

DRILLING (SOLID CARBIDE)**MINI-MWS**

CARBIDE

RECOMMENDED CUTTING CONDITIONS**DB Type Drill ($l/d \geq 10$)**

Work Material	Mild Steel ($\leq 180\text{HB}$)					Carbon Steel, Alloy Steel ($180-280\text{HB}$)				
	Ck10					Ck45, 42CrMo4				
Drill Dia. (mm)	Cutting Speed (m/min)	Revolution (min^{-1})	Feed rate (Min.—Max.) (mm/rev)		Table Feed (mm/min)	Cutting Speed (m/min)	Revolution (min^{-1})	Feed rate (Min.—Max.) (mm/rev)		Table Feed (mm/min)
1.0	50	15900	0.02 (0.010—0.030)		320	40	12700	0.02 (0.010—0.030)		255
1.5	50	10600	0.055 (0.032—0.080)		580	40	8400	0.055 (0.032—0.080)		460
2.0	60	9500	0.07 (0.040—0.100)		665	50	7900	0.07 (0.040—0.100)		550
2.5	60	7600	0.09 (0.063—0.125)		685	50	6300	0.09 (0.055—0.125)		565
2.95	90	9500	0.10 (0.060—0.130)		950	80	8400	0.10 (0.060—0.130)		840

Work Material	Carbon Steel, Alloy Steel ($280-350\text{HB}$)					Austenitic Stainless Steel ($\leq 200\text{HB}$)				
	36CrNiMo4					X5CrNi1810, X5CrNiMo17-12-2				
Drill Dia. (mm)	Cutting Speed (m/min)	Revolution (min^{-1})	Feed rate (Min.—Max.) (mm/rev)		Table Feed (mm/min)	Cutting Speed (m/min)	Revolution (min^{-1})	Feed rate (Min.—Max.) (mm/rev)		Table Feed (mm/min)
1.0	30	9500	0.015 (0.009—0.028)		140	30	9500	0.015 (0.009—0.028)		140
1.5	30	6300	0.05 (0.027—0.076)		315	30	6300	0.045 (0.025—0.065)		280
2.0	50	7900	0.065 (0.034—0.095)		515	30	4700	0.055 (0.030—0.080)		255
2.5	50	6300	0.08 (0.045—0.120)		505	40	5000	0.06 (0.035—0.085)		300
2.95	70	7400	0.09 (0.050—0.120)		665	40	4200	0.07 (0.050—0.090)		290

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