

Challenges

A leading Tube and Pipe producer in the UK was working on a cost savings program. Because Quaker was already supplying the pipe forming lubricant, they were given the chance to demonstrate how they could impact the total cost of the protection process without compromising the final quality of the pipes.

After a first set of laboratory tests, where FERROCOTE® 372 T1 showed a protection performance superior to that of the current fluid, a line trial was scheduled. Based on historical data and expecting production to remain constant, the manufacturer set the benchmark on a yearly consumption of 185,000 kg of corrosion preventive oil.

Providing Solutions

The introduction of FERROCOTE 372 T1 resulted in total consumption of 138,000 kg, which represented more than a 25% reduction. Quaker's application experts then began work on redesigning the application equipment. This redesign brought consumption down to 88,000 kg the following year – less than half the original consumption!

The customer was also under pressure to reduce VOC emissions. For this purpose, Quaker introduced a new product, FERROCOTE® 372 U1, which was tested on-site successfully and has been implemented. Once the new product was fully deployed, a reduction from 150 tons emissions/year to one ton was achieved – more than a 99% reduction in VOC emission!

In addition to the above results, the manufacturer was able to obtain the following benefits:

- Thinner protective layer on pipes, leading to easier cleaning operations and less residue
- Pipes can sometimes be painted without removing the corrosion preventive layer
- Reduction of fire incidents in the line (from 3-4/year to 0) for more than two years

Product Description

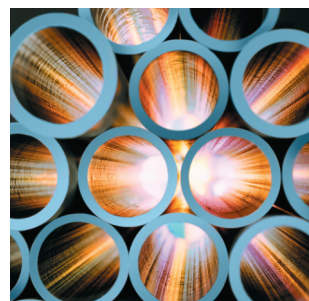
FERROCOTE® 372 T1 and U1 are dewatering corrosion preventive oils, normally used neat. The products' design allows for a very thin film to be applied, while maintaining an excellent anti-corrosive performance – making them very economical to use. They can be used on a wide range of metals and in applications such as:

- Tubes – steel and galvanized
- Nuts and bolts
- Transmission axles
- Cast iron engine blocks
- Galvanized steel castings
- Camshafts

The FERROCOTE® 372 Series is designed to minimize consumption and decrease the detrimental effects of thick, oily layers on metal components, assisting the effort to minimize the environmental impact of industrial operations. They contain no barium or heavy metals, nor aromatic or chlorinated solvents. In addition, FERROCOTE® 372 U1 has a VOC content in accordance with European legislation of only 8 g/l.

Customer Reference

- Corus
- Frank & Pignard
- GKN
- Marcegaglia
- SIM



Process & Equipment

Corrosion Protection	
Parts	Tubes
Part Alloy	Steel
Function	Dewatering
Applications	Airless spray, oil recovered and filtered

Product & Process Expertise

Quaker Chemical Corporation is a worldwide developer, producer and marketer of custom formulated Tube & Pipe process chemicals and coatings. From first coil to final cut, Quaker is capable of providing process chemicals for all operations in ERW and Seamless mills, and delivers the in-depth process expertise to help maximize your productivity.

Quaker's product line includes hydraulic lubricants, high-temperature greases, cleaners, forming & sizing coolants, drawing & forming compounds, sawing lubricants, hydrotesting compounds, corrosion preventives and a complete line of high-value coatings (including solvent, water-based and UV coatings).