





LUBCON<sup>®</sup>
Spezialschmierstoffe
für die Getränkeindustrie

## **Use Lubricants which are Successfully Applied by the Beverage Industry**



This high efficiency of the **LUBCON** lubricants is proven by

- long service life
- good running propertieshigh operational reliability





# From the Development to the Application

The **LUBRICANT CONSULT GMBH** is one of the leading developers and manufacturers in the **lubrication engineering** sector.

To be able to meet the permanently increasing requirements of the industry and to offer again and again new or qualitatively optimised products, an innovative team is constantly preoccupied with the research and development of new lubricants in our own laboratories.

The extraordinary performance of the **LUBCON lubricants** is the result of the clearly defined selection of the thickener and its portion, the type of the base oil and its viscosity as well as the selected additives. A **quality and environment management** introduced in June 1996 has strictly ensured that only raw materials be used without any ingredients that are harmful to the environment. In the production a technically sophisticated circulatory system is used to preserve the environmental resources as much as possible.

The selection of the appropriate lubricant is an important factor with regard to long-time functioning, high operating reliability and efficiency, therefore **LUBCON** offers you a free consultation and complete assistance before, during and after your purchase of **LUBCON** lubricants.

Whatever you need - from the consultation on tribological questions and the realisation of your individual requirements to the setting into operation of the lubricant - **LUBCON** is the partner by your side worldwide.

Furthermore, it is an absolute "must" that the lubricant is recognized as "foodstuff quality" or "physiologically safe" if it is applied in the food industry and food gets in contact with lubricants.

Such lubricants are classified according to the most frequently used **NSF**-classification:

- H1 = Incidental contact with foodstuff is possible. In this case, the FDA decisions according to the regulation 21 CFR 178.3570 must be met.
- H2 = Direct contact with foodstuff is excluded, such as in closed gears, chains or underfloor conveyor systems. Should a contact happen nevertheless, e. g. by a broken machine element, the whole batch of the foodstuff has to be destroyed.

In the beverage industry, breweries and wine press houses **LUBCON** lubricants are used in direct contact with the final product as well as in machine elements during the course of manufacture and therefore dispose of very special properties, such as:

- being perfect according to the foodstuff act -NSF-H1 registration
- inodorous and tasteless
- physiologically safe
- neutral towards beer foam
- anti-wear protection
- prolongation of the relubrication intervals
- neutral towards elastomers
- resistant to media
   (towards vapour or disinfectants)
- resistant to cold and hot water
- convenient when being processed
- internationally available

#### Applicable in:

- shut-off valves
- bottle filler and feeding fittings
- bar fittings
- keg racking machines
- agitator bearings
- slide ways for plugging materials
- can seaming machines
- screw plugging machines
- packing and unpacking systems
- pasteurizer
- non refundable PET bottle production
- general lubricating points of machines

#### **LUBCON** delivery system:

... at the agreed date always the desired

### LUBCON product available to you:

... 100 ml tubes, 400 ml sprays, 400 ml cartridges, 1 kg cans, 5 l canisters, 20 l canisters, 5 kg buckets, 25 kg buckets, 180 kg drums, 200 l drums or the 1000 l container are just a small selection of the packing units possible...

## Please note:

This brochure only contains product information. For specific information please refer to our technical data and safety data sheets. The indications made represent the present state of development and knowledge of **LUBRICANT CONSULT GMBH**. Subject to change.

The products are subject to severe controls of manufacture and comply in full with the specifications set forth by our company, but due to the multitude of different influencing factors, we cannot assume any warranty for the successful application in each individual case. Therefore, we recommend to perform field tests. We strictly refuse any liability.

#### Front page:

- Product-shot of milk and orange juice with fruits from Tetra Pak Germany
- Canning machine
- KRONES Mecafill VKPV bottle filler

## H1-Special Lubricating Oils for the Beverage Industry



#### H1-Öle für normale Temperaturen

Physiologically recognized as safe, inodorous and tasteless special lubricating oils which meet the requirements of § 5 of the German food act (LMBG) and of the FDA21 CFR 178.3570. As NSF registered H1 products, their contact with foodstuff is admissible. In terms of viscosity and oil changes of gears, observe the prescription of the gear manufacturer. In case of circulation or immersion lubrication, first clean the lubricating system or, at least, rinse it with the oil to be used subsequently.

