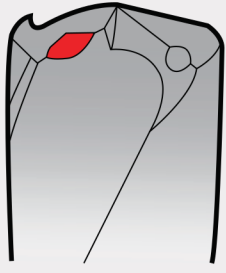
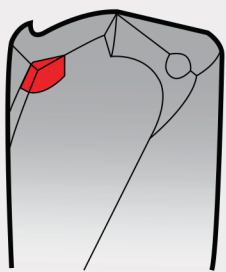
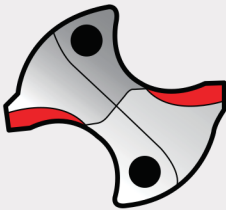
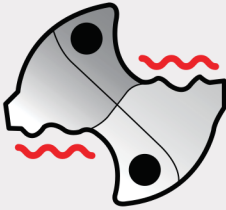
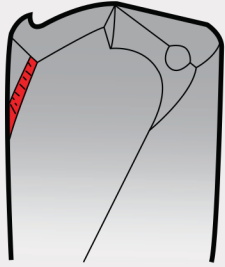
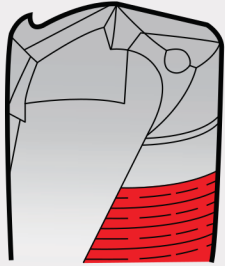
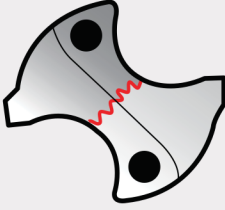
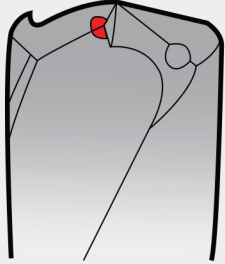


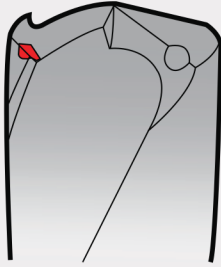
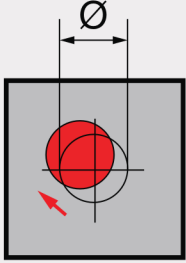
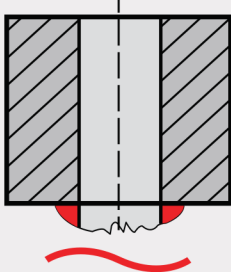
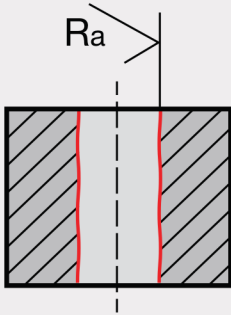
# Application/Troubleshooting

Problem	Cause	Remedy
<p><b>1. Cutting edge build up</b></p> 	<ul style="list-style-type: none"> <li>■ low cutting speed</li> <li>■ excessive honing of cutting lip</li> <li>■ bright finish cutting lip</li> </ul>	<ul style="list-style-type: none"> <li>■ increase cutting speed</li> <li>■ reduce cutting lip honing</li> <li>■ have tool coated</li> </ul>
<p><b>2. Crumbling of outer corners</b></p> 	<ul style="list-style-type: none"> <li>■ non rigid conditions, insufficient workpiece clamping</li> <li>■ deviation from concentricity too large</li> <li>■ interrupted cut</li> </ul>	<ul style="list-style-type: none"> <li>■ rigid clamping of workpiece</li> <li>■ check and correct concentricity if possible</li> <li>■ reduce feed</li> </ul>
<p><b>3. Heavy wear at flank</b></p> 	<ul style="list-style-type: none"> <li>■ cutting speed too high</li> <li>■ feed too low</li> <li>■ clearance angle too small</li> </ul>	<ul style="list-style-type: none"> <li>■ reduce cutting speed</li> <li>■ increase feed</li> <li>■ increase clearance angle</li> </ul>
<p><b>4. Crumbling on cutting lips</b></p> 	<ul style="list-style-type: none"> <li>■ non rigid conditions, insufficient workpiece clamping</li> <li>■ interrupted cut</li> <li>■ max. wear values exceeded</li> <li>■ incorrect tool type</li> </ul>	<ul style="list-style-type: none"> <li>■ rigid clamping of workpiece</li> <li>■ reduce feed</li> <li>■ reduce tool change intervals</li> <li>■ apply suitable tool)</li> </ul>

