

CP

66-500/66-700/66-750 66-775/66-800 Series Cutting Data Recommendations

ISO Grade	Material	Application	Recommended Starting Parameters										
			Rad DOC	Axial DOC	SFM Range	Chip Load Per Tooth							
						SFM Starting 1/8	1/8	SFM Starting 1/4	1/4	SFM Starting 3/8	3/8	SFM Starting 1/2	1/2
66-500 DFC Multi Flute													
O	CFRP	Full Slotting	1 x DIA	.50 x DIA	450/1600	450	0.0015	850	0.0026	1200	0.0035	1600	0.0045
		Heavy Profile	.33 x DIA	1.25 x DIA		450	0.0022	850	0.0035	1200	0.0045	1600	0.0055
		HEM* Profile	.15 x DIA	2 x DIA		450	0.0030	850	0.0050	1200	0.0060	1600	0.0065
		Finishing	.05 x DIA	2 x DIA		450	0.0025	850	0.0035	1200	0.0045	1600	0.0550
	GFRP	Full Slotting	1 x DIA	.50 x DIA	275/1000	275	0.0020	500	0.0030	750	0.0040	1000	0.0050
		Heavy Profile	.33 x DIA	1.25 x DIA		275	0.0030	500	0.0035	750	0.0055	1000	0.0065
		HEM* Profile	.15 x DIA	2 x DIA		275	0.0045	500	0.0052	750	0.0080	1000	0.0095
		Finishing	.05 x DIA	2 x DIA		275	0.0035	500	0.0045	750	0.0062	1000	0.0068
	Phenolic	Full Slotting	1 x DIA	.50 x DIA	325/1400	325	0.0015	700	0.0026	1000	0.0035	1400	0.0045
		Heavy Profile	.33 x DIA	1.25 x DIA		325	0.0022	700	0.0035	1000	0.0045	1400	0.0055
		HEM* Profile	.15 x DIA	2 x DIA		325	0.0030	700	0.0050	1000	0.0060	1400	0.0065
		Finishing	.05 x DIA	2 x DIA		325	0.0025	700	0.0035	1000	0.0045	1400	0.0550
66-700 DFC Low-Helix Finisher Upcut													
O	CFRP	Finishing	.05 x DIA	2 x DIA	450/1000	-	-	1000	0.0008	1000	0.0010	1000	0.0015
	GFRP	Finishing	.05 x DIA	2 x DIA	450/1000	-	-	450	0.0015	450	0.0020	450	0.0030
	Phenolic	Finishing	.05 x DIA	2 x DIA	450/1000	-	-	650	0.0011	650	0.0023	650	0.0025
66-750 DFC Low-Helix Cutter													
O	CFRP	Full Slotting	1 x DIA	.5 x DIA	500/1600	-	-	850	0.001	1200	0.001	1600	0.0008
		Heavy Profile	.33 x DIA	1.25 x DIA		-	-	850	0.001	1200	0.001	1600	0.0012
		HEM* Profile	.15 x DIA	2 x DIA		-	-	850	0.001	1200	0.001	1600	0.0016
		Finishing	.05 x DIA	2 x DIA		-	-	850	0.001	1200	0.001	1600	0.0014
	GFRP	Full Slotting	1 x DIA	.5 x DIA	500/1500	-	-	500	0.001	750	0.002	1000	0.0018
		Heavy Profile	.33 x DIA	1.25 x DIA		-	-	500	0.001	750	0.002	1000	0.0022
		HEM* Profile	.15 x DIA	2 x DIA		-	-	500	0.002	750	0.002	1000	0.0026
		Finishing	.05 x DIA	2 x DIA		-	-	500	0.002	750	0.002	1000	0.0024
	Phenolic	Full Slotting	1 x DIA	.5 x DIA	500/1200	-	-	700	0.001	1000	0.001	1400	0.0008
		Heavy Profile	.33 x DIA	1.25 x DIA		-	-	700	0.001	1000	0.001	1400	0.0012
		HEM* Profile	.15 x DIA	2 x DIA		-	-	700	0.001	1000	0.001	1400	0.0016
		Finishing	.05 x DIA	2 x DIA		-	-	700	0.001	1000	0.001	1400	0.0014
66-775 DFC Low-Helix Rougher-Finisher-Upcut													
O	CFRP	Full Slotting	1 x DIA	1 x DIA	500/2000	-	-	850	0.0005	1200	0.0006	1600	0.00080
		Heavy Profile	.33 x DIA	1.25 x DIA		-	-	850	0.0008	1200	0.0010	1600	0.00120
		HEM* Profile	.15 x DIA	2 x DIA		-	-	850	0.0013	1200	0.0014	1600	0.00160
		Finishing	.06 x DIA	2 x DIA		-	-	850	0.0011	1200	0.0012	1600	0.00140
	GFRP	Full Slotting	1 x DIA	1 x DIA	500/2000	-	-	500	0.0010	750	0.0015	1000	0.00180
		Heavy Profile	.33 x DIA	1.25 x DIA		-	-	500	0.0014	750	0.0019	1000	0.00220
		HEM* Profile	.15 x DIA	2 x DIA		-	-	500	0.0019	750	0.0023	1000	0.00260
		Finishing	.06 x DIA	2 x DIA		-	-	500	0.0015	750	0.0016	1000	0.00240
	Phenolic	Full Slotting	1 x DIA	1 x DIA	300/2000	-	-	700	0.0005	1000	0.0006	1400	0.00080
		Heavy Profile	.33 x DIA	1.25 x DIA		-	-	700	0.0008	1000	0.0010	1400	0.00120
		HEM* Profile	.15 x DIA	2 x DIA		-	-	700	0.0013	1000	0.0014	1400	0.00160
		Finishing	.06 x DIA	2 x DIA		-	-	700	0.0011	1000	0.0012	1400	0.00140
66-800 DFC Compression													
O	CFRP	Full Slotting	1 x DIA	1 x DIA	500/1600	-	-	850	0.0008	1200	0.0010	1600	0.0012
		Heavy Profile	.33 x DIA	1.25 x DIA		-	-	850	0.0010	1200	0.0012	1600	0.0014
		HEM* Profile	.15 x DIA	2 x DIA		-	-	850	0.0015	1200	0.0016	1600	0.0018
		Finishing	.06 x DIA	2 x DIA		-	-	850	0.0014	1200	0.0013	1600	0.0015

