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Detailed information

Well-knit solutions.

Speciality lubricants for textile machines





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Speciality lubricants for the textile industry

Your challenge...

Textile manufacturing plants, especially those working over several stages of the highly complex production process, operate a large number of sizeable machines, which entails very high investment costs. These investments must provide a return as soon as possible. Important criteria in achieving this include low operational and maintenance costs and reliable operation without unplanned downtime. Each unplanned event can result in significant income losses. The textile industry is required to produce higher volumes of textiles year-on-year while maintaining the quality level and satisfying tighter environmental standards.

... our tailor-made solutions for you

In order to help the textile industry to achieve its goals, Klüber Lubrication has for decades been providing many diverse solutions tailored to the industry's specific requirements. To satisfy these goals, lubrication must be correctly designed for components exposed to high speeds, temperatures and vibration as well as for exposure to water, steam, acidic and alkaline solutions. For higher productivity, longer equipment life or lower lubricant consumption, Klüber Lubrication can do it.

Although each step in the textile industry calls for different lubricant characteristics, Klüber Lubrication has a solution that responds to each of these challenges – no matter in which part of the textile production process. Klüber Lubrication can offer matching solutions, from spinning and knitting to textile finishing machines.

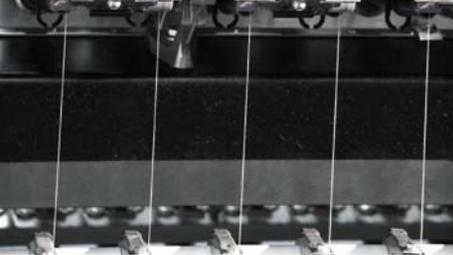
We understand your needs

Klüber Lubrication has been developing and producing speciality lubricants for more than 80 years. We have been the world market leader in this sector for several decades. Consequently, we have developed along with our customers and have seen many technical innovations evolve from the very beginning, especially in the textile industry.

Besides producing a large range of products comprising oils, greases, pastes, bonded coatings and waxes, we offer our customers the best advice and training regarding proper lubrication of their applications. We work in close cooperation with you to optimise the lubrication processes in your plant systematically, allowing you to benefit from your machines and your staff's know-how to the maximum.

Klüber Lubrication stands for highest product quality, innovation and excellent service.

Lubricants for spinning machines

Application	Machine / Component	Lubricant recommendation
	Rotary plate (plain bearings) in carders and drawing frames	Klüberpaste 46 MR 401
	Bearings of top and bottom rollers in the drawing system of drawing frames	ISOFLEX LDS 18 Special A STABURAGS NBU 12 / 300 KP
	Bearings of top and bottom rollers in the drawing system of ring spinning frames	STABURAGS NBU 12 / 300 KP
	Open-ended (OE) spinning turbines (direct drive / TwinDisc drive)	ISOFLEX NBU 15 ISOFLEX PDP 65
	Opening rollers (OE spinning frame)	ISOFLEX NBU 15



