LUBCON® Service for the Corrugated Industry

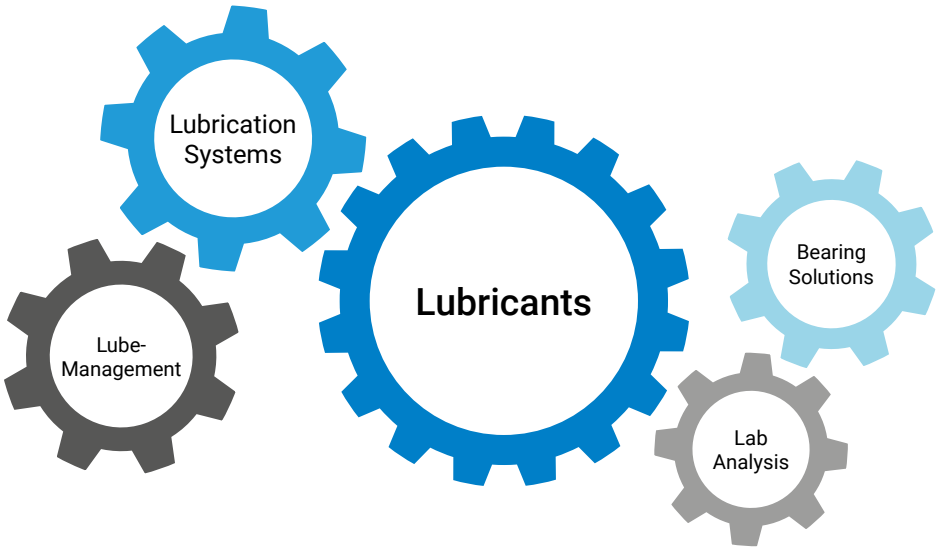
High-performance lubricants
and lubrication systems

Content

Competent, innovative and flexible

LUBCON® - Your Full-Service Provider

As a full-service provider with extensive experience in application engineering, we assist you with the selection of suitable lubricants and lubrication methods to increase safety, efficiency and service life of your production machines. The high quality of our products and services is the basis for the confidence of our customers and sales partners. As a family-owned company, we have been developing individual solutions together with our customers for more than 35 years. Our global LUBCON network of experienced chemists, technicians and engineers will assist you on questions relating to lubricant and application solutions, lubricant specifications as well as lubricant and bearing damage analyses. We also offer trainings and seminars for engineers, constructors and maintenance personnel for educational purposes.



LUBCON offers an ideal combination of high-performance lubricants and automatic lubrication systems, which are suitable for every application in all industrial sectors. We do not only assist you in finding the right lubricant, we also support you in the optimization of your production process. Thus, we ensure higher safety and reliability and lower costs and downtimes.

LUBCON in figures:

1980	350	52	>2000
Foundation	Employees	Countries	Products

From Germany to the world - LUBCON is your global partner for tribological solutions.

Special lubricants for extreme requirements

LUBCON® for the Corrugated Industry

The production of corrugated board involves a complex manufacturing process: at heat exposure, paper ist fluted and joined with flat sheets of paper. A single, double or triple paper combination creates a firm corrugated construction providing an environmentally friendly, stable cellulose product for the primary production of packaging products. High performance corrugators, with up to 150 meters length and 500 tons weight, yield daily production capacities of up to 50 000 m² per hour. Meanwhile, they must run perfectly and without malfunction despite influences such as heat, humidity, glue, dust and paper deposits.

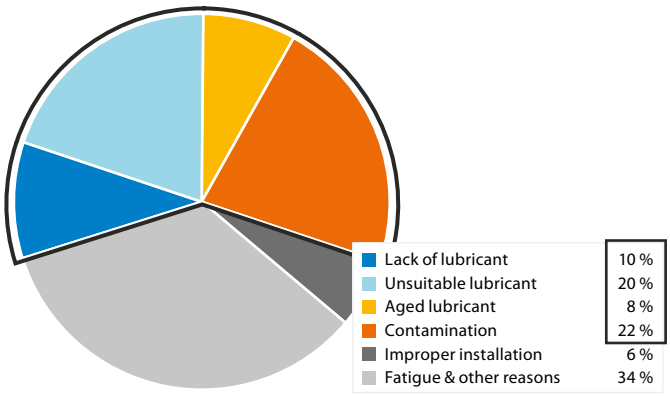
The corrugated industry has been growing continuously for years. It faces two main challenges now: On the one hand, it has to supply high-quality products, on the other hand it has to meet the increasing demand. Therefore, it is essential for every corrugated board manufacturer to find and adapt the most cost-effective production processes.

