

GUNDRILL PROBLEM SOLVING

Tool Faults

Hole Faults

Possible Cause	Tool Faults										Hole Faults							
	Outside Point Wear	Wear Pad Erosion	Built Up Edge	Cratering	Margin Wear	Flank Wear	Poor Tool Life	Tool Pick Up	Tool Chipping	Tool Breakage	Poor Finish	Hole Run-out	Tight Exit	Bell Mouthed	Banana Shaped	Out of Round	Under-sized	Over-sized
Bushing																		
Clamping unsuitable																		
Oversized				●											●	●		
Undersized														●				
Workpiece not against bushing							●									●		
Coolant																		
Incorrect grade		●	●	●	●			●			●							
Insufficient flow						●		●		●								
Loss of pressure										●	●		●				●	
Overheating							●	●										
High pressure																		●
Low pressure							●	●										
Feed																		
Erratic							●		●	●								
Excessive			●	●		●	●			●	●	●		●	●			
Insufficient									●									
Material																		
Grain structure	●		●				●		●	●						●		
Heat treatment faults	●		●				●		●	●								
Overheating and closing In											●					●	●	
Thin wall section																●		
Misalignment		●			●		●			●		●						●
Poor Braze										●								
Rough Grind On Cutting Edges							●			●								
Spindle																		
Speed high	●						●				●							
Speed low			●	●								●						
Tight Hole					●					●	●							
Tool																		
Built up edge											●							
Chip control inadequate										●	●	●		●	●			
Insufficient clearance						●						●		●				
Incorrect contour (profile)							●	●		●	●							●
Excessive inside angle pressure														●				●
Excessive outside angle pressure													●				●	
Incorrect geometry	●						●											
Heel drag												●			●			
Overworked (need regrind)					●					●								
Whip										●		●		●	●	●		●
Vibration									●		●							
Mechanical											●							
Oil											●							
Wear Pad Cutting								●				●						●