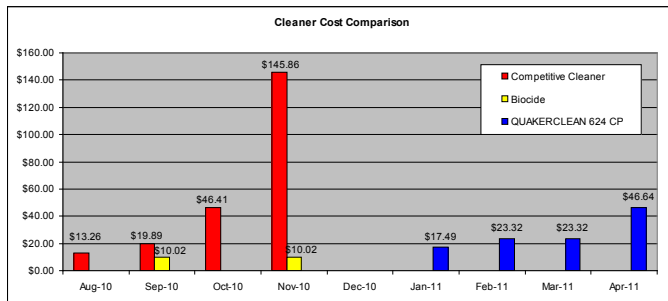


Challenges

A major automotive manufacturer was interested in achieving a chemical cost savings along with increased biostability over their previous washer fluid. This washer, which cleans in-process steel crankshafts covered in a semi-synthetic metalworking fluid, before they are heat treated, had historically used a competitive cleaner. Quaker approached the manufacturer suggesting they switch from their current cleaner to QUAKERCLEAN® 624 CP. Quaker wanted to show by switching to QUAKERCLEAN® 624 CP the manufacturer would be able to achieve annual cost savings as well as eliminate the need for biocide.

Providing Solutions

Below is a comparison of the competitor's cleaner cost and the cost of QUAKERCLEAN® 624 CP over a nine month period. The comparison shows the baseline data and the results after the manufacturer decided to perform a full dump, clean and re-charge of their 788 gallon crankshaft washer.



	Competitive Cleaner	QUAKERCLEAN® 624 CP
Total System Costs	\$61.37/month	\$27.69/month

The conversion to QUAKERCLEAN® 624 CP has resulted in an annual cost savings to the manufacturer of \$404.07. In addition, the manufacturer has not had to add biocide since it was re-charged. Historically biocide was added to this washer every other month.

Product Description

QUAKERCLEAN® 624 CP is a dual-purpose, mild alkaline liquid that simultaneously cleans and protects metal surfaces in a single processing step. This product is designed for ferrous (steel and cast iron) alloys and non-ferrous (aluminum) alloys. QUAKERCLEAN® 624 CP will not foam and works extremely well in deburring operations with spray pressures in excess of 2,500 psi (172 bar).

QUAKERCLEAN® 624 CP does not contain any strong acids, strong alkalis, nonylphenol ethoxylates (NPEs), solvents, and ozone depleting compounds, silicates, phosphates or chelating agents. No VOC at recommended use concentration and temperature. QUAKERCLEAN® 624 CP has a mild operating pH and is non-flammable and non-combustible. Effective cleaning at ambient temperatures reduces energy costs.

Process & Equipment

Part:	Crankshaft
Part Alloy:	Steel
System Size:	788 gallon washer
Water Hardness:	130 ppm
Concentration:	3 - 4%
Washer Pressure:	65 psig
Filtration System:	25 µm bag filters
Specific Operation:	Steel crankshaft cleaning

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.

Quaker Chemical Management Services (QCMSSM) offers a full range of process expertise and support. Quaker programs are ISO 9001 certified and have received numerous supplier certifications and awards for excellence. QCMSSM provides a disciplined approach to controlling the acquisition, delivery, storage, application and disposal of process fluids. Quaker Chemical Management Services provides:

- **Inventory Management**
- **Process Monitoring**
- **Chemical Usage Reporting**
- **Chemical Sampling**
- **Knowledge Sharing**
- **Fluid Recycling**
- **Waste Management**
- **Technical Support**
- **Engineering Services**