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Excellent corrosion protection. - Also available as spray for easy application. 	<ul style="list-style-type: none"> - Reduction of maintenance costs. - Lower risk of contamination of the spinning material in the can. 	<p>Klüberpaste 46 MR 401 should be in every workshop. The assembly paste protects against fretting corrosion for a long time even under adverse operating conditions. A product alternative is ALTEMP Q NB 50, which is also available as spray for easy application.</p>
<ul style="list-style-type: none"> - Fully synthetic special grease with good smooth-running properties. - Relubrication intervals may exceed by far the specified intervals. 	<ul style="list-style-type: none"> - Reduction of downtime. - Lower maintenance costs. - Lower contamination risk. 	<p>The lubricant to be selected depends on the recommendation of the machine manufacturer. Rieter, Ingolstadt/Germany, uses ISOFLEX LDS 18 Special A for first fill and lists the product in the lubricant chart.</p>
<ul style="list-style-type: none"> - Product streamlining is possible when lubricating the bearings of the drawing system of ring spinning frames with STABURAGS NBU 12 / 300 KP; lower risk of confusion. 	<ul style="list-style-type: none"> - Reduction of downtime. - Lower maintenance costs. - Lower contamination risk. 	
<ul style="list-style-type: none"> - Excellent corrosion protection and long-term lubrication of bottom roller bearings. - Depending on the operating conditions, relubrication intervals of the upper roller bearings can be 30 000 to 50 000 operating hours, or up to 3 000 hours for the bottom rollers. 	<ul style="list-style-type: none"> - Increases operational safety and reduces downtime. - Reduces maintenance costs. - Reduced contamination risk. 	<p>STABURAGS NBU 12 / 300 KP has been used for initial lubrication by e.g. Texparts and Spindelfabrik SUESSEN for many years.</p>
<ul style="list-style-type: none"> - Both products for extremely high speeds. - Reduces temperature rise and wear on bearings. - Extends relubrication intervals. 	<ul style="list-style-type: none"> - Both products allow for an increase of operational safety, longer bearing life and very long lubrication intervals. - Lower maintenance and spare part costs. 	<p>The lubricant to be selected depends on the recommendation of the machine manufacturers.</p> <p>ISOFLEX PDP 65 is used for the depot and relubrication of Rieter OE spinning machines with TwinDisc drive.</p>
<ul style="list-style-type: none"> - Smooth running of bearings and uniform opening of the sliver. 	<ul style="list-style-type: none"> - Higher operational safety and reduced downtime. 	

Lubricants for synthetic fibre spinning machines

Application	Machine / Component	Lubricant recommendation
	Spinning pumps	UNISILKON TK 017 THERM oils
	Screwed connections of spinnerets	Klüberpaste UH1 96-402
	Surfaces of spinnerets	UNISILKON M 2000 SPRAY
	Godet bearings	UNISILKON TK 44 N 2 REC. A <hr/> UNISILKON L 50/2 <hr/> BARRIERTA L 55/2 <hr/> PETAMO GHY 441

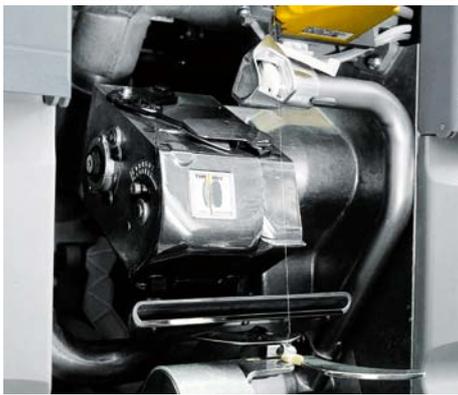


Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> – Reliable start-up of precision gear pumps in the melt spinning process. Prevention of wear due to insufficient lubrication during start-up. 	<ul style="list-style-type: none"> – Longer life of gearwheels. 	<p>UNISILKON TK 017 THERM oils are recommended by pump manufacturers and successfully used by synthetic fibre processors.</p>
<ul style="list-style-type: none"> – White assembly paste 	<ul style="list-style-type: none"> – Much less time required for changing the spinnerets. 	<p>Klüberpaste UH1 96-402 can be used up to 1 200 °C.</p>
<ul style="list-style-type: none"> – Prevents clogging of the spinnerets at temperatures up to 200 °C. – Ensures a reliable start-up of production. – No additional cleaning required. 	<ul style="list-style-type: none"> – Higher operational safety. 	<p>UNISILKON M 2000 SPRAY is a universal separating agent and lubricant for thermo- and duroplastics as well as elastomers and can also be used as sliding agent for seals.</p>
<ul style="list-style-type: none"> – All four products allow for long-term lubrication and longer service life of bearings under demanding conditions. 	<ul style="list-style-type: none"> – All four products allow for higher operational safety and reduced downtime. – Lower maintenance costs. – Reduced contamination risk. 	<p>The lubricant to be selected depends on the recommendation of the machine manufacturer. e.g. Starlinger < 150 °C PETAMO GHY 441; 150 – 170 °C BARRIERTA L 55/2 or Barmag: up to 180 °C UNISILKON TK 44 N 2 REC. A; up to 200 °C UNISILKON L 50/2.</p>



