

# Syntilo 9974 BF Eliminates Wash Stage

## AUTOMOTIVE (USA)

### WHEEL MANUFACTURING

#### Castrol Syntilo® 9974 BF

**ANNUAL SAVINGS: \$124,340**



#### THE SITUATION

A major North American wheel manufacturer was looking to reduce manufacturing costs by lowering usage of their rim rolling fluid. The fluid in use was a chlorinated soluble oil that had high usage and prevented improvements in the process.

The customer was skeptical that other types of fluid technology would perform well in their rim rolling operation.

#### BEFORE

- Chlorinated soluble oil used at 8 -10% concentration
- High usage – 20 drums / month
- Washing required prior to weld
- Oily residues and overall mess

#### AFTER

- Syntilo 9974 BF, boron-free synthetic, utilized at 10-12%
- Low usage – 10 drums / month
- The coolant could be welded through, so **a washing step was eliminated.**
- Residues & messes eliminated

#### THE SOLUTION

- The rim rolling operation needs a fluid that delivers good boundary lubrication to prevent galling and roll marks.
- The chlorinated soluble oil does this by the physical separation provided by the chlorinated paraffin.
- Syntilo 9974 BF performs well when heat is generated in the operation. Its unique, chlorine-free lubricant is attracted to the heat and coats the part to prevent galling and roll marks.
- The Syntilo 9974 BF could also be filtered much easier and tramp oil skimmed from the fluid, keeping it running very clean and long.
- In addition, the coolant had much lower carry-off, providing a huge reduction in usage.

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## RECOMMENDATIONS

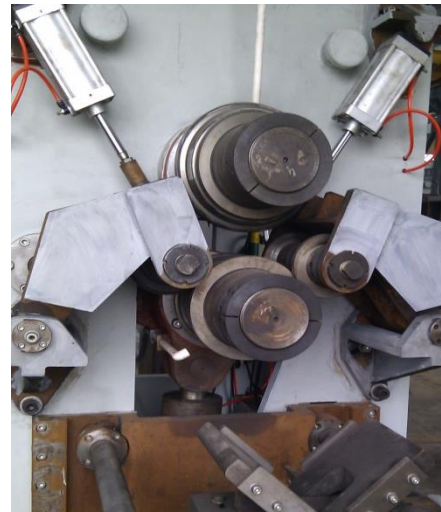
Syntilo 9974 BF was used at 10-12% concentration for the rim rolling operation. Before changing over to the synthetic, the roll former grease was converted to a more water resistant grease, Castrol Molub-Alloy 6040. This would prevent any bearing failures and put the customer at ease, knowing that the equipment would still be protected.

**“I did not think we could eliminate the wash station before welding just by changing the fluid we used.”**  
– Plant Manager

## CONCLUSION

With the benefits of Syntilo 9974 BF, the customer was able to eliminate a wash stage before welding. This wash station was a bottleneck in the plant, causing frequent production delays. The usage dropped in half over the soluble oil coolant, and fluid quality improved because filtration and oil skimming could be performed properly.

*Rim rolling machine to make outer rim beads*



## OTHER POTENTIAL APPLICATIONS

Syntilo 9974 BF is a high performance synthetic machining fluid for heavy-duty, ferrous metal operations. The boron-free formula provides very low residues to allow the parts to be welded without washing.

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