

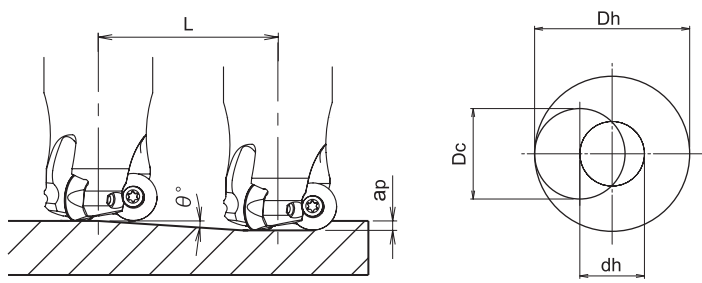


TDM Blade-Chipper

INCH

METRIC

Recommended Cutting Data for Profile Milling



• Calculation of tool pass dia.

$$\text{Tool pass dia. } \varnothing D_c = \varnothing D_h - I$$
 Bore dia. Tool Dia.

- Down cutting is recommended, tool pass rotation should be counterclockwise.
- Depth of cut per one circuit should not exceed max. depth of cut Ap.
- In case of ramping and helical interpolation, apply 70% or less feed (F) from standard cutting condition table.

	CATALOG NUMBER	Tool Diameter (I) Insert Diameter	Effective Cutting Diameter	Max. Depth of Cut: AP	Ramping		Helical Interpolation	
					Max. Ramp Angle	Total Cutting Length at Max. AP: L	Min. Bore Diameter: Dh min	Max. Bore Diameter: Dh max
INCH	MTD-3100*/TDM-3100*	1" w/10mm dia.	.610	.079	2°	2.255	1.69	1.92
	MTD-2100*/TDM-2100*	1" w/12mm dia.	.528	.079	1.5°	.294	1.61	1.92
	MTD-4125*/TDM-4125*	1-1/4" w/10mm dia.	.856	.079	3°	1.502	2.19	2.42
	MTD-3125*/TDM-3125*	1-1/4" w/12mm dia.	.778	.079	1.5°	3.007	2.11	2.42
	MTD-5150*/TDM-5150*	1-1/2" w/10mm dia.	1.11	.079	4°	1.126	2.69	2.92
	MTD-4150*/TDM-4150*	1-1/2" w/12mm dia.	1.03	.079	4°	1.126	2.61	2.92
	TDM-5200R-12-075	2" w/12mm dia.	1.53	.126	3°	2.404	3.61	3.92
	TDM-6250R-12-100	2-1/2" w/12mm dia.	2.03	.126	3°	2.404	4.61	4.92
	TDM-7300R-12-100	3" w/12mm dia.	2.53	.126	3°	2.404	5.61	5.92
	TDM-9400-12-125	4" w/12mm dia.	3.53	.126	2°	3.608	7.61	7.92
METRIC	MTD-3025*/TDM-3025*	25mm w/10mm dia.	15	2	2°	58	43	48
	MTD-4032*/TDM-4032*	32mm w/10mm dia.	22	2	3°	39	57	62
	TDM-5040R-10-16	40mm w/10mm dia.	30	2	3.5°	33	73	78
	TDM-5042R-10-16	42mm w/10mm dia.	32	2	3°	39	77	82
	TDM-5050-12R-22	50mm w/12mm dia.	38	3.2	3°	62	91	98
	TDM-5052-12R-22	52mm w/12mm dia.	40	3.2	3°	62	95	102



INCH

METRIC

TDM Blade-Chipper

Recommended Cutting Data for TDM Cutters

Material	Grade	Insert	SFM	INSERT SIZE				WOC
				10mm		12mm		
				IPT	DOC	IPT	DOC	
Stainless Steel (Martensitic)	JC7560P	MM MH	400	.020"	.020"	.020"	.040"	60%
				.012"	.060"	.010"	.080"	
				.008"	.100"	.005"	.120"	
Stainless Steel (Austenitic)	JC7560P	MM MH	300	.020"	.020"	.020"	.040"	60%
				.012"	.060"	.010"	.080"	
				.006"	.100"	.005"	.120"	
Carbon Steel	JC7560P	MH MM	600	.030"	.020"	.030"	.040"	70%
				.020"	.060"	.015"	.080"	
				.010"	.100"	.008"	.120"	
Low Alloy Steel	JC7560P	MH MM	550	.030"	.020"	.020"	.040"	70%
				.015"	.060"	.010"	.080"	
				.008"	.100"	.005"	.120"	
Mold Steel	JC7560P	MH MM	500	.025"	.020"	.020"	.040"	70%
				.015"	.060"	.012"	.080"	
				.008"	.100"	.008"	.120"	
Titanium	JC7550	ML MM	200	.015"	.020"	.012"	.040"	60%
				.010"	.060"	.008"	.080"	
				.005"	.100"	.005"	.120"	
Inconel	JC7550	ML MM	100	.015"	.020"	.010"	.040"	40%
				.010"	.060"	.008"	.080"	
				.005"	.100"	.005"	.120"	

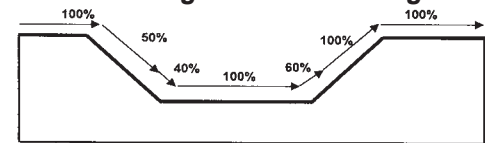
- NOTE:** 1. These parameters are for stable machining with steel bodies at lengths 4XD. See table below for longer applications.
 2. RPM = 3.82 x SFM / Dia.
 3. IPM = RPM x IPT x # of flutes (or teeth)

Additional Cutting Data For Longer Tools

Reach/Dia.	~4.0	4.0~4.5	4.5~5.3	5.3~5.7	5.7~6.2	6.3~
rpm %	100	90	80	80	75	70
Feed %	100	90	90	80	75	70

NOTE: The above percentages should be applied, according to tool ratio.

Reduced Cutting Data For Cutting Pattern



NOTE: Feed should be reduced when cutting the above pattern