



### Speeds & Feeds - PCD Indexable Inserts

These are considered safe starting parameters and will vary by application. To achieve optimal Speeds & Feeds please contact Micro 100 tech support at 800-421-8065.

Material		SFM	Chip Load (Finishing)	Chip Load (Roughing)
ALUMINUM ALLOY	0% - 5% Silicon (2xx, 3xx, 4xx, 5xx, 7xx, 8xx, A3xx, A4xx, B4xx, C3xx, 1xxx, 2xxx, 3xxx, 5xxx, 6xxx, 7xxx, 8xxx)	1200-2400	.001-.004	.005-.012
	5%-8% Silicon (3xx, A3xx, C3xx, 4xx, A4xx, B4xx, 4xxx)	1200-2400		
	8%-12% Silicon (3xx, A3xx, C3xx, 4xx, A4xx, B4xx, 4xxx)	1000-2000		
	12%-16% Silicon (3xx, A3xx, C3xx, 4xx, A4xx, B4xx)	700-1400		
ZINC ALLOYS		1200-2400	.001-.004	.004-.008
COPPER ALLOY	High Coppers - 90%+ (C1xxxx) Phosphor Bronzes (Copper Tin alloys, C5xxxx) Copper Nickels, Nickel Silvers (Copper Nickel alloys, C7xxxx)	400-2270	.002-.004	.005-.010
	Brass (Copper Zinc alloys, C2xxxx, C3xxxx, C4xxxx, C66400-C69800) Aluminum Bronzes (Copper Aluminum alloys, C60600-C64200) Silicon Bronzes (Copper Silicon alloys, C64700-C66100) Cast Copper Alloys (C83300-C86200, C86400-C87900, C92200-C95800, C97300-C97800, C99400-C99700)	600-2870		
PLASTICS	Unfilled Plastics	600-2500	.001-.004	.005-.018
	5% - 20% Filled or Fiber Reinforced	450-900		
	20% - 40% Filled or Fiber Reinforced	300-600		
GRAPHITE	POCO 3	500-1000	.001-.004	.004-.012
GREEN CARBIDE & GREEN CERAMICS (Unsintered)		100-400	.001-.002	.002-.006
CERAMICS SINTERED		50-230	.001-.002	.002-.006

- For recommended maximum depth of cut information please access the "PCD Inserts Max Depth of Cut" document



PCD Indexable Inserts

Max Recommended Depth Of Cut for Turning Operations

Recommendations for facing operations multiply " Max DOC 0°Lead" column by .10

Table with 10 columns: Standard Tip Flat Top PCD Inserts, Flat Top Part Number, Max DOC 0° Lead\*, Max DOC 3° Lead, Max DOC 5° Lead, Max DOC 10° Lead, Max DOC 15° Lead, Max DOC 17.5° Lead, Max DOC 30° Lead, Max DOC 32.5° Lead. Rows include various insert types like CCGW, CPGW, DCGW, TCGW, TPGN, VBGW, and VCGW with their respective part numbers and DOC values.



PCD Indexable Inserts

Max Recommended Depth Of Cut for Turning Operations

Recommendations for facing operations multiply " Max DOC 0°Lead" column by .10

Standard Tip with Laser Finishing Chip Breaker- PCD	Laser Finishing Chipbeaker Part Number	0° degree Lead CL*	3° degree Lead CL	5° degree Lead CL	10° degree Lead CL	15° degree Lead CL	17.5° degree Lead CL	30° degree Lead CL	32.5° degree Lead CL
CCGT 21.51	MI-71-9927	0.086	0.086	0.086	0.085	0.083	0.082	0.075	0.073
CCGT 21.52	MI-71-0898	0.086	0.086	0.086	0.085	0.083	0.082	0.075	0.073
CCGT 32.51	MI-71-4571	0.116	0.115	0.115	0.114	0.112	0.110	0.100	0.097
CCGT 32.52	MI-71-3396	0.113	0.113	0.113	0.112	0.109	0.108	0.098	0.096
DCGT 21.51	MI-71-0393	0.088	0.088	0.087	0.086	0.085	0.084	0.076	0.074
DCGT 21.52	MI-71-5154	0.094	0.094	0.093	0.092	0.091	0.089	0.081	0.079
DCGT 32.51	MI-71-1758	0.152	0.152	0.152	0.150	0.147	0.145	0.132	0.128
DCGT 32.52	MI-71-9631	0.141	0.141	0.140	0.139	0.136	0.134	0.122	0.119
TCGT 21.50.5	MI-71-9549	0.111	0.111	0.111	0.109	0.107	0.106	0.096	0.094
TCGT 21.51	MI-71-5008	0.107	0.107	0.107	0.106	0.104	0.102	0.093	0.090
TCGT 32.51	MI-71-8598	0.166	0.166	0.165	0.163	0.160	0.158	0.144	0.140
TCGT 32.52	MI-71-4675	0.157	0.157	0.156	0.154	0.151	0.149	0.136	0.132
VCGT 220.2	MI-71-5531	0.112	0.112	0.111	0.110	0.108	0.107	0.097	0.094
VCGT 220.5	MI-71-7371	0.110	0.109	0.109	0.108	0.106	0.104	0.095	0.092
VCGT 221	MI-71-0379	0.096	0.096	0.096	0.095	0.093	0.092	0.083	0.081
VCGT 330.2	MI-71-2646	0.155	0.154	0.154	0.152	0.149	0.147	0.134	0.130
VCGT 330.5	MI-71-5753	0.148	0.148	0.147	0.146	0.143	0.141	0.128	0.125
VCGT 331	MI-71-3844	0.135	0.135	0.134	0.133	0.130	0.129	0.117	0.114