

## Challenges

A major global light, medium and heavy trucks' manufacturer located in Brazil was having some performance issues with their current coolant. The customer had to manage problems such as:

- **Poor tool life**
- **Foam**
- **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 tool life from 2,092 parts/hob to 3,765 parts/hob, representing an annual savings of approximately \$7,000 per machine**
- **Reduced number of tool changes**
- **Elimination of foam**
- **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**
- **Neal oil replacement**
- **Turbine machining**

## Process & Equipment

	<b>Pfauter</b>
<b>Part:</b>	Gear
<b>Part Alloy:</b>	Steel Alloy
<b>Tooling:</b>	HSS hob, Titanium Nitride (TiN) cover
<b>Concentration:</b>	10%
<b>Specific Operation:</b>	Hobbing

## 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.