PCD Cutting Data Recommendations

ISO Grade	Material	Application	Recommended Starting Parameters										
			Rad DOC	Axial DOC	SFM Range	SFM Starting	Chip Load Per Tooth						
							1/8	1/4	3/8	1/2	5/8	3/4	1
67-220-PCD Progressive Chipbreakers													
O	CFRP	Full Slotting	1 X DIA	.5 x DIA	750/1250	800	-	-	0.0010	0.0015	-	-	-
		Heavy Profile	.33 x DIA	1 x DIA		800	-	-	0.0015	0.0020	-	-	-
		HEM* Profile	.15 x DIA	1 x DIA		900	-	-	0.0020	0.0030	-	-	-
		Finishing	.05 x DIA	1 x DIA		1100	-	-	0.0020	0.0030	-	-	-
	GFRP	Full Slotting	1 X DIA	.5 X DIA	500/750	500	-	-	0.0010	0.0015	-	-	-
		Heavy Profile	.33 x DIA	.75 x DIA		500	-	-	0.0015	0.0025	-	-	-
		HEM* Profile	.15 x DIA	1 x DIA		600	-	-	0.0020	0.0030	-	-	-
		Finishing	.05 x DIA	1 x DIA		700	-	-	0.0020	0.0030	-	-	-
	Phenolic	Full Slotting	1 X DIA	.5 x DIA	750/1500	800	-	-	0.0010	0.0015	-	-	-
		Heavy Profile	.33 x DIA	1 x DIA		800	-	-	0.0015	0.0025	-	-	-
		HEM* Profile	.15 x DIA	1 x DIA		900	-	-	0.0020	0.0030	-	-	-
		Finishing	.05 x DIA	1 x DIA		1100	-	-	0.0020	0.0030	-	-	-

ISO Grade	Material	Application	Recommended Starting Parameters										
			Rad DOC	Axial DOC	SFM Range	SFM Starting	Chip Load Per Tooth						
							1/8	1/4	3/8	1/2	5/8	3/4	1
68-000 PCD Tipped Tools													
O	CFRP	Full Slotting	1 X DIA	.5 x DIA	500/1000	800	-	0.0010	0.0015	0.0020	-	0.0030	-
		Heavy Profile	.33 x DIA	1 x DIA		800	-	0.0015	0.0020	0.0025	-	0.0035	-
		HEM* Profile	.15 x DIA	1 x DIA		800	-	0.0020	0.0025	0.0030	-	0.0040	-
		Finishing	.05 x DIA	1 x DIA		800	-	0.0010	0.0020	0.0030	-	0.0040	-
	GFRP	Full Slotting	1 X DIA	.5 x DIA	375/625	400	-	0.0010	0.0015	0.0020	-	0.0030	-
		Heavy Profile	.33 x DIA	1 x DIA		400	-	0.0015	0.0020	0.0025	-	0.0035	-
		HEM* Profile	.15 x DIA	1 x DIA		400	-	0.0020	0.0025	0.0030	-	0.0040	-
		Finishing	.05 x DIA	1 x DIA		400	-	0.0010	0.0020	0.0030	-	0.0040	-
	Phenolic	Full Slotting	1 X DIA	.5 x DIA	500/1000	500	-	0.0010	0.0015	0.0020	-	0.0030	-
		Heavy Profile	.33 x DIA	1 x DIA		500	-	0.0015	0.0020	0.0030	-	0.0040	-
		HEM* Profile	.15 x DIA	1 x DIA		600	-	0.0015	0.0020	0.0030	-	0.0040	-
		Finishing	.05 x DIA	1 x DIA		800	-	0.0020	0.0030	0.0040	-	0.0040	-