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - For operating temperatures lower than 100 °C. - Smooth running of cold and hot separator rollers. - Minimal maintenance required for many years. - Prevents thread breakage. 	<ul style="list-style-type: none"> - Prevents production downtime caused by thread breakage, hence higher output. - Reduced maintenance costs. 	<p>ISOFLEX SUPER LDS 18/25 S is a long-term lubricant free of CFC. Observe the solvent's extended evaporation period during relubrication.</p>
<ul style="list-style-type: none"> - For operating temperatures of 100 °C or higher. - Smooth running of cold and hot separator rollers. - Minimal maintenance required for many years. - Prevents thread breakage. 	<ul style="list-style-type: none"> - Prevents production downtime caused by thread breakage, hence higher output. - Reduced maintenance costs. 	
<ul style="list-style-type: none"> - For sintered metal spinning rings. - Synthetic oil with good wetting properties and low ageing tendency. - The load-carrying lubricating film prevents contact of the friction components and significantly reduces wear. 	<ul style="list-style-type: none"> - Both lubricants ensure a uniform yarn tension, thus extending the component life and reducing downtime. 	<p>The lubricant to be selected depends on the material of the ring.</p>
<ul style="list-style-type: none"> - For steel spinning rings. - Mineral-oil based, fully scourable and biodegradable oil with good wetting properties 		
<ul style="list-style-type: none"> - High-speed grease with good wetting properties. Reduces bearing loads and wear. - Ensures accurate coiling of the filament. 	<ul style="list-style-type: none"> - Reduced downtime owing to lower bearing wear despite very high speeds. 	

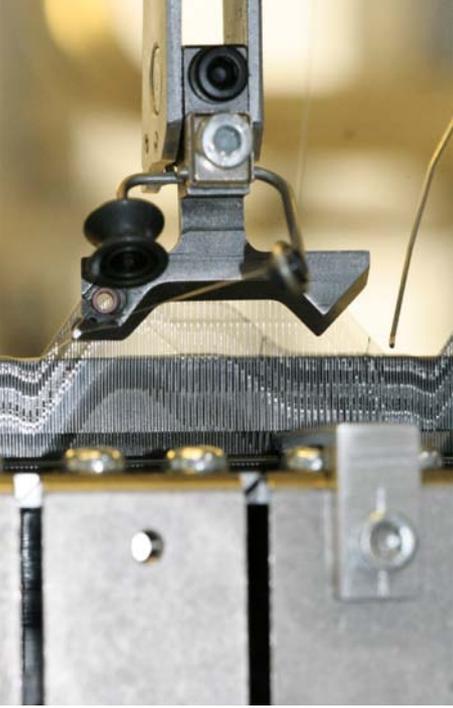
Lubricants for twisting and spool winding machines

Application	Machine / Component	Lubricant recommendation
	Thread guide slide and zigzag winding guide	ISOFLEX TEL 3000 ALTEMP
	Travelling knotter and travelling splicer	MOLYBKOMBIN M 5 SPRAY
	Spindle can bearing / belt guide rollers	ISOFLEX NBU 15



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Dynamically very light lubricating grease. - Light-coloured solid lubricants ensure emergency lubricating properties and light colour of lubricant. - Reduces the component temperature. 	<ul style="list-style-type: none"> - Longer maintenance intervals as the temperature of the friction points is reduced owing to the good wear protection of the lubricant. - Minimum lubricant quantities required due to the good lubricating performance, hence lower contamination risk. 	
<ul style="list-style-type: none"> - Emergency lubricating properties due to solid lubricants. - Spray allows easy lubrication of friction points difficult to access. 	<ul style="list-style-type: none"> - Increased operational safety. - Reduced maintenance and downtime. 	<p>For the lubrication of the internal mechanism in the housing and the gear reducer.</p>
<ul style="list-style-type: none"> - Dynamically light, synthetic lubricating grease for long-term lubrication at high speeds. - Depending on the operating conditions, relubrication intervals of 5 000 to 10 000 operating hours are possible. - Reduces wear and temperature rise of bearings and rollers. Power requirement is reduced as well and the service life of components is extended. - Allows smooth running of rollers. 	<ul style="list-style-type: none"> - Lower energy consumption. - Longer relubrication intervals, hence reduced downtime. 	

