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

METALWORKING

CASE STUDY

MACHINING AND GRINDING

QUAKERCOOL® 740

CHALLENGES

A global automotive manufacturer performing machining and grinding on cast iron cams and cranks was looking to replace their current coolant in three systems. The customer was looking to:

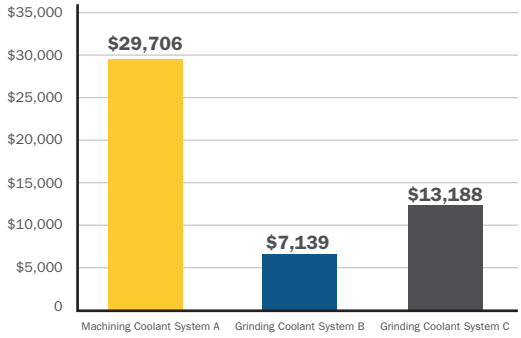
- Reduce coolant costs
- Lower usage rate

THE SOLUTION

The customer was previously using a high oil, semi-synthetic product in their machining and grinding systems. After evaluating the customer's need to reduce costs and usage, Quaker Chemical Corporation ("Quaker") recommended converting to QUAKERCOOL® 740, a low oil, secondary amine free emulsifiable coolant. This product provides excellent tramp oil rejection and reduces drag out which leads to lower usage. Throughout the trial, the customer reported no foaming, great microbiological control, no odor issues, and no machining and grinding issues. By switching all three of their coolant systems to QUAKERCOOL® 740, the customer realized the following results:

- **Total annual cost savings of $50,033** for all three systems
- Lowered usage rates due to reduced carry off on the part
- **Reduced make-up rates by 2.5%** by replacing a higher oil semi-synthetic product

ANNUAL COST SAVINGS PER SYSTEM



PROCESS AND EQUIPMENT

Process	Machining and grinding
Part	Cams and cranks
Material	Cast iron
Concentration	6-8%

THE PRODUCT

QUAKERCOOL® 740 is a boron-free, emulsifiable metalworking fluid designed for ferrous machining and grinding operations requiring good lubricity, cleanliness, cooling and corrosion protection. It can be used on cast iron and will also perform well for moderate duty operations on steel alloys. At the proper concentration ranges, it effectively resists microbiological growth, including mycobacteria.

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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