

CASE STUDY: Minimizing Bacteria Growth in Coolants Saves Manufacturer \$50,000 Annually

A world-class manufacturer of cutting tools for the metalworking industry serving the needs of automotive, aerospace, agriculture, and infrastructure manufacturers was forced to dump their machining coolant sumps every two weeks due to bacteria build up.

The bacteria that had built up was reducing coolant lubricity during the machining process and was potentially jeopardizing finished tool quality. Bacteria in the coolant can lead to rust issues and cause the emulsion to separate, reducing its lubricating ability. To maintain quality control, the manufacturer was forced to fresh charge its coolant every other week. That's an expensive and timely endeavor to continually purchase new coolant, shutdown the manufacturing line, and re-charge the system.



Solution

Frustrated with its original supplier's inability to fix the problem, the manufacturer called Brighton Labs to investigate the bacteria problem and propose a solution. Brighton Labs sent its team to the site to gather samples to analyze them back in the lab. The series of tests conducted back at Brighton Labs indicated a positive bacteria outcome.

Based on the company's coolant specifications, the type of tooling being used, the parts being made and the substrate that was used, Brighton Labs was able to recommend a solution that would provide maximum lubrication and minimize bacteria build up.

Results

The company was able to save \$50,000 in the first year alone on coolant, tooling savings and shut down costs.

Instead of using 275 gallons of coolant per month, this world-class manufacturer of cutting tools for the metalworking industry was able to maintain and budget for 45 gallons per month. Instead of purchasing 3,300 gallons annually, they were able to cut back to 550 gallons per year.

