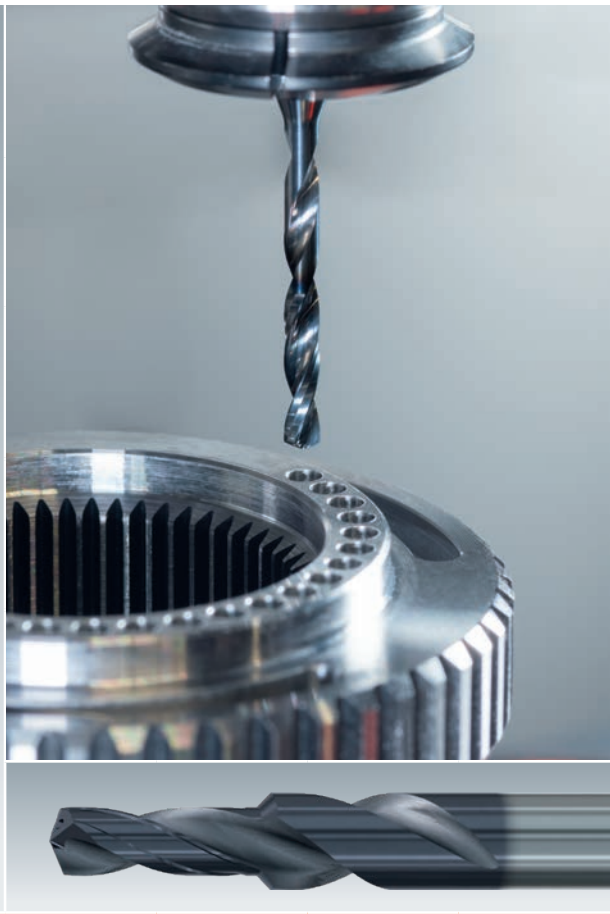
EMUGE FRANKEN

Made in Germany



BasicDrill

EMUGE

Solid Carbide Twist Drills

Main area of application

The twist drill BasicDrill is universally applicable and available in the diameter range from 1.00 to 24.50 mm.

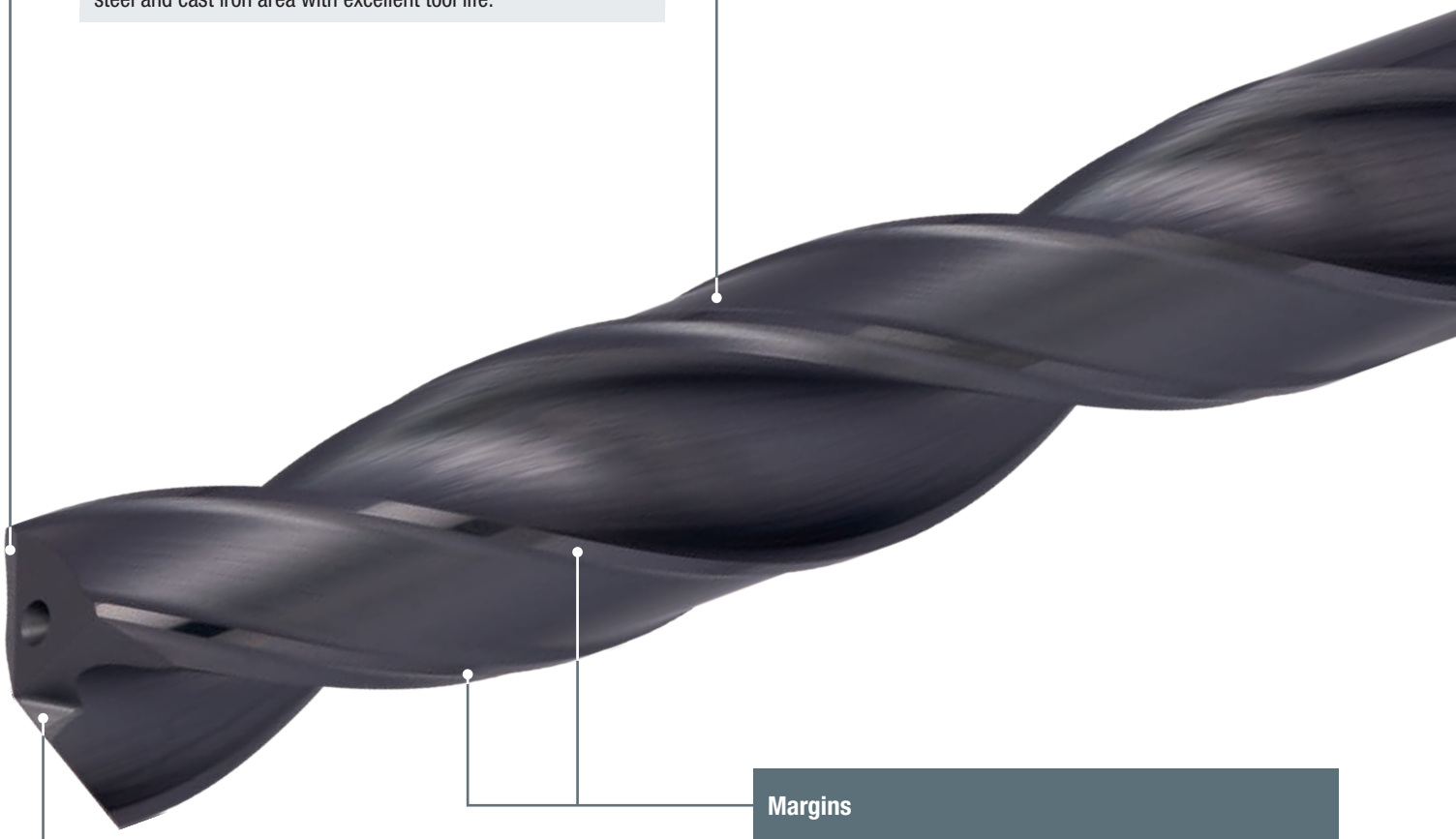
The application area of the BasicDrill covers the material groups steel materials, stainless steel materials, cast materials and non-ferrous materials. Its application focus is the steel area.

Cutting edge shape and edge preparation

The concave main cutting edge combined with an optimised edge preparation enables the best cutting behaviour in the steel and cast iron area with excellent tool life.

Cutting material and coating

The combination of carbide and a high-performance coating enables higher cutting speeds and feed rates.

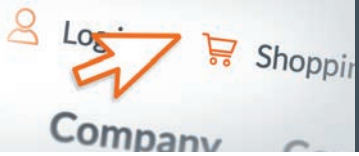


Margins

The design with four margins ensures optimum guidance of the twist drill in the bore. The third and fourth margin are arranged in such a way that they engage at an early stage. The special design prevents jamming even in stainless steel materials.

Point geometry

An optimised point design allows sufficient space for chip forming and coolant distribution.



The QR code shown with the tools will take you directly to the respective articles in our web store where you can find comprehensive tool information and cutting data.

Registration provides you with additional product data and functions. These include standardised tool data (2D / 3D / characteristics), an order or quotation history and individual watch lists as well as other useful functions.

Shank end

The shank end has been designed in such a way that the drilling tool can be used with emulsion as well as with minimum quantity lubrication (MQL).

Flutes

The open shape of the flute facilitates smooth chip evacuation.

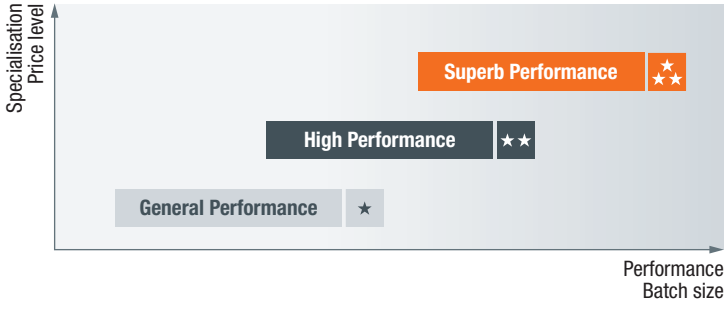
The EMUGE-FRANKEN performance classes of twist drills

The performance classes indicated by stars make it easier to find the right tool for the specific performance requirements and the batch size to be produced.

Tools for standard requirements and versatile use are assigned to the category “General Performance”.

Tools designed for special materials or applications are marked “High Performance”.

Specialists with the highest performance values and the best possible technology are classified as “Superb Performance”.



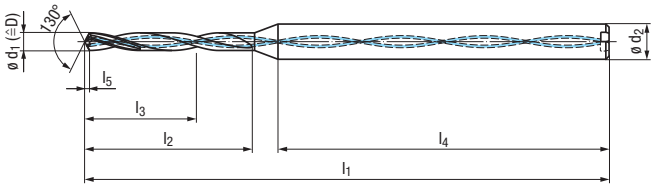
BasicDrill Micro BD108-6xD new

★ 6xD

Applications – material	
P	1.1-5.1
M	1.1-4.1
K	1.1-3.2
N	1.1-2.3
S	1.2-1.3, 2.2-2.3
H	1.1-1.2

Solid carbide twist drill for dimensions smaller than 3 mm, 6xD, in Basic geometry for universal application.

Product features and benefits:
Four margins for better guidance and hole quality.
Internal cooling channels and high-performance coating for high process reliability.
Use in various materials with steel as the main application area.

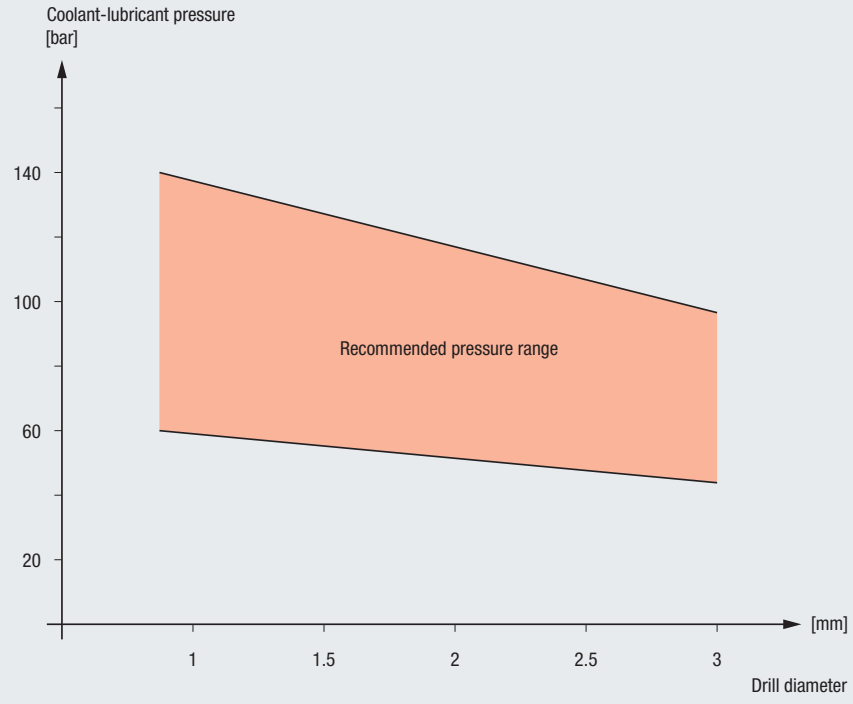


Information about this product is also available on the web

ø d_1 k5	Taps	Cold-forming taps	l_1	l_2	l_3	l_4 + 3 mm	l_5	ø d_2 h6	HA
1.00	M1.2x0.2	M1.1	50	9	6	36	0.20	3	**TE211344.0100**
1.05			50	9.5	6.3	36	0.20	3	**TE211344.0105**
1.10	M1.4	M1.2	50	9.9	6.6	36	0.20	3	**TE211344.0110**
1.15			50	10.4	6.9	36	0.20	3	**TE211344.0115**
1.20	M1.4x0.2		50	10.8	7.2	36	0.20	3	**TE211344.0120**
1.25	M1.6 / #0-80		50	11.3	7.5	36	0.20	3	**TE211344.0125**
1.30	MJ1.6x0.35		52	11.7	7.8	36	0.25	3	**TE211344.0130**
1.35	M1.7		52	12.2	8.1	36	0.25	3	**TE211344.0135**
1.40	M1.6x0.2	#0-80	52	12.6	8.4	36	0.25	3	**TE211344.0140**
1.45	M1.8		52	13.1	8.7	36	0.25	3	**TE211344.0145**
1.47		M1.6	52	13.5	8.8	36	0.25	3	**TE211344.0147**
1.50			52	13.5	9	36	0.25	3	**TE211344.0150**
1.55	#1-64		55	14	9.3	36	0.30	3	**TE211344.0155**
1.60	M2 / M1.8x0.2		55	14.4	9.6	36	0.30	3	**TE211344.0160**
1.65			55	14.9	9.9	36	0.30	3	**TE211344.0165**
1.70		#1-64 / #1-72	55	15.3	10.2	36	0.30	3	**TE211344.0170**
1.75	M2.2 / M2x0.25		55	15.8	10.5	36	0.30	3	**TE211344.0175**
1.80			57	16.2	10.8	36	0.30	3	**TE211344.0180**
1.85	#2-56 / #2-64	M2	57	16.7	11.1	36	0.35	3	**TE211344.0185**
1.90	M2.3		57	17.1	11.4	36	0.35	3	**TE211344.0190**
1.95	M2.2x0.25 / M2.3x0.35		57	17.6	11.7	36	0.35	3	**TE211344.0195**
2.00		#2-56	57	18	12	36	0.35	4	**TE211344.0200**
2.03		M2.2	57	18.5	12.2	36	0.35	4	**TE211344.0203**
2.05	M2.5 / M2.3x0.25		60	18.5	12.3	36	0.35	4	**TE211344.0205**
2.10	MJ2.5x0.45 / #3-48		60	18.9	12.6	36	0.40	4	**TE211344.0210**
2.15	M2.6 / M2.5x0.35 / #3-56	M2.3	60	19.4	12.9	36	0.40	4	**TE211344.0215**
2.20			60	19.8	13.2	36	0.40	4	**TE211344.0220**
2.25	M2.6x0.35		60	20.3	13.5	36	0.40	4	**TE211344.0225**
2.30		#3-48	62	20.7	13.8	36	0.40	4	**TE211344.0230**
2.33		M2.5	62	21.2	14	36	0.40	4	**TE211344.0233**
2.35	#4-40		62	21.2	14.1	36	0.40	4	**TE211344.0235**
2.40	#4-48		62	21.6	14.4	36	0.45	4	**TE211344.0240**

