

CP Composite Cutting Data Recommendations

APPLICATION	GOOD	BETTER	BEST
Carbon Fiber Reinforced Plastic (CFRP)-Finishing	N/A	66-700	68-000
Carbon Fiber Reinforced Plastic (CFRP)-Semi Finishing	66-900	66-775	68-200
Carbon Fiber Reinforced Plastic (CFRP)-Roughing	66-900	66-500	68-300
Glass Fiber Reinforced Plastic (GFRP)-Finishing	54-200	66-700	68-000
Glass Fiber Reinforced Plastic (GFRP)-Semi Finishing	54-200	66-775	68-200
Glass Fiber Reinforced Plastic (GFRP)-Roughing	66-900	66-500	68-300
Phenolic-Finishing	67-200	54-200	68-000
Phenolic-Semi Finishing	67-200	67-255	67-220
Phenolic-Roughing	67-200	66-500	68-200
Kevlar-Finishing	N/A	N/A	68-000
Speciality-Edge Finish		66-800	
Speciality-Contouring		68-400	

DEPTH OF CUT:

- 1 x D Use recommended chip load
- 2 x D Reduce chip load by 25%
- 3 x D Reduce chip load by 50%

Recommended Chip Load per Tooth by Cutting Diameter (in)																							
Series	Cut	1/16	3/32	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1	1 1/8	1 1/4	1 1/2	1 3/4	2	
54-200	1 x D			.002-.004		.002-.004		.002-.004		.003-.006		.005-.010											
56-000P	1 x D			.002-.004		.002-.004		.004-.006		.004-.006		.004-.006											
56-450	1 x D					.002-.005		.003-.005	.003-.006	.004-.006		.005-.007											
57-000	1 x D			.003-.005		.003-.005		.004-.006		.006-.008		.010-.012											
63-000	1 x D			.003-.005		.003-.005		.003-.005	.004-.006			.005-.007											
66-500	See page 127 for technical data																						
66-700	See page 127 for technical data																						
66-750	See page 127 for technical data																						
66-775	See page 127 for technical data																						
66-800	See page 127 for technical data																						
66-900	1 x D			.002-.004		.002-.004		.004-.006		.004-.006		.006-.008											
67-000	1 x D							.004-.006		.004-.006		.004-.006											
67-200	1 x D									.002-.010		.002-.010											
67-220*	1 x D									.001-.002		.001-.002											
67-250	1 x D			.002-.004				.004-.006		.004-.006													
67-400	1 x D			.002-.004				.004-.006		.004-.006		.004-.006											
67-500	1 x D			.001-.003		.001-.003		.002-.004	.002-.004	.003-.005		.004-.006											
68-000*	See page 128 for technical data																						
68-200*	See page 129 for technical data																						
68-300*	See page 129 for technical data																						
68-400	See page 129 for technical data																						

NOTE: *Spindle RPM's generally range from 12,000-16,000 for PCD tools when cutting composite materials.

Consider 66-500, 66-900, 67-000, 67-250, 67-500 series tools as a single flute in speed & feed rate calculations.

FORMULAS: Chip Load = Feed Rate / (RPM x # of cutting edges)
 Feed Rate (IPM) = RPM x # of cutting edges x chip load
 Speed (RPM) = Feed Rate / (# of cutting edges x chip load)

DEFINITIONS: IPM = Inches Per Minute

RECOMMENDED STARTING	
DIA	RPM
1/8-3/16	10,000-12,000
1/4	8,000-10,000
3/8	6,000-8,000
1/2	4,000-6,000