Repeated downtime and shortened relubrication intervals have a significant effect on cost efficiency and productivity. Unplanned machine downtimes often occur due to difficulties with corrugating roller bearings or unscheduled replacement of disc-cut blades. Many parts of the plant are exposed to harsh conditions, such as high temperatures and corrosive environments. Thus, only specially developed lubricants should be applied, which are optimized for such extreme conditions.

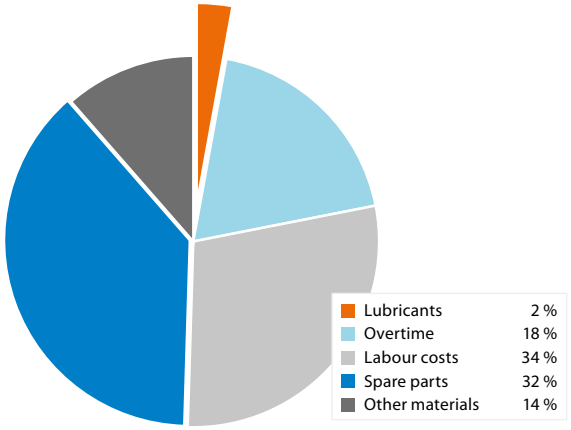
LUBCON has years of experience in the development and production of specialised, high-performance lubricants for the corrugated industry. We have the right solution for you, offering high temperature greases, high-tech oils and suitable lubrication systems. Our application engineers will be pleased to provide you with personal advice on your site.

The optimal Selection of Lubricants

The most common reasons for bearing failures are contaminations of the lubricant and the use of unsuitable lubricants. Further sources of failure related to lubrication, are the lack of lubricants or the reduced lubricity due to aged lubricants. This results in a lubrication related failure rate of around 60%. At the same time, lubricants only account for 2% of the overall maintenance costs.



Reasons for early bearing failures



Distribution of maintenance costs

An equivalent but cheaper lubricant can result in high follow-up costs during operation and maintenance. These exceed the possible savings in the purchase of the lubricant by far. A proper and correct lubricant selection, therefore, has a substantial influence on the service life, maintenance and efficiency of a plant. The following factors have to be considered in the selection process:

- type of application,
- type of bearing/gear,
- rotational speed,
- load direction and altitude,
- operating temperature,
- operating conditions,
- ambient temperature,
- horizontal or vertical shaft orientation,
- rotating inner or outer ring,
- rotary or oscillating motion,
- vibration or sudden impacts,
- operating hours.

The right selection of gear lubricants

Usually the selection of a suitable lubricant is done by the manufacturer during the constructive planning of the gear. The minimum requirements for circulating and gear oils are standardized in DIN 51517-1 to -3, in ISO 12925-1 and in AGMA 9005. However, characteristics of these oils such as wear protection, oxidation resistance and corrosion protection can be very different.

LUBCON's high-performance hydraulic and gear oils, containing an optimized composition of additives, ensure a high operating efficiency in a wide range of applications. They have an excellent thermal stability and oxidation resistance, which extend drain intervals and protect against corrosion and wear.

⇨ see table p.12

The special high temperature grease

Turmotemp® LP 2502 for Rolling Bearings

In the corrugated board production, temperatures of up to 240 °C are achieved by saturated steam. The plants are usually equipped with rolling bearings, which are designed for high loads with line contact between rolling elements and track. In addition to the advantage of a high load carrying capacity, this special bearing type also has a high rolling and sliding friction during operation. High loads, high temperatures and high friction are a major challenge for the bearing grease and require extraordinary lubricants.

Turmotemp® LP 2502 is a long-life, high-temperature grease for all rolling bearings and has been specially developed for the packaging and corrugated board industry. It provides high reliability even in complex corrugators. Compared to other lubricants, better wear protection can be expected for all ball bearings, particularly line contact bearings, e.g. spherical roller bearings, cylindrical roller bearings and taper roller bearings. Turmotemp LP 2502 operates up to a bearing temperature of 250 °C (500 °F) and thus provides optimum protection for bearings in corrugating machines (cardboard production, pre-heater and thrust bearings).

