

Challenges

A major global transmission manufacturer located in Brazil was having performance issues with a conventional soluble oil and suffered from the following:

- Poor sump life
- Excessive grinding wheel abrasion
- High scrap index
- Dirty machines

Providing Solutions

Quaker addressed the situation by using their extensive experience in metal machining and introduced QUAKERAL® 370, which produced an immediate positive impact on the machining process and bottom-line cost.

The use of QUAKERAL® 370 resulted in:

- Increased sump life from 20 to 600 days. Even after 600 days, the emulsion continued to perform without problems
- Increased grinding wheel life from 10 parts/dressing to 20 parts/dressing, saving nearly \$2,000 per year
- 20% reduction in scrap index
- Reduced waste disposal cost of \$1,500/year
- Improved operator working conditions due to cleaner machines

Customer Reference

- Chrysler
- KS Pistões
- Samot

Product Description

QUAKERAL® 370 is a heavy-duty, chlorine-free, advanced ester-based product suitable for machining titanium, aluminium, steel, alloy steels and cast iron. QUAKERAL® 370 can be used on all general metalworking applications as well as arduous operations such as:

- Broaching
- Creep feed grinding
- Cut tapping
- Gun drilling
- Hobbing
- Mapal reaming
- Neat oil replacement
- Turbine machining

Process & Equipment

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Part:	Crankshaft
Part Alloy:	Steel Alloy
Tooling:	Al ₂ O ₃ Grinding Wheel
Concentration:	7%
Specific Operation:	Finish Grinding

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.