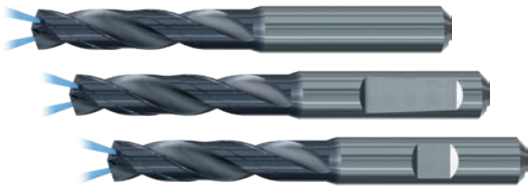
ø d_1 k5	Taps 	Cold-forming taps 	l_1	l_2	l_3	l_4 + 3 mm	l_5	ø d_2 h6	HA 
2.45			62	22.1	14.7	36	0.45	4	**TE211344.0245**
2.50	M3		62	22.5	15	36	0.45	4	**TE211344.0250**
2.55		#4-40	65	23	15.3	36	0.45	4	**TE211344.0255**
2.60	MJ3x0.5		65	23.4	15.6	36	0.45	4	**TE211344.0260**
2.65	M3x0.35 / #5-40		65	23.9	15.9	36	0.45	4	**TE211344.0265**
2.70	#5-44		65	24.3	16.2	36	0.50	4	**TE211344.0270**
2.75	M3x0.25		65	24.8	16.5	36	0.50	4	**TE211344.0275**
2.80		M3	67	25.2	16.8	36	0.50	4	**TE211344.0280**
2.85	#6-32		67	25.7	17.1	36	0.50	4	**TE211344.0285**
2.90	M3.5	#5-40	67	26.1	17.4	36	0.50	4	**TE211344.0290**
2.95			67	26.6	17.7	36	0.55	4	**TE211344.0295**

Recommended coolant-lubricant pressure for BasicDrill Micro



BasicDrill-BD101-3xD

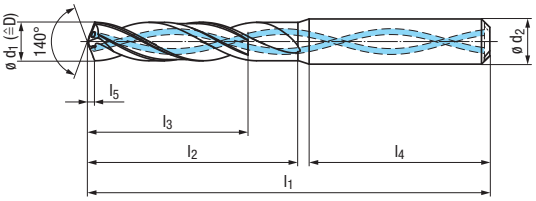
★ 3xD



Applications – material	
P	1.1-5.1
M	1.1-3.1
K	1.1-4.2
N	1.1-2.3
S	1.2-1.3, 2.2-2.3
H	1.1-1.3

Solid carbide twist drill, 3xD, in Basic geometry for universal application.

Product features and benefits:
Four margins for better guidance and hole quality.
Internal cooling channels and high-performance coating for high process reliability.
Use in various materials with steel as the main application area.



Information about this product is also available on the web

DIN 6537 – Short design

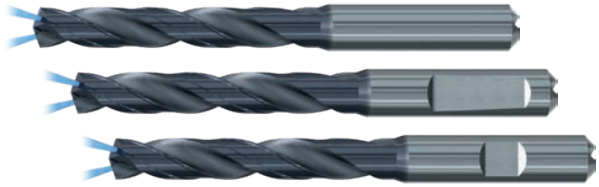
	ø d_1 m7	Taps	Cold-forming taps	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	DIN 6535 HA	DIN 6535 HE	DIN 6535 HB
	3.00	M3.5x0.5 / MJ3.5x0.6		62	20	14	36	0.5	6	**TA201344.0300**	**TA501344.0300**	**TA601344.0300**
	3.10			62	20	14	36	0.5	6	**TA201344.0310**	**TA501344.0310**	**TA601344.0310**
	3.20	MJ3.5x0.35		62	20	14	36	0.5	6	**TA201344.0320**	**TA501344.0320**	**TA601344.0320**
	3.30	M4	M3.5x0.5	62	20	14	36	0.6	6	**TA201344.0330**	**TA501344.0330**	**TA601344.0330**
	3.40	MJ4x0.7		62	20	14	36	0.6	6	**TA201344.0340**	**TA501344.0340**	**TA601344.0340**
	3.50	M4x0.5 / #8-32 / #8-36		62	20	14	36	0.6	6	**TA201344.0350**	**TA501344.0350**	**TA601344.0350**
	3.60	MJ4x0.5		62	20	14	36	0.6	6	**TA201344.0360**	**TA501344.0360**	**TA601344.0360**
new	**3.65**	M4x0.35		62	20	14	36	0.6	6	**TA201344.0365**	**TA501344.0365**	**TA601344.0365**
	3.70	M4.5	M4	62	20	14	36	0.6	6	**TA201344.0370**	**TA501344.0370**	**TA601344.0370**
	3.80		M4x0.5 / #8-32	66	24	17	36	0.6	6	**TA201344.0380**	**TA501344.0380**	**TA601344.0380**
	3.90	MJ4.5x0.75 / #10-24		66	24	17	36	0.7	6	**TA201344.0390**	**TA501344.0390**	**TA601344.0390**
	4.00			66	24	17	36	0.7	6	**TA201344.0400**	**TA501344.0400**	**TA601344.0400**
	4.10	MJ4.5x0.5 / #10-32		66	24	17	36	0.7	6	**TA201344.0410**	**TA501344.0410**	**TA601344.0410**
	4.20	M5 / M5x0.75	M4.5	66	24	17	36	0.7	6	**TA201344.0420**	**TA501344.0420**	**TA601344.0420**
	4.30	MJ5x0.8	M4.5x0.5 / #10-24 (GAL)	66	24	17	36	0.7	6	**TA201344.0430**	**TA501344.0430**	**TA601344.0430**
	4.40			66	24	17	36	0.7	6	**TA201344.0440**	**TA501344.0440**	**TA601344.0440**
	4.50	M5x0.5 / #12-24		66	24	17	36	0.8	6	**TA201344.0450**	**TA501344.0450**	**TA601344.0450**
	4.60	M5.5 / MJ5x0.5 / #12-28		66	24	17	36	0.8	6	**TA201344.0460**	**TA501344.0460**	**TA601344.0460**
	4.65		M5	66	24	17	36	0.8	6	**TA201344.0465**	**TA501344.0465**	**TA601344.0465**
	4.70		M5x0.75	66	24	17	36	0.8	6	**TA201344.0470**	**TA501344.0470**	**TA601344.0470**
	4.80		M5x0.5	66	28	20	36	0.8	6	**TA201344.0480**	**TA501344.0480**	**TA601344.0480**
	4.90			66	28	20	36	0.8	6	**TA201344.0490**	**TA501344.0490**	**TA601344.0490**
	5.00	M6	#12-24	66	28	20	36	0.8	6	**TA201344.0500**	**TA501344.0500**	**TA601344.0500**
new	**5.05**			66	28	20	36	0.9	6	**TA201344.0505**	**TA501344.0505**	**TA601344.0505**
	5.10	MJ6x1 / 1/4-20	M5.5 / #12-28	66	28	20	36	0.9	6	**TA201344.0510**	**TA501344.0510**	**TA601344.0510**
	5.20	M6x0.75		66	28	20	36	0.9	6	**TA201344.0520**	**TA501344.0520**	**TA601344.0520**
	5.30		M5.5x0.5	66	28	20	36	0.9	6	**TA201344.0530**	**TA501344.0530**	**TA601344.0530**
	5.40			66	28	20	36	0.9	6	**TA201344.0540**	**TA501344.0540**	**TA601344.0540**
	5.50	M6x0.5 / 1/4-28		66	28	20	36	0.9	6	**TA201344.0550**	**TA501344.0550**	**TA601344.0550**
	5.55		M6 (GAL)	66	28	20	36	0.9	6	**TA201344.0555**	**TA501344.0555**	**TA601344.0555**
	5.60	MJ6x0.5	M6	66	28	20	36	1.0	6	**TA201344.0560**	**TA501344.0560**	**TA601344.0560**

	ø d_1 m7	Taps 	Cold-forming taps 	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	 DIN 6535 HA	 DIN 6535 HE	 DIN 6535 HB
	5.70		M6x0.75 / 1/4-20 (GAL)	66	28	20	36	1.0	6	**TA201344.0570**	**TA501344.0570**	**TA601344.0570**
	5.80		M6x0.5	66	28	20	36	1.0	6	**TA201344.0580**	**TA501344.0580**	**TA601344.0580**
	5.90			66	28	20	36	1.0	6	**TA201344.0590**	**TA501344.0590**	**TA601344.0590**
	6.00	M7		66	28	20	36	1.0	6	**TA201344.0600**	**TA501344.0600**	**TA601344.0600**
new	**6.15**			79	34	24	36	1.1	8	**TA201344.0615**	**TA501344.0615**	**TA601344.0615**
	6.20	M7x0.75		79	34	24	36	1.1	8	**TA201344.0620**	**TA501344.0620**	**TA601344.0620**
	6.30			79	34	24	36	1.1	8	**TA201344.0630**	**TA501344.0630**	**TA601344.0630**
	6.35	MJ7x0.75		79	34	24	36	1.1	8	**TA201344.0635**	**TA501344.0635**	**TA601344.0635**
	6.40			79	34	24	36	1.1	8	**TA201344.0640**	**TA501344.0640**	**TA601344.0640**
	6.50	M7x0.5		79	34	24	36	1.1	8	**TA201344.0650**	**TA501344.0650**	**TA601344.0650**
	6.60	5/16-18	M7	79	34	24	36	1.1	8	**TA201344.0660**	**TA501344.0660**	**TA601344.0660**
	6.70		M7x0.75	79	34	24	36	1.1	8	**TA201344.0670**	**TA501344.0670**	**TA601344.0670**
	6.80	M8 / G1/16	M7x0.5	79	34	24	36	1.2	8	**TA201344.0680**	**TA501344.0680**	**TA601344.0680**
	6.90	MJ8x1.25 / 5/16-24		79	34	24	36	1.2	8	**TA201344.0690**	**TA501344.0690**	**TA601344.0690**
	7.00	M8x1		79	34	24	36	1.2	8	**TA201344.0700**	**TA501344.0700**	**TA601344.0700**
	7.20	M8x0.75		79	41	29	36	1.2	8	**TA201344.0720**	**TA501344.0720**	**TA601344.0720**
	7.40		M8 (GAL) / 5/16-24 (GAL)	79	41	29	36	1.3	8	**TA201344.0740**	**TA501344.0740**	**TA601344.0740**
	7.45		M8 / 5/16-24	79	41	29	36	1.3	8	**TA201344.0745**	**TA501344.0745**	**TA601344.0745**
	7.50	M8x0.5		79	41	29	36	1.3	8	**TA201344.0750**	**TA501344.0750**	**TA601344.0750**
	7.60		M8x1	79	41	29	36	1.3	8	**TA201344.0760**	**TA501344.0760**	**TA601344.0760**
	7.70		M8x0.75	79	41	29	36	1.3	8	**TA201344.0770**	**TA501344.0770**	**TA601344.0770**
	7.80	M9	M8x0.5	79	41	29	36	1.3	8	**TA201344.0780**	**TA501344.0780**	**TA601344.0780**
	7.90	MJ9x1.25		79	41	29	36	1.3	8	**TA201344.0790**	**TA501344.0790**	**TA601344.0790**
	8.00	M9x1 / 3/8-16		79	41	29	36	1.4	8	**TA201344.0800**	**TA501344.0800**	**TA601344.0800**
	8.10	MJ9x1		89	47	35	40	1.4	10	**TA201344.0810**	**TA501344.0810**	**TA601344.0810**
	8.20	M9x0.75		89	47	35	40	1.4	10	**TA201344.0820**	**TA501344.0820**	**TA601344.0820**
	8.30			89	47	35	40	1.4	10	**TA201344.0830**	**TA501344.0830**	**TA601344.0830**
	8.40		M9 (GAL)	89	47	35	40	1.4	10	**TA201344.0840**	**TA501344.0840**	**TA601344.0840**
	8.50	M10 / M9x0.5 / 3/8-24		89	47	35	40	1.4	10	**TA201344.0850**	**TA501344.0850**	**TA601344.0850**
	8.60	MJ10x1.5	M9x1	89	47	35	40	1.5	10	**TA201344.0860**	**TA501344.0860**	**TA601344.0860**
	8.70		M9x0.75	89	47	35	40	1.5	10	**TA201344.0870**	**TA501344.0870**	**TA601344.0870**
	8.80	M10x1.25 / G1/8	M9x0.5 / 3/8-16	89	47	35	40	1.5	10	**TA201344.0880**	**TA501344.0880**	**TA601344.0880**
	9.00	M10x1	3/8-24 (GAL)	89	47	35	40	1.5	10	**TA201344.0900**	**TA501344.0900**	**TA601344.0900**
	9.20	M10x0.75		89	47	35	40	1.6	10	**TA201344.0920**	**TA501344.0920**	**TA601344.0920**
new	**9.25**			89	47	35	40	1.6	10	**TA201344.0925**	**TA501344.0925**	**TA601344.0925**
	9.30		M10 (GAL)	89	47	35	40	1.6	10	**TA201344.0930**	**TA501344.0930**	**TA601344.0930**
	9.35	MJ10x0.75	M10	89	47	35	40	1.6	10	**TA201344.0935**	**TA501344.0935**	**TA601344.0935**
	9.40	7/16-14	M10x1.25 (GAL)	89	47	35	40	1.6	10	**TA201344.0940**	**TA501344.0940**	**TA601344.0940**
	9.50	M11 / M10x0.5		89	47	35	40	1.6	10	**TA201344.0950**	**TA501344.0950**	**TA601344.0950**
	9.60	MJ10x0.5 / MJ11x1.5	M10x1	89	47	35	40	1.6	10	**TA201344.0960**	**TA501344.0960**	**TA601344.0960**
	9.80		M10x0.5	89	47	35	40	1.7	10	**TA201344.0980**	**TA501344.0980**	**TA601344.0980**
	9.90	MJ11x1.25 / 7/16-20		89	47	35	40	1.7	10	**TA201344.0990**	**TA501344.0990**	**TA601344.0990**
	10.00	M11x1		89	47	35	40	1.7	10	**TA201344.1000**	**TA501344.1000**	**TA601344.1000**
new	**10.05**			102	55	40	45	1.7	12	**TA201344.1005**	**TA501344.1005**	**TA601344.1005**
	10.10	MJ11x1		102	55	40	45	1.7	12	**TA201344.1010**	**TA501344.1010**	**TA601344.1010**
new	**10.15**			102	55	40	45	1.7	12	**TA201344.1015**	**TA501344.1015**	**TA601344.1015**
	10.20	M12 / M11x0.75	7/16-14 (GAL)	102	55	40	45	1.7	12	**TA201344.1020**	**TA501344.1020**	**TA601344.1020**
	10.30		M11 (GAL)	102	55	40	45	1.7	12	**TA201344.1030**	**TA501344.1030**	**TA601344.1030**
	10.40			102	55	40	45	1.8	12	**TA201344.1040**	**TA501344.1040**	**TA601344.1040**
	10.50	M12x1.5	7/16-20 (GAL)	102	55	40	45	1.8	12	**TA201344.1050**	**TA501344.1050**	**TA601344.1050**
new	**10.60**		M11x1	102	55	40	45	1.8	12	**TA201344.1060**	**TA501344.1060**	**TA601344.1060**
	10.80	M12x1.25 / 1/2-13		102	55	40	45	1.8	12	**TA201344.1080**	**TA501344.1080**	**TA601344.1080**
	11.00	M12x1		102	55	40	45	1.9	12	**TA201344.1100**	**TA501344.1100**	**TA601344.1100**

