

Table - Recommended Machining Conditions for Fast Feed Endmills FFQ4 - MM

ISO	Material Group No.	Material	Condition	Hardness HB	Type of Insert	Depth of Cut (mm)	Cutting Speed v_c (m/min) Or Grades				Feed f_z (mm/tooth)		
							IC808	IC830	IC840	IC882			
P	1	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	T	0.2-0.7	150-220	140-210	-	-	0.4-1.0		
	2		\geq 0.25% C	annealed			130-210	120-200	-	-			
	3		<0.55% C	quenched and tempered			120-200	110-190	-	-			
	4		\geq 0.55% C	annealed			120-190	110-180	-	-			
	5			quenched and tempered			110-180	100-170	-	-			
	6	low alloy and cast steel (less than 5% of alloying elements)	annealed	200			120-190	110-180	-	-			
	7		quenched and tempered	275			110-180	100-170	-	-			
	8			300			115-170	100-160	-	-			
	9			350			110-170	100-160	-	-			
	10	high alloyed steel, cast steel and tool steel	annealed	200			120-170	110-160	-	-			
	11		quenched and tempered	325			100-150	90-140	-	-			
	12	stainless steel and cast steel	ferritic / martensitic	200			110-160	100-150	-	-			
	13		martensitic	240			100-150	90-135	-	-			
M	14	stainless steel and cast steel	austenitic, duplex	180	HP	0.2-0.7	-	-	90-160	90-160	0.4-0.9		
K	15	gray cast iron (GG)	ferritic / pearlitic	180	T	0.2-0.7	150-220	140-210	-	-	0.4-1.0		
	16		pearlitic / martensitic	260					-	-			
	17	nodular cast iron (GGG)	ferritic	160					120-200	120-190		-	-
	18		pearlitic	250					-	-			
	19	malleable cast iron	ferritic	130					130-210	115-200		-	-
20	pearlitic		230	-	-								
S	31	high temperature alloys	Fe based	annealed	HP	0.2-0.5	-	-	55-70	50-65	0.4-0.6		
	32		hardened	280			-	-	50-60	45-55			
	33	Ni or Co based	annealed	250			-	-	35-45	30-40	0.4-0.7		
	34		hardened	350			-	-	30-35	25-35			
	35		cast	320			-	-	25-35	25-35			
	36	titanium alloys	pure	190			-	-	60-70	50-60	0.4-0.6		
	37		alpha+beta alloys, hardened	310			-	-	35-50	35-45			
H	38	hardened steel	hardened	55 HRC	SOMW	0.2-0.5	60-80	-	-	-	0.3-0.4		
	39		hardened	60 HRC			40-50	-	-	-			
	40	chilled cast iron	cast	400			80-100	-	-	-			
	41	cast iron	hardened	55 HRC			40-60	-	-	-			

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous Metals
- Superalloys and Titanium
- Hard Materials