000	2.50	5	90	225	4	70	175	3	55	138
		M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
		M 22	22.000	2.50	5	70	175	4	60	150	3	45	113
		M 24	24.000	3.00	5	65	195	4	55	165	3	40	120

Taps u-tap

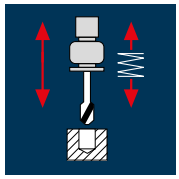
M	ISO 2 (6H)
60°	HSS-E Co5
DIN 376	
	X · P Form B



Rm < 850							Inox Stainless		GG(G) Aluminium Copper

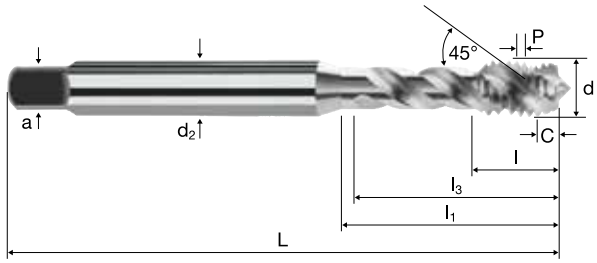
Example: **Order-N°.** Article-N°. **E10801** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			E10801	
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	10.20	●	
244	M 14	2.00	110	26.00	40.0	11.0	9.0	3	12.00	●	
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	14.00	●	
312	M 18	2.50	125	30.00	45.0	14.0	11.0	4	15.50	●	
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	17.50	●	
316	M 22	2.50	140	32.00	50.0	18.0	14.5	4	19.50	●	
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	21.00	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 1.6	1.600	0.35	11	2190	767	10	1990	697	8	1590	557
		M 1.7	1.700	0.35	11	2060	721	10	1870	655	8	1500	525
		M 1.8	1.800	0.35	11	1945	681	10	1770	620	8	1415	495
		M 2	2.000	0.40	11	1750	700	10	1590	636	8	1275	510
		M 2.2	2.200	0.45	11	1590	716	10	1445	650	8	1155	520
		M 2.3	2.300	0.40	11	1520	608	10	1385	554	8	1105	442
		M 2.5	2.500	0.45	11	1400	630	10	1275	574	8	1020	459
		M 2.6	2.600	0.45	14	1715	772	12	1470	662	10	1225	551
		M 3	3.000	0.50	14	1485	743	12	1275	638	10	1060	530
	Steel < 500 N/mm²	M 3.5	3.500	0.60	14	1275	765	12	1090	654	10	910	546
		M 4	4.000	0.70	14	1115	781	12	955	669	10	795	557
		M 4.5	4.500	0.75	14	990	743	12	850	638	10	705	529
		M 5	5.000	0.80	14	890	712	12	765	612	10	635	508
		M 6	6.000	1.00	14	745	745	12	635	635	10	530	530
		M 7	7.000	1.00	14	635	635	12	545	545	10	455	455
		M 8	8.000	1.25	14	555	694	12	475	594	10	400	500
		M 10	10.000	1.50	14	445	668	12	380	570	10	320	480
	Steel 500 - 850 N/mm²	M 1.6	1.600	0.35	8	1590	557	7	1395	488	6	1195	418
		M 1.7	1.700	0.35	8	1500	525	7	1310	459	6	1125	394
		M 1.8	1.800	0.35	8	1415	495	7	1240	434	6	1060	371
		M 2	2.000	0.40	8	1275	510	7	1115	446	6	955	382
		M 2.2	2.200	0.45	8	1155	520	7	1015	457	6	870	392
		M 2.3	2.300	0.40	8	1105	442	7	970	388	6	830	332
		M 2.5	2.500	0.45	8	1020	459	7	890	401	6	765	344
		M 2.6	2.600	0.45	9	1100	495	8	980	441	7	855	385
		M 3	3.000	0.50	9	955	478	8	850	425	7	745	373
	Steel 500 - 850 N/mm²	M 3.5	3.500	0.60	9	820	492	8	730	438	7	635	381
		M 4	4.000	0.70	9	715	501	8	635	445	7	555	389
		M 4.5	4.500	0.75	9	635	476	8	565	424	7	495	371
		M 5	5.000	0.80	9	575	460	8	510	408	7	445	356
		M 6	6.000	1.00	9	475	475	8	425	425	7	370	370
		M 7	7.000	1.00	9	410	410	8	365	365	7	320	320
		M 8	8.000	1.25	9	360	450	8	320	400	7	280	350
		M 10	10.000	1.50	9	285	428	8	255	383	7	225	338
	Wrought aluminium alloys Si < 6% hardened	M 1.6	1.600	0.35	8	1590	557	6	1195	418	5	995	348
		M 1.7	1.700	0.35	8	1500	525	6	1125	394	5	935	327
		M 1.8	1.800	0.35	8	1415	495	6	1060	371	5	885	310
		M 2	2.000	0.40	8	1275	510	6	955	382	5	795	318
		M 2.2	2.200	0.45	8	1155	520	6	870	392	5	725	326
		M 2.3	2.300	0.40	8	1105	442	6	830	332	5	690	276
		M 2.5	2.500	0.45	8	1020	459	6	765	344	5	635	286
		M 2.6	2.600	0.45	10	1225	551	8	980	441	6	735	331
		M 3	3.000	0.50	10	1060	530	8	850	425	6	635	318
	Wrought aluminium alloys Si < 6% hardened	M 3.5	3.500	0.60	10	910	546	8	730	438	6	545	327
		M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 4.5	4.500	0.75	10	705	529	8	565	424	6	425	319
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 7	7.000	1.00	10	455	455	8	365	365	6	275	275
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
	Stainless steel [Cr-Ni/1.4301]	M 1.6	1.600	0.35	3	595	208	2	400	140	2	400	140
		M 1.7	1.700	0.35	3	560	196	2	375	131	2	375	131
		M 1.8	1.800	0.35	3	530	186	2	355	124	2	355	124
		M 2	2.000	0.40	3	475	190	2	320	128	2	320	128
		M 2.2	2.200	0.45	3	435	196	2	290	131	2	290	131
		M 2.3	2.300	0.40	3	415	166	2	275	110	2	275	110
		M 2.5	2.500	0.45	3	380	171	2	255	115	2	255	115
		M 2.6	2.600	0.45	4	490	221	3	365	164	3	365	164
		M 3	3.000	0.50	4	425	213	3	320	160	3	320	160
	Stainless steel [Cr-Ni/1.4301]	M 3.5	3.500	0.60	4	365	219	3	275	165	3	275	165
		M 4	4.000	0.70	4	320	224	3	240	168	3	240	168
		M 4.5	4.500	0.75	4	285	214	3	210	158	3	210	158
		M 5	5.000	0.80	4	255	204	3	190	152	3	190	152
		M 6	6.000	1.00	4	210	210	3	160	160	3	160	160
		M 7	7.000	1.00	4	180	180	3	135	135	3	135	135
		M 8	8.000	1.25	4	160	200	3	120	150	3	120	150
		M 10	10.000	1.50	4	125	188	3	95	143	3	95	143

Taps u-tap

M	ISO 2 (6H)
60°	HSS-E Co5
DIN 371	
	X · P Form C

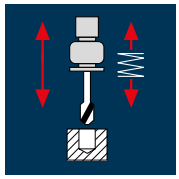


Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Example: **Order-N°.** Article-N°. **E10820** ø-Code **022**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			E10820	
022	M 1.6	0.35	40	8.00	-	9.0	2.5	2.1	3	1.30	●	
024	M 1.7	0.35	40	8.00	-	9.0	2.5	2.1	3	1.40	●	
026	M 1.8	0.35	40	8.00	-	9.0	2.5	2.1	3	1.50	●	
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	1.60	●	
036	M 2.2	0.45	45	9.00	-	12.5	2.8	2.1	3	1.75	●	
038	M 2.3	0.40	45	9.00	-	12.5	2.8	2.1	3	1.90	●	
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	2.05	●	
042	M 2.6	0.45	50	9.00	-	13.0	2.8	2.1	3	2.15	●	
044	M 3	0.50	56	4.00	18.0	16.0	3.5	2.7	3	2.50	●	
056	M 3.5	0.60	56	4.80	20.0	18.0	4.0	3.0	3	2.90	●	
058	M 4	0.70	63	5.60	21.0	19.0	4.5	3.4	3	3.30	●	
061	M 4.5	0.75	70	6.00	25.0	23.0	6.0	4.9	3	3.75	●	
084	M 5	0.80	70	6.40	25.0	23.0	6.0	4.9	3	4.20	●	
088	M 6	1.00	80	8.00	30.0	28.0	6.0	4.9	3	5.00	●	
089	M 7	1.00	80	8.00	30.0	28.0	7.0	6.2	3	6.00	●	
160	M 8	1.25	90	10.00	35.0	33.0	8.0	6.2	3	6.80	●	
174	M 10	1.50	100	12.00	39.0	37.0	10.0	8.0	3	8.50	●	

For larger dimensions see article no. E10821

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 12	12.000	1.75	14	370	648	12	320	560	10	265	464
		M 14	14.000	2.00	14	320	640	12	275	550	10	225	450
		M 16	16.000	2.00	14	280	560	12	240	480	10	200	400
		M 18	18.000	2.50	14	250	625	12	210	525	10	175	438
		M 20	20.000	2.50	14	225	563	12	190	475	10	160	400
		M 22	22.000	2.50	14	205	513	12	175	438	10	145	363
		M 24	24.000	3.00	14	185	555	12	160	480	10	135	405
	Steel 500 - 850 N/mm²	M 12	12.000	1.75	9	240	420	8	210	368	7	185	324
		M 14	14.000	2.00	9	205	410	8	180	360	7	160	320
		M 16	16.000	2.00	9	180	360	8	160	320	7	140	280
		M 18	18.000	2.50	9	160	400	8	140	350	7	125	313
		M 20	20.000	2.50	9	145	363	8	125	313	7	110	275
		M 22	22.000	2.50	9	130	325	8	115	288	7	100	250
		M 24	24.000	3.00	9	120	360	8	105	315	7	95	285
	Wrought aluminium alloys Si < 6% hardened	M 12	12.000	1.75	10	265	464	8	210	368	6	160	280
		M 14	14.000	2.00	10	225	450	8	180	360	6	135	270
		M 16	16.000	2.00	10	200	400	8	160	320	6	120	240
		M 18	18.000	2.50	10	175	438	8	140	350	6	105	263
		M 20	20.000	2.50	10	160	400	8	125	313	6	95	238
		M 22	22.000	2.50	10	145	363	8	115	288	6	85	213
		M 24	24.000	3.00	10	135	405	8	105	315	6	80	240
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.75	4	105	184	3	80	140	3	80	140
		M 14	14.000	2.00	4	90	180	3	70	140	3	70	140
		M 16	16.000	2.00	4	80	160	3	60	120	3	60	120
		M 18	18.000	2.50	4	70	175	3	55	138	3	55	138
		M 20	20.000	2.50	4	65	163	3	50	125	3	50	125
		M 22	22.000	2.50	4	60	150	3	45	113	3	45	113
		M 24	24.000	3.00	4	55	165	3	40	120	3	40	120

Taps u-tap

U

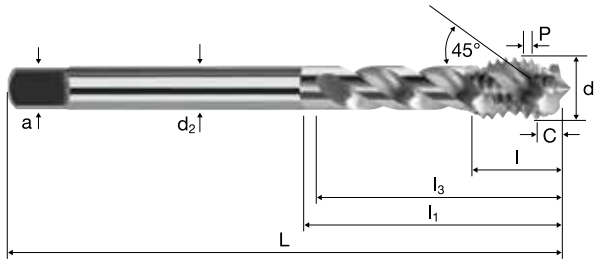
M

ISO 2 (6H)

HSS-E Co5

DIN 376

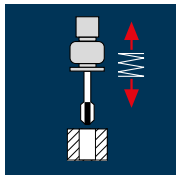
Form C



Rm < 850 | **Inox** Stainless | **GG(G) Aluminium Copper**

Example: **Order-N°.** Article-N°. **E10821** ø-Code **240**

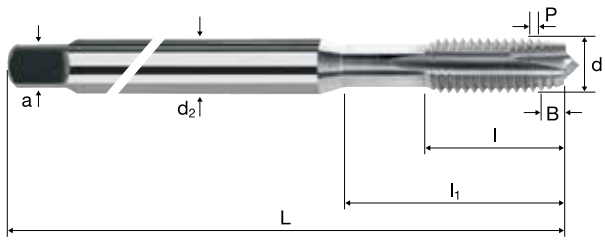
Ø Code	d	P	L	l	l_1	l_3	d_2	a			E10821	
240	M 12	1.75	110	14.00	50.0	48.0	9.0	7.0	3	10.20	●	
244	M 14	2.00	110	16.00	58.0	56.0	11.0	9.0	4	12.00	●	
246	M 16	2.00	110	16.00	58.0	56.0	12.0	9.0	4	14.00	●	
312	M 18	2.50	125	20.00	65.0	63.0	14.0	11.0	4	15.50	●	
314	M 20	2.50	140	20.00	72.0	70.0	16.0	12.0	4	17.50	●	
316	M 22	2.50	140	20.00	72.0	70.0	18.0	14.5	4	19.50	●	
320	M 24	3.00	160	24.00	74.0	72.0	18.0	14.5	4	21.00	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 3	3.000	0.50	8	850	425	6	635	318	4	425	213
		M 4	4.000	0.70	8	635	445	6	475	333	4	320	224
		M 5	5.000	0.80	8	510	408	6	380	304	4	255	204
		M 6	6.000	1.00	8	425	425	6	320	320	4	210	210
		M 8	8.000	1.25	8	320	400	6	240	300	4	160	200
		M 10	10.000	1.50	8	255	383	6	190	285	4	125	188
	Steel 500 - 850 N/mm²	M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
	Wrought aluminium alloys Si < 6% hardened	M 3	3.000	0.50	8	850	425	6	635	318	4	425	213
		M 4	4.000	0.70	8	635	445	6	475	333	4	320	224
		M 5	5.000	0.80	8	510	408	6	380	304	4	255	204
		M 6	6.000	1.00	8	425	425	6	320	320	4	210	210
		M 8	8.000	1.25	8	320	400	6	240	300	4	160	200
		M 10	10.000	1.50	8	255	383	6	190	285	4	125	188
	Cast iron GG	M 3	3.000	0.50	12	1275	638	10	1060	530	8	850	425
		M 4	4.000	0.70	12	955	669	10	795	557	8	635	445
		M 5	5.000	0.80	12	765	612	10	635	508	8	510	408
		M 6	6.000	1.00	12	635	635	10	530	530	8	425	425
		M 8	8.000	1.25	12	475	594	10	400	500	8	320	400
		M 10	10.000	1.50	12	380	570	10	320	480	8	255	383

Taps

Special long execution

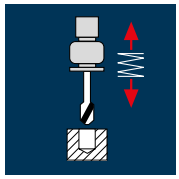
M	ISO 2 (6H)
60°	HSS PM/F
	Form B



Rm < 850									GG(G) Aluminium

Example: **Order-N°.** Article-N°. **E10340** ø-Code **044**

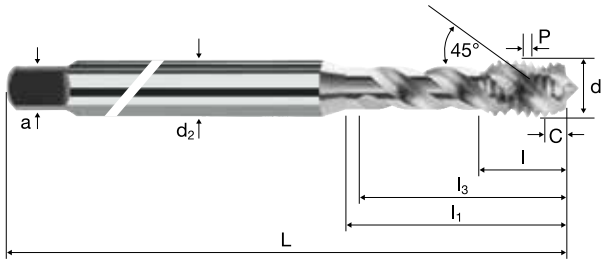
Ø Code	d	P	L	l	l_1	d_2	a			E10340	
044	M 3	0.50	100	12.00	18.0	3.5	2.7	3	2.50	●	
058	M 4	0.70	125	13.00	21.0	4.5	3.4	3	3.30	●	
084	M 5	0.80	140	15.00	25.0	6.0	4.9	3	4.20	●	
088	M 6	1.00	160	17.00	30.0	6.0	4.9	3	5.00	●	
160	M 8	1.25	180	20.00	35.0	8.0	6.2	3	6.80	●	
174	M 10	1.50	200	22.00	39.0	10.0	8.0	3	8.50	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 3	3.000	0.50	8	850	425	6	635	318	4	425	213
		M 4	4.000	0.70	8	635	445	6	475	333	4	320	224
		M 5	5.000	0.80	8	510	408	6	380	304	4	255	204
		M 6	6.000	1.00	8	425	425	6	320	320	4	210	210
		M 8	8.000	1.25	8	320	400	6	240	300	4	160	200
		M 10	10.000	1.50	8	255	383	6	190	285	4	125	188
	Steel 500 - 850 N/mm²	M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
	Wrought aluminium alloys Si < 6% hardened	M 3	3.000	0.50	8	850	425	6	635	318	4	425	213
		M 4	4.000	0.70	8	635	445	6	475	333	4	320	224
		M 5	5.000	0.80	8	510	408	6	380	304	4	255	204
		M 6	6.000	1.00	8	425	425	6	320	320	4	210	210
		M 8	8.000	1.25	8	320	400	6	240	300	4	160	200
		M 10	10.000	1.50	8	255	383	6	190	285	4	125	188
	Cast iron GG	M 3	3.000	0.50	12	1275	638	10	1060	530	8	850	425
		M 4	4.000	0.70	12	955	669	10	795	557	8	635	445
		M 5	5.000	0.80	12	765	612	10	635	508	8	510	408
		M 6	6.000	1.00	12	635	635	10	530	530	8	425	425
		M 8	8.000	1.25	12	475	594	10	400	500	8	320	400
		M 10	10.000	1.50	12	380	570	10	320	480	8	255	383

Taps

Special long execution

M	ISO 2 (6H)
HSS PM/F	
Form C	

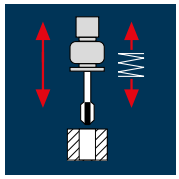


M

Rm < 850									GG(G) Aluminium

Example: **Order-N°.** Article-N°. **E10350** ø-Code **044**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			E10350	
044	M 3	0.50	100	4.00	18.0	16.0	3.5	2.7	3	2.50	●	
058	M 4	0.70	125	5.60	21.0	19.0	4.5	3.4	3	3.30	●	
084	M 5	0.80	140	6.40	25.0	23.0	6.0	4.9	3	4.20	●	
088	M 6	1.00	160	8.00	30.0	28.0	6.0	4.9	3	5.00	●	
160	M 8	1.25	180	10.00	35.0	33.0	8.0	6.2	3	6.80	●	
174	M 10	1.50	200	12.00	39.0	37.0	10.0	8.0	3	8.50	●	

Application	Material	M-LH	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	14	2230	892	12	1910	764	10	1590	636
		M 2.5	2.500	0.45	14	1785	803	12	1530	689	10	1275	574
		M 3	3.000	0.50	18	1910	955	15	1590	795	12	1275	638
		M 4	4.000	0.70	18	1430	1001	15	1195	837	12	955	669
		M 5	5.000	0.80	18	1145	916	15	955	764	12	765	612
		M 6	6.000	1.00	18	955	955	15	795	795	12	635	635
		M 8	8.000	1.25	18	715	894	15	595	744	12	475	594
		M 10	10.000	1.50	18	575	863	15	475	713	12	380	570
		M 12	12.000	1.75	18	475	831	15	400	700	12	320	560
	Steel < 500 N/mm²	M 16	16.000	2.00	18	360	720	15	300	600	12	240	480
		M 20	20.000	2.50	18	285	713	15	240	600	12	190	475
		M 24	24.000	3.00	18	240	720	15	200	600	12	160	480
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	12	1910	764	8	1275	510	6	955	382
		M 2.5	2.500	0.45	12	1530	689	8	1020	459	6	765	344
		M 3	3.000	0.50	15	1590	795	10	1060	530	8	850	425
		M 4	4.000	0.70	15	1195	837	10	795	557	8	635	445
		M 5	5.000	0.80	15	955	764	10	635	508	8	510	408
		M 6	6.000	1.00	15	795	795	10	530	530	8	425	425
		M 8	8.000	1.25	15	595	744	10	400	500	8	320	400
		M 10	10.000	1.50	15	475	713	10	320	480	8	255	383
		M 12	12.000	1.75	15	400	700	10	265	464	8	210	368
	Steel 500 - 850 N/mm²	M 16	16.000	2.00	15	300	600	10	200	400	8	160	320
		M 20	20.000	2.50	15	240	600	10	160	400	8	125	313
		M 24	24.000	3.00	15	200	600	10	135	405	8	105	315
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	12	1910	764	10	1590	636	8	1275	510
		M 2.5	2.500	0.45	12	1530	689	10	1275	574	8	1020	459
		M 3	3.000	0.50	15	1590	795	12	1275	638	10	1060	530
		M 4	4.000	0.70	15	1195	837	12	955	669	10	795	557
		M 5	5.000	0.80	15	955	764	12	765	612	10	635	508
		M 6	6.000	1.00	15	795	795	12	635	635	10	530	530
		M 8	8.000	1.25	15	595	744	12	475	594	10	400	500
		M 10	10.000	1.50	15	475	713	12	380	570	10	320	480
		M 12	12.000	1.75	15	400	700	12	320	560	10	265	464
	Wrought aluminium alloys Si < 6% hardened	M 16	16.000	2.00	15	300	600	12	240	480	10	200	400
		M 20	20.000	2.50	15	240	600	12	190	475	10	160	400
		M 24	24.000	3.00	15	200	600	12	160	480	10	135	405
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	4	635	254	3	475	190	2	320	128
		M 2.5	2.500	0.45	4	510	230	3	380	171	2	255	115
		M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
		M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
	Stainless steel [Cr-Ni/1.4301]	M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
		M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
		M 24	24.000	3.00	5	65	195	4	55	165	3	40	120

Taps

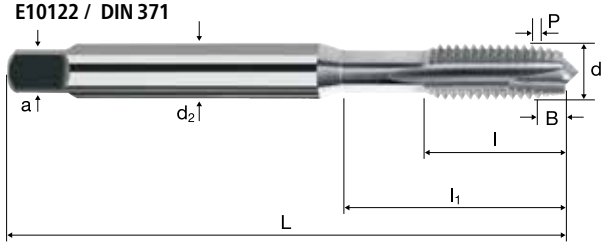
M-LH | ISO 2 (6H)

60° | HSS-E Co5

DIN 371/376

X · P Form B

E10122 / DIN 371



E10123 / DIN 376

Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Example: **Order-N°.** Article-N°. **E10122** ø-Code **034**

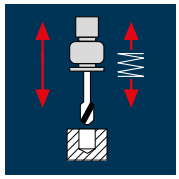
E10122

Ø Code	d	P		L	l	l_1	d_2	a			
034	M 2	0.40	LH	45	8.00	-	2.8	2.1	2	1.60	●
040	M 2.5	0.45	LH	50	9.00	-	2.8	2.1	2	2.05	●
044	M 3	0.50	LH	56	12.00	18.0	3.5	2.7	3	2.50	●
058	M 4	0.70	LH	63	13.00	21.0	4.5	3.4	3	3.30	●
084	M 5	0.80	LH	70	15.00	25.0	6.0	4.9	3	4.20	●
088	M 6	1.00	LH	80	17.00	30.0	6.0	4.9	3	5.00	●
160	M 8	1.25	LH	90	20.00	35.0	8.0	6.2	3	6.80	●
174	M 10	1.50	LH	100	22.00	39.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **E10123** ø-Code **240**

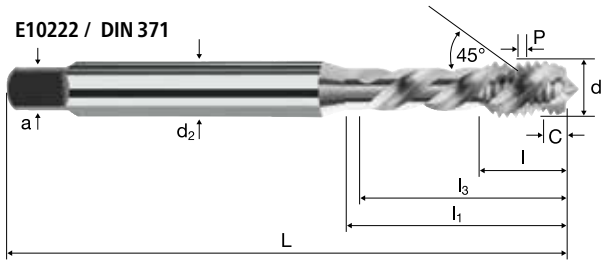
E10123

Ø Code	d	P		L	l	l_1	d_2	a			
240	M 12	1.75	LH	110	24.00	40.0	9.0	7.0	3	10.20	●
246	M 16	2.00	LH	110	27.00	40.0	12.0	9.0	3	14.00	●
314	M 20	2.50	LH	140	32.00	50.0	16.0	12.0	4	17.50	●
320	M 24	3.00	LH	160	34.00	60.0	18.0	14.5	4	21.00	●

Application	Material	M-LH	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	11	1750	700	10	1590	636	8	1275	510
		M 2.5	2.500	0.45	11	1400	630	10	1275	574	8	1020	459
		M 3	3.000	0.50	14	1485	743	12	1275	638	10	1060	530
		M 4	4.000	0.70	14	1115	781	12	955	669	10	795	557
		M 5	5.000	0.80	14	890	712	12	765	612	10	635	508
		M 6	6.000	1.00	14	745	745	12	635	635	10	530	530
		M 8	8.000	1.25	14	555	694	12	475	594	10	400	500
		M 10	10.000	1.50	14	445	668	12	380	570	10	320	480
		M 12	12.000	1.75	14	370	648	12	320	560	10	265	464
	Steel < 500 N/mm²	M 16	16.000	2.00	14	280	560	12	240	480	10	200	400
		M 20	20.000	2.50	14	225	563	12	190	475	10	160	400
		M 24	24.000	3.00	14	185	555	12	160	480	10	135	405
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	7	1115	446	6	955	382	5	795	318
		M 2.5	2.500	0.45	7	890	401	6	765	344	5	635	286
		M 3	3.000	0.50	9	955	478	8	850	425	7	745	373
		M 4	4.000	0.70	9	715	501	8	635	445	7	555	389
		M 5	5.000	0.80	9	575	460	8	510	408	7	445	356
		M 6	6.000	1.00	9	475	475	8	425	425	7	370	370
		M 8	8.000	1.25	9	360	450	8	320	400	7	280	350
		M 10	10.000	1.50	9	285	428	8	255	383	7	225	338
		M 12	12.000	1.75	9	240	420	8	210	368	7	185	324
	Steel 500 - 850 N/mm²	M 16	16.000	2.00	9	180	360	8	160	320	7	140	280
		M 20	20.000	2.50	9	145	363	8	125	313	7	110	275
		M 24	24.000	3.00	9	120	360	8	105	315	7	95	285
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	8	1275	510	6	955	382	5	795	318
		M 2.5	2.500	0.45	8	1020	459	6	765	344	5	635	286
		M 3	3.000	0.50	10	1060	530	8	850	425	6	635	318
		M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
		M 12	12.000	1.75	10	265	464	8	210	368	6	160	280
	Wrought aluminium alloys Si < 6% hardened	M 16	16.000	2.00	10	200	400	8	160	320	6	120	240
		M 20	20.000	2.50	10	160	400	8	125	313	6	95	238
		M 24	24.000	3.00	10	135	405	8	105	315	6	80	240
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	3	475	190	2	320	128	2	320	128
		M 2.5	2.500	0.45	3	380	171	2	255	115	2	255	115
		M 3	3.000	0.50	4	425	213	3	320	160	3	320	160
		M 4	4.000	0.70	4	320	224	3	240	168	3	240	168
		M 5	5.000	0.80	4	255	204	3	190	152	3	190	152
		M 6	6.000	1.00	4	210	210	3	160	160	3	160	160
		M 8	8.000	1.25	4	160	200	3	120	150	3	120	150
		M 10	10.000	1.50	4	125	188	3	95	143	3	95	143
		M 12	12.000	1.75	4	105	184	3	80	140	3	80	140
	Stainless steel [Cr-Ni/1.4301]	M 16	16.000	2.00	4	80	160	3	60	120	3	60	120
		M 20	20.000	2.50	4	65	163	3	50	125	3	50	125
		M 24	24.000	3.00	4	55	165	3	40	120	3	40	120

Taps

M-LH	ISO 2 (6H)
HSS-E Co5	
DIN 371/376	
Form C	



Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Example: **Order-N°.** Article-N°. **E10222** ø-Code **034**

E10222

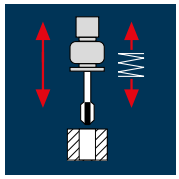
Ø Code	d	P		L	l	l_1	l_3	d_2	a			
034	M 2	0.40	LH	45	8.00	-	10.5	2.8	2.1	3	1.60	●
040	M 2.5	0.45	LH	50	9.00	-	13.0	2.8	2.1	3	2.05	●
044	M 3	0.50	LH	56	4.00	18.0	16.0	3.5	2.7	3	2.50	●
058	M 4	0.70	LH	63	5.60	21.0	19.0	4.5	3.4	3	3.30	●
084	M 5	0.80	LH	70	6.40	25.0	23.0	6.0	4.9	3	4.20	●
088	M 6	1.00	LH	80	8.00	30.0	28.0	6.0	4.9	3	5.00	●
160	M 8	1.25	LH	90	10.00	35.0	33.0	8.0	6.2	3	6.80	●
174	M 10	1.50	LH	100	12.00	39.0	37.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **E10223** ø-Code **240**

E10223

Ø Code	d	P		L	l	l_1	l_3	d_2	a			
240	M 12	1.75	LH	110	14.00	50.0	48.0	9.0	7.0	3	10.20	●
246	M 16	2.00	LH	110	16.00	58.0	56.0	12.0	9.0	4	14.00	●
314	M 20	2.50	LH	140	20.00	72.0	70.0	16.0	12.0	4	17.50	●
320	M 24	3.00	LH	160	24.00	74.0	72.0	18.0	14.5	4	21.00	●

Application

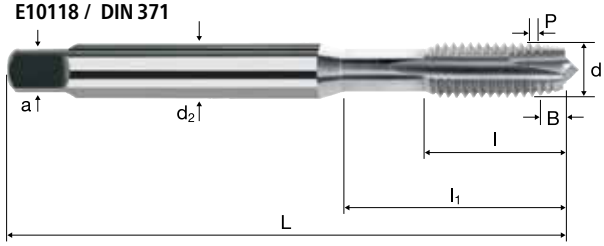


Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Steel < 500 N/mm²	M 2	2.000	0.40	14	2230	892	12	1910	764	10	1590	636
	M 2.5	2.500	0.45	14	1785	803	12	1530	689	10	1275	574
	M 3	3.000	0.50	18	1910	955	15	1590	795	12	1275	638
	M 4	4.000	0.70	18	1430	1001	15	1195	837	12	955	669
	M 5	5.000	0.80	18	1145	916	15	955	764	12	765	612
	M 6	6.000	1.00	18	955	955	15	795	795	12	635	635
	M 8	8.000	1.25	18	715	894	15	595	744	12	475	594
	M 10	10.000	1.50	18	575	863	15	475	713	12	380	570
	M 12	12.000	1.75	18	475	831	15	400	700	12	320	560
Steel < 500 N/mm²	M 16	16.000	2.00	18	360	720	15	300	600	12	240	480
	M 20	20.000	2.50	18	285	713	15	240	600	12	190	475
	M 24	24.000	3.00	18	240	720	15	200	600	12	160	480
Steel 500 - 850 N/mm²	M 2	2.000	0.40	12	1910	764	8	1275	510	6	955	382
	M 2.5	2.500	0.45	12	1530	689	8	1020	459	6	765	344
	M 3	3.000	0.50	15	1590	795	10	1060	530	8	850	425
	M 4	4.000	0.70	15	1195	837	10	795	557	8	635	445
	M 5	5.000	0.80	15	955	764	10	635	508	8	510	408
	M 6	6.000	1.00	15	795	795	10	530	530	8	425	425
	M 8	8.000	1.25	15	595	744	10	400	500	8	320	400
	M 10	10.000	1.50	15	475	713	10	320	480	8	255	383
	M 12	12.000	1.75	15	400	700	10	265	464	8	210	368
Steel 500 - 850 N/mm²	M 16	16.000	2.00	15	300	600	10	200	400	8	160	320
	M 20	20.000	2.50	15	240	600	10	160	400	8	125	313
	M 24	24.000	3.00	15	200	600	10	135	405	8	105	315
Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	12	1910	764	10	1590	636	8	1275	510
	M 2.5	2.500	0.45	12	1530	689	10	1275	574	8	1020	459
	M 3	3.000	0.50	15	1590	795	12	1275	638	10	1060	530
	M 4	4.000	0.70	15	1195	837	12	955	669	10	795	557
	M 5	5.000	0.80	15	955	764	12	765	612	10	635	508
	M 6	6.000	1.00	15	795	795	12	635	635	10	530	530
	M 8	8.000	1.25	15	595	744	12	475	594	10	400	500
	M 10	10.000	1.50	15	475	713	12	380	570	10	320	480
	M 12	12.000	1.75	15	400	700	12	320	560	10	265	464
Wrought aluminium alloys Si < 6% hardened	M 16	16.000	2.00	15	300	600	12	240	480	10	200	400
	M 20	20.000	2.50	15	240	600	12	190	475	10	160	400
	M 24	24.000	3.00	15	200	600	12	160	480	10	135	405
Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	4	635	254	3	475	190	2	320	128
	M 2.5	2.500	0.45	4	510	230	3	380	171	2	255	115
	M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
	M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
	M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
	M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
	M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
	M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
	M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
Stainless steel [Cr-Ni/1.4301]	M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
	M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
	M 24	24.000	3.00	5	65	195	4	55	165	3	40	120

Taps

M	ISO 2 +0,1
60°	HSS-E Co5
DIN 371/376	
	Form B

E10118 / DIN 371



E10119 / DIN 376

M

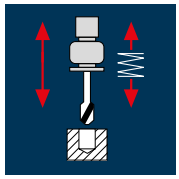
Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Example: **Order-N°.** Article-N°. **E10118** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a		Δ	E10118	
034	M 2	0.40	45	8.00	-	2.8	2.1	2	+0.100	●	
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	+0.100	●	
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	+0.100	●	
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	+0.100	●	
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	+0.100	●	
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	+0.100	●	
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	+0.100	●	
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	+0.100	●	

Example: **Order-N°.** Article-N°. **E10119** ø-Code **240**

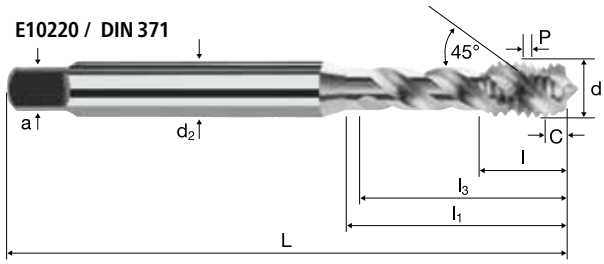
Ø Code	d	P	L	l	l_1	d_2	a		Δ	E10119	
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	+0.100	●	
246	M 16	2.00	110	27.00	40.0	12.0	9.0	4	+0.100	●	
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	+0.100	●	
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	+0.100	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	12	1910	764	10	1590	636	8	1275	510
		M 2.5	2.500	0.45	12	1530	689	10	1275	574	8	1020	459
		M 3	3.000	0.50	14	1485	743	12	1275	638	10	1060	530
		M 4	4.000	0.70	14	1115	781	12	955	669	10	795	557
		M 5	5.000	0.80	14	890	712	12	765	612	10	635	508
		M 6	6.000	1.00	14	745	745	12	635	635	10	530	530
		M 8	8.000	1.25	14	555	694	12	475	594	10	400	500
		M 10	10.000	1.50	14	445	668	12	380	570	10	320	480
		M 12	12.000	1.75	14	370	648	12	320	560	10	265	464
	Steel < 500 N/mm²	M 16	16.000	2.00	14	280	560	12	240	480	10	200	400
		M 20	20.000	2.50	14	225	563	12	190	475	10	160	400
		M 24	24.000	3.00	14	185	555	12	160	480	10	135	405
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	7	1115	446	6	955	382	5	795	318
		M 2.5	2.500	0.45	7	890	401	6	765	344	5	635	286
		M 3	3.000	0.50	9	955	478	8	850	425	7	745	373
		M 4	4.000	0.70	9	715	501	8	635	445	7	555	389
		M 5	5.000	0.80	9	575	460	8	510	408	7	445	356
		M 6	6.000	1.00	9	475	475	8	425	425	7	370	370
		M 8	8.000	1.25	9	360	450	8	320	400	7	280	350
		M 10	10.000	1.50	9	285	428	8	255	383	7	225	338
		M 12	12.000	1.75	9	240	420	8	210	368	7	185	324
	Steel 500 - 850 N/mm²	M 16	16.000	2.00	9	180	360	8	160	320	7	140	280
		M 20	20.000	2.50	9	145	363	8	125	313	7	110	275
		M 24	24.000	3.00	9	120	360	8	105	315	7	95	285
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	8	1275	510	6	955	382	5	795	318
		M 2.5	2.500	0.45	8	1020	459	6	765	344	5	635	286
		M 3	3.000	0.50	10	1060	530	8	850	425	6	635	318
		M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
		M 12	12.000	1.75	10	265	464	8	210	368	6	160	280
	Wrought aluminium alloys Si < 6% hardened	M 16	16.000	2.00	10	200	400	8	160	320	6	120	240
		M 20	20.000	2.50	10	160	400	8	125	313	6	95	238
		M 24	24.000	3.00	10	135	405	8	105	315	6	80	240
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	3	475	190	2	320	128	2	320	128
		M 2.5	2.500	0.45	3	380	171	2	255	115	2	255	115
		M 3	3.000	0.50	4	425	213	3	320	160	3	320	160
		M 4	4.000	0.70	4	320	224	3	240	168	3	240	168
		M 5	5.000	0.80	4	255	204	3	190	152	3	190	152
		M 6	6.000	1.00	4	210	210	3	160	160	3	160	160
		M 8	8.000	1.25	4	160	200	3	120	150	3	120	150
		M 10	10.000	1.50	4	125	188	3	95	143	3	95	143
		M 12	12.000	1.75	4	105	184	3	80	140	3	80	140
	Stainless steel [Cr-Ni/1.4301]	M 16	16.000	2.00	4	80	160	3	60	120	3	60	120
		M 20	20.000	2.50	4	65	163	3	50	125	3	50	125
		M 24	24.000	3.00	4	55	165	3	40	120	3	40	120

Taps

M	ISO 2 +0,1
60°	HSS-E Co5
DIN 371/376	
	Form C

E10220 / DIN 371



E10221 / DIN 376

M

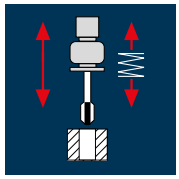
Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Example: **Order-N°.** Article-N°. **E10220** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a		Δ	E10220	
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	+0.100	●	
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	+0.100	●	
044	M 3	0.50	56	4.00	18.0	16.0	3.5	2.7	3	+0.100	●	
058	M 4	0.70	63	5.60	21.0	19.0	4.5	3.4	3	+0.100	●	
084	M 5	0.80	70	6.40	25.0	23.0	6.0	4.9	3	+0.100	●	
088	M 6	1.00	80	8.00	30.0	28.0	6.0	4.9	3	+0.100	●	
160	M 8	1.25	90	10.00	35.0	33.0	8.0	6.2	3	+0.100	●	
174	M 10	1.50	100	12.00	39.0	37.0	10.0	8.0	3	+0.100	●	

Example: **Order-N°.** Article-N°. **E10221** ø-Code **240**

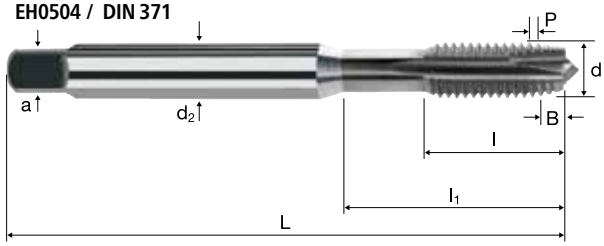
Ø Code	d	P	L	l	l_1	l_3	d_2	a		Δ	E10221	
240	M 12	1.75	110	14.00	50.0	48.0	9.0	7.0	3	+0.100	●	
246	M 16	2.00	110	16.00	58.0	56.0	12.0	9.0	4	+0.100	●	
314	M 20	2.50	140	20.00	72.0	70.0	16.0	12.0	4	+0.100	●	
320	M 24	3.00	160	24.00	74.0	72.0	18.0	14.5	4	+0.100	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	25	3980	1592	20	3185	1274	15	2385	954
		M 2.5	2.500	0.45	25	3185	1433	20	2545	1145	15	1910	860
		M 3	3.000	0.50	25	2655	1328	20	2120	1060	15	1590	795
		M 4	4.000	0.70	25	1990	1393	20	1590	1113	15	1195	837
		M 5	5.000	0.80	25	1590	1272	20	1275	1020	15	955	764
		M 6	6.000	1.00	25	1325	1325	20	1060	1060	15	795	795
		M 8	8.000	1.25	25	995	1244	20	795	994	15	595	744
		M 10	10.000	1.50	25	795	1193	20	635	953	15	475	713
		M 12	12.000	1.75	25	665	1164	20	530	928	15	400	700
	Steel 500 - 850 N/mm²	M 16	16.000	2.00	25	495	990	20	400	800	15	300	600
		M 20	20.000	2.50	25	400	1000	20	320	800	15	240	600
		M 24	24.000	3.00	25	330	990	20	265	795	15	200	600
	Steel 850 - 1100 N/mm²	M 2	2.000	0.40	20	3185	1274	15	2385	954	12	1910	764
		M 2.5	2.500	0.45	20	2545	1145	15	1910	860	12	1530	689
		M 3	3.000	0.50	20	2120	1060	15	1590	795	12	1275	638
		M 4	4.000	0.70	20	1590	1113	15	1195	837	12	955	669
		M 5	5.000	0.80	20	1275	1020	15	955	764	12	765	612
		M 6	6.000	1.00	20	1060	1060	15	795	795	12	635	635
		M 8	8.000	1.25	20	795	994	15	595	744	12	475	594
		M 10	10.000	1.50	20	635	953	15	475	713	12	380	570
		M 12	12.000	1.75	20	530	928	15	400	700	12	320	560
	Steel 850 - 1100 N/mm²	M 16	16.000	2.00	20	400	800	15	300	600	12	240	480
		M 20	20.000	2.50	20	320	800	15	240	600	12	190	475
		M 24	24.000	3.00	20	265	795	15	200	600	12	160	480
	Steel 1100 - 1300 N/mm²	M 2	2.000	0.40	7	1115	446	4	635	254	-	-	-
		M 2.5	2.500	0.45	7	890	401	4	510	230	-	-	-
		M 3	3.000	0.50	7	745	373	4	425	213	-	-	-
		M 4	4.000	0.70	7	555	389	4	320	224	-	-	-
		M 5	5.000	0.80	7	445	356	4	255	204	-	-	-
		M 6	6.000	1.00	7	370	370	4	210	210	-	-	-
		M 8	8.000	1.25	7	280	350	4	160	200	-	-	-
		M 10	10.000	1.50	7	225	338	4	125	188	-	-	-
		M 12	12.000	1.75	7	185	324	4	105	184	-	-	-
	Steel 1100 - 1300 N/mm²	M 16	16.000	2.00	7	140	280	4	80	160	-	-	-
		M 20	20.000	2.50	7	110	275	4	65	163	-	-	-
		M 24	24.000	3.00	7	95	285	4	55	165	-	-	-

Taps x-tap

M	ISO 3 (6G)
60°	HSS PM/F
DIN 371/376	
	Form B

EH0504 / DIN 371



EH0505 / DIN 376

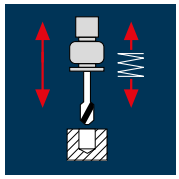
Rm < 850	Rm 850-1100	Rm 1100-1300							

Example: **Order-N°.** Article-N°. **EH0504** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a		Δ	TiCN EH0504
034	M 2	0.40	45	8.00	-	2.8	2.1	2	+0.015	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	+0.015	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	+0.016	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	+0.019	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	+0.020	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	+0.024	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	+0.025	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	+0.028	●

Example: **Order-N°.** Article-N°. **EH0505** ø-Code **240**

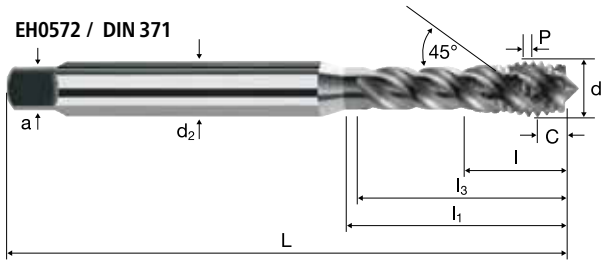
Ø Code	d	P	L	l	l_1	d_2	a		Δ	TiCN EH0505
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	+0.032	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	+0.034	●
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	+0.036	●
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	+0.042	●

