

# MQL Success with Castrol CareCut

## AUTOMOTIVE (USA) ENGINES

Castrol CareCut® ES 3

**ANNUAL SAVINGS: \$49,000**



### THE SITUATION

A major automotive manufacturer was seeking a high performance MQL (Minimum Quantity Lubrication) fluid for their crankshaft oil drilling operations. The fluid needed maximum machining performance to meet the customer's required tool life. In addition, they desired lower cost and better delivery times than the imported oil they were using.

### BEFORE

- Imported neat oil from Japan with good lubricity
- Usage – 14 drums per year
- Good tool life
- High total operating cost

### AFTER

- Castrol CareCut ES 3, synthetic ester fluid
- No change in usage
- Improved tool life
- Reduced total operating cost
- Significantly improved delivery lead times

### THE SOLUTION

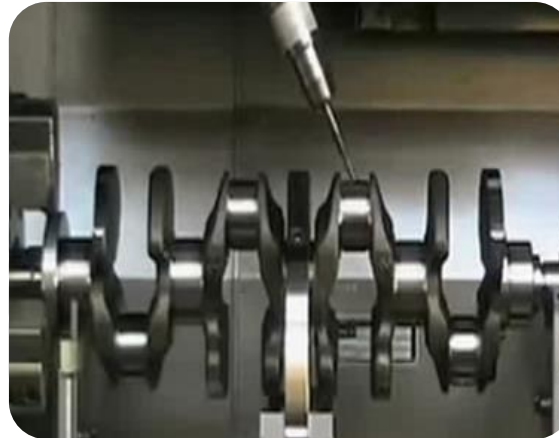
- The customer had good success with the previous imported cutting oil but asked Castrol for any fluid options that could improve their operations further.
- CareCut ES 3 was recommended as one of our best performing fluids for machining ferrous materials in MQL applications.
- The result with CareCut ES 3 was equal machining performance, slight improvement in tool life, a significantly lower fluid price, reduced delivery lead times, and local service / support.

# MQL Success with Castrol CareCut

## RECOMMENDATIONS

Castrol representatives had high confidence that CareCut ES 3 would work well in this MQL operation, based on review of the application. This application utilizes a Fuji BC Eco Booster MQL delivery system on Nachi machine tools to deep-hole drill steel crankshaft oil holes.

*Example of  
crankshaft oil  
hole drilling*



## CONCLUSION

With CareCut ES 3, the customer was able to reduce their cutting oil spend by almost \$50,000 annually while improving tool life.



## OTHER POTENTIAL APPLICATIONS

CareCut ES 3 is a low viscosity, high performance synthetic oil for honing, super-finishing, and machining of most metals. Its high flashpoint and low mist qualities improve the work environment. Cutting oil life is extended due to its good filtering properties and high oxidation stability.