#### TURMOFLUID® LMI 300

- fully synthetic, water clear, thin-bodied
- resistant to high pressure and oxidation
- service temperature range: -10  $^{\circ}\text{C}$  to +150  $^{\circ}\text{C}$
- viscosity: 15 mm<sup>2</sup>/s at 40 °C

Special oil used as sliding, lubricating and separating agent for slide faces in automatic packaging machines.

Also available as spray.

#### **TURMO®SYNTH VG 32**

- mineral, water clear
- resistant to high pressure and oxidation
- service temperature range: -20 °C to +100 °C
- viscosity: 32 mm<sup>2</sup>/s at 40 °C

Lubricating oil to be used in chains, spindles, lifters, joints, hydraulic and pneumatic installations.

#### TURMO®SYNTH VG 68

- mineral, water clear
- resistant to high pressure and oxidation
- service temperature range: -20 °C to +100 °C
- viscosity: 68 mm<sup>2</sup>/s at 40 °C

Lubricating oil to be used in chains, spindles, lifters, joints, vacuum pumps, hydraulic and pneumatic installations.

#### **TURMO®SYNTH VG 100**

- mineral, water clear
- resistant to high pressure and oxidation
- service temperature range: -20 °C to +120 °C
- viscosity: 100 mm<sup>2</sup>/s at 40 °C

Lubricating oil to be used in chains, gears, spindles, conveyor systems and vacuum pumps.

#### **TURMO®SYNTH VG 150**

- partly synthetic, water clear
- resistant to high pressure and oxidation
- service temperature range: -20 °C to +135 °C
- viscosity: 150 mm<sup>2</sup>/s at 40 °C

Lubricating oil to be used in chains, gears, spindles, conveyor systems and vacuum pumps.

#### **TURMO®SYNTH VG 460**

- partly synthetic, water clear
- resistant to high pressure and oxidation
- service temperature range: -15 °C to +150 °C
- viscosity: 460 mm<sup>2</sup>/s at 40 °C

Special oil to be used in chains, gears, spindles and slide faces exposed to high pressure.

#### TURMO®SYNTH VG 1500

- partly synthetic, water clear
- resistant to high pressure and oxidation
- service temperature range:-10 °C to +180 °C
- viscosity: 1500 mm<sup>2</sup>/s at 40 °C

Special oil to be used in chains, gears, spindles and slide faces exposed to high pressure.



Can filler with conveyor belt



## H1-Special Lubricating Oils for the Beverage Industry

## H1-Oils for normal temperatures

Physiologically recognized as safe, inodorous and tasteless special lubricating oils which meet the requirements of § 5 of the German food act (LMBG) and of the FDA 21 CFR 178.3570. As NSF registered H1 products, their contact with foodstuff is admissible.

These special oils form a very adhesive lubricating film with anti-wearing properties and a low tendency to evaporation, no gumming and a low current uptake.

In terms of viscosity and oil changes of gears, observe the prescription of the gear manufacturer. In case of circulation or immersion lubrication, first clean the lubricating system or, at least, rinse it with the oil to be used subsequently.

#### **TURMO®SYNTHOIL GV 68**

- fully synthetic
- colour: clear/transparent
- service temperature range: -50 °C to +160 °C
- viscosity: 68 mm<sup>2</sup>/s at 40 °C

To be used in chains, gears and spindles.

### TURMO®SYNTHOIL GV 100

- fully synthetic
- colour: clear/transparent
- service temperature range: -45 °C to +160 °C
- viscosity: 100 mm<sup>2</sup>/s at 40 °C

To be used in chains, gears and spindles.

#### TURMO®SYNTHOIL GV 150

- fully synthetic
- colour: clear/transparent
- service temperature range:-40 °C to 180 °C
- viscosity: 150 mm<sup>2</sup>/s at 40 °C

To be used in chains, gears and spindles.