Lubricants for knitting machines

Application	Machine / Component	Lubricant recommendation
	<p>Needles and sinkers in circular knitting machines</p>	<p>Running-in oil: Klüber Silvertex P 91</p> <hr/> <p>Needle oil: Klüberoil TEX 1-22 N/1-32 N Klüber Silvertex W 22/W 32 Klüber Silvertex T 22/T 32 Klüberoil Madol 900/915/920/ 934/966/982 Supreme</p> <hr/> <p>Cleaning oil: Klüber Silvertex R 14</p>
	<p>Flat-bed knitting machines (stitch-forming elements)</p>	<p>Running-in oil: Klüber Silvertex P 91</p> <hr/> <p>Needle oil: Klüber Silvertex T 32/T 46</p> <hr/> <p>Cleaning oil: Klüber Silvertex R 14</p>



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Fully synthetic running-in oil which quickly removes wear particles, thus ensuring accurate running-in of friction points. 	<ul style="list-style-type: none"> - All these products allow for long service life of the stitch-forming elements, hence higher operational safety and minimum maintenance. 	
<ul style="list-style-type: none"> - All these needle oils comply with the legal requirements set forth in EU Directive 2003/53/EC for placing NP/NPE-containing products on the market. - Semi-synthetic needle and sinker oils with good load-carrying capacity and good wear protection. - The needle oils Klüberoil TEX 1-... N, Klüber Silvertex W and Klüber Silvertex T are biodegradable acc. to OECD-301c. 		<p>The lubricant to be selected depends on the recommendations of the machine manufacturer and the operating conditions. We will be pleased to provide comprehensive consulting.</p>
<ul style="list-style-type: none"> - Removes clogging and contamination of the stitch-forming elements. 		
<ul style="list-style-type: none"> - Fully synthetic running-in oil which quickly removes wear particles, thus ensuring accurate running-in of friction points. 	<ul style="list-style-type: none"> - All these products allow for long service life of needles, coupling and pressure components, hence higher operational safety and minimum maintenance. 	
<ul style="list-style-type: none"> - Complies with the legal requirements set forth in EU Directive 2003/53/EC for placing NP/NPE-containing products on the market. - Semi-synthetic needle and sinker oils with good load-carrying capacity and good wear protection. - Biodegradable acc. to OECD-301c. 		<p>The viscosity to be selected depends on the recommendation of the machine manufacturer and the operating conditions.</p>
<ul style="list-style-type: none"> - Removes clogging and contamination of the stitch-forming elements. 		

Lubricants for knitting machines

Application	Machine / Component	Lubricant recommendation
	Slide rails on flat-bed knitting machines	Klüber Silvertex GREASE 3000 N
	Hosiery knitting machines (stitch-forming elements, gears and bearings)	Running-in oil: Klüber Silvertex P 91 Needle oil: Klüber Madol 162 Supreme Klüber Madol 172 Supreme Klüber Madol 183 Supreme Cleaning oil: Klüber Silvertex R 14



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> – Reduces wear and increases smooth running of impulse transmitter rail, carriage guide and racking unit. 	<ul style="list-style-type: none"> – Reduced maintenance requirement. – Higher operational safety. 	<p>The lubricant to be selected depends on the recommendations of the machine manufacturer and the operating conditions. We will be pleased to provide comprehensive consulting.</p>
<ul style="list-style-type: none"> – Fully synthetic running-in oil which quickly removes wear particles, thus ensuring accurate running-in of friction points. 	<ul style="list-style-type: none"> – All these products allow for long service life of the stitch-forming elements, hence higher operational safety and minimum maintenance. 	
<ul style="list-style-type: none"> – All these needle oils comply with the legal requirements set forth in EU Directive 2003/53/EC for placing NP/NPE-containing products on the market. – Semi-synthetic needle and sinker oils with good load-carrying capacity and good wear protection. 		<p>The viscosity to be selected depends on the recommendations of the machine manufacturer and the operating conditions. Messrs. Lonati uses Klüber Madol 183 for the initial equipment and exclusively recommends this oil for relubrication.</p>
<ul style="list-style-type: none"> – Removes clogging and contamination of the stitch-forming elements. 		<p>For machines with oil circulation lubrication we recommend using the cleaning oil Klüber Silvertex R 14 before changing the oil.</p>