Up to 3x longer bearing operating life and 80% less wear

Turmotemp LP 2502 is the first grease, combining the superior long-term and high-temperature properties of perflourinated polyether (PFPE) with the excellent thickening capability and properties of a special high temperature resistant lithium-special soap. Due to this unique combination of thickener and high temperature resistant base oil, it has superior anti-corrosion resistance and outstanding wear protection. As a consequence, up to three times longer bearing service lives have been experienced in practice.

Turmotemp LP 2502 (dropping point > +250 °C) allows a decent backflow to the contact zone and therefore guarantees adequate lubrication. This excellent behaviour has been examined through extensive testing (e.g. FAG, FE 8). In rolling bearings tested with Turmotemp LP 2502, wear could be reduced by 80%, compared to bearings lubricated with PFPE/PTFE products.

Advantages of Turmotemp LP 2502 at a glance:

- protection against wear and corrosion,
- up to three times longer bearing service life,
- vibration and noise reduction,
- low frictional torque,
- energy and cost saving,
- no hardening effects,
- no oil separation effects,
- no hazardous ingredients,
- miscible with any PTFE/PFPE lubricant,
- no special cleaning agents required.

⇨ see table p.10

Better Cut, less Maintenance

In close cooperation with OEMs, LUBCON has developed the next generation of cutting fluids for the corrugated industry. The aim was to increase the service life of knives and felt pads, while decreasing maintenance effort and costs.

Corrugated machines produce many kilometres of corrugated board every day, which is subsequently cut and scored into the right shape by longitudinal cutters. Further down, it is cut again in the orthogonal direction by the cross cutter. However, paper is extremely abrasive and combined with glue, it generates a chemically aggressive layer on the cutting discs and blades. If this layer is not removed, starch and fibre deposits will cause corrosion of the steel material and therefore increase the abrasive wear of the cutting discs and blades. This prolongs the maintenance-related downtime of the machines and decreases the quality of the cutting systems.

Wet and correctly lubricated blades, however, prevent starch and fibre built-ups effectively. Thus, they make it possible to cut through strongly adhesive material. The knives are able to maintain their sharpness significantly longer, ensure smooth cuts, reduce friction and thus prevent material from being damaged or burned.

Advantages of LUBCON cutting oils:

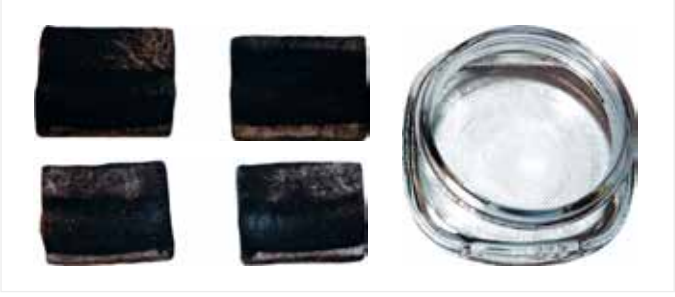
- Good lubrication capabilities,
- friction reduction,
- good corrosion protection,
- cooling capabilities,
- starch and glue dissolving capabilities,
- with H1-certification available.

⇨ see table p.12

Turmocut SR 15 - Lubricating oil for the slitter and scorer

Turmocut SR 15 is a lubricating oil based on high-purity hydrocarbons. It is a combination of base oil and additives and has very good surface wetting properties. It shows excellent lubrication characteristics, dissolves starch and keeps the knives clean and sharp.

Tests under harsh operating conditions have proven that Turmocut SR 15 has an excellent dissolving effect on starch built ups and provides optimum felt penetration. Thus, the unique preservation and cleaning oil reduces the cleaning interval of stones and increases the service life of knives. The lubricant is H1-certified.



Felt pads from slitter & scorer **before treatment** with Turmocut SR 15

Felt pads from slitter & scorer **after treatment** with Turmocut SR 15

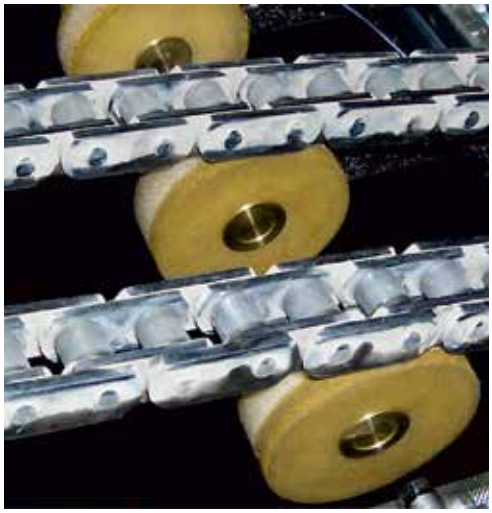
Reliable lubrication of chain systems

LubeChainSystem & EasyMatic

Chain lubrication requires maximum precision and accuracy with regards to lubricant application and supply, to ensure an optimum lubricating film with low lubricant consumption at the same time. Any contamination of products and the production environment through the lubricant must be prevented.

