



Mill Dull Surface Troubleshooting

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Excessive Tool Wear

If your tool has excessive wear, the cutting edge becomes blunt and the lubricity properties of the coating will be gone. The blunt cutting edge and loss of lubricity can lead to a dull surface finish.

Inspect your tool and replace it if necessary.

It is normal for tools to wear over time. In a stable machining process, the tool wear is predictable. This lets you use the Tool Life Management systems that come standard in your Haas control. You can add tool life information to the Haas control, to alert the machine operator to replace the tool before the dull tool negatively affects your machining process.

Refer to the Tool Life Management section for details on how to use these systems.

The Spindle Speed is Too Low

If the RPM is too low the tool will rub and tear the material leaving a dull or cloudy surface finish. Increase the spindle speed. Refer to the tooling manufacturer's instructions for guidance as to the best speeds and feeds to use for the tooling and workpiece material. Test-run your application and use spindle speed and feed overrides to find a speed/feed combination that enhanced the surface finish.

The Cutting Tool is Not Correct for the Application

Cutting tools are designed to cut specific materials. If the tool geometry or coating is not appropriate for the material being cut this can have a negative effect on tool life and surface finishes.

Corrective Action:

Consult with the cutting tool manufacturer for help with selecting the appropriate tool for your workpiece material.

Coolant Issues

Incorrectly aimed coolant nozzles or obstructions in the stream can prevent coolant from reaching the cutting area. Adjust your coolant nozzles to deliver coolant to the cutting area.

Be sure to use the recommended coolant mixture concentration in your applications. If your concentration is too lean, the reduced lubricity can negatively affect your tool life and surface finish.

There are many different coolants for different applications and materials. Contact your coolant dealer for advice.

Refer to the [Machine Tool Coolant Series](#) page for videos and articles about maintaining your coolant system.