## Application/Troubleshooting

Problem	Cause	Remedy
<p><b>5. Land wear</b></p> 	<ul style="list-style-type: none"> <li>■ non rigid conditions, insufficient workpiece clamping</li> <li>■ deviation from concentricity too large</li> <li>■ back taper too small</li> <li>■ incorrect coolant (oil), coolant too weak</li> </ul>	<ul style="list-style-type: none"> <li>■ rigid clamping of workpiece</li> <li>■ check and correct concentricity if possible</li> <li>■ reduce tool change intervals</li> <li>■ increase strength of coolant or use neat oil</li> </ul>
<p><b>6. Scoring on tool body</b></p> 	<ul style="list-style-type: none"> <li>■ non rigid conditions, insufficient workpiece clamping</li> <li>■ deviation from concentricity too large</li> <li>■ interrupted cut</li> <li>■ abrasive workpiece material</li> </ul>	<ul style="list-style-type: none"> <li>■ rigid clamping of workpiece</li> <li>■ check and correct concentricity if possible</li> <li>■ increase back taper</li> <li>■ increase strength of coolant or use neat oil</li> </ul>
<p><b>7. Heavy chisel edge wear</b></p> 	<ul style="list-style-type: none"> <li>■ cutting speed too low</li> <li>■ feed too high</li> <li>■ excessive honing of cutting lip</li> </ul>	<ul style="list-style-type: none"> <li>■ increase cutting speed</li> <li>■ reduce feed</li> <li>■ reduce cutting lip honing</li> </ul>
<p><b>8. Crumbling at intersection, web thinning and cutting lip</b></p> 	<ul style="list-style-type: none"> <li>■ clearance angle too small</li> <li>■ excessive honing of cutting lip</li> <li>■ incorrect tool type</li> </ul>	<ul style="list-style-type: none"> <li>■ increase clearance angle</li> <li>■ reduce cutting lip honing</li> <li>■ apply suitable tool</li> </ul>

# Application/Troubleshooting

Problem	Cause	Remedy
<p><b>9. Plastic deformation of outer corner</b></p> 	<ul style="list-style-type: none"> <li>■ cutting speed too high</li> <li>■ insufficient coolant volume</li> <li>■ incorrect or no honing at corner</li> </ul>	<ul style="list-style-type: none"> <li>■ reduce cutting speed</li> <li>■ increase volume/pressure</li> <li>■ correct honing</li> </ul>
<p><b>10. Misalignment</b></p> 	<ul style="list-style-type: none"> <li>■ non rigid conditions, insufficient workpiece clamping</li> <li>■ deviation from concentricity too large</li> <li>■ spotting area transverse</li> <li>■ chisel edge too large</li> </ul>	<ul style="list-style-type: none"> <li>■ rigid clamping of workpiece</li> <li>■ check and correct concentricity if possible</li> <li>■ use milling cutter (2-fluted) for spotting</li> <li>■ reduce chisel edge</li> </ul>
<p><b>11. Heavy burring on breakthrough</b></p> 	<ul style="list-style-type: none"> <li>■ feed too high</li> <li>■ max. wear values exceeded</li> <li>■ excessive honing of cutting lip</li> </ul>	<ul style="list-style-type: none"> <li>■ reduce feed</li> <li>■ reduce tool change intervals</li> <li>■ reduce cutting lip honing</li> </ul>
<p><b>12. Unsatisfactory surface quality</b></p> 	<ul style="list-style-type: none"> <li>■ non rigid conditions, insufficient workpiece clamping</li> <li>■ deviation from concentricity too large</li> <li>■ insufficient coolant volume</li> </ul>	<ul style="list-style-type: none"> <li>■ rigid clamping of workpiece</li> <li>■ check and correct concentricity if possible</li> <li>■ increase volume/pressure</li> </ul>