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	32	5095	2038	28	4455	1782	22	3500	1400
		M 2.5	2.500	0.45	32	4075	1834	28	3565	1604	22	2800	1260
		M 3	3.000	0.50	32	3395	1698	28	2970	1485	22	2335	1168
		M 4	4.000	0.70	32	2545	1782	28	2230	1561	22	1750	1225
		M 5	5.000	0.80	32	2035	1628	28	1785	1428	22	1400	1120
		M 6	6.000	1.00	32	1700	1700	28	1485	1485	22	1165	1165
		M 8	8.000	1.25	32	1275	1594	28	1115	1394	22	875	1094
		M 10	10.000	1.50	32	1020	1530	28	890	1335	22	700	1050
		M 12	12.000	1.75	32	850	1488	28	745	1304	22	585	1024
	Steel 500 - 850 N/mm²	M 16	16.000	2.00	32	635	1270	28	555	1110	22	440	880
		M 20	20.000	2.50	32	510	1275	28	445	1113	22	350	875
		M 24	24.000	3.00	32	425	1275	28	370	1110	22	290	870
	Steel 850 - 1100 N/mm²	M 2	2.000	0.40	20	3185	1274	16	2545	1018	10	1590	636
		M 2.5	2.500	0.45	20	2545	1145	16	2035	916	10	1275	574
		M 3	3.000	0.50	20	2120	1060	16	1700	850	10	1060	530
		M 4	4.000	0.70	20	1590	1113	16	1275	893	10	795	557
		M 5	5.000	0.80	20	1275	1020	16	1020	816	10	635	508
		M 6	6.000	1.00	20	1060	1060	16	850	850	10	530	530
		M 8	8.000	1.25	20	795	994	16	635	794	10	400	500
		M 10	10.000	1.50	20	635	953	16	510	765	10	320	480
		M 12	12.000	1.75	20	530	928	16	425	744	10	265	464
	Steel 850 - 1100 N/mm²	M 16	16.000	2.00	20	400	800	16	320	640	10	200	400
		M 20	20.000	2.50	20	320	800	16	255	638	10	160	400
		M 24	24.000	3.00	20	265	795	16	210	630	10	135	405

Taps x-tap

M	ISO 3 (6G)
60°	HSS PM/F
DIN 371/376	
	Form C

EH0572 / DIN 371



EH0573 / DIN 376

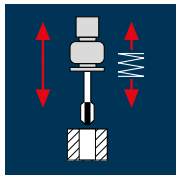
Rm < 850	Rm 850-1100

Example: **Order-N°.** Article-N°. **EH0572** ø-Code **034**

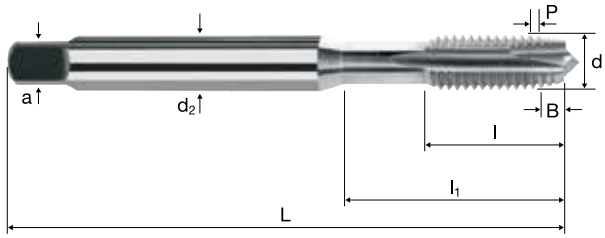
Ø Code	d	P	L	l	l_1	l_3	d_2	a		Δ	TiCN EH0572
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	+0.015	●
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	+0.015	●
044	M 3	0.50	56	5.00	-	16.0	3.5	2.7	3	+0.016	●
058	M 4	0.70	63	7.00	-	19.0	4.5	3.4	3	+0.019	●
084	M 5	0.80	70	8.00	-	23.0	6.0	4.9	3	+0.020	●
088	M 6	1.00	80	10.00	-	28.0	6.0	4.9	3	+0.024	●
160	M 8	1.25	90	13.00	35.0	33.0	8.0	6.2	3	+0.025	●
174	M 10	1.50	100	15.00	39.0	37.0	10.0	8.0	4	+0.028	●

Example: **Order-N°.** Article-N°. **EH0573** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a		Δ	TiCN EH0573
240	M 12	1.75	110	18.00	50.0	48.0	9.0	7.0	4	+0.032	●
246	M 16	2.00	110	20.00	58.0	56.0	12.0	9.0	4	+0.034	●
314	M 20	2.50	140	25.00	72.0	70.0	16.0	12.0	4	+0.036	●
320	M 24	3.00	160	30.00	74.0	72.0	18.0	14.5	5	+0.042	●

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	14	2230	892	12	1910	764	10	1590	636
		M 2.5	2.500	0.45	14	1785	803	12	1530	689	10	1275	574
		M 3	3.000	0.50	18	1910	955	15	1590	795	12	1275	638
		M 4	4.000	0.70	18	1430	1001	15	1195	837	12	955	669
		M 5	5.000	0.80	18	1145	916	15	955	764	12	765	612
		M 6	6.000	1.00	18	955	955	15	795	795	12	635	635
		M 8	8.000	1.25	18	715	894	15	595	744	12	475	594
		M 10	10.000	1.50	18	575	863	15	475	713	12	380	570
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	12	1910	764	8	1275	510	6	955	382
		M 2.5	2.500	0.45	12	1530	689	8	1020	459	6	765	344
		M 3	3.000	0.50	15	1590	795	10	1060	530	8	850	425
		M 4	4.000	0.70	15	1195	837	10	795	557	8	635	445
		M 5	5.000	0.80	15	955	764	10	635	508	8	510	408
		M 6	6.000	1.00	15	795	795	10	530	530	8	425	425
		M 8	8.000	1.25	15	595	744	10	400	500	8	320	400
		M 10	10.000	1.50	15	475	713	10	320	480	8	255	383
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	12	1910	764	10	1590	636	8	1275	510
		M 2.5	2.500	0.45	12	1530	689	10	1275	574	8	1020	459
		M 3	3.000	0.50	15	1590	795	12	1275	638	10	1060	530
		M 4	4.000	0.70	15	1195	837	12	955	669	10	795	557
		M 5	5.000	0.80	15	955	764	12	765	612	10	635	508
		M 6	6.000	1.00	15	795	795	12	635	635	10	530	530
		M 8	8.000	1.25	15	595	744	12	475	594	10	400	500
		M 10	10.000	1.50	15	475	713	12	380	570	10	320	480
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	4	635	254	3	475	190	2	320	128
		M 2.5	2.500	0.45	4	510	230	3	380	171	2	255	115
		M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143

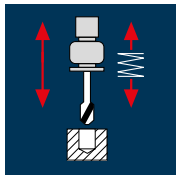
M	ISO 1 (4H)
60°	HSS-E Co5
DIN 371	
	X · P Form B



Rm < 850							Inox Stainless		GG(G) Aluminium Copper

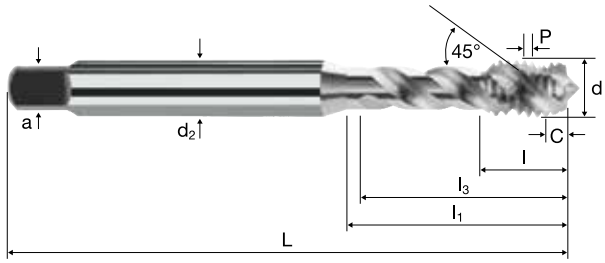
Example: **Order-N°.** Article-N°. **E10110** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a		Δ	E10110	
034	M 2	0.40	45	8.00	-	2.8	2.1	2	–0.014	●	
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	–0.015	●	
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	–0.016	●	
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	–0.019	●	
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	–0.020	●	
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	–0.024	●	
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	–0.025	●	
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	–0.028	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	11	1750	700	10	1590	636	8	1275	510
		M 2.5	2.500	0.45	11	1400	630	10	1275	574	8	1020	459
		M 3	3.000	0.50	14	1485	743	12	1275	638	10	1060	530
		M 4	4.000	0.70	14	1115	781	12	955	669	10	795	557
		M 5	5.000	0.80	14	890	712	12	765	612	10	635	508
		M 6	6.000	1.00	14	745	745	12	635	635	10	530	530
		M 8	8.000	1.25	14	555	694	12	475	594	10	400	500
		M 10	10.000	1.50	14	445	668	12	380	570	10	320	480
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	7	1115	446	6	955	382	5	795	318
		M 2.5	2.500	0.45	7	890	401	6	765	344	5	635	286
		M 3	3.000	0.50	9	955	478	8	850	425	7	745	373
		M 4	4.000	0.70	9	715	501	8	635	445	7	555	389
		M 5	5.000	0.80	9	575	460	8	510	408	7	445	356
		M 6	6.000	1.00	9	475	475	8	425	425	7	370	370
		M 8	8.000	1.25	9	360	450	8	320	400	7	280	350
		M 10	10.000	1.50	9	285	428	8	255	383	7	225	338
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	8	1275	510	6	955	382	5	795	318
		M 2.5	2.500	0.45	8	1020	459	6	765	344	5	635	286
		M 3	3.000	0.50	10	1060	530	8	850	425	6	635	318
		M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	3	475	190	2	320	128	2	320	128
		M 2.5	2.500	0.45	3	380	171	2	255	115	2	255	115
		M 3	3.000	0.50	4	425	213	3	320	160	3	320	160
		M 4	4.000	0.70	4	320	224	3	240	168	3	240	168
		M 5	5.000	0.80	4	255	204	3	190	152	3	190	152
		M 6	6.000	1.00	4	210	210	3	160	160	3	160	160
		M 8	8.000	1.25	4	160	200	3	120	150	3	120	150
		M 10	10.000	1.50	4	125	188	3	95	143	3	95	143

Taps

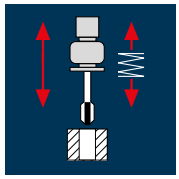
M	ISO 1 (4H)
60°	HSS-E Co5
DIN 371	
	X · P Form C



Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Example: **Order-N°.** Article-N°. **E10214** ø-Code **034**

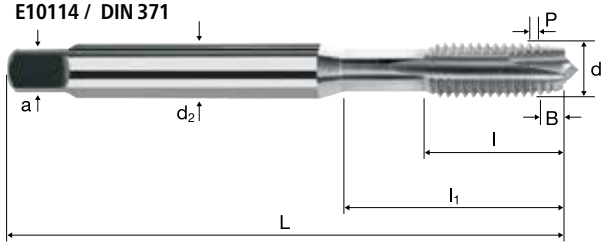
Ø Code	d	P	L	l	l_1	l_3	d_2	a		Δ	E10214	
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	–0.014	●	
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	–0.015	●	
044	M 3	0.50	56	4.00	18.0	16.0	3.5	2.7	3	–0.016	●	
058	M 4	0.70	63	5.60	21.0	19.0	4.5	3.4	3	–0.019	●	
084	M 5	0.80	70	6.40	25.0	23.0	6.0	4.9	3	–0.020	●	
088	M 6	1.00	80	8.00	30.0	28.0	6.0	4.9	3	–0.024	●	
160	M 8	1.25	90	10.00	35.0	33.0	8.0	6.2	3	–0.025	●	
174	M 10	1.50	100	12.00	39.0	37.0	10.0	8.0	3	–0.028	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	14	2230	892	12	1910	764	10	1590	636
		M 2.5	2.500	0.45	14	1785	803	12	1530	689	10	1275	574
		M 3	3.000	0.50	18	1910	955	15	1590	795	12	1275	638
		M 4	4.000	0.70	18	1430	1001	15	1195	837	12	955	669
		M 5	5.000	0.80	18	1145	916	15	955	764	12	765	612
		M 6	6.000	1.00	18	955	955	15	795	795	12	635	635
		M 8	8.000	1.25	18	715	894	15	595	744	12	475	594
		M 10	10.000	1.50	18	575	863	15	475	713	12	380	570
		M 12	12.000	1.75	18	475	831	15	400	700	12	320	560
	Steel < 500 N/mm²	M 16	16.000	2.00	18	360	720	15	300	600	12	240	480
		M 20	20.000	2.50	18	285	713	15	240	600	12	190	475
		M 24	24.000	3.00	18	240	720	15	200	600	12	160	480
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	12	1910	764	8	1275	510	6	955	382
		M 2.5	2.500	0.45	12	1530	689	8	1020	459	6	765	344
		M 3	3.000	0.50	15	1590	795	10	1060	530	8	850	425
		M 4	4.000	0.70	15	1195	837	10	795	557	8	635	445
		M 5	5.000	0.80	15	955	764	10	635	508	8	510	408
		M 6	6.000	1.00	15	795	795	10	530	530	8	425	425
		M 8	8.000	1.25	15	595	744	10	400	500	8	320	400
		M 10	10.000	1.50	15	475	713	10	320	480	8	255	383
		M 12	12.000	1.75	15	400	700	10	265	464	8	210	368
	Steel 500 - 850 N/mm²	M 16	16.000	2.00	15	300	600	10	200	400	8	160	320
		M 20	20.000	2.50	15	240	600	10	160	400	8	125	313
		M 24	24.000	3.00	15	200	600	10	135	405	8	105	315
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	12	1910	764	10	1590	636	8	1275	510
		M 2.5	2.500	0.45	12	1530	689	10	1275	574	8	1020	459
		M 3	3.000	0.50	15	1590	795	12	1275	638	10	1060	530
		M 4	4.000	0.70	15	1195	837	12	955	669	10	795	557
		M 5	5.000	0.80	15	955	764	12	765	612	10	635	508
		M 6	6.000	1.00	15	795	795	12	635	635	10	530	530
		M 8	8.000	1.25	15	595	744	12	475	594	10	400	500
		M 10	10.000	1.50	15	475	713	12	380	570	10	320	480
		M 12	12.000	1.75	15	400	700	12	320	560	10	265	464
	Wrought aluminium alloys Si < 6% hardened	M 16	16.000	2.00	15	300	600	12	240	480	10	200	400
		M 20	20.000	2.50	15	240	600	12	190	475	10	160	400
		M 24	24.000	3.00	15	200	600	12	160	480	10	135	405
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	4	635	254	3	475	190	2	320	128
		M 2.5	2.500	0.45	4	510	230	3	380	171	2	255	115
		M 3	3.000	0.50	5	530	265	4	425	213	3	320	160
		M 4	4.000	0.70	5	400	280	4	320	224	3	240	168
		M 5	5.000	0.80	5	320	256	4	255	204	3	190	152
		M 6	6.000	1.00	5	265	265	4	210	210	3	160	160
		M 8	8.000	1.25	5	200	250	4	160	200	3	120	150
		M 10	10.000	1.50	5	160	240	4	125	188	3	95	143
		M 12	12.000	1.75	5	135	236	4	105	184	3	80	140
	Stainless steel [Cr-Ni/1.4301]	M 16	16.000	2.00	5	100	200	4	80	160	3	60	120
		M 20	20.000	2.50	5	80	200	4	65	163	3	50	125
		M 24	24.000	3.00	5	65	195	4	55	165	3	40	120

Taps

M	7G
60°	HSS-E Co5
DIN 371/376	
	Form B

E10114 / DIN 371



E10115 / DIN 376

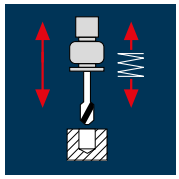
Rm < 850							Inox Stainless		GG(G) Aluminium Copper

Example: **Order-N°.** Article-N°. **E10114** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a		Δ	E10114	
034	M 2	0.40	45	8.00	-	2.8	2.1	2	+0.030	●	
040	M 2.5	0.45	50	9.00	-	2.8	2.1	2	+0.030	●	
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	+0.032	●	
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	+0.038	●	
084	M 5	0.80	70	15.00	25.0	6.0	4.9	3	+0.040	●	
088	M 6	1.00	80	17.00	30.0	6.0	4.9	3	+0.048	●	
160	M 8	1.25	90	20.00	35.0	8.0	6.2	3	+0.050	●	
174	M 10	1.50	100	22.00	39.0	10.0	8.0	3	+0.056	●	

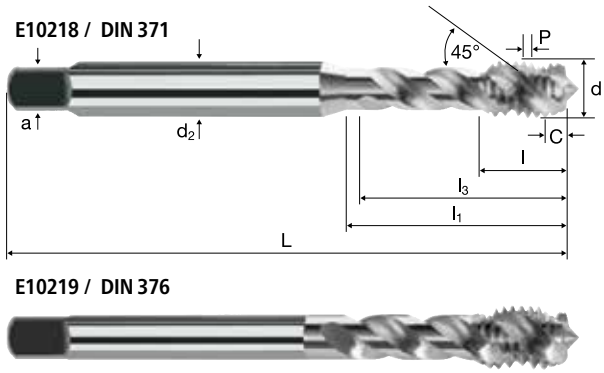
Example: **Order-N°.** Article-N°. **E10115** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a		Δ	E10115	
240	M 12	1.75	110	24.00	40.0	9.0	7.0	3	+0.064	●	
246	M 16	2.00	110	27.00	40.0	12.0	9.0	3	+0.068	●	
314	M 20	2.50	140	32.00	50.0	16.0	12.0	4	+0.072	●	
320	M 24	3.00	160	34.00	60.0	18.0	14.5	4	+0.085	●	

Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	M 2	2.000	0.40	11	1750	700	10	1590	636	8	1275	510
		M 2.5	2.500	0.45	11	1400	630	10	1275	574	8	1020	459
		M 3	3.000	0.50	14	1485	743	12	1275	638	10	1060	530
		M 4	4.000	0.70	14	1115	781	12	955	669	10	795	557
		M 5	5.000	0.80	14	890	712	12	765	612	10	635	508
		M 6	6.000	1.00	14	745	745	12	635	635	10	530	530
		M 8	8.000	1.25	14	555	694	12	475	594	10	400	500
		M 10	10.000	1.50	14	445	668	12	380	570	10	320	480
		M 12	12.000	1.75	14	370	648	12	320	560	10	265	464
	Steel < 500 N/mm²	M 16	16.000	2.00	14	280	560	12	240	480	10	200	400
		M 20	20.000	2.50	14	225	563	12	190	475	10	160	400
		M 24	24.000	3.00	14	185	555	12	160	480	10	135	405
	Steel 500 - 850 N/mm²	M 2	2.000	0.40	7	1115	446	6	955	382	5	795	318
		M 2.5	2.500	0.45	7	890	401	6	765	344	5	635	286
		M 3	3.000	0.50	9	955	478	8	850	425	7	745	373
		M 4	4.000	0.70	9	715	501	8	635	445	7	555	389
		M 5	5.000	0.80	9	575	460	8	510	408	7	445	356
		M 6	6.000	1.00	9	475	475	8	425	425	7	370	370
		M 8	8.000	1.25	9	360	450	8	320	400	7	280	350
		M 10	10.000	1.50	9	285	428	8	255	383	7	225	338
		M 12	12.000	1.75	9	240	420	8	210	368	7	185	324
	Steel 500 - 850 N/mm²	M 16	16.000	2.00	9	180	360	8	160	320	7	140	280
		M 20	20.000	2.50	9	145	363	8	125	313	7	110	275
		M 24	24.000	3.00	9	120	360	8	105	315	7	95	285
	Wrought aluminium alloys Si < 6% hardened	M 2	2.000	0.40	8	1275	510	6	955	382	5	795	318
		M 2.5	2.500	0.45	8	1020	459	6	765	344	5	635	286
		M 3	3.000	0.50	10	1060	530	8	850	425	6	635	318
		M 4	4.000	0.70	10	795	557	8	635	445	6	475	333
		M 5	5.000	0.80	10	635	508	8	510	408	6	380	304
		M 6	6.000	1.00	10	530	530	8	425	425	6	320	320
		M 8	8.000	1.25	10	400	500	8	320	400	6	240	300
		M 10	10.000	1.50	10	320	480	8	255	383	6	190	285
		M 12	12.000	1.75	10	265	464	8	210	368	6	160	280
	Wrought aluminium alloys Si < 6% hardened	M 16	16.000	2.00	10	200	400	8	160	320	6	120	240
		M 20	20.000	2.50	10	160	400	8	125	313	6	95	238
		M 24	24.000	3.00	10	135	405	8	105	315	6	80	240
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	3	475	190	2	320	128	2	320	128
		M 2.5	2.500	0.45	3	380	171	2	255	115	2	255	115
		M 3	3.000	0.50	4	425	213	3	320	160	3	320	160
		M 4	4.000	0.70	4	320	224	3	240	168	3	240	168
		M 5	5.000	0.80	4	255	204	3	190	152	3	190	152
		M 6	6.000	1.00	4	210	210	3	160	160	3	160	160
		M 8	8.000	1.25	4	160	200	3	120	150	3	120	150
		M 10	10.000	1.50	4	125	188	3	95	143	3	95	143
		M 12	12.000	1.75	4	105	184	3	80	140	3	80	140
	Stainless steel [Cr-Ni/1.4301]	M 16	16.000	2.00	4	80	160	3	60	120	3	60	120
		M 20	20.000	2.50	4	65	163	3	50	125	3	50	125
		M 24	24.000	3.00	4	55	165	3	40	120	3	40	120

Taps

M	7G
60°	HSS-E Co5
DIN 371/376	
	X · P Form C



M

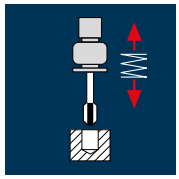
Rm < 850							Inox Stainless		GG(G) Aluminium Copper

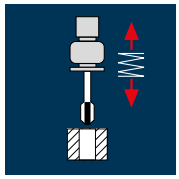
Example: **Order-N°.** Article-N°. **E10218** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a		Δ	E10218	
034	M 2	0.40	45	8.00	-	10.5	2.8	2.1	3	+0.030	●	
040	M 2.5	0.45	50	9.00	-	13.0	2.8	2.1	3	+0.030	●	
044	M 3	0.50	56	4.00	18.0	16.0	3.5	2.7	3	+0.032	●	
058	M 4	0.70	63	5.60	21.0	19.0	4.5	3.4	3	+0.038	●	
084	M 5	0.80	70	6.40	25.0	23.0	6.0	4.9	3	+0.040	●	
088	M 6	1.00	80	8.00	30.0	28.0	6.0	4.9	3	+0.048	●	
160	M 8	1.25	90	10.00	35.0	33.0	8.0	6.2	3	+0.050	●	
174	M 10	1.50	100	12.00	39.0	37.0	10.0	8.0	3	+0.056	●	

Example: **Order-N°.** Article-N°. **E10219** ø-Code **240**

Ø Code	d	P	L	l	l_1	l_3	d_2	a		Δ	E10219	
240	M 12	1.75	110	14.00	50.0	48.0	9.0	7.0	3	+0.064	●	
246	M 16	2.00	110	16.00	58.0	56.0	12.0	9.0	4	+0.068	●	
314	M 20	2.50	140	20.00	72.0	70.0	16.0	12.0	4	+0.072	●	
320	M 24	3.00	160	24.00	74.0	72.0	18.0	14.5	4	+0.085	●	

Application	Material	MJ	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
	Nickel base alloys hardened	MJ 2	2.000	0.40	2	320	128	2	320	128
		MJ 2.5	2.500	0.45	2	255	115	2	255	115
		MJ 3	3.000	0.50	2	210	105	2	210	105
		MJ 4	4.000	0.70	2	160	112	2	160	112
		MJ 5	5.000	0.80	2	125	100	2	125	100
		MJ 6	6.000	1.00	2	105	105	2	105	105
		MJ 8	8.000	1.00	2	80	80	2	80	80
		MJ 8	8.000	1.25	2	80	100	2	80	100
		MJ 10	10.000	1.25	2	65	81	2	65	81
	Nickel base alloys hardened	MJ 10	10.000	1.50	2	65	98	2	65	98
	Nickel base alloys not hardened	MJ 2	2.000	0.40	3	475	190	2	320	128
		MJ 2.5	2.500	0.45	3	380	171	2	255	115
		MJ 3	3.000	0.50	3	320	160	2	210	105
		MJ 4	4.000	0.70	3	240	168	2	160	112
		MJ 5	5.000	0.80	3	190	152	2	125	100
		MJ 6	6.000	1.00	3	160	160	2	105	105
		MJ 8	8.000	1.00	3	120	120	2	80	80
		MJ 8	8.000	1.25	3	120	150	2	80	100
		MJ 10	10.000	1.25	3	95	119	2	65	81
	Nickel base alloys not hardened	MJ 10	10.000	1.50	3	95	143	2	65	98

Application	Material	MJ	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]
	Nickel base alloys hardened	MJ 2	2.000	0.40	2	320	128	2	320	128
		MJ 2.5	2.500	0.45	2	255	115	2	255	115
		MJ 3	3.000	0.50	2	210	105	2	210	105
		MJ 4	4.000	0.70	2	160	112	2	160	112
		MJ 5	5.000	0.80	2	125	100	2	125	100
		MJ 6	6.000	1.00	2	105	105	2	105	105
		MJ 8	8.000	1.00	2	80	80	2	80	80
		MJ 8	8.000	1.25	2	80	100	2	80	100
		MJ 10	10.000	1.25	2	65	81	2	65	81
	Nickel base alloys hardened	MJ 10	10.000	1.50	2	65	98	2	65	98
	Nickel base alloys not hardened	MJ 2	2.000	0.40	3	475	190	2	320	128
		MJ 2.5	2.500	0.45	3	380	171	2	255	115
		MJ 3	3.000	0.50	3	320	160	2	210	105
		MJ 4	4.000	0.70	3	240	168	2	160	112
		MJ 5	5.000	0.80	3	190	152	2	125	100
		MJ 6	6.000	1.00	3	160	160	2	105	105
		MJ 8	8.000	1.00	3	120	120	2	80	80
		MJ 8	8.000	1.25	3	120	150	2	80	100
		MJ 10	10.000	1.25	3	95	119	2	65	81
	Nickel base alloys not hardened	MJ 10	10.000	1.50	3	95	143	2	65	98

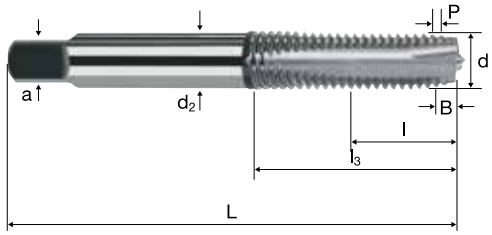
Taps

Ni

MJ | 4H

60° | HSS PM/F

Form B



M

Nickel-Alloys

Example: **Order-N°.** Article-N°. **E0599** ø-Code **034**

Ø Code	d	P	L	l	l_3	d_2	a			E0599	
034	MJ 2	0.40	41	8.00	11.0	2.8	2.1	3	1.70	●	
040	MJ 2.5	0.45	44	9.00	13.0	2.8	2.1	3	2.20*	●	
044	MJ 3	0.50	48	11.00	16.0	3.5	2.7	3	2.65	●	
058	MJ 4	0.70	53	13.00	19.0	4.5	3.4	3	3.50*	●	
084	MJ 5	0.80	58	15.00	22.0	6.0	4.9	3	4.40	●	
088	MJ 6	1.00	66	17.00	28.0	6.0	4.9	3	5.20	●	
090	MJ 8	1.00	72	20.00	34.0	8.0	6.2	3	7.20	●	
160	MJ 8	1.25	72	20.00	34.0	8.0	6.2	3	7.00*	●	
162	MJ 10	1.25	80	22.00	37.0	10.0	8.0	3	9.00*	●	
174	MJ 10	1.50	80	22.00	37.0	10.0	8.0	3	8.70	●	

* The given dimension is out of norm

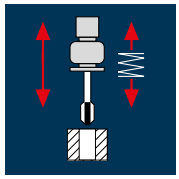

passion
for precision
fraisa

Metric fine thread MF

Tolerance ISO 2 (6H)

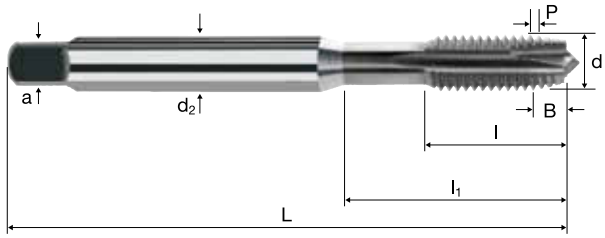
N° EH1257 / EH1258 	**x-tap**	11	**HSS PM/F**		**Rm** 850-1100		301
N° EH1260 / EH1261 	**x-tap**	11	**HSS PM/F**		**Rm** 850-1100		305
N° ET1240 / ET1241 	**Inotap**	In	**HSS PM/F**		**Inox** Stainless		309
N° ET1260 / ET1261 	**x-tap**	In	**HSS PM/F**		**Inox** Stainless		313
N° EH1229 	**polytap-R**	R	**HSS PM/F**		**Rm** <850-1100	**Inox** Stainless	317

MF

Application	Material	MF	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 2.5	2.500	0.35	25	3185	1115	20	2545	891	15	1910	669
		M 3	3.000	0.35	25	2655	929	20	2120	742	15	1590	557
		M 3.5	3.500	0.35	25	2275	796	20	1820	637	15	1365	478
		M 4	4.000	0.50	25	1990	995	20	1590	795	15	1195	598
		M 5	5.000	0.50	25	1590	795	20	1275	638	15	955	478
		M 6	6.000	0.50	25	1325	663	20	1060	530	15	795	398
		M 8	8.000	0.50	25	995	498	20	795	398	15	595	298
		M 10	10.000	0.50	25	795	398	20	635	318	15	475	238
		M 6	6.000	0.75	25	1325	994	20	1060	795	15	795	596
	Steel 500 - 850 N/mm²	M 7	7.000	0.75	25	1135	851	20	910	683	15	680	510
		M 8	8.000	0.75	25	995	746	20	795	596	15	595	446
		M 10	10.000	0.75	25	795	596	20	635	476	15	475	356
		M 8	8.000	1.00	25	995	995	20	795	795	15	595	595
		M 9	9.000	1.00	25	885	885	20	705	705	15	530	530
		M 10	10.000	1.00	25	795	795	20	635	635	15	475	475
		M 10	10.000	1.25	25	795	994	20	635	794	15	475	594
	Steel 850 - 1100 N/mm²	M 2.5	2.500	0.35	20	2545	891	15	1910	669	12	1530	536
		M 3	3.000	0.35	20	2120	742	15	1590	557	12	1275	446
		M 3.5	3.500	0.35	20	1820	637	15	1365	478	12	1090	382
		M 4	4.000	0.50	20	1590	795	15	1195	598	12	955	478
		M 5	5.000	0.50	20	1275	638	15	955	478	12	765	383
		M 6	6.000	0.50	20	1060	530	15	795	398	12	635	318
		M 8	8.000	0.50	20	795	398	15	595	298	12	475	238
		M 10	10.000	0.50	20	635	318	15	475	238	12	380	190
		M 6	6.000	0.75	20	1060	795	15	795	596	12	635	476
	Steel 850 - 1100 N/mm²	M 7	7.000	0.75	20	910	683	15	680	510	12	545	409
		M 8	8.000	0.75	20	795	596	15	595	446	12	475	356
		M 10	10.000	0.75	20	635	476	15	475	356	12	380	285
		M 8	8.000	1.00	20	795	795	15	595	595	12	475	475
		M 9	9.000	1.00	20	705	705	15	530	530	12	425	425
		M 10	10.000	1.00	20	635	635	15	475	475	12	380	380
		M 10	10.000	1.25	20	635	794	15	475	594	12	380	475
	Steel 1100 - 1300 N/mm²	M 2.5	2.500	0.35	7	890	312	4	510	179	-	-	-
		M 3	3.000	0.35	7	745	261	4	425	149	-	-	-
		M 3.5	3.500	0.35	7	635	222	4	365	128	-	-	-
		M 4	4.000	0.50	7	555	278	4	320	160	-	-	-
		M 5	5.000	0.50	7	445	223	4	255	128	-	-	-
		M 6	6.000	0.50	7	370	185	4	210	105	-	-	-
		M 8	8.000	0.50	7	280	140	4	160	80	-	-	-
		M 10	10.000	0.50	7	225	113	4	125	63	-	-	-
		M 6	6.000	0.75	7	370	278	4	210	158	-	-	-
	Steel 1100 - 1300 N/mm²	M 7	7.000	0.75	7	320	240	4	180	135	-	-	-
		M 8	8.000	0.75	7	280	210	4	160	120	-	-	-
		M 10	10.000	0.75	7	225	169	4	125	94	-	-	-
		M 8	8.000	1.00	7	280	280	4	160	160	-	-	-
		M 9	9.000	1.00	7	250	250	4	140	140	-	-	-
		M 10	10.000	1.00	7	225	225	4	125	125	-	-	-
		M 10	10.000	1.25	7	225	281	4	125	156	-	-	-

Taps x-tap

MF	ISO 2 (6H)
60°	HSS PM/F
DIN 371	
	X · P Form B

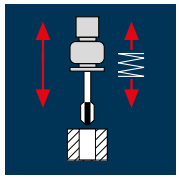


Rm < 850	Rm 850-1100	Rm 1100-1300							

Example: **Order-N°.** Article-N°. **EH1257** ø-Code **029**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH1257
029	M 2.5	0.35	50	9.00	-	2.8	2.1	2	2.15	●
031	M 3	0.35	56	12.00	18.0	3.5	2.7	3	2.65	●
032	M 3.5	0.35	56	12.00	20.0	4.0	3.0	3	3.15	●
046	M 4	0.50	63	13.00	21.0	4.5	3.4	3	3.50	●
048	M 5	0.50	70	15.00	25.0	6.0	4.9	3	4.50	●
050	M 6	0.50	80	17.00	30.0	6.0	4.9	3	5.50	●
052	M 8	0.50	90	20.00	35.0	8.0	6.2	3	7.50	●
054	M 10	0.50	100	22.00	39.0	10.0	8.0	3	9.50	●
064	M 6	0.75	80	17.00	30.0	6.0	4.9	3	5.20	●
065	M 7	0.75	80	17.00	30.0	7.0	5.5	3	6.20	●
066	M 8	0.75	90	20.00	35.0	8.0	6.2	3	7.20	●
068	M 10	0.75	100	22.00	39.0	10.0	8.0	3	9.20	●
090	M 8	1.00	90	20.00	35.0	8.0	6.2	3	7.00	●
091	M 9	1.00	90	20.00	35.0	9.0	7.0	3	8.00	●
092	M 10	1.00	100	22.00	39.0	10.0	8.0	3	9.00	●
162	M 10	1.25	100	22.00	39.0	10.0	8.0	3	8.80	●

For larger dimensions see article no. EH1258

Application	Material	MF	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 12	12.000	0.75	25	665	499	20	530	398	15	400	300
		M 14	14.000	0.75	25	570	428	20	455	341	15	340	255
		M 16	16.000	0.75	25	495	371	20	400	300	15	300	225
		M 12	12.000	1.00	25	665	665	20	530	530	15	400	400
		M 13	13.000	1.00	25	610	610	20	490	490	15	365	365
		M 14	14.000	1.00	25	570	570	20	455	455	15	340	340
		M 16	16.000	1.00	25	495	495	20	400	400	15	300	300
		M 18	18.000	1.00	25	440	440	20	355	355	15	265	265
		M 20	20.000	1.00	25	400	400	20	320	320	15	240	240
	Steel 500 - 850 N/mm²	M 12	12.000	1.25	25	665	831	20	530	663	15	400	500
		M 14	14.000	1.25	25	570	713	20	455	569	15	340	425
		M 16	16.000	1.25	25	495	619	20	400	500	15	300	375
		M 12	12.000	1.50	25	665	998	20	530	795	15	400	600
		M 14	14.000	1.50	25	570	855	20	455	683	15	340	510
		M 16	16.000	1.50	25	495	743	20	400	600	15	300	450
		M 18	18.000	1.50	25	440	660	20	355	533	15	265	398
		M 20	20.000	1.50	25	400	600	20	320	480	15	240	360
		M 24	24.000	1.50	25	330	495	20	265	398	15	200	300
	Steel 850 - 1100 N/mm²	M 12	12.000	0.75	20	530	398	15	400	300	12	320	240
		M 14	14.000	0.75	20	455	341	15	340	255	12	275	206
		M 16	16.000	0.75	20	400	300	15	300	225	12	240	180
		M 12	12.000	1.00	20	530	530	15	400	400	12	320	320
		M 13	13.000	1.00	20	490	490	15	365	365	12	295	295
		M 14	14.000	1.00	20	455	455	15	340	340	12	275	275
		M 16	16.000	1.00	20	400	400	15	300	300	12	240	240
		M 18	18.000	1.00	20	355	355	15	265	265	12	210	210
		M 20	20.000	1.00	20	320	320	15	240	240	12	190	190
	Steel 850 - 1100 N/mm²	M 12	12.000	1.25	20	530	663	15	400	500	12	320	400
		M 14	14.000	1.25	20	455	569	15	340	425	12	275	344
		M 16	16.000	1.25	20	400	500	15	300	375	12	240	300
		M 12	12.000	1.50	20	530	795	15	400	600	12	320	480
		M 14	14.000	1.50	20	455	683	15	340	510	12	275	413
		M 16	16.000	1.50	20	400	600	15	300	450	12	240	360
		M 18	18.000	1.50	20	355	533	15	265	398	12	210	315
		M 20	20.000	1.50	20	320	480	15	240	360	12	190	285
		M 24	24.000	1.50	20	265	398	15	200	300	12	160	240
	Steel 1100 - 1300 N/mm²	M 12	12.000	0.75	7	185	139	4	105	79	-	-	-
		M 14	14.000	0.75	7	160	120	4	90	68	-	-	-
		M 16	16.000	0.75	7	140	105	4	80	60	-	-	-
		M 12	12.000	1.00	7	185	185	4	105	105	-	-	-
		M 13	13.000	1.00	7	170	170	4	100	100	-	-	-
		M 14	14.000	1.00	7	160	160	4	90	90	-	-	-
		M 16	16.000	1.00	7	140	140	4	80	80	-	-	-
		M 18	18.000	1.00	7	125	125	4	70	70	-	-	-
		M 20	20.000	1.00	7	110	110	4	65	65	-	-	-
	Steel 1100 - 1300 N/mm²	M 12	12.000	1.25	7	185	231	4	105	131	-	-	-
		M 14	14.000	1.25	7	160	200	4	90	113	-	-	-
		M 16	16.000	1.25	7	140	175	4	80	100	-	-	-
		M 12	12.000	1.50	7	185	278	4	105	158	-	-	-
		M 14	14.000	1.50	7	160	240	4	90	135	-	-	-
		M 16	16.000	1.50	7	140	210	4	80	120	-	-	-
		M 18	18.000	1.50	7	125	188	4	70	105	-	-	-
		M 20	20.000	1.50	7	110	165	4	65	98	-	-	-
		M 24	24.000	1.50	7	95	143	4	55	83	-	-	-

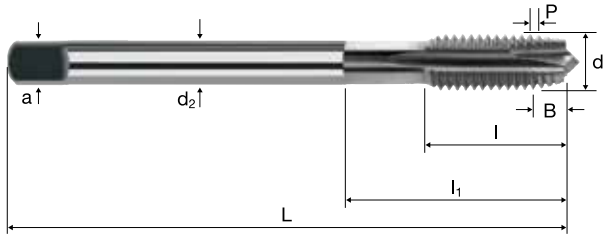
Taps x-tap

MF | ISO 2 (6H)

HSS PM/F

DIN 374

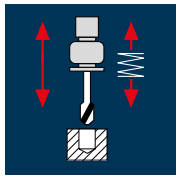
Form B



Rm < 850 | **Rm 850-1100** | Rm 1100-1300

Example: **Order-N°.** Article-N°. **EH1258** ø-Code **070**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN
										EH1258
070	M 12	0.75	100	18.00	39.0	9.0	7.0	3	11.30	●
072	M 14	0.75	100	18.00	39.0	11.0	9.0	3	13.30	●
074	M 16	0.75	100	18.00	39.0	12.0	9.0	3	15.30	●
094	M 12	1.00	100	18.00	39.0	9.0	7.0	3	11.00	●
095	M 13	1.00	100	18.00	39.0	11.0	7.0	3	12.00	●
096	M 14	1.00	100	18.00	39.0	11.0	9.0	3	13.00	●
097	M 15	1.00	100	18.00	39.0	12.0	9.0	3	14.00	●
098	M 16	1.00	100	18.00	39.0	12.0	9.0	3	15.00	●
099	M 17	1.00	100	18.00	39.0	12.0	9.0	4	16.00	●
100	M 18	1.00	110	20.00	45.0	14.0	11.0	4	17.00	●
102	M 20	1.00	125	20.00	50.0	16.0	12.0	4	19.00	●
164	M 12	1.25	100	22.00	39.0	9.0	7.0	3	10.80	●
166	M 14	1.25	100	22.00	39.0	11.0	9.0	3	12.80	●
168	M 16	1.25	100	22.00	39.0	12.0	9.0	3	14.80	●
176	M 12	1.50	100	22.00	39.0	9.0	7.0	3	10.50	●
178	M 14	1.50	100	22.00	39.0	11.0	9.0	3	12.50	●
180	M 16	1.50	100	22.00	39.0	12.0	9.0	3	14.50	●
182	M 18	1.50	110	22.00	45.0	14.0	11.0	4	16.50	●
184	M 20	1.50	125	25.00	50.0	16.0	12.0	4	18.50	●
186	M 22	1.50	125	26.00	50.0	18.0	14.5	4	20.50	●
188	M 24	1.50	140	27.00	52.0	18.0	14.5	4	22.50	●

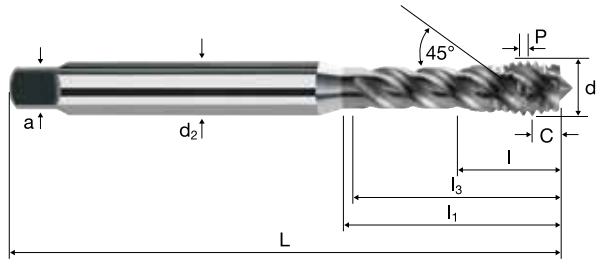
Application	Material	MF	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 2.5	2.500	0.35	32	4075	1426	28	3565	1248	22	2800	980
		M 3	3.000	0.35	32	3395	1188	28	2970	1040	22	2335	817
		M 3.5	3.500	0.35	32	2910	1019	28	2545	891	22	2000	700
		M 4	4.000	0.50	32	2545	1273	28	2230	1115	22	1750	875
		M 5	5.000	0.50	32	2035	1018	28	1785	893	22	1400	700
		M 6	6.000	0.50	32	1700	850	28	1485	743	22	1165	583
		M 8	8.000	0.50	32	1275	638	28	1115	558	22	875	438
		M 10	10.000	0.50	32	1020	510	28	890	445	22	700	350
		M 6	6.000	0.75	32	1700	1275	28	1485	1114	22	1165	874
	Steel 500 - 850 N/mm²	M 7	7.000	0.75	32	1455	1091	28	1275	956	22	1000	750
		M 8	8.000	0.75	32	1275	956	28	1115	836	22	875	656
		M 10	10.000	0.75	32	1020	765	28	890	668	22	700	525
		M 8	8.000	1.00	32	1275	1275	28	1115	1115	22	875	875
		M 9	9.000	1.00	32	1130	1130	28	990	990	22	780	780
		M 10	10.000	1.00	32	1020	1020	28	890	890	22	700	700
		M 10	10.000	1.25	32	1020	1275	28	890	1113	22	700	875
	Steel 850 - 1100 N/mm²	M 2.5	2.500	0.35	20	2545	891	16	2035	712	10	1275	446
		M 3	3.000	0.35	20	2120	742	16	1700	595	10	1060	371
		M 3.5	3.500	0.35	20	1820	637	16	1455	509	10	910	319
		M 4	4.000	0.50	20	1590	795	16	1275	638	10	795	398
		M 5	5.000	0.50	20	1275	638	16	1020	510	10	635	318
		M 6	6.000	0.50	20	1060	530	16	850	425	10	530	265
		M 8	8.000	0.50	20	795	398	16	635	318	10	400	200
		M 10	10.000	0.50	20	635	318	16	510	255	10	320	160
		M 6	6.000	0.75	20	1060	795	16	850	638	10	530	398
	Steel 850 - 1100 N/mm²	M 7	7.000	0.75	20	910	683	16	730	548	10	455	341
		M 8	8.000	0.75	20	795	596	16	635	476	10	400	300
		M 10	10.000	0.75	20	635	476	16	510	383	10	320	240
		M 8	8.000	1.00	20	795	795	16	635	635	10	400	400
		M 9	9.000	1.00	20	705	705	16	565	565	10	355	355
		M 10	10.000	1.00	20	635	635	16	510	510	10	320	320
		M 10	10.000	1.25	20	635	794	16	510	638	10	320	400