	ø d_1 m7	Taps	Cold-forming taps	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	DIN 6535 HA	DIN 6535 HE	DIN 6535 HB
new	**11.10**			102	55	40	45	1.9	12	**TA201344.1110**	**TA501344.1110**	**TA601344.1110**
	11.20	M12x0.75	M12 (GAL)	102	55	40	45	1.9	12	**TA201344.1120**	**TA501344.1120**	**TA601344.1120**
	11.25		M12	102	55	40	45	1.9	12	**TA201344.1125**	**TA501344.1125**	**TA601344.1125**
	11.30		M12x1.5 (GAL)	102	55	40	45	1.9	12	**TA201344.1130**	**TA501344.1130**	**TA601344.1130**
	11.35		M12x1.5	102	55	40	45	1.9	12	**TA201344.1135**	**TA501344.1135**	**TA601344.1135**
new	**11.40**		M12x1.25 (GAL)	102	55	40	45	2.0	12	**TA201344.1140**	**TA501344.1140**	**TA601344.1140**
	11.50	1/2-20		102	55	40	45	2.0	12	**TA201344.1150**	**TA501344.1150**	**TA601344.1150**
	11.60		M12x1	102	55	40	45	2.0	12	**TA201344.1160**	**TA501344.1160**	**TA601344.1160**
new	**11.70**		M12x0.75	102	55	40	45	2.0	12	**TA201344.1170**	**TA501344.1170**	**TA601344.1170**
	11.80	G1/4	1/2-13	102	55	40	45	2.0	12	**TA201344.1180**	**TA501344.1180**	**TA601344.1180**
	12.00	M14		102	55	40	45	2.0	12	**TA201344.1200**	**TA501344.1200**	**TA601344.1200**
	12.10	MJ13x1	1/2-20 (GAL)	107	60	43	45	2.1	14	**TA201344.1210**	**TA501344.1210**	**TA601344.1210**
	12.20	9/16-12		107	60	43	45	2.1	14	**TA201344.1220**	**TA501344.1220**	**TA601344.1220**
	12.50	M14x1.5	G1/4 (GAL)	107	60	43	45	2.1	14	**TA201344.1250**	**TA501344.1250**	**TA601344.1250**
	12.70		M13x0.75	107	60	43	45	2.2	14	**TA201344.1270**	**TA501344.1270**	**TA601344.1270**
	12.90	MJ14x1.25 / 9/16-18		107	60	43	45	2.2	14	**TA201344.1290**	**TA501344.1290**	**TA601344.1290**
	13.00	M14x1		107	60	43	45	2.2	14	**TA201344.1300**	**TA501344.1300**	**TA601344.1300**
	13.10	MJ14x1	M14	107	60	43	45	2.2	14	**TA201344.1310**	**TA501344.1310**	**TA601344.1310**
	13.30		9/16-12	107	60	43	45	2.3	14	**TA201344.1330**	**TA501344.1330**	**TA601344.1330**
	13.35		M14x1.5	107	60	43	45	2.3	14	**TA201344.1335**	**TA501344.1335**	**TA601344.1335**
	13.50	5/8-11		107	60	43	45	2.3	14	**TA201344.1350**	**TA501344.1350**	**TA601344.1350**
	14.00	M16 / M15x1		107	60	43	45	2.4	14	**TA201344.1400**	**TA501344.1400**	**TA601344.1400**
	14.10	MJ15x1		115	65	45	48	2.4	16	**TA201344.1410**	**TA501344.1410**	**TA601344.1410**
	14.20	M15x0.75		115	65	45	48	2.4	16	**TA201344.1420**	**TA501344.1420**	**TA601344.1420**
	14.50	M16x1.5 / 5/8-18		115	65	45	48	2.5	16	**TA201344.1450**	**TA501344.1450**	**TA601344.1450**
new	**14.60**	MJ16x1.5	M15x1	115	65	45	48	2.5	16	**TA201344.1460**	**TA501344.1460**	**TA601344.1460**
	14.70		M15x0.75	115	65	45	48	2.5	16	**TA201344.1470**	**TA501344.1470**	**TA601344.1470**
	15.00	M16x1		115	65	45	48	2.5	16	**TA201344.1500**	**TA501344.1500**	**TA601344.1500**
	15.10	MJ16x1	M16	115	65	45	48	2.6	16	**TA201344.1510**	**TA501344.1510**	**TA601344.1510**
	15.20	M16x0.75	5/8-18 (GAL)	115	65	45	48	2.6	16	**TA201344.1520**	**TA501344.1520**	**TA601344.1520**
	15.25	G3/8	5/8-18	115	65	45	48	2.6	16	**TA201344.1525**	**TA501344.1525**	**TA601344.1525**
new	**15.30**			115	65	45	48	2.6	16	**TA201344.1530**	**TA501344.1530**	**TA601344.1530**
	15.35		M16x1.5	115	65	45	48	2.6	16	**TA201344.1535**	**TA501344.1535**	**TA601344.1535**
	15.50	M18		115	65	45	48	2.6	16	**TA201344.1550**	**TA501344.1550**	**TA601344.1550**
	15.80	MJ18x2.5		115	65	45	48	2.7	16	**TA201344.1580**	**TA501344.1580**	**TA601344.1580**
	16.00	M18x2		115	65	45	48	2.7	16	**TA201344.1600**	**TA501344.1600**	**TA601344.1600**
	16.50	M18x1.5 / 3/4-10		123	73	51	48	2.8	18	**TA201344.1650**	**TA501344.1650**	**TA601344.1650**
	17.00	M18x1		123	73	51	48	2.9	18	**TA201344.1700**	**TA501344.1700**	**TA601344.1700**
	17.50	M20 / 3/4-16		123	73	51	48	3.0	18	**TA201344.1750**	**TA501344.1750**	**TA601344.1750**
	18.00	M20x2		123	73	51	48	3.1	18	**TA201344.1800**	**TA501344.1800**	**TA601344.1800**
	18.50			131	79	55	50	3.2	20	**TA201344.1850**	**TA501344.1850**	**TA601344.1850**
	18.85		M20	131	79	55	50	3.2	20	**TA201344.1885**	**TA501344.1885**	**TA601344.1885**
	19.00	M20x1		131	79	55	50	3.3	20	**TA201344.1900**	**TA501344.1900**	**TA601344.1900**
	19.05			131	79	55	50	3.3	20	**TA201344.1905**	**TA501344.1905**	**TA601344.1905**
	19.50	M22		131	79	55	50	3.4	20	**TA201344.1950**	**TA501344.1950**	**TA601344.1950**
	20.00	M22x2		131	79	55	50	3.4	20	**TA201344.2000**	**TA501344.2000**	**TA601344.2000**
	20.50	M22x1.5		146	85	59	56	3.5	25	**TA201344.2050**	**TA501344.2050**	**TA601344.2050**
	21.00	M24		146	85	59	56	3.6	25	**TA201344.2100**	**TA501344.2100**	**TA601344.2100**
	21.50			146	85	59	56	3.7	25	**TA201344.2150**	**TA501344.2150**	**TA601344.2150**
	22.00	M24x2		146	85	59	56	3.8	25	**TA201344.2200**	**TA501344.2200**	**TA601344.2200**
	22.25	1"-8		150	91	63	56	3.8	25	**TA201344.2225**	**TA501344.2225**	**TA601344.2225**
	22.50	M24x1.5		150	91	63	56	3.9	25	**TA201344.2250**	**TA501344.2250**	**TA601344.2250**
	24.50	M26x1.5		150	91	63	56	4.2	25	**TA201344.2450**	**TA501344.2450**	**TA601344.2450**

BasicDrill-BD101-5xD

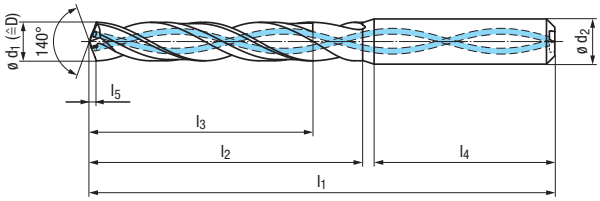
★ 5xD



Applications – material	
P	1.1-5.1
M	1.1-3.1
K	1.1-4.2
N	1.1-2.3
S	1.2-1.3, 2.2-2.3
H	1.1-1.3

Solid carbide twist drill, 5xD, in Basic geometry for universal application.

Product features and benefits:
Four margins for better guidance and hole quality.
Internal cooling channels and high-performance coating for high process reliability.
Use in various materials with steel as the main application area.