Lubricants for warp knitting machines

Application	Machine / Component	Lubricant recommendation
	Friction gears	LAMORA VARIOGEAR OIL EL 2
	Guide bars in warp beams of knitting machines	QUIETSCH-EX SPRAY Klüberpaste 46 MR 401



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - These special oils ensure uniform operation of gears and accurate thread feed and fabric take-up. 	<ul style="list-style-type: none"> - Less flaws in the knit fabric owing to the uniform production speeds. 	<p>LAMORA VARIOGEAR OIL EL 2 is recommended by Karl Mayer, Obertshausen.</p>
<ul style="list-style-type: none"> - For the lubrication of flat-bed frames. - Good wetting of friction points. - Stays at the friction point for a long time. 	<ul style="list-style-type: none"> - Reduced maintenance and downtime. 	<p>Can also be used as anti-rust agent.</p>
<ul style="list-style-type: none"> - For the lubrication of ball bushings. - Excellent resistance to media and corrosion protection. - Good load-carrying capacity and wear protection. 	<ul style="list-style-type: none"> - Reduced maintenance and downtime. 	<p>Klüberpaste 46 MR 401 should be in every workshop. The assembly paste protects against fretting corrosion for a long time even under adverse operating conditions. A product alternative is ALTEMP Q NB 50, which is also available as spray for easy application.</p>

Lubricants for weaving machines

Application	Machine / Component	Lubricant recommendation
	Weaving machine gears	Klübersynth 100 KV Klübersynth 50 KV Klübersynth G4-130
	Gear of the jacquard machine	Klübersynth G4-150
	Gripper looms	MICROLUBE GBU Y 131
	Motor coupling with brake and sliding block	ISOFLEX TOPAS NB 52
	Rapier guide roller	ISOFLEX TOPAS NB 52
	Distributor cutter	ISOFLEX TOPAS NB 52
	Open gears	GRAFLOSCON CA ULTRA SPRAY
	Chains	HOTEMP 2000 SPRAY



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Synthetic gear oils especially for weaving machines. - Depending on the operating conditions, oil change intervals can be extended to approx. 5 000 to 20 000 operating hours compared to mineral-oil based gear oils due to their good ageing resistance. 	<ul style="list-style-type: none"> - Reduced maintenance costs and higher output due to longer oil change intervals. 	<p>The lubricant to be selected depends on the manufacturer and the type of machine. Promatech approved Klübersynth 100 KV for the type VAMATEX without cooler, Klübersynth 50 KV for the Loom Cooler type and Klübersynth G 4-130 for the Promatch type SOMET.</p>
<ul style="list-style-type: none"> - Good wetting of the friction point. - The uniform lubricating film is not affected by demanding operating conditions, e.g. vibrations. - Compatible with plastics and elastomers. - Low copper corrosion. 	<ul style="list-style-type: none"> - Tried-and-tested material compatibility to protect the sensitive machine components for a long time. 	<p>The product is approved by Staubli.</p>
<ul style="list-style-type: none"> - MICROLUBE GBU Y 131 allows extension of relubrication intervals to one month, even at extremely high speeds. - MICROLUBE Y 131 shows a very good backflow behaviour, which is especially important in friction points subject to oscillating motion. 	<ul style="list-style-type: none"> - Longer service life of the bearings in the fly-wheel support and the crosshead axle, also when subjected to strong vibrations. - Increased output and reduced maintenance. 	<p>The lubricant is recommended by Sultex (Sulzer Textil).</p>
<ul style="list-style-type: none"> - Improves smooth operation of friction points for a long time. 	<ul style="list-style-type: none"> - Reduced maintenance. 	
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<ul style="list-style-type: none"> - Improves smooth operation of friction points for a long time. 	<ul style="list-style-type: none"> - Reduced maintenance. 	
<ul style="list-style-type: none"> - Very good wear protection and adhesion ensure extremely long relubrication intervals. - Easy application by spray. 	<ul style="list-style-type: none"> - Minimum-quantity lubrication possible, long relubrication intervals and hence reduced maintenance. 	
<ul style="list-style-type: none"> - Universal spray for chains - also for high-speed transmission, control and conveyor chains. - Good adhesion and wear protection. - Easy application by spray. 	<ul style="list-style-type: none"> - Minimum-quantity lubrication possible, long relubrication intervals and hence reduced maintenance. 	

