

RECOMMENDED CUTTING CONDITIONS

■ LB Type

Drill Dia. DC		Aluminium Alloy (Si<5%)		Austenitic Stainless Steel (5%≤Si≤10%)	
		AISI A6061, A7075 etc.		ASTM 333.0 etc.	
inch	mm	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)
.1181	3.0	395 (310—460)	.0039 (.0043—.0063)	395 (310—460)	.0059 (.0063—.0083)
.1575	4.0	395 (310—460)	.0059 (.0051—.0079)	395 (310—460)	.0079 (.0079—.0106)
.1969	5.0	395 (310—460)	.0079 (.0067—.0098)	395 (310—460)	.0098 (.0098—.0130)
.2480	6.3	490 (395—560)	.0098 (.0083—.0126)	490 (395—560)	.0138 (.0126—.0165)
.3150	8.0	490 (395—560)	.0118 (.0106—.0157)	490 (395—560)	.0177 (.0157—.0209)
.3937	10.0	490 (395—560)	.0157 (.0130—.0197)	490 (395—560)	.0217 (.0197—.0264)
.4724	12.0	655 (525—755)	.0197 (.0157—.0236)	655 (525—755)	.0276 (.0236—.0315)
.5512	14.0	655 (525—755)	.0197 (.0157—.0236)	655 (525—755)	.0276 (.0236—.0315)

Drill Dia. DC		Aluminium Alloy (Si>10%)	
		ASTM 380.0, A390.0 etc.	
inch	mm	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)
.1181	3.0	395 (310—460)	.0059 (.0063—.0083)
.1575	4.0	395 (310—460)	.0079 (.0079—.0106)
.1969	5.0	395 (310—460)	.0098 (.0098—.0130)
.2480	6.3	490 (395—560)	.0138 (.0126—.0165)
.3150	8.0	490 (395—560)	.0177 (.0157—.0209)
.3937	10.0	490 (395—560)	.0217 (.0197—.0264)
.4724	12.0	655 (525—755)	.0276 (.0236—.0315)
.5512	14.0	655 (525—755)	.0276 (.0236—.0315)

(Note 1) When using the drill with a length over l/d 10, it is necessary to use a prep hole as the pilot. (If no prep-hole is used then drill breakage can occur)

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

DB Type

Drill Dia. DC		Aluminium Alloy (Si<5%)		Austenitic Stainless Steel (5%≤Si≤10%)	
		AISI A6061, A7075 etc.		ASTM 333.0 etc.	
inch	mm	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)
.1181	3.0	295 (230—330)	.0039 (.0043—.0063)	295 (230—330)	.0059 (.0063—.0083)
.1575	4.0	295 (230—330)	.0059 (.0051—.0079)	295 (230—330)	.0079 (.0079—.0106)
.1969	5.0	295 (230—330)	.0079 (.0067—.0098)	295 (230—330)	.0098 (.0098—.0130)
.2480	6.3	395 (310—460)	.0098 (.0083—.0126)	395 (310—460)	.0138 (.0126—.0165)
.3150	8.0	395 (310—460)	.0118 (.0106—.0157)	395 (310—460)	.0177 (.0157—.0209)
.3937	10.0	395 (310—460)	.0157 (.0130—.0197)	395 (310—460)	.0217 (.0197—.0264)
.4724	12.0	525 (410—590)	.0197 (.0157—.0236)	525 (410—590)	.0276 (.0236—.0315)
.5512	14.0	525 (410—590)	.0197 (.0157—.0236)	525 (410—590)	.0276 (.0236—.0315)

Drill Dia. DC		Aluminium Alloy (Si>10%)	
		ASTM 383.0, A390.0 etc.	
inch	mm	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)
.1181	3.0	295 (230—330)	.0059 (.0063—.0083)
.1575	4.0	295 (230—330)	.0079 (.0079—.0106)
.1969	5.0	295 (230—330)	.0098 (.0098—.0130)
.2480	6.3	395 (310—460)	.0138 (.0126—.0165)
.3150	8.0	395 (310—460)	.0177 (.0157—.0209)
.3937	10.0	395 (310—460)	.0217 (.0197—.0264)
.4724	12.0	525 (410—590)	.0276 (.0236—.0315)
.5512	14.0	525 (410—590)	.0276 (.0236—.0315)

(Note 1) When using the drill with a length over l/d 10, it is necessary to use a prep hole as the pilot. (If no prep-hole is used then drill breakage can occur)

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

(Note 3) For the spindle revolution of diameters not shown in the table, please adjust to the conditions of larger and closest diameter, or calculate from the cutting speed of the closest diameter. For the feed rate per revolution, please set up within the recommended feed rate of the closest diameter appropriately.