

**Boring & Profiling Tools Troubleshooting**

<b>Problems</b>	<b>Causes</b>	<b>Solutions</b>
Built Up Edge	Cutting Forces	Check (IPR) for excessive feed rate
	Heat	Use coolant or air blast and a coated tool
	Tool	Use a coated tool
Corner Breaking	Cutting Conditions	Check for excessive speed and feed and depth of cut
	Part	Check the entry hole size
	Tool	Select a tool with a corner radius.
Chatter	Boring Bar	Select the largest bar possible
	Setup	Position the tool above center. Reduce the overhang ratio. Clamping length should be 3x the boring bar diameter. Change the speed to break up harmonics and reduce chatter.
Rough Finish	Built up Edge	See Solution for Built Up Edge.
	Cutting Conditions	Check (IPR) for excessive feed rate
Excessive Flank Wear	Cutting Conditions	Check for excessive speed and feed
	Part	Make sure workhardening did not occur from prior operation
	Tool	Use a coated tool
Smaller Taper in Back	Chip Packing	Boring Bar may be too large which will not allow chips to evacuate. This causes the bar to deflect away from bore.
	Program	If taper is consistent, change program to compensate for the taper
Larger Taper in Back	Built Up Edge	A built up edge will cause the hole to become larger until the edge breaks off then the hole will become smaller.
	Cutting Forces	Reduce Forces. Deflecting bar below center causes the hole to become larger.
	Program	If taper is consistent, change program to compensate for the taper