

Troubleshooting

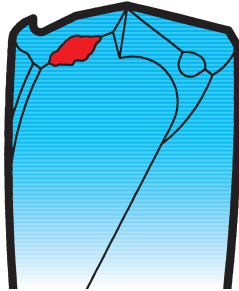
Cutting edge build-up

Cause:

- Low cutting speed
- Excessive honing of cutting lip
- Bright finish cutting lip

Remedy:

- Increase cutting speed
- Reduce cutting lip honing
- Have tool coated



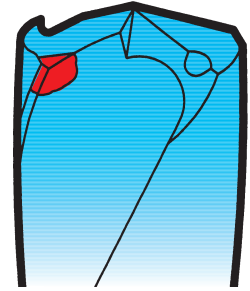
Crumbling of outer corners

Cause:

- Non-rigid conditions, insufficient workpiece clamping
- Excessive deviation from concentricity
- Interrupted cut

Remedy:

- Rigid clamping of workpiece
- Check and correct concentricity if possible
- Reduce feed



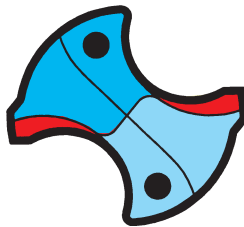
Heavy wear and tear at flank

Cause:

- Cutting speed too high
- Feed too low
- Clearance angle too small

Remedy:

- Decrease cutting speed
- Increase feed
- Increase clearance angle



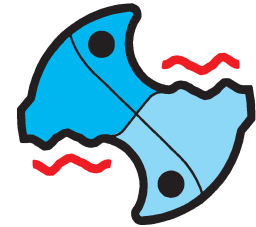
Crumbling on cutting lips

Cause:

- Non-rigid conditions, insufficient workpiece clamping
- Interrupted cut
- Maximum wear and tear values have been exceeded
- Wrong tool type

Remedy:

- Rigid clamping of workpiece
- Reduce feed
- Reduce tool change intervals
- Apply suitable tool (see application recommendations)



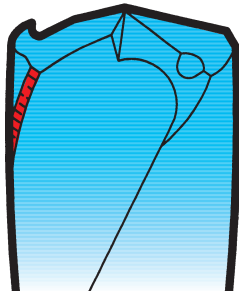
Land wear

Cause:

- Non-rigid conditions, insufficient workpiece clamping
- Large deviation from concentricity
- Back taper too small
- Wrong coolant/lubrication (oil), soluble oil too thin

Remedy:

- Rigid clamping of workpiece
- Check and correct concentricity if possible
- Increase back taper
- Thicken soluble oil or use neat oil



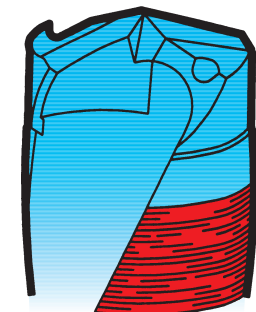
Scoring on tool body

Cause:

- Non-rigid conditions, insufficient workpiece clamping
- Large deviation from concentricity
- Interrupted cut
- Abrasive workpiece material

Remedy:

- Rigid clamping of workpiece
- Check and correct concentricity if possible
- Reduce feed
- Thicken soluble oil or use neat oil



Troubleshooting

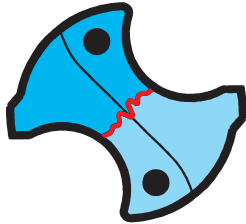
Heavy chisel edge wear and tear

Cause:

- Cutting speed too low
- Feed too high
- Excessive honing of cutting lip

Remedy:

- Increase cutting speed
- Decrease feed
- Reduce cutting lip honing



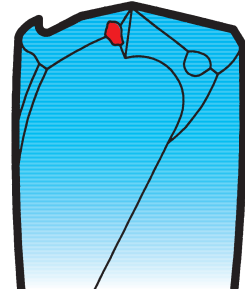
Crumbling at intersection of web thinning and cutting lip

Cause:

- Clearance angle too small
- Excessive honing of cutting lip
- Wrong tool type

Remedy:

- Increase clearance angle
- Reduce cutting lip honing
- Apply suitable tool



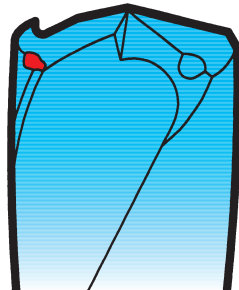
Plastic deformation of outer corner

Cause:

- Cutting speed too high
- Incorrect or no honing at corner
- Incorrect or no corner chamfer

Remedy:

- Decrease cutting speed
- Correct honing
- Apply correct corner chamfer



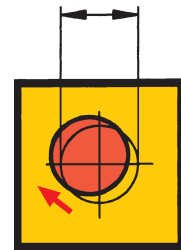
Misalignment, axis shifting

Cause:

- Non-rigid conditions, insufficient workpiece clamping
- Excessive deviation from concentricity
- Spotting area transverse
- Chisel edge too large

Remedy:

- Rigid clamping of workpiece
- Check and correct concentricity, if possible
- Use twin-fluted milling cutter for spotting
- Reduce chisel edge



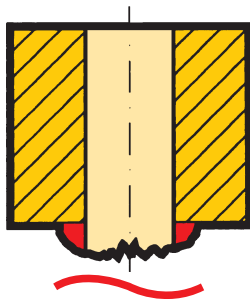
Heavy burring on breakthrough

Cause:

- Feed too high
- Maximum wear and tear values have been exceeded
- Excessive honing of cutting lip

Remedy:

- Decrease feed
- Reduce tool change intervals
- Reduce cutting lip honing



Unsatisfactory surface quality

Cause:

- Non-rigid conditions, insufficient workpiece clamping
- Excessive deviation from concentricity
- Insufficient coolant

Remedy:

- Rigid clamping of workpiece
- Check and correct concentricity, if possible
- Increase coolant (volume, pressure)

