



**A nuclear components manufacturer produces a wide range of products, including microelectronic hardware, radiation monitoring systems and integrated instrumentation diagnostic systems. The production facilities include everything needed for the full production cycle, from machine processing and printed circuit board production to surface mounting, assembling, welding and testing. Its primary metalworking applications are milling, drilling and turning of aluminium alloys and heat-resistant steel alloys, across approximately 100 CNC machines.**

### THE CHALLENGE

The advanced nature of the nuclear components from the manufacturer's metalworking applications means tight tolerance specifications. However, its existing coolant exhibited poor washing properties, which led to flaws in the finished product. The product also experienced short sump life and high fluid consumption, which slowed down production.

### THE SOLUTION

The nuclear components manufacturer agreed to a trial of TRIM® MicroSol® 515 for its metalworking applications. This coolant is a medium to high lubrication, semi-synthetic microemulsion coolant. TRIM MicroSol 515 is ideal for working with mixed metals and aluminium alloys and its translucent emulsion characteristics reduce carry-off to lower costs.

### THE RESULTS

The trial period of TRIM MicroSol 515 has been running for two years. In that time, the nuclear components manufacturer has doubled its sump life. Additionally, metalworking fluid consumption has been reduced by approximately **30%** and the cost savings overall total **15%**.

Buoyed by the success of this trial, the nuclear components manufacturer plans to convert all its machines to TRIM MicroSol 515.

The high quality of TRIM MicroSol 515, combined with Master Fluid Solutions' reputation and commitment to its customers, has encouraged the company to expand its product usage. Tests of a neat grinding oil and ultrasonic cleaning fluid are underway.

### THE NUMBERS

- **Doubled sump life**
- **30% reduction in fluid consumption**
- **15% overall cost savings**