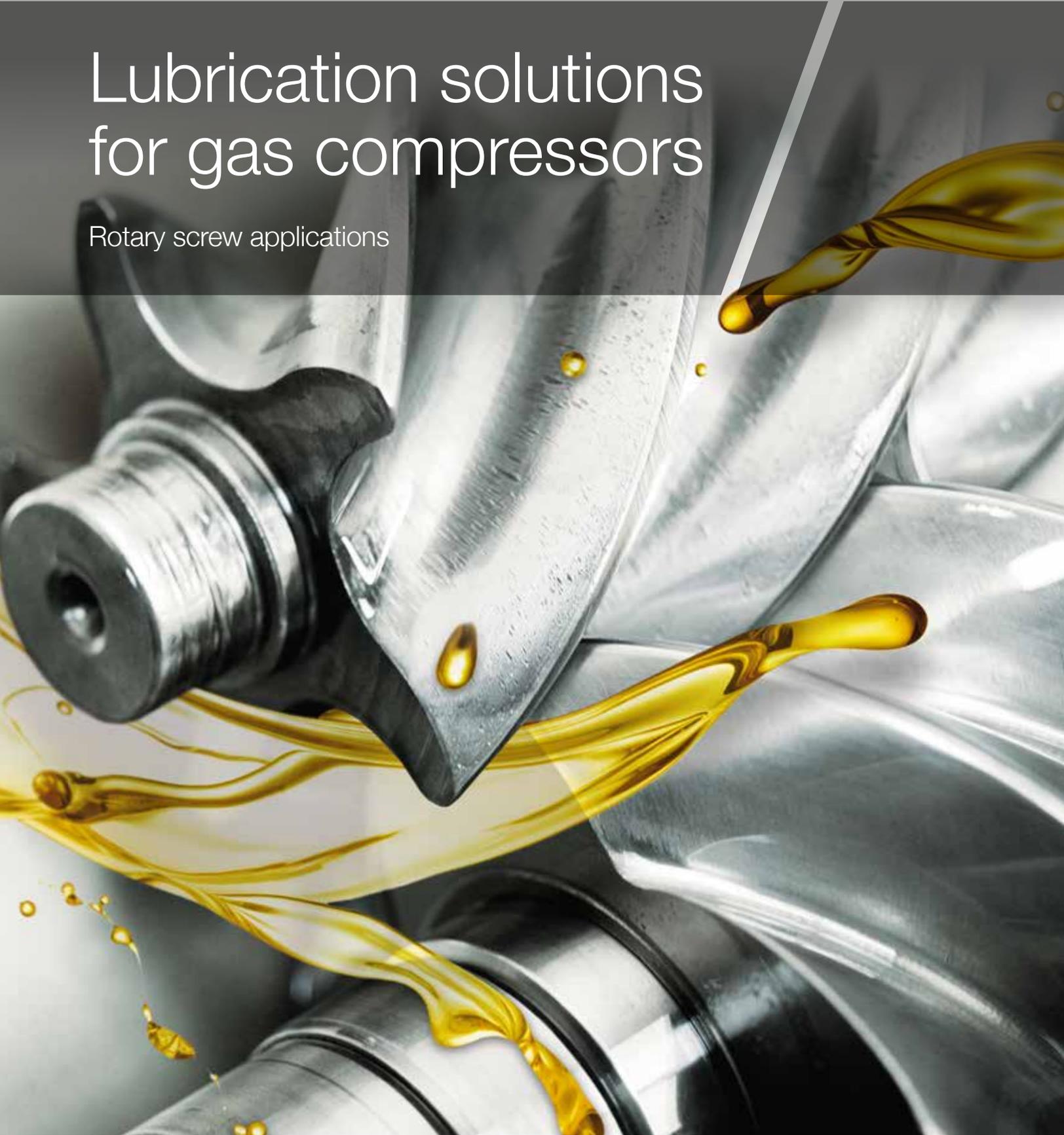


# Lubrication solutions for gas compressors

Rotary screw applications



# Put our expertise to work

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Gas compressor applications are different than your typical lubrication application. Finding the right lubrication is typically more complicated and the consequences of getting it wrong are typically larger.

Unplanned downtime is expensive. Governmental and social penalties for flaring gas or polluting the environment are increasing. Lead times for spare parts and new equipment are at the mercy of the overextended supply chain. The days of simply using standard gas engine oil or 'low-tech' compounded cylinder oil are just about

over. Summit's specialty lubricants succeed where conventional lubricants fail. Our customers have discovered that using specialty lubricants, backed by our experience and technical expertise, results in significant decreases in lubricant related operating and maintenance costs.

With plants, sales offices and distributors around the world, we work with gas compressor OEMs, packagers, operators and end users in various industries to solve compressor lubrication related issues.



