

CASE STUDY

Metalworking: Cleaner Switch Brings \$38k Cost Savings

QUAKERCLEAN® 624 MPC

The Challenge

A major automotive manufacturer was using a cleaner/anti-corrosive in the inlet of a Carrier washer, but:

- The solution did not provide adequate corrosion prevention
- It left a sticky residue

The manufacturer was looking for a product that:

- Reduced the rejection rate by inhibiting rust
- Did not leave a sticky residue

The Solution

The switch to QUAKERCLEAN® 624 MPC resulted in a total chemical cost savings of \$38,795 USD per year. In addition to chemical cost savings, QUAKERCLEAN® 624 MPC improved part quality and eliminated the sticky residue inside washer lines left by the previous fluid. The following tables provide a comparison of the characteristics and analysis of QUAKERCLEAN® 624 MPC fluid compared to the fluid used previously.

- The system feeds more than 18 individual washers
- Cleans water-based and oil-based fluids
- Paper filtration with side skimmer

CHARACTERISTICS	CURRENT FLUID USED	QUAKERCLEAN® 624 MPC
Pure Appearance	Light amber tint	Clear to light yellow
pH, pure	9.96	0.5
pH at 5%	9.98	9.8
Wetting properties	Full wetting	Full wetting
3% Foam Test	Initial: 0 mls + 5, Min: 0 mls	Initial: 1 mls + 5, Min: 0 mls
Burg Corrosion Test	Threshold 2.5%	Threshold 1.50%

The Benefits

- Quaker Houghton introduced QUAKERCLEAN® 624 MPC liquid alkaline cleaner/corrosive to this operation, achieving:
 - Improved part quality
 - Reduction in the high reject rate
 - Savings in total annual chemical costs

Process and Equipment

PRODUCT TITLE	PRODUCT INFORMATION
Part	Automotive transmission
System size	35,000 gallon central washer
Part alloy	Iron and steel
Fluid temperature	120°F - 160°F
Concentration	Use as Neat (as received)
Pressure washer pump	30 psi
Flush pump pressure	25 psi

	REFERENCE FLUID ANALYSIS	QUAKERCLEAN® 624 MPC RESIDUE RATE
Concentration Specification	1-3%	1-3%
Annual Central Wash Usage	22,548 gal or \$119,279 USD	12,816 gal or \$80,487 USD





The Product

QUAKERCLEAN® 624 MPC was developed as a multipurpose liquid alkaline product designed to provide excellent cleaning in spray and immersion wash applications. The product is approved and in use by automotive manufacturers in the U.S.

This versatile product is used to clean and protect metal surfaces in a single step, simplifying operations and keeping inventory costs low, while providing short-term corrosion protection on the metal surface when not rinsed. Its mild alkalinity is safe for use on ferrous and non-ferrous metals.

This unique product can be used for two applications, reducing inventory and costs. The product's moderate pH is highly compatible, and its low-foaming technology delivers low product consumption at temperatures up to 150°F. This means less product consumption and lower costs. Its compatibility with hard water and its imperceptible film on parts facilitates sizing and part handling, resulting in fewer rejects and lower costs.

