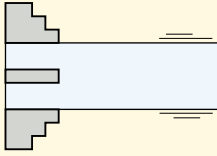


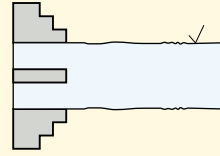
Turning - Troubleshooting

Vibrations



- Improve the stability of the tool and workpiece.
- Reduce the cutting speed.
- Increase the feed rate.
- Reduce the depth of cut.
- Select a freer cutting chipbreaker.
- Select a smaller nose radius.

Poor surface finish



- Reduce the feed rate.
- Increase the cutting speed.
- Use a coolant.
- Improve the stability of the tool and workpiece.
- Select a freer cutting chipbreaker.
- Increase the nose radius.

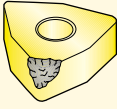
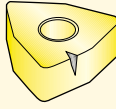
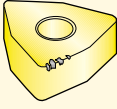
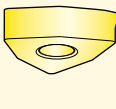
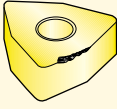
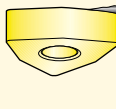
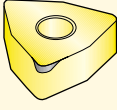
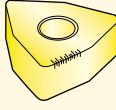
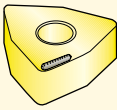
Turning - Troubleshooting

Tool life problems

Breakage or short tool life

Step 1. Reduce the cutting data (first feed rate, then cutting depth).

Step 2. Look at the wear pattern on the insert and use the table below as a guideline for improvement.

<p>Insert fracture</p> 	<ul style="list-style-type: none"> • Reduce the depth of cut. • Select a tougher grade. • Select a stronger chipbreaker. • Select a thicker insert. • Reduce the feed rate. 	<p>Notch wear</p> 	<ul style="list-style-type: none"> • Reduce the cutting speed. • Reduce the feed rate. • Increase the lead angle.
<p>Edge chipping</p> 	<ul style="list-style-type: none"> • Reduce the feed rate. • Select a stronger chipbreaker. • Select a tougher grade. • Minimize the vibrations. • Increase the cutting speed. 	<p>Plastic deformation</p> 	<ul style="list-style-type: none"> • Use a coolant. • Select a more wear-resistant grade. • Reduce the cutting speed. • Reduce the feed rate.
<p>Chip hammering</p> 	<ul style="list-style-type: none"> • Change the feed rate. • Change the depth of cut. • Use a toolholder with a different lead angle. • Re-direct the chips by selecting a different groove 	<p>Built-up edge</p> 	<ul style="list-style-type: none"> • Increase the cutting speed. • Select a freer cutting chipbreaker. • Increase the feed rate.
<p>Land wear</p> 	<ul style="list-style-type: none"> • Select a more wear-resistant grade. • Reduce the cutting speed. 	<p>Thermal cracking</p> 	<ul style="list-style-type: none"> • Use an abundant flow of coolant or shut off the coolant. • Reduce the cutting speed. • Reduce the feed rate.
<p>Crater wear</p> 	<ul style="list-style-type: none"> • Select a more wear-resistant grade. • Use a coolant. • Reduce the cutting speed. • Reduce the feed rate. 		