



TECHNICAL - SOLID CARBIDE DRILLS

TROUBLE SHOOTING GUIDE

Problem

Wear on Outer Corners

Solution

- 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