

PICCO-MF Recommended Cutting Conditions

Cutting Speed (V_c)

Workpiece Materials	Material No. VDI 3323	Hardness (BHN)	Cutting Speed: V_c (SFM) for IC908	
			Drilling	Turning & Boring
Low carbon steel (<0.25% C)	1	~150	430 - 790	490 - 890
Carbon steel ($\geq 0.25\%$ C)	2	150-250	300 - 520	330 - 590
Low alloy steel	6	~180	390 - 690	460 - 750
Medium alloy steel	7	200-250	230 - 460	260 - 520
High alloy steel	8, 9	250-350	160 - 330	200 - 390
Martensitic stainless steel	12	200	360 - 590	430 - 660
Austenitic stainless steel	14	200	300 - 520	330 - 590
Grey cast iron	15,16	180-220	360 - 590	390 - 660
Ductile cast iron	17,18	200-240	300 - 520	330 - 590
Aluminum alloy	21-24	60-130	330 - 1640	490 - 1970
Copper alloy	26-28	90-100	330 - 1310	330 - 1640

Feed (f) and Depth of Cut (a_p) 2xD

Tool Diameter (inch)	Machining Type	Cutting Conditions	
		a_p (inch)	f (IPR)
.118-.157	External Turning	.031 (.008-.098)	.0016 (.0004-.0031)
	Face Turning	.024 (.001-.067)	.0012 (.0004-.0024)
	Drilling	-	.0008 (.0004-.0024)
.197-.236	External Turning	.039 (.008-.118)	.0016 (.0004-.0031)
	Face Turning	.031 (.008-.098)	.0012 (.0004-.0024)
	Drilling	-	.0012 (.0004-.0031)
.276-.315	External Turning	.051 (.012-.138)	.0016 (.0004-.0031)
	Face Turning	.039 (.010-.012)	.0016 (.0004-.0028)
	Drilling	-	.0016 (.0004-.0039)

Feed (f) and Depth of Cut (a_p) 4xD

Tool Diameter (inch)	Machining Type	Cutting Conditions	
		a_p (inch)	f (IPR)
.118-.157	External Turning	.031 (.008-.098)	.0012 (.0004-.0028)
	Face Turning	.024 (.001-.067)	.0008 (.0004-.0016)
	Drilling	-	.0008 (.0004-.0020)
.197-.236	External Turning	.039 (.008-.118)	.0012 (.0004-.0028)
	Face Turning	.031 (.008-.098)	.0008 (.0004-.0016)
	Drilling	-	.0008 (.0004-.0024)
.276-.315	External Turning	.051 (.012-.138)	.0012 (.0004-.0028)
	Face Turning	.039 (.010-.012)	.0008 (.0004-.0016)
	Drilling	-	.0012 (.0004-.0031)