

## METALS (USA)

### TUBE MILLS

Castrol Rustilo® DW 90 HF\*

**ANNUAL SAVINGS: \$30,000**



#### THE SITUATION

A Midwest tube mill was using a solvent-based rust inhibitor for protection of their finished tubes. The solvent-based rust inhibitor was causing issues with the tubes in storage and at end customer facilities.

#### BEFORE

- A solvent-based rust inhibitor was causing smut appearance on the tube surface.
- It was not providing good rust protection.
- Health and safety department did not like the low flash point of 110°F.

#### AFTER

- Rustilo DW 90 HF was implemented and all smut appearances were eliminated.
- Rust issues eliminated.
- The flash point is above 300°F, making it more acceptable to the health and safety department.

#### THE SOLUTION

- By examining the type of product in use, Castrol Engineering determined that there was a better fit for the application.
- The solvent in the competitive product was pulling carbon and dirt to the surface of the tube. By removing solvent from the rust inhibitor, the appearance greatly improved.
- The Rustilo DW 90 HF provided a nice even coating that protected the tubing from corrosion.
- The tube mill's end customers liked the appearance of the tubing and felt the film worked better for them in assembly operations.

- Replacement of solvent-based rust inhibitor improves tube appearance.

## RECOMMENDATIONS

The previous application method involved the use of a rag wrapped around the tube with rust inhibitor being dripped onto the rag. Castrol recommended improvements to this process, allowing the Rustilo DW 90 HF to be applied in an even spray pattern. This improved the application and ensured that better coverage to the tube surface was achieved.

The Rustilo DW 90 HF could safely be sprayed since the flash point was well above 300°F, whereas the solvent-based fluid could not be sprayed due to volatility concerns.

## CONCLUSION

After the Rustilo DW 90 HF was implemented, the tube mill had no re-work from corrosion and smut. This saved the tube mill about \$30,000 per year in re-work costs. This turned out to be about 50% reduction in rework for the tube mill.



## OTHER POTENTIAL APPLICATIONS

The Rustilo DW 90 HF can be used to protect a variety of metal parts from corrosion in long-term indoor storage. It provides this protection while having low odor and low VOC levels.