DIN 6537 – Long design

Information about this product is also available on the web

	ø d_1 m7	Taps	Cold-forming taps	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	DIN 6535 HA	DIN 6535 HE	DIN 6535 HB
	3.00	M3.5x0.5 / MJ3.5x0.6		66	28	23	36	0.5	6	**TA211344.0300**	**TA511344.0300**	**TA611344.0300**
	3.10			66	28	23	36	0.5	6	**TA211344.0310**	**TA511344.0310**	**TA611344.0310**
	3.20	MJ3.5x0.35		66	28	23	36	0.5	6	**TA211344.0320**	**TA511344.0320**	**TA611344.0320**
	3.30	M4	M3.5x0.5	66	28	23	36	0.6	6	**TA211344.0330**	**TA511344.0330**	**TA611344.0330**
	3.40	MJ4x0.7		66	28	23	36	0.6	6	**TA211344.0340**	**TA511344.0340**	**TA611344.0340**
	3.50	M4x0.5 / #8-32 / #8-36		66	28	23	36	0.6	6	**TA211344.0350**	**TA511344.0350**	**TA611344.0350**
	3.60	MJ4x0.5		66	28	23	36	0.6	6	**TA211344.0360**	**TA511344.0360**	**TA611344.0360**
new	**3.65**	M4x0.35		66	28	23	36	0.6	6	**TA211344.0365**	**TA511344.0365**	**TA611344.0365**
	3.70	M4.5	M4	66	28	23	36	0.6	6	**TA211344.0370**	**TA511344.0370**	**TA611344.0370**
	3.80		M4x0.5 / #8-32	74	36	29	36	0.6	6	**TA211344.0380**	**TA511344.0380**	**TA611344.0380**
	3.90	MJ4.5x0.75 / #10-24		74	36	29	36	0.7	6	**TA211344.0390**	**TA511344.0390**	**TA611344.0390**
	4.00			74	36	29	36	0.7	6	**TA211344.0400**	**TA511344.0400**	**TA611344.0400**
	4.10	MJ4.5x0.5 / #10-32		74	36	29	36	0.7	6	**TA211344.0410**	**TA511344.0410**	**TA611344.0410**
	4.20	M5 / M5x0.75	M4.5	74	36	29	36	0.7	6	**TA211344.0420**	**TA511344.0420**	**TA611344.0420**
	4.30	MJ5x0.8	M4.5x0.5 / #10-24 (GAL)	74	36	29	36	0.7	6	**TA211344.0430**	**TA511344.0430**	**TA611344.0430**
	4.40			74	36	29	36	0.7	6	**TA211344.0440**	**TA511344.0440**	**TA611344.0440**
	4.50	M5x0.5 / #12-24		74	36	29	36	0.8	6	**TA211344.0450**	**TA511344.0450**	**TA611344.0450**
	4.60	M5.5 / MJ5x0.5 / #12-28		74	36	29	36	0.8	6	**TA211344.0460**	**TA511344.0460**	**TA611344.0460**
	4.65		M5	74	36	29	36	0.8	6	**TA211344.0465**	**TA511344.0465**	**TA611344.0465**
	4.70		M5x0.75	74	36	29	36	0.8	6	**TA211344.0470**	**TA511344.0470**	**TA611344.0470**
	4.80		M5x0.5	82	44	35	36	0.8	6	**TA211344.0480**	**TA511344.0480**	**TA611344.0480**
	4.90			82	44	35	36	0.8	6	**TA211344.0490**	**TA511344.0490**	**TA611344.0490**
	5.00	M6	#12-24	82	44	35	36	0.8	6	**TA211344.0500**	**TA511344.0500**	**TA611344.0500**
new	**5.05**			82	44	35	36	0.9	6	**TA211344.0505**	**TA511344.0505**	**TA611344.0505**
	5.10	MJ6x1 / 1/4-20	M5.5 / #12-28	82	44	35	36	0.9	6	**TA211344.0510**	**TA511344.0510**	**TA611344.0510**
	5.20	M6x0.75		82	44	35	36	0.9	6	**TA211344.0520**	**TA511344.0520**	**TA611344.0520**
	5.30		M5.5x0.5	82	44	35	36	0.9	6	**TA211344.0530**	**TA511344.0530**	**TA611344.0530**
	5.40			82	44	35	36	0.9	6	**TA211344.0540**	**TA511344.0540**	**TA611344.0540**
	5.50	M6x0.5 / 1/4-28		82	44	35	36	0.9	6	**TA211344.0550**	**TA511344.0550**	**TA611344.0550**
	5.55		M6 (GAL)	82	44	35	36	0.9	6	**TA211344.0555**	**TA511344.0555**	**TA611344.0555**
	5.60	MJ6x0.5	M6	82	44	35	36	1.0	6	**TA211344.0560**	**TA511344.0560**	**TA611344.0560**

	ø d_1 m7	Taps 	Cold-forming taps 	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	 DIN 6535 HA	 DIN 6535 HE	 DIN 6535 HB
	5.70		M6x0.75 / 1/4-20 (GAL)	82	44	35	36	1.0	6	**TA211344.0570**	**TA511344.0570**	**TA611344.0570**
	5.80		M6x0.5	82	44	35	36	1.0	6	**TA211344.0580**	**TA511344.0580**	**TA611344.0580**
	5.90			82	44	35	36	1.0	6	**TA211344.0590**	**TA511344.0590**	**TA611344.0590**
	6.00	M7		82	44	35	36	1.0	6	**TA211344.0600**	**TA511344.0600**	**TA611344.0600**
new	**6.15**			91	53	43	36	1.1	8	**TA211344.0615**	**TA511344.0615**	**TA611344.0615**
	6.20	M7x0.75		91	53	43	36	1.1	8	**TA211344.0620**	**TA511344.0620**	**TA611344.0620**
	6.30			91	53	43	36	1.1	8	**TA211344.0630**	**TA511344.0630**	**TA611344.0630**
	6.35	MJ7x0.75		91	53	43	36	1.1	8	**TA211344.0635**	**TA511344.0635**	**TA611344.0635**
	6.40			91	53	43	36	1.1	8	**TA211344.0640**	**TA511344.0640**	**TA611344.0640**
	6.50	M7x0.5		91	53	43	36	1.1	8	**TA211344.0650**	**TA511344.0650**	**TA611344.0650**
	6.60	5/16-18	M7	91	53	43	36	1.1	8	**TA211344.0660**	**TA511344.0660**	**TA611344.0660**
	6.70		M7x0.75	91	53	43	36	1.1	8	**TA211344.0670**	**TA511344.0670**	**TA611344.0670**
	6.80	M8 / G1/16	M7x0.5	91	53	43	36	1.2	8	**TA211344.0680**	**TA511344.0680**	**TA611344.0680**
	6.90	MJ8x1.25 / 5/16-24		91	53	43	36	1.2	8	**TA211344.0690**	**TA511344.0690**	**TA611344.0690**
	7.00	M8x1		91	53	43	36	1.2	8	**TA211344.0700**	**TA511344.0700**	**TA611344.0700**
	7.20	M8x0.75		91	53	43	36	1.2	8	**TA211344.0720**	**TA511344.0720**	**TA611344.0720**
	7.40		M8 (GAL) / 5/16-24 (GAL)	91	53	43	36	1.3	8	**TA211344.0740**	**TA511344.0740**	**TA611344.0740**
	7.45		M8 / 5/16-24	91	53	43	36	1.3	8	**TA211344.0745**	**TA511344.0745**	**TA611344.0745**
	7.50	M8x0.5		91	53	43	36	1.3	8	**TA211344.0750**	**TA511344.0750**	**TA611344.0750**
	7.60		M8x1	91	53	43	36	1.3	8	**TA211344.0760**	**TA511344.0760**	**TA611344.0760**
	7.70		M8x0.75	91	53	43	36	1.3	8	**TA211344.0770**	**TA511344.0770**	**TA611344.0770**
	7.80	M9	M8x0.5	91	53	43	36	1.3	8	**TA211344.0780**	**TA511344.0780**	**TA611344.0780**
	7.90	MJ9x1.25		91	53	43	36	1.3	8	**TA211344.0790**	**TA511344.0790**	**TA611344.0790**
	8.00	M9x1 / 3/8-16		91	53	43	36	1.4	8	**TA211344.0800**	**TA511344.0800**	**TA611344.0800**
	8.10	MJ9x1		103	61	49	40	1.4	10	**TA211344.0810**	**TA511344.0810**	**TA611344.0810**
	8.20	M9x0.75		103	61	49	40	1.4	10	**TA211344.0820**	**TA511344.0820**	**TA611344.0820**
	8.30			103	61	49	40	1.4	10	**TA211344.0830**	**TA511344.0830**	**TA611344.0830**
	8.40		M9 (GAL)	103	61	49	40	1.4	10	**TA211344.0840**	**TA511344.0840**	**TA611344.0840**
	8.50	M10 / M9x0.5 / 3/8-24		103	61	49	40	1.4	10	**TA211344.0850**	**TA511344.0850**	**TA611344.0850**
	8.60	MJ10x1.5	M9x1	103	61	49	40	1.5	10	**TA211344.0860**	**TA511344.0860**	**TA611344.0860**
	8.70		M9x0.75	103	61	49	40	1.5	10	**TA211344.0870**	**TA511344.0870**	**TA611344.0870**
	8.80	M10x1.25 / G1/8	M9x0.5 / 3/8-16	103	61	49	40	1.5	10	**TA211344.0880**	**TA511344.0880**	**TA611344.0880**
	9.00	M10x1	3/8-24 (GAL)	103	61	49	40	1.5	10	**TA211344.0900**	**TA511344.0900**	**TA611344.0900**
	9.20	M10x0.75		103	61	49	40	1.6	10	**TA211344.0920**	**TA511344.0920**	**TA611344.0920**
new	**9.25**			103	61	49	40	1.6	10	**TA211344.0925**	**TA511344.0925**	**TA611344.0925**
	9.30		M10 (GAL)	103	61	49	40	1.6	10	**TA211344.0930**	**TA511344.0930**	**TA611344.0930**
	9.35	MJ10x0.75	M10	103	61	49	40	1.6	10	**TA211344.0935**	**TA511344.0935**	**TA611344.0935**
	9.40	7/16-14	M10x1.25 (GAL)	103	61	49	40	1.6	10	**TA211344.0940**	**TA511344.0940**	**TA611344.0940**
	9.50	M11 / M10x0.5		103	61	49	40	1.6	10	**TA211344.0950**	**TA511344.0950**	**TA611344.0950**
	9.60	MJ10x0.5 / MJ11x1.5	M10x1	103	61	49	40	1.6	10	**TA211344.0960**	**TA511344.0960**	**TA611344.0960**
	9.80		M10x0.5	103	61	49	40	1.7	10	**TA211344.0980**	**TA511344.0980**	**TA611344.0980**
	9.90	MJ11x1.25 / 7/16-20		103	61	49	40	1.7	10	**TA211344.0990**	**TA511344.0990**	**TA611344.0990**
	10.00	M11x1		103	61	49	40	1.7	10	**TA211344.1000**	**TA511344.1000**	**TA611344.1000**
new	**10.05**			118	71	56	45	1.7	12	**TA211344.1005**	**TA511344.1005**	**TA611344.1005**
	10.10	MJ11x1		118	71	56	45	1.7	12	**TA211344.1010**	**TA511344.1010**	**TA611344.1010**
new	**10.15**			118	71	56	45	1.7	12	**TA211344.1015**	**TA511344.1015**	**TA611344.1015**
	10.20	M12 / M11x0.75	7/16-14 (GAL)	118	71	56	45	1.7	12	**TA211344.1020**	**TA511344.1020**	**TA611344.1020**
	10.30		M11 (GAL)	118	71	56	45	1.7	12	**TA211344.1030**	**TA511344.1030**	**TA611344.1030**
	10.40			118	71	56	45	1.8	12	**TA211344.1040**	**TA511344.1040**	**TA611344.1040**
	10.50	M12x1.5	7/16-20 (GAL)	118	71	56	45	1.8	12	**TA211344.1050**	**TA511344.1050**	**TA611344.1050**
new	**10.60**		M11x1	118	71	56	45	1.8	12	**TA211344.1060**	**TA511344.1060**	**TA611344.1060**
	10.80	M12x1.25 / 1/2-13		118	71	56	45	1.8	12	**TA211344.1080**	**TA511344.1080**	**TA611344.1080**
	11.00	M12x1		118	71	56	45	1.9	12	**TA211344.1100**	**TA511344.1100**	**TA611344.1100**