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371

X · P Form C

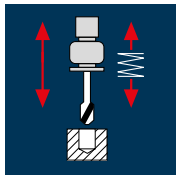


Rm < 850 | **Rm 850-1100**

Example: **Order-N°.** Article-N°. **EH1260** ø-Code **029**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH1260
029	M 2.5	0.35	50	9.00	-	13.0	2.8	2.1	3	2.15	●
031	M 3	0.35	56	5.00	18.0	16.0	3.5	2.7	3	2.65	●
032	M 3.5	0.35	56	6.00	20.0	18.0	4.0	3.0	3	3.15	●
046	M 4	0.50	63	7.00	21.0	19.0	4.5	3.4	3	3.50	●
048	M 5	0.50	70	8.00	25.0	23.0	6.0	4.9	3	4.50	●
050	M 6	0.50	80	10.00	30.0	28.0	6.0	4.9	3	5.50	●
052	M 8	0.50	90	13.00	35.0	33.0	8.0	6.2	3	7.50	●
054	M 10	0.50	100	15.00	39.0	37.0	10.0	8.0	4	9.50	●
064	M 6	0.75	80	10.00	30.0	28.0	6.0	4.9	3	5.20	●
065	M 7	0.75	80	10.00	30.0	28.0	7.0	5.5	3	6.20	●
066	M 8	0.75	90	13.00	35.0	33.0	8.0	6.2	3	7.20	●
068	M 10	0.75	100	15.00	39.0	37.0	10.0	8.0	4	9.20	●
090	M 8	1.00	90	13.00	35.0	33.0	8.0	6.2	3	7.00	●
091	M 9	1.00	90	13.00	35.0	33.0	9.0	7.0	3	8.00	●
092	M 10	1.00	100	15.00	39.0	37.0	10.0	8.0	4	9.00	●
162	M 10	1.25	100	15.00	39.0	37.0	10.0	8.0	4	8.80	●

For larger dimensions see article no. EH1261

Application	Material	MF	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	M 12	12.000	0.75	32	850	638	28	745	559	22	585	439
		M 14	14.000	0.75	32	730	548	28	635	476	22	500	375
		M 16	16.000	0.75	32	635	476	28	555	416	22	440	330
		M 12	12.000	1.00	32	850	850	28	745	745	22	585	585
		M 13	13.000	1.00	32	785	785	28	685	685	22	540	540
		M 14	14.000	1.00	32	730	730	28	635	635	22	500	500
		M 16	16.000	1.00	32	635	635	28	555	555	22	440	440
		M 18	18.000	1.00	32	565	565	28	495	495	22	390	390
		M 20	20.000	1.00	32	510	510	28	445	445	22	350	350
	Steel 500 - 850 N/mm²	M 12	12.000	1.25	32	850	1063	28	745	931	22	585	731
		M 14	14.000	1.25	32	730	913	28	635	794	22	500	625
		M 16	16.000	1.25	32	635	794	28	555	694	22	440	550
		M 12	12.000	1.50	32	850	1275	28	745	1118	22	585	878
		M 14	14.000	1.50	32	730	1095	28	635	953	22	500	750
		M 16	16.000	1.50	32	635	953	28	555	833	22	440	660
		M 18	18.000	1.50	32	565	848	28	495	743	22	390	585
		M 20	20.000	1.50	32	510	765	28	445	668	22	350	525
		M 24	24.000	1.50	32	425	638	28	370	555	22	290	435
	Steel 850 - 1100 N/mm²	M 12	12.000	0.75	20	530	398	16	425	319	10	265	199
		M 14	14.000	0.75	20	455	341	16	365	274	10	225	169
		M 16	16.000	0.75	20	400	300	16	320	240	10	200	150
		M 12	12.000	1.00	20	530	530	16	425	425	10	265	265
		M 13	13.000	1.00	20	490	490	16	390	390	10	245	245
		M 14	14.000	1.00	20	455	455	16	365	365	10	225	225
		M 16	16.000	1.00	20	400	400	16	320	320	10	200	200
		M 18	18.000	1.00	20	355	355	16	285	285	10	175	175
		M 20	20.000	1.00	20	320	320	16	255	255	10	160	160
	Steel 850 - 1100 N/mm²	M 12	12.000	1.25	20	530	663	16	425	531	10	265	331
		M 14	14.000	1.25	20	455	569	16	365	456	10	225	281
		M 16	16.000	1.25	20	400	500	16	320	400	10	200	250
		M 12	12.000	1.50	20	530	795	16	425	638	10	265	398
		M 14	14.000	1.50	20	455	683	16	365	548	10	225	338
		M 16	16.000	1.50	20	400	600	16	320	480	10	200	300
		M 18	18.000	1.50	20	355	533	16	285	428	10	175	263
		M 20	20.000	1.50	20	320	480	16	255	383	10	160	240
		M 24	24.000	1.50	20	265	398	16	210	315	10	135	203

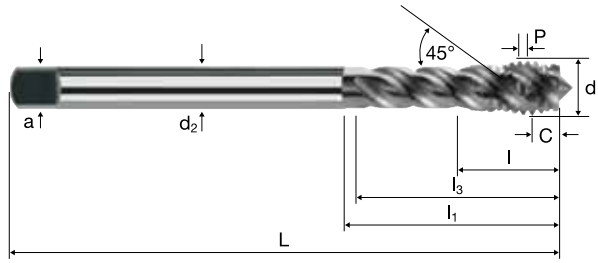
Taps x-tap

MF | ISO 2 (6H)

60° | HSS PM/F

DIN 374

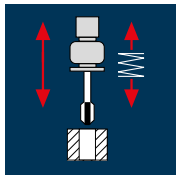
X · P Form C



Rm < 850 | **Rm 850-1100**

Example: **Order-N°.** Article-N°. **EH1261** ø-Code **070**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TiCN EH1261
070	M 12	0.75	100	11.00	39.0	37.0	9.0	7.0	4	11.30	●
072	M 14	0.75	100	11.00	39.0	37.0	11.0	9.0	4	13.30	●
074	M 16	0.75	100	12.00	39.0	37.0	12.0	9.0	4	15.30	●
094	M 12	1.00	100	11.00	39.0	37.0	9.0	7.0	4	11.00	●
095	M 13	1.00	100	11.00	39.0	37.0	11.0	9.0	4	12.00	●
096	M 14	1.00	100	11.00	39.0	37.0	11.0	9.0	4	13.00	●
097	M 15	1.00	100	12.00	39.0	37.0	12.0	9.0	4	14.00	●
098	M 16	1.00	100	12.00	39.0	37.0	12.0	9.0	4	15.00	●
099	M 17	1.00	100	12.00	39.0	37.0	12.0	9.0	4	16.00	●
100	M 18	1.00	110	13.00	50.0	48.0	14.0	11.0	4	17.00	●
102	M 20	1.00	125	14.00	65.0	63.0	16.0	12.0	4	19.00	●
164	M 12	1.25	100	15.00	39.0	37.0	9.0	7.0	4	10.80	●
166	M 14	1.25	100	15.00	39.0	37.0	11.0	9.0	4	12.80	●
168	M 16	1.25	100	15.00	39.0	37.0	12.0	9.0	4	14.80	●
176	M 12	1.50	100	15.00	39.0	37.0	9.0	7.0	4	10.50	●
178	M 14	1.50	100	15.00	39.0	37.0	11.0	9.0	4	12.50	●
180	M 16	1.50	100	15.00	39.0	37.0	12.0	9.0	4	14.50	●
182	M 18	1.50	110	17.00	50.0	48.0	14.0	11.0	4	16.50	●
184	M 20	1.50	125	18.00	65.0	63.0	16.0	12.0	4	18.50	●
186	M 22	1.50	125	18.00	65.0	63.0	18.0	14.5	5	20.50	●
188	M 24	1.50	140	20.00	72.0	70.0	18.0	14.5	5	22.50	●

Application	Material	MF	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Stainless steel ferritc/martensitic	M 2.5	2.500	0.35	12	1530	536	10	1275	446	8	1020	357
		M 3	3.000	0.35	12	1275	446	10	1060	371	8	850	298
		M 3.5	3.500	0.35	12	1090	382	10	910	319	8	730	256
		M 4	4.000	0.50	12	955	478	10	795	398	8	635	318
		M 5	5.000	0.50	12	765	383	10	635	318	8	510	255
		M 6	6.000	0.50	12	635	318	10	530	265	8	425	213
		M 8	8.000	0.50	12	475	238	10	400	200	8	320	160
		M 10	10.000	0.50	12	380	190	10	320	160	8	255	128
		M 6	6.000	0.75	12	635	476	10	530	398	8	425	319
	Stainless steel ferritc/martensitic	M 7	7.000	0.75	12	545	409	10	455	341	8	365	274
		M 8	8.000	0.75	12	475	356	10	400	300	8	320	240
		M 10	10.000	0.75	12	380	285	10	320	240	8	255	191
		M 8	8.000	1.00	12	475	475	10	400	400	8	320	320
		M 9	9.000	1.00	12	425	425	10	355	355	8	285	285
		M 10	10.000	1.00	12	380	380	10	320	320	8	255	255
		M 10	10.000	1.25	12	380	475	10	320	400	8	255	319
	Stainless steel [Cr-Ni/1.4301]	M 2.5	2.500	0.35	7	890	312	5	635	222	4	510	179
		M 3	3.000	0.35	7	745	261	5	530	186	4	425	149
		M 3.5	3.500	0.35	7	635	222	5	455	159	4	365	128
		M 4	4.000	0.50	7	555	278	5	400	200	4	320	160
		M 5	5.000	0.50	7	445	223	5	320	160	4	255	128
		M 6	6.000	0.50	7	370	185	5	265	133	4	210	105
		M 8	8.000	0.50	7	280	140	5	200	100	4	160	80
		M 10	10.000	0.50	7	225	113	5	160	80	4	125	63
		M 6	6.000	0.75	7	370	278	5	265	199	4	210	158
	Stainless steel [Cr-Ni/1.4301]	M 7	7.000	0.75	7	320	240	5	225	169	4	180	135
		M 8	8.000	0.75	7	280	210	5	200	150	4	160	120
		M 10	10.000	0.75	7	225	169	5	160	120	4	125	94
		M 8	8.000	1.00	7	280	280	5	200	200	4	160	160
		M 9	9.000	1.00	7	250	250	5	175	175	4	140	140
		M 10	10.000	1.00	7	225	225	5	160	160	4	125	125
		M 10	10.000	1.25	7	225	281	5	160	200	4	125	156
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 2.5	2.500	0.35	8	1020	357	6	765	268	5	635	222
		M 3	3.000	0.35	8	850	298	6	635	222	5	530	186
		M 3.5	3.500	0.35	8	730	256	6	545	191	5	455	159
		M 4	4.000	0.50	8	635	318	6	475	238	5	400	200
		M 5	5.000	0.50	8	510	255	6	380	190	5	320	160
		M 6	6.000	0.50	8	425	213	6	320	160	5	265	133
		M 8	8.000	0.50	8	320	160	6	240	120	5	200	100
		M 10	10.000	0.50	8	255	128	6	190	95	5	160	80
		M 6	6.000	0.75	8	425	319	6	320	240	5	265	199
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 7	7.000	0.75	8	365	274	6	275	206	5	225	169
		M 8	8.000	0.75	8	320	240	6	240	180	5	200	150
		M 10	10.000	0.75	8	255	191	6	190	143	5	160	120
		M 8	8.000	1.00	8	320	320	6	240	240	5	200	200
		M 9	9.000	1.00	8	285	285	6	210	210	5	175	175
		M 10	10.000	1.00	8	255	255	6	190	190	5	160	160
		M 10	10.000	1.25	8	255	319	6	190	238	5	160	200
	Heat resistant steel [17-4 PH]	M 2.5	2.500	0.35	5	635	222	4	510	179	3	380	133
		M 3	3.000	0.35	5	530	186	4	425	149	3	320	112
		M 3.5	3.500	0.35	5	455	159	4	365	128	3	275	96
		M 4	4.000	0.50	5	400	200	4	320	160	3	240	120
		M 5	5.000	0.50	5	320	160	4	255	128	3	190	95
		M 6	6.000	0.50	5	265	133	4	210	105	3	160	80
		M 8	8.000	0.50	5	200	100	4	160	80	3	120	60
		M 10	10.000	0.50	5	160	80	4	125	63	3	95	48
		M 6	6.000	0.75	5	265	199	4	210	158	3	160	120
	Heat resistant steel [17-4 PH]	M 7	7.000	0.75	5	225	169	4	180	135	3	135	101
		M 8	8.000	0.75	5	200	150	4	160	120	3	120	90
		M 10	10.000	0.75	5	160	120	4	125	94	3	95	71
		M 8	8.000	1.00	5	200	200	4	160	160	3	120	120
		M 9	9.000	1.00	5	175	175	4	140	140	3	105	105
		M 10	10.000	1.00	5	160	160	4	125	125	3	95	95
		M 10	10.000	1.25	5	160	200	4	125	156	3	95	119

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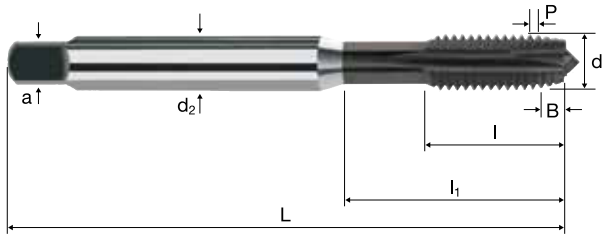


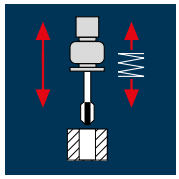
MF

Inox Stainless

											TRIBO
	Example: **Order-N°.**		Article-N°. **ET1240**	ø-Code **029**							**ET1240**
Ø Code	d	P	L	l	l_1	d_2	a				
029	M 2.5	0.35	50	9.00	-	2.8	2.1	2	2.20		●
031	M 3	0.35	56	12.00	18.0	3.5	2.7	3	2.70		●
032	M 3.5	0.35	56	12.00	20.0	4.0	3.0	3	3.20		●
046	M 4	0.50	63	13.00	21.0	4.5	3.4	3	3.60*		●
048	M 5	0.50	70	15.00	25.0	6.0	4.9	3	4.60*		●
050	M 6	0.50	80	17.00	30.0	6.0	4.9	3	5.60*		●
052	M 8	0.50	90	20.00	35.0	8.0	6.2	3	7.60*		●
054	M 10	0.50	100	22.00	39.0	10.0	8.0	3	9.60*		●
064	M 6	0.75	80	17.00	30.0	6.0	4.9	3	5.30		●
065	M 7	0.75	80	17.00	30.0	7.0	5.5	3	6.30		●
066	M 8	0.75	90	20.00	35.0	8.0	6.2	3	7.30		●
068	M 10	0.75	100	22.00	39.0	10.0	8.0	3	9.30		●
090	M 8	1.00	90	20.00	35.0	8.0	6.2	3	7.10		●
091	M 9	1.00	90	20.00	35.0	9.0	7.0	3	8.10		●
092	M 10	1.00	100	22.00	39.0	10.0	8.0	3	9.10		●
162	M 10	1.25	100	22.00	39.0	10.0	8.0	3	8.90		●

* The given dimension is out of norm

For larger dimensions see article no. ET1241

Application	Material	MF	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Stainless steel ferritc/martensitic	M 12	12.000	0.75	12	320	240	10	265	199	8	210	158
		M 14	14.000	0.75	12	275	206	10	225	169	8	180	135
		M 16	16.000	0.75	12	240	180	10	200	150	8	160	120
		M 12	12.000	1.00	12	320	320	10	265	265	8	210	210
		M 13	13.000	1.00	12	295	295	10	245	245	8	195	195
		M 14	14.000	1.00	12	275	275	10	225	225	8	180	180
		M 16	16.000	1.00	12	240	240	10	200	200	8	160	160
		M 18	18.000	1.00	12	210	210	10	175	175	8	140	140
		M 20	20.000	1.00	12	190	190	10	160	160	8	125	125
	Stainless steel ferritc/martensitic	M 12	12.000	1.25	12	320	400	10	265	331	8	210	263
		M 14	14.000	1.25	12	275	344	10	225	281	8	180	225
		M 16	16.000	1.25	12	240	300	10	200	250	8	160	200
		M 12	12.000	1.50	12	320	480	10	265	398	8	210	315
		M 14	14.000	1.50	12	275	413	10	225	338	8	180	270
		M 16	16.000	1.50	12	240	360	10	200	300	8	160	240
		M 18	18.000	1.50	12	210	315	10	175	263	8	140	210
		M 20	20.000	1.50	12	190	285	10	160	240	8	125	188
		M 24	24.000	1.50	12	160	240	10	135	203	8	105	158
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	0.75	7	185	139	5	135	101	4	105	79
		M 14	14.000	0.75	7	160	120	5	115	86	4	90	68
		M 16	16.000	0.75	7	140	105	5	100	75	4	80	60
		M 12	12.000	1.00	7	185	185	5	135	135	4	105	105
		M 13	13.000	1.00	7	170	170	5	120	120	4	100	100
		M 14	14.000	1.00	7	160	160	5	115	115	4	90	90
		M 16	16.000	1.00	7	140	140	5	100	100	4	80	80
		M 18	18.000	1.00	7	125	125	5	90	90	4	70	70
		M 20	20.000	1.00	7	110	110	5	80	80	4	65	65
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.25	7	185	231	5	135	169	4	105	131
		M 14	14.000	1.25	7	160	200	5	115	144	4	90	113
		M 16	16.000	1.25	7	140	175	5	100	125	4	80	100
		M 12	12.000	1.50	7	185	278	5	135	203	4	105	158
		M 14	14.000	1.50	7	160	240	5	115	173	4	90	135
		M 16	16.000	1.50	7	140	210	5	100	150	4	80	120
		M 18	18.000	1.50	7	125	188	5	90	135	4	70	105
		M 20	20.000	1.50	7	110	165	5	80	120	4	65	98
		M 24	24.000	1.50	7	95	143	5	65	98	4	55	83
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 12	12.000	0.75	8	210	158	6	160	120	5	135	101
		M 14	14.000	0.75	8	180	135	6	135	101	5	115	86
		M 16	16.000	0.75	8	160	120	6	120	90	5	100	75
		M 12	12.000	1.00	8	210	210	6	160	160	5	135	135
		M 13	13.000	1.00	8	195	195	6	145	145	5	120	120
		M 14	14.000	1.00	8	180	180	6	135	135	5	115	115
		M 16	16.000	1.00	8	160	160	6	120	120	5	100	100
		M 18	18.000	1.00	8	140	140	6	105	105	5	90	90
		M 20	20.000	1.00	8	125	125	6	95	95	5	80	80
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 12	12.000	1.25	8	210	263	6	160	200	5	135	169
		M 14	14.000	1.25	8	180	225	6	135	169	5	115	144
		M 16	16.000	1.25	8	160	200	6	120	150	5	100	125
		M 12	12.000	1.50	8	210	315	6	160	240	5	135	203
		M 14	14.000	1.50	8	180	270	6	135	203	5	115	173
		M 16	16.000	1.50	8	160	240	6	120	180	5	100	150
		M 18	18.000	1.50	8	140	210	6	105	158	5	90	135
		M 20	20.000	1.50	8	125	188	6	95	143	5	80	120
		M 24	24.000	1.50	8	105	158	6	80	120	5	65	98
	Heat resistant steel [17-4 PH]	M 12	12.000	0.75	5	135	101	4	105	79	3	80	60
		M 14	14.000	0.75	5	115	86	4	90	68	3	70	53
		M 16	16.000	0.75	5	100	75	4	80	60	3	60	45
		M 12	12.000	1.00	5	135	135	4	105	105	3	80	80
		M 13	13.000	1.00	5	120	120	4	100	100	3	75	75
		M 14	14.000	1.00	5	115	115	4	90	90	3	70	70
		M 16	16.000	1.00	5	100	100	4	80	80	3	60	60
		M 18	18.000	1.00	5	90	90	4	70	70	3	55	55
		M 20	20.000	1.00	5	80	80	4	65	65	3	50	50
	Heat resistant steel [17-4 PH]	M 12	12.000	1.25	5	135	169	4	105	131	3	80	100
		M 14	14.000	1.25	5	115	144	4	90	113	3	70	88
		M 16	16.000	1.25	5	100	125	4	80	100	3	60	75
		M 12	12.000	1.50	5	135	203	4	105	158	3	80	120
		M 14	14.000	1.50	5	115	173	4	90	135	3	70	105
		M 16	16.000	1.50	5	100	150	4	80	120	3	60	90
		M 18	18.000	1.50	5	90	135	4	70	105	3	55	83
		M 20	20.000	1.50	5	80	120	4	65	98	3	50	75
		M 24	24.000	1.50	5	65	98	4	55	83	3	40	60

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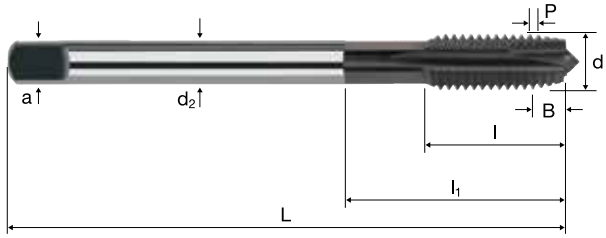


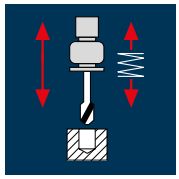
MF

Inox Stainless

											TRIBO
	Example: **Order-N°.**		Article-N°. **ET1241**	ø-Code **070**							**ET1241**
Ø Code	d	P	L	l	l_1	d_2	a				
070	M 12	0.75	100	18.00	39.0	9.0	7.0	3	11.40*		●
072	M 14	0.75	100	18.00	39.0	11.0	9.0	3	13.40*		●
074	M 16	0.75	100	18.00	39.0	12.0	9.0	3	15.40*		●
094	M 12	1.00	100	18.00	39.0	9.0	7.0	3	11.10		●
095	M 13	1.00	100	18.00	39.0	11.0	9.0	3	12.10		●
096	M 14	1.00	100	18.00	39.0	11.0	9.0	3	13.10		●
097	M 15	1.00	100	18.00	39.0	12.0	9.0	3	14.10		●
098	M 16	1.00	100	18.00	39.0	12.0	9.0	3	15.10		●
099	M 17	1.00	100	18.00	39.0	12.0	9.0	4	16.10		●
100	M 18	1.00	110	20.00	45.0	14.0	11.0	4	17.10		●
102	M 20	1.00	125	20.00	50.0	16.0	12.0	4	19.10		●
164	M 12	1.25	100	22.00	39.0	9.0	7.0	3	10.90		●
166	M 14	1.25	100	22.00	39.0	11.0	9.0	3	12.90		●
168	M 16	1.25	100	22.00	39.0	12.0	9.0	3	14.90		●
176	M 12	1.50	100	22.00	39.0	9.0	7.0	3	10.70		●
178	M 14	1.50	100	22.00	39.0	11.0	9.0	3	12.70		●
180	M 16	1.50	100	22.00	39.0	12.0	9.0	3	14.70		●
182	M 18	1.50	110	25.00	45.0	14.0	11.0	4	16.70		●
184	M 20	1.50	125	26.00	50.0	16.0	12.0	4	18.70		●
186	M 22	1.50	125	26.00	50.0	18.0	14.5	4	20.70		●
188	M 24	1.50	140	27.00	52.0	18.0	14.5	4	22.70		●

* The given dimension is out of norm

Application



Material

Material	MF	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Stainless steel ferritc/martensitic	M 2.5	2.500	0.35	10	1275	446	8	1020	357	6	765	268
	M 3	3.000	0.35	10	1060	371	8	850	298	6	635	222
	M 3.5	3.500	0.35	10	910	319	8	730	256	6	545	191
	M 4	4.000	0.50	10	795	398	8	635	318	6	475	238
	M 5	5.000	0.50	10	635	318	8	510	255	6	380	190
	M 6	6.000	0.50	10	530	265	8	425	213	6	320	160
	M 8	8.000	0.50	10	400	200	8	320	160	6	240	120
	M 10	10.000	0.50	10	320	160	8	255	128	6	190	95
	M 6	6.000	0.75	10	530	398	8	425	319	6	320	240
Stainless steel ferritc/martensitic	M 7	7.000	0.75	10	455	341	8	365	274	6	275	206
	M 8	8.000	0.75	10	400	300	8	320	240	6	240	180
	M 10	10.000	0.75	10	320	240	8	255	191	6	190	143
	M 8	8.000	1.00	10	400	400	8	320	320	6	240	240
	M 9	9.000	1.00	10	355	355	8	285	285	6	210	210
	M 10	10.000	1.00	10	320	320	8	255	255	6	190	190
	M 10	10.000	1.25	10	320	400	8	255	319	6	190	238
Stainless steel [Cr-Ni/1.4301]	M 2.5	2.500	0.35	5	635	222	4	510	179	3	380	133
	M 3	3.000	0.35	5	530	186	4	425	149	3	320	112
	M 3.5	3.500	0.35	5	455	159	4	365	128	3	275	96
	M 4	4.000	0.50	5	400	200	4	320	160	3	240	120
	M 5	5.000	0.50	5	320	160	4	255	128	3	190	95
	M 6	6.000	0.50	5	265	133	4	210	105	3	160	80
	M 8	8.000	0.50	5	200	100	4	160	80	3	120	60
	M 10	10.000	0.50	5	160	80	4	125	63	3	95	48
	M 6	6.000	0.75	5	265	199	4	210	158	3	160	120
Stainless steel [Cr-Ni/1.4301]	M 7	7.000	0.75	5	225	169	4	180	135	3	135	101
	M 8	8.000	0.75	5	200	150	4	160	120	3	120	90
	M 10	10.000	0.75	5	160	120	4	125	94	3	95	71
	M 8	8.000	1.00	5	200	200	4	160	160	3	120	120
	M 9	9.000	1.00	5	175	175	4	140	140	3	105	105
	M 10	10.000	1.00	5	160	160	4	125	125	3	95	95
	M 10	10.000	1.25	5	160	200	4	125	156	3	95	119
Stainless steel [Cr-Ni-Mo-.../1.4571]	M 2.5	2.500	0.35	6	765	268	5	635	222	4	510	179
	M 3	3.000	0.35	6	635	222	5	530	186	4	425	149
	M 3.5	3.500	0.35	6	545	191	5	455	159	4	365	128
	M 4	4.000	0.50	6	475	238	5	400	200	4	320	160
	M 5	5.000	0.50	6	380	190	5	320	160	4	255	128
	M 6	6.000	0.50	6	320	160	5	265	133	4	210	105
	M 8	8.000	0.50	6	240	120	5	200	100	4	160	80
	M 10	10.000	0.50	6	190	95	5	160	80	4	125	63
	M 6	6.000	0.75	6	320	240	5	265	199	4	210	158
Stainless steel [Cr-Ni-Mo-.../1.4571]	M 7	7.000	0.75	6	275	206	5	225	169	4	180	135
	M 8	8.000	0.75	6	240	180	5	200	150	4	160	120
	M 10	10.000	0.75	6	190	143	5	160	120	4	125	94
	M 8	8.000	1.00	6	240	240	5	200	200	4	160	160
	M 9	9.000	1.00	6	210	210	5	175	175	4	140	140
	M 10	10.000	1.00	6	190	190	5	160	160	4	125	125
	M 10	10.000	1.25	6	190	238	5	160	200	4	125	156
Heat resistant steel [17-4 PH]	M 2.5	2.500	0.35	4	510	179	3	380	133	-	-	-
	M 3	3.000	0.35	4	425	149	3	320	112	-	-	-
	M 3.5	3.500	0.35	4	365	128	3	275	96	-	-	-
	M 4	4.000	0.50	4	320	160	3	240	120	-	-	-
	M 5	5.000	0.50	4	255	128	3	190	95	-	-	-
	M 6	6.000	0.50	4	210	105	3	160	80	-	-	-
	M 8	8.000	0.50	4	160	80	3	120	60	-	-	-
	M 10	10.000	0.50	4	125	63	3	95	48	-	-	-
	M 6	6.000	0.75	4	210	158	3	160	120	-	-	-
Heat resistant steel [17-4 PH]	M 7	7.000	0.75	4	180	135	3	135	101	-	-	-
	M 8	8.000	0.75	4	160	120	3	120	90	-	-	-
	M 10	10.000	0.75	4	125	94	3	95	71	-	-	-
	M 8	8.000	1.00	4	160	160	3	120	120	-	-	-
	M 9	9.000	1.00	4	140	140	3	105	105	-	-	-
	M 10	10.000	1.00	4	125	125	3	95	95	-	-	-
	M 10	10.000	1.25	4	125	156	3	95	119	-	-	-

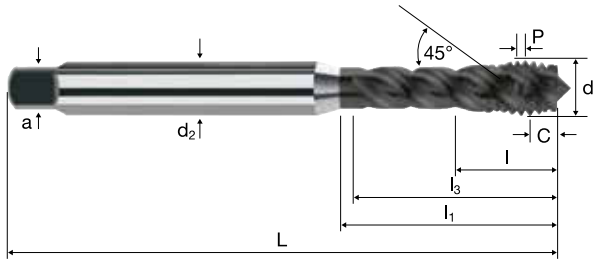
Taps x-tap

MF | ISO 2 (6H)

HSS PM/F

DIN 371

Form C



MF

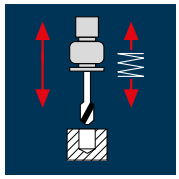
Inox Stainless

Example: **Order-N°.** Article-N°. **ET1260** ø-Code **029**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET1260
029	M 2.5	0.35	50	9.00	-	13.0	2.8	2.1	3	2.20	●
031	M 3	0.35	56	5.00	18.0	16.0	3.5	2.7	3	2.70	●
032	M 3.5	0.35	56	6.00	20.0	18.0	4.0	3.0	3	3.20	●
046	M 4	0.50	63	7.00	21.0	19.0	4.5	3.4	3	3.60*	●
048	M 5	0.50	70	8.00	25.0	23.0	6.0	4.9	3	4.60*	●
050	M 6	0.50	80	10.00	30.0	28.0	6.0	4.9	3	5.60*	●
052	M 8	0.50	90	13.00	35.0	33.0	8.0	6.2	3	7.60*	●
054	M 10	0.50	100	15.00	39.0	37.0	10.0	8.0	4	9.60*	●
064	M 6	0.75	80	10.00	30.0	28.0	6.0	4.9	3	5.30	●
065	M 7	0.75	80	10.00	30.0	28.0	7.0	5.5	3	6.30	●
066	M 8	0.75	90	13.00	35.0	33.0	8.0	6.2	3	7.30	●
068	M 10	0.75	100	15.00	39.0	37.0	10.0	8.0	4	9.30	●
090	M 8	1.00	90	13.00	35.0	33.0	8.0	6.2	3	7.10	●
091	M 9	1.00	90	13.00	35.0	33.0	9.0	7.0	3	8.10	●
092	M 10	1.00	100	15.00	39.0	37.0	10.0	8.0	4	9.10	●
162	M 10	1.25	100	15.00	39.0	37.0	10.0	8.0	4	8.90	●

* The given dimension is out of norm

For larger dimensions see article no. ET1261

Application	Material	MF	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Stainless steel ferritc/martensitic	M 12	12.000	0.75	10	265	199	8	210	158	6	160	120
		M 14	14.000	0.75	10	225	169	8	180	135	6	135	101
		M 16	16.000	0.75	10	200	150	8	160	120	6	120	90
		M 12	12.000	1.00	10	265	265	8	210	210	6	160	160
		M 13	13.000	1.00	10	245	245	8	195	195	6	145	145
		M 14	14.000	1.00	10	225	225	8	180	180	6	135	135
		M 16	16.000	1.00	10	200	200	8	160	160	6	120	120
		M 18	18.000	1.00	10	175	175	8	140	140	6	105	105
		M 20	20.000	1.00	10	160	160	8	125	125	6	95	95
	Stainless steel ferritc/martensitic	M 12	12.000	1.25	10	265	331	8	210	263	6	160	200
		M 14	14.000	1.25	10	225	281	8	180	225	6	135	169
		M 16	16.000	1.25	10	200	250	8	160	200	6	120	150
		M 12	12.000	1.50	10	265	398	8	210	315	6	160	240
		M 14	14.000	1.50	10	225	338	8	180	270	6	135	203
		M 16	16.000	1.50	10	200	300	8	160	240	6	120	180
		M 18	18.000	1.50	10	175	263	8	140	210	6	105	158
		M 20	20.000	1.50	10	160	240	8	125	188	6	95	143
		M 24	24.000	1.50	10	135	203	8	105	158	6	80	120
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	0.75	5	135	101	4	105	79	3	80	60
		M 14	14.000	0.75	5	115	86	4	90	68	3	70	53
		M 16	16.000	0.75	5	100	75	4	80	60	3	60	45
		M 12	12.000	1.00	5	135	135	4	105	105	3	80	80
		M 13	13.000	1.00	5	120	120	4	100	100	3	75	75
		M 14	14.000	1.00	5	115	115	4	90	90	3	70	70
		M 16	16.000	1.00	5	100	100	4	80	80	3	60	60
		M 18	18.000	1.00	5	90	90	4	70	70	3	55	55
		M 20	20.000	1.00	5	80	80	4	65	65	3	50	50
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.25	5	135	169	4	105	131	3	80	100
		M 14	14.000	1.25	5	115	144	4	90	113	3	70	88
		M 16	16.000	1.25	5	100	125	4	80	100	3	60	75
		M 12	12.000	1.50	5	135	203	4	105	158	3	80	120
		M 14	14.000	1.50	5	115	173	4	90	135	3	70	105
		M 16	16.000	1.50	5	100	150	4	80	120	3	60	90
		M 18	18.000	1.50	5	90	135	4	70	105	3	55	83
		M 20	20.000	1.50	5	80	120	4	65	98	3	50	75
		M 24	24.000	1.50	5	65	98	4	55	83	3	40	60
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 12	12.000	0.75	6	160	120	5	135	101	4	105	79
		M 14	14.000	0.75	6	135	101	5	115	86	4	90	68
		M 16	16.000	0.75	6	120	90	5	100	75	4	80	60
		M 12	12.000	1.00	6	160	160	5	135	135	4	105	105
		M 13	13.000	1.00	6	145	145	5	120	120	4	100	100
		M 14	14.000	1.00	6	135	135	5	115	115	4	90	90
		M 16	16.000	1.00	6	120	120	5	100	100	4	80	80
		M 18	18.000	1.00	6	105	105	5	90	90	4	70	70
		M 20	20.000	1.00	6	95	95	5	80	80	4	65	65
	Stainless steel [Cr-Ni-Mo-.../1.4571]	M 12	12.000	1.25	6	160	200	5	135	169	4	105	131
		M 14	14.000	1.25	6	135	169	5	115	144	4	90	113
		M 16	16.000	1.25	6	120	150	5	100	125	4	80	100
		M 12	12.000	1.50	6	160	240	5	135	203	4	105	158
		M 14	14.000	1.50	6	135	203	5	115	173	4	90	135
		M 16	16.000	1.50	6	120	180	5	100	150	4	80	120
		M 18	18.000	1.50	6	105	158	5	90	135	4	70	105
		M 20	20.000	1.50	6	95	143	5	80	120	4	65	98
		M 24	24.000	1.50	6	80	120	5	65	98	4	55	83
	Heat resistant steel [17-4 PH]	M 12	12.000	0.75	4	105	79	3	80	60	-	-	-
		M 14	14.000	0.75	4	90	68	3	70	53	-	-	-
		M 16	16.000	0.75	4	80	60	3	60	45	-	-	-
		M 12	12.000	1.00	4	105	105	3	80	80	-	-	-
		M 13	13.000	1.00	4	100	100	3	75	75	-	-	-
		M 14	14.000	1.00	4	90	90	3	70	70	-	-	-
		M 16	16.000	1.00	4	80	80	3	60	60	-	-	-
		M 18	18.000	1.00	4	70	70	3	55	55	-	-	-
		M 20	20.000	1.00	4	65	65	3	50	50	-	-	-
	Heat resistant steel [17-4 PH]	M 12	12.000	1.25	4	105	131	3	80	100	-	-	-
		M 14	14.000	1.25	4	90	113	3	70	88	-	-	-
		M 16	16.000	1.25	4	80	100	3	60	75	-	-	-
		M 12	12.000	1.50	4	105	158	3	80	120	-	-	-
		M 14	14.000	1.50	4	90	135	3	70	105	-	-	-
		M 16	16.000	1.50	4	80	120	3	60	90	-	-	-
		M 18	18.000	1.50	4	70	105	3	55	83	-	-	-
		M 20	20.000	1.50	4	65	98	3	50	75	-	-	-
		M 24	24.000	1.50	4	55	83	3	40	60	-	-	-

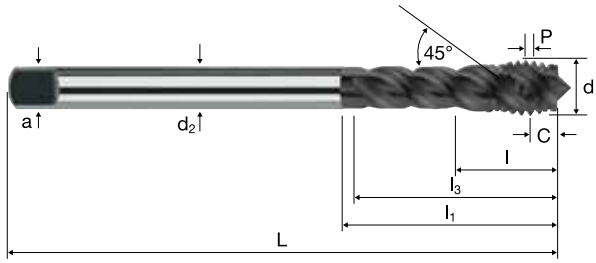
Taps x-tap

MF | ISO 2 (6H)

HSS PM/F

DIN 374

Form C



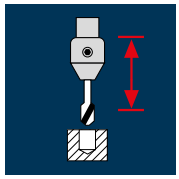
MF

Inox Stainless

Example: **Order-N°.** Article-N°. **ET1261** ø-Code **070**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			TRIBO ET1261
070	M 12	0.75	100	11.00	39.0	37.0	9.0	7.0	4	11.40*	●
072	M 14	0.75	100	11.00	39.0	37.0	11.0	9.0	4	13.40*	●
074	M 16	0.75	100	12.00	39.0	37.0	12.0	9.0	4	15.40*	●
094	M 12	1.00	100	11.00	39.0	37.0	9.0	7.0	4	11.10	●
095	M 13	1.00	100	11.00	39.0	37.0	11.0	9.0	4	12.10	●
096	M 14	1.00	100	11.00	39.0	37.0	11.0	9.0	4	13.10	●
097	M 15	1.00	100	12.00	39.0	37.0	12.0	9.0	4	14.10	●
098	M 16	1.00	100	12.00	39.0	37.0	12.0	9.0	4	15.10	●
099	M 17	1.00	100	12.00	39.0	37.0	12.0	9.0	4	16.10	●
100	M 18	1.00	110	13.00	50.0	48.0	14.0	11.0	4	17.10	●
102	M 20	1.00	125	14.00	65.0	63.0	16.0	12.0	4	19.10	●
164	M 12	1.25	100	15.00	39.0	37.0	9.0	7.0	4	10.90	●
166	M 14	1.25	100	15.00	39.0	37.0	11.0	9.0	4	12.90	●
168	M 16	1.25	100	15.00	39.0	37.0	12.0	9.0	4	14.90	●
176	M 12	1.50	100	15.00	39.0	37.0	9.0	7.0	4	10.70*	●
178	M 14	1.50	100	15.00	39.0	37.0	11.0	9.0	4	12.70*	●
180	M 16	1.50	100	15.00	39.0	37.0	12.0	9.0	4	14.70*	●
182	M 18	1.50	110	17.00	50.0	48.0	14.0	11.0	4	16.70*	●
184	M 20	1.50	125	18.00	65.0	63.0	16.0	12.0	4	18.70*	●
186	M 22	1.50	125	18.00	65.0	63.0	18.0	14.5	5	20.70*	●
188	M 24	1.50	140	20.00	72.0	70.0	18.0	14.5	5	22.70*	●

* The given dimension is out of norm

Application	Material	MF	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Steel 500 - 850 N/mm²	M 3	3.000	0.35	22	2335	20	2120	12	1275
		M 4	4.000	0.50	22	1750	20	1590	12	955
		M 5	5.000	0.50	22	1400	20	1275	12	765
		M 6	6.000	0.50	22	1165	20	1060	12	635
		M 6	6.000	0.75	22	1165	20	1060	12	635
		M 8	8.000	0.75	22	875	20	795	12	475
		M 10	10.000	0.75	22	700	20	635	12	380
		M 8	8.000	1.00	22	875	20	795	12	475
		M 10	10.000	1.00	22	700	20	635	12	380
	Steel 500 - 850 N/mm²	M 12	12.000	1.00	22	585	20	530	12	320
		M 14	14.000	1.00	22	500	20	455	12	275
		M 16	16.000	1.00	22	440	20	400	12	240
		M 10	10.000	1.25	22	700	20	635	12	380
		M 12	12.000	1.25	22	585	20	530	12	320
		M 12	12.000	1.50	22	585	20	530	12	320
		M 14	14.000	1.50	22	500	20	455	12	275
		M 16	16.000	1.50	22	440	20	400	12	240
		M 20	20.000	1.50	22	350	20	320	12	190
	Steel 850 - 1100 N/mm²	M 3	3.000	0.35	18	1910	12	1275	8	850
		M 4	4.000	0.50	18	1430	12	955	8	635
		M 5	5.000	0.50	18	1145	12	765	8	510
		M 6	6.000	0.50	18	955	12	635	8	425
		M 6	6.000	0.75	18	955	12	635	8	425
		M 8	8.000	0.75	18	715	12	475	8	320
		M 10	10.000	0.75	18	575	12	380	8	255
		M 8	8.000	1.00	18	715	12	475	8	320
		M 10	10.000	1.00	18	575	12	380	8	255
	Steel 850 - 1100 N/mm²	M 12	12.000	1.00	18	475	12	320	8	210
		M 14	14.000	1.00	18	410	12	275	8	180
		M 16	16.000	1.00	18	360	12	240	8	160
		M 10	10.000	1.25	18	575	12	380	8	255
		M 12	12.000	1.25	18	475	12	320	8	210
		M 12	12.000	1.50	18	475	12	320	8	210
		M 14	14.000	1.50	18	410	12	275	8	180
		M 16	16.000	1.50	18	360	12	240	8	160
		M 20	20.000	1.50	18	285	12	190	8	125
	Stainless steel [Cr-Ni/1.4301]	M 3	3.000	0.35	4	425	3	320	2	210
		M 4	4.000	0.50	4	320	3	240	2	160
		M 5	5.000	0.50	4	255	3	190	2	125
		M 6	6.000	0.50	4	210	3	160	2	105
		M 6	6.000	0.75	4	210	3	160	2	105
		M 8	8.000	0.75	4	160	3	120	2	80
		M 10	10.000	0.75	4	125	3	95	2	65
		M 8	8.000	1.00	4	160	3	120	2	80
		M 10	10.000	1.00	4	125	3	95	2	65
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.00	4	105	3	80	2	55
		M 14	14.000	1.00	4	90	3	70	2	45
		M 16	16.000	1.00	4	80	3	60	2	40
		M 10	10.000	1.25	4	125	3	95	2	65
		M 12	12.000	1.25	4	105	3	80	2	55
		M 12	12.000	1.50	4	105	3	80	2	55
		M 14	14.000	1.50	4	90	3	70	2	45
		M 16	16.000	1.50	4	80	3	60	2	40
		M 20	20.000	1.50	4	65	3	50	2	30
	Wrought aluminium alloys Si < 6% hardened	M 3	3.000	0.35	22	2335	20	2120	12	1275
		M 4	4.000	0.50	22	1750	20	1590	12	955
		M 5	5.000	0.50	22	1400	20	1275	12	765
		M 6	6.000	0.50	22	1165	20	1060	12	635
		M 6	6.000	0.75	22	1165	20	1060	12	635
		M 8	8.000	0.75	22	875	20	795	12	475
		M 10	10.000	0.75	22	700	20	635	12	380
		M 8	8.000	1.00	22	875	20	795	12	475
		M 10	10.000	1.00	22	700	20	635	12	380
	Wrought aluminium alloys Si < 6% hardened	M 12	12.000	1.00	22	585	20	530	12	320
		M 14	14.000	1.00	22	500	20	455	12	275
		M 16	16.000	1.00	22	440	20	400	12	240
		M 10	10.000	1.25	22	700	20	635	12	380
		M 12	12.000	1.25	22	585	20	530	12	320
		M 12	12.000	1.50	22	585	20	530	12	320
		M 14	14.000	1.50	22	500	20	455	12	275
		M 16	16.000	1.50	22	440	20	400	12	240
		M 20	20.000	1.50	22	350	20	320	12	190

Taps polytap-R

R

MF

ISO 2 (6H)

