

Challenges

One of the major problems in South Africa is that many of the current engineering and manufacturing companies use older technology metalworking fluids. Use of these products results in problems in the following areas:

- **Excessive oily layer on the parts, leading to difficulty in cleaning of parts at the end user**
- **Cleanliness of dipping tank, rollover station, hoisting equipment and surrounds due to tackiness of the product leading to machine downtime for extended cleaning requirements**

A South African Original Equipment Manufacturer (OEM) of completed engines and engine components for export was experiencing these problems along with supply issues due to product availability from their direct import supplier.

To address the situation, the customer utilized both their and Quaker Chemical's extensive experience in the metalworking field and introduced FERROCOTE® 5856 BF T1. This product utilizes the latest technology in corrosion preventives and is the benchmark for products in this class.

Providing Solutions

The combination of the customer and Quaker's expertise, and the introduction of FERROCOTE 5856 BF T1, resulted in:

- **Stock holding and continuous supply meeting customer requirements**
- **Reduced oily layer on parts while maintaining corrosion protection requirements**
- **Ease of cleaning of parts at the end user with inexpensive and locally available water-based mild alkaline cleaning fluids**
- **Machine downtime was significantly reduced due to ease of cleaning using solvents compatible with the product**

Product Description

FERROCOTE® 5856 BF T1 is a barium-free, solvent dispersed corrosion preventive providing 1-5 years of indoor protection of ferrous and non-ferrous bearing surfaces. This product is formulated with a unique balance of polar additives that provides exceptional corrosion protection. It offers excellent water displacing and fingerprint neutralization performance characteristics. Its inherent versatility offers application flexibility using spray, immersion, flood or flow-coat techniques.

FERROCOTE® 5856 BF T1 is a global product extensively used for numerous industrial metalworking corrosion preventive applications.

Process & Equipment

Operation:	Dipping
Machine:	Locally Engineered Dipping Machine
Part:	Engine Blocks and Crankshafts
Material:	Cast Iron
Temperature:	Ambient

Product & Process Expertise

Metalworking lubricants represent a very minor part of the costs in a metalworking process, typically less than 1%. This case illustrates the importance of correct fluid selection. The impact of the fluid can be a multiple of its costs, making the price of a metalworking fluid insignificant. That is why Quaker focuses on developing fluids with the highest performance without compromise, fluids that sharpen your competitive edge.