

Operating Data

TYPHOONMICRO™

MICRO90

ISO	Material	Hardness	Process	Type	Cutting Tool Diameter inch (mm)	Coolant Pressure (psi)	n Speed (RPM)	ap Depth of Cut inch (mm)	ae Width of Cut inch (mm)	fz* Feed/Tooth inch (mm)		
N	Al-Si 9%	HB 110	Drilling	Drill	0.0197 (0.5)	290	35,000	0.0039 (0.10)	0.0020 (0.05)	0.00039 (0.010)		
						435	44,000	0.0039 (0.10)	0.0020 (0.05)	0.00039 (0.010)		
						580	53,000	0.0039 (0.10)	0.0020 (0.05)	0.00039 (0.010)		
					0.0394 (1.0)	290	35,000	0.0079 (0.20)	0.0394 (1.00)	0.00039 (0.010)		
						435	44,000	0.0079 (0.20)	0.0394 (1.00)	0.00039 (0.010)		
						580	53,000	0.0079 (0.20)	0.0394 (1.00)	0.00039 (0.010)		
						290	35,000	0.0118 (0.30)	0.0787 (2.00)	0.00059 (0.015)		
						435	44,000	0.0118 (0.30)	0.0787 (2.00)	0.00067 (0.017)		
						580	53,000	0.0118 (0.30)	0.0787 (2.00)	0.00071 (0.018)		
			Profile Milling	Ball Nose	0.0394 (1.0)	290	35,000	0.0020 (0.05)	0.0024 (0.06)	0.00012 (0.003)		
						435	44,000	0.0020 (0.05)	0.0024 (0.06)	0.00012 (0.003)		
						580	53,000	0.0051 (0.13)	0.0028 (0.07)	0.00012 (0.003)		
						290	35,000	0.0031 (0.08)	0.0028 (0.07)	0.00016 (0.004)		
						435	44,000	0.0031 (0.08)	0.0028 (0.07)	0.00016 (0.004)		
						580	53,000	0.0059 (0.15)	0.0031 (0.08)	0.00016 (0.004)		
					0.0787 (2.0)	290	35,000	0.0031 (0.08)	0.0031 (0.08)	0.00024 (0.006)		
						435	44,000	0.0035 (0.09)	0.0035 (0.09)	0.00024 (0.006)		
						580	53,000	0.0059 (0.15)	0.0039 (0.10)	0.00024 (0.006)		
						290	35,000	0.0039 (0.10)	0.0197 (0.50)	0.00079 (0.020)		
						435	44,000	0.0047 (0.12)	0.0197 (0.50)	0.00079 (0.020)		
						580	53,000	0.0059 (0.15)	0.0197 (0.50)	0.00079 (0.020)		
			Slot Milling	End Mill	0.0197 (0.5)	290	35,000	0.0039 (0.10)	0.0394 (1.00)	0.00098 (0.025)		
						435	44,000	0.0059 (0.15)	0.0394 (1.00)	0.00098 (0.025)		
						580	53,000	0.0059 (0.15)	0.0394 (1.00)	0.00098 (0.025)		
					0.0394 (1.0)	290	35,000	0.0079 (0.20)	0.0787 (2.00)	0.00098 (0.025)		
						435	44,000	0.0079 (0.20)	0.0787 (2.00)	0.00098 (0.025)		
						580	53,000	0.0079 (0.20)	0.0787 (2.00)	0.00098 (0.025)		
						0.0787 (2.0)	290	35,000	0.0098 (0.25)	0.0197 (0.50)	0.00079 (0.020)	
							435	44,000	0.0197 (0.50)	0.0197 (0.50)	0.00079 (0.020)	
							580	53,000	0.0197 (0.50)	0.0197 (0.50)	0.00098 (0.025)	
			Shoulder Milling	End Mill	0.0787 (2.0)	290	35,000	0.0039 (0.10)	0.0079 (0.20)	0.00059 (0.015)		