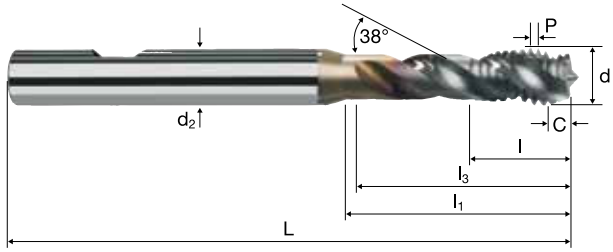
60°

HSS PM/F

DIN 1835B ISO 3338

X · P

Form C



MF

Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

Example:
Order-N°. Article-N°. **EH1229** ø-Code **031**

Ø Code	d	P	L	l	l_1	l_3	d_2 h6			TiCN EH1229
031	M 3	0.35	63	5.00	18.0	16.0	6.0	3	2.65	●
046	M 4	0.50	66	7.00	21.0	19.0	6.0	3	3.50	●
048	M 5	0.50	70	8.00	25.0	23.0	6.0	3	4.50	●
050	M 6	0.50	80	10.00	30.0	28.0	6.0	3	5.50	●
064	M 6	0.75	80	10.00	30.0	28.0	6.0	3	5.20	●
066	M 8	0.75	90	13.00	35.0	33.0	8.0	3	7.20	●
068	M 10	0.75	100	15.00	39.0	37.0	10.0	3	9.20	●
090	M 8	1.00	90	13.00	35.0	37.0	8.0	3	7.00	●
092	M 10	1.00	100	15.00	39.0	37.0	10.0	3	9.00	●
094	M 12	1.00	110	11.00	39.0	37.0	12.0	3	11.00	●
096	M 14	1.00	110	11.00	46.0	44.0	16.0	4	13.00	●
098	M 16	1.00	110	12.00	50.0	48.0	16.0	4	15.00	●
162	M 10	1.25	100	15.00	39.0	37.0	10.0	3	8.80	●
164	M 12	1.25	110	15.00	39.0	37.0	12.0	3	10.80	●
176	M 12	1.50	110	15.00	39.0	37.0	12.0	3	10.50	●
178	M 14	1.50	110	15.00	46.0	44.0	16.0	4	12.50	●
180	M 16	1.50	110	15.00	50.0	48.0	16.0	4	14.50	●
184	M 20	1.50	140	20.00	64.0	62.0	16.0	4	18.50	●

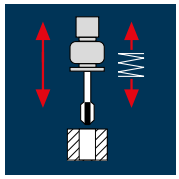

passion
for precision
fraisa

Whitworth pipe thread cylindrical G

G

N° EH1400			08	HSS PM/F		Rm <850		321
N° EH11425		s-tap	08	HSS-E Co5		Rm <850		323
N° EH1472		x-tap	11	HSS PM/F		Rm 850-1100		325
N° EH1475		x-tap	11	HSS PM/F		Rm 850-1100		327
N° ET1440		Inotap	In	HSS PM/F		Inox Stainless		329
N° ET1475		x-tap	In	HSS PM/F		Inox Stainless		331
N° EH1429		polytap-R	R	HSS PM/F		Rm <850-1100	Inox Stainless	333
N° E11480		u-tap	U	HSS-E Co5		Rm <850		335
N° E11482		u-tap	U	HSS-E Co5		Rm <850		337

G

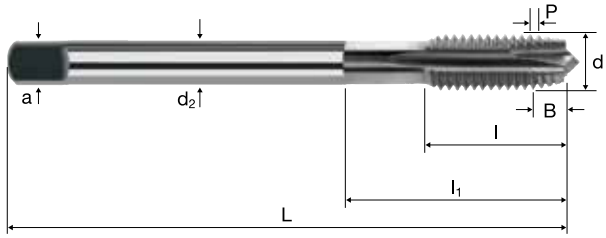
Application	Material	G	d [mm]	P [mm]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]	v_c 2.0 x d	n [min^{-1}]	v_f [100%]	v_c 3.0 x d	n [min^{-1}]	v_f [100%]
	Steel < 500 N/mm²	G 1/8	9.728	0.907	28	915	830	23	755	685	18	590	535
		G 1/4	13.157	1.337	28	675	902	23	555	742	18	435	582
		G 3/8	16.662	1.337	28	535	715	23	440	588	18	345	461
		G 1/2	20.955	1.814	28	425	771	23	350	635	18	275	499
		G 5/8	22.911	1.814	28	390	708	23	320	581	18	250	454
	Steel 500 - 850 N/mm²	G 1/8	9.728	0.907	25	820	744	20	655	594	15	490	445
		G 1/4	13.157	1.337	25	605	809	20	485	648	15	365	488
		G 3/8	16.662	1.337	25	480	642	20	380	508	15	285	381
		G 1/2	20.955	1.814	25	380	689	20	305	553	15	230	417
		G 5/8	22.911	1.814	25	345	626	20	280	508	15	210	381

G

HSS
PM/F

DIN
5156

Form B

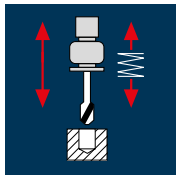


Rm
< 850

Rm
850-1100

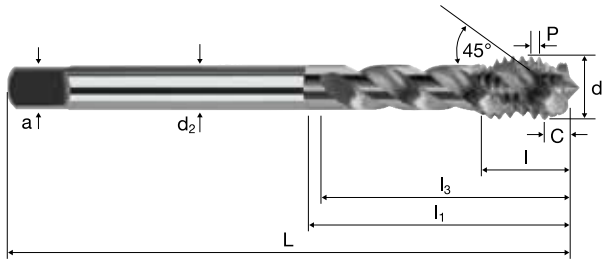
Example:
Order-N°. Article-N°. **EH1400** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			TiCN EH1400
551	G 1/8	28.0	9.728	90	18.00	35.0	7.0	5.5	3	8.80	●
552	G 1/4	19.0	13.157	100	20.00	39.0	11.0	9.0	3	11.80	●
553	G 3/8	19.0	16.662	100	22.00	39.0	12.0	9.0	4	15.25	●
554	G 1/2	14.0	20.955	125	25.00	50.0	16.0	12.0	4	19.00	●
555	G 5/8	14.0	22.911	125	25.00	50.0	18.0	14.5	4	21.00	●

Application	Material	G	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	G 1/8	9.728	0.907	25	820	744	20	655	594	18	590	535
		G 1/4	13.157	1.337	25	605	809	20	485	648	18	435	582
		G 3/8	16.662	1.337	25	480	642	20	380	508	18	345	461
		G 1/2	20.955	1.814	25	380	689	20	305	553	18	275	499
		G 5/8	22.911	1.814	25	345	626	20	280	508	18	250	454
	Steel 500 - 850 N/mm²	G 1/8	9.728	0.907	16	525	476	14	460	417	12	395	358
		G 1/4	13.157	1.337	16	385	515	14	340	455	12	290	388
		G 3/8	16.662	1.337	16	305	408	14	265	354	12	230	308
		G 1/2	20.955	1.814	16	245	445	14	215	390	12	180	327
		G 5/8	22.911	1.814	16	220	399	14	195	354	12	165	299
	Cast iron (lamellar / spheroidal)	G 1/8	9.728	0.907	14	460	417	12	395	358	10	325	295
		G 1/4	13.157	1.337	14	340	455	12	290	388	10	240	321
		G 3/8	16.662	1.337	14	265	354	12	230	308	10	190	254
		G 1/2	20.955	1.814	14	215	390	12	180	327	10	150	272
		G 5/8	22.911	1.814	14	195	354	12	165	299	10	140	254
	Stainless steel [Cr-Ni/1.4301]	G 1/8	9.728	0.907	3	100	91	2	65	59	2	65	59
		G 1/4	13.157	1.337	3	75	100	2	50	67	2	50	67
		G 3/8	16.662	1.337	3	55	74	2	40	54	2	40	54
		G 1/2	20.955	1.814	3	45	82	2	30	54	2	30	54
		G 5/8	22.911	1.814	3	40	73	2	30	54	2	30	54

Taps s-tap

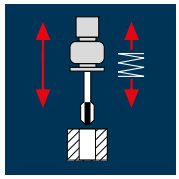
G	
55°	HSS-E Co5
DIN 5156	
	X · P Form C



Rm < 850	Rm 850-1100						Inox Stainless		GG(G)

Example: **Order-N°.** Article-N°. **EH11425** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			TiCN EH11425
551	G 1/8	28.0	9.728	90	7.30	35.0	33.0	7.0	5.5	3	8.80	●
552	G 1/4	19.0	13.157	100	10.70	39.0	37.0	11.0	9.0	4	11.80	●
553	G 3/8	19.0	16.662	100	10.70	39.0	37.0	12.0	9.0	4	15.25	●
554	G 1/2	14.0	20.955	125	14.50	65.0	63.0	16.0	12.0	4	19.00	●
555	G 5/8	14.0	22.911	125	14.50	65.0	63.0	18.0	14.5	4	21.00	●

Application	Material	G	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	G 1/8	9.728	0.907	25	820	744	20	655	594	15	490	445
		G 1/4	13.157	1.337	25	605	809	20	485	648	15	365	488
		G 3/8	16.662	1.337	25	480	642	20	380	508	15	285	381
		G 1/2	20.955	1.814	25	380	689	20	305	553	15	230	417
		G 5/8	22.911	1.814	25	345	626	20	280	508	15	210	381
	Steel 850 - 1100 N/mm²	G 1/8	9.728	0.907	20	655	594	15	490	445	12	395	358
		G 1/4	13.157	1.337	20	485	648	15	365	488	12	290	388
		G 3/8	16.662	1.337	20	380	508	15	285	381	12	230	308
		G 1/2	20.955	1.814	20	305	553	15	230	417	12	180	327
		G 5/8	22.911	1.814	20	280	508	15	210	381	12	165	299
	Steel 1100 - 1300 N/mm²	G 1/8	9.728	0.907	7	230	209	4	130	118	-	-	-
		G 1/4	13.157	1.337	7	170	227	4	95	127	-	-	-
		G 3/8	16.662	1.337	7	135	181	4	75	100	-	-	-
		G 1/2	20.955	1.814	7	105	191	4	60	109	-	-	-
		G 5/8	22.911	1.814	7	95	172	4	55	100	-	-	-

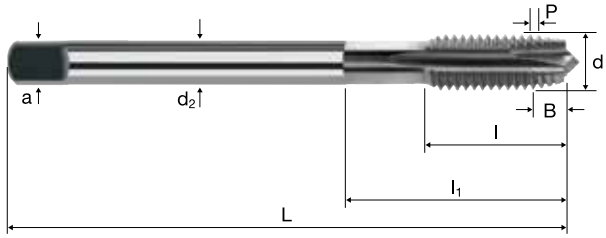
G

HSS PM/F

DIN 5156

X · P

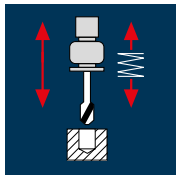
Form B



Rm < 850 | **Rm 850-1100** | Rm 1100-1300

Example: **Order-N°.** Article-N°. **EH1472** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			TiCN EH1472
551	**G 1/8**	**28.0**	9.728	90	18.00	35.0	7.0	5.5	3	8.80	●
552	**G 1/4**	**19.0**	13.157	100	20.00	39.0	11.0	9.0	3	11.80	●
553	**G 3/8**	**19.0**	16.662	100	22.00	39.0	12.0	9.0	4	15.25	●
554	**G 1/2**	**14.0**	20.955	125	25.00	50.0	16.0	12.0	4	19.00	●
555	**G 5/8**	**14.0**	22.911	125	25.00	50.0	18.0	14.5	4	21.00	●

Application	Material
	**Steel** **500 - 850 N/mm²**

G	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
G 1/8	9.728	0.907	32	1045	948	28	915	830	22	720	653
G 1/4	13.157	1.337	32	775	1036	28	675	902	22	530	709
G 3/8	16.662	1.337	32	610	815	28	535	715	22	420	562
G 1/2	20.955	1.814	32	485	880	28	425	771	22	335	608
G 5/8	22.911	1.814	32	445	807	28	390	708	22	305	553

Steel
850 - 1100 N/mm²

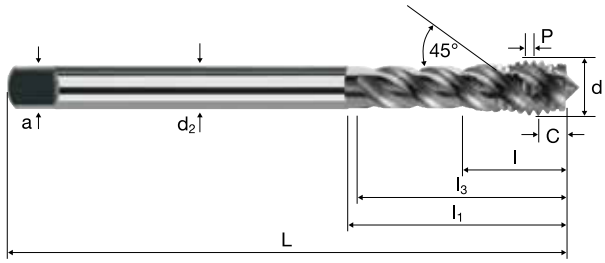
G	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
G 1/8	9.728	0.907	20	655	594	16	525	476	10	325	295
G 1/4	13.157	1.337	20	485	648	16	385	515	10	240	321
G 3/8	16.662	1.337	20	380	508	16	305	408	10	190	254
G 1/2	20.955	1.814	20	305	553	16	245	445	10	150	272
G 5/8	22.911	1.814	20	280	508	16	220	399	10	140	254

G

HSS PM/F

DIN 5156

Form C

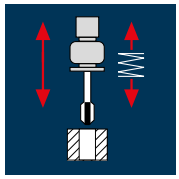


Rm < 850

Rm 850-1100

Example: **Order-N°.** Article-N°. **EH1475** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			TiCN EH1475
551	G 1/8	28.0	9.728	90	10.00	35.0	33.0	7.0	5.5	3	8.80	●
552	G 1/4	19.0	13.157	100	14.00	39.0	37.0	11.0	9.0	4	11.80	●
553	G 3/8	19.0	16.662	100	14.00	39.0	37.0	12.0	9.0	4	15.25	●
554	G 1/2	14.0	20.955	125	20.00	65.0	63.0	16.0	12.0	5	19.00	●
555	G 5/8	14.0	22.911	125	20.00	65.0	63.0	18.0	14.5	5	21.00	●

Application	Material	G	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Stainless steel ferritc/martensitic	G 1/8	9.728	0.907	12	395	358	10	325	295	8	260	236
		G 1/4	13.157	1.337	12	290	388	10	240	321	8	195	261
		G 3/8	16.662	1.337	12	230	308	10	190	254	8	155	207
		G 1/2	20.955	1.814	12	180	327	10	150	272	8	120	218
		G 5/8	22.911	1.814	12	165	299	10	140	254	8	110	200
	Stainless steel [Cr-Ni/1.4301]	G 1/8	9.728	0.907	7	230	209	5	165	150	4	130	118
		G 1/4	13.157	1.337	7	170	227	5	120	160	4	95	127
		G 3/8	16.662	1.337	7	135	181	5	95	127	4	75	100
		G 1/2	20.955	1.814	7	105	191	5	75	136	4	60	109
		G 5/8	22.911	1.814	7	95	172	5	70	127	4	55	100
	Stainless steel [Cr-Ni-Mo-.../1.4571]	G 1/8	9.728	0.907	8	260	236	6	195	177	5	165	150
		G 1/4	13.157	1.337	8	195	261	6	145	194	5	120	160
		G 3/8	16.662	1.337	8	155	207	6	115	154	5	95	127
		G 1/2	20.955	1.814	8	120	218	6	90	163	5	75	136
		G 5/8	22.911	1.814	8	110	200	6	85	154	5	70	127
	Heat resistant steel [17-4 PH]	G 1/8	9.728	0.907	5	165	150	4	130	118	3	100	91
		G 1/4	13.157	1.337	5	120	160	4	95	127	3	75	100
		G 3/8	16.662	1.337	5	95	127	4	75	100	3	55	74
		G 1/2	20.955	1.814	5	75	136	4	60	109	3	45	82
		G 5/8	22.911	1.814	5	70	127	4	55	100	3	40	73

Taps Inotap

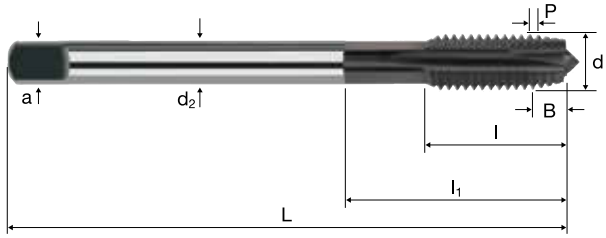
In

G

HSS PM/F

DIN 5156

Form B



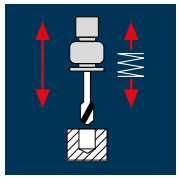
Inox Stainless

G

Example: **Order-N°.** Article-N°. **ET1440** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			TRIBO ET1440
551	G 1/8	28.0	9.728	90	18.00	35.0	7.0	5.5	3	8.85*	●
552	G 1/4	19.0	13.157	100	20.00	39.0	11.0	9.0	3	11.90*	●
553	G 3/8	19.0	16.662	100	22.00	39.0	12.0	9.0	4	15.40*	●
554	G 1/2	14.0	20.955	125	25.00	50.0	16.0	12.0	4	19.20*	●
555	G 5/8	14.0	22.911	125	25.00	50.0	18.0	14.5	4	21.10	●

* The given dimension is out of norm

Application	Material	G	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Stainless steel ferritc/martensitic	G 1/8	9.728	0.907	10	325	295	8	260	236	6	195	177
		G 1/4	13.157	1.337	10	240	321	8	195	261	6	145	194
		G 3/8	16.662	1.337	10	190	254	8	155	207	6	115	154
		G 1/2	20.955	1.814	10	150	272	8	120	218	6	90	163
		G 5/8	22.911	1.814	10	140	254	8	110	200	6	85	154
	Stainless steel [Cr-Ni/1.4301]	G 1/8	9.728	0.907	5	165	150	4	130	118	3	100	91
		G 1/4	13.157	1.337	5	120	160	4	95	127	3	75	100
		G 3/8	16.662	1.337	5	95	127	4	75	100	3	55	74
		G 1/2	20.955	1.814	5	75	136	4	60	109	3	45	82
		G 5/8	22.911	1.814	5	70	127	4	55	100	3	40	73
	Stainless steel [Cr-Ni-Mo-.../1.4571]	G 1/8	9.728	0.907	6	195	177	5	165	150	4	130	118
		G 1/4	13.157	1.337	6	145	194	5	120	160	4	95	127
		G 3/8	16.662	1.337	6	115	154	5	95	127	4	75	100
		G 1/2	20.955	1.814	6	90	163	5	75	136	4	60	109
		G 5/8	22.911	1.814	6	85	154	5	70	127	4	55	100
	Heat resistant steel [17-4 PH]	G 1/8	9.728	0.907	4	130	118	3	100	91	-	-	-
		G 1/4	13.157	1.337	4	95	127	3	75	100	-	-	-
		G 3/8	16.662	1.337	4	75	100	3	55	74	-	-	-
		G 1/2	20.955	1.814	4	60	109	3	45	82	-	-	-
		G 5/8	22.911	1.814	4	55	100	3	40	73	-	-	-

Taps x-tap

In

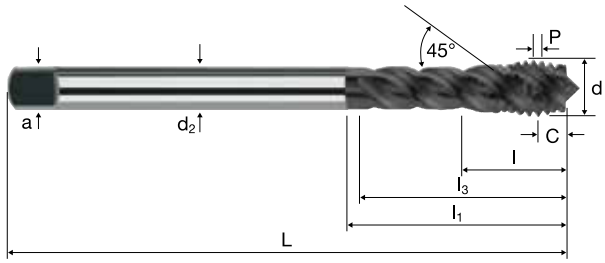
G

HSS PM/F

DIN 5156

X · P

Form C



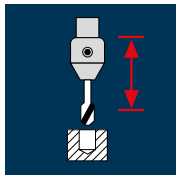
Inox Stainless

G

Example:
Order-N°. Article-N°. **ET1475** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			TRIBO ET1475
551	G 1/8	28.0	9.728	90	10.00	35.0	33.0	7.0	5.5	3	8.85*	●
552	G 1/4	19.0	13.157	100	14.00	39.0	37.0	11.0	9.0	4	11.90*	●
553	G 3/8	19.0	16.662	100	14.00	39.0	37.0	12.0	9.0	4	15.40*	●
554	G 1/2	14.0	20.955	125	20.00	65.0	63.0	16.0	12.0	5	19.20*	●
555	G 5/8	14.0	22.911	125	20.00	65.0	63.0	18.0	14.5	5	21.10	●

* The given dimension is out of norm

Application	Material	G	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_c 1.5 x d	n [min⁻¹]	v_c 2.0 x d	n [min⁻¹]
	Steel < 500 N/mm²	G 1/8	9.728	0.907	25	820	22	720	15	490
		G 1/4	13.157	1.337	25	605	22	530	15	365
		G 3/8	16.662	1.337	25	480	22	420	15	285
		G 1/2	20.955	1.814	25	380	22	335	15	230
		G 5/8	22.911	1.814	25	345	22	305	15	210
	Steel 500 - 850 N/mm²	G 1/8	9.728	0.907	22	720	20	655	12	395
		G 1/4	13.157	1.337	22	530	20	485	12	290
		G 3/8	16.662	1.337	22	420	20	380	12	230
		G 1/2	20.955	1.814	22	335	20	305	12	180
		G 5/8	22.911	1.814	22	305	20	280	12	165
	Steel 850 - 1100 N/mm²	G 1/8	9.728	0.907	18	590	12	395	8	260
		G 1/4	13.157	1.337	18	435	12	290	8	195
		G 3/8	16.662	1.337	18	345	12	230	8	155
		G 1/2	20.955	1.814	18	275	12	180	8	120
		G 5/8	22.911	1.814	18	250	12	165	8	110
	Cast iron GG	G 1/8	9.728	0.907	18	590	15	490	12	395
		G 1/4	13.157	1.337	18	435	15	365	12	290
		G 3/8	16.662	1.337	18	345	15	285	12	230
		G 1/2	20.955	1.814	18	275	15	230	12	180
		G 5/8	22.911	1.814	18	250	15	210	12	165
	Stainless steel [Cr-Ni/1.4301]	G 1/8	9.728	0.907	4	130	3	100	2	65
		G 1/4	13.157	1.337	4	95	3	75	2	50
		G 3/8	16.662	1.337	4	75	3	55	2	40
		G 1/2	20.955	1.814	4	60	3	45	2	30
		G 5/8	22.911	1.814	4	55	3	40	2	30
	Wrought aluminium alloys Si < 6% hardened	G 1/8	9.728	0.907	25	820	22	720	15	490
		G 1/4	13.157	1.337	25	605	22	530	15	365
		G 3/8	16.662	1.337	25	480	22	420	15	285
		G 1/2	20.955	1.814	25	380	22	335	15	230
		G 5/8	22.911	1.814	25	345	22	305	15	210

Taps polytap-R

R

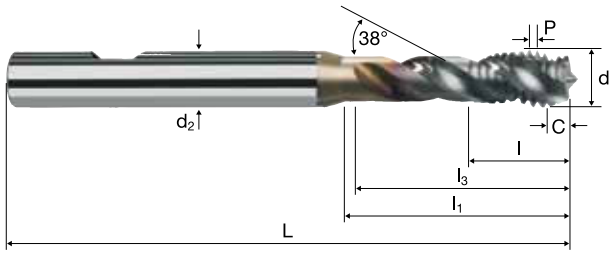
G

55°

HSS
PM/F

DIN
1835B
ISO
3338

X · P
Form C

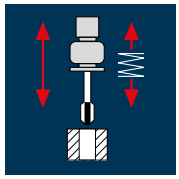


Rm < 850	Rm 850-1100						Inox Stainless		GG(G) Aluminium

G

Example:
Order-N°. Article-N°. **EH1429** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2 h6			TiCN EH1429
551	**G 1/8**	**28.0**	9.728	100	15.00	39.0	37.0	10.0	3	8.80	●
552	**G 1/4**	**19.0**	13.157	110	15.00	46.0	44.0	16.0	4	11.80	●
553	**G 3/8**	**19.0**	16.662	110	15.00	50.0	48.0	16.0	4	15.25	●
554	**G 1/2**	**14.0**	20.955	140	20.00	64.0	62.0	20.0	4	19.00	●
555	**G 5/8**	**14.0**	22.911	140	20.00	64.0	62.0	20.0	4	21.00	●

Application	Material	G	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	G 1/8	9.728	0.907	18	590	535	15	490	445	12	395	358
		G 1/4	13.157	1.337	18	435	582	15	365	488	12	290	388
		G 3/8	16.662	1.337	18	345	461	15	285	381	12	230	308
		G 1/2	20.955	1.814	18	275	499	15	230	417	12	180	327
		G 5/8	22.911	1.814	18	250	454	15	210	381	12	165	299
	Steel 500 - 850 N/mm²	G 1/8	9.728	0.907	15	490	445	10	325	295	8	260	236
		G 1/4	13.157	1.337	15	365	488	10	240	321	8	195	261
		G 3/8	16.662	1.337	15	285	381	10	190	254	8	155	207
		G 1/2	20.955	1.814	15	230	417	10	150	272	8	120	218
		G 5/8	22.911	1.814	15	210	381	10	140	254	8	110	200
	Wrought aluminium alloys Si < 6% hardened	G 1/8	9.728	0.907	15	490	445	12	395	358	10	325	295
		G 1/4	13.157	1.337	15	365	488	12	290	388	10	240	321
		G 3/8	16.662	1.337	15	285	381	12	230	308	10	190	254
		G 1/2	20.955	1.814	15	230	417	12	180	327	10	150	272
		G 5/8	22.911	1.814	15	210	381	12	165	299	10	140	254
	Stainless steel [Cr-Ni/1.4301]	G 1/8	9.728	0.907	5	165	150	4	130	118	3	100	91
		G 1/4	13.157	1.337	5	120	160	4	95	127	3	75	100
		G 3/8	16.662	1.337	5	95	127	4	75	100	3	55	74
		G 1/2	20.955	1.814	5	75	136	4	60	109	3	45	82
		G 5/8	22.911	1.814	5	70	127	4	55	100	3	40	73

Taps u-tap

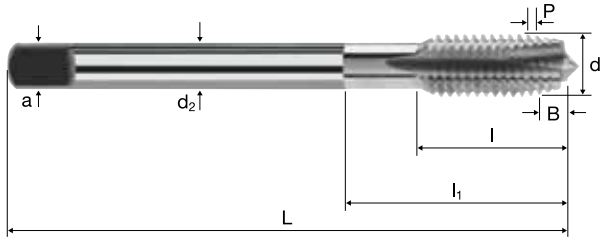
U

G

HSS-E Co5

DIN 5156

Form B

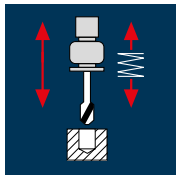


Rm < 850 | Inox Stainless | GG(G) Aluminium Copper

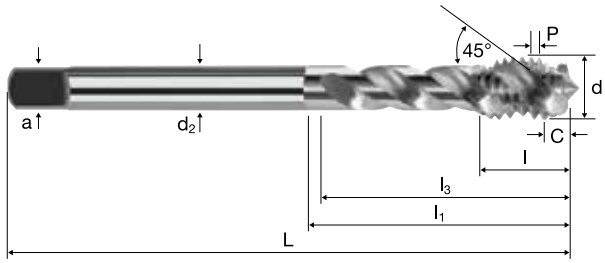
G

Example: **Order-N°.** Article-N°. **E11480** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			E11480	
551	**G 1/8**	**28.0**	9.728	90	18.00	35.0	7.0	5.5	3	8.80	●	
552	**G 1/4**	**19.0**	13.157	100	20.00	39.0	11.0	9.0	3	11.80	●	
553	**G 3/8**	**19.0**	16.662	100	22.00	39.0	12.0	9.0	4	15.25	●	
554	**G 1/2**	**14.0**	20.955	125	25.00	50.0	16.0	12.0	4	19.00	●	
555	**G 5/8**	**14.0**	22.911	125	25.00	50.0	18.0	14.5	4	21.00	●	

Application	Material	G	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	G 1/8	9.728	0.907	14	460	417	12	395	358	10	325	295
		G 1/4	13.157	1.337	14	340	455	12	290	388	10	240	321
		G 3/8	16.662	1.337	14	265	354	12	230	308	10	190	254
		G 1/2	20.955	1.814	14	215	390	12	180	327	10	150	272
		G 5/8	22.911	1.814	14	195	354	12	165	299	10	140	254
	Steel 500 - 850 N/mm²	G 1/8	9.728	0.907	9	295	268	8	260	236	7	230	209
		G 1/4	13.157	1.337	9	220	294	8	195	261	7	170	227
		G 3/8	16.662	1.337	9	170	227	8	155	207	7	135	181
		G 1/2	20.955	1.814	9	135	245	8	120	218	7	105	191
		G 5/8	22.911	1.814	9	125	227	8	110	200	7	95	172
	Wrought aluminium alloys Si < 6% hardened	G 1/8	9.728	0.907	10	325	295	8	260	236	6	195	177
		G 1/4	13.157	1.337	10	240	321	8	195	261	6	145	194
		G 3/8	16.662	1.337	10	190	254	8	155	207	6	115	154
		G 1/2	20.955	1.814	10	150	272	8	120	218	6	90	163
		G 5/8	22.911	1.814	10	140	254	8	110	200	6	85	154
	Stainless steel [Cr-Ni/1.4301]	G 1/8	9.728	0.907	4	130	118	3	100	91	3	100	91
		G 1/4	13.157	1.337	4	95	127	3	75	100	3	75	100
		G 3/8	16.662	1.337	4	75	100	3	55	74	3	55	74
		G 1/2	20.955	1.814	4	60	109	3	45	82	3	45	82
		G 5/8	22.911	1.814	4	55	100	3	40	73	3	40	73

Taps u-tap



G

55°

HSS-E Co5

DIN 5156

X · P

Form C

Rm < 850							**Inox** Stainless		**GG(G) Aluminium Copper**

G

Example: **Order-N°.** Article-N°. **E11482** ø-Code **551**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			**E11482**	
551	**G 1/8**	**28.0**	9.728	90	7.30	35.0	33.0	7.0	5.5	3	8.80	●	
552	**G 1/4**	**19.0**	13.157	100	10.70	39.0	37.0	11.0	9.0	4	11.80	●	
553	**G 3/8**	**19.0**	16.662	100	10.70	39.0	37.0	12.0	9.0	4	15.25	●	
554	**G 1/2**	**14.0**	20.955	125	14.50	65.0	63.0	16.0	12.0	4	19.00	●	
555	**G 5/8**	**14.0**	22.911	125	14.50	65.0	63.0	18.0	14.5	4	21.00	●	


passion
for precision
fraisa

Unified thread UNC / UNJC / UNF / UNJF

UNC, tolerance 2B

N° EH1687 / EH1688

N° EH1690 / EH1691

	11	HSS PM/F		Rm 850-1100		341
x-tap	11	HSS PM/F		Rm 850-1100		345

UNJC, tolerance 3B

N° E1699

Ni	HSS PM/F		Ni Nickel Alloy		349

UNF, tolerance 2B

N° EH1787 / EH1788

N° EH1790 / EH1791

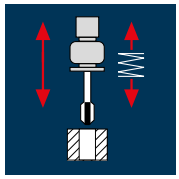
	11	HSS PM/F		Rm 850-1100		351
x-tap	11	HSS PM/F		Rm 850-1100		353

UNJF, tolerance 3B

N° E1799

Ni	HSS PM/F		Ni Nickel Alloy		355

UN

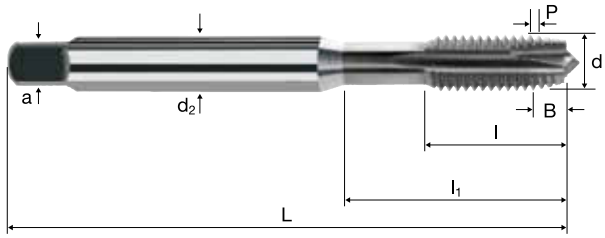
Application	Material	UNC	P(TPI)	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	Nr.2	-56.0	2.184	0.454	20	2915	1322	16	2330	1057	12	1750	794
		Nr.3	-48.0	2.515	0.529	20	2530	1339	16	2025	1071	12	1520	804
		Nr.4	-40.0	2.845	0.635	20	2240	1422	16	1790	1137	12	1345	854
		Nr.5	-40.0	3.175	0.635	20	2005	1273	16	1605	1019	12	1205	765
		Nr.6	-32.0	3.505	0.794	20	1815	1441	16	1455	1155	12	1090	865
		Nr.8	-32.0	4.166	0.794	20	1530	1214	16	1225	972	12	915	726
		Nr.10	-24.0	4.826	1.058	20	1320	1397	16	1055	1117	12	790	836
		Nr.12	-24.0	5.486	1.058	20	1160	1228	16	930	984	12	695	736
		1/4	-20.0	6.350	1.270	20	1005	1276	16	800	1016	12	600	762
	Steel 500 - 850 N/mm²	5/16	-18.0	7.938	1.411	20	800	1129	16	640	903	12	480	677
		3/8	-16.0	9.525	1.588	20	670	1064	16	535	849	12	400	635
	Steel 850 - 1100 N/mm²	Nr.2	-56.0	2.184	0.454	16	2330	1057	12	1750	794	10	1455	660
		Nr.3	-48.0	2.515	0.529	16	2025	1071	12	1520	804	10	1265	669
		Nr.4	-40.0	2.845	0.635	16	1790	1137	12	1345	854	10	1120	711
		Nr.5	-40.0	3.175	0.635	16	1605	1019	12	1205	765	10	1005	638
		Nr.6	-32.0	3.505	0.794	16	1455	1155	12	1090	865	10	910	722
		Nr.8	-32.0	4.166	0.794	16	1225	972	12	915	726	10	765	607
		Nr.10	-24.0	4.826	1.058	16	1055	1117	12	790	836	10	660	699
		Nr.12	-24.0	5.486	1.058	16	930	984	12	695	736	10	580	614
		1/4	-20.0	6.350	1.270	16	800	1016	12	600	762	10	500	635
	Steel 850 - 1100 N/mm²	5/16	-18.0	7.938	1.411	16	640	903	12	480	677	10	400	564
		3/8	-16.0	9.525	1.588	16	535	849	12	400	635	10	335	532
	Steel 1100 - 1300 N/mm²	Nr.2	-56.0	2.184	0.454	5	730	331	3	435	197	-	-	-
		Nr.3	-48.0	2.515	0.529	5	635	336	3	380	201	-	-	-
		Nr.4	-40.0	2.845	0.635	5	560	356	3	335	213	-	-	-
		Nr.5	-40.0	3.175	0.635	5	500	318	3	300	191	-	-	-
		Nr.6	-32.0	3.505	0.794	5	455	361	3	270	214	-	-	-
		Nr.8	-32.0	4.166	0.794	5	380	302	3	230	183	-	-	-
		Nr.10	-24.0	4.826	1.058	5	330	349	3	200	212	-	-	-
		Nr.12	-24.0	5.486	1.058	5	290	307	3	175	185	-	-	-
		1/4	-20.0	6.350	1.270	5	250	318	3	150	191	-	-	-
	Steel 1100 - 1300 N/mm²	5/16	-18.0	7.938	1.411	5	200	282	3	120	169	-	-	-
		3/8	-16.0	9.525	1.588	5	165	262	3	100	159	-	-	-

UNC | 2B

HSS PM/F

DIN 371

Form B



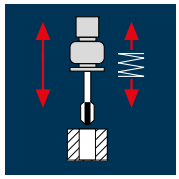
Rm < 850 | **Rm 850-1100** | Rm 1100-1300

Example: **Order-N°.** Article-N°. **EH1687** ø-Code **701**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			TiCN EH1687
701	Nr.2	-56.0	2.184	45	9.00	-	2.8	2.1	3	1.85	●
702	Nr.3	-48.0	2.515	50	9.00	-	2.8	2.1	3	2.10	●
703	Nr.4	-40.0	2.845	56	12.00	18.0	3.5	2.7	3	2.35	●
704	Nr.5	-40.0	3.175	56	12.00	18.0	3.5	2.7	3	2.65	●
705	Nr.6	-32.0	3.505	56	12.00	20.0	4.0	3.0	3	2.85	●
706	Nr.8	-32.0	4.166	63	13.00	21.0	4.5	3.4	3	3.50	●
707	Nr.10	-24.0	4.826	70	15.00	25.0	6.0	4.9	3	3.90	●
708	Nr.12	-24.0	5.486	80	17.00	30.0	6.0	4.9	3	4.50	●
709	1/4	-20.0	6.350	80	17.00	30.0	7.0	5.5	3	5.10	●
710	5/16	-18.0	7.938	90	20.00	35.0	8.0	6.2	3	6.60	●
711	3/8	-16.0	9.525	100	22.00	39.0	10.0	8.0	3	8.00	●

For larger dimensions see article no. EH1688

UN

Application	Material
	Steel 500 - 850 N/mm²

UNC	P(TPI)	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14.0	11.113	1.814	20	575	1043	16	460	835	12	345	626
1/2	-13.0	12.700	1.954	20	500	977	16	400	782	12	300	586
9/16	-12.0	14.288	2.117	20	445	942	16	355	751	12	265	561
5/8	-11.0	15.875	2.309	20	400	924	16	320	739	12	240	554
3/4	-10.0	19.050	2.540	20	335	851	16	265	673	12	200	508
7/8	-9.0	22.225	2.822	20	285	804	16	230	649	12	170	480

	Steel 850 - 1100 N/mm²

UNC	P(TPI)	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14.0	11.113	1.814	16	460	835	12	345	626	10	285	517
1/2	-13.0	12.700	1.954	16	400	782	12	300	586	10	250	489
9/16	-12.0	14.288	2.117	16	355	751	12	265	561	10	225	476
5/8	-11.0	15.875	2.309	16	320	739	12	240	554	10	200	462
3/4	-10.0	19.050	2.540	16	265	673	12	200	508	10	165	419
7/8	-9.0	22.225	2.822	16	230	649	12	170	480	10	145	409

	Steel 1100 - 1300 N/mm²

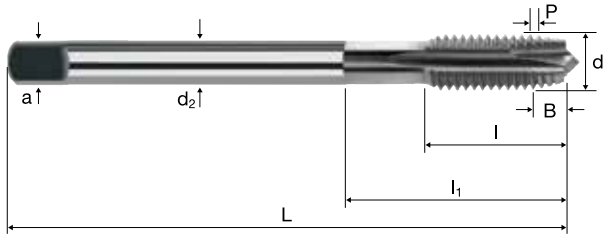
UNC	P(TPI)	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14.0	11.113	1.814	5	145	263	3	85	154	-	-	-
1/2	-13.0	12.700	1.954	5	125	244	3	75	147	-	-	-
9/16	-12.0	14.288	2.117	5	110	233	3	65	138	-	-	-
5/8	-11.0	15.875	2.309	5	100	231	3	60	139	-	-	-
3/4	-10.0	19.050	2.540	5	85	216	3	50	127	-	-	-
7/8	-9.0	22.225	2.822	5	70	198	3	45	127	-	-	-

UNC | 2B

60° | HSS PM/F

≈DIN 376

X · P Form B

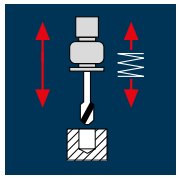


Rm < 850 | **Rm 850-1100** | Rm 1100-1300

Example: **Order-N°.** Article-N°. **EH1688** ø-Code **712**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			TiCN
											EH1688
712	**7/16**	**-14.0**	11.113	100	22.00	39.0	8.0	6.2	3	9.40	●
713	**1/2**	**-13.0**	12.700	110	24.00	40.0	9.0	7.0	3	10.80	●
714	**9/16**	**-12.0**	14.288	110	26.00	40.0	11.0	9.0	3	12.20	●
715	**5/8**	**-11.0**	15.875	110	27.00	40.0	12.0	9.0	3	13.50	●
716	**3/4**	**-10.0**	19.050	125	30.00	45.0	14.0	11.0	4	16.50	●
717	**7/8**	**-9.0**	22.225	140	32.00	50.0	18.0	14.5	4	19.50	●

UN

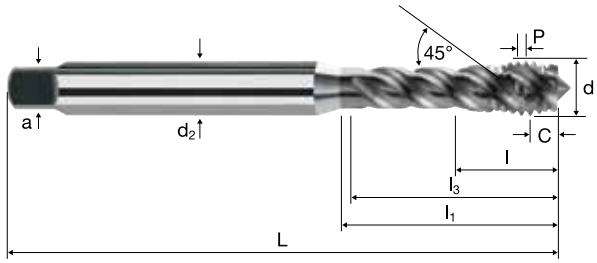
Application	Material	UNC	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	Nr.2	-56.0	2.184	0.454	25	3645	1653	22	3205	1454	18	2625	1190
		Nr.3	-48.0	2.515	0.529	25	3165	1675	22	2785	1474	18	2280	1206
		Nr.4	-40.0	2.845	0.635	25	2795	1775	22	2460	1562	18	2015	1280
		Nr.5	-40.0	3.175	0.635	25	2505	1591	22	2205	1400	18	1805	1146
		Nr.6	-32.0	3.505	0.794	25	2270	1802	22	2000	1587	18	1635	1298
		Nr.8	-32.0	4.166	0.794	25	1910	1516	22	1680	1333	18	1375	1091
		Nr.10	-24.0	4.826	1.058	25	1650	1746	22	1450	1535	18	1185	1254
		Nr.12	-24.0	5.486	1.058	25	1450	1535	22	1275	1349	18	1045	1106
		1/4	-20.0	6.350	1.270	25	1255	1594	22	1105	1403	18	900	1143
	Steel 500 - 850 N/mm²	5/16	-18.0	7.938	1.411	25	1000	1411	22	880	1242	18	720	1016
		3/8	-16.0	9.525	1.588	25	835	1326	22	735	1167	18	600	953
	Steel 850 - 1100 N/mm²	Nr.2	-56.0	2.184	0.454	16	2330	1057	13	1895	859	8	1165	528
		Nr.3	-48.0	2.515	0.529	16	2025	1071	13	1645	870	8	1015	537
		Nr.4	-40.0	2.845	0.635	16	1790	1137	13	1455	924	8	895	568
		Nr.5	-40.0	3.175	0.635	16	1605	1019	13	1305	829	8	800	508
		Nr.6	-32.0	3.505	0.794	16	1455	1155	13	1180	937	8	725	575
		Nr.8	-32.0	4.166	0.794	16	1225	972	13	995	790	8	610	484
		Nr.10	-24.0	4.826	1.058	16	1055	1117	13	855	905	8	530	561
		Nr.12	-24.0	5.486	1.058	16	930	984	13	755	799	8	465	492
		1/4	-20.0	6.350	1.270	16	800	1016	13	650	826	8	400	508
	Steel 850 - 1100 N/mm²	5/16	-18.0	7.938	1.411	16	640	903	13	520	734	8	320	452
		3/8	-16.0	9.525	1.588	16	535	849	13	435	691	8	265	421

UNC | 2B

60° | HSS PM/F

DIN 371

X · P Form C



Rm < 850 | **Rm 850-1100**

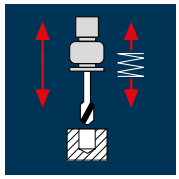
Example: **Order-N°.** Article-N°. **EH1690** ø-Code **701**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			TiCN EH1690
701	Nr.2	-56.0	2.184	45	9.00	-	12.5	2.8	2.1	3	1.85	●
702	Nr.3	-48.0	2.515	50	9.00	-	13.0	2.8	2.1	3	2.10	●
703	Nr.4	-40.0	2.845	56	5.00	-	16.0	3.5	2.7	3	2.35	●
704	Nr.5	-40.0	3.175	56	5.00	-	16.0	3.5	2.7	3	2.65	●
705	Nr.6	-32.0	3.505	56	6.00	-	18.0	4.0	3.0	3	2.85	●
706	Nr.8	-32.0	4.166	63	7.00	-	19.0	4.5	3.4	3	3.50	●
707	Nr.10	-24.0	4.826	70	8.00	-	23.0	6.0	4.9	3	3.90	●
708	Nr.12	-24.0	5.486	80	10.00	-	28.0	6.0	4.9	3	4.50	●
709	1/4	-20.0	6.350	80	10.00	30.0	28.0	7.0	5.5	3	5.10	●
710	5/16	-18.0	7.938	90	13.00	35.0	33.0	8.0	6.2	3	6.60	●
711	3/8	-16.0	9.525	100	15.00	39.0	37.0	10.0	8.0	3	8.00	●

