Quaker™
It's what's inside that counts.™

METALWORKING

CASE STUDY

MACHINING AND GRINDING

QUAKERCOOL® 3608 HFF

CHALLENGES

A French subcontractor for mechanical parts used in the agricultural industry was looking to:

- Improve machine performance
- Reduce overall cost and waste of machining fluids

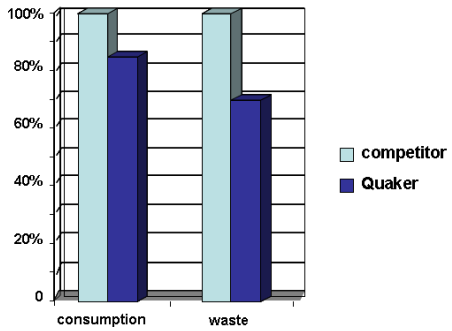
The manufacturer was using two different products from two different manufacturers. Quaker suggested switching to QUAKERCOOL® 3608 HFF.

THE SOLUTION

This Case Study and the solutions gained were achieved through cooperation with L.E.S., a Quaker distributor in France. Quaker introduced QUAKERCOOL® 3608 HFF into 25% of the machines, and L.E.S. made regular visits to provide technical support, fluid maintenance and concentration monitoring.

- QUAKERCOOL® 3608 HFF replaced the competition in 60% of the machines. After 12 months all machines in the plant were converted
- After one year, Quaker showed a 30% reduction in waste cost, a 15% reduction in coolant consumption, and improved sump life (1 dump/year with Quaker vs. 3 dumps with one of the previous competitors)
- QUAKERCOOL® 3608 HFF also provided good cleanliness on tools and machines, and good detergency even on cast iron parts in very hard water

Cast iron is very sensitive to corrosion, and therefore it is extremely important that manufacturers working with this material use fluids with good emulsion biostability. QUAKERCOOL® 3608 HFF offers excellent corrosion protection and high resistance to bacteria, therefore significantly lowering the risk of corrosion during the manufacturing process.



THE PRODUCT

QUAKERCOOL® 3608 HFF is a water miscible, semi-synthetic fluid with a medium mineral oil content, suitable for machining and grinding operations on most engineering materials. This technology combines the cleanliness and detergency of a synthetic product with the unique properties of oil containing emulsions.

PROCESS AND EQUIPMENT

Material	90% cast iron, 10% steel
Machines	Makino single machines
Tank Capacity	300 – 3000 liters
Filtration	Paper, rotary drum, magnetic and centrifuge
Concentration	6 – 8%
Water Hardness	TH 300 ppm / 30°f / 17° dH
Specific Operation	Milling, turning, drilling, tapping

THE 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.

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