RECOMMENDED CUTTING CONDITIONS

Work Material		Drill Diameter	ϕ10.0−ϕ12.9		ϕ13.0−ϕ13.9		ϕ14.0−ϕ15.4		ϕ15.5−ϕ18.4	
		Conditions / Hardness	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Speed (m/min)	Feed (mm/rev)	Cutting Speed (m/min)	Feed (mm/rev)
P	Mild Steel	≤180HB	80 (60−100)	0.20 (0.15−0.25)	90 (70−110)	0.25 (0.20−0.30)	100 (80−120)	0.30 (0.25−0.35)	100 (80−120)	0.35 (0.25−0.40)
	Carbon Steel Alloy Steel	180−280HB	80 (60−100)	0.20 (0.15−0.25)	90 (70−110)	0.25 (0.20−0.30)	100 (80−120)	0.30 (0.25−0.35)	100 (80−120)	0.35 (0.25−0.40)
		280−350HB	70 (60−90)	0.20 (0.15−0.25)	80 (60−100)	0.25 (0.20−0.30)	90 (70−110)	0.25 (0.20−0.30)	90 (70−110)	0.30 (0.20−0.35)
M	Stainless Steel	≤200HB	40 (30−50)	0.13 (0.10−0.16)	50 (40−60)	0.15 (0.12−0.18)	60 (50−70)	0.17 (0.14−0.20)	60 (50−70)	0.17 (0.14−0.20)
K	Cast Iron	Tensile Strength ≤350MPa	80 (60−100)	0.20 (0.15−0.25)	90 (70−110)	0.25 (0.20−0.30)	100 (80−120)	0.30 (0.25−0.35)	120 (80−140)	0.45 (0.35−0.55)
	Ductile Cast Iron	Tensile Strength ≤450MPa	70 (60−90)	0.20 (0.15−0.25)	80 (60−100)	0.25 (0.20−0.30)	90 (70−110)	0.30 (0.25−0.35)	100 (80−120)	0.35 (0.25−0.40)

(Note 1) When using a drill for 1.5D depth of hole, it is possible to increase the feed rate by approx. 20%.
(Note 2) When using the 8D type holder, reduce the cutting speed by approx. 20%.
(Note 3) When using the 8D type holder, it is recommended to drill a pilot guide hole.
(Note 4) For stainless steel, please use internal coolant. (Mist & MQL are not recommended).