For larger dimensions see article no. EH1691

UN

Application



Material

Steel
500 - 850 N/mm²

UNC	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14.0	11.113	1.814	25	715	1297	22	630	1143	18	515	934
1/2	-13.0	12.700	1.954	25	625	1221	22	550	1075	18	450	879
9/16	-12.0	14.288	2.117	25	555	1175	22	490	1037	18	400	847
5/8	-11.0	15.875	2.309	25	500	1155	22	440	1016	18	360	831
3/4	-10.0	19.050	2.540	25	420	1067	22	370	940	18	300	762
7/8	-9.0	22.225	2.822	25	360	1016	22	315	889	18	260	734

Steel
850 - 1100 N/mm²

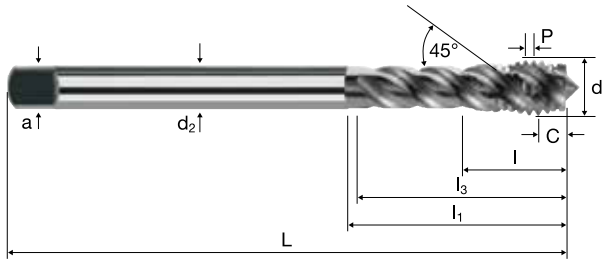
UNC	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
7/16	-14.0	11.113	1.814	16	460	835	13	370	671	8	230	417
1/2	-13.0	12.700	1.954	16	400	782	13	325	635	8	200	391
9/16	-12.0	14.288	2.117	16	355	751	13	290	614	8	180	381
5/8	-11.0	15.875	2.309	16	320	739	13	260	600	8	160	369
3/4	-10.0	19.050	2.540	16	265	673	13	215	546	8	135	343
7/8	-9.0	22.225	2.822	16	230	649	13	185	522	8	115	325

UNC | 2B

60° | HSS PM/F

≈DIN 376

X · P Form C

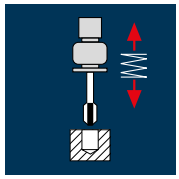


Rm < 850 | Rm 850-1100

Example: **Order-N°.** Article-N°. **EH1691** ø-Code **712**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			TiCN EH1691
712	7/16	-14.0	11.113	100	15.00	39.0	37.0	8.0	6.2	3	9.40	●
713	1/2	-13.0	12.700	110	18.00	50.0	48.0	9.0	7.0	3	10.80	●
714	9/16	-12.0	14.288	110	20.00	58.0	56.0	11.0	9.0	3	12.20	●
715	5/8	-11.0	15.875	110	20.00	58.0	56.0	12.0	9.0	3	13.50	●
716	3/4	-10.0	19.050	125	25.00	65.0	63.0	14.0	11.0	4	16.50	●
717	7/8	-9.0	22.225	140	25.00	72.0	70.0	18.0	14.5	4	19.50	●

Application



Material

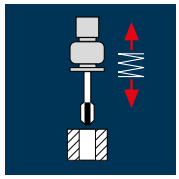
Nickel base alloys hardened

UNJC	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.4	-40.0	2.845	0.635	1.5	170	108	1.5	170	108
Nr.6	-32.0	3.505	0.794	1.5	135	107	1.5	135	107
Nr.8	-32.0	4.166	0.794	1.5	115	91	1.5	115	91
Nr.10	-24.0	4.826	1.058	1.5	100	106	1.5	100	106
1/4	-20.0	6.350	1.270	1.5	75	95	1.5	75	95
5/16	-18.0	7.938	1.411	1.5	60	85	1.5	60	85
3/8	-16.0	9.525	1.588	1.5	50	79	1.5	50	79

Nickel base alloys not hardened

UNJC	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.4	-40.0	2.845	0.635	2	225	143	1.5	170	108
Nr.6	-32.0	3.505	0.794	2	180	143	1.5	135	107
Nr.8	-32.0	4.166	0.794	2	155	123	1.5	115	91
Nr.10	-24.0	4.826	1.058	2	130	138	1.5	100	106
1/4	-20.0	6.350	1.270	2	100	127	1.5	75	95
5/16	-18.0	7.938	1.411	2	80	113	1.5	60	85
3/8	-16.0	9.525	1.588	2	65	103	1.5	50	79

Application



Material

Nickel base alloys hardened

UNJC	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.4	-40.0	2.845	0.635	1.5	170	108	1.5	170	108
Nr.6	-32.0	3.505	0.794	1.5	135	107	1.5	135	107
Nr.8	-32.0	4.166	0.794	1.5	115	91	1.5	115	91
Nr.10	-24.0	4.826	1.058	1.5	100	106	1.5	100	106
1/4	-20.0	6.350	1.270	1.5	75	95	1.5	75	95
5/16	-18.0	7.938	1.411	1.5	60	85	1.5	60	85
3/8	-16.0	9.525	1.588	1.5	50	79	1.5	50	79

Nickel base alloys not hardened

UNJC	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.4	-40.0	2.845	0.635	2	225	143	1.5	170	108
Nr.6	-32.0	3.505	0.794	2	180	143	1.5	135	107
Nr.8	-32.0	4.166	0.794	2	155	123	1.5	115	91
Nr.10	-24.0	4.826	1.058	2	130	138	1.5	100	106
1/4	-20.0	6.350	1.270	2	100	127	1.5	75	95
5/16	-18.0	7.938	1.411	2	80	113	1.5	60	85
3/8	-16.0	9.525	1.588	2	65	103	1.5	50	79

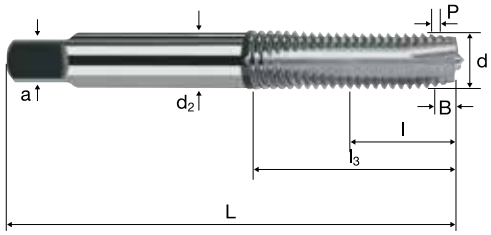
Taps

Ni

UNJC | 3B

60° | HSS PM/F

Form B



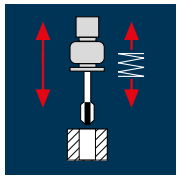
Nickel-Alloys

UN

Example:
Order-N°. Article-N°. **E1699** ø-Code **703**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			E1699	
703	**Nr.4**	**-40.0**	2.845	48	11.00	-	16.0	3.5	2.7	3	2.40*	●	
705	**Nr.6**	**-32.0**	3.505	50	12.00	-	18.0	4.0	3.0	3	2.90	●	
706	**Nr.8**	**-32.0**	4.166	53	13.00	-	19.0	4.5	3.4	3	3.60*	●	
707	**Nr.10**	**-24.0**	4.826	58	15.00	-	22.0	6.0	4.9	3	4.00	●	
709	**1/4**	**-20.0**	6.350	66	17.00	-	28.0	7.0	5.5	3	5.40*	●	
710	**5/16**	**-18.0**	7.938	72	20.00	-	34.0	8.0	6.2	3	6.80	●	
711	**3/8**	**-16.0**	9.525	80	22.00	-	37.0	10.0	8.0	3	8.20	●	

* The given dimension is out of norm

Application	Material	UNF	P(TPI)	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel 500 - 850 N/mm²	Nr.6	-40.0	3.505	0.635	25	2270	1442	20	1815	1153	15	1360	864
		Nr.8	-36.0	4.166	0.706	25	1910	1348	20	1530	1079	15	1145	808
		Nr.10	-32.0	4.826	0.794	25	1650	1310	20	1320	1048	15	990	786
		Nr.12	-28.0	5.486	0.907	25	1450	1315	20	1160	1052	15	870	789
		1/4	-28.0	6.350	0.907	25	1255	1138	20	1005	912	15	750	680
		5/16	-24.0	7.938	1.058	25	1000	1058	20	800	847	15	600	635
		3/8	-24.0	9.525	1.058	25	835	884	20	670	709	15	500	529
		7/16	-20.0	11.113	1.270	25	715	908	20	575	730	15	430	546
		1/2	-20.0	12.700	1.270	25	625	794	20	500	635	15	375	476
	Steel 500 - 850 N/mm²	9/16	-18.0	14.288	1.411	25	555	783	20	445	628	15	335	473
		5/8	-18.0	15.875	1.411	25	500	706	20	400	564	15	300	423
		3/4	-16.0	19.050	1.588	25	420	667	20	335	532	15	250	397
		7/8	-14.0	22.225	1.814	25	360	653	20	285	517	15	215	390
	Steel 850 - 1100 N/mm²	Nr.6	-40.0	3.505	0.635	20	1815	1153	15	1360	864	12	1090	692
		Nr.8	-36.0	4.166	0.706	20	1530	1079	15	1145	808	12	915	646
		Nr.10	-32.0	4.826	0.794	20	1320	1048	15	990	786	12	790	627
		Nr.12	-28.0	5.486	0.907	20	1160	1052	15	870	789	12	695	630
		1/4	-28.0	6.350	0.907	20	1005	912	15	750	680	12	600	544
		5/16	-24.0	7.938	1.058	20	800	847	15	600	635	12	480	508
		3/8	-24.0	9.525	1.058	20	670	709	15	500	529	12	400	423
		7/16	-20.0	11.113	1.270	20	575	730	15	430	546	12	345	438
		1/2	-20.0	12.700	1.270	20	500	635	15	375	476	12	300	381
	Steel 850 - 1100 N/mm²	9/16	-18.0	14.288	1.411	20	445	628	15	335	473	12	265	374
		5/8	-18.0	15.875	1.411	20	400	564	15	300	423	12	240	339
		3/4	-16.0	19.050	1.588	20	335	532	15	250	397	12	200	318
		7/8	-14.0	22.225	1.814	20	285	517	15	215	390	12	170	308
	Steel 1100 - 1300 N/mm²	Nr.6	-40.0	3.505	0.635	7	635	403	4	365	232	-	-	-
		Nr.8	-36.0	4.166	0.706	7	535	377	4	305	215	-	-	-
		Nr.10	-32.0	4.826	0.794	7	460	365	4	265	210	-	-	-
		Nr.12	-28.0	5.486	0.907	7	405	367	4	230	209	-	-	-
		1/4	-28.0	6.350	0.907	7	350	318	4	200	181	-	-	-
		5/16	-24.0	7.938	1.058	7	280	296	4	160	169	-	-	-
		3/8	-24.0	9.525	1.058	7	235	249	4	135	143	-	-	-
		7/16	-20.0	11.113	1.270	7	200	254	4	115	146	-	-	-
		1/2	-20.0	12.700	1.270	7	175	222	4	100	127	-	-	-
	Steel 1100 - 1300 N/mm²	9/16	-18.0	14.288	1.411	7	155	219	4	90	127	-	-	-
		5/8	-18.0	15.875	1.411	7	140	198	4	80	113	-	-	-
		3/4	-16.0	19.050	1.588	7	115	183	4	65	103	-	-	-
		7/8	-14.0	22.225	1.814	7	100	181	4	55	100	-	-	-

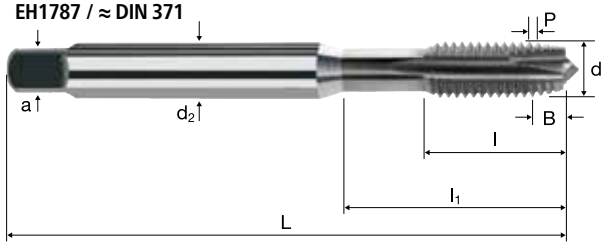
UNF | 2B

HSS PM/F

≈DIN 371/374

Form B

EH1787 / ≈ DIN 371



EH1788 / ≈ DIN 374

Rm < 850 | **Rm 850-1100** | Rm 1100-1300

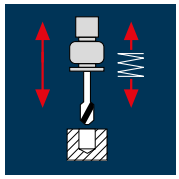
Example: **Order-N°.** Article-N°. **EH1787** ø-Code **756**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			TiCN EH1787
756	Nr.6	-40.0	3.505	56	12.00	20.0	4.0	3.0	3	2.95	●
757	Nr.8	-36.0	4.166	63	13.00	21.0	4.5	3.4	3	3.50	●
758	Nr.10	-32.0	4.826	70	15.00	25.0	6.0	4.9	3	4.10	●
759	Nr.12	-28.0	5.486	80	17.00	30.0	6.0	4.9	3	4.60	●
760	1/4	-28.0	6.350	80	17.00	30.0	7.0	5.5	3	5.50	●
761	5/16	-24.0	7.938	90	20.00	35.0	8.0	6.2	3	6.90	●
762	3/8	-24.0	9.525	100	22.00	39.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EH1788** ø-Code **763**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	d_2	a			TiCN EH1788
763	7/16	-20.0	11.113	100	22.00	39.0	8.0	6.2	3	9.90	●
764	1/2	-20.0	12.700	100	22.00	39.0	9.0	7.0	3	11.50	●
765	9/16	-18.0	14.288	100	22.00	39.0	11.0	9.0	3	12.90	●
766	5/8	-18.0	15.875	100	22.00	39.0	12.0	9.0	3	14.50	●
767	3/4	-16.0	19.050	110	25.00	45.0	14.0	11.0	4	17.50	●
768	7/8	-14.0	22.225	125	26.00	50.0	18.0	14.5	4	20.40	●

Application	Material



UNF	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
Steel 500 - 850 N/mm²												
Nr.6	-40.0	3.505	0.635	32	2905	1845	28	2545	1616	22	2000	1270
Nr.8	-36.0	4.166	0.706	32	2445	1725	28	2140	1510	22	1680	1185
Nr.10	-32.0	4.826	0.794	32	2110	1675	28	1845	1464	22	1450	1151
Nr.12	-28.0	5.486	0.907	32	1855	1683	28	1625	1474	22	1275	1157
1/4	-28.0	6.350	0.907	32	1605	1456	28	1405	1275	22	1105	1002
5/16	-24.0	7.938	1.058	32	1285	1360	28	1125	1191	22	880	931
3/8	-24.0	9.525	1.058	32	1070	1132	28	935	990	22	735	778
7/16	-20.0	11.113	1.270	32	915	1162	28	800	1016	22	630	800
1/2	-20.0	12.700	1.270	32	800	1016	28	700	889	22	550	699
Steel 500 - 850 N/mm²												
9/16	-18.0	14.288	1.411	32	715	1009	28	625	882	22	490	691
5/8	-18.0	15.875	1.411	32	640	903	28	560	790	22	440	621
3/4	-16.0	19.050	1.588	32	535	849	28	470	746	22	370	587
7/8	-14.0	22.225	1.814	32	460	835	28	400	726	22	315	572
Steel 850 - 1100 N/mm²												
Nr.6	-40.0	3.505	0.635	20	1815	1153	16	1455	924	10	910	578
Nr.8	-36.0	4.166	0.706	20	1530	1079	16	1225	864	10	765	540
Nr.10	-32.0	4.826	0.794	20	1320	1048	16	1055	837	10	660	524
Nr.12	-28.0	5.486	0.907	20	1160	1052	16	930	844	10	580	526
1/4	-28.0	6.350	0.907	20	1005	912	16	800	726	10	500	454
5/16	-24.0	7.938	1.058	20	800	847	16	640	677	10	400	423
3/8	-24.0	9.525	1.058	20	670	709	16	535	566	10	335	355
7/16	-20.0	11.113	1.270	20	575	730	16	460	584	10	285	362
1/2	-20.0	12.700	1.270	20	500	635	16	400	508	10	250	318
Steel 850 - 1100 N/mm²												
9/16	-18.0	14.288	1.411	20	445	628	16	355	501	10	225	318
5/8	-18.0	15.875	1.411	20	400	564	16	320	452	10	200	282
3/4	-16.0	19.050	1.588	20	335	532	16	265	421	10	165	262
7/8	-14.0	22.225	1.814	20	285	517	16	230	417	10	145	263

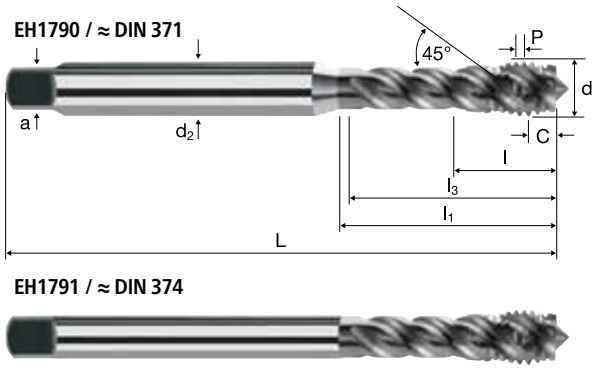
Taps x-tap

UNF | 2B

60° | HSS PM/F

≈DIN 371/374

X · P Form C



Rm < 850 | **Rm 850-1100**

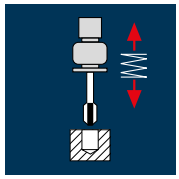
Example: **Order-N°.** Article-N°. **EH1790** ø-Code **756**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			TiCN EH1790
756	Nr.6	-40.0	3.505	56	6.00	20.0	18.0	4.0	3.0	3	2.95	●
757	Nr.8	-36.0	4.166	63	7.00	21.0	19.0	4.5	3.4	3	3.50	●
758	Nr.10	-32.0	4.826	70	8.00	25.0	23.0	6.0	4.9	3	4.10	●
759	Nr.12	-28.0	5.486	80	10.00	30.0	28.0	6.0	4.9	3	4.60	●
760	1/4	-28.0	6.350	80	10.00	30.0	28.0	7.0	5.5	3	5.50	●
761	5/16	-24.0	7.938	90	13.00	35.0	33.0	8.0	6.2	3	6.90	●
762	3/8	-24.0	9.525	100	15.00	39.0	37.0	10.0	8.0	3	8.50	●

Example: **Order-N°.** Article-N°. **EH1791** ø-Code **763**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			TiCN EH1791
763	7/16	-20.0	11.113	100	15.00	39.0	37.0	8.0	6.2	4	9.90	●
764	1/2	-20.0	12.700	100	15.00	39.0	37.0	9.0	7.0	4	11.50	●
765	9/16	-18.0	14.288	100	15.00	39.0	37.0	11.0	9.0	4	12.90	●
766	5/8	-18.0	15.875	100	15.00	39.0	37.0	12.0	9.0	4	14.50	●
767	3/4	-16.0	19.050	110	17.00	50.0	48.0	14.0	11.0	4	17.50	●
768	7/8	-14.0	22.225	125	18.00	65.0	63.0	18.0	14.5	5	20.40	●

Application



Material

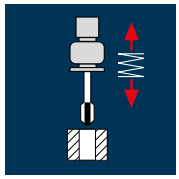
Nickel base alloys hardened

UNJF	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.6	-40.0	3.505	0.635	2	180	114	2	180	114
Nr.8	-36.0	4.166	0.706	2	155	109	2	155	109
Nr.10	-32.0	4.826	0.794	2	130	103	2	130	103
1/4	-28.0	6.350	0.907	2	100	91	2	100	91
5/16	-24.0	7.938	1.058	2	80	85	2	80	85
3/8	-24.0	9.525	1.058	2	65	69	2	65	69

Nickel base alloys not hardened

UNJF	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.6	-40.0	3.505	0.635	3	270	172	2	180	114
Nr.8	-36.0	4.166	0.706	3	230	162	2	155	109
Nr.10	-32.0	4.826	0.794	3	200	159	2	130	103
1/4	-28.0	6.350	0.907	3	150	136	2	100	91
5/16	-24.0	7.938	1.058	3	120	127	2	80	85
3/8	-24.0	9.525	1.058	3	100	106	2	65	69

Application



Material

Nickel base alloys hardened

UNJF	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.6	-40.0	3.505	0.635	2	180	114	2	180	114
Nr.8	-36.0	4.166	0.706	2	155	109	2	155	109
Nr.10	-32.0	4.826	0.794	2	130	103	2	130	103
1/4	-28.0	6.350	0.907	2	100	91	2	100	91
5/16	-24.0	7.938	1.058	2	80	85	2	80	85
3/8	-24.0	9.525	1.058	2	65	69	2	65	69

Nickel base alloys not hardened

UNJF	P(TPI)	d [mm]	P [mm]	v_c 1.0 x d	n [min^{-1}]	v_f [100%]	v_c 1.5 x d	n [min^{-1}]	v_f [100%]
Nr.6	-40.0	3.505	0.635	3	270	172	2	180	114
Nr.8	-36.0	4.166	0.706	3	230	162	2	155	109
Nr.10	-32.0	4.826	0.794	3	200	159	2	130	103
1/4	-28.0	6.350	0.907	3	150	136	2	100	91
5/16	-24.0	7.938	1.058	3	120	127	2	80	85
3/8	-24.0	9.525	1.058	3	100	106	2	65	69

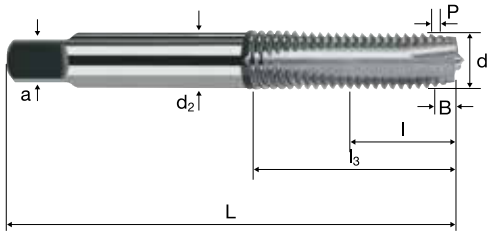
Taps

Ni

UNJF | 3B

60° | HSS PM/F

Form B



Nickel-Alloys

UN

Example:
Order-N°. Article-N°. **E1799** ø-Code **756**

Ø Code	d	P(TPI)	d (mm)	L	l	l_1	l_3	d_2	a			E1799	
756	**Nr.6**	**-40.0**	3.505	50	12.00	-	18.0	4.0	3.0	3	3.05	●	
757	**Nr.8**	**-36.0**	4.166	53	13.00	-	19.0	4.5	3.4	3	3.60	●	
758	**Nr.10**	**-32.0**	4.826	58	15.00	-	22.0	6.0	4.9	3	4.20	●	
760	**1/4**	**-28.0**	6.350	66	17.00	-	28.0	7.0	5.5	3	5.60	●	
761	**5/16**	**-24.0**	7.938	72	20.00	-	34.0	8.0	6.2	3	7.10	●	
762	**3/8**	**-24.0**	9.525	80	22.00	-	37.0	10.0	8.0	3	8.70*	●	

* The given dimension is out of norm


passion
for precision
fraisa

Unified pipe thread conical NPT / NPTF

NPT

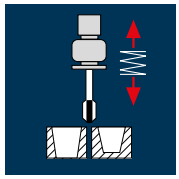
N° E11820

U | HSS-E Co5 | Rm <850 | 359

NPTF

N° E11846

U | HSS-E Co5 | Rm <850 | 361

Application	Material	NPT	P(TPI)	d [mm]	P [mm]	v_c [m/min]	n [min^{-1}]	v_f [mm/min]
	Steel < 500 N/mm²	1/16	-27.0	6.250	0.941	8	405	381
		1/8	-27.0	8.500	0.941	8	300	282
		1/4	-18.0	11.100	1.411	8	230	325
		3/8	-18.0	14.700	1.411	8	175	247
		1/2	-14.0	18.000	1.814	8	140	254
	Steel 500 - 850 N/mm²	1/16	-27.0	6.250	0.941	6	305	287
		1/8	-27.0	8.500	0.941	6	225	212
		1/4	-18.0	11.100	1.411	6	170	240
		3/8	-18.0	14.700	1.411	6	130	183
		1/2	-14.0	18.000	1.814	6	105	191
	Steel 850 - 1100 N/mm²	1/16	-27.0	6.250	0.941	5	255	240
		1/8	-27.0	8.500	0.941	5	185	174
		1/4	-18.0	11.100	1.411	5	145	205
		3/8	-18.0	14.700	1.411	5	110	155
		1/2	-14.0	18.000	1.814	5	90	163
	Wrought aluminium alloys Si < 6% hardened	1/16	-27.0	6.250	0.941	10	510	480
		1/8	-27.0	8.500	0.941	10	375	353
		1/4	-18.0	11.100	1.411	10	285	402
		3/8	-18.0	14.700	1.411	10	215	303
		1/2	-14.0	18.000	1.814	10	175	318
	Cast iron GG	1/16	-27.0	6.250	0.941	6	305	287
		1/8	-27.0	8.500	0.941	6	225	212
		1/4	-18.0	11.100	1.411	6	170	240
		3/8	-18.0	14.700	1.411	6	130	183
		1/2	-14.0	18.000	1.814	6	105	191

Taps

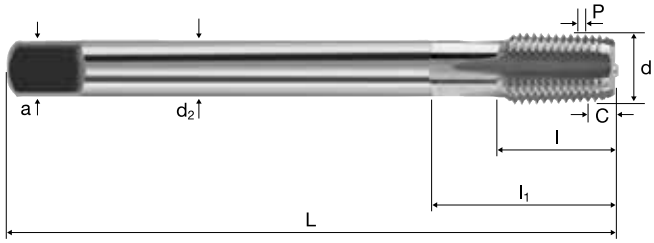
NPT

1 : 16

HSS-E Co5

DIN 374

Form C



Rm < 850

Rm 850-1100

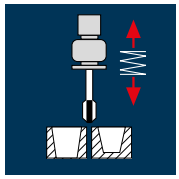
GG(G) Aluminium Copper

Example:
Order-N°. Article-N°. **E11820** ø-Code **840**

E11820

Ø Code	d	P(TPI)	L	l	l_1	d_2	a			
840	**1/16**	**-27.0**	80	14.00	27.0	7.0	5.5	3		●
841	**1/8**	**-27.0**	90	14.00	30.0	8.0	6.2	4		●
842	**1/4**	**-18.0**	100	20.00	40.0	11.0	9.0	4		●
843	**3/8**	**-18.0**	110	20.00	40.0	14.0	11.0	4		●
844	**1/2**	**-14.0**	125	26.00	48.0	18.0	14.5	5		●

NPT NPTF

Application	Material	NPTF	P(TPI)	d [mm]	P [mm]	v_c [m/min]	n [min^{-1}]	v_f [mm/min]
	Steel < 500 N/mm²	1/16	-27.0	6.250	0.941	8	405	381
		1/8	-27.0	8.500	0.941	8	300	282
		1/4	-18.0	11.100	1.411	8	230	325
		3/8	-18.0	14.700	1.411	8	175	247
		1/2	-14.0	18.000	1.814	8	140	254
	Steel 500 - 850 N/mm²	1/16	-27.0	6.250	0.941	6	305	287
		1/8	-27.0	8.500	0.941	6	225	212
		1/4	-18.0	11.100	1.411	6	170	240
		3/8	-18.0	14.700	1.411	6	130	183
		1/2	-14.0	18.000	1.814	6	105	191
	Steel 850 - 1100 N/mm²	1/16	-27.0	6.250	0.941	5	255	240
		1/8	-27.0	8.500	0.941	5	185	174
		1/4	-18.0	11.100	1.411	5	145	205
		3/8	-18.0	14.700	1.411	5	110	155
		1/2	-14.0	18.000	1.814	5	90	163
	Wrought aluminium alloys Si < 6% hardened	1/16	-27.0	6.250	0.941	10	510	480
		1/8	-27.0	8.500	0.941	10	375	353
		1/4	-18.0	11.100	1.411	10	285	402
		3/8	-18.0	14.700	1.411	10	215	303
		1/2	-14.0	18.000	1.814	10	175	318
	Cast iron GG	1/16	-27.0	6.250	0.941	6	305	287
		1/8	-27.0	8.500	0.941	6	225	212
		1/4	-18.0	11.100	1.411	6	170	240
		3/8	-18.0	14.700	1.411	6	130	183
		1/2	-14.0	18.000	1.814	6	105	191

Taps

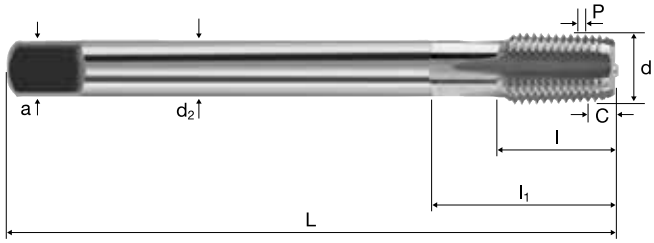
NPTF

1 : 16

HSS-E Co5

DIN 374

Form C



Rm < 850

Rm 850-1100

GG(G) Aluminium Copper

Example:
Order-N°. Article-N°. **E11846** ø-Code **840**

E11846

Ø Code	d	P(TPI)	L	l	l_1	d_2	a			
840	**1/16**	**-27.0**	80	17.50	27.0	7.0	5.5	3		●
841	**1/8**	**-27.0**	90	19.00	30.0	8.0	6.2	4		●
842	**1/4**	**-18.0**	100	27.00	40.0	11.0	9.0	4		●
843	**3/8**	**-18.0**	110	27.00	40.0	14.0	11.0	4		●
844	**1/2**	**-14.0**	125	35.00	48.0	18.0	14.5	5		●

NPT NPTF


passion
for precision
fraisa

Metric coarse thread for inserts EG M

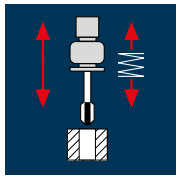
Tolerance 6H mod

N° E11970 / E11971

N° E11980 / E11981

U	HSS-E Co5		Rm <850	Al Aluminium Alloy	365
U	HSS-E Co5		Rm <850	Al Aluminium Alloy	367

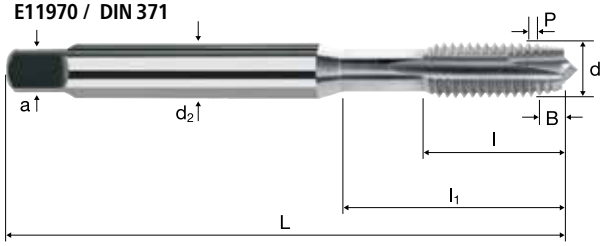
EG

Application	Material	EG-M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	EGM 2	2.520	0.40	14	1770	708	12	1515	606	10	1265	506
		EGM 2.5	3.084	0.45	14	1445	650	12	1240	558	10	1030	464
		EGM 3	3.650	0.50	14	1220	610	12	1045	523	10	870	435
		EGM 4	4.910	0.70	14	910	637	12	780	546	10	650	455
		EGM 5	6.040	0.80	14	740	592	12	630	504	10	525	420
		EGM 6	7.300	1.00	14	610	610	12	525	525	10	435	435
		EGM 8	9.624	1.25	14	465	581	12	395	494	10	330	413
		EGM 10	11.948	1.50	14	375	563	12	320	480	10	265	398
		EGM 12	14.274	1.75	14	310	543	12	270	473	10	225	394
	Steel < 500 N/mm²	EGM 14	16.598	2.00	14	270	540	12	230	460	10	190	380
		EGM 16	18.598	2.00	14	240	480	12	205	410	10	170	340
	Steel 500 - 850 N/mm²	EGM 2	2.520	0.40	10	1265	506	8	1010	404	6	760	304
		EGM 2.5	3.084	0.45	10	1030	464	8	825	371	6	620	279
		EGM 3	3.650	0.50	10	870	435	8	700	350	6	525	263
		EGM 4	4.910	0.70	10	650	455	8	520	364	6	390	273
		EGM 5	6.040	0.80	10	525	420	8	420	336	6	315	252
		EGM 6	7.300	1.00	10	435	435	8	350	350	6	260	260
		EGM 8	9.624	1.25	10	330	413	8	265	331	6	200	250
		EGM 10	11.948	1.50	10	265	398	8	215	323	6	160	240
		EGM 12	14.274	1.75	10	225	394	8	180	315	6	135	236
	Steel 500 - 850 N/mm²	EGM 14	16.598	2.00	10	190	380	8	155	310	6	115	230
		EGM 16	18.598	2.00	10	170	340	8	135	270	6	105	210
	Wrought aluminium alloys Si < 6% hardened	EGM 2	2.520	0.40	11	1390	556	9	1135	454	7	885	354
		EGM 2.5	3.084	0.45	11	1135	511	9	930	419	7	720	324
		EGM 3	3.650	0.50	11	960	480	9	785	393	7	610	305
		EGM 4	4.910	0.70	11	715	501	9	585	410	7	455	319
		EGM 5	6.040	0.80	11	580	464	9	475	380	7	370	296
		EGM 6	7.300	1.00	11	480	480	9	390	390	7	305	305
		EGM 8	9.624	1.25	11	365	456	9	300	375	7	230	288
		EGM 10	11.948	1.50	11	295	443	9	240	360	7	185	278
		EGM 12	14.274	1.75	11	245	429	9	200	350	7	155	271
	Wrought aluminium alloys Si < 6% hardened	EGM 14	16.598	2.00	11	210	420	9	175	350	7	135	270
		EGM 16	18.598	2.00	11	190	380	9	155	310	7	120	240
	Unalloyed copper	EGM 2	2.520	0.40	12	1515	606	10	1265	506	8	1010	404
		EGM 2.5	3.084	0.45	12	1240	558	10	1030	464	8	825	371
		EGM 3	3.650	0.50	12	1045	523	10	870	435	8	700	350
		EGM 4	4.910	0.70	12	780	546	10	650	455	8	520	364
		EGM 5	6.040	0.80	12	630	504	10	525	420	8	420	336
		EGM 6	7.300	1.00	12	525	525	10	435	435	8	350	350
		EGM 8	9.624	1.25	12	395	494	10	330	413	8	265	331
		EGM 10	11.948	1.50	12	320	480	10	265	398	8	215	323
		EGM 12	14.274	1.75	12	270	473	10	225	394	8	180	315
	Unalloyed copper	EGM 14	16.598	2.00	12	230	460	10	190	380	8	155	310
		EGM 16	18.598	2.00	12	205	410	10	170	340	8	135	270

Taps for inserts

EG M	6H mod
HSS-E Co5	
DIN 371/376	
Form B	

E11970 / DIN 371



E11971 / DIN 376

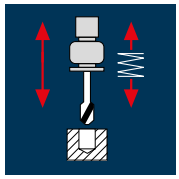
Rm < 850			Al Aluminium > 99%	Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermo-plast	GG(G)

Example: **Order-N°.** Article-N°. **E11970** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			E11970	
034	EGM 2	0.40	50	9.00	15.0	2.8	2.1	2	2.15	●	
040	EGM 2.5	0.45	56	12.00	18.0	3.5	2.7	3	2.65	●	
044	EGM 3	0.50	63	13.00	21.0	4.5	3.0	3	3.15	●	
058	EGM 4	0.70	70	15.00	25.0	6.0	4.9	3	4.20	●	
084	EGM 5	0.80	80	17.00	30.0	6.0	4.9	3	5.25	●	
088	EGM 6	1.00	90	20.00	35.0	8.0	6.2	3	6.30	●	
160	EGM 8	1.25	100	22.00	39.0	10.0	8.0	3	8.40	●	

Example: **Order-N°.** Article-N°. **E11971** ø-Code **174**

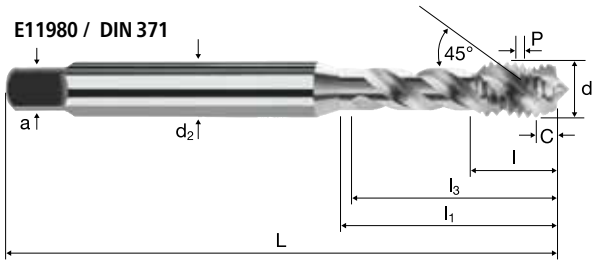
Ø Code	d	P	L	l	l_1	d_2	a			E11971	
174	EGM 10	1.50	110	24.00	40.0	9.0	7.0	3	10.40	●	
240	EGM 12	1.75	110	26.00	40.0	11.0	9.0	3	12.50	●	
244	EGM 14	2.00	110	27.00	40.0	12.0	9.0	4	14.50	●	
246	EGM 16	2.00	125	30.00	65.0	14.0	11.0	4	16.50	●	

Application	Material	EG-M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 500 N/mm²	EGM 2	2.520	0.40	11	1390	556	10	1265	506	8	1010	404
		EGM 2.5	3.084	0.45	11	1135	511	10	1030	464	8	825	371
		EGM 3	3.650	0.50	11	960	480	10	870	435	8	700	350
		EGM 4	4.910	0.70	11	715	501	10	650	455	8	520	364
		EGM 5	6.040	0.80	11	580	464	10	525	420	8	420	336
		EGM 6	7.300	1.00	11	480	480	10	435	435	8	350	350
		EGM 8	9.624	1.25	11	365	456	10	330	413	8	265	331
		EGM 10	11.948	1.50	11	295	443	10	265	398	8	215	323
		EGM 12	14.274	1.75	11	245	429	10	225	394	8	180	315
	Steel < 500 N/mm²	EGM 14	16.598	2.00	11	210	420	10	190	380	8	155	310
		EGM 16	18.598	2.00	11	190	380	10	170	340	8	135	270
	Steel 500 - 850 N/mm²	EGM 2	2.520	0.40	8	1010	404	7	885	354	6	760	304
		EGM 2.5	3.084	0.45	8	825	371	7	720	324	6	620	279
		EGM 3	3.650	0.50	8	700	350	7	610	305	6	525	263
		EGM 4	4.910	0.70	8	520	364	7	455	319	6	390	273
		EGM 5	6.040	0.80	8	420	336	7	370	296	6	315	252
		EGM 6	7.300	1.00	8	350	350	7	305	305	6	260	260
		EGM 8	9.624	1.25	8	265	331	7	230	288	6	200	250
		EGM 10	11.948	1.50	8	215	323	7	185	278	6	160	240
		EGM 12	14.274	1.75	8	180	315	7	155	271	6	135	236
	Steel 500 - 850 N/mm²	EGM 14	16.598	2.00	8	155	310	7	135	270	6	115	230
		EGM 16	18.598	2.00	8	135	270	7	120	240	6	105	210
	Wrought aluminium alloys Si < 6% hardened	EGM 2	2.520	0.40	7	885	354	6	760	304	6	760	304
		EGM 2.5	3.084	0.45	7	720	324	6	620	279	6	620	279
		EGM 3	3.650	0.50	7	610	305	6	525	263	6	525	263
		EGM 4	4.910	0.70	7	455	319	6	390	273	6	390	273
		EGM 5	6.040	0.80	7	370	296	6	315	252	6	315	252
		EGM 6	7.300	1.00	7	305	305	6	260	260	6	260	260
		EGM 8	9.624	1.25	7	230	288	6	200	250	6	200	250
		EGM 10	11.948	1.50	7	185	278	6	160	240	6	160	240
		EGM 12	14.274	1.75	7	155	271	6	135	236	6	135	236
	Wrought aluminium alloys Si < 6% hardened	EGM 14	16.598	2.00	7	135	270	6	115	230	6	115	230
		EGM 16	18.598	2.00	7	120	240	6	105	210	6	105	210
	Unalloyed copper	EGM 2	2.520	0.40	10	1265	506	9	1135	454	8	1010	404
		EGM 2.5	3.084	0.45	10	1030	464	9	930	419	8	825	371
		EGM 3	3.650	0.50	10	870	435	9	785	393	8	700	350
		EGM 4	4.910	0.70	10	650	455	9	585	410	8	520	364
		EGM 5	6.040	0.80	10	525	420	9	475	380	8	420	336
		EGM 6	7.300	1.00	10	435	435	9	390	390	8	350	350
		EGM 8	9.624	1.25	10	330	413	9	300	375	8	265	331
		EGM 10	11.948	1.50	10	265	398	9	240	360	8	215	323
		EGM 12	14.274	1.75	10	225	394	9	200	350	8	180	315
	Unalloyed copper	EGM 14	16.598	2.00	10	190	380	9	175	350	8	155	310
		EGM 16	18.598	2.00	10	170	340	9	155	310	8	135	270

Taps for inserts

EG M	6H mod
HSS-E Co5	
DIN 371/376	
Form C	

E11980 / DIN 371



E11981 / DIN 376

Rm < 850			Al Aluminium > 99%	Al Aluminium Alloy	Al Aluminium Cast		Cu Copper	Plastic Thermo-plast	GG(G)

Example: **Order-N°.** Article-N°. **E11980** ø-Code **034**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			E11980	
034	EGM 2	0.40	50	9.00	15.0	13.0	2.8	2.1	3	2.15	●	
040	EGM 2.5	0.45	56	4.00	18.0	16.0	3.5	2.7	3	2.65	●	
044	EGM 3	0.50	63	5.60	21.0	19.0	4.5	3.0	3	3.15	●	
058	EGM 4	0.70	70	6.40	25.0	23.0	6.0	4.9	3	4.20	●	
084	EGM 5	0.80	80	8.00	30.0	28.0	6.0	4.9	3	5.25	●	
088	EGM 6	1.00	90	10.00	35.0	33.0	8.0	6.2	3	6.30	●	
160	EGM 8	1.25	100	12.00	39.0	37.0	10.0	8.0	3	8.40	●	

Example: **Order-N°.** Article-N°. **E11981** ø-Code **174**

Ø Code	d	P	L	l	l_1	l_3	d_2	a			E11981	
174	EGM 10	1.50	110	14.00	50.0	48.0	9.0	7.0	3	10.40	●	
240	EGM 12	1.75	110	16.00	58.0	56.0	11.0	9.0	4	12.50	●	
244	EGM 14	2.00	110	16.00	58.0	56.0	12.0	9.0	4	14.50	●	
246	EGM 16	2.00	125	20.00	65.0	63.0	14.0	11.0	4	16.50	●	


passion
for precision
fraisa

Cold forming taps M

Tolerance ISO 2 (6H)

N° EF10060 / EF10061			Al	HSS PM/F		Al Aluminium Alloy	Cu Copper	373
N° EH6100 / EH6101		**duroform**	U	HM MG10		Rm <850-1100	Al Aluminium Alloy	377
N° EL10080 / EL10081		**Lightform Steel**	St	HSS PM/F		Rm <850		379
N° EH10070 / EH10071			St	HSS PM/F		Rm <850		383
N° EH10072 / EH10073			St	HSS PM/F		Rm <850		387

Tolerance ISO 3 (6G)

N° EF10064 / EF10065		Al	HSS PM/F		Al Aluminium Alloy	Cu Copper	389
N° EH10074 / EH10075		St	HSS PM/F		Rm <850		391

Tolerance 7G

N° EF10068		Al	HSS PM/F		Al Aluminium Alloy	Cu Copper	393
N° EH10078		St	HSS PM/F		Rm <850		395

CF


passion
for precision
fraisa

Cold forming taps MF

Tolerance ISO 2 (6H)

N° EF11260 / EF11261

N° EH11270 / EH11271

Al	HSS PM/F		Al Aluminium Alloy	Cu Copper	397
St	HSS PM/F		Rm <850		399

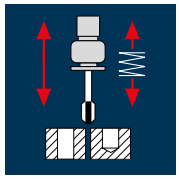
Cold forming taps for inserts EG M

Tolerance 6H mod

N° EF11960 / EF11961

N° EH11950 / EH11951

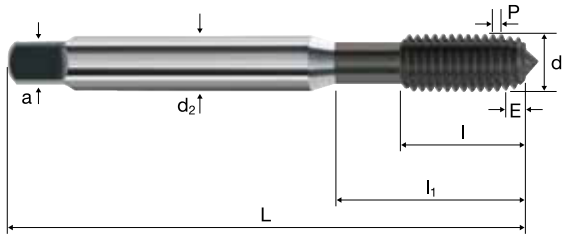
Al	HSS PM/F		Al Aluminium Alloy	Cu Copper	401
St	HSS PM/F		Rm <850		403