LubeChainSystem

The LUBCON LubeChainSystem consists of polyurethane (PU) foam material, providing an easy and clever lubrication solution. The spongy surface structure of the PU foam material absorbs the lubricating oil and distributes it evenly and efficiently to the surface. The lubricator roll is arranged onto a bushing, which rotates around its mounting axle. The system is mounted by means of a steel spring. A bore in the mounting axle, which is connected to an automatic lubrication unit, supplies the lubricant to the lubricator roll.



PU-foam rollers of LubeChainSystem

In comparison to manual lubrication, the LubeChainSystem is a cost effective and easy solution for smooth oil application. During operation, the spring-loaded lubricator roll runs on top of the chain. It supplies an optimal oil quantity to chain links, without contaminating the production environment. It can be operated in combination with a single point lubrication unit or a central lubrication system. The sytem can be assembled in all positions and is suitable for all chain designs and lengths (e. g. drive chains, conveyor chains).

EasyMatic

EasyMatic is an automatic, compact solution for multiple point lubrication. The system significantly contributes to reducing maintenance and lubrication costs. In addition, downtime due to manual lubrication can be minimised and machine reliability can be improved. Relubrication with EasyMatic and LUBCON high quality greases ensures an optimum bearing performance. Precise and regular automatic relubrication keeps the bearing free from contamination, reduces lubricant consumption and maintenance effort.

Electric central lubrication system EasyMatic

With the options of various size reservoirs, distributor blocks, pumps and programming capabilities, EasyMatic can be configured to suit any specific customer application. EasyMatic can pump either oil or grease up to NLGI class 3 and may be used in almost every type of environment due to its robust housing.

Accurate Lubrication with TLB 2000

Increasing conveyor speeds and higher temperatures, combined with reduced maintenance, require advanced solutions for conveyor chains, in order to minimise oil consumption and maximise chain service life. Many lubrication systems available on the market use nozzles to apply the oil onto the chain. However, through a broad spray cone the lubricant may either miss the chain completely or wet the external surfaces only. Overlubrication or an unprecise dosage may lead to a contamination of the final products with lubricants. Therefore, it is extremely important to lubricate effectively and with minimum quantities.

Central lubricating unit TLB 2000 (left) with control unit VRDS (right)

The central lubrication system TLB 2000 offers the technology to precisely apply minimum quantities of lubricant at those points, where lubricant is needed. Accurate control of chain oil quantities avoids over lubrication and thus prevents the potential contamination of the finished product. In combination with special H1-chain oils, LUBCON offers an optimal solution to extend the service life of chains considerably. Thus, it increases safety during production and reduces grease consumption.

Benefits of TLB 2000 at a glance:

- reduce maintenance costs,
- minimise maintenance effort,
- reduction wear,
- enhance plant availabilty and service life,
- defined point of impact per lubricating point,
- minimum lubrication.

Greases

		Base Oil Viscosity at 40 °C [mm²/s]	Operating Temperature range Min	Operating Temperature range Max	NLGI-Class	Load Carrying Capacity	Speed Factor	Corrosion Protection	Water Resistance	Solid Lubricants
Lubricants for corrugated roll / preheater										
TURMOTEMP LP 2502		250	-30 °C	+250 °C	2	VH	H	++	++	-
SINTONO MEGA 2	H1	500	-30 °C	+260 °C	2	VH	M	++	++	-
TURMOGREASE NHF 2002		460	-30 °C	+180 °C	2	VH	M	++	++	-
Reel stand / Splicer; Multipurpose grease										
TURMOGREASE L 802 EP plus		85	-35 °C	+140 °C	2-3	M	EH	++	++	-
TURMOGREASE HDC 2		410	-30 °C	+150 °C	2	VH	M	+++	+++	-
TURMOSYNTHGREASE ALN 1002	H1	100	-40 °C	+140 °C	2	M	VH	++	++	-
Lubricants for glue applicator rolls										
TURMOGREASE HDC 2		410	-30 °C	+150 °C	2	VH	M	+++	+++	-
TURMOGREASE N 2		150	-40 °C	+160 °C	2	M	VH	++	++	-
TURMOSYNTHGREASE ALN 1002	H1	100	-40 °C	+140 °C	2	M	VH	++	++	-

