

SUGGESTED OPERATING PARAMETERS

DISC SPEEDS

Diameter	80 Grit	120 Grit	180 Grit	320 Grit
50mm	6500	6250	4000	3500
60mm	5500	5000	4000	2750
80mm	4500	4250	3500	2500
100mm	1850	1800	1750	1700
125mm	1600	1550	1500	1450
150mm	1350	1300	1250	1200

The speeds listed in the table above are a guide to be used in establishing the optimum operating RPM. Many factors affect optimum RPM including the brush diameter, trim length, filament diameter, fill pattern, cut depth and if the brush is being run dry or with fluid. The maximum RPM marked on the brush may not be the optimum working speed. It is recommended to stay under 2,500 SFPM in dry applications and 3,500 SFPM in wet applications. A 150mm diameter brush running at 1400 RPM is much more effective than one running at 2800 RPM. Excessive speed, especially with longer trim length, causes the filament to flair and bounces off the work piece. Coarse grit filaments can spin faster than fine grit filaments without flaring. Turbine style fill can spin faster than dot style without flaring. Filaments used with coolant can spin faster than dry applications without overheating and smearing. Typically, higher spindle speeds improve the finish and lower speeds enhance deburring.

BRUSH DEPTH

BRUSH STYLE	CUT DEPTH
Dot Style	.015 - .150
Turbine Style	.004 - .093

Cut depth should be set up to 10% penetration of the available trim length on the finer filament grits (180, 320) and up to 5% penetration on coarser grit filaments (80, 120). Dot Style brushes can be set for a deeper penetration than Turbine Style brushes. Spindle speed is usually decreased with increased depth of interference so the filaments can conform smoothly to part contours.

FEED RATE

MATERIAL	FEED RATE
Non-Ferrous	80 in./min.
Cast Iron	60 in./min.
Mild Steel and Ductile Iron	50 in./min.
Stainless and Alloy Steels	30 in./min.
Titanium and High Nickel Alloys	30 in./min.

Feed rate is affected by many factors including burr size, work piece material, surface contours and finish requirements. Contoured surfaces are processed at slower speeds and greater depth of interference than flat surfaces. Starting feed rates between 30ipm and 80ipm are recommended but the final feed rate is application specific and must be developed through deburring trial.