

METALWORKING FLUID UPGRADE BOOSTS CLEANLINESS AND COST EFFICIENCY

ISSUE:

BT Lerson, a UK-based precision engineering and fabrication company, operates across multiple sectors including aerospace, medical, defence, food, and construction. The company prides itself on precision, reliability, and maintaining high standards in both performance and environmental responsibility. While their American-manufactured semi-synthetic soluble cutting fluid did not present any immediate issues, BT Lerson was open to exploring improvements—particularly if they could be demonstrated to deliver measurable gains in cleanliness, operator health and safety, and overall operational efficiency.

SOLUTION:

Certas Lubricant Solutions proposed the implementation of Brunel XF753, a cutting-edge metalworking fluid incorporating a unique synthesised base package derived from natural gas. The formulation was designed to deliver high performance while aligning with the latest environmental and safety regulations.

A trial was agreed upon for a minimum period of 12 months using a multi-axis DMG Mori machining centre. The application covered a wide range of machining processes including milling, drilling, tapping, and reaming across multiple material types such as carbon steel, alloy steel, stainless steel, and aluminium.

Throughout the trial, Certas Industrial Application Specialists provided hands-on support, regularly visiting the site to monitor the product's performance and ensure optimal application conditions. Their proactive involvement helped identify potential areas for operational improvement and maximised the benefits of the new fluid.

RESULTS:

The results of the long-term trial were compelling. Bacterial analysis conducted throughout the period consistently reported zero presence of microorganisms, confirming Brunel XF753's exceptional biological stability. This stability translated into significantly longer sump life, contributing to reduced waste disposal requirements and minimised production downtime.

Operators reported that machine screens and work areas remained noticeably cleaner, with virtually no accumulation of sticky residues—an issue that had previously led to extra cleaning time and potential health concerns. The improved cleanliness directly contributed to greater operator satisfaction and a more pleasant working environment.

Additionally, the package from Certas Lubricant Solutions, which included not only the fluid itself but also equipment such as Freddy Micro units and Wogaard Coolant Savers, proved to be more cost-effective than the previous supplier's offering. These savings, combined with the fluid's superior performance, positioned Brunel XF753 as a highly attractive long-term solution.

WHAT OUR CUSTOMER SAYS:

“ Trials proved this product to be more resilient to hard water. The machines are cleaner, with next to no sticky residue. Our operators prefer this product, which, with its biological stability, is also better for them from a HSE position. Regular visits to site have proved valuable to ensure the product is performing effectively and economically. ”

Andy Moodie, Works Director