						435	44,000	0.0039 (0.10)	0.0079 (0.20)	0.00059 (0.015)		
						580	53,000	0.0039 (0.10)	0.0079 (0.20)	0.00059 (0.015)		
H	H13	HRC 58			Profile Milling	Ball Nose	0.0394 (1.0)	290	35,000	0.0020 (0.05)	0.0020 (0.05)	0.00020 (0.005)
								435	44,000	0.0020 (0.05)	0.0020 (0.05)	0.00020 (0.005)
								580	53,000	0.0020 (0.05)	0.0020 (0.05)	0.00020 (0.005)
							0.0787 (2.0)	290	35,000	0.0028 (0.07)	0.0028 (0.07)	0.00024 (0.006)
								435	44,000	0.0031 (0.08)	0.0031 (0.08)	0.00024 (0.006)
								580	53,000	0.0031 (0.08)	0.0031 (0.08)	0.00024 (0.006)
			0.125 (3.0)	290				35,000	0.0031 (0.08)	0.0031 (0.08)	0.00024 (0.006)	
				435				44,000	0.0039 (0.10)	0.0035 (0.09)	0.00024 (0.006)	
				580				53,000	0.0039 (0.10)	0.0039 (0.10)	0.00024 (0.006)	
	SAE 1.2316	HRC 35	Drilling	Drill	0.0197 (0.5)	290	35,000	0.0020 (0.05)	0.0197 (0.50)	0.00039 (0.010)		
						435	44,000	0.0020 (0.05)	0.0197 (0.50)	0.00039 (0.010)		
						580	53,000	0.0020 (0.05)	0.0197 (0.50)	0.00039 (0.010)		
					0.0394 (1.0)	290	35,000	0.0039 (0.10)	0.0394 (1.00)	0.00039 (0.010)		
						435	44,000	0.0039 (0.10)	0.0394 (1.00)	0.00039 (0.010)		
						580	53,000	0.0039 (0.10)	0.0394 (1.00)	0.00039 (0.010)		
						0.0787 (2.0)	290	35,000	0.0039 (0.10)	0.0787 (2.00)	0.00039 (0.010)	
							435	44,000	0.0039 (0.10)	0.0787 (2.00)	0.00039 (0.010)	
							580	53,000	0.0039 (0.10)	0.0787 (2.00)	0.00039 (0.010)	
			Profile Milling	Ball Nose	0.0394 (1.0)	290	35,000	0.0020 (0.05)	0.0020 (0.05)	0.00012 (0.003)		
						435	44,000	0.0020 (0.05)	0.0020 (0.05)	0.00012 (0.003)		
						580	53,000	0.0020 (0.05)	0.0020 (0.05)	0.00012 (0.003)		
					0.0787 (2.0)	290	35,000	0.0031 (0.08)	0.0031 (0.08)	0.00016 (0.004)		
						435	44,000	0.0031 (0.08)	0.0031 (0.08)	0.00016 (0.004)		
						580	53,000	0.0031 (0.08)	0.0031 (0.08)	0.00016 (0.004)		
	Slot Milling	End Mill	0.125 (3.0)	290	35,000	0.0039 (0.10)	0.0039 (0.10)	0.00024 (0.006)				
				435	44,000	0.0039 (0.10)	0.0039 (0.10)	0.00024 (0.006)				
				580	53,000	0.0039 (0.10)	0.0039 (0.10)	0.00024 (0.006)				
			0.0197 (0.5)	290	35,000	0.0020 (0.05)	0.0197 (0.50)	0.00024 (0.006)				
				435	44,000	0.0020 (0.05)	0.0197 (0.50)	0.00024 (0.006)				
				580	53,000	0.0020 (0.05)	0.0197 (0.50)	0.00024 (0.006)				
				0.0394 (1.0)	290	35,000	0.0039 (0.10)	0.0394 (1.00)	0.00024 (0.006)			
