



EX-SUS-GDS/GDR Twist drill bit



- Please adjust these guideline values according to clamping operation and machine set-up!
 - Cutting data for application with coolant and for drilling depths up to 3 x D
- Cutting speed correction factor:
 Drilling depth 4 x D = 0.9
 5 x D = 0.8
 6 x D = 0.8

114045....

114050....

ISO	Materials group	Strength/ Hardness N/mm ²	Material example chemical	Material number	Cutting speed Vc m/min	Feed f in mm/rev in relation to drill bit diameter in mm						
						1	2	3	4	5	6	8
P	Machining steel	Up to 700	9 SMn 28	1.0715	32 - 40	0.02 - 0.05	0.06 - 0.09	0.1 - 0.13	0.11 - 0.15	0.12 - 0.18	0.13 - 0.19	0.17 - 0.24
	Unalloyed structural steel	Up to 700	St-52	1.0052	32 - 40	0.02 - 0.05	0.06 - 0.09	0.1 - 0.13	0.11 - 0.15	0.12 - 0.18	0.13 - 0.19	0.17 - 0.24
M	Stainless steel, ferr./marten.	500 - 950	X10 Cr13	1.4006	15-20	0.02 - 0.04	0.05 - 0.07	0.06 - 0.09	0.08 - 0.12	0.1 - 0.15	0.15 - 0.18	0.2 - 0.24
	Stainless steel, austenitic	500 - 950	X5 CrNi 18 10	1.4301	15-20	0.02 - 0.04	0.05 - 0.07	0.06 - 0.09	0.08 - 0.12	0.1 - 0.15	0.15 - 0.18	0.2 - 0.24
N	Al. alloy long-chipping	Up to 500	AlMg 3	3.3535	63 - 100	0.02 - 0.06	0.04 - 0.12	0.06 - 0.18	0.08 - 0.24	0.1 - 0.3	0.12 - 0.36	0.16 - 0.45
	Al. alloy short-chipping	Up to 500	G-AlSi 12	3.2581	63 - 100	0.02 - 0.06	0.04 - 0.12	0.06 - 0.18	0.08 - 0.24	0.1 - 0.3	0.12 - 0.36	0.16 - 0.45
	Copper alloy (brass) long-chipping	Up to 600	Cu ZN 20	2.0250	25 - 50	0.01 - 0.03	0.04 - 0.06	0.06 - 0.09	0.08 - 0.11	0.1 - 0.13	0.12 - 0.15	0.16 - 0.2
	Copper alloy (brass) short-chipping	Up to 600	Cu Zn 39 Pb 3	2.0381	25 - 50	0.01 - 0.03	0.04 - 0.06	0.06 - 0.09	0.08 - 0.11	0.1 - 0.13	0.12 - 0.15	0.16 - 0.2

ISO	Materials group	Strength/ Hardness N/mm ²	Material example chemical	Material number	Cutting speed Vc m/min	Feed f in mm/rev in relation to drill bit diameter in mm					
						10	12	14	16	18	20
P	Machining steel	Up to 700	9 SMn 28	1.0715	32 - 40	0.2 - 0.28	0.24 - 0.34	0.27 - 0.39	0.29 - 0.43	0.32 - 0.49	0.34 - 0.52
	Unalloyed structural steel	Up to 700	St-52	1.0052	32 - 40	0.2 - 0.28	0.24 - 0.34	0.27 - 0.39	0.29 - 0.43	0.32 - 0.49	0.34 - 0.52
M	Stainless steel, ferr./marten.	500 - 950	X10 Cr13	1.4006	15-20	0.25 - 0.3	0.3 - 0.36	0.35 - 0.45	0.37 - 0.5	0.39 - 0.54	0.4 - 0.56
	Stainless steel, austenitic	500 - 950	X5 CrNi 18 10	1.4301	15-20	0.25 - 0.3	0.3 - 0.36	0.35 - 0.45	0.37 - 0.5	0.39 - 0.54	0.4 - 0.56
N	Al. alloy long-chipping	Up to 500	AlMg 3	3.3535	63 - 100	0.2 - 0.55	0.24 - 0.66	0.27 - 0.74	0.3 - 0.83	0.32 - 0.94	0.36 - 1
	Al. alloy short-chipping	Up to 500	G-AlSi 12	3.2581	63 - 100	0.2 - 0.55	0.24 - 0.66	0.27 - 0.74	0.3 - 0.83	0.32 - 0.94	0.36 - 1
	Copper alloy (brass) long-chipping	Up to 600	Cu ZN 20	2.0250	25 - 50	0.2 - 0.25	0.24 - 0.3	0.26 - 0.34	0.27 - 0.37	0.29 - 0.41	0.3 - 0.44
	Copper alloy (brass) short-chipping	Up to 600	Cu Zn 39 Pb 3	2.0381	25 - 50	0.2 - 0.25	0.24 - 0.3	0.26 - 0.34	0.27 - 0.37	0.29 - 0.41	0.3 - 0.44