

TROUBLE SHOOTING WHEN MILLING

Problem	Cause	Remedy
Breakage	Too high stock removal	Decrease feed per tooth
	Feed too fast	Slow down feed
	Flute length or overall length too long	Hold shank deeper, use shorter end mill
Wear	Workpiece material too hard	Check Dormer Catalogue / Selector for correct tool with higher grade material and/or proper coating
	Improper feed and speed	Check Dormer Catalogue / Selector for correct cutting parameters
	Poor chip evacuation	Reposition coolant lines
	Conventional milling	Climb milling
	Improper cutter helix	See recommendation in Dormer Catalogue / Selector for correct tool alternative
Chipping	Feed rate too high	Reduce feed rate
	Chattering	Reduce the RPM
	Low cutting speed	Increase the RPM
	Conventional milling	Climb milling
	Tool rigidity	Choose a shorter tool and/or place shank further up holder
	Workpiece rigidity	Hold workpiece tightly
Short Tool Life	Tough work material	Check Dormer Catalogue / Selector for correct tool alternative
	Improper cutting angle and primary relief	Change to correct cutting angle
	Cutter/workpiece friction	Use coated tool
Bad Surface finish	Feed too fast	Slow down to correct speed
	Speed too slow	Increase the speed
	Chip biting	Decrease stock removal
	Tool wear	Replace or regrind the tool
	Edge build up	Change to higher helix tool
Workpiece inaccuracy	Chip welding	Increase coolant quantity
	Tool deflection	Choose a shorter tool and/or place shank further up holder
	Insufficient number of flutes	Use a tool with more flutes
	Loose/worn tool holder	Repair or replace it
	Poor tool holder rigidity	Replace with shorter/more rigid tool holder
Chattering	Poor spindle rigidity	Use larger spindle
	Feed and speed too high	Correct feed and speed with the help of the Dormer Catalogue / Selector
	Flute or overall length too long	Hold shank deeper and use shorter end mill
	Cutting too deep	Decrease depth of cut
	Not enough rigidity (machine and holder)	Check the tool holder and change it if necessary
	Workpiece rigidity	Hold workpiece tightly