

# Quality solutions for evolving challenges

Lubrication solutions for refrigeration systems





# Optimise your refrigeration systems

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Compressor lubrication provides essential support at the heart of refrigeration systems.

As code and regulatory changes continue to reshape the refrigeration industry, businesses are challenged to rethink what goes into their systems. Evolutions in equipment and system design demand high-quality lubricants to maximize product life and operational efficiency. Additional phase outs of once prominent refrigerants require alternative lubricant solutions to meet the challenges of replacement refrigerants.

Summit's growing portfolio of refrigeration compressor lubricants answers these challenges and offers the assurance of product solutions for any application.

In addition to offering quality products, we wish to create a partnership with our customers. Our knowledgeable staff are adept at pairing proper product solutions and our network ensures a timely response regardless of location.



# Products and expertise to solve every application need

## What sets Summit Lubrication apart?

### ▶ Better results

The phasing out of once prominent refrigerants brings new challenges that require new lubricant solutions. We've replaced the excessive oil carryover and sludge formation common in naphthenic lubricants with more effective, highly refined solutions.

### ▶ Carefully engineered

Building the right lubricant requires three things: 1) data from the field, 2) the right testing equipment and 3) the right people. We have seasoned experts in state-of-the-art labs analyzing data from all over the world, making sure the lubricant you trust in your refrigeration system is not a guess, it's an exact science.

### ▶ Money savings

We offer a full range of products that exhibit key properties essential to extending the life of your equipment and reducing the total cost of ownership.



### ▶ Expertise included

All our refrigeration compressor lubricants come with expert personal and accessible service so you know our lubricants are being applied at the right time, in the right conditions, and on the right equipment.



# Long-term lubricant solutions

Choosing the right oil quality is the most crucial step to ensuring your refrigeration compressors run smoothly. We offer a full range of products that exhibit key properties essential to extending the life of your equipment and reducing the total cost of ownership.

## 1. Stable viscosity

Highly stable products provide maximum lubricant life with extended drain times, prevent viscosity creep and contribute to higher long-term volumetric efficiency.

## 2. Thermal stability

A high viscosity index offers greater resistance to viscosity variation across extreme temperature ranges to ensure proper flow at low temperatures and wear protection at high temperatures.

## 3. Chemical stability

Highly chemically stable lubricants resist degradation and the detrimental formation of corrosive acids and sludge in the presence of moisture, air and other contaminants.

## 4. Solubility

Minimizing refrigerant-lubricant solubility reduces oil carryover and wear associated with refrigerant-induced viscosity reduction.

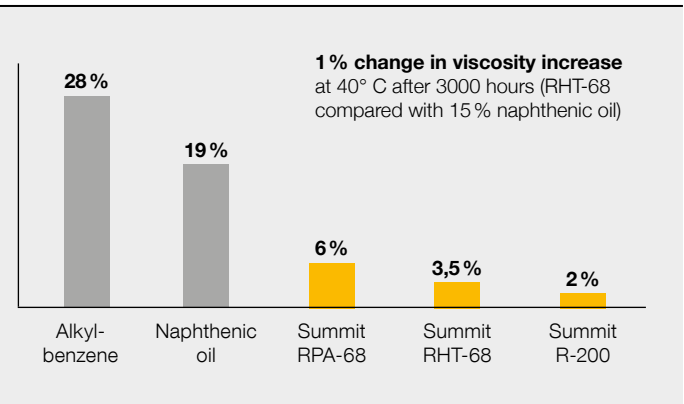
## 5. Miscibility

Proper refrigerant-lubricant miscibility ensures efficient oil return management for maximum operational efficiencies and system cleanliness.

