

Klüber Summit FG 100...500

Fully synthetic compressor oils for the food-processing and pharmaceutical industries



Benefits for your application

- **Klüber Summit FG oils are NSF H1 registered for use in the food-processing and pharmaceutical industries and comply with FDA 21 CFR Sec 178.3570**
- **ISO 21469 certified – supports compliance with the hygienic requirements of your production. You will find further information about ISO Standard 21469 on our website www.klueber.com**
- **Low maintenance and operating costs due to extended oil change intervals up to 5,000 operating hours¹ in oil-injected screw-type compressors**
- **Easy compressor conversion from mineral to the synthetic Klüber Summit FG oils due to miscibility and compatibility with common seal materials²**
- **Low tendency to evaporation and thus low impact of the oil vapour on the compressed air**
- **Longer service of oils filters, activated carbon filters and oil separators**
- **Excellent demulsifying behaviour and hence good water separation ability**

Description

Klüber Summit FG oils are special compressor oils developed for the food-processing and pharmaceutical industries. They are fully synthetic and can be mixed with mineral oil as well as other synthetic hydrocarbon oils.

Klüber Summit FG oils offer very good oxidation stability due to the synthetic base oil, thus minimizing oxidation residues in the compressors and extending oil change intervals and the service life of oil filters and separators.

Klüber Summit FG oils are NSF H1 registered and therefore comply with FDA 21 CFR § 178.3570. The lubricants were developed for incidental contact with products and packaging materials in the food-processing, cosmetics, pharmaceutical or animal feed industries. The use of Klüber Summit FG oils can contribute to increase reliability of your production processes. We nevertheless recommend conducting an additional risk analysis, e.g. HACCP.

Application

Klüber Summit FG oils can be used as vacuum pump oils, evacuating air or inert gases if a food grade oil is required.

Klüber Summit FG oils can be used for oil-injected screw-type compressors, reciprocating piston compressors and rotary vane compressors.

Klüber Summit FG oils are intended for use in compressors of the food-processing and pharmaceutical industries requiring oil-free compressed air (without oil vapour, which cannot be removed by the oil separator).

These oils are also suitable for gear lubrication in oil-free screw-type compressors.

Application notes

When selecting the oil viscosity for air compressors, please observe the manufacturers' instructions.

For oil-injected screw-type compressors normally the viscosity grades ISO VG 32, 46 and 68 are used, for reciprocating piston and rotary vane compressors ISO VG 68, 100 and 150 and for centrifugal compressors ISO VG 32.

Notes on switching from mineral to synthetic oils:

When switching a used compressor to a Klüber Summit FG oil, drain old oil from whole circuit of compressor while still warm.

We also recommend changing all oil filters and separators. Then refill the compressor with Klüber Summit FG oil.

When switching from mineral oil to a synthetic Klüber Summit FG oil please bear in mind that the compressor may contain oxidation residues in the form of blackened or contaminated oil.

¹: The indicated oil change intervals are guide values which are based on practical experience. They depend on the intended use, the application method and the technical condition of the compressor. Lubricants change their condition depending on the mechano-dynamical loads, pressures and temperatures and the mixture with oil residues or buildups of the previous oils fills. Such changes in product properties may have an effect on the oil change intervals and the function of components.

²: These data are based on our current knowledge and experience. Owing to the many different elastomer compositions we recommend checking their compatibility and other influencing factors that are relevant for the application with the component and under conditions similar to series application.

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As such residues can affect the service life of the fresh Klüber Summit FG oil, the compressor should be cleaned using the Klüber Summit Varnasolv conditioner.

After switching to a Klüber Summit FG oil we recommend determining the oil change interval through an oil analysis or the Klüber Summit TAN Kit after approx. 500 to 1000 operating hours.

For further information please turn to your contact person at Klüber Lubrication or see the product information leaflet on Klüber Summit Varnasolv.

Material safety data sheets

Material safety data sheets can be requested via our website www.klueber.com. You may also obtain them through your contact person at Klüber Lubrication.

| Pack sizes | Klüber Summit FG 100 | Klüber Summit FG 200 | Klüber Summit FG 250 | Klüber Summit FG 300 | Klüber Summit FG 500 |
|---------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Canister 19 l | + | + | + | + | + |
| Drum 208 l | + | + | + | + | + |

| Product data | Klüber Summit FG 100 | Klüber Summit FG 200 | Klüber Summit FG 250 | Klüber Summit FG 300 | Klüber Summit FG 500 |
|--|--------------------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------|
| Article number | 050008 | 050009 | 050095 | 050010 | 050096 |
| NSF-H1 registration | 143 606 | 143 607 | 143 609 | 143 610 | 143 608 |
| Density, DIN 51757, 20 °C | approx. 0.83 g/cm ³ | approx. 0.84 g/cm ³ | approx. 0.84 g/cm ³ | approx. 0.84 g/cm ³ | approx. 0.84 g/cm ³ |
| Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 40 °C | approx. 32 mm ² /s | approx. 46 mm ² /s | approx. 68 mm ² /s | approx. 100 mm ² /s | approx. 150 mm ² /s |
| Kinematic viscosity, DIN 51562 pt. 01/ASTM D-445/ASTM D 7042, 100 °C | approx. 5.8 mm ² /s | approx. 7.5 mm ² /s | approx. 10.4 mm ² /s | approx. 13 mm ² /s | approx. 19 mm ² /s |
| Viscosity index, DIN ISO 2909 | >= 120 | >= 120 | >= 120 | >= 120 | >= 120 |
| Demulsifying capacity, DIN 51599, ASTM D 1401, at 54 °C | 43/37/3 ml | 43/37/3 ml | 43/37/3 ml | | |
| Demulsifying capacity, DIN ISO 6614, ASTM D 1401 at 82 °C | | | | 43/37/3 ml | 43/37/3 ml |
| Pour point, DIN ISO 3016 | <= -50 °C | <= -50 °C | <= -48 °C | <= -45 °C | <= -39 °C |
| Flash point, DIN EN ISO 2592, Cleveland, open-cup apparatus | >= 230 °C | >= 240 °C | >= 250 °C | >= 250 °C | >= 250 °C |
| Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx. | 60 months | 60 months | 60 months | 60 months | 60 months |





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Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 80 years.

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The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

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