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Unalloyed aluminium	M 1	1.000	0.25	25	7960	1990	20	6365	1591	15	4775	1194
		M 1.2	1.200	0.25	25	6630	1658	20	5305	1326	15	3980	995
		M 1.4	1.400	0.30	25	5685	1706	20	4545	1364	15	3410	1023
		M 1.6	1.600	0.35	25	4975	1741	20	3980	1393	15	2985	1045
		M 1.8	1.800	0.35	25	4420	1547	20	3535	1237	15	2655	929
		M 2	2.000	0.40	25	3980	1592	20	3185	1274	15	2385	954
		M 2.2	2.200	0.45	25	3615	1627	20	2895	1303	15	2170	977
		M 2.5	2.500	0.45	25	3185	1433	20	2545	1145	15	1910	860
		M 3	3.000	0.50	25	2655	1328	20	2120	1060	15	1590	795
	Unalloyed aluminium	M 4	4.000	0.70	25	1990	1393	20	1590	1113	15	1195	837
		M 5	5.000	0.80	25	1590	1272	20	1275	1020	15	955	764
		M 6	6.000	1.00	25	1325	1325	20	1060	1060	15	795	795
		M 8	8.000	1.25	25	995	1244	20	795	994	15	595	744
		M 10	10.000	1.50	25	795	1193	20	635	953	15	475	713
	Wrought aluminium alloys Si < 6% not hardened	M 1	1.000	0.25	30	9550	2388	25	7960	1990	20	6365	1591
		M 1.2	1.200	0.25	30	7960	1990	25	6630	1658	20	5305	1326
		M 1.4	1.400	0.30	30	6820	2046	25	5685	1706	20	4545	1364
		M 1.6	1.600	0.35	30	5970	2090	25	4975	1741	20	3980	1393
		M 1.8	1.800	0.35	30	5305	1857	25	4420	1547	20	3535	1237
		M 2	2.000	0.40	30	4775	1910	25	3980	1592	20	3185	1274
		M 2.2	2.200	0.45	30	4340	1953	25	3615	1627	20	2895	1303
		M 2.5	2.500	0.45	30	3820	1719	25	3185	1433	20	2545	1145
		M 3	3.000	0.50	30	3185	1593	25	2655	1328	20	2120	1060
	Wrought aluminium alloys Si < 6% not hardened	M 4	4.000	0.70	30	2385	1670	25	1990	1393	20	1590	1113
		M 5	5.000	0.80	30	1910	1528	25	1590	1272	20	1275	1020
		M 6	6.000	1.00	30	1590	1590	25	1325	1325	20	1060	1060
		M 8	8.000	1.25	30	1195	1494	25	995	1244	20	795	994
		M 10	10.000	1.50	30	955	1433	25	795	1193	20	635	953
	Unalloyed copper	M 1	1.000	0.25	15	4775	1194	10	3185	796	10	3185	796
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	10	2655	664
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	10	2275	683
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	10	1990	697
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	10	1770	620
		M 2	2.000	0.40	15	2385	954	10	1590	636	10	1590	636
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	10	1445	650
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	10	1275	574
		M 3	3.000	0.50	15	1590	795	10	1060	530	10	1060	530
	Unalloyed copper	M 4	4.000	0.70	15	1195	837	10	795	557	10	795	557
		M 5	5.000	0.80	15	955	764	10	635	508	10	635	508
		M 6	6.000	1.00	15	795	795	10	530	530	10	530	530
		M 8	8.000	1.25	15	595	744	10	400	500	10	400	500
		M 10	10.000	1.50	15	475	713	10	320	480	10	320	480
	Non ferrous metal A_5 > 15%	M 1	1.000	0.25	15	4775	1194	10	3185	796	10	3185	796
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	10	2655	664
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	10	2275	683
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	10	1990	697
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	10	1770	620
		M 2	2.000	0.40	15	2385	954	10	1590	636	10	1590	636
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	10	1445	650
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	10	1275	574
		M 3	3.000	0.50	15	1590	795	10	1060	530	10	1060	530
	Non ferrous metal A_5 > 15%	M 4	4.000	0.70	15	1195	837	10	795	557	10	795	557
		M 5	5.000	0.80	15	955	764	10	635	508	10	635	508
		M 6	6.000	1.00	15	795	795	10	530	530	10	530	530
		M 8	8.000	1.25	15	595	744	10	400	500	10	400	500
		M 10	10.000	1.50	15	475	713	10	320	480	10	320	480

Cold forming taps

Al

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371	
	X · P Form E



			Al Aluminium > 99%	Al Aluminium Alloy			Cu Copper		CuZn Brass

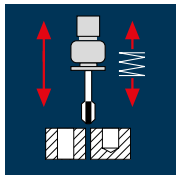
Example: **Order-N°.** Article-N°. **EF10060** ø-Code **010**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF10060
010	M 1	0.25	40	5.50	-	2.5	2.1	3	0.87	●
012	M 1.2	0.25	40	5.50	-	2.5	2.1	3	1.07	●
020	M 1.4	0.30	40	7.00	-	2.5	2.1	3	1.25	●
022	M 1.6	0.35	40	8.00	-	2.5	2.1	3	1.42	●
026	M 1.8	0.35	40	8.00	-	2.5	2.1	3	1.62	●
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.80	●
036	M 2.2	0.45	45	9.00	-	2.8	2.1	3	2.00	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.30	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	4	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	4	9.30	●

≤ M 1.4 Tolerance ISO1 (4H)

For larger dimensions see article no. EF10061

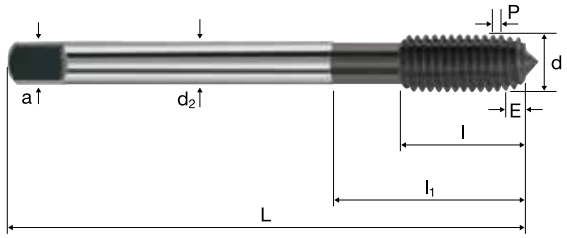
CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Unalloyed aluminium	M 12	12.000	1.75	25	665	1164	20	530	928	15	400	700
		M 14	14.000	2.00	25	570	1140	20	455	910	15	340	680
		M 16	16.000	2.00	25	495	990	20	400	800	15	300	600
	Wrought aluminium alloys Si < 6% not hardened	M 12	12.000	1.75	30	795	1391	25	665	1164	20	530	928
		M 14	14.000	2.00	30	680	1360	25	570	1140	20	455	910
		M 16	16.000	2.00	30	595	1190	25	495	990	20	400	800
	Unalloyed copper	M 12	12.000	1.75	15	400	700	10	265	464	10	265	464
		M 14	14.000	2.00	15	340	680	10	225	450	10	225	450
		M 16	16.000	2.00	15	300	600	10	200	400	10	200	400
	Non ferrous metal A_5 > 15%	M 12	12.000	1.75	15	400	700	10	265	464	10	265	464
		M 14	14.000	2.00	15	340	680	10	225	450	10	225	450
		M 16	16.000	2.00	15	300	600	10	200	400	10	200	400

Cold forming taps

Al

M	ISO 2 (6H)
60°	HSS PM/F
DIN 376	
	Form E

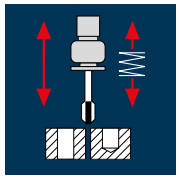


			Al Aluminium > 99%	Al Aluminium Alloy			Cu Copper		CuZn Brass

Example:
Order-N°. Article-N°. **EF10061** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF10061
240	M 12	1.75	110	24.00	40.0	9.0	7.0	5	11.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	5	13.10	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	5	15.10	●

CF

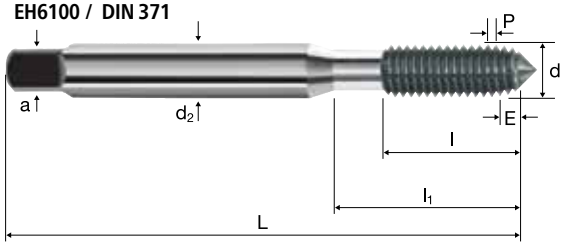
Application	Material	M	d [mm]	P [mm]	v_c 1.0 x d	n [min⁻¹]	v_f [100%]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 3	3.000	0.50	35	3715	1858	30	3185	1593	25	2655	1328
		M 4	4.000	0.70	35	2785	1950	30	2385	1670	25	1990	1393
		M 5	5.000	0.80	35	2230	1784	30	1910	1528	25	1590	1272
		M 6	6.000	1.00	35	1855	1855	30	1590	1590	25	1325	1325
		M 8	8.000	1.25	35	1395	1744	30	1195	1494	25	995	1244
		M 10	10.000	1.50	35	1115	1673	30	955	1433	25	795	1193
		M 12	12.000	1.75	35	930	1628	30	795	1391	25	665	1164
	Steel 850 - 1100 N/mm² A_5 > 10%	M 3	3.000	0.50	30	3185	1593	25	2655	1328	20	2120	1060
		M 4	4.000	0.70	30	2385	1670	25	1990	1393	20	1590	1113
		M 5	5.000	0.80	30	1910	1528	25	1590	1272	20	1275	1020
		M 6	6.000	1.00	30	1590	1590	25	1325	1325	20	1060	1060
		M 8	8.000	1.25	30	1195	1494	25	995	1244	20	795	994
		M 10	10.000	1.50	30	955	1433	25	795	1193	20	635	953
		M 12	12.000	1.75	30	795	1391	25	665	1164	20	530	928
	Unalloyed aluminium	M 3	3.000	0.50	50	5305	2653	40	4245	2123	30	3185	1593
		M 4	4.000	0.70	50	3980	2786	40	3185	2230	30	2385	1670
		M 5	5.000	0.80	50	3185	2548	40	2545	2036	30	1910	1528
		M 6	6.000	1.00	50	2655	2655	40	2120	2120	30	1590	1590
		M 8	8.000	1.25	50	1990	2488	40	1590	1988	30	1195	1494
		M 10	10.000	1.50	50	1590	2385	40	1275	1913	30	955	1433
		M 12	12.000	1.75	50	1325	2319	40	1060	1855	30	795	1391
	Wrought aluminium alloys Si < 6% not hardened	M 3	3.000	0.50	80	8490	4245	60	6365	3183	40	4245	2123
		M 4	4.000	0.70	80	6365	4456	60	4775	3343	40	3185	2230
		M 5	5.000	0.80	80	5095	4076	60	3820	3056	40	2545	2036
		M 6	6.000	1.00	80	4245	4245	60	3185	3185	40	2120	2120
		M 8	8.000	1.25	80	3185	3981	60	2385	2981	40	1590	1988
		M 10	10.000	1.50	80	2545	3818	60	1910	2865	40	1275	1913
		M 12	12.000	1.75	80	2120	3710	60	1590	2783	40	1060	1855
	Unalloyed copper	M 3	3.000	0.50	60	6365	3183	40	4245	2123	30	3185	1593
		M 4	4.000	0.70	60	4775	3343	40	3185	2230	30	2385	1670
		M 5	5.000	0.80	60	3820	3056	40	2545	2036	30	1910	1528
		M 6	6.000	1.00	60	3185	3185	40	2120	2120	30	1590	1590
		M 8	8.000	1.25	60	2385	2981	40	1590	1988	30	1195	1494
		M 10	10.000	1.50	60	1910	2865	40	1275	1913	30	955	1433
		M 12	12.000	1.75	60	1590	2783	40	1060	1855	30	795	1391
	Non ferrous metal A_5 > 15%	M 3	3.000	0.50	50	5305	2653	30	3185	1593	25	2655	1328
		M 4	4.000	0.70	50	3980	2786	30	2385	1670	25	1990	1393
		M 5	5.000	0.80	50	3185	2548	30	1910	1528	25	1590	1272
		M 6	6.000	1.00	50	2655	2655	30	1590	1590	25	1325	1325
		M 8	8.000	1.25	50	1990	2488	30	1195	1494	25	995	1244
		M 10	10.000	1.50	50	1590	2385	30	955	1433	25	795	1193
		M 12	12.000	1.75	50	1325	2319	30	795	1391	25	665	1164
	Stainless steel ferritc/martensitic A_5 > 10%	M 3	3.000	0.50	30	3185	1593	25	2655	1328	20	2120	1060
		M 4	4.000	0.70	30	2385	1670	25	1990	1393	20	1590	1113
		M 5	5.000	0.80	30	1910	1528	25	1590	1272	20	1275	1020
		M 6	6.000	1.00	30	1590	1590	25	1325	1325	20	1060	1060
		M 8	8.000	1.25	30	1195	1494	25	995	1244	20	795	994
		M 10	10.000	1.50	30	955	1433	25	795	1193	20	635	953
		M 12	12.000	1.75	30	795	1391	25	665	1164	20	530	928
	Stainless steel [Cr-Ni/1.4301]	M 3	3.000	0.50	30	3185	1593	25	2655	1328	20	2120	1060
		M 4	4.000	0.70	30	2385	1670	25	1990	1393	20	1590	1113
		M 5	5.000	0.80	30	1910	1528	25	1590	1272	20	1275	1020
		M 6	6.000	1.00	30	1590	1590	25	1325	1325	20	1060	1060
		M 8	8.000	1.25	30	1195	1494	25	995	1244	20	795	994
		M 10	10.000	1.50	30	955	1433	25	795	1193	20	635	953
		M 12	12.000	1.75	30	795	1391	25	665	1164	20	530	928

Cold forming taps duroform

U

M	ISO 2 (6H)
60°	HM MG10
DIN 371/376	
	Form E

EH6100 / DIN 371



EH6101 / DIN 376

Rm < 850	Rm 850-1100						Inox Stainless		Aluminium Copper

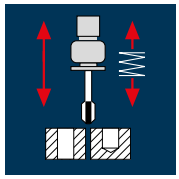
Example: **Order-N°.** Article-N°. **EH6100** ø-Code **044**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH6100
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	4	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	5	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	5	9.30	●

Example: **Order-N°.** Article-N°. **EH6101** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH6101
240	M 12	1.75	110	24.00	50.0	9.0	7.0	7	11.20	●

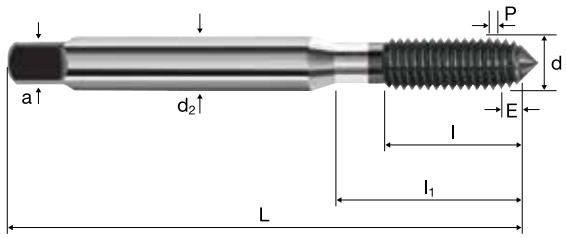
CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 1	1.000	0.25	20	6365	1591	15	4775	1194	10	3185	796
		M 1.2	1.200	0.25	20	5305	1326	15	3980	995	10	2655	664
		M 1.4	1.400	0.30	20	4545	1364	15	3410	1023	10	2275	683
		M 1.6	1.600	0.35	20	3980	1393	15	2985	1045	10	1990	697
		M 1.8	1.800	0.35	20	3535	1237	15	2655	929	10	1770	620
		M 2	2.000	0.40	20	3185	1274	15	2385	954	10	1590	636
		M 2.2	2.200	0.45	20	2895	1303	15	2170	977	10	1445	650
		M 2.5	2.500	0.45	20	2545	1145	15	1910	860	10	1275	574
		M 3	3.000	0.50	20	2120	1060	15	1590	795	10	1060	530
	Steel < 850 N/mm² A_5 > 10%	M 4	4.000	0.70	20	1590	1113	15	1195	837	10	795	557
		M 5	5.000	0.80	20	1275	1020	15	955	764	10	635	508
		M 6	6.000	1.00	20	1060	1060	15	795	795	10	530	530
		M 8	8.000	1.25	20	795	994	15	595	744	10	400	500
		M 10	10.000	1.50	20	635	953	15	475	713	10	320	480
	Steel 850 - 1100 N/mm² A_5 > 10%	M 1	1.000	0.25	15	4775	1194	10	3185	796	-	-	-
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	-	-	-
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	-	-	-
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	-	-	-
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	-	-	-
		M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
	Steel 850 - 1100 N/mm² A_5 > 10%	M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 1	1.000	0.25	15	4775	1194	10	3185	796	-	-	-
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	-	-	-
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	-	-	-
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	-	-	-
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	-	-	-
		M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 1	1.000	0.25	15	4775	1194	10	3185	796	-	-	-
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	-	-	-
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	-	-	-
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	-	-	-
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	-	-	-
		M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-

Cold forming taps Lightform Steel

St

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371	
	X · P Form C



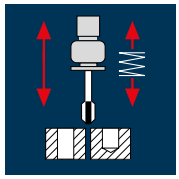
Rm < 850	Rm 850-1100						Inox Stainless		

Example:
Order-N°. Article-N°. **EL10080** ø-Code **010**

Ø Code	d	P	L	l	l_1	d_2	a			LONGCUT EL10080
010*	M 1	0.25	40	5.50	-	2.5	2.1	3	0.87	●
012*	M 1.2	0.25	40	5.50	-	2.5	2.1	3	1.07	●
020*	M 1.4	0.30	40	7.00	-	2.5	2.1	3	1.25	●
022*	M 1.6	0.35	40	8.00	-	2.5	2.1	3	1.42	●
026*	M 1.8	0.35	40	8.00	-	2.5	2.1	3	1.62	●
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.80	●
036	M 2.2	0.45	45	9.00	-	2.8	2.1	3	2.00	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.30	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	4	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	4	9.30	●

≤ M 1.4 Tolerance ISO1 (4H)
* without oil grooves
For larger dimensions see article no. EL10081

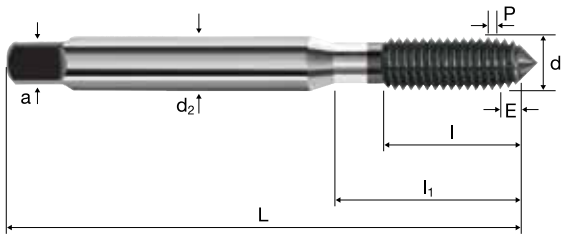
CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 12	12.000	1.75	20	530	928	15	400	700	10	265	464
		M 14	14.000	2.00	20	455	910	15	340	680	10	225	450
		M 16	16.000	2.00	20	400	800	15	300	600	10	200	400
	Steel 850 - 1100 N/mm² A_5 > 10%	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-

Cold forming taps Lightform Steel

St

M	ISO 2 (6H)
60°	HSS PM/F
DIN 376	
	X · P Form C

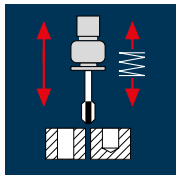


Rm < 850	Rm 850-1100						Inox Stainless		

Example:
Order-N°. Article-N°. **EL10081** ø-Code **240**

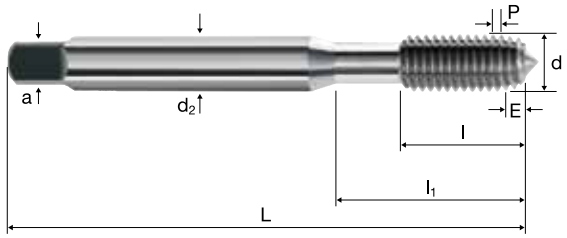
Ø Code	d	P	L	l	l_1	d_2	a			LONGCUT EL10081
240	M 12	1.75	110	24.00	40.0	9.0	7.0	5	11.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	5	13.10	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	5	15.10	●

CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 1	1.000	0.25	20	6365	1591	15	4775	1194	10	3185	796
		M 1.2	1.200	0.25	20	5305	1326	15	3980	995	10	2655	664
		M 1.4	1.400	0.30	20	4545	1364	15	3410	1023	10	2275	683
		M 1.6	1.600	0.35	20	3980	1393	15	2985	1045	10	1990	697
		M 1.8	1.800	0.35	20	3535	1237	15	2655	929	10	1770	620
		M 2	2.000	0.40	20	3185	1274	15	2385	954	10	1590	636
		M 2.2	2.200	0.45	20	2895	1303	15	2170	977	10	1445	650
		M 2.5	2.500	0.45	20	2545	1145	15	1910	860	10	1275	574
		M 3	3.000	0.50	20	2120	1060	15	1590	795	10	1060	530
	Steel < 850 N/mm² A_5 > 10%	M 4	4.000	0.70	20	1590	1113	15	1195	837	10	795	557
		M 5	5.000	0.80	20	1275	1020	15	955	764	10	635	508
		M 6	6.000	1.00	20	1060	1060	15	795	795	10	530	530
		M 8	8.000	1.25	20	795	994	15	595	744	10	400	500
		M 10	10.000	1.50	20	635	953	15	475	713	10	320	480
	Steel 850 - 1100 N/mm² A_5 > 10%	M 1	1.000	0.25	15	4775	1194	10	3185	796	-	-	-
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	-	-	-
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	-	-	-
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	-	-	-
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	-	-	-
		M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
	Steel 850 - 1100 N/mm² A_5 > 10%	M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 1	1.000	0.25	15	4775	1194	10	3185	796	-	-	-
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	-	-	-
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	-	-	-
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	-	-	-
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	-	-	-
		M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 1	1.000	0.25	15	4775	1194	10	3185	796	-	-	-
		M 1.2	1.200	0.25	15	3980	995	10	2655	664	-	-	-
		M 1.4	1.400	0.30	15	3410	1023	10	2275	683	-	-	-
		M 1.6	1.600	0.35	15	2985	1045	10	1990	697	-	-	-
		M 1.8	1.800	0.35	15	2655	929	10	1770	620	-	-	-
		M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-

St

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371	
	Form E



Rm < 850	Rm 850-1100						Inox Stainless		

Example: **Order-N°.** Article-N°. **EH10070** ø-Code **010**

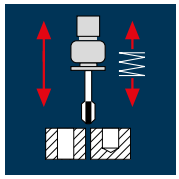
Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH10070
010*	M 1	0.25	40	5.50	-	2.5	2.1	3	0.87	●
012*	M 1.2	0.25	40	5.50	-	2.5	2.1	3	1.07	●
020*	M 1.4	0.30	40	7.00	-	2.5	2.1	3	1.25	●
022*	M 1.6	0.35	40	8.00	-	2.5	2.1	3	1.42	●
026*	M 1.8	0.35	40	8.00	-	2.5	2.1	3	1.62	●
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.80	●
036	M 2.2	0.45	45	9.00	-	2.8	2.1	3	2.00	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.30	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	4	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	5	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	5	9.30	●

≤ M 1.4 Tolerance ISO1 (4H)

* without oil grooves

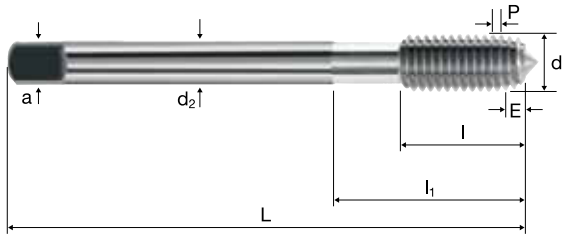
For larger dimensions see article no. EH10071

CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 12	12.000	1.75	20	530	928	15	400	700	10	265	464
		M 14	14.000	2.00	20	455	910	15	340	680	10	225	450
		M 16	16.000	2.00	20	400	800	15	300	600	10	200	400
	Steel 850 - 1100 N/mm² A_5 > 10%	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-

St

M	ISO 2 (6H)
60°	HSS PM/F
DIN 376	
	Form E

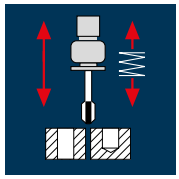


Rm < 850	Rm 850-1100						Inox Stainless		

Example:
Order-N°. Article-N°. **EH10071** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH10071
240	M 12	1.75	110	24.00	40.0	9.0	7.0	7	11.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	7	13.10	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	7	15.10	●

CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 6	6.000	1.00	25	1325	1325	20	1060	1060	15	795	795
		M 8	8.000	1.25	25	995	1244	20	795	994	15	595	744
		M 10	10.000	1.50	25	795	1193	20	635	953	15	475	713
		M 12	12.000	1.75	25	665	1164	20	530	928	15	400	700
		M 14	14.000	2.00	25	570	1140	20	455	910	15	340	680
		M 16	16.000	2.00	25	495	990	20	400	800	15	300	600
	Steel 850 - 1100 N/mm² A_5 > 10%	M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
		M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
		M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
		M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-

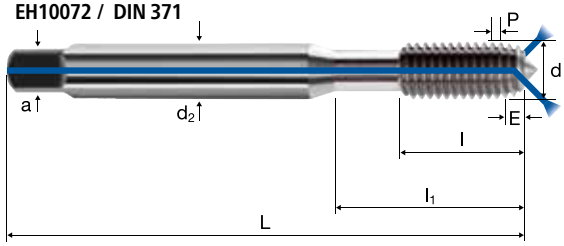
Cold forming taps

Incool

St

M	ISO 2 (6H)
60°	HSS PM/F
DIN 371/376	
	Form E

EH10072 / DIN 371



EH10073 / DIN 376

Rm < 850	Rm 850-1100						Inox Stainless		

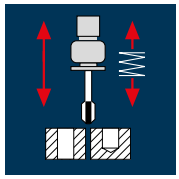
Example: **Order-N°.** Article-N°. **EH10072** ø-Code **088**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH10072
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	5	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	5	9.30	●

Example: **Order-N°.** Article-N°. **EH10073** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH10073
240	M 12	1.75	110	24.00	50.0	9.0	7.0	7	11.20	●
244	M 14	2.00	110	26.00	58.0	11.0	9.0	7	13.10	●
246	M 16	2.00	110	27.00	58.0	12.0	9.0	7	15.10	●

CF

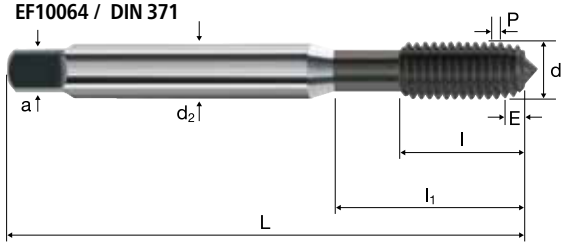
Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Unalloyed aluminium	M 2	2.000	0.40	25	3980	1592	20	3185	1274	15	2385	954
		M 2.2	2.200	0.45	25	3615	1627	20	2895	1303	15	2170	977
		M 2.5	2.500	0.45	25	3185	1433	20	2545	1145	15	1910	860
		M 3	3.000	0.50	25	2655	1328	20	2120	1060	15	1590	795
		M 4	4.000	0.70	25	1990	1393	20	1590	1113	15	1195	837
		M 5	5.000	0.80	25	1590	1272	20	1275	1020	15	955	764
		M 6	6.000	1.00	25	1325	1325	20	1060	1060	15	795	795
		M 8	8.000	1.25	25	995	1244	20	795	994	15	595	744
		M 10	10.000	1.50	25	795	1193	20	635	953	15	475	713
	Unalloyed aluminium	M 12	12.000	1.75	25	665	1164	20	530	928	15	400	700
		M 14	14.000	2.00	25	570	1140	20	455	910	15	340	680
		M 16	16.000	2.00	25	495	990	20	400	800	15	300	600
	Wrought aluminium alloys Si < 6% not hardened	M 2	2.000	0.40	30	4775	1910	25	3980	1592	20	3185	1274
		M 2.2	2.200	0.45	30	4340	1953	25	3615	1627	20	2895	1303
		M 2.5	2.500	0.45	30	3820	1719	25	3185	1433	20	2545	1145
		M 3	3.000	0.50	30	3185	1593	25	2655	1328	20	2120	1060
		M 4	4.000	0.70	30	2385	1670	25	1990	1393	20	1590	1113
		M 5	5.000	0.80	30	1910	1528	25	1590	1272	20	1275	1020
		M 6	6.000	1.00	30	1590	1590	25	1325	1325	20	1060	1060
		M 8	8.000	1.25	30	1195	1494	25	995	1244	20	795	994
		M 10	10.000	1.50	30	955	1433	25	795	1193	20	635	953
	Wrought aluminium alloys Si < 6% not hardened	M 12	12.000	1.75	30	795	1391	25	665	1164	20	530	928
		M 14	14.000	2.00	30	680	1360	25	570	1140	20	455	910
		M 16	16.000	2.00	30	595	1190	25	495	990	20	400	800
	Unalloyed copper	M 2	2.000	0.40	15	2385	954	10	1590	636	10	1590	636
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	10	1445	650
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	10	1275	574
		M 3	3.000	0.50	15	1590	795	10	1060	530	10	1060	530
		M 4	4.000	0.70	15	1195	837	10	795	557	10	795	557
		M 5	5.000	0.80	15	955	764	10	635	508	10	635	508
		M 6	6.000	1.00	15	795	795	10	530	530	10	530	530
		M 8	8.000	1.25	15	595	744	10	400	500	10	400	500
		M 10	10.000	1.50	15	475	713	10	320	480	10	320	480
	Unalloyed copper	M 12	12.000	1.75	15	400	700	10	265	464	10	265	464
		M 14	14.000	2.00	15	340	680	10	225	450	10	225	450
		M 16	16.000	2.00	15	300	600	10	200	400	10	200	400
	Non ferrous metal A_5 > 15%	M 2	2.000	0.40	15	2385	954	10	1590	636	10	1590	636
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	10	1445	650
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	10	1275	574
		M 3	3.000	0.50	15	1590	795	10	1060	530	10	1060	530
		M 4	4.000	0.70	15	1195	837	10	795	557	10	795	557
		M 5	5.000	0.80	15	955	764	10	635	508	10	635	508
		M 6	6.000	1.00	15	795	795	10	530	530	10	530	530
		M 8	8.000	1.25	15	595	744	10	400	500	10	400	500
		M 10	10.000	1.50	15	475	713	10	320	480	10	320	480
	Non ferrous metal A_5 > 15%	M 12	12.000	1.75	15	400	700	10	265	464	10	265	464
		M 14	14.000	2.00	15	340	680	10	225	450	10	225	450
		M 16	16.000	2.00	15	300	600	10	200	400	10	200	400

Cold forming taps

Al

M	ISO 3 (6G)
60°	HSS PM/F
DIN 371/376	
	Form E

EF10064 / DIN 371



EF10065 / DIN 376

			Al Aluminium > 99%	Al Aluminium Alloy			Cu Copper		CuZn Brass

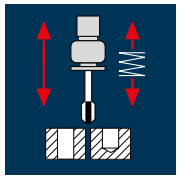
Example: **Order-N°.** Article-N°. **EF10064** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF10064
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.80	●
036	M 2.2	0.45	45	9.00	-	2.8	2.1	3	2.00	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.30	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	4	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	4	9.30	●

Example: **Order-N°.** Article-N°. **EF10065** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF10065
240	M 12	1.75	110	24.00	40.0	9.0	7.0	5	11.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	5	13.10	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	5	15.10	●

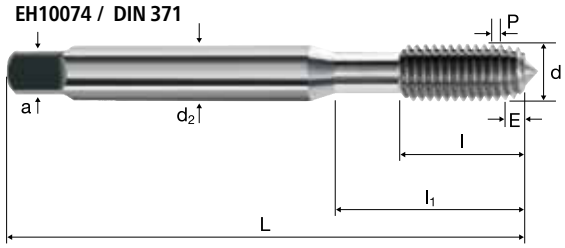
CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 2	2.000	0.40	20	3185	1274	15	2385	954	10	1590	636
		M 2.2	2.200	0.45	20	2895	1303	15	2170	977	10	1445	650
		M 2.5	2.500	0.45	20	2545	1145	15	1910	860	10	1275	574
		M 3	3.000	0.50	20	2120	1060	15	1590	795	10	1060	530
		M 4	4.000	0.70	20	1590	1113	15	1195	837	10	795	557
		M 5	5.000	0.80	20	1275	1020	15	955	764	10	635	508
		M 6	6.000	1.00	20	1060	1060	15	795	795	10	530	530
		M 8	8.000	1.25	20	795	994	15	595	744	10	400	500
		M 10	10.000	1.50	20	635	953	15	475	713	10	320	480
	Steel < 850 N/mm² A_5 > 10%	M 12	12.000	1.75	20	530	928	15	400	700	10	265	464
		M 14	14.000	2.00	20	455	910	15	340	680	10	225	450
		M 16	16.000	2.00	20	400	800	15	300	600	10	200	400
	Steel 850 - 1100 N/mm² A_5 > 10%	M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
		M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Steel 850 - 1100 N/mm² A_5 > 10%	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
		M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
		M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.75	15	400	700	10	265	464	-	-	-
		M 14	14.000	2.00	15	340	680	10	225	450	-	-	-
		M 16	16.000	2.00	15	300	600	10	200	400	-	-	-

Cold forming taps

St

M	ISO 3 (6G)
60°	HSS PM/F
DIN 371/376	
	Form E



Rm < 850	Rm 850-1100						Inox Stainless		

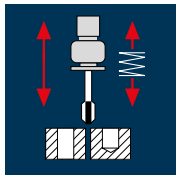
Example: **Order-N°.** Article-N°. **EH10074** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH10074
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.80	●
036	M 2.2	0.45	45	9.00	-	2.8	2.1	3	2.00	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.30	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	5	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	5	9.30	●

Example: **Order-N°.** Article-N°. **EH10075** ø-Code **240**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH10075
240	M 12	1.75	110	24.00	40.0	9.0	7.0	7	11.20	●
244	M 14	2.00	110	26.00	40.0	11.0	9.0	7	13.10	●
246	M 16	2.00	110	27.00	40.0	12.0	9.0	7	15.10	●

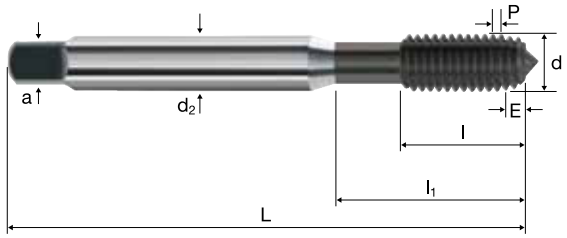
CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Unalloyed aluminium	M 2	2.000	0.40	25	3980	1592	20	3185	1274	15	2385	954
		M 2.2	2.200	0.45	25	3615	1627	20	2895	1303	15	2170	977
		M 2.5	2.500	0.45	25	3185	1433	20	2545	1145	15	1910	860
		M 3	3.000	0.50	25	2655	1328	20	2120	1060	15	1590	795
		M 4	4.000	0.70	25	1990	1393	20	1590	1113	15	1195	837
		M 5	5.000	0.80	25	1590	1272	20	1275	1020	15	955	764
		M 6	6.000	1.00	25	1325	1325	20	1060	1060	15	795	795
		M 8	8.000	1.25	25	995	1244	20	795	994	15	595	744
		M 10	10.000	1.50	25	795	1193	20	635	953	15	475	713
	Wrought aluminium alloys Si < 6% not hardened	M 2	2.000	0.40	30	4775	1910	25	3980	1592	20	3185	1274
		M 2.2	2.200	0.45	30	4340	1953	25	3615	1627	20	2895	1303
		M 2.5	2.500	0.45	30	3820	1719	25	3185	1433	20	2545	1145
		M 3	3.000	0.50	30	3185	1593	25	2655	1328	20	2120	1060
		M 4	4.000	0.70	30	2385	1670	25	1990	1393	20	1590	1113
		M 5	5.000	0.80	30	1910	1528	25	1590	1272	20	1275	1020
		M 6	6.000	1.00	30	1590	1590	25	1325	1325	20	1060	1060
		M 8	8.000	1.25	30	1195	1494	25	995	1244	20	795	994
		M 10	10.000	1.50	30	955	1433	25	795	1193	20	635	953
	Unalloyed copper	M 2	2.000	0.40	15	2385	954	10	1590	636	10	1590	636
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	10	1445	650
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	10	1275	574
		M 3	3.000	0.50	15	1590	795	10	1060	530	10	1060	530
		M 4	4.000	0.70	15	1195	837	10	795	557	10	795	557
		M 5	5.000	0.80	15	955	764	10	635	508	10	635	508
		M 6	6.000	1.00	15	795	795	10	530	530	10	530	530
		M 8	8.000	1.25	15	595	744	10	400	500	10	400	500
		M 10	10.000	1.50	15	475	713	10	320	480	10	320	480
	Non ferrous metal A_5 > 15%	M 2	2.000	0.40	15	2385	954	10	1590	636	10	1590	636
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	10	1445	650
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	10	1275	574
		M 3	3.000	0.50	15	1590	795	10	1060	530	10	1060	530
		M 4	4.000	0.70	15	1195	837	10	795	557	10	795	557
		M 5	5.000	0.80	15	955	764	10	635	508	10	635	508
		M 6	6.000	1.00	15	795	795	10	530	530	10	530	530
		M 8	8.000	1.25	15	595	744	10	400	500	10	400	500
		M 10	10.000	1.50	15	475	713	10	320	480	10	320	480

Cold forming taps

Al

M	7G
60°	HSS PM/F
DIN 371	
	X · P Form E

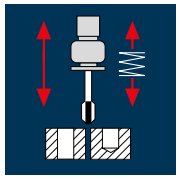


			Al Aluminium > 99%	Al Aluminium Alloy			Cu Copper		CuZn Brass

Example: **Order-N°.** Article-N°. **EF10068** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF10068
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.80	●
036	M 2.2	0.45	45	9.00	-	2.8	2.1	3	2.00	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.30	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	3	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	4	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	4	9.30	●

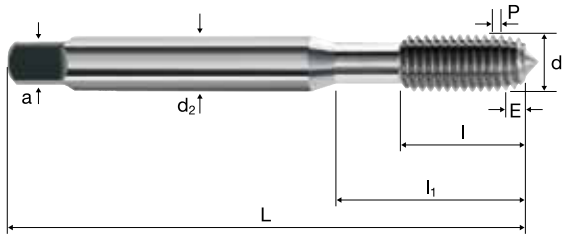
CF

Application	Material	M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 2	2.000	0.40	20	3185	1274	15	2385	954	10	1590	636
		M 2.2	2.200	0.45	20	2895	1303	15	2170	977	10	1445	650
		M 2.5	2.500	0.45	20	2545	1145	15	1910	860	10	1275	574
		M 3	3.000	0.50	20	2120	1060	15	1590	795	10	1060	530
		M 4	4.000	0.70	20	1590	1113	15	1195	837	10	795	557
		M 5	5.000	0.80	20	1275	1020	15	955	764	10	635	508
		M 6	6.000	1.00	20	1060	1060	15	795	795	10	530	530
		M 8	8.000	1.25	20	795	994	15	595	744	10	400	500
		M 10	10.000	1.50	20	635	953	15	475	713	10	320	480
	Steel 850 - 1100 N/mm² A_5 > 10%	M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
		M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
		M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 2	2.000	0.40	15	2385	954	10	1590	636	-	-	-
		M 2.2	2.200	0.45	15	2170	977	10	1445	650	-	-	-
		M 2.5	2.500	0.45	15	1910	860	10	1275	574	-	-	-
		M 3	3.000	0.50	15	1590	795	10	1060	530	-	-	-
		M 4	4.000	0.70	15	1195	837	10	795	557	-	-	-
		M 5	5.000	0.80	15	955	764	10	635	508	-	-	-
		M 6	6.000	1.00	15	795	795	10	530	530	-	-	-
		M 8	8.000	1.25	15	595	744	10	400	500	-	-	-
		M 10	10.000	1.50	15	475	713	10	320	480	-	-	-

Cold forming taps

St

M	7G
60°	HSS PM/F
DIN 371	
	Form E

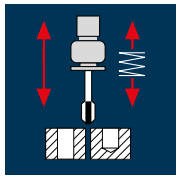


Rm < 850	Rm 850-1100						Inox Stainless		

Example:
Order-N°. Article-N°. **EH10078** ø-Code **034**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH10078
034	M 2	0.40	45	8.00	-	2.8	2.1	3	1.80	●
036	M 2.2	0.45	45	9.00	-	2.8	2.1	3	2.00	●
040	M 2.5	0.45	50	9.00	-	2.8	2.1	3	2.30	●
044	M 3	0.50	56	12.00	18.0	3.5	2.7	3	2.80	●
058	M 4	0.70	63	13.00	21.0	4.5	3.4	4	3.70	●
084	M 5	0.80	70	15.00	25.0	6.0	4.9	4	4.60	●
088	M 6	1.00	80	17.00	30.0	6.0	4.9	4	5.50	●
160	M 8	1.25	90	20.00	35.0	8.0	6.2	5	7.40	●
174	M 10	1.50	100	22.00	39.0	10.0	8.0	5	9.30	●

CF

Application	Material	MF	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Unalloyed aluminium	M 4	4.000	0.50	25	1990	995	20	1590	795	15	1195	598
		M 5	5.000	0.50	25	1590	795	20	1275	638	15	955	478
		M 6	6.000	0.50	25	1325	663	20	1060	530	15	795	398
		M 6	6.000	0.75	25	1325	994	20	1060	795	15	795	596
		M 8	8.000	0.75	25	995	746	20	795	596	15	595	446
		M 10	10.000	0.75	25	795	596	20	635	476	15	475	356
		M 8	8.000	1.00	25	995	995	20	795	795	15	595	595
		M 10	10.000	1.00	25	795	795	20	635	635	15	475	475
		M 10	10.000	1.25	25	795	994	20	635	794	15	475	594
	Unalloyed aluminium	M 12	12.000	1.00	25	665	665	20	530	530	15	400	400
		M 14	14.000	1.00	25	570	570	20	455	455	15	340	340
		M 16	16.000	1.00	25	495	495	20	400	400	15	300	300
		M 12	12.000	1.25	25	665	831	20	530	663	15	400	500
		M 12	12.000	1.50	25	665	998	20	530	795	15	400	600
		M 14	14.000	1.50	25	570	855	20	455	683	15	340	510
		M 16	16.000	1.50	25	495	743	20	400	600	15	300	450
		M 20	20.000	1.50	25	400	600	20	320	480	15	240	360
	Wrought aluminium alloys Si < 6% not hardened	M 4	4.000	0.50	30	2385	1193	25	1990	995	20	1590	795
		M 5	5.000	0.50	30	1910	955	25	1590	795	20	1275	638
		M 6	6.000	0.50	30	1590	795	25	1325	663	20	1060	530
		M 6	6.000	0.75	30	1590	1193	25	1325	994	20	1060	795
		M 8	8.000	0.75	30	1195	896	25	995	746	20	795	596
		M 10	10.000	0.75	30	955	716	25	795	596	20	635	476
		M 8	8.000	1.00	30	1195	1195	25	995	995	20	795	795
		M 10	10.000	1.00	30	955	955	25	795	795	20	635	635
		M 10	10.000	1.25	30	955	1194	25	795	994	20	635	794
	Wrought aluminium alloys Si < 6% not hardened	M 12	12.000	1.00	30	795	795	25	665	665	20	530	530
		M 14	14.000	1.00	30	680	680	25	570	570	20	455	455
		M 16	16.000	1.00	30	595	595	25	495	495	20	400	400
		M 12	12.000	1.25	30	795	994	25	665	831	20	530	663
		M 12	12.000	1.50	30	795	1193	25	665	998	20	530	795
		M 14	14.000	1.50	30	680	1020	25	570	855	20	455	683
		M 16	16.000	1.50	30	595	893	25	495	743	20	400	600
		M 20	20.000	1.50	30	475	713	25	400	600	20	320	480
	Unalloyed copper	M 4	4.000	0.50	15	1195	598	10	795	398	10	795	398
		M 5	5.000	0.50	15	955	478	10	635	318	10	635	318
		M 6	6.000	0.50	15	795	398	10	530	265	10	530	265
		M 6	6.000	0.75	15	795	596	10	530	398	10	530	398
		M 8	8.000	0.75	15	595	446	10	400	300	10	400	300
		M 10	10.000	0.75	15	475	356	10	320	240	10	320	240
		M 8	8.000	1.00	15	595	595	10	400	400	10	400	400
		M 10	10.000	1.00	15	475	475	10	320	320	10	320	320
		M 10	10.000	1.25	15	475	594	10	320	400	10	320	400
	Unalloyed copper	M 12	12.000	1.00	15	400	400	10	265	265	10	265	265
		M 14	14.000	1.00	15	340	340	10	225	225	10	225	225
		M 16	16.000	1.00	15	300	300	10	200	200	10	200	200
		M 12	12.000	1.25	15	400	500	10	265	331	10	265	331
		M 12	12.000	1.50	15	400	600	10	265	398	10	265	398
		M 14	14.000	1.50	15	340	510	10	225	338	10	225	338
		M 16	16.000	1.50	15	300	450	10	200	300	10	200	300
		M 20	20.000	1.50	15	240	360	10	160	240	10	160	240
	Non ferrous metal A_5 > 15%	M 4	4.000	0.50	15	1195	598	10	795	398	10	795	398
		M 5	5.000	0.50	15	955	478	10	635	318	10	635	318
		M 6	6.000	0.50	15	795	398	10	530	265	10	530	265
		M 6	6.000	0.75	15	795	596	10	530	398	10	530	398
		M 8	8.000	0.75	15	595	446	10	400	300	10	400	300
		M 10	10.000	0.75	15	475	356	10	320	240	10	320	240
		M 8	8.000	1.00	15	595	595	10	400	400	10	400	400
		M 10	10.000	1.00	15	475	475	10	320	320	10	320	320
		M 10	10.000	1.25	15	475	594	10	320	400	10	320	400
	Non ferrous metal A_5 > 15%	M 12	12.000	1.00	15	400	400	10	265	265	10	265	265
		M 14	14.000	1.00	15	340	340	10	225	225	10	225	225
		M 16	16.000	1.00	15	300	300	10	200	200	10	200	200
		M 12	12.000	1.25	15	400	500	10	265	331	10	265	331
		M 12	12.000	1.50	15	400	600	10	265	398	10	265	398
		M 14	14.000	1.50	15	340	510	10	225	338	10	225	338
		M 16	16.000	1.50	15	300	450	10	200	300	10	200	300
		M 20	20.000	1.50	15	240	360	10	160	240	10	160	240