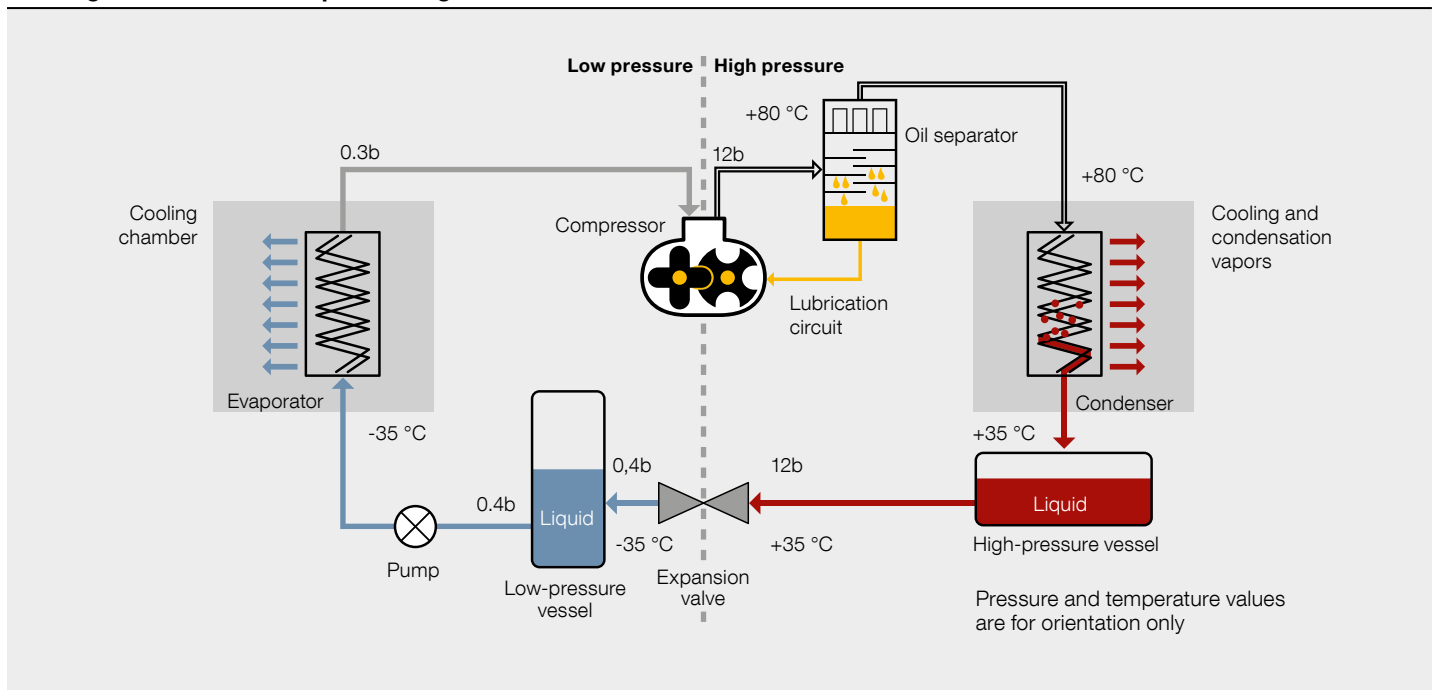
## 6. Foaming

A quality lubricant will allow for proper dissipation of foaming to reduce carryover and pump cavitation concerns

### Oil evaporation comparison



### Refrigeration circuit: simplified diagram





# Formulated for success

From concept to solution, our products undergo rigorous quality control testing at our ISO 9001 manufacturing facility to ensure consistent quality.

Let us prove it to you.

Summit wants to be your specialty lubrication partner the world over. We believe that specialty lubricants are an integral part of the design of air compressors and pay for themselves. Let us prove it to you.



## Quality solutions for every refrigerant application

- ▶ HCFC refrigerants
- ▶ HFC refrigerants
- ▶ HFO refrigerants
- ▶ Hydrocarbons
- ▶ Natural refrigerants

# Refrigeration compressor lubricants

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## **PSO-M and PSO-LT**

PSO oils are developed for ammonia pump seal applications. PSO-M is a highly refined, hydrotreated petroleum based oil. PSO-LT is a full synthetic, PAO based Food Grade NSF H1-certified oil.

## **RAB-68**

Fully synthetic, alkylate-based lubricant. Offers extreme stability at high temperatures and excellent low-temperature properties for both low-temp ammonia and HCFC refrigerant systems. NSF H2-registered.

## **RHB Series**

Semi-synthetic, alkylbenzene blend designed for ammonia and HCFC refrigerant applications. NSF H2-registered.

## **RHT FG-68**

Food-grade NSF H1-registered version of the Summit RHT Series.

## **RHT Series**

Highly refined, hydrotreated petroleum-based lubricant. Exhibits superior chemical and thermal stability and offers extended drain intervals making in the clear solution for most ammonia refrigerant applications. NSF H2-registered.

## **RHB Series**

Semi-synthetic, alkylbenzene blend designed for ammonia and HCFC refrigerant applications. NSF H2-registered

## **RPA-68**

Fully synthetic, PAO/alkylbenzene blend designed for ammonia and HCFC refrigerant systems. NSF H2-registered.

## **RPE-744 Series**

Fully synthetic, POE-based lubricant specifically designed for CO<sub>2</sub> applications.

## **RPE Series**

Fully synthetic, POE-based lubricant specifically designed for HFC refrigerant applications.

## **R Series**

Fully synthetic, PAO-based food-grade NSF H1-certified lubricant. This high-viscosity index product is designed for use in both ammonia and CO<sub>2</sub>. An ideal solution for ammonia/CO<sub>2</sub> cascade systems.

## **RPS Series**

Fully synthetic, PAG-based food-grade NSF H1-registered lubricant. Provides optimum miscibility with ammonia for easy oil return in direct expansion (DX) ammonia applications.

## Certified quality.

We don't just claim quality products, we have the certifications to back it up. Our production facilities are ISO 9001-certified for quality, ISO 14001-certified for environmental protection, and ISO 21469-certified, the most stringent certification for food-grade lubricant production.

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## Summit Lubrication – partnering for success

Your expert in specialty lubricants. Since 1982, we have partnered with you to bring you the right solution and advanced lubrication technologies. With over 500 products, from air and gas compressor oils to refrigeration oils, we develop top-of-the-line products tailored to your specific needs. Your success is our success.

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