	ø d_1 m7	Taps 	Cold-forming taps 	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	 DIN 6535 HA	 DIN 6535 HE	 DIN 6535 HB
new	11.10			118	71	56	45	1.9	12	TA211344.1110	TA511344.1110	TA611344.1110
	11.20	M12x0.75	M12 (GAL)	118	71	56	45	1.9	12	TA211344.1120	TA511344.1120	TA611344.1120
	11.25		M12	118	71	56	45	1.9	12	TA211344.1125	TA511344.1125	TA611344.1125
	11.30		M12x1.5 (GAL)	118	71	56	45	1.9	12	TA211344.1130	TA511344.1130	TA611344.1130
	11.35		M12x1.5	118	71	56	45	1.9	12	TA211344.1135	TA511344.1135	TA611344.1135
new	11.40		M12x1.25 (GAL)	118	71	56	45	2.0	12	TA211344.1140	TA511344.1140	TA611344.1140
	11.50	1/2-20		118	71	56	45	2.0	12	TA211344.1150	TA511344.1150	TA611344.1150
	11.60		M12x1	118	71	56	45	2.0	12	TA211344.1160	TA511344.1160	TA611344.1160
new	11.70		M12x0.75	118	71	56	45	2.0	12	TA211344.1170	TA511344.1170	TA611344.1170
	11.80	G1/4	1/2-13	118	71	56	45	2.0	12	TA211344.1180	TA511344.1180	TA611344.1180
	12.00	M14		118	71	56	45	2.0	12	TA211344.1200	TA511344.1200	TA611344.1200
	12.10	MJ13x1	1/2-20 (GAL)	124	77	60	45	2.1	14	TA211344.1210	TA511344.1210	TA611344.1210
	12.20	9/16-12		124	77	60	45	2.1	14	TA211344.1220	TA511344.1220	TA611344.1220
	12.50	M14x1.5	G1/4 (GAL)	124	77	60	45	2.1	14	TA211344.1250	TA511344.1250	TA611344.1250
	12.70		M13x0.75	124	77	60	45	2.2	14	TA211344.1270	TA511344.1270	TA611344.1270
	12.90	MJ14x1.25 / 9/16-18		124	77	60	45	2.2	14	TA211344.1290	TA511344.1290	TA611344.1290
	13.00	M14x1		124	77	60	45	2.2	14	TA211344.1300	TA511344.1300	TA611344.1300
	13.10	MJ14x1	M14	124	77	60	45	2.2	14	TA211344.1310	TA511344.1310	TA611344.1310
	13.30		9/16-12	124	77	60	45	2.3	14	TA211344.1330	TA511344.1330	TA611344.1330
	13.35		M14x1.5	124	77	60	45	2.3	14	TA211344.1335	TA511344.1335	TA611344.1335
	13.50	5/8-11		124	77	60	45	2.3	14	TA211344.1350	TA511344.1350	TA611344.1350
	14.00	M16 / M15x1		124	77	60	45	2.4	14	TA211344.1400	TA511344.1400	TA611344.1400
	14.10	MJ15x1		133	83	63	48	2.4	16	TA211344.1410	TA511344.1410	TA611344.1410
	14.20	M15x0.75		133	83	63	48	2.4	16	TA211344.1420	TA511344.1420	TA611344.1420
	14.50	M16x1.5 / 5/8-18		133	83	63	48	2.5	16	TA211344.1450	TA511344.1450	TA611344.1450
new	14.60	MJ16x1.5	M15x1	133	83	63	48	2.5	16	TA211344.1460	TA511344.1460	TA611344.1460
	14.70		M15x0.75	133	83	63	48	2.5	16	TA211344.1470	TA511344.1470	TA611344.1470
	15.00	M16x1		133	83	63	48	2.5	16	TA211344.1500	TA511344.1500	TA611344.1500
	15.10	MJ16x1	M16	133	83	63	48	2.6	16	TA211344.1510	TA511344.1510	TA611344.1510
	15.20	M16x0.75	5/8-18 (GAL)	133	83	63	48	2.6	16	TA211344.1520	TA511344.1520	TA611344.1520
	15.25	G3/8	5/8-18	133	83	63	48	2.6	16	TA211344.1525	TA511344.1525	TA611344.1525
new	15.30			133	83	63	48	2.6	16	TA211344.1530	TA511344.1530	TA611344.1530
	15.35		M16x1.5	133	83	63	48	2.6	16	TA211344.1535	TA511344.1535	TA611344.1535
	15.50	M18		133	83	63	48	2.6	16	TA211344.1550	TA511344.1550	TA611344.1550
	15.80	MJ18x2.5		133	83	63	48	2.7	16	TA211344.1580	TA511344.1580	TA611344.1580
	16.00	M18x2		133	83	63	48	2.7	16	TA211344.1600	TA511344.1600	TA611344.1600
	16.50	M18x1.5 / 3/4-10		143	93	71	48	2.8	18	TA211344.1650	TA511344.1650	TA611344.1650
	17.00	M18x1		143	93	71	48	2.9	18	TA211344.1700	TA511344.1700	TA611344.1700
	17.50	M20 / 3/4-16		143	93	71	48	3.0	18	TA211344.1750	TA511344.1750	TA611344.1750
	18.00	M20x2		143	93	71	48	3.1	18	TA211344.1800	TA511344.1800	TA611344.1800
	18.50			153	101	77	50	3.2	20	TA211344.1850	TA511344.1850	TA611344.1850
	18.85		M20	153	101	77	50	3.2	20	TA211344.1885	TA511344.1885	TA611344.1885
	19.00	M20x1		153	101	77	50	3.3	20	TA211344.1900	TA511344.1900	TA611344.1900
	19.05			153	101	77	50	3.3	20	TA211344.1905	TA511344.1905	TA611344.1905
	19.50	M22		153	101	77	50	3.4	20	TA211344.1950	TA511344.1950	TA611344.1950
	20.00	M22x2		153	101	77	50	3.4	20	TA211344.2000	TA511344.2000	TA611344.2000
	20.50	M22x1.5		170	109	85	56	3.5	25	TA211344.2050	TA511344.2050	TA611344.2050
	21.00	M24		170	109	85	56	3.6	25	TA211344.2100	TA511344.2100	TA611344.2100
	21.50			170	109	85	56	3.7	25	TA211344.2150	TA511344.2150	TA611344.2150
	22.00	M24x2		170	109	85	56	3.8	25	TA211344.2200	TA511344.2200	TA611344.2200
	22.25	1"-8		176	117	89	56	3.8	25	TA211344.2225	TA511344.2225	TA611344.2225
	22.50	M24x1.5		176	117	89	56	3.9	25	TA211344.2250	TA511344.2250	TA611344.2250
	24.50	M26x1.5		176	117	89	56	4.2	25	TA211344.2450	TA511344.2450	TA611344.2450

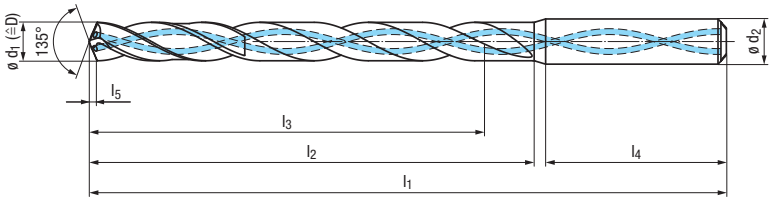
BasicDrill-BD106-8xD

★ 8xD

Applications – material	
P	1.1-5.1
M	1.1-3.1
K	1.1-4.2
N	1.1-2.3
S	1.2-1.3, 2.2-2.3
H	1.1-1.3

Solid carbide twist drill, 8xD, in Basic geometry for universal application.

Product features and benefits:
Four margins for better guidance and hole quality.
Internal cooling channels and high-performance coating for high process reliability.
Use in various materials with steel as the main application area.



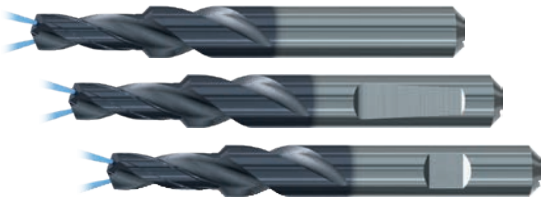
Extra long design

Information about this product is also available on the web

	ø d_1 m7	Taps	Cold-forming taps	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	DIN 6535 HA	DIN 6535 HE	DIN 6535 HB
	3.00	M3.5x0.5 / MJ3.5x0.6		78	38	30	36	0.7	6	**TA221344.0300**	**TA521344.0300**	**TA621344.0300**
	3.10			78	38	30	36	0.7	6	**TA221344.0310**	**TA521344.0310**	**TA621344.0310**
	3.20	MJ3.5x0.35		78	38	30	36	0.7	6	**TA221344.0320**	**TA521344.0320**	**TA621344.0320**
	3.30	M4	M3.5x0.5	78	38	30	36	0.7	6	**TA221344.0330**	**TA521344.0330**	**TA621344.0330**
	3.40	MJ4x0.7		78	38	30	36	0.8	6	**TA221344.0340**	**TA521344.0340**	**TA621344.0340**
	3.50	M4x0.5 / #8-32 / #8-36		78	38	30	36	0.8	6	**TA221344.0350**	**TA521344.0350**	**TA621344.0350**
	3.60	MJ4x0.5		78	38	30	36	0.8	6	**TA221344.0360**	**TA521344.0360**	**TA621344.0360**
	3.70	M4.5	M4	78	38	30	36	0.8	6	**TA221344.0370**	**TA521344.0370**	**TA621344.0370**
	3.80		M4x0.5 / #8-32	88	48	38	36	0.8	6	**TA221344.0380**	**TA521344.0380**	**TA621344.0380**
	3.90	MJ4.5x0.75 / #10-24		88	48	38	36	0.9	6	**TA221344.0390**	**TA521344.0390**	**TA621344.0390**
	4.00			88	48	38	36	0.9	6	**TA221344.0400**	**TA521344.0400**	**TA621344.0400**
	4.10	MJ4.5x0.5 / #10-32		88	48	38	36	0.9	6	**TA221344.0410**	**TA521344.0410**	**TA621344.0410**
	4.20	M5 / M5x0.75	M4.5	88	48	38	36	0.9	6	**TA221344.0420**	**TA521344.0420**	**TA621344.0420**
	4.30	MJ5x0.8	M4.5x0.5 / #10-24 (GAL)	88	48	38	36	0.9	6	**TA221344.0430**	**TA521344.0430**	**TA621344.0430**
	4.50	M5x0.5 / #12-24		88	48	38	36	1.0	6	**TA221344.0450**	**TA521344.0450**	**TA621344.0450**
	4.65		M5	88	48	38	36	1.0	6	**TA221344.0465**	**TA521344.0465**	**TA621344.0465**
	5.00	M6	#12-24	97	60	48	36	1.1	6	**TA221344.0500**	**TA521344.0500**	**TA621344.0500**
	5.10	MJ6x1 / 1/4-20	M5.5 / #12-28	97	60	48	36	1.1	6	**TA221344.0510**	**TA521344.0510**	**TA621344.0510**
	5.20	M6x0.75		97	60	48	36	1.1	6	**TA221344.0520**	**TA521344.0520**	**TA621344.0520**
	5.30		M5.5x0.5	97	60	48	36	1.1	6	**TA221344.0530**	**TA521344.0530**	**TA621344.0530**
	5.40			97	60	48	36	1.2	6	**TA221344.0540**	**TA521344.0540**	**TA621344.0540**
	5.50	M6x0.5 / 1/4-28		97	60	48	36	1.2	6	**TA221344.0550**	**TA521344.0550**	**TA621344.0550**
	5.60	MJ6x0.5	M6	97	60	48	36	1.2	6	**TA221344.0560**	**TA521344.0560**	**TA621344.0560**
	5.80		M6x0.5	97	60	48	36	1.3	6	**TA221344.0580**	**TA521344.0580**	**TA621344.0580**
	5.90			97	60	48	36	1.3	6	**TA221344.0590**	**TA521344.0590**	**TA621344.0590**
	6.00	M7		97	60	48	36	1.3	6	**TA221344.0600**	**TA521344.0600**	**TA621344.0600**
new	**6.10**			107	70	56	36	1.3	8	**TA221344.0610**	**TA521344.0610**	**TA621344.0610**
	6.20	M7x0.75		107	70	56	36	1.3	8	**TA221344.0620**	**TA521344.0620**	**TA621344.0620**
	6.30			107	70	56	36	1.4	8	**TA221344.0630**	**TA521344.0630**	**TA621344.0630**
	6.50	M7x0.5		107	70	56	36	1.4	8	**TA221344.0650**	**TA521344.0650**	**TA621344.0650**
	6.60	5/16-18	M7	107	70	56	36	1.4	8	**TA221344.0660**	**TA521344.0660**	**TA621344.0660**

