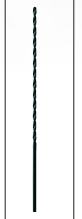
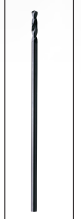
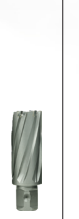
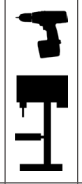
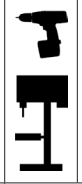
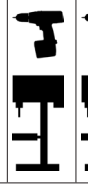
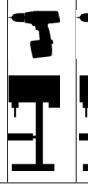
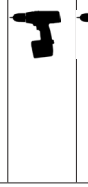
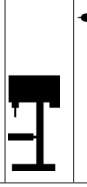
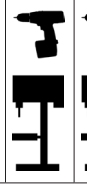
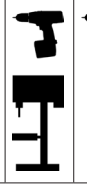
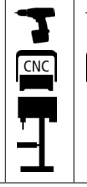
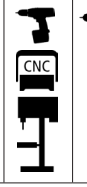
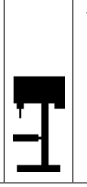
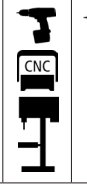
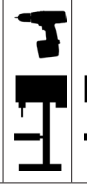
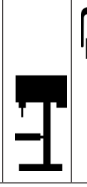
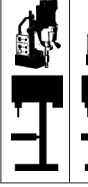
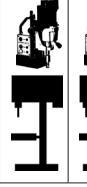
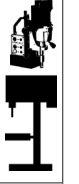
ANWENDUNGSTABELLE METALLBOHRER

Formel zur Berechnung der Schnittdaten

$$n = \frac{v_c \times 1000}{d \times \pi}$$

d = Werkzeug-Ø
v_c = Schnittgeschwindigkeit
n = Drehzahl
π = 3,14...

DIN / Typ			Tip Top	EVO DIN 338 TRICON-Schaft	DIN 338 N ausgespitzt	1897 N extra kurz	340 N lang	1869 N überlang	Bedachungs-bohrer	Doppel-bohrer	345 N Morsekegel	338 N rollgewalzt	Zentrier-bohrer	338 N HSS-TiN	ultra INOX TRICON-Schaft	338 N HSS-CO5 135°	338 N HSS-CO5 118°	340 N lang	1897 N extra kurz	Doppelbohrer HSS-Co	345 N Morsekegel	338 N TiAlN	DIN 338 Ultra	338 H Extreme Plus	345 Extreme Morsekegel	1897 Vollhartmetall	Kernbohrer mit Weldonschaft	Kernbohrer mit Weldonschaft	Kernbohrer HM mit Weldonschaft
Produktbild																															
Schneidstoff			HSSX-O	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS-rs	HSS	HSS/TiN	HSS-Co	HSS-Co	HSS-Co	HSS-Co	HSS-Co	HSS-Co	HSS-Co	HSS-Co	HSS-O	HSS-Co	HSS-Co	Hartmetall	HSS	HSS-CO	HM
Artikel-Vornummer			0619	0623	0624	0635	0629	0629 00	0631	0636	0628	0625	2624	0622	0627 000	0626	0621	0629 500	0635 000	0635 400	0628 000	0622 000	0620	0617 800	0635 810	1632	0618 0	0618 108	0618 250
Einsatzbereich / Maschinen Empfehlung																															
Anwendung	Zugfestigkeit	Werkstoffbeispiele		Schnittgeschwindigkeit in m/min (Vc)																										
Stahl	< 500 N/mm²	1.0035 S185 (St33)	31-33	30-32	31-33	31-33	26-28	22-25	31-33	31-33	31-33	20-25	30-32	20-35	30-35	30-35	30-35	35-38	35-38	35-38		20-35	31-33	28-35	28-35		25-30	25-28	28-30
	< 750 N/mm²	1.0503 C45	28-31	26-30	28-31	28-31	24-26	20-22	28-31	28-31	28-31	17-22	26-30	20-35	30-35	30-35	30-35	32-35	32-35	32-35		20-35	28-31	27-35	28-35	70-80	25-30	25-28	28-30
	< 900 N/mm²	1.0050 E295 (St50-2)	22-28	22-26	22-28	22-28	20-24	18-20	22-28	22-28	22-28	15-22	20-26	20-35	30-35	30-35		30-32	30-32	30-32		20-35	22-28	25-35	28-35	60-70	25-30	25-28	25-30
Sonderstähle	< 1.100 N/mm²			8-16										28-35	8-15	8-15		10-20	10-20			28-35	8-16	12-20	12-20	40-60			16-18
	< 1.400 N/mm²													12-20		8-15						12-20		12-20	12-20	25-40			10-12
Titan	< 850 N/mm²	3.7024 Ti99,5		6-9												10-15	10-15	7-10	7-10				6-9	9-15	14-20	13-17			20-22
HARDOX		bis HARDOX 500																						5-8	6-8				
Edelstähle	< 900 N/mm²	1.4301	6-10	6-10										8-12	6-12	8-12	8-12	12-16	12-16	12-16	12-17	8-12	6-10		12-17	15-25		11-13	13-15
	> 900 N/mm²		6-10	6-10										8-12	6-12	8-12		12-16	12-16	12-16	12-17	8-12	6-10		12-17	15-25			
Gusswerkstoffe		0.6025 EN-GJL-250 (GG25)	25-30	25-30	25-30	20-30	18-27	14-22	20-30	20-30	25-30	15-20	20-25	36-42		25-30	25-30	25-35	25-35			36-42	25-30		36-42	70-90	35-38	35-38	35-40
Alu, Kunststoffe		3.2315 AlMgSi1	20-60	20-60	20-60	20-60	15-45	15-45	20-60	20-60	20-60	20-60	15-45	20-60	40-50			20-80	20-80	20-80		20-60	20-60			40-180	35-40	35-40	38-42
			Seite 4-5	Seite 6-7	Seite 8-9	Seite 16-17	Seite 12-13			Seite 18-19	Seite 10-11	Seite 43	Seite 40-41	Seite 32-33	Seite 20-21	Seite 24-25	Seite 22-23	Seite 29	Seite 28	Seite 26	Seite 27	Seite 14-15	Seite 30-31	Seite 35	Seite 34	Seite 37	Seite 46-47			Seite 49