Lubricants for textile finishing machines

Application	Machine / Component	Lubricant recommendation
	Rolling bearings in washing and mercerising machines, dyeing machines and festoon steamers	STABURAGS NBU 12 STABURAGS NBU 12/300 KP
	Corrosion protection for the inner lining of steamers	STABURAGS NBU 30
	Chains in steamers	Klübersynth CTH 2-260 PRIMIUM FLUID SPECIAL HOTEMP PLUS
	Bearings in steamers	BARRIERTA L 55/2



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Special greases resistant to water and steam. - Also resistant to aqueous alkaline and acid solutions. 	<ul style="list-style-type: none"> - High operational safety. - Considerably reduced maintenance. 	<p>The lubricant to be selected depends on the operating conditions (vibrations etc.). We will be pleased to provide comprehensive consulting.</p>
<ul style="list-style-type: none"> - Special grease resistant to hot water, steam, alkaline and acid solutions; protects the inner lining of steamers. 	<ul style="list-style-type: none"> - Economical long-term protection. - Internal coating lasts for one year or more, in most cases. - No premature, expensive replacement of the steamer lining. 	
<ul style="list-style-type: none"> - All these products are high-temperature chain oils for temperatures up to 250 °C. - Good wetting properties. - Low formation of residues. - Good regenerating effect of the chain oil during relubrication. 	<ul style="list-style-type: none"> - All these products allow for smooth operation and reduced repair costs. 	<p>The lubricant to be selected depends on the recommendations of the machine manufacturer and the operating conditions. We will be pleased to provide comprehensive consulting.</p>
<ul style="list-style-type: none"> - Fully synthetic, long-term and high-temperature bearing grease. - Excellent resistance to aggressive chemicals and steam. 	<ul style="list-style-type: none"> - Smooth operation and reduced repair costs. 	

Lubricants for textile finishing machines

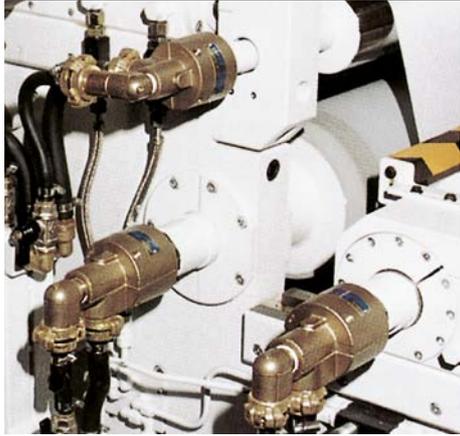
Application	Machine / Component	Lubricant recommendation
	Gaskets in dyeing equipment and yarn steamers	SYNTHESO PROBA 270
	Bearings of washing liquor circulation pump	STABURAGS NBU 12/300 KP
	Rolling and plain bearings in heated calenders	Klübersynth GH 6 oils ¹⁾

1) We have combined the high requirements of today's power transmission technology in a holistic approach named KlüberComp Lube Technology incorporating four important aspects: all gear components, lubricant formulations with high-quality raw materials, individual consulting and service as well as highest performance levels. Get in touch with our experts to learn more about this advanced technology.



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Fully synthetic lubricating grease, compatible with natural and synthetic rubber. - Prevents sticking of the seal, therefore the lids open and close more easily and the service life of seals is considerably extended. - In most cases, seal lubrication is required once a week only. 	<ul style="list-style-type: none"> - Reduced maintenance and spare part costs. 	<p>SYNTHESO PROBA 270 is also an ideal assembly aid for all rubber seals.</p>
<ul style="list-style-type: none"> - Very media-resistant bearing grease which is not washed out in case of seal leakage. 	<ul style="list-style-type: none"> - High operational safety. - Longer bearing life and reduced maintenance. 	<p>STABURAGS NBU 12/300 KP is recommended by Thies. Then recommends PETAMO GHY 133 N.</p>
<ul style="list-style-type: none"> - Fully synthetic high-temperature oils with good viscosity-temperature behaviour. - Can be delivered through oil pumps and pipe systems, also at room temperature. - At high temperatures up to 150 °C or short peaks up to 180 °C (maximum film temperature 225 °C), Klübersynth GH 6 oils have a higher operational viscosity than mineral oils of the same ISO VG viscosity grade and fulfil the demands for the required full fluid-film lubrication. 	<ul style="list-style-type: none"> - Longer oil change intervals. - Reduced maintenance costs and downtime. 	<p>Klübersynth GH 6 oils are available in all common ISO VG viscosity grades and hence comply with the manufacturers' specifications.</p>