ø d_1 m7	Taps 	Cold-forming taps 	l_1	l_2	l_3	l_4	l_5	ø d_2 h6	DIN 6535 HA	DIN 6535 HE	DIN 6535 HB
6.80	M8 / G1/16	M7x0.5	107	70	56	36	1.5	8	**TA221344.0680**	**TA521344.0680**	**TA621344.0680**
6.90	MJ8x1.25 / 5/16-24		107	70	56	36	1.5	8	**TA221344.0690**	**TA521344.0690**	**TA621344.0690**
7.00	M8x1		107	70	56	36	1.5	8	**TA221344.0700**	**TA521344.0700**	**TA621344.0700**
7.40		M8 (GAL) / 5/16-24 (GAL)	117	80	64	36	1.6	8	**TA221344.0740**	**TA521344.0740**	**TA621344.0740**
7.45		M8 / 5/16-24	117	80	64	36	1.6	8	**TA221344.0745**	**TA521344.0745**	**TA621344.0745**
7.50	M8x0.5		117	80	64	36	1.6	8	**TA221344.0750**	**TA521344.0750**	**TA621344.0750**
7.80	M9	M8x0.5	117	80	64	36	1.7	8	**TA221344.0780**	**TA521344.0780**	**TA621344.0780**
8.00	M9x1 / 3/8-16		117	80	64	36	1.7	8	**TA221344.0800**	**TA521344.0800**	**TA621344.0800**
8.10	MJ9x1		141	100	80	40	1.7	10	**TA221344.0810**	**TA521344.0810**	**TA621344.0810**
8.20	M9x0.75		141	100	80	40	1.7	10	**TA221344.0820**	**TA521344.0820**	**TA621344.0820**
8.50	M10 / M9x0.5 / 3/8-24		141	100	80	40	1.8	10	**TA221344.0850**	**TA521344.0850**	**TA621344.0850**
8.60	MJ10x1.5	M9x1	141	100	80	40	1.8	10	**TA221344.0860**	**TA521344.0860**	**TA621344.0860**
8.70		M9x0.75	141	100	80	40	1.9	10	**TA221344.0870**	**TA521344.0870**	**TA621344.0870**
8.80	M10x1.25 / G1/8	M9x0.5 / 3/8-16	141	100	80	40	1.9	10	**TA221344.0880**	**TA521344.0880**	**TA621344.0880**
9.00	M10x1	3/8-24 (GAL)	141	100	80	40	1.9	10	**TA221344.0900**	**TA521344.0900**	**TA621344.0900**
9.35	MJ10x0.75	M10	141	100	80	40	2.0	10	**TA221344.0935**	**TA521344.0935**	**TA621344.0935**
9.50	M11 / M10x0.5		141	100	80	40	2.0	10	**TA221344.0950**	**TA521344.0950**	**TA621344.0950**
9.60	MJ10x0.5 / MJ11x1.5	M10x1	141	100	80	40	2.0	10	**TA221344.0960**	**TA521344.0960**	**TA621344.0960**
9.80		M10x0.5	141	100	80	40	2.1	10	**TA221344.0980**	**TA521344.0980**	**TA621344.0980**
9.90	MJ11x1.25 / 7/16-20		141	100	80	40	2.1	10	**TA221344.0990**	**TA521344.0990**	**TA621344.0990**
10.00	M11x1		141	100	80	40	2.1	10	**TA221344.1000**	**TA521344.1000**	**TA621344.1000**
10.20	M12 / M11x0.75	7/16-14 (GAL)	166	120	96	45	2.2	12	**TA221344.1020**	**TA521344.1020**	**TA621344.1020**
10.30		M11 (GAL)	166	120	96	45	2.2	12	**TA221344.1030**	**TA521344.1030**	**TA621344.1030**
10.50	M12x1.5	7/16-20 (GAL)	166	120	96	45	2.2	12	**TA221344.1050**	**TA521344.1050**	**TA621344.1050**
11.00	M12x1		166	120	96	45	2.3	12	**TA221344.1100**	**TA521344.1100**	**TA621344.1100**
11.20	M12x0.75	M12 (GAL)	166	120	96	45	2.4	12	**TA221344.1120**	**TA521344.1120**	**TA621344.1120**
11.25		M12	166	120	96	45	2.4	12	**TA221344.1125**	**TA521344.1125**	**TA621344.1125**
11.50	1/2-20		166	120	96	45	2.4	12	**TA221344.1150**	**TA521344.1150**	**TA621344.1150**
11.80	G1/4	1/2-13	166	120	96	45	2.5	12	**TA221344.1180**	**TA521344.1180**	**TA621344.1180**
12.00	M14		166	120	96	45	2.5	12	**TA221344.1200**	**TA521344.1200**	**TA621344.1200**
12.50	M14x1.5	G1/4 (GAL)	186	140	112	45	2.6	14	**TA221344.1250**	**TA521344.1250**	**TA621344.1250**
13.00	M14x1		186	140	112	45	2.7	14	**TA221344.1300**	**TA521344.1300**	**TA621344.1300**
13.10	MJ14x1	M14	186	140	112	45	2.8	14	**TA221344.1310**	**TA521344.1310**	**TA621344.1310**
13.50	5/8-11		186	140	112	45	2.8	14	**TA221344.1350**	**TA521344.1350**	**TA621344.1350**
14.00	M16 / M15x1		186	140	112	45	2.9	14	**TA221344.1400**	**TA521344.1400**	**TA621344.1400**
14.50	M16x1.5 / 5/8-18		209	160	128	48	3.1	16	**TA221344.1450**	**TA521344.1450**	**TA621344.1450**
15.00	M16x1		209	160	128	48	3.2	16	**TA221344.1500**	**TA521344.1500**	**TA621344.1500**
15.50	M18		209	160	128	48	3.3	16	**TA221344.1550**	**TA521344.1550**	**TA621344.1550**
16.00	M18x2		209	160	128	48	3.4	16	**TA221344.1600**	**TA521344.1600**	**TA621344.1600**

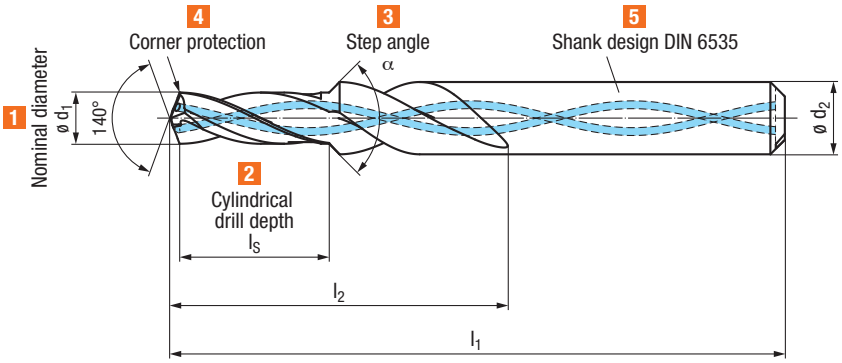
BasicDrill CM C-Quickline new



Solid carbide chamfer drill, in Basic geometry for universal application.

Product features and benefits:
Four margins for better guidance and hole quality.
Internal cooling channels and high-performance coating for high process reliability.
Use in various materials with steel as the main application area.

Applications – material	
P	1.1-5.1
M	1.1-3.1
K	1.1-4.2
N	1.1-2.3
S	1.2-1.3, 2.2-2.3
H	1.1-1.3



In order to obtain a complete configuration of the desired chamfer drill, the characteristics 1 - 5 must be defined in the respective specified area.

1	2	3	4	5				
ø d_1 m7	l_S ±0,1	α ±2°	Corner protection	Shank design DIN 6535	l_1	l_2	ø d_2 h6	
2.80 - 3.10	4.00 - 11.00	30 - 160°	yes / no	HA HB HE	57	20	6	**TG001344.060001**
3.11 - 3.40	4.00 - 12.00	30 - 160°	yes / no	HA HB HE	62	25	6	**TG001344.060002**
3.41 - 3.80	4.00 - 13.00	30 - 160°	yes / no	HA HB HE	62	25	6	**TG001344.060003**
3.81 - 4.50	4.00 - 16.00	30 - 160°	yes / no	HA HB HE	66	29	6	**TG001344.060004**
4.51 - 5.00	4.00 - 18.00	30 - 160°	yes / no	HA HB HE	79	42	8	**TG001344.080001**
5.01 - 6.00	4.00 - 25.00	30 - 160°	yes / no	HA HB HE	79	42	8	**TG001344.080002**
6.01 - 7.00	4.00 - 25.00	30 - 160°	yes / no	HA HB HE	89	48	10	**TG001344.100001**
7.01 - 8.00	4.00 - 28.00	30 - 160°	yes / no	HA HB HE	89	48	10	**TG001344.100002**
8.01 - 10.00	4.00 - 35.00	30 - 160°	yes / no	HA HB HE	102	56	12	**TG001344.120001**
10.01 - 12.00	4.00 - 42.00	30 - 160°	yes / no	HA HB HE	107	61	14	**TG001344.140001**
12.01 - 14.00	4.00 - 49.00	30 - 160°	yes / no	HA HB HE	115	66	16	**TG001344.160001**
14.01 - 16.00	4.00 - 54.00	30 - 160°	yes / no	HA HB HE	123	74	18	**TG001344.180001**
16.01 - 18.00	4.00 - 54.00	30 - 160°	yes / no	HA HB HE	131	80	20	**TG001344.200001**

Not a stock tool, minimum order quantity = 3 pieces. Short delivery time for orders of 3 to 30 pieces.

Please visit our website for more information on our BasicDrill twist drills and configurable chamfer drills.

ef-g.de/a/basic-drill-details

Regrinding and recoating service

Regrinding and recoating form an essential contribution to the economically efficient use of drilling tools.

The EMUGE regrinding and recoating service guarantees the restoration of the original geometry and the original coating of the tool.

If you are interested, please contact us.

Application recommendation and cutting data

Please note:
The cutting values listed in the respective columns are standard values which have to be adjusted to individual work conditions (material, lubrication, machine etc.).

v_c = Cutting speed [m/min]
f = Feed per revolution [mm/rev.]

		Applications – material		Material examples	Material numbers	Coolant-lubricant recommendation: Emulsion	Oil	Minimum quantity lubrication (MQL)	Dry / Pressurised air
P		**Steel materials**							
	1.1	Cold-extrusion steels, Construction steels, Free-cutting steels, etc.	≤ 600 N/mm²	Cq15	1.1132	■	■	■	
				S235JR (St37-2)	1.0037				
				10SPb20	1.0722				
	2.1	Construction steels, Cementation steels, Steel castings, etc.	≤ 800 N/mm²	E360 (St70-2)	1.0070	■	■	■	
				16MnCr5	1.7131				
				GS-25CrMo4	1.7218				
	3.1	Cementation steels, Heat-treatable steels, Cold work steels, etc.	≤ 1000 N/mm²	20MoCr3	1.7320	■	■	■	
				42CrMo4	1.7225				
				102Cr6	1.2067				
	4.1	Heat-treatable steels, Cold work steels, Nitriding steels, etc.	≤ 1200 N/mm²	50CrMo4	1.7228	■	■	■	
				X45NiCrMo4	1.2767				
				31CrMo12	1.8515				
	5.1	High-alloyed steels, Cold work steels, Hot work steels, etc.	≤ 1400 N/mm²	X38CrMoV5-3	1.2367	■	■	■	
				X100CrMoV8-1-1	1.2990				
				X40CrMoV5-1	1.2344				
M		**Stainless steel materials**							
	1.1	Ferritic, martensitic	≤ 950 N/mm²	X2CrTi12	1.4512	■	■		
	2.1	Austenitic	≤ 950 N/mm²	X6CrNiMoTi17-12-2	1.4571	■	■		
	3.1	Austenitic-ferritic (Duplex)	≤ 1100 N/mm²	X2CrNiMoN22-5-3	1.4462	■	■		
	4.1	Austenitic-ferritic heat-resistant (Super Duplex)	≤ 1250 N/mm²	X2CrNiMoN25-7-4	1.4410	■	■		
K		**Cast materials**							
	1.1	Cast iron with lamellar graphite (GJL)	100-250 N/mm²	EN-GJL-200 (GG20)	EN-JL-1030	■	■	■	■
	1.2		250-450 N/mm²	EN-GJL-300 (GG30)	EN-JL-1050	■	■	■	
	2.1	Cast iron with nodular graphite (GJS)	350-500 N/mm²	EN-GJS-400-15 (GGG40)	EN-JS-1030	■	■	■	■
	2.2		500-900 N/mm²	EN-GJS-700-2 (GGG70)	EN-JS-1070	■	■	■	
	3.1	Cast iron with vermicular graphite (GJV)	300-400 N/mm²	GJV 300		■	■	■	
	3.2		400-500 N/mm²	GJV 450		■	■	■	
	4.1	Malleable cast iron (GTMW, GTMB)	250-500 N/mm²	EN-GJMW-350-4 (GTW-35)	EN-JM-1010				
	4.2		500-800 N/mm²	EN-GJMB-450-6 (GTS-45)	EN-JM-1140				
N		**Non ferrous materials**							
		Aluminium alloys							
	1.1	Aluminium wrought alloys	≤ 200 N/mm²	EN AW-AlMn1	EN AW-3103	■	■	■	
	1.2		≤ 350 N/mm²	EN AW-AlMgSi	EN AW-6060	■	■	■	
	1.3		≤ 550 N/mm²	EN AW-AlZn5Mg3Cu	EN AW-7022	■	■	■	
	1.4	Aluminium cast alloys	Si ≤ 7%	EN AC-AlMg5	EN AC-51300	■	■	■	
	1.5		7% < Si ≤ 12%	EN AC-AlSi9Cu3	EN AC-46500	■	■	■	
	1.6		12% < Si ≤ 17%	GD-AlSi17Cu4FeMg		■	■	■	
		Copper alloys							
	2.1	Pure copper, low-alloyed copper	≤ 400 N/mm²	E-Cu 57	EN CW 004 A	■	■		
	2.2	Copper-zinc alloys (brass, long-chipping)	≤ 550 N/mm²	CuZn37 (Ms63)	EN CW 508 L	■	■		
	2.3	Copper-zinc alloys (brass, short-chipping)	≤ 550 N/mm²	CuZn36Pb3 (Ms58)	EN CW 603 N	■	■		
	2.4	Copper-aluminium alloys (alu bronze, long-chipping)	≤ 800 N/mm²	CuAl10Ni5Fe4	EN CW 307 G				
	2.5	Copper-tin alloys (tin bronze, long-chipping)	≤ 700 N/mm²	CuSn8P	EN CW 459 K				
	2.6	Copper-tin alloys (tin bronze, short-chipping)	≤ 400 N/mm²	CuSn7 ZnPb (Rg7)	2.1090				
	2.7	Special copper alloys	≤ 600 N/mm²	(AMPCO® 8)					
	2.8		≤ 1400 N/mm²	(AMPCO® 45)					
		Magnesium alloys							
	3.1	Magnesium wrought alloys	≤ 500 N/mm²	MgAl6Zn	3.5612				
	3.2	Magnesium cast alloys	≤ 500 N/mm²	EN-MCMgAl9Zn1	EN-MC21120				
		Synthetics							
	4.1	Duroplastics (short-chipping)		Bakelit, Pertinax					
	4.2	Thermoplastics (long-chipping)		PMMA, POM, PVC					
	4.3	Fibre-reinforced synthetics (fibre content ≤ 30%)		GFK, CFK, AFK					
	4.4	Fibre-reinforced synthetics (fibre content > 30%)		GFK, CFK, AFK					
		Special materials							
	5.1	Graphite		C 8000					
	5.2	Tungsten-copper alloys		W-Cu 80/20					
	5.3	Composite materials		Hylite, Alucobond					
S		**Special materials**							
		Titanium alloys							
	1.1	Pure titanium	≤ 450 N/mm²	Ti1	3.7025				
	1.2	Titanium alloys	≤ 900 N/mm²	TiAl6V4	3.7165	■	■		
	1.3		≤ 1250 N/mm²	TiAl4Mo4Sn2	3.7185	■	■		
		Nickel alloys, cobalt alloys and iron alloys							
	2.1	Pure nickel	≤ 600 N/mm²	Ni 99,6	2.4060				
	2.2	Nickel-base alloys	≤ 1000 N/mm²	Monel 400	2.4360	■	■		
	2.3		≤ 1600 N/mm²	Inconel 718	2.4668	■	■		
	2.4	Cobalt-base alloys	≤ 1000 N/mm²	Udimet 605					
	2.5		≤ 1600 N/mm²	Haynes 25	2.4964				
	2.6	Iron-base alloys	≤ 1500 N/mm²	Incoloy 800	1.4958				
H		**Hard materials**							
	1.1	High strength steels, hardened steels, hard castings	44 - 50 HRC	Weldox 1100		■	■		
	1.2		50 - 55 HRC	Hardox 550		■	■		
	1.3		55 - 60 HRC	Armox 600T					
	1.4		60 - 63 HRC	Ferro-Titanit					
	1.5		63 - 66 HRC	HSSE					