Bearing Operating Parameters		Speed Factor (n x dm)			Load C/P
		Ball Bearings	Spherical- & Taper Roller Bearings	Cylindrical Roller Bearings	
L	Low	< 100.000	< 75.000	< 75.000	> 15
M	Medium	< 300.000	< 210.000	< 270.000	= 5 up to 15
H	High	< 500.000	≥ 210 000	≥ 270 000	= 2 up to 4
VH	Very high	< 700.000	-	-	< 2
EH	Extremely high	≥ 700.000	-	-	-

n = Operating Speed [min-1]
C = Dynamic Bearing Load Carrying Capacity [N]
dm = 0,5 (d + D) = Bearing Mean Diameter [mm]
P = Equivalent Dynamic Bearing Load [N]

Base Oil/Thickener	Features and Benefits
PFPE / li-special soap	High temperature grease based on PFPE and a special metal soap. Its superior flow behaviour at high thermal and mechanical stress reduces wear to a minimum. Miscible with PFPE/PTFE containing lubricants.
PFPE / polyurea	High temperature grease based on perfluorinated oils (PFPE) and a special polyurea thickener, without PTFE. Superior flow behaviour at high thermal and mechanical stress. Miscible with lubricants containing PFPE/PTFE. H1-certified.
Polyurea/ composition of synthetical oils	High-performance grease for high mechanical and thermal loads. Without solids. Miscible with almost all organic and soap thickened greases. For thermal loads up to 180°C.
synthetic hydrocarbons / mineral oil / li-special soap	High-performance grease for rolling and plain bearings, subject to various requirements and loads. Particularly suitable for vibration, shock and pressure loads.
mineral oil / calcium sulphonate complex soap	High performance grease with outstanding water and media resistance. For rolling and plain bearings subject to various requirements and loads.
synthetic hydrocarbons / polyurea-al-special soap	Excellent for lubrication of bearing, as well as for linear guides and ball screws. Optimal application in oscillating mode as well as in harsh environments such as hot and cold water. Other base oil viscosities available. H1 registration.
mineral oil / calcium sulphonate complex soap	High performance grease with outstanding water and media resistance. For rolling and plain bearings subject to various requirements and loads.
synthetic hydrocarbons / ester / polyurea	Synthetic grease with high thermal load capacity. Suitable for long-term lubrication, e.g. in electric motors, fans etc. Resistant to hot/cold water and steam.
synthetic hydrocarbons / polyurea-al-special soap	Excellent for rolling and plain bearing lubrication, as well as for linear guides and ball screws. Optimal application in oscillating mode as well as in harsh environments such as hot and cold water. Other base oil viscosities available. H1 registration.

+++ outstanding ++ very good + good o average

Oils		Base Oil Viscosity at 40 °C [mm²/s]	Operating Temperature range Min	Max	Base Oil/Thickener
Cutting, lubricating and preservation oils					
TURMOCUT SR 15 - 68	H1	15, 32, 68	-15 °C	+150 °C	high purity hydrocarbons
TURMOCUT LMI 18	H1	17	-40 °C	+200 °C	synthetic hydrocarbons
TURMOCUT LMI 22	H1	15	-5 °C	+220 °C	ester
TURMOCUT VG 22		20,5	-30 °C	+150 °C	synthetic hydrocarbons
TURMOSYNTH VG 220	H1	220	-10 °C	+120 °C	white oil blended with synthetic oils
Chain oils					
TURMOFLUID ED 13		22	-45 °C	+150 °C	synthetic hydrocarbons
TURMOFLUID 40 B		270	-20 °C	+300 °C	ester / synthetic hydrocarbons
TURMOSYNTH VG-series	H1	10 - 4800	-10 °C	+140 °C	white oil
TURMOSYNTHOIL GV-series	H1	15 - 680	-50 °C	+140 °C	synthetic hydrocarbons
TURMOFLUID LMI 300	H1	15	-10 °C	+220 °C	ester
Gear oils					
TURMOGEAROIL OM-series		32 - 665	-15 °C	+120 °C	mineral oil
TURMOGEAROIL VG/EP-series		32 - 680	-15 °C	+120 °C	mineral oil
TURMOSYNTH VG-series	H1	32 - 1500	-10 °C	+120 °C	white oil
TURMOSYNTHOIL GV-series	H1	32 - 680	-40 °C	+140 °C	synthetic hydrocarbons
TURMOSYNTHOIL PG-series	H1	68 - 680	-30 °C	+160 °C	polyglycol
TURMOFLUSH FG 15	H1	16	-10 °C	+80 °C	white oil
Hydraulic oils					
TURMOFLUID HLP-series		10 - 100	-15 °C	+100 °C	mineral oil
TURMOSYNTH VG-series	H1	10 - 150	-10 °C	+100 °C	white oil
TURMOSYNTHOIL GV-series	H1	15 - 150	-40 °C	+140 °C	synthetic hydrocarbons

