

## How to Handle Common Tool Life, Coolant-Related Challenges

Coolant plays an essential role in the success of your operation, so following best practices is key to maximizing productivity and minimizing waste. Understanding how coolant interacts with cutting tools can help reduce tool costs and improve surface finish. Proper coolant selection and maintenance plays a major role in any machining environment. Before you panic about any potential loss of tool life, it's important to consider coolant's impact on your operation. By following coolant best practices, your team can easily improve the life of your cutting tools.

### Key Tips for Preventing Coolant-Related Tool Life Issues

Follow these steps to see how you can best utilize coolant to improve tool life.

#### ● KEEP AN EYE OUT FOR EARLY WARNING SIGNS

If your team notices an increase in coolant and tool expenses or poor surface finish, you may have coolant issues impacting tool life.

##### Pro tip:

Check if concentrations and pH are within the recommended range for your machine, material, and operation.

#### ● MANAGE COOLANT CONCENTRATION AND CLEANLINESS

Proper [coolant maintenance](#) is critical to maximize tool life. Keep concentrations in the recommended ranges, and ensure coolant is free of tramp oils, fines, and other contaminants. Clean and healthy coolant allows for the best possible tool life and surface finishes.

#### ● IDENTIFY THE RIGHT COOLANT FOR YOUR NEEDS

Have your operations, machines, or materials changed in the last few years? Work closely with your coolant supplier on your specific operation. Carefully selecting a high-performance coolant can optimize your tool life, improve productivity, and reduce potential downtime. Some metalworking fluids have a wide application and material range, such as [TRIM® MicroSol® 692XT](#) and [TRIM MicroSol 685XT](#), while other coolants like [TRIM C290](#) are used for more specific applications.

#### ● LEARN WHAT COOLANT FACTORS IMPACT TOOL LIFE

Metalworking fluids provide both lubricity and cooling to improve tool life and part quality. Slow speed, heavy duty operations may need a different coolant than high speed operations. Materials also play an important role and need to be considered. Understanding the effects of coolant selection, and its interaction with cutting tools will help maximize your tool life.

#### ● STAY IN CONTACT WITH YOUR COOLANT SUPPLIER

Keeping close contact with your coolant supplier will ensure you're running the latest technology and best quality coolant for your machining.

##### Pro tip:

As your technology advances, your coolant should as well. Your coolant supplier will have the best insights on how to keep your tools running smoothly.

#### ● PERFORM A COOLANT AUDIT

Contacting your coolant supplier for an audit or consultation will help identify problem areas in your coolant use. By following their recommendations, you can prevent or even reverse many common tool life issues.



### Is your coolant negatively affecting your operation's tool life?

Call the Master Fluid Solutions technical support team at +1 800-537-3365 or email us at [info@masterfluids.com](mailto:info@masterfluids.com) to find out and get insight into improving your coolant performance.