#### **TURMO®SYNTHOIL GV 460**

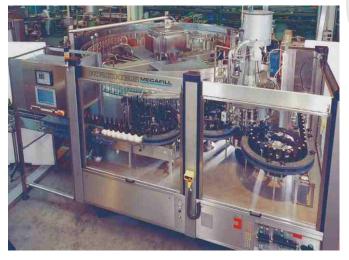
- fully synthetic
- colour: clear/transparent
- service temperature range: -30 °C to +180 °C
- viscosity: 460 mm<sup>2</sup>/s at 40 °C

To be used in chains, gears, spindles and slide faces exposed to high pressure.

#### TURMO®SYNTHOIL GV 680

- fully synthetic
- colour: clear/transparent
- service temperature range: -30 °C to +180 °C
- viscosity: 680 mm<sup>2</sup>/s at 40 °C

To be used in chains, gears, spindles and slide faces exposed to high pressure.



KRONES Mecafill VKPV bottle filler



KRONES crate washer

## H1-Special Lubricating Greases for the Beverage Industry



Physiologically recognized as safe, inodorous and tasteless special lubricating greases which meet the requirements of § 5 of the German food act (LMBG) and of the FDA21 CFR 178.3570. As NSF registered H1 products, their contact with foodstuff is admissible.

- Neutral towards beer foam -

#### TURMO®SYNTH 2000 EL

- mineral, steam resistant
- colour: beige/transparent
- service temperature range: -20 °C to +120 °C
- consistency class: 0/1

Special grease for beer and air pipes of keg racking machines, good sliding properties of the pipes at low cellar temperatures. Lubricant for bar fittings.

### **TURMSILON® LMI 5000**

- fully synthetic, steam resistant
- colour: white
- service temperature range: -40 °C to +220 °C
- consistency class: 3

Silicon tap grease for particularly low and high temperatures, filler and feeder fittings with EPDM seals as well as rubber seals, e. g. collars, membranes and lip seals.

#### TURMO®SYNTH 2000

- partly synthetic, steam resistant
- colour: beige/transparent
- service temperature range: -20 °C to +120 °C
- consistency class: 3

Tap grease for beer and bar fittings, applicable in dispenser installations and fittings in the brewing house and storage cellar. Sealing grease for automatic mashing machines.

#### TURMO®SYNTHGREASE LMI 2

- mineral
- colour: colourless/transparent
- service temperature range: -20 °C to +120 °C
- consistency class: 2

Special lubricant for bar fittings.



Keg racking machines



Bottle seaming machine



KRONES Mecafill VKP short-tube filler



Tap for draught beer installations



## H1-Special Lubricating Greases for the Beverage Industry

Physiologically recognized as safe, inodorous and tasteless special lubricating greases which meet the requirements of § 5 of the German food act (LMBG) and of the FDA21 CFR 178.3570. As NSF registered H1 products, their contact with foodstuff is admissible.

#### TURMO®SYNTHGREASE W 2502

- partly synthetic, good adhesive properties
- resistant to cold and hot water, wearing protection
- colour: white
- service temperature range: -30 °C to +110 °C
- consistency class: 2

Universal grease for rolling and sliding bearings, joints, guideways, cam disks and threaded spindles.

#### **TURMO®SYNTHGREASE ALN 1003**

- fully synthetic, high load carrying capacity
- thermally stable, resistant to cleaning water and oxidation
- colour: light-coloured
- service temperature range: -40 °C to +150 °C
- consistency class: 3

Special grease with a high service temperature in a wide service temperature range, provides a high lubricating effect at low coefficients of friction, successfully used in rolling and sliding bearings as well as in AMOS presses.



AMOS Screen belt press, photographed by the wine press house Possmann



KRONES Lavatec KES bottle washer

# H2-Special Lubricating Oils for the Beverage Industry



Special lubricating oils for lubrication points in the beverage industry which are <u>not</u> in contact with foodstuff.

TURMOFLUID® 40 B

- fully synthetic, silicon-free
- colour: yellowish
- service temperature range: -30 °C to >+250 °C
- low evaporation loss, good adhesive properties
- good viscosity-temperature behaviour
- high load carrying capacity, does not polymerise
- resistant to oxidation, good wearing protection

Lubricant for all driving and conveyor chains. Also available as spray.