	Special cutting oils with excellent glue and starch dissolving properties, also on corrugating rolls. Unique additives dissolve any starch build-up in felts, grinding stones. the slitter scorer and cutting discs. Improves significantly the performance. Very good wetting properties and excellent corrosion protection, keeping cutting blades clean and sharp. Long service life time of up to > 30 million linear meters. Other viscosities available. H1 registration.
	Fully synthetic cutting oils. Perfectly suitable for lubrication in the paper and corrugated board industry. Very good dissolving effect on starch build-up, also on corrugating rolls. H1 registration.
	Fully synthetic, low viscosity oil with low evaporation and excellent surface wetting properties for quick and easy cleaning of corrugating rolls. Due to its excellent lubricating properties and high corrosion protection, the oil is also ideal for lubricating cutting discs in the slitter scorer of the corrugator. Excellent dissolving and cleaning effect for starch build-up. Can also be used at hot corrugating rolls without smoke emission. H1 registration.
	Fully synthetic oil with high metal affinity for the lubrication of longitudinal cutters (disc-cut system) and for the preservation of corrugating rolls. Due to excellent lubricating properties and very good creeping properties and wetting behaviour, the oil also offers good corrosion protection.
	Cutting oil with very good surface wetting and optimum corrosion protection for an excellent cutting performance in the corrugator cutt off section. It reduces friction/ wear and enables highest cutting precision even at high speeds of up to 400 m/min. High surface affinity and excellent lubricity of the oil prevent centrifugation and the contamination of the corrugated paper, as well as starch build-up on knives which keeps them clean and sharp. Other viscosities available. H1 registration.

	Multipurpose synthetic lubricating oil with good spreading effect. A special ingredient combination allows application even at wet metal parts. It is universally used for the lubrication of machines, machine parts and chains, in measuring and control technology, in machine and tool construction, as well as in the food and plastics industry.
	Thermally stable, extremely adhesive chain oil based on synthetic oil, with excellent corrosion and wear protection and low evaporation rate.
	White oil based lubricating fluids. The load capacity of the lubricating film varies from good to very good, depending on the viscosity. Also suitable for applications in the food/pharmaceutical industry, for technically unavoidable contact with the product. H1 registration.
	Universally applicable lubricants based on synthetic oils with a wide operating temperature range (depending on viscosity) and very good corrosion and wear protection. Also for applications in the food/pharmaceutical industry, for technically unavoidable contact with the product. H1 registration.
	Universally applicable synthetic special oil with excellent creeping and lubricating properties and an optimum protection against wear and corrosion. H1 registration.

	Universal gear oil based on mineral oil. Complies with CLP specificatins for gear oils according to DIN 51517.
	Universal gear oil based on mineral oil for gears at high loards. Complies with CLP specificatins for gear oils according to DIN 51517.
	Universal gear oil containing effective additives for high performance. Also suitable for applications in the food/pharmaceutical industry, for technically unavoidable contact with the product. H1 registration.
	Fully synthetic high-performance gear oil with a wide operating temperature range and long operating time. Also suitable for applications in the food/pharmaceutical industry, for technically unavoidable contact with the product. H1 registration.
	Fully synthetic lubricating oil for bevel gears and worm gears with very good wear protection at a high sliding friction. Wide operating temperature range and extended maintenance intervals. Also suitable for applications in the food/pharmaceutical industry, for technically unavoidable contact with the product. H1 registration.
	Low-viscosity oil for the cleaning and flushing of gears and systems, especially before switching to H1 lubricants. Not mixable with polyglycol. H1 registration.

