CASE STUDY

LUBRICANTS. TECHNOLOGY. PEOPLE. FUCHS

LUBRITECH
Special Application Lubricants

Refrigeration compressor oil leads to significant production benefits through reduced equipment downtime

Challenge

Our new customer was facing frequent equipment downtime on their ammonia (NH_3) compressors. The downtime was caused by using a conventional mineral oil which was flocking at very low evaporator temperatures, plugging the refrigeration system, and impairing its efficiency.

Solution

As a result of the extreme low temperature requirements in these compressors, FUCHS recommended switching to CASSIDA FLUID RF 68, a food grade synthetic PAO based refrigeration compressor oil. CASSIDA FLUID RF 68 displays high performance in critical low temperature NH_3 applications due to its extremely low pour point and temperature flowability as well as its chemical stability.

Results

The implementation of CASSIDA FLUID RF 68 alleviated equipment downtime problems related to the lubricant. The operational benefits included:

- **PRODUCTIVITY**: Increase in production due to reduced downtime
- **RELIABILITY**: Increase in reliability of the compressor operation

Savings

By introducing a premium refrigeration compressor oil designed to perform in an extremely low temperature environment, our customer was able to resolve the equipment downtime problem and increase reliability of the compressors. The total production savings for this attributed to the use of CASSIDA FLUID RF 68 can be calculated at $117,000 per annum.

The savings indicated are specific to the customer site. These calculations may vary site to site based on application, operating conditions current product being used and maintenance practice.

Location
United States

Application
Ammonia Compressor

Savings
$117,000 USD reported customer production savings

Lubricant
CASSIDA FLUID RF 68

$117,000
TOTAL ANNUAL CUSTOMER SAVINGS

INCREASED PRODUCTION DUE TO REDUCED DOWNTIME

Over 140%
RETURN ON FLUID PURCHASED

CASE STUDY

CASSIDA FLUID RF 68

Synthetic hydraulic fluids for the food manufacturing machinery

CASSIDA FLUID RF 68 is high performance fluid specially developed for use in ammonia refrigeration compressors in the food and beverage processing industry. It is based on careful blend of fluids and selected additives chosen for their ability to meet the stringent requirements of the food and beverage industry.

Fully synthetic PAO-based compressor oil for:

- Highly stressed ammonia (NH_3) compressors
- CO_2 applications (R 744) – not miscible with CO_2

Performance characteristics and benefits:

- Extreme chemical and thermal stability with NH_3
- High stability with CO_2 (R 744)
- Excellent low temperature flowability down to -40 °C/-40° F
- Provides excellent control of deposits and sludge formation, particularly when used with ammonia. This permits extended oil drain intervals compared to mineral oil.
- High viscosity index enables easy starting at low temperatures and good lubrication at elevated operating temperatures.
- The formulation facilitates rapid separation from the refrigerant in the oil separator.
- Extremely low pour point -57 °C / -70 °F
- High flashpoint +260 °C /+500 °F
- Good lubricity
- Compatible with the elastomers, gaskets, seals and paints such as poly-urethane and two part epoxy resin paints, frequently used on machinery and in lubrication systems employed in the food processing industry.

FOOD GRADE REGISTRATION / CERTIFICATION

- **NSF H-1**
- **Kosher**
- **Halal**
- **ISO 21469**

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