Cold forming taps

Al

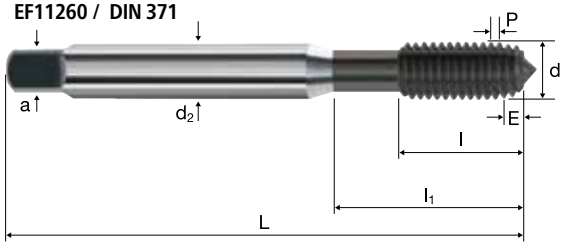
MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371/374

X · P Form E

EF11260 / DIN 371



EF11261 / DIN 374

Al Aluminium > 99% | Al Aluminium Alloy | Cu Copper | CuZn Brass

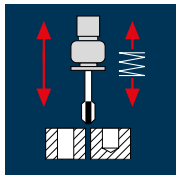
Example: **Order-N°.** Article-N°. **EF11260** ø-Code **046**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF11260
046	M 4	0.50	63	13.00	21.0	4.5	3.4	3	3.80	●
048	M 5	0.50	70	15.00	25.0	6.0	4.9	4	4.80	●
050	M 6	0.50	80	17.00	30.0	6.0	4.9	4	5.80	●
064	M 6	0.75	80	17.00	30.0	6.0	4.9	4	5.65	●
066	M 8	0.75	90	20.00	35.0	8.0	6.2	4	7.65	●
068	M 10	0.75	100	22.00	39.0	10.0	8.0	4	9.65	●
090	M 8	1.00	90	20.00	35.0	8.0	6.2	4	7.55	●
092	M 10	1.00	100	22.00	39.0	10.0	8.0	4	9.55	●
162	M 10	1.25	100	22.00	39.0	10.0	8.0	4	9.40	●

Example: **Order-N°.** Article-N°. **EF11261** ø-Code **094**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF11261
094	M 12	1.00	100	18.00	39.0	9.0	7.0	5	11.50	●
096	M 14	1.00	100	18.00	39.0	11.0	9.0	5	13.50	●
098	M 16	1.00	100	18.00	39.0	12.0	9.0	5	15.50	●
164	M 12	1.25	100	22.00	39.0	9.0	7.0	5	11.40	●
176	M 12	1.50	100	22.00	39.0	9.0	7.0	5	11.30	●
178	M 14	1.50	100	22.00	39.0	11.0	9.0	5	13.30	●
180	M 16	1.50	100	22.00	39.0	12.0	9.0	5	15.30	●
184	M 20	1.50	125	26.00	50.0	16.0	12.0	6	19.30	●

CF

Application	Material	MF	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
	Steel < 850 N/mm² A_5 > 10%	M 4	4.000	0.50	20	1590	795	15	1195	598	10	795	398
		M 5	5.000	0.50	20	1275	638	15	955	478	10	635	318
		M 6	6.000	0.50	20	1060	530	15	795	398	10	530	265
		M 6	6.000	0.75	20	1060	795	15	795	596	10	530	398
		M 8	8.000	0.75	20	795	596	15	595	446	10	400	300
		M 10	10.000	0.75	20	635	476	15	475	356	10	320	240
		M 8	8.000	1.00	20	795	795	15	595	595	10	400	400
		M 10	10.000	1.00	20	635	635	15	475	475	10	320	320
		M 10	10.000	1.25	20	635	794	15	475	594	10	320	400
	Steel < 850 N/mm² A_5 > 10%	M 12	12.000	1.00	20	530	530	15	400	400	10	265	265
		M 14	14.000	1.00	20	455	455	15	340	340	10	225	225
		M 16	16.000	1.00	20	400	400	15	300	300	10	200	200
		M 12	12.000	1.25	20	530	663	15	400	500	10	265	331
		M 12	12.000	1.50	20	530	795	15	400	600	10	265	398
		M 14	14.000	1.50	20	455	683	15	340	510	10	225	338
		M 16	16.000	1.50	20	400	600	15	300	450	10	200	300
		M 20	20.000	1.50	20	320	480	15	240	360	10	160	240
	Steel 850 - 1100 N/mm² A_5 > 10%	M 4	4.000	0.50	15	1195	598	10	795	398	-	-	-
		M 5	5.000	0.50	15	955	478	10	635	318	-	-	-
		M 6	6.000	0.50	15	795	398	10	530	265	-	-	-
		M 6	6.000	0.75	15	795	596	10	530	398	-	-	-
		M 8	8.000	0.75	15	595	446	10	400	300	-	-	-
		M 10	10.000	0.75	15	475	356	10	320	240	-	-	-
		M 8	8.000	1.00	15	595	595	10	400	400	-	-	-
		M 10	10.000	1.00	15	475	475	10	320	320	-	-	-
		M 10	10.000	1.25	15	475	594	10	320	400	-	-	-
	Steel 850 - 1100 N/mm² A_5 > 10%	M 12	12.000	1.00	15	400	400	10	265	265	-	-	-
		M 14	14.000	1.00	15	340	340	10	225	225	-	-	-
		M 16	16.000	1.00	15	300	300	10	200	200	-	-	-
		M 12	12.000	1.25	15	400	500	10	265	331	-	-	-
		M 12	12.000	1.50	15	400	600	10	265	398	-	-	-
		M 14	14.000	1.50	15	340	510	10	225	338	-	-	-
		M 16	16.000	1.50	15	300	450	10	200	300	-	-	-
		M 20	20.000	1.50	15	240	360	10	160	240	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 4	4.000	0.50	15	1195	598	10	795	398	-	-	-
		M 5	5.000	0.50	15	955	478	10	635	318	-	-	-
		M 6	6.000	0.50	15	795	398	10	530	265	-	-	-
		M 6	6.000	0.75	15	795	596	10	530	398	-	-	-
		M 8	8.000	0.75	15	595	446	10	400	300	-	-	-
		M 10	10.000	0.75	15	475	356	10	320	240	-	-	-
		M 8	8.000	1.00	15	595	595	10	400	400	-	-	-
		M 10	10.000	1.00	15	475	475	10	320	320	-	-	-
		M 10	10.000	1.25	15	475	594	10	320	400	-	-	-
	Stainless steel ferritc/martensitic A_5 > 10%	M 12	12.000	1.00	15	400	400	10	265	265	-	-	-
		M 14	14.000	1.00	15	340	340	10	225	225	-	-	-
		M 16	16.000	1.00	15	300	300	10	200	200	-	-	-
		M 12	12.000	1.25	15	400	500	10	265	331	-	-	-
		M 12	12.000	1.50	15	400	600	10	265	398	-	-	-
		M 14	14.000	1.50	15	340	510	10	225	338	-	-	-
		M 16	16.000	1.50	15	300	450	10	200	300	-	-	-
		M 20	20.000	1.50	15	240	360	10	160	240	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 4	4.000	0.50	15	1195	598	10	795	398	-	-	-
		M 5	5.000	0.50	15	955	478	10	635	318	-	-	-
		M 6	6.000	0.50	15	795	398	10	530	265	-	-	-
		M 6	6.000	0.75	15	795	596	10	530	398	-	-	-
		M 8	8.000	0.75	15	595	446	10	400	300	-	-	-
		M 10	10.000	0.75	15	475	356	10	320	240	-	-	-
		M 8	8.000	1.00	15	595	595	10	400	400	-	-	-
		M 10	10.000	1.00	15	475	475	10	320	320	-	-	-
		M 10	10.000	1.25	15	475	594	10	320	400	-	-	-
	Stainless steel [Cr-Ni/1.4301]	M 12	12.000	1.00	15	400	400	10	265	265	-	-	-
		M 14	14.000	1.00	15	340	340	10	225	225	-	-	-
		M 16	16.000	1.00	15	300	300	10	200	200	-	-	-
		M 12	12.000	1.25	15	400	500	10	265	331	-	-	-
		M 12	12.000	1.50	15	400	600	10	265	398	-	-	-
		M 14	14.000	1.50	15	340	510	10	225	338	-	-	-
		M 16	16.000	1.50	15	300	450	10	200	300	-	-	-
		M 20	20.000	1.50	15	240	360	10	160	240	-	-	-

Cold forming taps

St

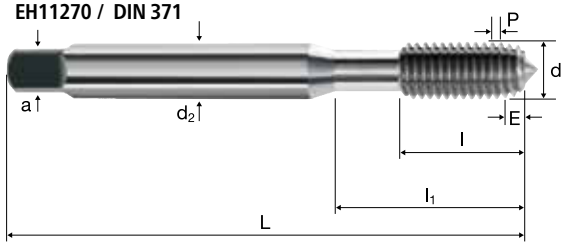
MF | ISO 2 (6H)

60° | HSS PM/F

DIN 371/374

X · P Form E

EH11270 / DIN 371



EH11271 / DIN 374

Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

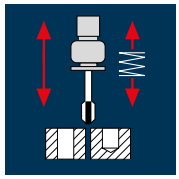
Example: **Order-N°.** Article-N°. **EH11270** ø-Code **046**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH11270
046	M 4	0.50	63	13.00	21.0	4.5	2.1	4	3.80	●
048	M 5	0.50	70	15.00	25.0	6.0	2.7	4	4.80	●
050	M 6	0.50	80	17.00	30.0	6.0	3.4	4	5.80	●
064	M 6	0.75	80	17.00	30.0	6.0	3.4	4	5.65	●
066	M 8	0.75	90	20.00	35.0	8.0	4.9	5	7.65	●
068	M 10	0.75	100	22.00	39.0	10.0	5.5	5	9.65	●
090	M 8	1.00	90	20.00	35.0	8.0	4.9	5	7.55	●
092	M 10	1.00	100	22.00	39.0	10.0	5.5	5	9.55	●
162	M 10	1.25	100	22.00	39.0	10.0	5.5	5	9.40	●

Example: **Order-N°.** Article-N°. **EH11271** ø-Code **094**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH11271
094	M 12	1.00	100	18.00	39.0	9.0	7.0	7	11.50	●
096	M 14	1.00	100	18.00	39.0	11.0	9.0	7	13.50	●
098	M 16	1.00	100	18.00	39.0	12.0	9.0	7	15.50	●
164	M 12	1.25	100	22.00	39.0	9.0	7.0	7	11.40	●
176	M 12	1.50	100	22.00	39.0	9.0	7.0	7	11.30	●
178	M 14	1.50	100	22.00	39.0	11.0	9.0	7	13.30	●
180	M 16	1.50	100	22.00	39.0	12.0	9.0	7	15.30	●
184	M 20	1.50	125	26.00	50.0	16.0	12.0	7	19.30	●

Application



Material	EG-M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Unalloyed aluminium	EGM 3	3.650	0.50	25	2180	1090	20	1745	873	15	1310	655
	EGM 4	4.910	0.70	25	1620	1134	20	1295	907	15	970	679
	EGM 5	6.040	0.80	25	1320	1056	20	1055	844	15	790	632
	EGM 6	7.300	1.00	25	1090	1090	20	870	870	15	655	655
	EGM 8	9.624	1.25	25	825	1031	20	660	825	15	495	619
	EGM 10	11.948	1.50	25	665	998	20	535	803	15	400	600
	EGM 12	14.274	1.75	25	555	971	20	445	779	15	335	586
Wrought aluminium alloys Si < 6% not hardened	EGM 3	3.650	0.50	30	2615	1308	25	2180	1090	20	1745	873
	EGM 4	4.910	0.70	30	1945	1362	25	1620	1134	20	1295	907
	EGM 5	6.040	0.80	30	1580	1264	25	1320	1056	20	1055	844
	EGM 6	7.300	1.00	30	1310	1310	25	1090	1090	20	870	870
	EGM 8	9.624	1.25	30	990	1238	25	825	1031	20	660	825
	EGM 10	11.948	1.50	30	800	1200	25	665	998	20	535	803
	EGM 12	14.274	1.75	30	670	1173	25	555	971	20	445	779
Unalloyed copper	EGM 3	3.650	0.50	15	1310	655	10	870	435	10	870	435
	EGM 4	4.910	0.70	15	970	679	10	650	455	10	650	455
	EGM 5	6.040	0.80	15	790	632	10	525	420	10	525	420
	EGM 6	7.300	1.00	15	655	655	10	435	435	10	435	435
	EGM 8	9.624	1.25	15	495	619	10	330	413	10	330	413
	EGM 10	11.948	1.50	15	400	600	10	265	398	10	265	398
	EGM 12	14.274	1.75	15	335	586	10	225	394	10	225	394
Non ferrous metal A_5 > 15%	EGM 3	3.650	0.50	15	1310	655	10	870	435	10	870	435
	EGM 4	4.910	0.70	15	970	679	10	650	455	10	650	455
	EGM 5	6.040	0.80	15	790	632	10	525	420	10	525	420
	EGM 6	7.300	1.00	15	655	655	10	435	435	10	435	435
	EGM 8	9.624	1.25	15	495	619	10	330	413	10	330	413
	EGM 10	11.948	1.50	15	400	600	10	265	398	10	265	398
	EGM 12	14.274	1.75	15	335	586	10	225	394	10	225	394

Cold forming taps for inserts

Al

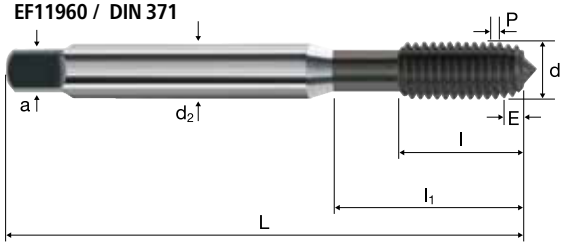
EG M | 6H mod

60° | HSS PM/F

DIN 371/376

X · P Form E

EF11960 / DIN 371



EF11961 / DIN 376

			Al Aluminium > 99%	Al Aluminium Alloy			Cu Copper		CuZn Brass

Example: **Order-N°.** Article-N°. **EF11960** ø-Code **044**

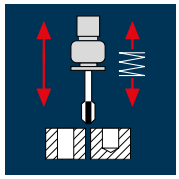
Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF11960
044	EGM 3	0.50	63	13.00	21.0	4.5	3.4	3	3.40	●
058	EGM 4	0.70	70	15.00	25.0	6.0	4.9	4	4.60	●
084	EGM 5	0.80	80	17.00	30.0	6.0	4.9	4	5.70	●
088	EGM 6	1.00	90	20.00	35.0	8.0	6.2	4	6.80	●
160	EGM 8	1.25	100	22.00	39.0	10.0	8.0	4	9.00	●

Example: **Order-N°.** Article-N°. **EF11961** ø-Code **174**

Ø Code	d	P	L	l	l_1	d_2	a			F-DLC EF11961
174	EGM 10	1.50	110	25.00	50.0	9.0	7.0	5	11.20	●
240	EGM 12	1.75	110	26.00	58.0	11.0	9.0	5	13.40	●

CF

Application



Material

Material	EG-M	d [mm]	P [mm]	v_c 1.5 x d	n [min⁻¹]	v_f [100%]	v_c 2.0 x d	n [min⁻¹]	v_f [100%]	v_c 3.0 x d	n [min⁻¹]	v_f [100%]
Steel < 850 N/mm² A_5 > 10%	EGM 3	3.650	0.50	20	1745	873	15	1310	655	10	870	435
	EGM 4	4.910	0.70	20	1295	907	15	970	679	10	650	455
	EGM 5	6.040	0.80	20	1055	844	15	790	632	10	525	420
	EGM 6	7.300	1.00	20	870	870	15	655	655	10	435	435
	EGM 8	9.624	1.25	20	660	825	15	495	619	10	330	413
	EGM 10	11.948	1.50	20	535	803	15	400	600	10	265	398
	EGM 12	14.274	1.75	20	445	779	15	335	586	10	225	394
Steel 850 - 1100 N/mm² A_5 > 10%	EGM 3	3.650	0.50	15	1310	655	10	870	435	-	-	-
	EGM 4	4.910	0.70	15	970	679	10	650	455	-	-	-
	EGM 5	6.040	0.80	15	790	632	10	525	420	-	-	-
	EGM 6	7.300	1.00	15	655	655	10	435	435	-	-	-
	EGM 8	9.624	1.25	15	495	619	10	330	413	-	-	-
	EGM 10	11.948	1.50	15	400	600	10	265	398	-	-	-
	EGM 12	14.274	1.75	15	335	586	10	225	394	-	-	-
Stainless steel ferritc/martensitic A_5 > 10%	EGM 3	3.650	0.50	15	1310	655	10	870	435	-	-	-
	EGM 4	4.910	0.70	15	970	679	10	650	455	-	-	-
	EGM 5	6.040	0.80	15	790	632	10	525	420	-	-	-
	EGM 6	7.300	1.00	15	655	655	10	435	435	-	-	-
	EGM 8	9.624	1.25	15	495	619	10	330	413	-	-	-
	EGM 10	11.948	1.50	15	400	600	10	265	398	-	-	-
	EGM 12	14.274	1.75	15	335	586	10	225	394	-	-	-
Stainless steel [Cr-Ni/1.4301]	EGM 3	3.650	0.50	15	1310	655	10	870	435	-	-	-
	EGM 4	4.910	0.70	15	970	679	10	650	455	-	-	-
	EGM 5	6.040	0.80	15	790	632	10	525	420	-	-	-
	EGM 6	7.300	1.00	15	655	655	10	435	435	-	-	-
	EGM 8	9.624	1.25	15	495	619	10	330	413	-	-	-
	EGM 10	11.948	1.50	15	400	600	10	265	398	-	-	-
	EGM 12	14.274	1.75	15	335	586	10	225	394	-	-	-

Cold forming taps for inserts

St

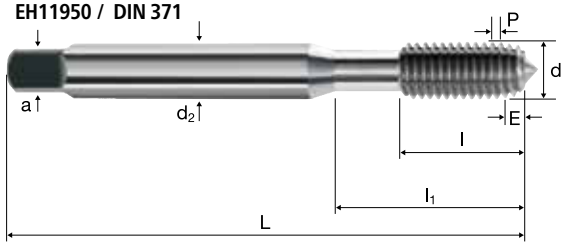
EG M | 6H mod

60° | HSS PM/F

DIN 371/376

X · P Form E

EH11950 / DIN 371



EH11951 / DIN 376

Rm < 850 | **Rm** 850-1100 | **Inox** Stainless

Example: **Order-N°.** Article-N°. **EH11950** ø-Code **044**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH11950
044	EGM 3	0.50	63	13.00	21.0	4.5	3.4	3	3.40	●
058	EGM 4	0.70	70	15.00	25.0	6.0	4.9	4	4.60	●
084	EGM 5	0.80	80	17.00	30.0	6.0	4.9	5	5.70	●
088	EGM 6	1.00	90	20.00	35.0	8.0	6.2	5	6.80	●
160	EGM 8	1.25	100	22.00	39.0	10.0	8.0	5	9.00	●

Example: **Order-N°.** Article-N°. **EH11951** ø-Code **174**

Ø Code	d	P	L	l	l_1	d_2	a			TiCN EH11951
174	EGM 10	1.50	110	25.00	40.0	9.0	7.0	7	11.20	●
240	EGM 12	1.75	110	28.00	40.0	11.0	9.0	7	13.40	●

CF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FRAISA offers you highly innovative products; products that are always state-of-the-art and right at the cutting edge of technological development.

For this reason, we would like to use our **"ToolSchool Recommendation"** concept to draw your attention to the latest technologies now incorporated in our product catalogue and, of course, to the advantages they bring.

Our **"ToolSchool Recommendation"** clearly demonstrates how you can and should switch from the products you have been using until now to the new cutting-edge products from FRAISA. The ToolSchool logo has been used in this catalogue to highlight selected products that offer a particularly good opportunity to upgrade from an existing tool to the latest technologies.

By switching from "old" to "new", you benefit from increased productivity, cost reductions and genuine competitive advantages in the marketplace.

With our ToolSchool concept, you can be sure you always have the very latest technology to hand.
This will strengthen your position in comparison to all your competitors.

FRAISA's ToolSchool stands for longstanding, field-proven experience and expertise. ToolSchool stands for application know-how and customer value. You can count on that.

Latest FRAISA technology for:

- **Greater efficiency**
- **Lower costs**
- **Improved competitiveness**

Enclosed with this catalogue is a flyer that illustrates the ToolSchool recommendations by means of a tool compendium.


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Legend to the product page of drilling tools

Tool technologies

Drilling tools with four chamfers (Two friction and two guide lands)
- Improved straightness of the hole
- Improved hole quality and alignment
- Less deviation of the hole when drilling through cross holes
- Precise holes with good surface and maximum support of the tool upon exit

Drilling tool with optimised polished flutes and internal cooling
- Reduction of friction and therefore less adhesion, improved chip formation and lower heat generation

Drilling tool with optimised polished flutes, without internal cooling
- Reduction of friction and therefore less adhesion, improved chip formation and lower heat generation

Drilling tool with shank of h5 tolerance
- High concentricity and roundness
- Optimal for modern precision chucks

Cutting tool substrate material

HM XA

Fine grain carbide. Hardness 1950 HV. Co content 8%. Characterised by a particularly high level of abrasion resistance.

HM MGX

High-performance fine grain carbide with ultrafine tungsten carbides. Hardness 1610 HV. Co content 10%.

HM MG10

Fine grain carbide. Hardness 1600 HV. Co content 10%.

HM MGD²

Fine grain carbide with high bending and shear strength combined with good elasticity.

HM

Universal fine grain carbide.

HSS

High-performance substrate material, conventionally melted HSS alloy.

Legend to the product page of drilling tools

Internal cooling

Drills with internal cooling show improved chip formation and better chip removal which in turn results in an improved tool life.

Drills without internal cooling.

Point angle and helix angle

The point angle influences decisively the spectrum of materials that can be drilled. Further, small point angles bring a better centering behaviour; large point angles reduce the torque.

The helix angle influences decisively the rake angle on the major cutting edge (drill point) of the drill. Therefore, large helix angles are used for soft materials, small helix angles for hard and brittle materials.

Versions and dimensions of spiral flute drills

Spiral flute drills carbide, 3xd
The dimensions of this tool correspond to DIN 6537 K «Spiral flute drills carbide with offset cylindrical shank».

Spiral flute drills carbide, 5xd
The dimensions of this tool correspond to DIN 6537 L «Spiral flute drills carbide with offset cylindrical shank».

Spiral flute drills carbide and deep hole drills carbide, greater than 5xd
According to company standard.

Spiral flute drills carbide 8xd, optimised
According to company standard, but with optimised l/d ratio for optimum tool stability.

Special versions and dimensions

90°

Indication of the point angle for center drills or counterbores.
Counterbores 90° to DIN 335.

Drilling depths

Indication of the nominal drilling depth. (Example: 5xd: five times drill diameter).
The nominal drilling depth does not correspond to the maximum depth! The maximum drilling depth is specified under L_{max}.

Legend to the product page of drilling tools

Shape of the shank / Shank versions

Full carbide tools with a cylindrical shank: shank version in accordance with DIN 6535 HA

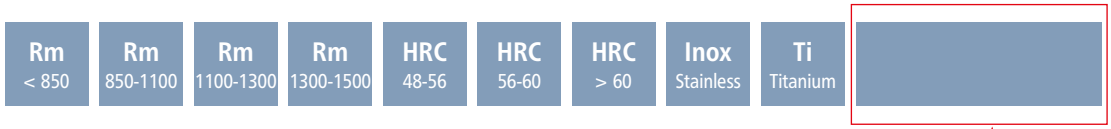
Full carbide tools with a cylindrical shank and a side clamping surface. Shank version in accordance with DIN 6535 HB

Carbide Micro drills and Deep hole drills with cylindrical shank: Shank design to company standard.

Application suitability

A blue background means that the tool is particularly suitable for this material.

A light blue background means that the tool has good to adequate suitability for this material.



Additional material which can be machined is stated in the additional field

Abbreviations

d_1	Diameter of the cutting edge [mm]
d_2	Diameter of the shank [mm]
d_3	Face-surface diameter on rose countersinks [mm]
l_1	Total length of the tool [mm]
l_2	Length of the chip groove [mm]
l_3	Length of the 2nd step (Step drills) [mm]
l_4	Length of the shank [mm]
L_{max}	Maximum drilling depth of the tool
L_K	Drill depth for chamfered edge (Step drills)

Technical notes regarding use of drilling tools

Lubrication and coolant pressure

Basically, when drilling work with lubricant. The goal is more efficient chip removal and heat reduction. Hardened steel or abrasive materials can be cooled by using air or treated with MQL (minimal quantity lubrication).

If the coolant is applied externally, ensure the correct positioning of the coolant jet. This should be in the flute (directed parallel to the helix angle) and the entrance to the hole.

The use of internal cooling (internal coolant supply) can increase tool life. It is necessary, depending on the tool diameter, to apply a minimum coolant pressure.

The following table provides a guideline for the recommended FRAISA coolant pressure for IKZ drills:

Required coolant pressure for spiral fl ute drills with internal coolant emulsion						
Versions	< ø 3 mm	ø 3-5 mm	ø 5-8 mm	ø 8-12 mm	ø 12-16 mm	ø 16-20 mm
up to 5xd	60 bar	50 bar	30 bar	25 bar	20 bar	15 bar
8xd – 30xd	80 bar	60 bar	40 bar	30 bar	25 bar	20 bar
Required coolant pressure for spiral flute drills with internal coolant/MQL (minimal quantity lubrication)						
Versions	< ø 3 mm	ø 3-5 mm	ø 5-8 mm	ø 8-12 mm	ø 12-16 mm	ø 16-20 mm
up to 5xd	12 bar	10 bar	9 bar	8 bar	8 bar	7 bar
8xd – 30xd	14 bar	12 bar	10 bar	9 bar	9 bar	8 bar

Concentricity

The concentricity of the drilling process is an important process influencing variable. The eccentricity should be as small as possible, as this greatly influences the development of tool wear. The rotation should be controlled especially for hole diameters less than 6 mm. The control measurement is made when the drilling tool is in the clamped condition and in the machine spindle.

The following table provides a guideline from FRAISA for the recommended maximum eccentricity:

Maximum eccentricity of spiral flute drills						
Diameter range	< ø 1 mm	ø 1-3 mm	ø 3-6 mm	ø 6-10 mm	ø 10-16 mm	ø 16-20 mm
Maximum eccentricity	3 µm	5 µm	10 µm	15 µm	20 µm	25 µm

Centering and pilot hole

Drilling tools must always be set at right angles to the workpiece. If drilling is required on an inclined surface, an addtional machining operation may be necessary to align the workpiece surface at a right angle to the drilling tool.

The point angle of the center drill should always be larger than the point angle of the subsequent spiral flute drill. Thus, an optimum centering of the drill and lower development of tool wear is achieved.

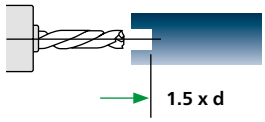
The following recommendation is from FRAISA for centering and pilot holes:

Versions	Cutting material	Recommendation
up to 5xd	HM	No
up to 5xd	HSS	Yes
8xd	HM	Optional. An improvement of positonal accuracy can be achieved by centering.
12xd – 30xd	HM	Yes, a pilot hole is required (see page «Technical notes regarding use of deep hole drills»)

Technical notes regarding use of deep hole drills

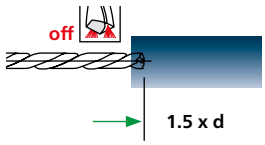
FRAISA SA recommends the following drilling strategy to increase both service life and reliability:

Step 1



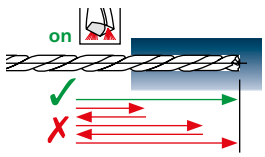
Pilot hole = 1.5 x d.
e.g. Supradrill® U 3xd. B62011.
The pilot hole must be free of chips prior to insertion of the deep-hole drill!

Step 2



Insert the tool into the hole at max. 300 1/min and v_f = 1000mm/min.
Without cooling up to 1 mm from the bottom of the pilot hole.

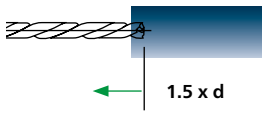
Step 3



Coolant supply on.

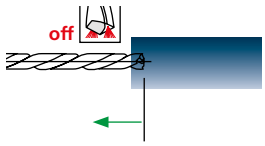
Drill using recommended cutting data and without chip breaking. When drilling **through-holes**, reduce the feed rate by at least 25% before retracting from the hole.

Step 4



Retract the deep-hole drill with double the feed rate (=2 x v_f) – until 1.5 x d after entering the hole. Position as stated in Step 2.

Step 5



Next reduce the spindle speed to max. 300 1/min.
Coolant feed is switched off.
Withdraw the drill from the drilled hole. (max. 1000 mm/min).

SAFETY NOTE

Outside of the drill hole, long deep-hole drills may only turn at a low speed (max. 300 1/min).

Higher spindle speeds can cause such tools to vibrate, leading to spontaneous failure.

Calculation formulas for cutting data

d_1 Diameter of the cutting edge [mm]

v_c Cutting speed [m/min]

f Feed per rotation [mm]

n Spindle speed [min^{-1}]

v_f Feed rate [mm/min]

Q Material removal rate [cm^3/min]

T Primary processing time for the maximum drill depth of the tool [sec]

L Effective drill depth [mm]

Spindle speed	$n = \frac{v_c \cdot 1000}{d_1 \cdot \pi}$	$\left[\frac{1}{min}\right]$
Cutting speed	$v_c = \frac{d_1 \cdot n \cdot \pi}{1000}$	$\left[\frac{m}{min}\right]$
Feed rate	$v_f = f \cdot n$	$\left[\frac{mm}{min}\right]$
Material removal rate	$Q = \frac{d_1^2 \cdot \pi \cdot v_f}{4 \cdot 1000}$	$\left[\frac{cm^3}{min}\right]$
Primary processing time	$T = \frac{L}{v_f} \cdot 60$	$\left[sec\right]$

Thread cutting tool material codes

Taps

P	Steel 850 - 1100 N/mm² Stainless steel
08	Steel < 850 N/mm²
11	Steel 850 - 1100 N/mm²
15	Steel 1100 - 1500 N/mm²
60	Hardened tool steel 48 - 60 HRC
In	Stainless steel
GG	Cast iron (lamellar/spheroidal)
Al	Aluminium
Ti	Titanium alloys
Ni	Nickel base alloys prec.-hardness
R	Universal Rigid
U	Universal

Cold forming taps

St	Steel
Al	Aluminium
U	Universal

Legend to the product page of thread cutting tools

Thread types

M	Metric coarse thread according to ISO DIN 965 (DIN 13)
MF	Metric fine thread according to ISO DIN 965 (DIN 13)
MJ	MJ thread for aerospace use according to DIN ISO 5855
G	Whitworth pipe thread according to DIN ISO 228
UNC	Unified coarse thread according to ASME B1.1
UNJC	Unified coarse thread according to SAE AS 8879
UNF	Unified fine thread according to ASME B1.1
UNJF	Unified fine thread according to SAE AS 8879
NPT	Conical american coarse thread according to ANSI B1.20.1
NPTF	Conical american coarse thread according to ANSI B1.20.3
EG M	Metric coarse thread for inserts according to DIN 8140-2

Legend to the product page of thread cutting tools

Application classes / Tolerance positions

ISO 2 (6H)	Tools of application class 2 (ISO 2) are designed for the production of threads with the tolerance fields 4G, 5G, 6H.
ISO 1 (4H)	Tools of application class 1 (ISO 1) are designed for the production of threads with the tolerance fields 4H, 5H.
ISO 3 (6G)	Tools of application class 3 (ISO 3) are designed for the production of threads with the tolerance fields 6G, 7H, 8H.
7G	Tools of application class 7G are preventively designed for the production of threads with the tolerance fields 7G, 8G, where subsequent heat treatment may cause dimensional distortions.
ISO 2 +0,1	Tools of application class 2 (ISO 2) are designed for the production of threads with the tolerance fields 4G, 5G, 6H. For threads which will get a galvanic coating of 0.025 mm thickness the tools are designed with an increased thread tolerance of 0.1 mm.
4H	Tools of application class 4H are designed for the production of threads MJ with the tolerance field 4H (ASME B1.1).
2B	Tools of application 2B are designed for the production of threads with the tolerance field 2B.
3B	Tools of application 3B are designed for the production of threads with the tolerance field 3B.
6H mod	Tools of application 6H are designed for the production of threads for inserts.

Cutting tool substrate material

HSS PM/F	High-performance cutting tool substrate material, powder metallurgically produced HSS alloys.
HSS-E Co5	High-performance substrate material, conventionally melted HSS alloy. Co-content 5%.
HM MG10	Universal fine-grain carbide. Hardness 1600 HV. Co-content 10%.
HM	Universal fine-grain carbide.

Legend to the product page of thread cutting tools

Thread norm

The teeth profiles of the tool correspond to the specified norm (see «Thread types»).

Form of the shanks

Cylindrical shank execution according to the specified tool norms.

Cylindrical shank execution with flat according to the specified tool norms.

Cylindrical shank execution with square end according to the specified tool norms.

Cylindrical shank execution with square end similar to the specified tool norms.

Cylindrical shank execution with square end.

Bore forms

The thread core bore must have the correct diameter.
(General rule for threading: bore diameter = thread diameter - pitch)

The tool is suitable for the fabrication of blind hole threads.

The tool is suitable for the fabrication of through hole threads.

The tool is suitable for the fabrication of blind hole and through hole threads.

The tool is suitable for the production of conical through and blind hole threads.

Legend to the product page of thread cutting tools

Chamfer forms / Lead-in cone forms

Chamfer form for taps according to DIN 2197, table 4, type B.
The pitch number in the chamfer is between 3.5 and 5.

Chamfer form for taps according to DIN 2197, table 4, type C.
The pitch number in the chamfer is between 2 and 3.
Lead-in cone form for thread former according to DIN 2175, table 4: type C.
The length of the lead-in cone is between 2 to 3 times the pitch.

Lead-in cone form for thread former according to DIN 2175, table 4: type E.
The length of the lead-in cone is at most double the pitch.

Chip flow

Tool with chip flow in feed direction.

Tool with chip flow against the feed direction.

Tool for short chipping work piece materials.

Cold forming taps

Tool with polygon profile without lubrication grooves.

Tool with polygon profile with lubrication grooves.

Thread milling cutters

The tool is suitable for the fabrication of internal threads.

The tool is suitable for the fabrication of external threads.

Legend to the product page of thread cutting tools

Application suitability

A blue background means that the tool is particularly suitable for this material.

A light blue background means that the tool has good to adequate suitability for this material.

Rm < 850	Rm 850-1100	Rm 1100-1300	Rm 1300-1500	HRC 48-56	HRC 56-60	HRC > 60	Inox Stainless	Ti Titanium	

Additional material which can be machined is stated in the additional field

Cooling lubricants

For the process of thread cutting and in particular for thread forming a good lubrication is essential. Especially for deeper threads proper lubrication is very important.

Best results for threading can be achieved by using oil (lubrication effect). The machining with an emulsion of at least 5% is also possible.

Wet machining

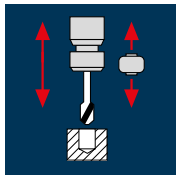
Dry machining

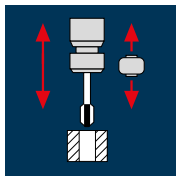
Oil must be used as lubricant.

Oil with special additives must be used as lubricant.

Choose diameter of the drill hole according to column critical material (see page «Core hole drill sizes»).

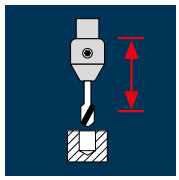
Technical notes regarding use of thread cutting tools

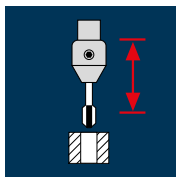




Thread cutting with micro-compensation or rigid tapping

Modern CNC machine tools can synchronize the spindle speed and feed rate. Despite this, microscopic pitch errors can arise. These are compensated by micro-compensation or synchronous tapping attachments and facilitate better results in terms of tool life and quality.



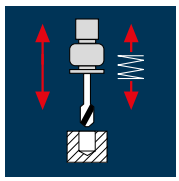


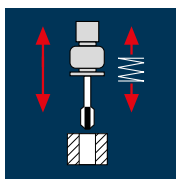
Rigid Tapping

Rigid tapping is designed for modern machines with synchronised spindle drives. All tools have a clamping flat and are used with conventional chucks.

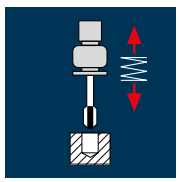
When using Rigid tapping, a sufficient approach distance must be programmed. If the distance is too small, the machine spindle may not be able to properly synchronize with the feed before entering the drillhole. This will result in a pitch error of the thread, even with synchronous working.

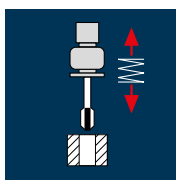
For some machines, it is possible that the recommended spindle speed for synchronous operation cannot be reached. In these cases it is necessary to operate at the highest possible spindle speed where synchronism of the machine is still guaranteed.





Thread cutting with functional performance of the compensation chuck or Rigid Tapping



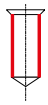


Thread cutting with functional performance of the compensation chuck

A satisfactory compensation function of the chuck must be guaranteed (no jamming). Otherwise, despite the chuck, the thread may be miscut or pitch errors can arise. The torque level of the compensation chuck must be selected according to the thread type and the work piece material.

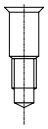
Programming of a too high RPM value can lead to problems. If a RPM is selected which cannot be reached (due to the inertia of the spindle), the result may be premature breakage of the tool or miscutting of the thread. A careful analysis often shows that high spindle speeds do not lead to overall significant time savings.

Technical notes regarding use of thread cutting tools



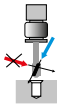
Hardness increase during drilling
For drilling, care has to be taken to ensure that a sharp, intact drill is used. If the wear is already too great, there is a risk that hardening of the periphery will occur during drilling. One result of this hardening may be the tap breaking.

Age or precipitation hardening and upsetting the countersink
When preparing for tapping, quality tools should be used which are adapted to the material. If the counterbore is too worn, the countersink will harden or be upset. This means the tap will encounter problems as soon as it starts to cut. This can lead to breakage right at the beginning. The countersink is important in guiding the tap.

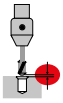


Deeper threads
For deep threads, tools must be chosen with sufficiently long flutes. There is otherwise a risk of tool breakage due to chip build-up, because the chips cannot flow out of the hole. With Rigid Tapping, pecking in several steps can be programmed, in order to shorten the chips. Sufficient cooling is important.

Functional performance of the compensation chuck
A satisfactory compensation function of the chuck must be guaranteed (no jamming). Otherwise, despite the chuck, the thread may be miscut or pitch errors can arise. The torque level of the compensation chuck must be selected according to the thread diameter.



Correctly adjusted coolant jet
A specifically aimed coolant jet is important in tapping work. The direction should be from above, in the direction of the flutes, so that the cooling is also effective at depth. If the coolant jet is not aimed, the problem of heat development in the drillhole arises, with the risk of cold welding-together of the material, which in turn may lead to reduced service life and poor chip formation.



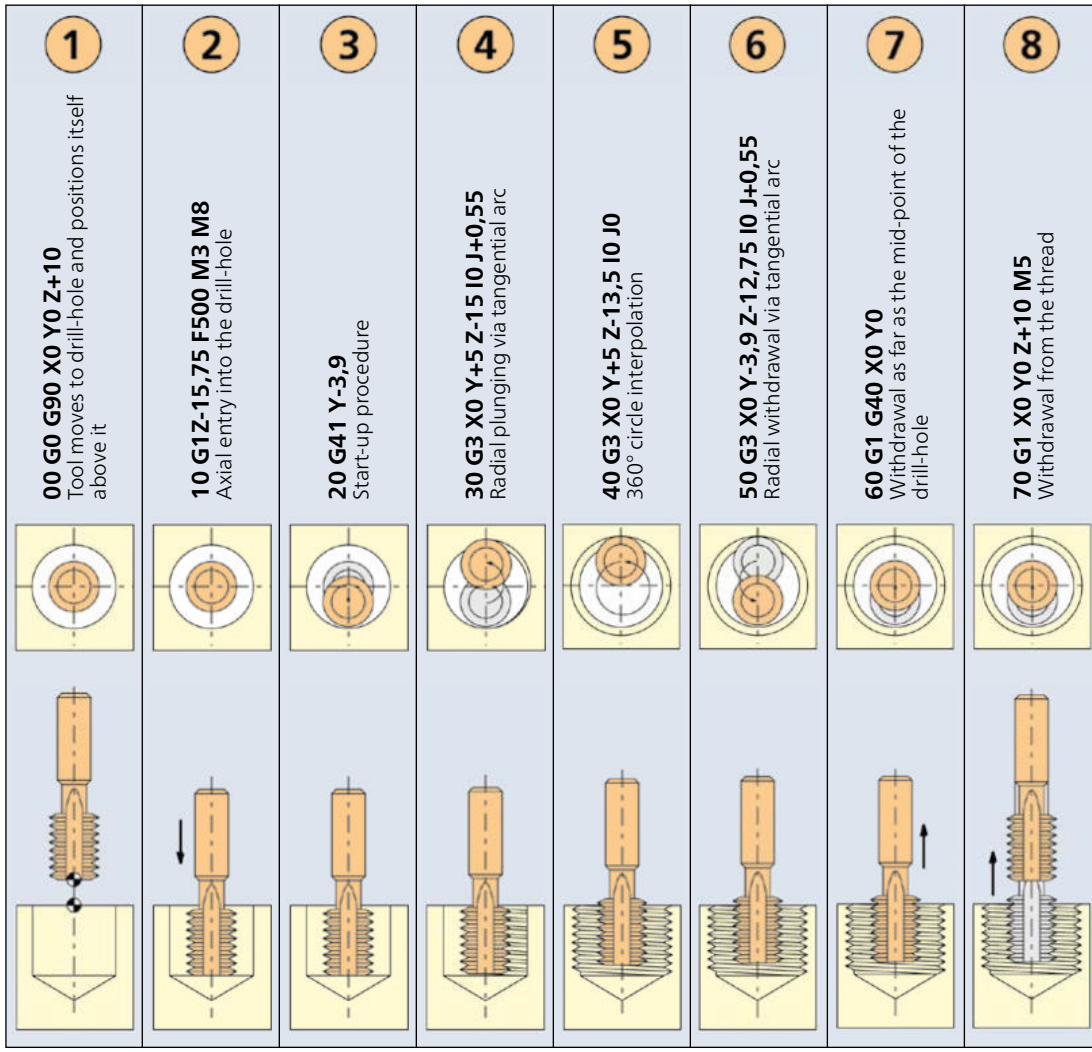
Safety clearance
When using Rigid Tapping, a sufficient approach distance must be programmed. If the clearance is too small, the problem arises of the machine spindle not synchronising with the feed before entering the drillhole. This results in pitch error of the thread, even with synchronous working.

Suitability of the machine
On a number of machines, there is a possibility that the recommended RPM cannot be applied. In this case, the RPM of the machine should be programmed accordingly.

Inconstant RPM
Programming too high RPM can lead to problems: if a RPM is selected which cannot be achieved (due to the inertia of the machine), the result may be premature breakage of the tool or miscutting of the thread. If observed closely, it may often be seen that a high RPM does not in fact produce the time saving which was intended.

