RECOMMENDED CUTTING CONDITIONS

MMS

Work Material		Austenitic Stainless Steel (≤200HB) AISI 304, 316 etc.		Austenitic Stainless Steel (>200HB) AISI 304LN, 316LN etc.	
Drill Dia. **DC**		Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)
inch	mm				
.1181	**3.0**	260 (195—330)	.0051 (.0031—.0071)	195 (150—260)	.0039 (.0020—.0059)
.1575	**4.0**	260 (195—330)	.0059 (.0039—.0079)	195 (150—260)	.0047 (.0031—.0071)
.1969	**5.0**	260 (195—330)	.0059 (.0039—.0079)	195 (150—260)	.0047 (.0031—.0071)
.2480	**6.3**	260 (195—330)	.0067 (.0047—.0087)	195 (150—260)	.0059 (.0039—.0079)
.3150	**8.0**	260 (195—330)	.0075 (.0055—.0094)	195 (150—260)	.0067 (.0047—.0087)
.3937	**10.0**	195 (150—230)	.0079 (.0059—.0098)	165 (130—195)	.0071 (.0051—.0091)
.4724	**12.0**	195 (150—230)	.0083 (.0063—.0102)	165 (130—195)	.0075 (.0055—.0094)
.6299	**16.0**	195 (150—230)	.0087 (.0067—.0106)	165 (130—195)	.0079 (.0059—.0098)
.7874	**20.0**	195 (150—230)	.0091 (.0071—.0110)	165 (130—195)	.0083 (.0063—.0102)

Work Material		Duplex Steel (≤280HB) AISI 329 etc.		Ferritic, Martensitic Stainless Steel (≤200HB) AISI 410, 430 etc.	
Drill Dia. **DC**		Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)
inch	mm				
.1181	**3.0**	165 (130—195)	.0039 (.0020—.0059)	260 (195—330)	.0051 (.0031—.0071)
.1575	**4.0**	165 (130—195)	.0047 (.0031—.0071)	260 (195—330)	.0059 (.0039—.0079)
.1969	**5.0**	165 (130—195)	.0047 (.0031—.0071)	260 (195—330)	.0059 (.0039—.0079)
.2480	**6.3**	165 (130—195)	.0059 (.0039—.0079)	260 (195—330)	.0067 (.0047—.0087)
.3150	**8.0**	165 (130—195)	.0067 (.0047—.0087)	260 (195—330)	.0075 (.0055—.0094)
.3937	**10.0**	130 (100—165)	.0071 (.0051—.0091)	195 (150—260)	.0079 (.0059—.0098)
.4724	**12.0**	130 (100—165)	.0075 (.0055—.0094)	195 (150—260)	.0083 (.0063—.0102)
.6299	**16.0**	130 (100—165)	.0079 (.0059—.0098)	195 (150—260)	.0087 (.0067—.0106)
.7874	**20.0**	130 (100—165)	.0083 (.0063—.0102)	195 (150—260)	.0083 (.0071—.0110)

Work Material		Ferritic, Martensitic Stainless Steel (>200HB) AISI 431, 420 etc.		PH Stainless Steel (<450HB) S17400, S17700 etc.	
Drill Dia. **DC**		Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)	Cutting Speed (Min.—Max.) (SFM)	Feed (Min.—Max.) (IPR)
inch	mm				
.1181	**3.0**	195 (150—260)	.0039 (.0020—.0059)	165 (130—195)	.0039 (.0020—.0059)
.1575	**4.0**	195 (150—260)	.0047 (.0031—.0071)	165 (130—195)	.0047 (.0031—.0071)
.1969	**5.0**	195 (150—260)	.0047 (.0031—.0071)	165 (130—195)	.0047 (.0031—.0071)
.2480	**6.3**	195 (150—260)	.0059 (.0039—.0079)	165 (130—195)	.0059 (.0039—.0079)
.3150	**8.0**	195 (150—260)	.0067 (.0047—.0087)	165 (130—195)	.0067 (.0047—.0087)
.3937	**10.0**	165 (130—195)	.0071 (.0051—.0091)	130 (100—165)	.0071 (.0051—.0091)
.4724	**12.0**	165 (130—195)	.0075 (.0055—.0094)	130 (100—165)	.0075 (.0055—.0094)
.6299	**16.0**	165 (130—195)	.0079 (.0059—.0098)	130 (100—165)	.0079 (.0059—.0098)
.7874	**20.0**	165 (130—195)	.0083 (.0063—.0102)	130 (100—165)	.0083 (.0063—.0102)

(Note 1) For stable machining, internal coolant supply with high pressure is recommended.
(Note 2) Emulsion type of water coolant is recommended.
(Note 3) Recommended cutting conditions are for machining under the conditions of favorable machining environment and coolant. Please lower the cutting conditions if there is a problem in the rigidity of machine and workpiece, and coolant property or discharge amount.
(Note 4) 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.