Boron-free, synthetic steps up rim rolling operation

Situation

A major North American wheel manufacturer was looking to reduce manufacturing costs by lowering usage of their rim rolling fluid. The fluid used was a chlorinated soluble oil at 8 -10% concentration. Their usage was about 20 drums / month and an additional washing step was required to remove oily residues prior to welding.

Solution

Castrol® Syntilo® 9974 BF is a mineral oil, boron and formaldehyde releasing agent free synthetic coolant. It contains an additive package that provides good corrosion protection to machine tools and parts. The fluid also provides excellent product stability which helps to lower the overall operational costs. Although initially skeptical, the customer replaced the existing soluble oil after finding that the Syntilo provided numerous benefits and importantly, could perform well in their rim rolling operation.

Outcome

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.

Savings

- Improved safety and EPA goals using a boron-free synthetic
- Reduced usage from 20 drums/month to 10 drums/month
- Eliminated the need for an extra washing step
- Eliminated residues and improved the cleanliness of the work environment significantly