

# Recommended Cutting Speeds/Feeds

**Recommended Cutting Speeds for Dapra Square Shoulder Cutters**

		1018, 12L14, 1041, 1045	4140, 4150, 4340, H13, P20, A2, D2	4140, 4150, 4340, H13, P20, A2, D2 (40s RC)	4140, 4150, 4340, H13, P20, A2, D2	303, 304 LOW 400 SERIES	316, 347, PH STAINLESS	GRAY, MALLEABLE, DUCTILE	6061, 7075	AMPCO, WEARITE	INCONEL, WASPALOY, MONEL			
		LOW-TO-MEDIUM CARBON STEELS	TOOL STEELS, HIGH-ALLOY STEELS (SOFT)	TOOL STEELS, HIGH-ALLOY STEELS (MID-HARDNESS)	TOOL STEELS, HIGH-ALLOY STEELS (HARDENED)	FREE MACHINING STAINLESS	TOUGHER STAINLESS	CAST IRONS	ALUMINUM ALLOYS	COPPER ALLOYS	HIGH-TEMP. ALLOYS	TITANIUM	PLASTICS, NON-FERROUS	
LOWER TEMPS »	TOUGHEST Shock Resistance	DMP35	300-450	250-400		150-300	125-250	300-450		200-600	50-150 ROUGHING	100-150		
		DMP35-TCI	500-800	400-700	250-450		400-640	250-500	500-800		400-1200			
		DMP35-GLH	700-1000	500-900	250-450		480-880	300-800	600-1200			55-90 ROUGHING	120-180	
		DMP35-HM	770-1100	550-990	250-450		530-970	330-880	660-1320			55-120 ROUGHING	140-200	
	TOUGH Shock & Wear	DMK35					200-320	140-275				50-80	100-150	
		DMK35-HM					250-500 (wet) 600-750 (dry)	300-600		300-600	50-110	140-200		
		DMK35-IN					300-550 (wet) 600-750 (dry)	350-650			50-110	140-200		
	MEDIUM Shock Resistance	DMK30	400-700	300-600			200-320	140-275	350-550			50-75	100-150	
		DMK30-TCI	500-900	500-800			400-720	275-550	500-900					
		DMK30-GLH	700-1400	500-1000		200-600	480-960	330-880	500-1300			75-120	120-180	
		DMK30-HM	770-1540	550-1100		220-660	528-1056	363-968	550-1430			75-120	140-200	
	MEDIUM Shock & Wear	DMP30	400-700	300-600					350-550 DUCTILE					
DMP30-TCI		500-900	400-800	350-550				500-900 DUCTILE	200-500					
DMP30-GLH		700-1400	500-1000	350-550	200-600			500-1300 DUCTILE	200-500					
DMP30-HM			500-850	350-550	250-550			600-1000 DUCTILE						
HIGHER TEMPS «	HARDEST Wear Resistance	DMK25				250-400	125-250 FINISHING	350-600 GRAY	1500+	200-600	50-75 FINISHING	100-150	1000+	
		DMK25-TCI	500-900	400-800			500-900	250-500 FINISHING	600-900 GRAY		400-900		1000+	
		DMK25-GLH	700-1400	500-1000	350-550	250-600	600-1200	300-800 FINISHING	800-1300 GRAY		400-1200	50-100 FINISHING	120-180	1000+
		DMK25-HM		550-850	350-550	250-700	250-500 (wet) 600-750 (dry)	350-650 FINISHING	800-1200 GRAY		300-600	50-100 FINISHING	140-200	
		PCD								2000+				
1ST CHOICE GEOMETRY		XPET/APET	APET	APET	APET	XPET	XPET	APET	XPET-ALU	XPET	XPET	XPET	XPET-ALU	
REC'D FPT – 10MM		.003-.008	.003-.008	.003-.005	.003-.005	.003-.008	.003-.007	.003-.010	.003-.020	.003-.010	.003-.006	.002-.005	.003-.025	
REC'D FPT – 12MM		.004-.012	.004-.010	.004-.006	.003-.006	.003-.010	.003-.010	.004-.012	.003-.020	.003-.015	.003-.007	.002-.006	.003-.025	
REC'D FPT – 16MM		.006-.015	.006-.012	.004-.008	.003-.008	.005-.012	.004-.010	.006-.015	.003-.025	.003-.020	.003-.008	.003-.007	.003-.025	

- First choice grade shown in **bold text**.
- For heavy WOC and/or DOC, use the lower end of the FPT range.
- For light WOC and DOC, the higher end of the FPT range may be possible.

The parameters provided are suggested operating parameters. Actual speeds and feeds will depend on many variables, such as rigidity, workpiece hardness, tool extension, machine accuracy, Depth of Cut, etc. Start at the middle of the SFM range and the low end of the IPT range. Next, increase IPT to optimize productivity and tool life. Higher SFM will provide higher output but will reduce tool life. Try different combinations to find the parameters that best suit your needs.