	Optimally alloyed hydraulic oils for a wide range of applications. Complies with HLP requirements according to DIN 51524.
	Universal hydraulic oil with highly effective additives for safe use in hydraulic systems. Also suitable for applications in the food/pharmaceutical industry, for technically unavoidable contact with the product. H1 registration.
	Fully synthetic high-performance hydraulic oils with a wide operating temperature range and long service life. Also for applications in the food/pharmaceutical industry, for technically unavoidable contact with the product. H1 registration.

Further Lubricants

	Base Oil Viscosity at 40 °C [mm²/s]	Operating Temperature range Min	Max	Base Oil/Thickener
Lubricants for screw and piston compressors				
COMPGUARD FG-series H1	32 - 100	-	+160 °C	synthetic hydrocarbons
COMPGUARD GPX-series	46 - 100	-20 °C	+120 °C	combination of synthetic oils
Lubricants for rotary vane pumps				
COMPGUARD VPO 100 H1	100	-35 °C	+140 °C	synthetic hydrocarbons
Lubricants for rotary unit				
TURMOTEMP II/400 RS 2 H1	500	-30 °C	+260 °C	PFPE / PTFE
TURMOTEMP LP 2550	250	-30 °C	+270 °C	PFPE / li-special soap / PTFE
Lubricants for spindles, linear guides, joints				
TURMOFLUID ED 13	22	-45 °C	+150 °C	synthetic hydrocarbons
RAPID FG 15 H1	15	-55 °C	+100 °C	synthetic hydrocarbons
Lubricating / assembly paste				
TURMOPAST NBI 2 WEISS	100	-30 °C	+150 °C	mineral oil / calcium complex soap
TURMOSYNTH TAS WHITE H1	80	-20 °C	+150 °C	white oil/al-special soap
Penetrating oils				
TURMOFLUID ED 13 SPRAY	22	-45 °C	+150 °C	synthetic hydrocarbons
RAPID FG 15 SPRAY H1	15	-55 °C	+100 °C	synthetic hydrocarbons
Cleaner / Degreaser				
TURMOSYNTH VG 1 H1	-	room temperature		Isoparaffin HC
TURMOSYNTH VG 2 H1	-	up to +60 °C		Isoparaffin HC

	Universal compressor oil suitable for low and high temperatures as well as extreme operating conditions. Compared to conventional products based on mineral oil, this oil convinces by its wide temperature range and high oxidation resistance. Depending on the required viscosity, it can be used for screw and piston compressors. H1 registration.
	Fully synthetic high-performance compressor oil with excellent lubricating properties. To be used for screw and piston compressors depending on the required viscosity.

	Fully synthetic high-performance vacuum pump oil with excellent lubricating properties and high ageing resistance for an extended service life. Used as a high performance vacuum pump oil e.g. for rotary vane and vane pumps as well as for applications in the food/pharmaceutical industry with a technically unavoidable contact to the product. H1 registration.

	High temperature grease with excellent ageing and oxidation resistance. Non-flammable, neutral to most elastomers and plastics.
	Lubricant based on perfluorinated polyether (PFPE), PTFE and a special lithium soap. Preferred applications are in long-term lubricated spherical roller bearings, cylindrical roller bearings and taper roller bearings at high temperatures. Due to the used metal soap, the lubricant flows back to the friction points at thermal and mechanical load, thus reducing wear to a minimum.

	All-purpose synthetic lubricating oil with good spreading effect. A special ingredient combination enables application at wet metal parts. It is used universally for the lubrication of machine parts and chains, in measuring and control technology, in machine and tool construction, as well as in the food and plastics industry.
	Fully synthetic universal creeping oil with excellent rust dissolving and corrosion protection function. All-purpose creeping oil, used in the food, beverage and pharmaceutical industries. H1 registration.

	Light-coloured lubricating and assembly paste with novel solid lubricants against friction and fretting corrosion.
	White InS/H1 lubricating and assembly paste with new solid lubricant combination against friction and fretting corrosion (tribocorrosion). It prevents the sticking of bolts, hinges and screw connections, has a low coefficient of friction and protects reliably against wear and corrosion.

	Universally applicable, synthetic lubricating oil with good spreading effect. A special combination of active ingredients allows it to be applied even to wet metal parts. It is universally used for the lubrication of machines, machine parts and chains, in measuring and control technology, in machine and tool construction, as well as in the food and plastics industry.
	Fully synthetic universal penetrating oil providing excellent rust dissolving and corrosion protection.Also suitable for food, beverage and pharmaceutical industries. H1 registration.

