

## CONSIDERATIONS FOR GOOD WHEEL OPERATION

**Wheel speed** is very important to obtain the desired finish. An operator should not exceed the speed standards given by the American National Standards Institute's current safety requirement of maximum speeds. However, it is important to match the abrasive formula to your operational speeds. Specifications will perform differently at different speeds. You should occasionally speed test and torque test your grinder to ensure it is operating at desired levels. There are many factors that can adversely affect your grinder's capabilities.

**Run out** of the grinder is a problem that must be constantly monitored. Worn chucks and lack of properly maintained grinders can result in spindle failure, wheel breakage and unsafe conditions for operators.

**Dressing** your wheel or point is important to maintain the integrity of your wheel shape, cutting quality, and to minimize loading problems.

<b><u>TROUBLESHOOTING</u></b>		
<b><u>Problem</u></b>	<b><u>Possible Cause</u></b>	<b><u>Correction</u></b>
<b>Wheel Loading or Glazing</b>	Wheel too hard Wheel too fine Insufficient Pressure Excessive RPM	Downgrade one level softer Use coarser grit Increase pressure up to max safe level Reduce RPM
<b>Burning Work-piece</b>	Wheel too hard Wrong wheel selected Low coolant flow Work-piece speed too slow Stock removal too fast	Downgrade one level softer Choose heat-sensitive abrasive & bond Increase coolant flow Increase Work-piece speed Decrease stock removal per pass
<b>Chatter</b>	Wheel too hard Wheel out of balance Machine or grinder vibration	Downgrade one level softer Balance wheel or dress mounted point Check machine bearings or grinder collet
<b>Scratching Work-piece</b>	Wheel too hard Wheel too coarse	Downgrade one level softer Use finer grit
<b>Improper Stock Removal</b>	Too little, wheel too soft Too much, wheel too hard Short wheel life Grinder out of balance	Upgrade one level harder Downgrade one level softer Choose less friable grain Repair Grinder or replace collet

For more information, see our other handouts:

- Mounted Points
- Grinding Wheels
- Segments
- And a wide variety of other specialty item handouts



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