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

STEEL

CASE STUDY

CONTINUOUS CASTER

QUINTOLUBRIC® 888-46 REPLACING COMPETITIVE HFC PRODUCT (WATER GLYCOL)

CHALLENGES

- A major stainless steel producer was having severe reliability problems with the hydraulically operated slab tongs used in their continuous slab caster
- The hydraulic system, positioned on top of the slab tongs was running on a premium brand water glycol (HFC) fire resistant hydraulic fluid. The stainless steel producer was experiencing the following problems with the fluid:
  - Reduced pump life
  - Many valve malfunctions
  - High fluid temperatures (>65°C) resulting in separation of hydraulically operated slab tongs used in their continuous slab caster

THE SOLUTION

To help improve operations, QUINTOLUBRIC® 888-46 was introduced as a potential replacement. First, Quaker helped the account to understand the advantages of changing from water glycol (HFC) fluids to QUINTOLUBRIC® 888-46 (polyol ester based HFD-U). These advantages include:

- Superior lubrication properties
- Reduced fluid maintenance
- Enviornmentally friendly

- Although QUINTOLUBRIC® 888-46 can cost up to 2-3 times more than HFC fluids, the reduction in total cost of ownership (TCO) that a manufacturer can experience with QUINTOLUBRIC® 888-46 more than makes up for the cost difference
- Before the trial period in the first system was complete the account decided to switch the second system from HFC to QUINTOLUBRIC® 888-46. Analyzing the benefits over a period of 1 year, the stainless steel producer recognized the following benefits:

- No unplanned downtime (from 4hrs/month to 0 hours/month
- Extended interval for routine maintenance on pumps and other components
- Extended fluid life; no separation
- Extended valve life; no replacements with HFD-U fluid in operation (from 30 to 0 valves)

- **With the change from water glycol hydraulic fluid to QUINTOLUBRIC® 888-46 poly-ester based HFD-U fluid, the Total Cost of Ownership (TCO) was reduced by 48%**

	WATER GLYCOL (HFC) FLUID	QUINTOLUBRIC® 888-46 (HFD-U) FLUID	IMPACT
Pumps	Preventative maintenance 1x year	Not Needed	Cost reduction
Valves	High valve consumption, 30 valves per year on avg	No valves replaced	Cost reduction
Unplanned downtime	4 hours per month	None	Increased production
Fluid refreshments	1 time a year (minimum)	Not needed	Reduction in fluid consumption
Pump and motor noise	Very noisy, especially before maintance	Much less noise, pumps run smoother	Longer lifetime, less stress in the motor and pump

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THE PRODUCT

QUINTOLUBRIC® 888-46 was designed to replace anti-wear, mineral oil-based hydraulic fluids used in applications where fire hazards exist. QUINTOLUBRIC® 888-46 can also be used in environmentally sensitive hydraulic applications without compromising the overall hydraulic system operations. This fluid does not contain water, mineral oil, or phosphate ester, and is based on high-quality, synthetic, organic esters and carefully selected additives to achieve excellent hydraulic fluid performance. QUINTOLUBRIC® 888-46 offers the lubrication level of premium, antiwear hydraulic oils, and can be used with hydraulic components from all major manufacturers.

THE EXPERTISE

Quaker was the first company to offer HFD-U fluids and has been the market leader in this type of technology. Quaker's current HFD-U fluids are based on both synthetic organic compounds and naturally occurring esters. QUINTOLUBRIC® 888 Series synthetic polyol esters and QUINTOLUBRIC® 855, which is based on natural esters, are industry leaders in ester based technology. Quaker HFD-U fluids are readily biodegradable and have low aquatic toxicity, making them ideal for use where environmental protection is required. Quaker HFD-U fluids are globally available and give outstanding performance in fire resistance, lubrication and long service life. fluids with the highest performance without compromise. Fluids that sharpen your competitive edge.

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