

# Coolant usage greatly reduced with long-lasting semi-synthetic

## Situation

A large US manufacturer of agricultural components was using a semi-synthetic coolant to machine cast iron (and small amounts of steel). The manufacturer was seeking to reduce overall costs to become more competitive in the marketplace. They were reviewing all aspects of the machining process including cutting fluid improvement.

## Solution

Castrol® Hysol® MB 10 was recommended due to its ability to run very clean and prevent build-up at the tooling edge. For this customer, Hysol MB 10 met all the requirements of their machining operations which included milling, turning, boring, drilling, cut tapping, and form tapping. Additionally, it provided excellent bio-resistance needed for the fluid to be recycled in the customer's batch recycling system.

## Outcome

The introduction of Castrol Hysol MB 10 showed significantly improved machine cleanliness. No coolant odor developed in the shop and tool life was equal or better than the previous semi-synthetic fluid. The cleanliness of the tools were noticeable when the inserts were turned to employ a new cutting edge. They could achieve 45 to 60 parts per insert edge. Coolant usage was reduced by 33% (concentration of 6-7%) due to less carry out on chips and parts, due to the wetting properties of Hysol MB 10.



## Savings

- Reduced residues in machines
- Reduced usage by 33%  
(savings of 15,360 gal/yr)
- Realized noticeable cost savings per gallon vs. previous fluids
- Increased operator acceptance