

# REDUCED COST, WATER AND COOLANT FOR LARGE MANUFACTURER OF CAST IRON AUTOMOTIVE PARTS



Certas Lubricant Solutions partnered with a large manufacturer of cast iron automotive parts to conduct a trial showcasing the benefits of using Castrol products. The trial demonstrated significant reductions in water consumption, coolant usage, and associated costs, aligning with the company's goals of sustainability and cost efficiency. These findings also support future water security measures, a critical concern for UK industries.

## TRIAL GOALS AND SETUP

### The trial aimed to:

1. Compare coolant consumption between the current provider's product and Castrol's innovative solution

Assess water consumption and related cost savings

3. Evaluate the impact on tool life, waste reduction, machine cleanliness, and overall efficiency

Two trials were conducted across two sites:

**Trial 1:** Two machines ran side-by-side, one using the current product and the other using Castrol Hysol SL 36 XBB. Flow meters monitored the top-up rates and consumption

**Trial 2:** Ten machines were tested, with seven on automated systems and three on manual fills. Concentrations were maintained at 3% via Dosatron systems

## KEY FINDINGS

### 1. Reduction in Coolant and Water Usage

- Water consumption was reduced by **1,544,400 litres annually**, a significant saving for future water security
- The company's annual coolant usage was reduced by **33%**, from 156,000 litres to approximately 104,520 litres, due to Castrol's efficiency

### 2. Cost Savings

- Fluid spend decreased by **£7,020 annually**, with further savings of **£2,007** annually in water costs
- The reduction in waste and downtime also contributed to additional cost efficiencies

### 3. Improved Machine Performance

- The trial showed a **25% increase in tool life**, reducing the tool spend associated with aggressive machining processes like reaming, milling, drilling, and tapping.
- Machines and parts remained clean with no tool breakages or sticking, improving operational reliability

### 4. Environmental Benefits

- Castrol's biostable formula eliminated the need for anti-foaming agents or biocides
- Waste and environmental impact were minimized due to reduced fluid and water usage

For further information please speak to our team



## TRIAL EXECUTION

### Trial 1 (Site 1):

- Two machines were monitored, with weekly additions of 500 litres of mixed coolant at 3% concentration
- The Castrol product cleaned out machines effectively, even without adequate filters, and showed no signs of bacterial or fungal growth

### Trial 2 (Site 2):

- Ten machines were tested, using three IBCs during the trial
- Machines showed similar reductions in coolant usage and no bacterial or fungal growth

## CUSTOMER FEEDBACK

**The customer reported high satisfaction with the trial results, noting:**

- **Honesty and reliability** of Certas Lubricant Solutions' team
- Superior cleanliness of machines and parts
- Seamless product performance that met all key performance indicators (KPIs)

Certas Lubricant Solutions' partnership with Castrol offers a sustainable path forward for manufacturers looking to reduce costs and environmental impact. This trial highlights the ability to:

- Reduce water and coolant usage
- Achieve cost savings in fluid spend and water consumption
- Enhance operational efficiency and environmental compliance

## CONCLUSION

The proven results from this trial underscore Certas Lubricant Solutions' commitment to delivering innovative, sustainable solutions for manufacturing partners. By adopting Castrol's advanced lubrication technologies, businesses can reduce their environmental footprint, enhance productivity, and secure significant cost savings.