#### **TURMOFLUID® ED 13**

- fully synthetic, silicon-free, resistant to high pressure
- colour: clear/transparent
- service temperature range: -45 °C to +150 °C
- good spreading properties, no gumming
- prevents squealing noise, metal affinity
- thin-bodied, creeps under water film
- good corrosion protection, resistant to oxidation

Spray and lubricating oil, it contains special water repellent compounds and thus already achieves a lubricating effect on humid machines and machine parts. Special oil for bottle screw plug mechanisms.

Also available as spray.

### TURMOFLUID® GV - line

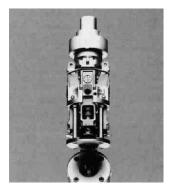
- fully synthetic
- colour: clear/transparent
- service temperature range: -45 °C to +180 °C
- good viscosity-temperature behaviour
- resistant to oxidation, good wearing protection

Gear and chain oils for bearing and slide faces exposed to high loads.

#### TURMOGEAR®OIL VG - line

- mineral, adhesive, high pressure absorbing ability
- colour: brownish/transparent
- service temperature range: -25 °C to +150 °C
- resistant to ageing, good wearing protection
- available in all viscosity classes

Oils for the lubrication of industrial gears.



TURMOFLUID® ED 13 is successfully applied by the beverage industry. Bottle screw plug mechanism, archive Dr. Datz, Andernach

Special lubricating greases for lubrication points in the beverage industry which are <u>not</u> in contact with foodstuff.

#### TURMOGREASE® 2

- mineral, adhesive
- colour: natural
- service temperature range: -30 °C to +130 °C
- consistency class: 2
- resistant to cold and hot water

Multi purpose grease for all points of friction and lubrication in the beverage industry.

#### TURMOPAST® MA 2

- fully synthetic, extremely adhesive
- colour: light-coloured
- service temperature range: -35 °C to +170 °C
- consistency class: 2

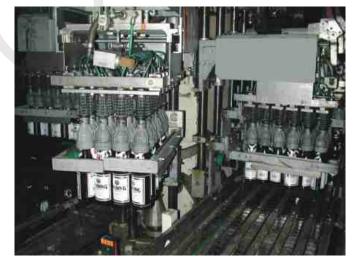
Special grease for extreme conditions, above all when exposed to moisture and media.

## **H2 Assembly Pastes:**

### TURMOPAST® NBI 2 white

- partly synthetic
- colour: white
- service temperature range: -35 °C to +150 °C
- resistant to water and acids
- prevents fretting corrosion and tribo-corrosion

Assembly paste for clean mounting works and slow-speed rolling and sliding bearings, particularly in humid surroundings.



KETTNER crate packing system



## H2-Special Sprays for the Beverage Industry

Special lubricating sprays for lubrication points in the beverage industry which are not in contact with foodstuff.

#### **TURMOFLUID® ED 13**

Product information see on page 12.

#### TURMOFLUID® ED 91

- fully synthetic, silicon-free, thin-bodied
- colour: clear/transparent
- service temperature range: -45 °C to +150 °C
- resistant to high pressure, no gumming
- prevents squealing noise, metal affinity
- good corrosion protection, resistant to oxidation

Water repelling lubricating oil with a good lubricating effect, has proven very successful in the continuous maintenance of plugging mechanisms in bottle screw plug machines. The good creeping and wetting capacity also allows its use on water-wet machine parts; a double effect is achieved, i. e. water repelling and conserving. Also suitable as rust dissolver.

#### TURMOGREASE® NBI Grease spray

- mineral
- colour: yellowish/transparent
- service temperature range: -35 °C to +140 °C
- resistant to water and acids
- high pressure absorbing ability

Grease spray for rolling and sliding bearings in cellerage machines, e. g. bottle filling and washing machines, keg washing machines.

### **GRIZZLY GREASE No. 1**

- colour: dark brown
- service temperature range: -30 °C to +150 °C
- resistant to high temperatures
- extremely adhesive
- good wearing protection

Suitable for a wide range of applications at high temperatures combined with extreme loads. To be used for ball and roller bearings as well as for sliding bearings, bushes and open gearwheel drives.



Bottle guidance via clamping starwheels

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