DMC Line - Cutting Data

internal coolant

ISO	MC No.	Component material	Hardness Brinell	Cutting speed VC(m/min)		
				Min.	Start	Max.
M	Austenitic stainless steel					
	M1.0.C.UT	Cast+untreated	165	48	60	72
	M1.0.Z.AQ	Annealed/quenched	200	48	60	72
	M1.0.Z.PH	PH-hardened	350	44	55	66
	M1.1.Z.AQ	Machinability improved	165	48	60	72
	M1.2.Z.AQ	Free cutting	200	48	60	72
	M1.3.C.AQ	Ti-stabilized+cast	200	48	60	72
	M1.3.Z.AQ	Ti-stabilized	200	48	60	72
	M1.4.Z.AQ	High strength	250	48	60	72
	Super austenitic (Ni>20%) stainless steel					
	M2.0.C.AQ	Cast+annealed/quenched	165	44	50	68
	M2.0.Z.AQ	Annealed/quenched	200	44	50	68
	Duplex (austenitic/ferritic) stainless steel					
	M3.1.Z.AQ >60%	(N<0.10%)>60% ferrite (N<0.10%)	250	50	65	80
	M3.2.Z.AQ <60%	(N≥0.10%)<60% ferrite (N≥0.10%)	250	50	65	80

Drill diameter(mm)	Feed Fn(mm/r)*		
	Min.	Start	Max.
3	0.05	0.07	0.1
4	0.08	0.1	0.12
6	0.09	0.11	0.13
8	0.1	0.12	0.14
10	0.13	0.14	0.17
12	0.13	0.16	0.19
16	0.14	0.2	0.23
20	0.17	0.22	0.25

1.Cutting data is suitable for internal coolant
2.Coolant pressure recommendation min. 20bar
3.In case component material hardness increase, please decrease cutting speed proportionally
4.Under external coolant condition, please adjust cutting speed to secure good chips formation and evacuation
5.Under external coolant condition, please decrease feed per revolution to secure chips evacuation