ISO Grade	Material	Application	Recommended Starting Parameters										
			Rad DOC	Axial DOC	SFM Range	SFM Starting	Chip Load Per Tooth						
							1/8	1/4	3/8	1/2	5/8	3/4	1
68-200-PCD SERF Cutter													
O	CFRP	Full Slotting	1 x DIA	1 x DIA	750/1250	800	-	0.0010	0.0015	0.0020	-	-	-
		Heavy Profile	.33 x DIA	1 x DIA		1000	-	0.0020	0.0030	0.0040	-	-	-
		HEM* Profile	.15 x DIA	1.5 x DIA		1000	-	0.0030	0.0040	0.0050	-	-	-
	GFRP	Full Slotting	1 x DIA	.5 x DIA	500/750	500	-	0.0010	0.0015	0.0020	-	-	-
		Heavy Profile	.33 x DIA	.75 x DIA		600	-	0.0020	0.0030	0.0040	-	-	-
		HEM* Profile	.15 x DIA	1 x DIA		600	-	0.0020	0.0030	0.0040	-	-	-
	Phenolic	Full Slotting	1 x DIA	1 x DIA	750/1500	800	-	0.0010	0.0015	0.0020	-	-	-
		Heavy Profile	.33 x DIA	1 x DIA		1000	-	0.0020	0.0030	0.0040	-	-	-
		HEM* Profile	.15 x DIA	1.5 x DIA		1200	-	0.0020	0.0030	0.0040	-	-	-

PCD

PCD Cutting Data Recommendations

ISO Grade	Material	Application	Recommended Starting Parameters										
			Rad DOC	Axial DOC	SFM Range	SFM Starting	Chip Load Per Tooth						
							1/8	1/4	3/8	1/2	5/8	3/4	1
68-300-PCD SERFIN Cutter													
O	CFRP	Full Slotting	1 x DIA	.5 x DIA	750/1250	800	-	-	0.0015	0.0020		0.0025	-
		Heavy Profile	.33 x DIA	1 x DIA		1000	-	-	0.0020	0.0025		0.0035	-
		HEM* Profile	.15 x DIA	1 x DIA		1000	-	-	0.0030	0.0030		0.0040	-
		Finishing	.05 x DIA	1 x DIA		1000	-	-	0.0020	0.0025		0.0035	-
	GFRP	Full Slotting	1 x DIA	.5 x DIA	500/750	500	-	-	0.0015	0.0020		0.0030	-
		Heavy Profile	.33 x DIA	.5 x DIA		500	-	-	0.0020	0.0030		0.0040	-
		HEM* Profile	.15 x DIA	1 x DIA		500	-	-	0.0020	0.0030		0.0040	-
		Finishing	.05 x DIA	1 x DIA		600	-	-	0.0020	0.0030		0.0040	-
	Phenolic	Full Slotting	1 x DIA	.5 x DIA	750/1500	800	-	-	0.0010	0.0020		0.0020	-
		Heavy Profile	.33 x DIA	1 x DIA		1000	-	-	0.0020	0.0030		0.0040	-
		HEM* Profile	.15 x DIA	1 x DIA		1200	-	-	0.0020	0.0030		0.0040	-
		Finishing	.05 x DIA	1 x DIA		1200	-	-	0.0020	0.0030		0.0040	-

ISO Grade	Material	Application	Recommended Starting Parameters										
			Rad DOC	Axial DOC	SFM Range	SFM Starting	Chip Load Per Tooth						
							1/8	1/4	3/8	1/2	5/8	3/4	1
68-400-PCD Ballnose													
O	CFRP	Heavy Profile	.25 - .5 x DIA	.5 x DIA	750/1000	800	-	0.0005	0.0010	0.0015	0.0017	0.0020	-
		-	-	-		-	-	-	-	-	-	-	
		Finishing	.05 x DIA	.05 x DIA		900	-	0.0020	0.0030	0.0035	0.0040	0.0045	-
	GFRP	Heavy Profile	.25 - .5 x DIA	.5 x DIA	350/600	375	-	0.0010	0.0020	0.0030	0.0035	0.0040	-
		-	-	-		-	-	-	-	-	-		
		Finishing	.05 x DIA	.05 x DIA		500	-	0.0020	0.0030	0.0040	0.0045	0.0050	-
	Phenolic	Heavy Profile	.25 - .5 x DIA	.5 x DIA	500/750	600	-	0.0010	0.0020	0.0030	0.0035	0.0040	-
		-	-	-		-	-	-	-	-	-		
		Finishing	.05 x DIA	.05 x DIA		700	-	0.0020	0.0030	0.0040	0.0045	0.0050	-

RPM

(3.82 x SFM) / tool diameter

SFM

RPM x .262 x tool diameter

FEED RATE (in / min)

chipload x # flutes x RPM

Feed / Tooth (in)

Feed Rate / (RPM x # Flutes)