					435	44,000	0.0039 (0.10)	0.0394 (1.00)	0.00024 (0.006)			
					580	53,000	0.0039 (0.10)	0.0394 (1.00)	0.00024 (0.006)			
	Shoulder Milling	End Mill	0.0787 (2.0)	290	35,000	0.0059 (0.15)	0.0394 (1.00)	0.00024 (0.006)				
				435	44,000	0.0047 (0.12)	0.0787 (2.00)	0.00039 (0.010)				
				580	53,000	0.0055 (0.14)	0.0787 (2.00)	0.00039 (0.010)				
			0.125 (3.0)	290	35,000	0.0047 (0.12)	0.1181 (3.00)	0.00039 (0.010)				
				435	44,000	0.0047 (0.12)	0.1181 (3.00)	0.00039 (0.010)				
				580	53,000	0.0059 (0.15)	0.1181 (3.00)	0.00039 (0.010)				
0.0787 (2.0)			290	35,000	0.0197 (0.50)	0.0197 (0.50)	0.00004 (0.001)					
			435	44,000	0.0197 (0.50)	0.0197 (0.50)	0.00067 (0.017)					
			580	53,000	0.0197 (0.50)	0.0197 (0.50)	0.00071 (0.018)					
	0.0394 (1.0)	290	35,000	0.0031 (0.08)	0.1575 (4.00)	0.00035 (0.009)						
		435	44,000	0.0031 (0.08)	0.1575 (4.00)	0.00035 (0.009)						
		580	53,000	0.0035 (0.09)	0.1575 (4.00)	0.00035 (0.009)						
M	SS 316	HB 220	Slot Milling	End Mill	0.0394 (1.0)	290	35,000	0.0039 (0.10)	0.0394 (1.00)	0.00059 (0.015)		
						435	44,000	0.0059 (0.15)	0.0394 (1.00)	0.00059 (0.015)		
						580	53,000	0.0059 (0.15)	0.0394 (1.00)	0.00059 (0.015)		
					0.0787 (2.0)	290	35,000	0.0059 (0.15)	0.0787 (2.00)	0.00059 (0.015)		
						435	44,000	0.0059 (0.15)	0.0787 (2.00)	0.00059 (0.015)		
						580	53,000	0.0079 (0.20)	0.0787 (2.00)	0.00059 (0.015)		
			Drilling	Drill	0.0197 (0.5)	290	35,000	0.0020 (0.05)	0.0197 (0.50)	0.00059 (0.015)		
						435	44,000	0.0020 (0.05)	0.0197 (0.50)	0.00059 (0.015)		
						580	53,000	0.0020 (0.05)	0.0197 (0.50)	0.00059 (0.015)		
					0.0394 (1.0)	290	35,000	0.0039 (0.10)	0.0394 (1.00)	0.00059 (0.015)		
						435	44,000	0.0039 (0.10)	0.0394 (1.00)	0.00059 (0.015)		
						580	53,000	0.0039 (0.10)	0.0394 (1.00)	0.00059 (0.015)		
			Shoulder Milling	End Mill	0.0787 (2.0)	290	35,000	0.0020 (0.05)	0.0787 (2.00)	0.00059 (0.015)		
						435	44,000	0.0020 (0.05)	0.0787 (2.00)	0.00059 (0.015)		
						580	53,000	0.0020 (0.05)	0.0787 (2.00)	0.00059 (0.015)		
					0.0787 (2.0)	290	35,000	0.0059 (0.15)	0.1575 (4.00)	0.00059 (0.015)		
						435	44,000	0.0059 (0.15)	0.1575 (4.00)	0.00059 (0.015)		
						580	53,000	0.0071 (0.18)	0.1575 (4.00)	0.00098 (0.025)		
						0.0787 (2.0)	290	35,000	0.0028 (0.07)	0.1575 (4.00)	0.00059 (0.015)	
							435	44,000	0.0028 (0.07)	0.1575 (4.00)	0.00059 (0.015)	