Technical notes regarding use of thread milling cutters

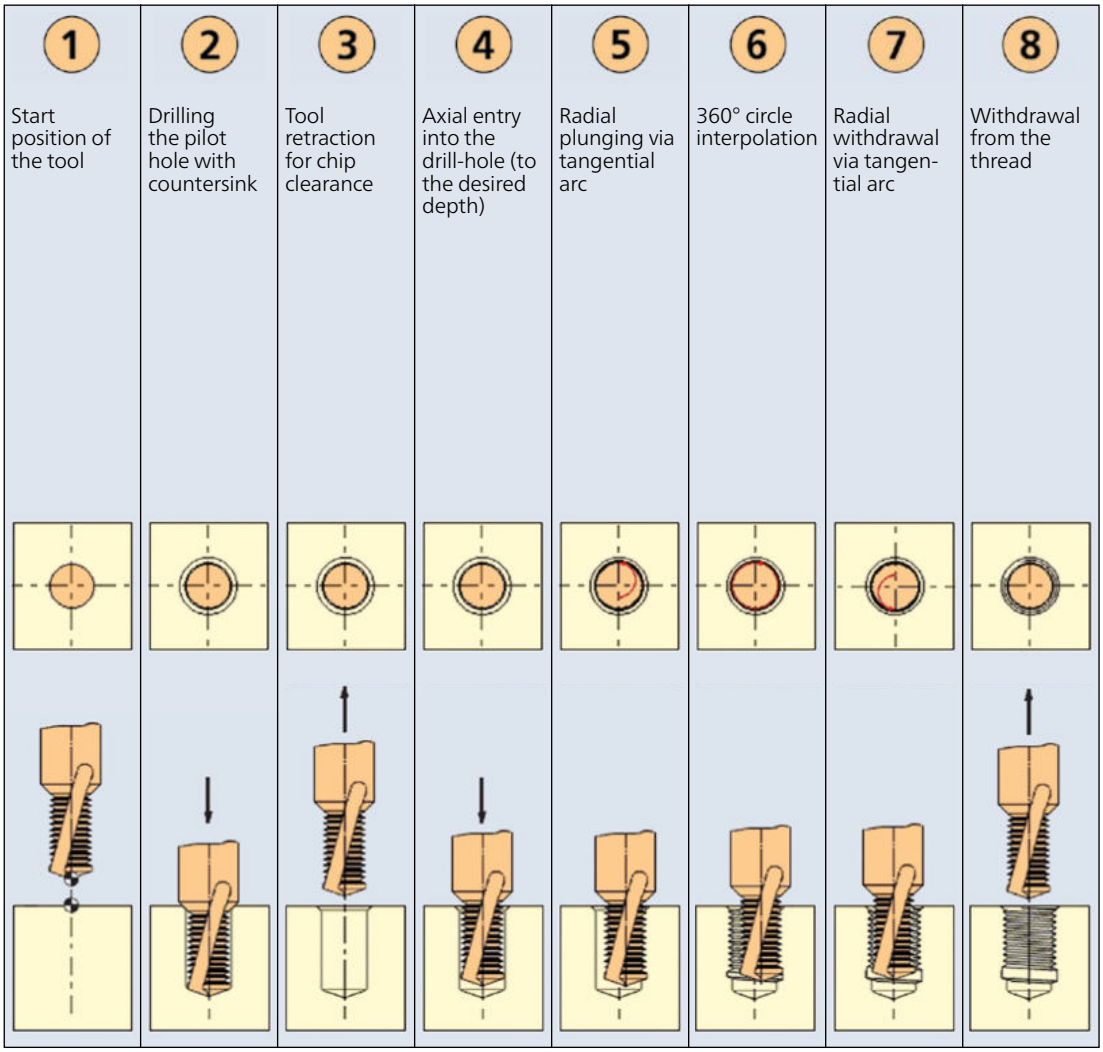
Thread milling cycle for M10 in ISO-code as an example



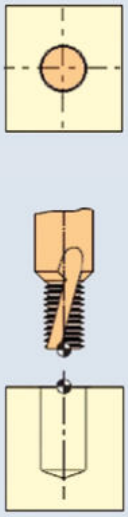
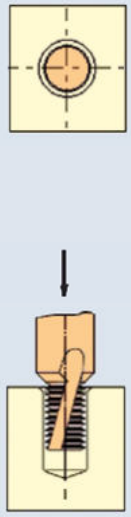
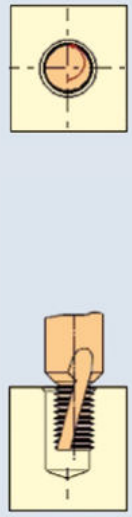
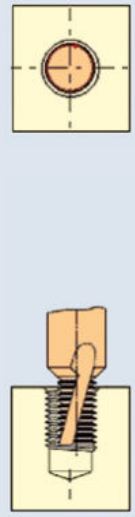
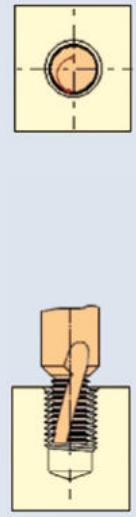
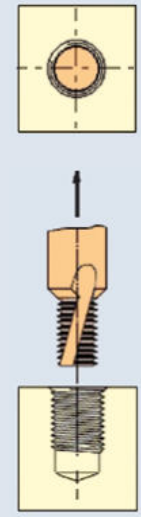
Meaning of the G and M commands used

G0	G1	G3	G40	G41	G90	G91	M3	M5	M8	M9
Linear motion at high speed	Linear motion with feed F in mm/min	Circular arc interpolation with mid-point (I, J)	Cancel too-radius correction	Tool-radius correction (tool to left of contour)	Absolute-measurement programming	Sequential-measurement programming	Spindle on (right-handed motion)	Spindle off	Cooling on	Cooling off

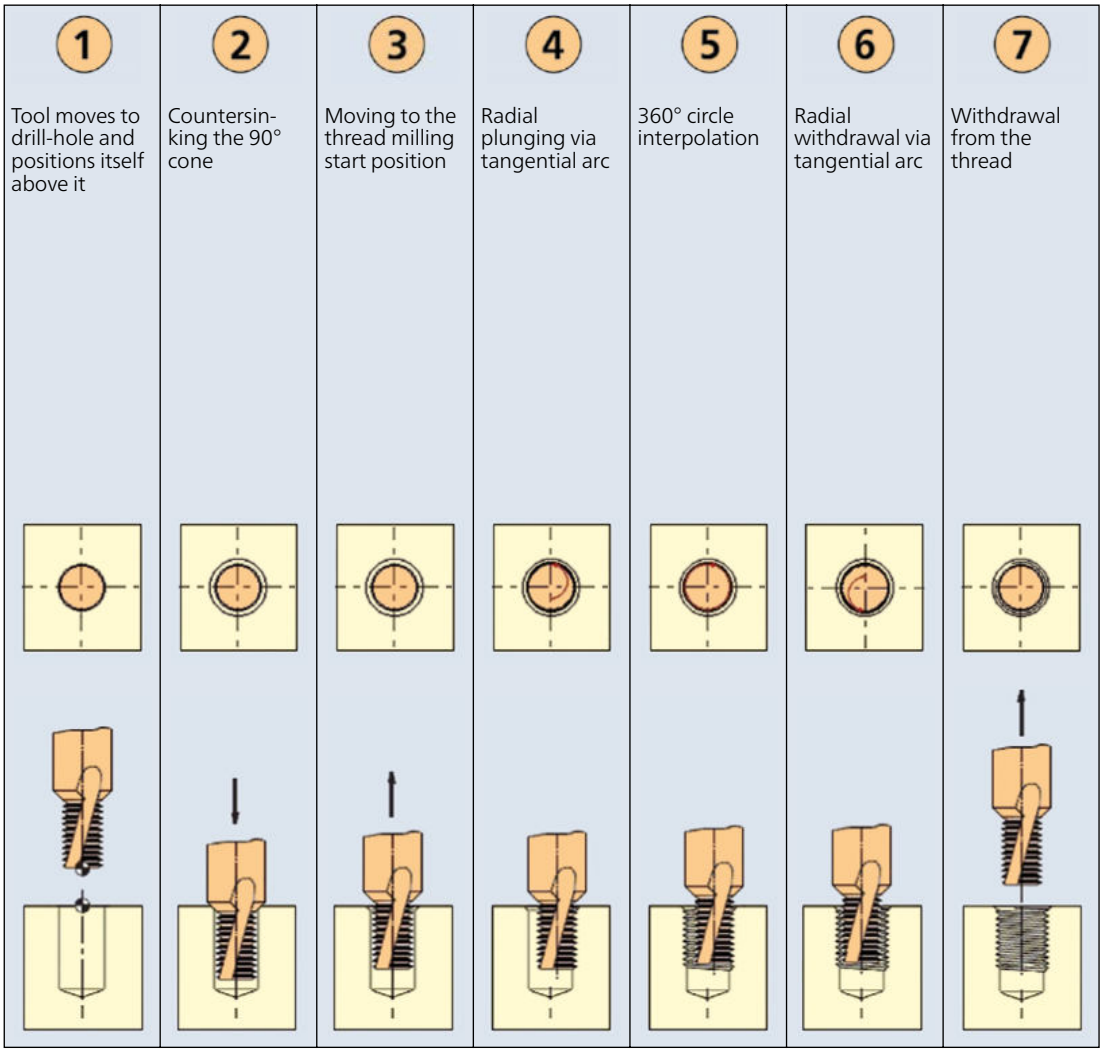
Thread milling cycle for drill / thread milling



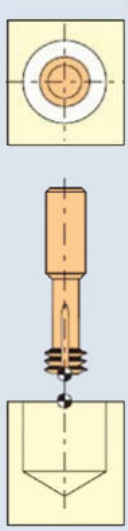
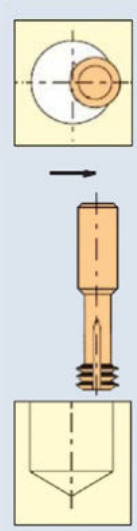
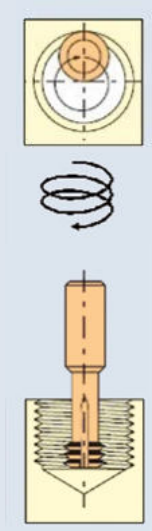
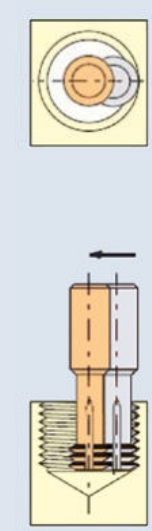
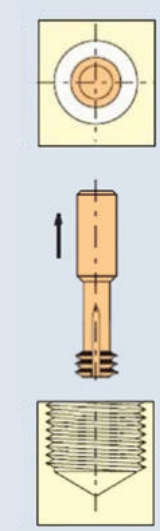
Thread milling cycle for thread milling cutters (recommended machining direction: up-cut milling)

1	2	3	4	5	6
Tool moves to drill-hole and positions itself above it	Moving to the thread milling start position	Radial plunging via tangential arc	360° circle interpolation	Radial withdrawal via tangential arc	Withdrawal from the thread
					

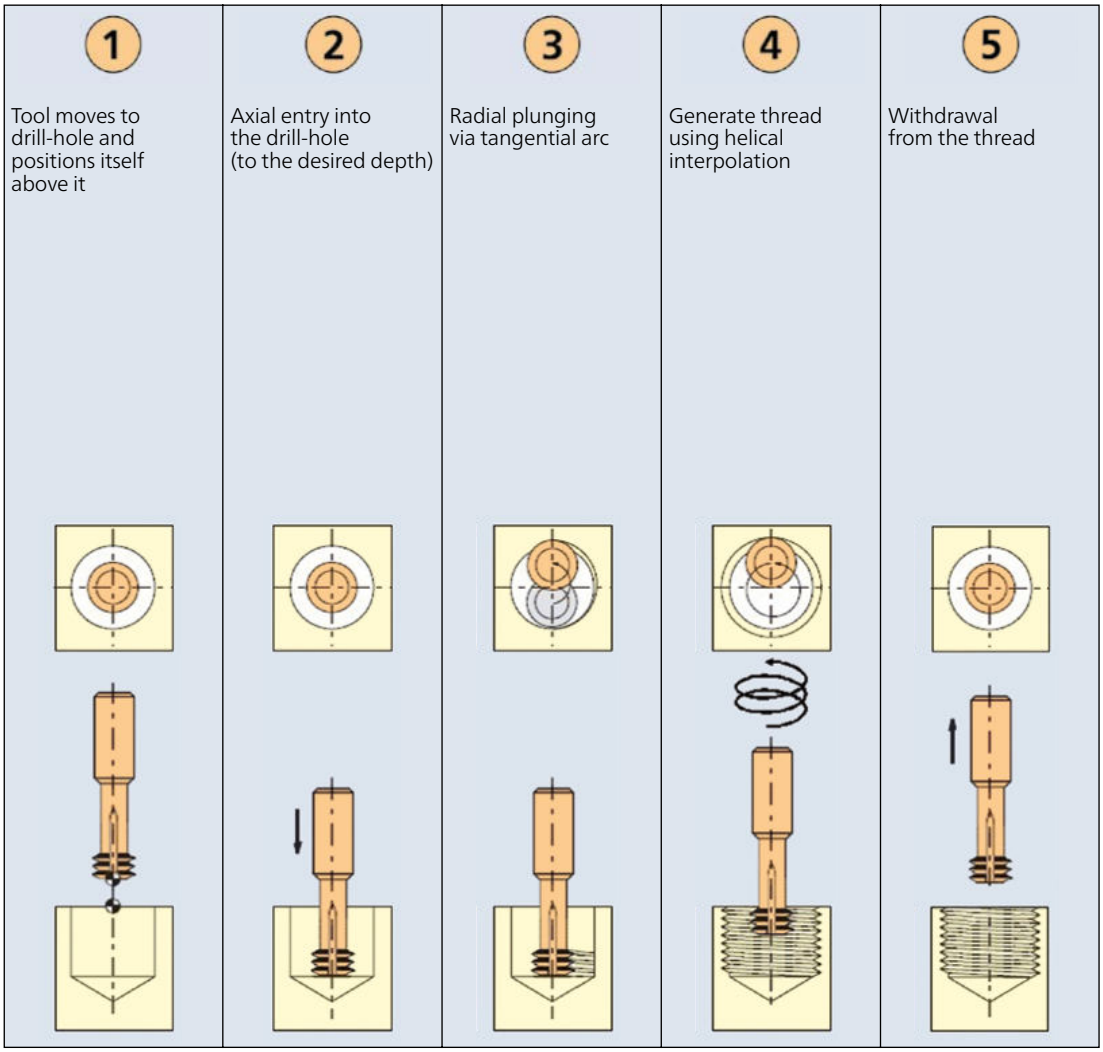
Thread milling cycle for thread milling cutter with chamfer



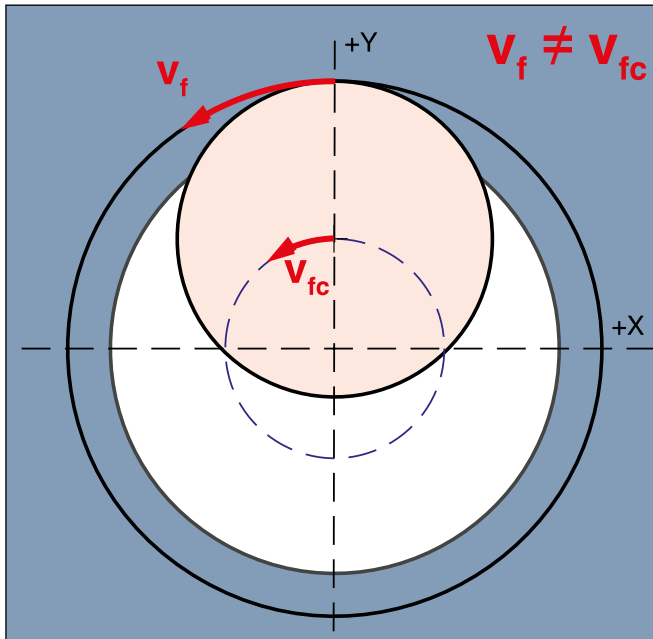
Thread milling cycle for thread milling cutter with chamfer (recommended machining direction)

1	2	3	4	5
Tool moves to drill-hole and positions itself above it	Radial infeed	Generate thread using helical interpolation (to the desired depth)	Radial retraction	Withdrawal from the thread
				

Thread milling cycle for right-handed thread clockwise-rotating with thread whirler

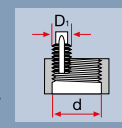


Specifying the feed speed



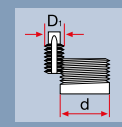
Conversion from feed v_f on the workpiece to the programming feed v_{fc} which is the feed in the tool centre:

For internal threads



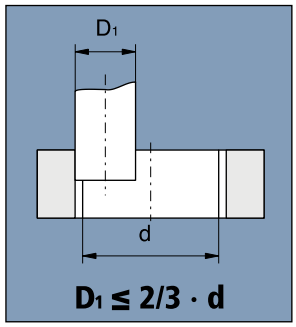
$$v_{fc} = \frac{v_f \cdot (d - D_1)}{d}$$

For external threads



$$v_{fc} = \frac{v_f \cdot (d + D_1)}{d}$$

Avoiding profile distortions



In order to avoid profile distortions, the diameter of the thread milling cutter D_1 must not exceed 2/3 of the nut core diameter d.

The overmeasure of the core drill-hole should be 0.1 to 0.3 mm.

The thread is thereby milled perfectly.

Formulas and abbreviations

a	Dimension of square end
d	Nominal diameter of the thread
d_1	Drilling diameter of the drill / thread milling cutter
d_2	Diameter of the shank
D_1	Diameter of the thread milling cutter
d/D_1	Ratio of diameters for the determination of the feed speed
Rk	Corrected milling cutter radius for ISO 2 (6H) thread tolerance (radius to be programmed in the machine control system)
f_z	Feed per tooth
l	Length of threaded section of the tap / thread former / thread milling cutter
l_1	Neck length of the tap / thread former / thread milling cutter
l_3	Flute length of the tap
L	Overall length of the tap / thread former / thread milling cutter
L_K	Countersinking depth of the thread milling cutter with chamfer
n	Spindle speed
P	Thread pitch
v_c	Cutting speed
v_f	Feed rate
v_{fc}	Feed speed in the tool centre
⬡	Number of flutes on the tap and thread cutter
◯	Number of form edges of cold forming taps
Δ	Diameter differences of the thread flank, the thread outside and the thread core in the application class 2 (ISO 2) according to DIN 22857
R_m	Mechanical tensile strength
HRC	Hardness according to Rockwell C
HV	Hardness according to Vickers
HB	Hardness according to Brinell

Spindle speed	$n = \frac{v_c \cdot 1000}{d_1 \cdot \pi}$	$\left[\frac{1}{min}\right]$
Cutting speed	$v_c = \frac{d \cdot \pi \cdot n}{1000}$	$\left[\frac{m}{min}\right]$
Feed rate Taps	$v_f = P \cdot n$	$\left[\frac{mm}{min}\right]$
Feed rate Thread milling cutters	$v_f = f_z \cdot z \cdot n$	$\left[\frac{mm}{min}\right]$

Core hole drill sizes

M

ø	P	Max. dimension	Standard	Critical material	*
1.0	0.25	0.785	0.75	0.80	*
1.2	0.25	0.985	0.95	1.00	*
1.4	0.30	1.142	1.10	1.15	*
1.6	0.35	1.321	1.25	1.30	
1.7	0.35	1.421	1.35	1.40	
1.8	0.35	1.521	1.45	1.50	
2.0	0.40	1.679	1.60	1.70	
2.2	0.45	1.838	1.75	1.85	*
2.3	0.40	1.979	1.90	1.95	
2.5	0.45	2.138	2.05	2.10	
2.6	0.45	2.238	2.15	2.20	
3.0	0.50	2.599	2.50	2.60	*
3.5	0.60	3.010	2.90	3.00	
4.0	0.70	3.422	3.30	3.40	
4.5	0.75	3.878	3.75	3.90	*
5.0	0.80	4.334	4.20	4.30	
6.0	1.00	5.153	5.00	5.10	
7.0	1.00	6.153	6.00	6.10	
8.0	1.25	6.912	6.80	6.90	
10.0	1.50	8.676	8.50	8.60	
12.0	1.75	10.441	10.20	10.40	
14.0	2.00	12.210	12.00	12.20	
16.0	2.00	14.210	14.00	14.20	
18.0	2.50	15.744	15.50	15.70	
20.0	2.50	17.744	17.50	17.70	
22.0	2.50	19.744	19.50	19.70	
24.0	3.00	21.252	21.00	21.20	
27.0	3.00	24.252	24.00	24.20	
30.0	3.50	26.771	26.50	26.70	
33.0	3.50	29.771	29.50	29.70	
36.0	4.00	32.270	32.00	32.20	
39.0	4.00	35.270	35.00	35.20	
42.0	4.50	37.799	37.50	37.70	

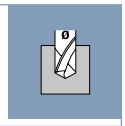
MF

ø	P	Max. dimension	Standard	Critical material	*
2.5	0.35	2.221	2.15	2.20	
3.0	0.35	2.721	2.65	2.70	
3.5	0.35	3.221	3.15	3.20	
4.0	0.50	3.599	3.50	3.60	*
5.0	0.50	4.599	4.50	4.60	*
6.0	0.50	5.599	5.50	5.60	*
8.0	0.50	7.599	7.50	7.60	*
10.0	0.50	9.599	9.50	9.60	*
6.0	0.75	5.378	5.20	5.30	
7.0	0.75	6.378	6.25	6.30	
8.0	0.75	7.378	7.20	7.30	
10.0	0.75	9.378	9.20	9.30	
12.0	0.75	11.378	11.30	11.40	*
14.0	0.75	13.378	13.30	13.40	*
16.0	0.75	15.378	15.30	15.40	*
8.0	1.00	7.153	7.00	7.10	
9.0	1.00	8.153	8.00	8.10	
10.0	1.00	9.153	9.00	9.10	
12.0	1.00	11.153	11.00	11.10	
13.0	1.00	12.153	12.00	12.10	
14.0	1.00	13.153	13.00	13.10	
15.0	1.00	14.153	14.00	14.10	
16.0	1.00	15.153	15.00	15.10	
17.0	1.00	16.153	16.00	16.10	
18.0	1.00	17.153	17.00	17.10	
20.0	1.00	19.153	19.00	19.10	
10.0	1.25	8.912	8.80	8.90	
12.0	1.25	10.912	10.80	10.90	
14.0	1.25	12.912	12.80	12.90	
16.0	1.25	14.912	14.80	14.90	
12.0	1.50	10.676	10.50	10.70	*
14.0	1.50	12.676	12.50	12.70	*
16.0	1.50	14.676	14.50	14.70	*
18.0	1.50	16.676	16.50	16.70	*
20.0	1.50	18.676	18.50	18.70	*
22.0	1.50	20.676	20.50	20.70	*
24.0	1.50	22.676	22.50	22.70	*

* The given dimension is out of norm

Core hole drill sizes

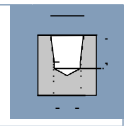
MJ



ø	P	Max. dimension	Standard	Critical material*	
2.0	0.40	1.722	1.65	1.70	
2.5	0.45	2.187	2.10	2.20	*
3.0	0.50	2.653	2.60	2.65	
4.0	0.70	3.498	3.40	3.50	*
5.0	0.80	4.421	4.30	4.40	
6.0	1.00	5.216	5.10	5.20	
8.0	1.00	7.216	7.10	7.20	
10.0	1.25	8.994	8.90	9.00	*

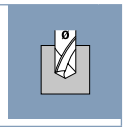
Rc

Rc 1:16 Conical reaming of the hole with a conical reamer 1:16



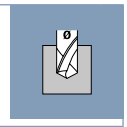
ø	P(TPI)	ø	D max	D min	L min
1/16	28	6.10	6.605	6.515	11.90
1/8	28	8.10	8.615	8.525	11.90
1/4	19	10.80	11.505	11.395	17.70
3/8	19	14.30	15.005	14.895	18.10
1/2	14	17.80	18.695	18.565	24.00
3/4	14	23.00	24.185	24.055	25.30

G



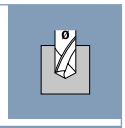
ø	P	Max. dimension	Standard	Critical material*	
1/8	28	8.848	8.80	8.85	*
1/4	19	11.890	11.80	11.90	*
3/8	19	15.395	15.25	15.40	*
1/2	14	19.172	19.00	19.20	*
5/8	14	21.128	21.00	21.10	
3/4	14	24.658	24.50	24.60	

BSW



ø	P	Max. dimension	Standard	Critical material*	
1/8	40	2.591	2.50	2.60	*
3/16	24	3.745	3.60	3.70	
1/4	20	5.156	5.10	5.10	
5/16	18	6.588	6.50	6.60	*
3/8	16	7.988	7.90	8.00	*
7/16	14	9.332	9.20	9.30	
1/2	12	10.589	10.50	10.60	*
5/8	11	13.558	13.50	13.50	
3/4	10	16.484	16.20	16.50	*
7/8	9	19.355	19.20	19.30	
1	8	22.1492	22.00	22.10	

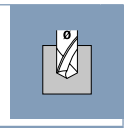
Rp



ø	P	Max. dimension	Standard	Critical material*
1/8	28	8.637	8.60	8.60
1/4	19	11.549	11.50	11.50
3/8	19	15.054	15.00	15.00
1/2	14	18.773	18.50	18.70
3/4	14	24.259	24.00	24.20

W zyl.

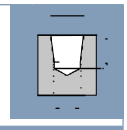
Cylindrical drilling



ø	P	Max. dimension	Standard	Critical material*
21.80	14	20.066	19.80	20.00
24.32	14	22.586	22.30	22.50

W kon.

W kon 3:25 Conical reaming of the hole with a conical reamer 3:25



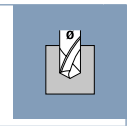
ø	P(TPI)	ø	D max	D min	L min
19.80	14	14.60	16.880	16.760	23.50
28.80	14	22.60	25.480	25.360	28.50

* The given dimension is out of norm

i

Core hole drill sizes

UNC

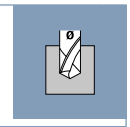


ø	P	Max. dimension	Standard	Critical material*	
1	64	1.582	1.55	1.60	*
2	56	1.872	1.85	1.90	*
3	48	2.146	2.10	2.15	*
4	40	2.385	2.35	2.40	*
5	40	2.697	2.65	2.70	*
6	32	2.896	2.85	2.90	*
8	32	3.531	3.50	3.50	
10	24	3.962	3.90	4.00	*
12	24	4.597	4.50	4.60	*
1/4	20	5.258	5.10	5.20	
5/16	18	6.731	6.60	6.70	
3/8	16	8.153	8.00	8.10	
7/16	14	9.550	9.40	9.50	
1/2	13	11.024	10.80	11.00	
9/16	12	12.446	12.20	12.40	
5/8	11	13.868	13.50	13.80	
3/4	10	16.840	16.50	16.80	
7/8	9	19.761	19.50	19.70	
1	8	22.601	22.30	22.60	

UNF

ø	P	Max. dimension	Standard	Critical material*	
0	80	1.306	1.25	1.30	
1	72	1.613	1.55	1.60	
2	64	1.913	1.85	1.90	
3	56	2.197	2.15	2.20	*
4	48	2.459	2.40	2.45	
5	44	2.741	2.70	2.75	*
6	40	3.023	2.95	3.00	
8	36	3.607	3.50	3.60	
10	32	4.166	4.10	4.20	*
12	28	4.727	4.60	4.70	
1/4	28	5.588	5.50	5.60	*
5/16	24	7.036	6.90	7.00	
3/8	24	8.636	8.50	8.60	
7/16	20	10.033	9.90	10.00	
1/2	20	11.608	11.50	11.60	
9/16	18	13.081	12.90	13.00	
5/8	18	14.681	14.50	14.70	*
3/4	16	17.678	17.50	17.70	*
7/8	14	20.675	20.50	20.70	*
1	12	23.571	23.30	23.50	

UNJC



ø	P	Max. dimension	Standard	Critical material*	
4	40	2.392	2.30	2.40	*
6	32	2.938	2.85	2.90	
8	32	3.599	3.50	3.60	*
10	24	4.064	3.90	4.00	
1/4	20	5.387	5.25	5.40	*
5/16	18	6.832	6.70	6.80	
3/8	16	8.257	8.10	8.20	

UNJF

ø	P	Max. dimension	Standard	Critical material*	
6	40	3.053	3.00	3.05	
8	36	3.662	3.55	3.60	
10	32	4.254	4.15	4.20	
1/4	28	5.661	5.55	5.60	
5/16	24	7.109	7.00	7.10	
3/8	24	8.679	8.60	8.70	*

UNEF

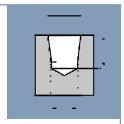
ø	P	Max. dimension	Standard	Critical material*	
1/4	32	5.689	5.60	5.70	*
5/16	32	7.264	7.20	7.30	*
3/8	32	8.864	8.80	8.90	*
7/16	28	10.337	10.20	10.30	
1/2	28	11.938	11.80	11.90	
9/16	24	13.385	13.20	13.40	*
5/8	24	14.986	14.80	15.00	*
11/16	24	16.560	16.40	16.50	
3/4	20	17.957	17.80	18.00	*
7/8	20	21.132	21.00	21.10	
1	20	24.307	24.20	24.30	

* The given dimension is out of norm

Core hole drill sizes

NPT

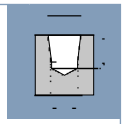
1:16 Conical reaming of the hole with a conical reamer 1:16



ø	P(TPI)	ø	D max	D min	L min
1/16	27	6.00	6.440	6.390	12.00
1/8	27	8.30	8.790	8.740	12.00
1/4	18	10.80	11.410	11.360	17.50
3/8	18	14.20	14.850	14.800	17.60
1/2	14	17.50	18.370	18.320	22.90
3/4	14	22.80	23.720	23.670	23.00
1	11.5	28.60	29.740	29.690	27.40

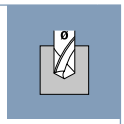
NPTF

1:16 Conical reaming of the hole with a conical reamer 1:16



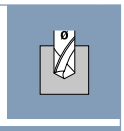
ø	P(TPI)	ø	D max	D min	L min
1/16	27	6.00	6.460	6.410	12.00
1/8	27	8.30	8.810	8.760	12.00
1/4	18	10.80	11.450	11.400	17.50
3/8	18	14.20	14.890	14.840	17.60
1/2	14	17.50	18.380	18.330	22.90
3/4	14	22.80	23.730	23.680	23.00
1	11.5	28.60	29.770	29.720	27.40

NPSM



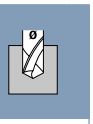
ø	P	Max. dimension	Standard	Critical material*
1/8	27	9.246	9.10	9.20
1/4	18	12.217	12.00	12.20
3/8	18	15.545	15.50	15.50
1/2	14	19.279	19.00	19.20
3/4	14	24.638	24.50	24.60

PG



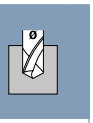
ø	P	Max. dimension	Standard	Critical material*
7	20	11.430	11.40	11.40
9	18	14.010	14.00	14.00
11	18	17.410	17.30	17.40
13.5	18	19.210	19.10	19.20
16	18	21.310	21.25	21.30

EG M



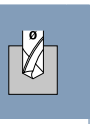
ø	P	Max. dimension	Standard	Critical material*	
2.0	0.40	2.177	2.15	2.20	*
2.5	0.45	2.697	2.65	2.70	*
3.0	0.50	3.220	3.15	3.20	
4.0	0.70	4.292	4.20	4.30	*
5.0	0.80	5.334	5.25	5.30	
6.0	1.00	6.407	6.30	6.40	
8.0	1.25	8.483	8.40	8.50	*
10.0	1.50	10.560	10.40	10.50	
12.0	1.75	12.644	12.50	12.60	
14.0	2.00	14.733	14.50	14.70	
16.0	2.00	16.733	16.50	16.70	

EG MF



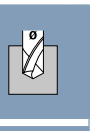
ø	P	Grösstmass	Standard	Critical material*
8.0	1.00	8.407	8.30	8.40
10.0	1.00	10.407	10.30	10.40
12.0	1.50	12.560	12.50	12.50
14.0	1.50	14.560	14.50	14.50
16.0	1.50	16.560	16.50	16.50

EG UNC



ø	P	Max. dimension	Standard	Critical material*	
4	40	3.178	3.10	3.20	*
6	32	3.879	3.80	3.90	*
8	32	4.523	4.40	4.50	
10	24	5.283	5.20	5.30	*
1/4	20	6.872	6.70	6.90	*
5/16	18	8.490	8.40	8.50	*
3/8	16	10.126	10.00	10.10	
1/2	13	13.393	13.30	13.40	*

EG UNF



ø	P	Max. dimension	Standard	Critical material*	
6	40	3.815	3.70	3.80	
8	36	4.496	4.40	4.50	*
10	32	5.184	5.10	5.20	*
1/4	28	6.720	6.60	6.70	
5/16	24	8.351	8.30	8.40	*
3/8	24	9.931	9.80	9.90	
7/16	20	11.587	11.50	11.60	*
1/2	20	13.176	13.10	13.20	*

* The given dimension is out of norm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Hardness conversion table (R_m → HV10 → HB → HRC)

R_m [N/mm²]	HV 10	HB	HRC		R_m [N/mm²]	HV 10	HB	HRC
240	75	71			920	287	273	28
255	80	76			940	293	278	29
270	85	81			970	302	287	30
285	90	86			995	310	295	31
305	95	90			1020	317	301	32
320	100	95			1050	327	311	33
335	105	100			1080	336	319	34
350	110	105			1110	345	328	35
370	115	109			1140	355	337	36
385	120	114			1170	364	346	37
400	125	119			1200	373	354	38
415	130	124			1230	382	363	39
430	135	128			1260	392	372	40
450	140	133			1300	403	383	41
465	145	138			1330	413	393	42
480	150	143			1360	423	402	43
495	155	147			1400	434	413	44
510	160	152			1440	446	424	45
530	165	157			1480	458	435	46
545	170	162			1530	473	449	47
560	175	166			1570	484	460	48
575	180	171			1620	497	472	49
595	185	176			1680	514	488	50
610	190	181			1730	527	501	51
625	195	185			1790	544	517	52
640	200	190			1845	560	532	53
660	205	195			1910	578	549	54
675	210	199			1980	596	567	55
690	215	204			2050	615	584	56
705	220	209			2140	639	607	57
720	225	214				655	622	58
740	230	219				675		59
755	235	223				698		60
770	240	228				720		61
785	245	233				745		62
800	250	238	22			773		63
820	255	242	23			800		64
835	260	247	24			829		65
860	268	255	25			864		66
870	272	258	26			900		67
900	280	266	27			940		68

Distribution network

Sales and service locations

FRAISA SA
Gurzelenstrasse 7
4512 Bellach
Tel: +41 (0)32 617 42 42
mail.ch@fraisa.com

FRAISA GmbH
Hanns-Martin-Schleyer-Str. 15b
D-47877 Willich
Tel: +49 2154 489 84-0
info@fraisa.de

FRAISA Sarl.
7, Rue de Lombardie
F-69150 Décines
Tel: +33 4 721 45 700
fraisa@fraisa.fr

FRAISA Italia s.r.l.
Via Grosio 10/8
I-20151 Milano
Tel: +39 02 334 06 086
mail.it@fraisa.com

FRAISA Hungária Kft.
Vásárhelyi Pál u. 3
H-3950 Sárospatak
Tel: +36 47 511 217
mail.hu@fraisa.com

FRAISA USA Inc.
711 5th St SW
USA-New Brighton MN 55112
Tel: +1 651 636 8488
info@fraisausa.com

FRAISA (Shanghai) Co., Ltd
A202, Building 3, No. 526,
3rd East Fute Road
Shanghai Pilot Free Trade Zone,
Shanghai 200131, P.R. China
Tel: +86 21 5820 5550
infochina@fraisa.com

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Article list – Drilling tools

Example: Article: B62015

Article-N°.: B62015
Coating: NANO-U²
Page: 17

Article-N°.		Coating							
INDEX		without	U-4XD	NANO-U²	DURO-VD	DURO-X	DURO-SD	DURO-D²	DIAPLUS
Chemical composition			TiAlCN	AlTiN	AlTiSiN	TiAlN/TiN	AlTiN	AlTiN/TiN	C
Hardness [HV]			3200	3700	3500	3300	3600	3300	10000
Max. temp. [°C]			650	1100	1100	900	880	900	600
B52020	97						●		
B52112	75				●				
B52801	123							●	
B52915	101							●	
B52920	103							●	
B52925	105							●	
B52930	107							●	
B53020	97						●		
B57014	109						●		
B57015	115						●		
B57020	119						●		
B62011	61			●					
B62014	35			●					
B62015	17			●					
B63011	61			●					
B63014	35			●					
B63015	17			●					
B72011	65					●			
B72015	45					●			
B72020	87					●			
B92008	129		●						
B92020	127		●						
B92040	125		●						
B92310	131		●						

Article list – Thread cutting tools

Example: Article: EH27500

Article-N°.: EH27500
Coating: TiCN
Page: 139

Article-N°.		Coating							
INDEX		E	EC	EH	ET	EI	EF	EL	EU
		without	AlCrTiN	TiCN	TRIBO	INTEGRAL	F-DLC	LONGCUT	UNICUT-4X
Chemical composition			AlCrTiN	TiCN	TiAlN	TiAlN	DLC	AlCrN	TiAlCN
Hardness [HV]			3000	3000	3000	3500	2800	3200	3200
Max. temp. [°C]			600	400	300	1000	500	1100	650
_ 0020	239					●			
_ 0021	239					●			
_ 0050	241					●			
_ 0051	241					●			
_ 0100	197			●					
_ 0101	197			●					
_ 0109	257			●					
_ 0110	259			●					
_ 0229	261			●					
_ 0230	263			●					
_ 0400	219				●				
_ 0401	219				●				
_ 0502	201			●					
_ 0503	201			●					
_ 0504	285			●					
_ 0505	285			●					
_ 0512	213			●					
_ 0513	213			●					
_ 0570	203			●					
_ 0570	221				●				
_ 0571	205			●					
_ 0571	221				●				
_ 0572	287			●					
_ 0573	287			●					
_ 0580	207			●					
_ 0580	223				●				
_ 0581	207			●					
_ 0581	223				●				
_ 0590	209			●					
_ 0590	225				●				
_ 0591	211			●					
_ 0591	227				●				
_ 0595	215			●					
_ 0596	215			●					
_ 0598	255	●							
_ 0599	297	●							
_ 0600	229			●					
_ 0601	229			●					
_ 0620	231			●					
_ 0621	231			●					
_ 0705	249				●				

Article-N°.		Coating							
INDEX		E without	EC AlCrTiN	EH TiCN	ET TRIBO	EI INTEGRAL	EF F-DLC	EL LONGCUT	EU UNICUT-4X
_0706	251				●				
_0755	253				●				
_0756	253				●				
_1229	317			●					
_1240	309				●				
_1241	311				●				
_1257	301			●					
_1258	303			●					
_1260	305			●					
_1260	313				●				
_1261	307			●					
_1261	315				●				
_1400	321			●					
_1429	333			●					
_1440	329				●				
_1472	325			●					
_1475	327			●					
_1475	331				●				
_1687	341			●					
_1688	343			●					
_1690	345			●					
_1691	347			●					
_1699	349	●							
_1787	351			●					
_1788	351			●					
_1790	353			●					
_1791	353			●					
_1799	355	●							
_6100	377			●					
_6101	377			●					
_6300	243			●					
_6301	245			●					
_6350	247			●					
_6351	247			●					
_6500	233			●					
_6501	235			●					
_6550	237			●					
_6551	237			●					
_6900	217			●					
_6901	217			●					
_10060	373						●		
_10061	375						●		
_10064	389						●		
_10065	389						●		
_10068	393						●		
_10070	383			●					
_10071	385			●					
_10072	387			●					
_10073	387			●					
_10074	391			●					
_10075	391			●					
_10078	395			●					
_10080	379							●	
_10081	381							●	
_10110	289	●							
_10114	293	●							
_10115	293	●							
_10118	281	●							
_10119	281	●							
_10122	277	●							
_10123	277	●							
_10214	291	●							
_10218	295	●							
_10219	295	●							
_10220	283	●							
_10221	283	●							

Article-N°.		Coating							
INDEX		E	EC	EH	ET	EI	EF	EL	EU
		without	AlCrTiN	TiCN	TRIBO	INTEGRAL	F-DLC	LONGCUT	UNICUT-4X
_ 10222	279	●							
_ 10223	279	●							
_ 10310	199			●					
_ 10311	199			●					
_ 10340	273	●							
_ 10350	275	●							
_ 10540	193		●						
_ 10541	193		●						
_ 10550	195		●						
_ 10551	195		●						
_ 10800	265	●							
_ 10801	267	●							
_ 10820	269	●							
_ 10821	271	●							
_ 11260	397						●		
_ 11261	397						●		
_ 11270	399			●					
_ 11271	399			●					
_ 11425	323			●					
_ 11480	335	●							
_ 11482	337	●							
_ 11820	359	●							
_ 11846	361	●							
_ 11950	403			●					
_ 11951	403			●					
_ 11960	401						●		
_ 11961	401						●		
_ 11970	365	●							
_ 11971	365	●							
_ 11980	367	●							
_ 11981	367	●							
_ 20300	151			●					
_ 20306	151			●					
_ 20320	153			●					
_ 20326	153			●					
_ 20340	155			●					
_ 20360	157			●					
_ 20370	159			●					
_ 20380	161			●					
_ 20390	163			●					
_ 22200	181	●		●					
_ 22300	179	●		●					
_ 24200	175			●					
_ 24220	177			●					
_ 24300	165			●					
_ 24320	167			●					
_ 24340	169			●					
_ 24360	171			●					
_ 24370	173			●					
_ 26020	183			●					
_ 26040	185			●					
_ 27500	139			●					
_ 27502	141			●					
_ 27504	143					●			
_ 27540	147			●					
_ 27560	149			●					
_ 28500	145	●							●

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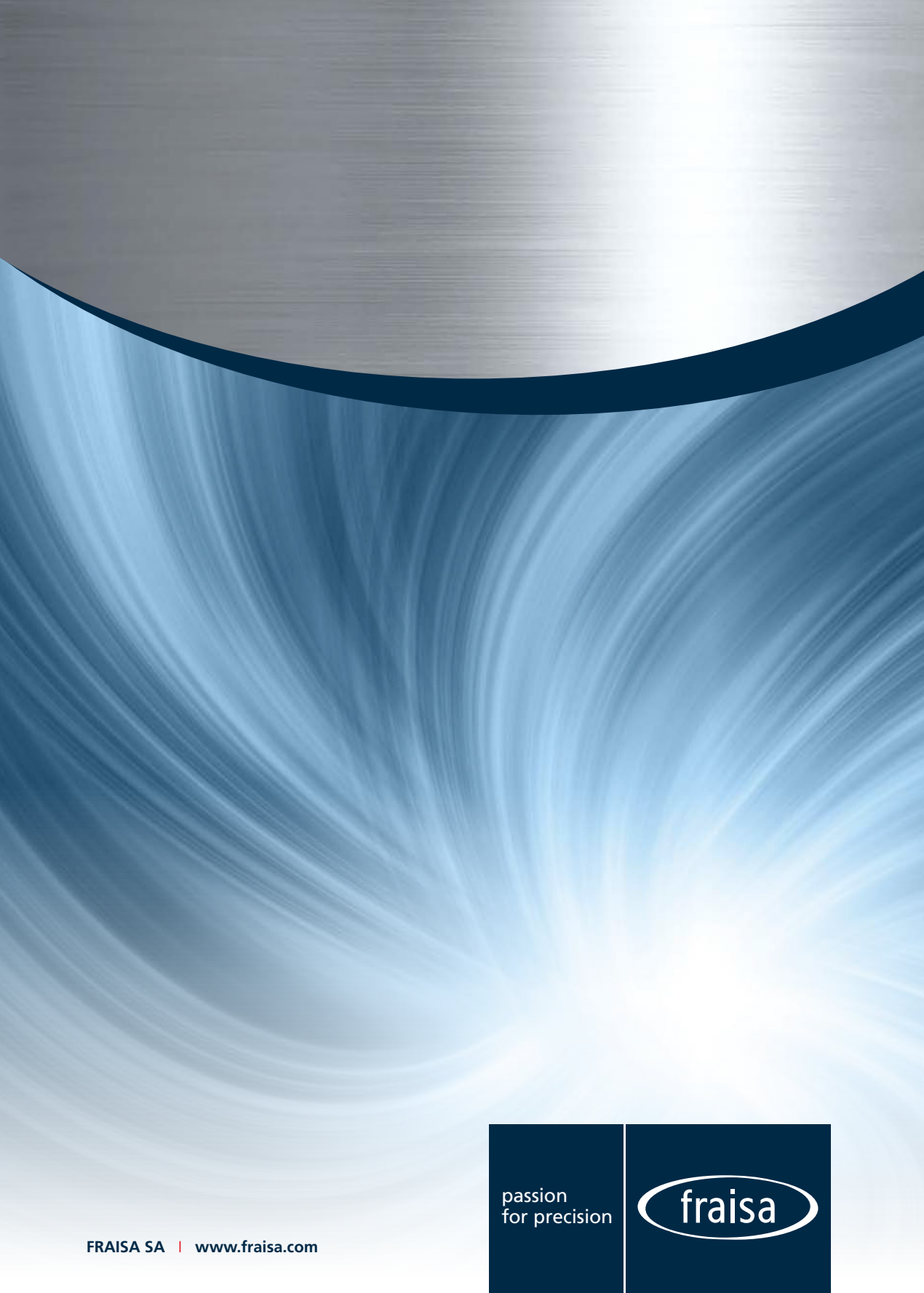
passion
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