



Case Study

The Challenge: Reduce coolant costs in cast iron machining

Castrol Hysol MB 20 In Ag Transmissions

\$552,624 Annual Cost Savings

A major agricultural equipment manufacturer was seeking a single coolant for all cast iron machining operations, in order to recycle coolant and recover coolant from metal chips. Operations included turning, drilling, reaming, tapping and gundrilling.

Castrol Hysol MB 20 generated \$552,624 in annual cost savings through recovered coolant, on-site re-use of metal chips, and waste treatment avoidance.

Before:

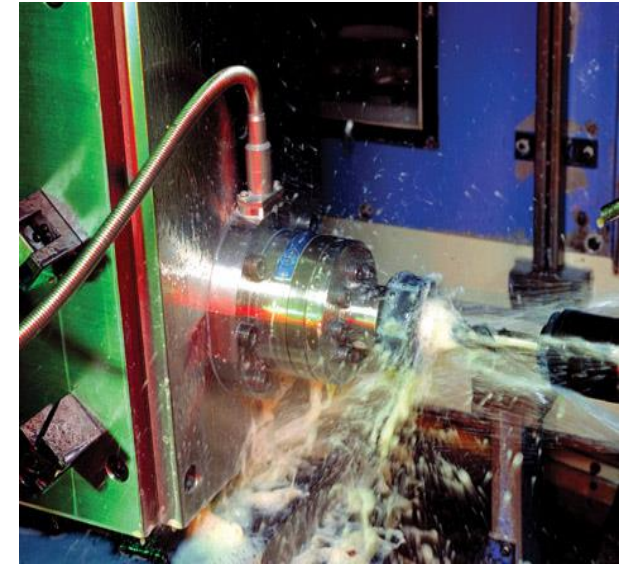
- Multiple coolants used
- No coolant recycling performed
- No coolant recovery from chips
- Chips too wet for on-site use in Foundry
- Coolant sent to waste treatment

After:

- Single, semi-synthetic coolant used
- Recycling implemented
- Coolant recovered from chips (\$66,864 savings)
- Chips re-used in on-site foundry (\$480,000)
- Coolant avoids waste treatment (\$5,760)

Result: Castrol Hysol MB 20 allowed for consolidation and recycling, producing not only coolant savings but also increasing the value of scrap metal.

The medium oil content and biostable formula of Hysol MB 20 semi-synthetic coolant provides excellent cast iron rust protection and long sump life.



Castrol Hysol MB 20 is Castrol's key semi-synthetic coolant recommendation for a wide variety of machining operations. Through a complete Castrol program, our personnel are available to support all aspects of chemical management, including process improvements such as the one described here.

Recommendations: A single coolant was identified through exhaustive outside laboratory testing and on-site trials. Equipment for recycling the coolant and removing coolant from the chips was designed and procured with the assistance of the on-site Castrol team, who also oversaw the entire implementation process.

The process to consolidate and use one coolant for cast iron machining plant-wide was quite complex, but the payback was outstanding, most significant of which was the scrap chips being suitable for reuse in the foundry. The foundry required less outside raw material leading to nearly half a million dollars in savings annually.

Castrol Hysol MB 20 has a robust lubrication package, making it suitable for a wide variety of ferrous applications. Its biostable formula provides long sump life, low odor, and the ability to be easily recycled.

Segment: Machinery Manufacturing

Sub Segment: Agri & Const -- Transmissions

