TECHNICAL - SOLID CARBIDE DRILLS

TROUBLE SHOOTING GUIDE

Problem	Solution
Wear on Outer Corners	• Reduce cutting speed • Increase feed (IPR) • Improve direction of coolant flow • Increase coolant pressure • Add corner break
Chipping of Chisel Edge	• Check accuracy of drill runout • Check workpiece clamping accuracy and movement • Check point centrality and lip height • Increase feed rate
Chipping of Cutting Lips	• Check accuracy of drill runout • Check workpiece clamping accuracy and movement • Reduce speed • Reduce point clearance • Increase hone
Cracking of Lands	• Check movement of workpiece • Increase back taper • Check accuracy of drill runout • Chip packing; increase flute form opening or peck drill • Slow down helix, horizontal drilling • Increase feed • When spot drilling, reduce feed • Improve direction of coolant flow • Increase coolant pressure
Oversize Hole	• Increase speed, reduce feed • Check workpiece clamping accuracy and movement • Check accuracy of drill runout • Chip packing, increase flute form opening or peck drill • Check point centrality and lip height
Undersize Hole	• Improve direction of coolant flow • Reduce cutting speed, increase feed • Check drill diameter
Hole Not Round	• Check accuracy of drill runout • Check workpiece clamping accuracy and movement • Check point centrality and lip height • Chip packing, increase flute form opening or peck drill
Drill Breakage	• Chip packing, increase flute form opening or peck drill • Check workpiece clamping accuracy and movement • Check accuracy of drill runout • Reduce feed rate, increase feed rate • Improve direction of coolant flow • Increase coolant pressure