Micro 6 x D

	v_c [m/min]			d_1 [mm]												
				1.00 mm - 1.49 mm			1.50 mm - 1.99 mm			2.00 - 2.49 mm			2.50 - 2.99 mm			
	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	
	50	**65**	80	0.05	**0.07**	0.09	0.07	**0.09**	0.11	0.09	**0.11**	0.13	0.11	**0.13**	0.15	1.1
	45	**55**	65	0.05	**0.07**	0.09	0.07	**0.09**	0.11	0.09	**0.11**	0.13	0.11	**0.13**	0.15	2.1
	40	**50**	60	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	3.1
	30	**40**	50	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	4.1
	30	**35**	40	0.03	**0.05**	0.06	0.05	**0.07**	0.09	0.07	**0.09**	0.11	0.09	**0.11**	0.13	5.1
	30	**40**	50	0.025	**0.03**	0.04	0.03	**0.05**	0.07	0.05	**0.07**	0.09	0.07	**0.09**	0.11	1.1
	25	**35**	45	0.025	**0.03**	0.04	0.03	**0.05**	0.07	0.05	**0.07**	0.09	0.07	**0.09**	0.11	2.1
	25	**35**	45	0.025	**0.03**	0.04	0.03	**0.05**	0.07	0.05	**0.07**	0.09	0.07	**0.09**	0.11	3.1
	20	**30**	40	0.025	**0.03**	0.04	0.03	**0.05**	0.07	0.05	**0.07**	0.09	0.07	**0.09**	0.11	4.1
	80	**90**	100	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	0.12	**0.14**	0.16	1.1
	80	**90**	100	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	0.12	**0.14**	0.16	1.2
	80	**90**	100	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	0.12	**0.14**	0.16	2.1
	70	**80**	90	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	0.12	**0.14**	0.16	2.2
	80	**90**	100	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	0.12	**0.14**	0.16	3.1
	60	**70**	90	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	0.12	**0.14**	0.16	3.2
																4.1
																4.2
	100	**130**	160	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	1.1
	100	**130**	160	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	1.2
	100	**130**	160	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	1.3
	100	**130**	160	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	1.4
	100	**130**	160	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	1.5
	100	**130**	160	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.10	**0.12**	0.14	1.6
	80	**110**	140	0.03	**0.04**	0.06	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	2.1
	80	**110**	140	0.03	**0.04**	0.06	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	2.2
	80	**110**	140	0.04	**0.06**	0.08	0.06	**0.08**	0.10	0.08	**0.10**	0.12	0.08	**0.10**	0.12	2.3
																2.4
																2.5
																2.6
																2.7
																2.8
																3.1
																3.2
																4.1
																4.2
																4.3
																4.4
																5.1
																5.2
																5.3
																1.1
	30	**40**	50	0.02	**0.03**	0.04	0.03	**0.04**	0.06	0.04	**0.06**	0.08	0.06	**0.08**	0.10	1.2
	20	**30**	40	0.02	**0.03**	0.04	0.03	**0.04**	0.06	0.04	**0.06**	0.08	0.06	**0.08**	0.10	1.3
																2.1
	30	**40**	50	0.02	**0.03**	0.04	0.03	**0.04**	0.06	0.04	**0.06**	0.08	0.06	**0.08**	0.10	2.2
	20	**25**	40	0.02	**0.03**	0.04	0.03	**0.04**	0.06	0.04	**0.06**	0.08	0.06	**0.08**	0.10	2.3
																2.4
																2.5
																2.6
	20	**25**	30	0.005	**0.010**	0.015	0.010	**0.015**	0.020	0.015	**0.020**	0.025	0.020	**0.025**	0.030	1.1
	20	**25**	30	0.005	**0.010**	0.015	0.008	**0.010**	0.012	0.012	**0.014**	0.016	0.020	**0.025**	0.030	1.2
																1.3
																1.4
																1.5

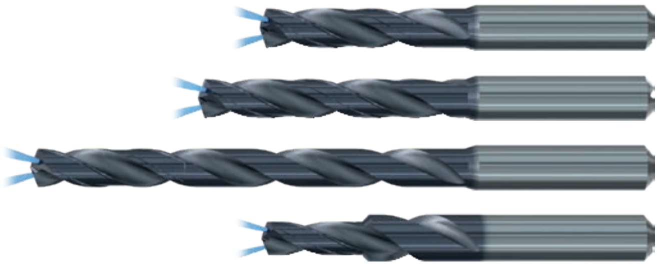
P M K N S H

Application recommendation and cutting data

Please note:
The cutting values listed in the respective columns are standard values which have to be adjusted to individual work conditions (material, lubrication, machine etc.).

v_c = Cutting speed [m/min]
f = Feed per revolution [mm/rev.]

		Applications – material		Material examples	Material numbers	Coolant-lubricant recommendation: Emulsion	Oil	Minimum quantity lubrication (MQL)	Dry / Pressurised air
P		**Steel materials**							
	1.1	Cold-extrusion steels, Construction steels, Free-cutting steels, etc.	≤ 600 N/mm²	Cq15	1.1132	■	■	■	
				S235JR (St37-2)	1.0037				
				10SPb20	1.0722				
	2.1	Construction steels, Cementation steels, Steel castings, etc.	≤ 800 N/mm²	E360 (St70-2)	1.0070	■	■	■	
				16MnCr5	1.7131				
				GS-25CrMo4	1.7218				
	3.1	Cementation steels, Heat-treatable steels, Cold work steels, etc.	≤ 1000 N/mm²	20MoCr3	1.7320	■	■	■	
				42CrMo4	1.7225				
				102Cr6	1.2067				
	4.1	Heat-treatable steels, Cold work steels, Nitriding steels, etc.	≤ 1200 N/mm²	50CrMo4	1.7228	■	■	■	
				X45NiCrMo4	1.2767				
				31CrMo12	1.8515				
	5.1	High-alloyed steels, Cold work steels, Hot work steels, etc.	≤ 1400 N/mm²	X38CrMoV5-3	1.2367	■	■	■	
				X100CrMoV8-1-1	1.2990				
				X40CrMoV5-1	1.2344				
M		**Stainless steel materials**							
	1.1	Ferritic, martensitic	≤ 950 N/mm²	X2CrTi12	1.4512	■	■		
	2.1	Austenitic	≤ 950 N/mm²	X6CrNiMoTi17-12-2	1.4571	■	■		
	3.1	Austenitic-ferritic (Duplex)	≤ 1100 N/mm²	X2CrNiMoN22-5-3	1.4462	■	■		
	4.1	Austenitic-ferritic heat-resistant (Super Duplex)	≤ 1250 N/mm²	X2CrNiMoN25-7-4	1.4410				
K		**Cast materials**							
	1.1	Cast iron with lamellar graphite (GJL)	100-250 N/mm²	EN-GJL-200 (GG20)	EN-JL-1030	■	■	■	■
	1.2		250-450 N/mm²	EN-GJL-300 (GG30)	EN-JL-1050	■	■	■	
	2.1	Cast iron with nodular graphite (GJS)	350-500 N/mm²	EN-GJS-400-15 (GGG40)	EN-JS-1030	■	■	■	■
	2.2		500-900 N/mm²	EN-GJS-700-2 (GGG70)	EN-JS-1070	■	■	■	
	3.1	Cast iron with vermicular graphite (GJV)	300-400 N/mm²	GJV 300		■	■	■	
	3.2		400-500 N/mm²	GJV 450		■	■	■	
	4.1	Malleable cast iron (GTMW, GTMB)	250-500 N/mm²	EN-GJMW-350-4 (GTW-35)	EN-JM-1010	■	■	■	
	4.2		500-800 N/mm²	EN-GJMB-450-6 (GTS-45)	EN-JM-1140	■	■	■	
N		**Non ferrous materials**							
		Aluminium alloys							
	1.1	Aluminium wrought alloys	≤ 200 N/mm²	EN AW-AlMn1	EN AW-3103	■	■	■	
	1.2		≤ 350 N/mm²	EN AW-AlMgSi	EN AW-6060	■	■	■	
	1.3		≤ 550 N/mm²	EN AW-AlZn5Mg3Cu	EN AW-7022	■	■	■	
	1.4	Aluminium cast alloys	Si ≤ 7%	EN AC-AlMg5	EN AC-51300	■	■	■	
	1.5		7% < Si ≤ 12%	EN AC-AlSi9Cu3	EN AC-46500	■	■	■	
	1.6		12% < Si ≤ 17%	GD-AlSi17Cu4FeMg		■	■	■	
		Copper alloys							
	2.1	Pure copper, low-alloyed copper	≤ 400 N/mm²	E-Cu 57	EN CW 004 A	■	■		
	2.2	Copper-zinc alloys (brass, long-chipping)	≤ 550 N/mm²	CuZn37 (Ms63)	EN CW 508 L	■	■		
	2.3	Copper-zinc alloys (brass, short-chipping)	≤ 550 N/mm²	CuZn36Pb3 (Ms58)	EN CW 603 N	■	■		
	2.4	Copper-aluminium alloys (alu bronze, long-chipping)	≤ 800 N/mm²	CuAl10Ni5Fe4	EN CW 307 G				
	2.5	Copper-tin alloys (tin bronze, long-chipping)	≤ 700 N/mm²	CuSn8P	EN CW 459 K				
	2.6	Copper-tin alloys (tin bronze, short-chipping)	≤ 400 N/mm²	CuSn7 ZnPb (Rg7)	2.1090				
	2.7	Special copper alloys	≤ 600 N/mm²	(AMPCO® 8)					
	2.8		≤ 1400 N/mm²	(AMPCO® 45)					
		Magnesium alloys							
	3.1	Magnesium wrought alloys	≤ 500 N/mm²	MgAl6Zn	3.5612				
	3.2	Magnesium cast alloys	≤ 500 N/mm²	EN-MCMgAl9Zn1	EN-MC21120				
		Synthetics							
	4.1	Duroplastics (short-chipping)		Bakelit, Pertinax					
	4.2	Thermoplastics (long-chipping)		PMMA, POM, PVC					
	4.3	Fibre-reinforced synthetics (fibre content ≤ 30%)		GFK, CFK, AFK					
	4.4	Fibre-reinforced synthetics (fibre content > 30%)		GFK, CFK, AFK					
		Special materials							
	5.1	Graphite		C 8000					
	5.2	Tungsten-copper alloys		W-Cu 80/20					
	5.3	Composite materials		Hylite, Alucobond					
S		**Special materials**							
		Titanium alloys							
	1.1	Pure titanium	≤ 450 N/mm²	Ti1	3.7025				
	1.2	Titanium alloys	≤ 900 N/mm²	TiAl6V4	3.7165	■	■		
	1.3		≤ 1250 N/mm²	TiAl4Mo4Sn2	3.7185	■	■		
		Nickel alloys, cobalt alloys and iron alloys							
	2.1	Pure nickel	≤ 600 N/mm²	Ni 99,6	2.4060				
	2.2	Nickel-base alloys	≤ 1000 N/mm²	Monel 400	2.4360	■	■		
	2.3		≤ 1600 N/mm²	Inconel 718	2.4668	■	■		
	2.4	Cobalt-base alloys	≤ 1000 N/mm²	Udimet 605					
	2.5		≤ 1600 N/mm²	Haynes 25	2.4964				
	2.6	Iron-base alloys	≤ 1500 N/mm²	Incoloy 800	1.4958				
H		**Hard materials**							
	1.1	High strength steels, hardened steels, hard castings	44 - 50 HRC	Weldox 1100		■	■		
	1.2		50 - 55 HRC	Hardox 550		■	■		
	1.3		55 - 60 HRC	Armox 600T		■	■		
	1.4		60 - 63 HRC	Ferro-Titanit					
	1.5		63 - 66 HRC	HSSE					



