

## RECOMMENDED CUTTING CONDITIONS

### ■ Hole Depth : L/D = 3, 5, 8 (LB, S-DIN, S-DIN-C, L-DIN, L-DIN-C, L8C Type Drill)

Work material	N					
	Aluminium Alloy (Si<5%)		Aluminium Alloy (5%≤Si≤10%)		Aluminium Alloy (Si>10%)	
Drill Dia. DC (mm)	Revolution (min <sup>-1</sup> )	Feed rate (Min.—Max.) (mm/rev)	Revolution (min <sup>-1</sup> )	Feed rate (Min.—Max.) (mm/rev)	Revolution (min <sup>-1</sup> )	Feed rate (Min.—Max.) (mm/rev)
<b>3.2</b>	11900	0.1 (0.11—0.16)	11900	0.15 (0.16—0.21)	11900	0.15 (0.16—0.21)
<b>4.0</b>	9500	0.15 (0.13—0.20)	9500	0.2 (0.20—0.27)	9500	0.2 (0.20—0.27)
<b>5.0</b>	7600	0.2 (0.17—0.25)	7600	0.25 (0.25—0.33)	7600	0.25 (0.25—0.33)
<b>6.3</b>	7500	0.25 (0.21—0.32)	7500	0.35 (0.32—0.42)	7500	0.35 (0.32—0.42)
<b>8.0</b>	5900	0.3 (0.27—0.40)	5900	0.45 (0.40—0.53)	5900	0.45 (0.40—0.53)
<b>10.0</b>	4700	0.4 (0.33—0.50)	4700	0.55 (0.50—0.67)	4700	0.55 (0.50—0.67)
<b>12.0</b>	5300	0.5 (0.40—0.60)	5300	0.7 (0.60—0.80)	5300	0.7 (0.60—0.80)
<b>14.0</b>	4500	0.5 (0.40—0.60)	4500	0.7 (0.60—0.80)	4500	0.7 (0.60—0.80)
<b>16.0</b>	4000	0.5 (0.40—0.60)	4000	0.7 (0.60—0.80)	4000	0.7 (0.60—0.80)
<b>18.0</b>	3500	0.5 (0.40—0.60)	3500	0.7 (0.60—0.80)	3500	0.7 (0.60—0.80)
<b>20.0</b>	3200	0.5 (0.40—0.60)	3200	0.7 (0.60—0.80)	3200	0.7 (0.60—0.80)

Note 1) When using the drill with a length over L/D 10, it is necessary to machine a pilot hole.

(If no pilot-hole is used then drill breakage can occur.)

Note 2) For pilot hole drilling, Mitsubishi Materials MNS, MAE-MB or MAS-MB drill is recommended.

### ■ Hole Depth : L/D = 10, 12, 15, 20, 25, 30 (X10DB, X20DB, X30DB, L10C, L12C, L15C, L20C, L25C, L30C Type Drill)

Work material	N					
	Aluminium Alloy (Si<5%)		Aluminium Alloy (5%≤Si≤10%)		Aluminium Alloy (Si>10%)	
Drill Dia. DC (mm)	Revolution (min <sup>-1</sup> )	Feed rate (Min.—Max.) (mm/rev)	Revolution (min <sup>-1</sup> )	Feed rate (Min.—Max.) (mm/rev)	Revolution (min <sup>-1</sup> )	Feed rate (Min.—Max.) (mm/rev)
<b>3.2</b>	8900	0.1 (0.11—0.16)	8900	0.15 (0.16—0.21)	8900	0.15 (0.16—0.21)
<b>4.0</b>	7100	0.15 (0.13—0.20)	7100	0.2 (0.20—0.27)	7100	0.2 (0.20—0.27)
<b>5.0</b>	5700	0.2 (0.17—0.25)	5700	0.25 (0.25—0.33)	5700	0.25 (0.25—0.33)
<b>6.3</b>	6000	0.25 (0.21—0.32)	6000	0.35 (0.32—0.42)	6000	0.35 (0.32—0.42)
<b>8.0</b>	4700	0.3 (0.27—0.40)	4700	0.45 (0.40—0.53)	4700	0.45 (0.40—0.53)
<b>10.0</b>	3800	0.4 (0.33—0.50)	3800	0.55 (0.50—0.67)	3800	0.55 (0.50—0.67)
<b>12.0</b>	4200	0.5 (0.40—0.60)	4200	0.7 (0.60—0.80)	4200	0.7 (0.60—0.80)
<b>14.0</b>	3600	0.5 (0.40—0.60)	3600	0.7 (0.60—0.80)	3600	0.7 (0.60—0.80)
<b>16.0</b>	3200	0.5 (0.40—0.60)	3200	0.7 (0.60—0.80)	3200	0.7 (0.60—0.80)
<b>18.0</b>	2800	0.5 (0.40—0.60)	2800	0.7 (0.60—0.80)	2800	0.7 (0.60—0.80)
<b>20.0</b>	2500	0.5 (0.40—0.60)	2500	0.7 (0.60—0.80)	2500	0.7 (0.60—0.80)

Note 1) When using the drill with a length over L/D 10, it is necessary to use a prep hole as a guide.

(If no prep-hole is used then drill breakage can occur.)

Note 2) For pilot hole drilling, Mitsubishi Materials MNS, MAE-MB or MAS-MB drill is recommended.