# Better lubricants, better results

Compressing natural or process gases is a complex task. When the oil absorbs the gas being compressed in an oil-flooded rotary screw compressor, it often results in a decrease in viscosity.

The degree of viscosity reduction of the lubricant depends on four factors:

1. The gas composition
2. The discharge pressure and temperature
3. The oil injection temperature to the bearing
4. The base fluid solubility with compressed gases

Finding the right lubricant for the right application requires experience and expertise. Summit Lubrication has both.

Our field-tested experts are ready to solve your gas compressor problems.



## What sets Summit Lubrication apart?

We're looking to do much more than just sell lubricants. We pride ourselves on being expert problem solvers. At Summit, we know that our success hinges directly on your success, and that knowledge drives the way we do business. In everything we do – from product development, to hiring, to plant visits, phone calls, technical support, oil analysis, training seminars and everything in between – we are looking to answer the question: "Does this add to our customers success?" We want to be a full-service lubrication resource for your business.



# Problem solving lubricants

Every gas stream is unique, from refineries, chemical and fertilizer plants, landfill, offshore, wellhead and fuel gas to digester gas, biogas, membrane separation and vapor recovery units.

Summit Lubrication has developed a program to calculate the tendency of individual gases to be dissolved in lubricating oil. We can help you by recommending the proper gas compressor lubricant in many different industries.

Using a lubricant that is too thick or too thin causes a drop in compressor efficiency, shortens bearing life and could possibly result in a catastrophic failure. It is extremely important to select the correct initial viscosity for the compressor to make sure it is operating at optimal viscosity for the bearings and rotors after dilution takes effect.

Reduce typical issues, like viscosity dilution, foaming, chemical reactivity, water contamination, corrosion, gas entrainment, cold weather flow and increased wear rates by using the right product in a rotary gas screw compressor. Ask our experts for support.

Lubricating oils in rotary screw compressors serve these primary functions:

1. Lubricating rotors (70%), bearings, gears and seals (30%)
2. Sealing the gap between rotor and casing, and between the rotors
3. Removing heat of compression
4. Protecting against corrosion



# Chemical resistance and reliability

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Summit Lubrication offers lubrication solutions for demanding conditions. Chemical resistance of lubricants to various process media used in production helps to attain long service intervals and high process reliability.

The use of optimum specialty lubricants offers many benefits:

- Cost savings due to extended maintenance intervals
- Improved efficiency resulting in higher throughput
- Less downtime for more productivity
- Optimum wear protection for longer service life of equipment

Because of the complexities of gas compression, a close relationship between the OEM, packager, end user and lubricant supplier is needed. Summit Lubrication is considered a valued partner within this group.



# Rotary screw gas compressor lubricants

Summit Lubrication offers a full line of petroleum and synthetic lubricants to meet your gas compressor lubrication needs. Our range of products is as comprehensive as the many uses of rotary screw compressors in oil and gas industries. Our experts can assist you in choosing the right lubricant for your compressor.

## **LCG Series**

100% pure synthetic PAO designed to be inert to most reactive and corrosive gases encountered in landfills, refineries, EOR and chemical process plants.

## **NGP® Series**

Highly refined petroleum based lubricant for light hydrocarbon gases in rotary screw compressor applications.

## **NGSH Series**

Full synthetic, PAO based lubricant for light to heavy-medium hydrocarbon gases. High evaporation stability minimizes the oil carryover into the gas stream in comparison to standard petroleum oils.

## **PGS® Series**

Fully synthetic, PAG based lubricant for flooded rotary screws with medium to heavy hydrocarbon gases. It also has a high resistance to thinning out by hydrocarbon dilution.

## **PGI Series**

Fully synthetic, water in-soluble, PAG based lubricant for hydrocarbon refrigerants (propane, propylene, etc.). Features reduced oil carryover compared to petroleum oils or PAO lubricants.

## **PGS 2®**

Fully synthetic, PAG based lubricant for flooded rotary screws with heavy hydrocarbon gases. PGS2 has a high resistance to thinning out by hydrocarbon dilution.

All Summit Lubrication products are formulated to meet specific application requirements and contain additives to protect equipment from wear, rust and hydrogen sulfide corrosion. To determine which lubricant is right for your application, please send us all relevant data for the gas stream in your compressor and the operating conditions.

Partnering for success.

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



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Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

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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.

[www.klsummit.com](http://www.klsummit.com)

The logo features the word "KLÜBER" in a bold, italicized, sans-serif font with a double slash above the "U". Below it, the word "LUBRICATION" is written in a smaller, all-caps, sans-serif font. To the left of "LUBRICATION" is the text "a brand of" in a smaller font size.  
**KLÜBER**  
a brand of **LUBRICATION**