3 x D

5 x D

8 x D

CM C-Quickline

v_c [m/min]			d₁ [mm]																						
			3.00 - 4.95 mm			5.00 - 7.95 mm			8.00 - 9.95 mm			10.00 - 11.95 mm			12.00 - 15.95 mm			16.00 - 19.95 mm			20.00 - 24.50 mm				
			f [mm/rev.]																						
min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.	min.	**rec.**	max.		
100	**140**	180	0.11	**0.15**	0.25	0.18	**0.22**	0.31	0.20	**0.25**	0.35	0.23	**0.28**	0.40	0.25	**0.31**	0.43	0.27	**0.34**	0.47	0.29	**0.37**	0.51	1.1	
80	**120**	160	0.11	**0.15**	0.25	0.18	**0.22**	0.31	0.20	**0.25**	0.35	0.23	**0.28**	0.40	0.25	**0.31**	0.43	0.27	**0.34**	0.47	0.29	**0.37**	0.51	2.1	
80	**100**	120	0.11	**0.15**	0.24	0.18	**0.21**	0.27	0.20	**0.24**	0.30	0.23	**0.26**	0.34	0.25	**0.29**	0.37	0.27	**0.32**	0.41	0.29	**0.34**	0.44	3.1	P
50	**70**	100	0.11	**0.15**	0.24	0.18	**0.21**	0.27	0.20	**0.24**	0.30	0.23	**0.26**	0.34	0.25	**0.29**	0.37	0.27	**0.32**	0.41	0.29	**0.34**	0.44	4.1	
50	**65**	90	0.09	**0.13**	0.21	0.15	**0.19**	0.26	0.17	**0.21**	0.30	0.19	**0.24**	0.34	0.21	**0.26**	0.37	0.22	**0.28**	0.39	0.29	**0.37**	0.51	5.1	
40	**60**	80	0.04	**0.06**	0.09	0.10	**0.14**	0.22	0.11	**0.17**	0.26	0.14	**0.19**	0.30	0.15	**0.21**	0.33	0.16	**0.23**	0.36	0.18	**0.25**	0.39	1.1	
40	**55**	75	0.04	**0.05**	0.08	0.09	**0.12**	0.18	0.10	**0.15**	0.20	0.14	**0.18**	0.27	0.15	**0.20**	0.30	0.16	**0.22**	0.32	0.18	**0.23**	0.35	2.1	M
40	**50**	70	0.04	**0.05**	0.08	0.09	**0.12**	0.18	0.10	**0.15**	0.20	0.14	**0.18**	0.27	0.15	**0.20**	0.30	0.16	**0.22**	0.32	0.18	**0.23**	0.35	3.1	
																								4.1	
120	**140**	160	0.11	**0.15**	0.25	0.18	**0.22**	0.31	0.20	**0.25**	0.35	0.23	**0.28**	0.40	0.25	**0.31**	0.43	0.27	**0.34**	0.47	0.29	**0.37**	0.51	1.1	
110	**130**	150	0.11	**0.15**	0.25	0.18	**0.22**	0.31	0.20	**0.25**	0.35	0.23	**0.28**	0.40	0.25	**0.31**	0.43	0.27	**0.34**	0.47	0.29	**0.37**	0.51	1.2	
140	**160**	180	0.11	**0.15**	0.24	0.18	**0.22**	0.31	0.20	**0.25**	0.35	0.23	**0.28**	0.40	0.25	**0.31**	0.43	0.27	**0.34**	0.47	0.29	**0.37**	0.51	2.1	
100	**120**	140	0.11	**0.15**	0.24	0.18	**0.21**	0.27	0.20	**0.24**	0.30	0.23	**0.26**	0.34	0.25	**0.29**	0.37	0.27	**0.32**	0.41	0.29	**0.34**	0.44	2.2	K
80	**100**	120	0.11	**0.15**	0.25	0.18	**0.22**	0.31	0.20	**0.25**	0.35	0.23	**0.28**	0.40	0.25	**0.31**	0.43	0.27	**0.34**	0.47	0.29	**0.37**	0.51	3.1	
60	**80**	100	0.09	**0.13**	0.22	0.16	**0.20**	0.28	0.18	**0.23**	0.32	0.20	**0.25**	0.36	0.22	**0.28**	0.39	0.24	**0.30**	0.43	0.26	**0.33**	0.46	3.2	
100	**120**	140	0.11	**0.15**	0.24	0.16	**0.18**	0.24	0.20	**0.24**	0.30	0.23	**0.26**	0.34	0.25	**0.29**	0.37	0.27	**0.32**	0.41	0.30	**0.32**	0.41	4.1	
90	**110**	130	0.10	**0.14**	0.22	0.14	**0.18**	0.25	0.18	**0.23**	0.32	0.20	**0.25**	0.36	0.22	**0.28**	0.39	0.24	**0.30**	0.43	0.27	**0.30**	0.43	4.2	
160	**180**	240	0.13	**0.19**	0.31	0.21	**0.32**	0.43	0.24	**0.33**	0.42	0.27	**0.37**	0.47	0.30	**0.41**	0.52	0.32	**0.45**	0.57	0.35	**0.48**	0.61	1.1	
160	**180**	240	0.13	**0.19**	0.31	0.21	**0.32**	0.43	0.24	**0.33**	0.42	0.27	**0.37**	0.47	0.30	**0.41**	0.52	0.32	**0.45**	0.57	0.35	**0.48**	0.61	1.2	
160	**180**	240	0.13	**0.19**	0.31	0.21	**0.32**	0.43	0.24	**0.33**	0.42	0.27	**0.37**	0.47	0.30	**0.41**	0.52	0.32	**0.45**	0.57	0.35	**0.48**	0.61	1.3	
160	**180**	240	0.13	**0.19**	0.31	0.21	**0.32**	0.43	0.24	**0.33**	0.42	0.27	**0.37**	0.47	0.30	**0.41**	0.52	0.32	**0.45**	0.57	0.35	**0.48**	0.61	1.4	
160	**180**	240	0.13	**0.19**	0.31	0.21	**0.32**	0.43	0.24	**0.33**	0.42	0.27	**0.37**	0.47	0.30	**0.41**	0.52	0.32	**0.45**	0.57	0.35	**0.48**	0.61	1.5	
160	**180**	240	0.13	**0.19**	0.31	0.21	**0.32**	0.43	0.24	**0.33**	0.42	0.27	**0.37**	0.47	0.30	**0.41**	0.52	0.32	**0.45**	0.57	0.35	**0.48**	0.61	1.6	
120	**140**	180	0.03	**0.05**	0.07	0.04	**0.06**	0.09	0.05	**0.10**	0.13	0.06	**0.12**	0.14	0.06	**0.14**	0.16	0.07	**0.15**	0.17	0.07	**0.15**	0.18	2.1	
120	**140**	180	0.03	**0.05**	0.07	0.04	**0.06**	0.08	0.05	**0.10**	0.13	0.06	**0.12**	0.14	0.06	**0.14**	0.16	0.07	**0.15**	0.17	0.07	**0.15**	0.17	2.2	
120	**140**	180	0.11	**0.14**	0.19	0.17	**0.22**	0.30	0.22	**0.28**	0.39	0.25	**0.31**	0.42	0.27	**0.33**	0.44	0.30	**0.36**	0.48	0.32	**0.36**	0.48	2.3	
																								2.4	
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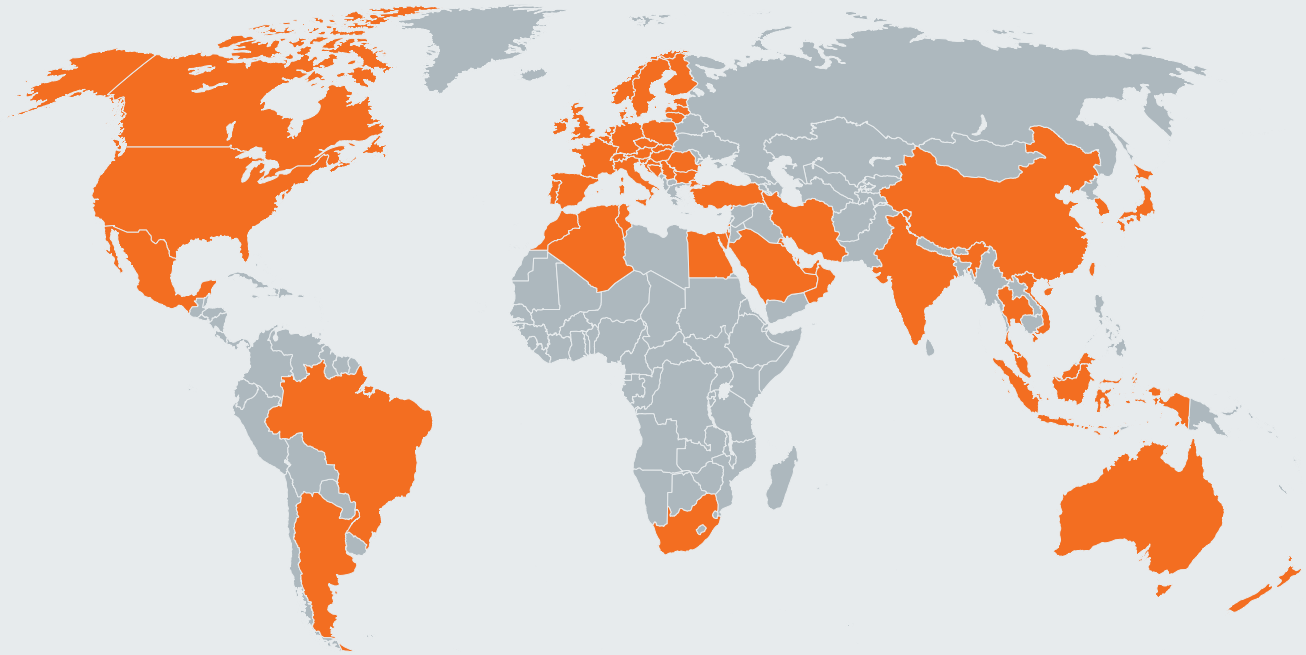
																								5.2	
																								5.3	
																								1.1	
40	**50**	60	0.04	**0.05**	0.06	0.07	**0.09**	0.11	0.10	**0.12**	0.15	0.11	**0.13**	0.17	0.12	**0.14**	0.19	0.14	**0.16**	0.20	0.15	**0.17**	0.22	1.2	
30	**40**	50	0.04	**0.05**	0.06	0.07	**0.09**	0.11	0.10	**0.12**	0.15	0.11	**0.13**	0.17	0.12	**0.14**	0.19	0.14	**0.16**	0.20	0.15	**0.17**	0.22	1.3	
																								2.1	S
20	**40**	60	0.04	**0.05**	0.07	0.07	**0.09**	0.13	0.10	**0.13**	0.20	0.11	**0.15**	0.23	0.12	**0.17**	0.25	0.14	**0.18**	0.27	0.15	**0.19**	0.29	2.2	
10	**25**	40	0.04	**0.05**	0.06	0.07	**0.09**	0.11	0.10	**0.12**	0.15	0.11	**0.13**	0.17	0.12	**0.14**	0.19	0.14	**0.16**	0.20	0.15	**0.17**	0.22	2.3	
																								2.4	
																								2.5	
																								2.6	
20	**40**	50	0.05	**0.06**	0.11	0.09	**0.12**	0.18	0.10	**0.16**	0.25	0.11	**0.18**	0.28	0.12	**0.19**	0.31	0.14	**0.20**	0.34	0.15	**0.22**	0.37	1.1	
20	**30**	50	0.05	**0.06**	0.11	0.09	**0.12**	0.18	0.10	**0.16**	0.25	0.11	**0.18**	0.28	0.12	**0.19**	0.31	0.14	**0.20**	0.34	0.15	**0.22**	0.37	1.2	H
20	**30**	50	0.05	**0.06**	0.11	0.09	**0.12**	0.18	0.10	**0.16**	0.25	0.11	**0.18**	0.28	0.12	**0.19**	0.31	0.14	**0.20**	0.34	0.15	**0.22**	0.37	1.3	
																								1.4	
																								1.5	



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ZP10145 . GB 10724323
3T 032025 FI · Rev. F · Printed in Germany

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