



YEAR OF UPDATE: 2019



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OSG GROUP COMPANY

SOLID CARBIDE VARICUT END MILL



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**VariCut** Speeds and Feeds

Parameters based on ideal conditions. Adjust parameter accordingly to real applications.

Material Type	Hardness HB	Recommended Surface Speed In m/min	Recommended feed For Slotting reduce by 10% -20% Diameter in mm										
			5	6	8	10	12	16	20	25			
* Recommended ○ Suitable	Free Cutting Steel Structural Steel Plain Carbon Steel Alloy Steel Alloy Steel - Hardened Alloy Steel - Hardened Alloy Steel - Hardened	120	0.027-0.045	0.033-0.055	0.045-0.075	0.054-0.090	0.062-0.103	0.076-0.126	0.086-0.143	0.093-0.155			
		200	0.027-0.045	0.033-0.055	0.045-0.075	0.054-0.090	0.062-0.103	0.076-0.126	0.086-0.143	0.093-0.155			
		250	0.027-0.045	0.033-0.055	0.045-0.075	0.054-0.090	0.062-0.103	0.076-0.126	0.086-0.143	0.093-0.155			
		350	0.027-0.045	0.033-0.055	0.045-0.075	0.054-0.090	0.062-0.103	0.076-0.126	0.086-0.143	0.093-0.155			
		49-55 HRC	0.027-0.045	0.033-0.055	0.045-0.075	0.054-0.090	0.062-0.103	0.076-0.126	0.086-0.143	0.093-0.155			
		Free machining Stainless Steel	250	0.023-0.038	0.027-0.045	0.037-0.061	0.044-0.074	0.050-0.084	0.062-0.104	0.071-0.118	0.077-0.128		
		Austenitic Stainless Steel	320	0.023-0.038	0.027-0.045	0.037-0.061	0.044-0.074	0.050-0.084	0.062-0.104	0.071-0.118	0.077-0.128		
		Ferritic and Martensitic Stainless Steel	300	0.016-0.026	0.019-0.031	0.026-0.043	0.031-0.051	0.035-0.059	0.044-0.073	0.049-0.081	0.053-0.089		
		Precipitation Hardened Stainless Steel	320-410	0.016-0.026	0.019-0.031	0.026-0.043	0.031-0.051	0.035-0.059	0.044-0.073	0.049-0.081	0.053-0.089		
		Lamellar Graphite Cast Iron	150	0.027-0.045	0.033-0.055	0.045-0.075	0.054-0.090	0.062-0.103	0.076-0.126	0.086-0.143	0.093-0.155		
Nodular Graphite, Malleable Cast Iron	150-300	0.023-0.038	0.027-0.045	0.037-0.061	0.044-0.074	0.050-0.084	0.062-0.104	0.071-0.118	0.077-0.128				
Nodular Graphite, Malleable Cast Iron	200-300	0.018-0.030	0.023-0.038	0.031-0.051	0.037-0.061	0.042-0.070	0.042-0.070	0.052-0.086	0.058-0.096				
Titanium unalloyed	200	0.016-0.026	0.019-0.031	0.026-0.043	0.031-0.051	0.035-0.059	0.044-0.073	0.049-0.081	0.053-0.089				
Titanium alloyed	270	0.016-0.026	0.019-0.031	0.026-0.043	0.031-0.051	0.035-0.059	0.044-0.073	0.049-0.081	0.053-0.089				
Titanium alloyed	270-350	0.016-0.026	0.019-0.031	0.026-0.043	0.031-0.051	0.035-0.059	0.044-0.073	0.049-0.081	0.053-0.089				
Nickel unalloyed	150	0.023-0.038	0.027-0.045	0.037-0.061	0.044-0.074	0.050-0.084	0.062-0.104	0.071-0.118	0.077-0.128				
Nickel alloyed	270	0.023-0.038	0.027-0.045	0.037-0.061	0.044-0.074	0.050-0.084	0.062-0.104	0.071-0.118	0.077-0.128				
Nickel alloyed	270-350	0.013-0.021	0.015-0.025	0.021-0.035	0.025-0.041	0.029-0.048	0.035-0.059	0.040-0.066	0.044-0.073				
Copper	100	0.038-0.063	0.053-0.088	0.063-0.088	0.066-0.100	0.066-0.100	0.066-0.113	0.075-0.125	0.075-0.125				
Beta Brass, Bronze	200	0.038-0.063	0.053-0.088	0.063-0.088	0.066-0.100	0.066-0.100	0.066-0.113	0.075-0.125	0.075-0.125				
Alpha Brass	200	0.038-0.063	0.053-0.088	0.063-0.088	0.066-0.100	0.066-0.100	0.066-0.113	0.075-0.125	0.075-0.125				
High strength Bronze	470	0.019-0.031	0.026-0.044	0.026-0.044	0.030-0.050	0.030-0.050	0.034-0.056	0.038-0.063	0.038-0.063				
Aluminium Magnesium unalloyed	100	0.038-0.063	0.075-0.125	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250				
Aluminium Alloy < 5% Si	150	0.038-0.063	0.075-0.125	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250				
Aluminium Alloy 5 to 10% Si	120	0.038-0.063	0.075-0.125	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250				
Aluminium Alloy > 10% Si	110	0.038-0.063	0.075-0.125	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250	0.150-0.250				
Duroplastics (short chipping)	250	0.014-0.023	0.017-0.028	0.023-0.038	0.027-0.045	0.033-0.055	0.044-0.073	0.055-0.091	0.066-0.113				
Thermoplastics (long chipping)	250	0.014-0.023	0.017-0.028	0.023-0.038	0.027-0.045	0.033-0.055	0.044-0.073	0.055-0.091	0.066-0.113				
Fibre reinforced synthetic materials	100	0.014-0.023	0.017-0.028	0.023-0.038	0.027-0.045	0.033-0.055	0.044-0.073	0.055-0.091	0.066-0.113				