Technische Daten

Merkmale																												
Bohrtiefe	Bohrer-Ø		5 x Ø	5 x Ø	5 x Ø	3 x Ø	8 x Ø	10 x Ø	3 x Ø	2 x Ø	5 x Ø	5 x Ø		5 x Ø	3 x Ø	5 x Ø	5 x Ø	5 x Ø	3 x Ø	2 x Ø	5 x Ø	10 x Ø	5 x Ø	3 x Ø	3 x Ø	3 x Ø	30 & 55 mm	30 & 55 mm	max. 50 mm
Spitzenwinkel	Grad		-	118°	118°	118°	118°	118°	118°	118°	118°	118°	60°-Senkwinkel	118°	135°	135°	118°	130°	135°	135°	118°	135°	135°	135°	130°	118°			
Oberfläche / Beschichtung			Steam Oxid	Kopfbeschich-tung TiAlN	dampf-angelassen	dampf-angelassen	dampf-angelassen	dampf-angelassen	dampf-angelassen	dampf-angelassen	dampf-angelassen	dampf-angelassen	blank	Titan-Nitrit	schwarz/gold	blank	blank	blank	blank	blank	blank	TiAlN	Steam Oxid	TiAlN ZrN	TiAlN	blank	blank	blank	blank
Für Festigkeiten	N/mm²		< 850	< 900	< 900	< 900	< 900	< 900	< 900	< 900	< 850	< 900	< 1.000	< 1.200	< 1.000	> 800	< 850	> 800	> 800	> 800	> 850	< 1.300	< 850	< 1.900	< 1.400	> 1.300			
Durchmesser	mm		2,0 - 13,0	2,0 - 13,0	0,25 - 20,0	2,0 - 6,0	1,0 - 13,5	2,0 - 12,0	5,8	2,0 - 6,5	10,0 - 60,0	1,0 - 14,0	0,8 - 6,3	1,0 - 13,0	1,0 - 13,0	1,0 - 14,0	1,0 - 13,0	2,0 - 13,0	1,0 - 13,0	3,1 - 5,0	13,0 - 20,0	2,0 - 13,0	2,5 - 20,0	3,0 - 13,0	18,0 - 24,0	1,0 - 10,0	12,0 - 56,0	12,0 - 40,0	12,0 - 50,0