



## Enhance the Productivity of your *Machine Shop* with our *Coolant Management Solutions*

In today's advanced manufacturing landscape, **proactive coolant management isn't just a good practice — it's a competitive advantage.** Inadequate coolant control results in premature tool wear, inconsistent surface finishes, unscheduled downtime, and escalating waste management costs. That's why leading manufacturers across the globe are embracing **intelligent, data-driven coolant solutions** to optimise performance, ensure process consistency, and reduce total operating costs.

**MAKoolGuard** is our end-to-end coolant management system, engineered to bring **precision, cleanliness, and efficiency** to every stage of your metalworking operations — empowering your shop floor with the same reliability and innovation trusted by global industry leaders.



**MAK**<sup>®</sup> LUBRICANT SOLUTIONS

**MAK**<sup>®</sup> makes it possible.



## Why Coolant Management Matters

Water-soluble metalworking fluids are vital to machining, but their performance declines without proper monitoring. With **MAKoolGuard**, you benefit from:



Extended Tool and Coolant Life



Improved Surface Finish and Dimensional Accuracy



Lower Downtime and Maintenance Costs



Safer, Cleaner, and More Compliant Work Environments



Reduced Coolant Waste and Disposal Liabilities



## What MAKoolGuard Delivers



### Initial Assessment & System Setup

- **Coolant Type Selection:** Soluble, Semi-synthetic, or Synthetic, based on materials, machining intensity, and water quality.
- **System Audit:** Understand machine condition, sump design, filtration, and historical issues.
- **Set Coolant Parameters:** Determine optimal coolant concentration, pH, etc.



### Routine Monitoring and On-Site Testing

- **Coolant Concentration Testing:** Measure the concentration of the coolant to ensure it is within the optimal range.
- **Contamination Monitoring:** Regularly check for contaminants such as dirt, metal particles, oil, or biological growth.
- **pH Level Testing:** Ensure the coolant's pH is maintained within the recommended range.
- **Microbial Growth Monitoring:** Test for the presence of bacteria or fungi that can cause the coolant to spoil.



### Corrective and Preventive Actions

- Concentration adjustment if the coolant concentration is too low or too high
- Periodic cleaning of filters to remove particles and contaminants
- pH boosters and Biocide Treatment as required
- Remove tramp oil using skimmers or separators.
- Periodically top up the coolant system to ensure proper levels
- Coolant replacement, when it becomes too contaminated or when it no longer meets performance standards.



### Documentation, Diagnostics & Reporting

- **Log Monitoring Data:** Maintain records of coolant tests, concentrations, adjustments, and maintenance activities to track the condition over time.
- **Analyse Trends:** Review historical data to identify patterns of coolant deterioration or contamination and suggestion on improving the maintenance strategy accordingly.
- **Report to Stakeholders:** Provide regular updates on coolant health, performance, and actions taken to management



### Continuous Improvement & Training

- **Optimise Coolant Usage:** Continuously analyse coolant performance and make adjustments to reduce waste and maximise coolant life.
- **Staff Training:** Train maintenance teams on best practices for coolant management, ensuring they understand how to properly monitor and maintain the coolant system.
- Recommendation of equipment upgrades for automatic mixing, filtration, and waste recovery.

### Ready to Transform Your Coolant Strategy? Partner with MAK Lubricants.

Let **MAKoolGuard** take your productivity, precision, and profitability to the next level.



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**MAK** makes it possible.