INTRODUCTION

Consider the overall job when you have a problem with dull surface finishes.

**Program**
Toolpath Type
- Feeds and Speeds (Chip Load)
- Width of Cut • Depth of Cut

**Tool Selection**
- Length • Width • Flutes • Geometry

**Coolant**
- Concentration • Type • Delivery

**Program**
Incorrect cutting parameters (feed rate, depth of cut, width of cut, and cutting speed) can cause the surface of the part to appear dull. The most common error with the cut parameters when you get a dull surface finish is low RPM. Check with your tooling manufacturer for the recommended cutting parameters for your material.
Tool Selection

Cutting tools are designed to cut specific material types. Make sure that the tool geometry, coating, and carbide grade are correct for the material you are cutting. Change tools if necessary.

Coolant

Poor coolant delivery leads to a dull surface finish. Check the coolant tank level, adjust coolant nozzles, and, if possible, use Through Spindle Coolant (TSC).

Low coolant concentration can cause a dull surface finish. Inspect the coolant concentration with a refractometer and add coolant if needed.

Change the coolant if it is not ideal for the workpiece material.