

# CASE STUDY

## MOVING YOUR WORLD



## Enhanced sustainability in precision machining

**Application:** ECOCOOOL GLOBAL 1500  
**Location:** United Kingdom

### Customer

A precision machining company who operates in diverse sectors such as Oil & Gas, Energy, Rail, and Motorsport. Their work involves machining components from materials such as Inconel, Titanium, Aluminium, and copper-based alloys. Each job presents unique challenges where both client and customer prioritize environmentally conscious supply chain.

### Challenge

The client faced pressure from customers to provide environmentally sustainable solutions however, their previous attempts with synthetic cutting fluids led to undesirable outcomes. These included poor tool-life performance, sticky deposits, and fluid discoloration, causing concerns for operators resulting in high coolant usage.

Despite these challenges, the client often had to revert to traditional mineral oil-based cutting fluids.

### Solution

To address these issues, the client adopted ECOCOOOL GLOBAL 1500 cutting fluid which offers various benefits. It does not contain any mineral oils, making it an eco-friendly choice. Designed specifically for machining exotic alloys and steels, which meets the demands of the client's diverse material portfolio. The solution extended beyond cutting fluid - The client also incorporated the FUCHS PLANTO range for machine tools' hydraulic and slideway lubricants. These products were packaged in FUCHS' innovative 100% recyclable packaging, the FUCHS Lube Cube.

### Results

The adoption of ECOCOOOL GLOBAL 1500 yielded significant benefits. Its unique chemistry and carefully selected raw materials delivered high-performance tool life & surface finish. The customer was able to achieve tighter tolerances particularly on smaller components. Due to precise concentration control, the client no longer needed to adjust the product concentration excessively when machining challenging materials. This resulted in reduced foaming issues and contributed towards far cleaner machining areas. By embracing FUCHS sustainable cutting fluid solutions, the client not only met environmental goals but also enhanced their operational efficiency and customer satisfaction.

### Advantages

Mineral oil free

Improved tool life

Improved surface finish

Improved machine cleanliness

Reduced foaming

Reduced concentration

Reduced consumption

Consistent concentration

Sustainable option

Cost savings