	Fast and residue-free evaporating special cleaner and degreaser, especially suitable for removing oil, grease or wax from tools or components. H1 registration.
	Universal cleaner with lubricating properties. Leaves a permanent lubricating film after application, e.g. as corrosion protection or for improved disassembly of components. H1 registration.

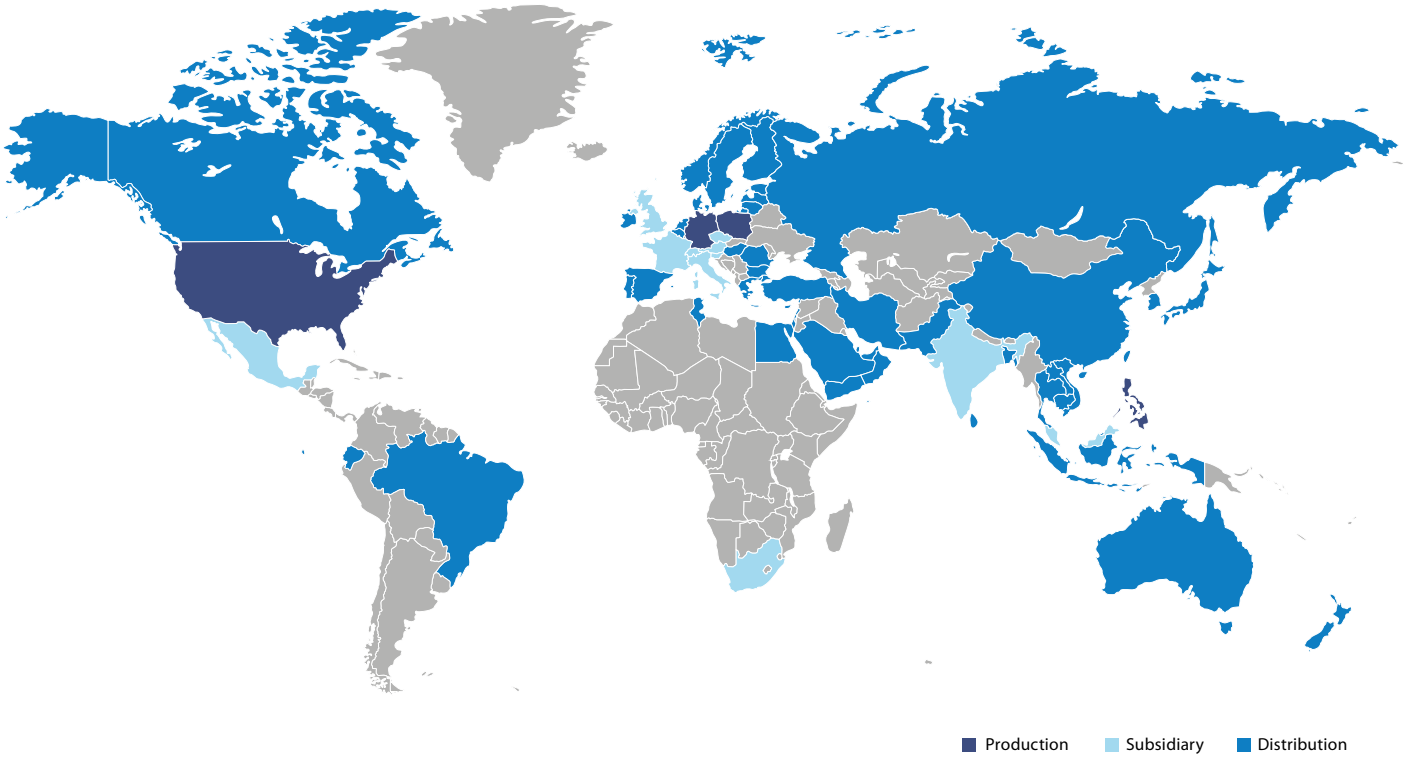
Some space for you

Personal Notes & Comments

Some space for you

Personal Notes & Comments

Global LUBCON Network



Release: 03/2019

LUBRICANT CONSULT GmbH
Gutenbergstr. 11-13
63477 Maintal, Germany

Tel.: +49 6109/7650-0
Fax: +49 6109/7650-51
Email: webmaster@lubcon.com

www.lubcon.com