Lubricants for textile finishing machines

Application	Machine / Component	Lubricant recommendation
	Steam headers/rotary couplings in e.g. steam-heated finishing machines	PETAMO GY 193 BARRIERTA L 55/2
	Compensator and rollers in the hotflue	BARRIERTA L 55/2



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - For temperatures up to 180 °C. - Good thermal stability, resistance to media and compatibility with seals. 	<ul style="list-style-type: none"> - Reduced maintenance costs and downtime. 	<p>The product is recommended by Messrs. Meier, Heidenheim/Germany.</p>
<ul style="list-style-type: none"> - For temperatures up to 260 °C. - Good thermal stability, resistance to media and compatibility with seals. 	<ul style="list-style-type: none"> - Reduced maintenance costs and downtime. 	<p>The product is recommended by Messrs. Meier, Heidenheim/Germany.</p>
<ul style="list-style-type: none"> - Fully synthetic, long-term and high-temperature bearing grease. - For temperatures up to 260 °C. - Very good resistance to chemicals and vapours. 	<ul style="list-style-type: none"> - Considerably reduced maintenance due to long relubrication intervals. 	

Lubricants for stenter frames

Application	Machine / Component	Lubricant recommendation
	Fabric conveyor chains: sliding chains	Klübersynth CTH 2-260 PRIMIUM FLUID SPECIAL HOTEMP PLUS
	Fabric conveyor chains: chains supported by ball bearings	BARRIERTA L 55/2 Klübertemp HCB 83-402
	Fabric conveyor chains: needle bars and clips	UNISILKON M 2000 SPRAY UNISILKON TK 002/100



Advantages and application notes	Your benefits	Notes
<p>All these products offer:</p> <ul style="list-style-type: none"> - Separating effect on condensates and, consequently, less build-up of residues. - Effective lubrication of the chain links and slide rails under varying operating conditions (speed, temperature, stretching tension). - Thermally stable up to 250 °C. - Good evaporation behaviour. - Good regenerative capacity, resulting in a significant extension of chain cleaning intervals. - Good friction and wetting behaviour. - Considerably improved viscosity-temperature behaviour compared with conventional chain oils. 	<ul style="list-style-type: none"> - All these products allow for smooth operation and reduced repair costs. 	<p>The lubricant to be selected depends on the recommendations of the machine manufacturer and the operating conditions. We will be pleased to provide comprehensive consulting.</p>
<ul style="list-style-type: none"> - Both products are fully synthetic, high-temperature bearing greases. - For long-term lubrication or as recommended by manufacturer. - Long-term lubricated bearings require lower relubrication quantities. 	<ul style="list-style-type: none"> - Both products allow for smooth operation and reduced repair costs. 	<p>The lubricant to be selected depends on the recommendations of the machine manufacturer and the operating conditions. We will be pleased to provide comprehensive consulting. BARRIERTA L 552 is recommended by MONFORTS.</p>
<ul style="list-style-type: none"> - For easy manual application. - The lubricant impregnates the surface and forms a separating layer, thus facilitating residue removal. 	<ul style="list-style-type: none"> - Reduction of malfunctions in the production process. - Less cleaning required. 	<p>Regular application of the separating agent on the low-speed chain ensures optimum separating effect. Explicitly recommended by MONFORTS.</p>
<ul style="list-style-type: none"> - For semi-automatic application via drip feed oilers or rotating brushes. - The lubricant impregnates the surface and forms a separating layer, thus facilitating residue removal. 		

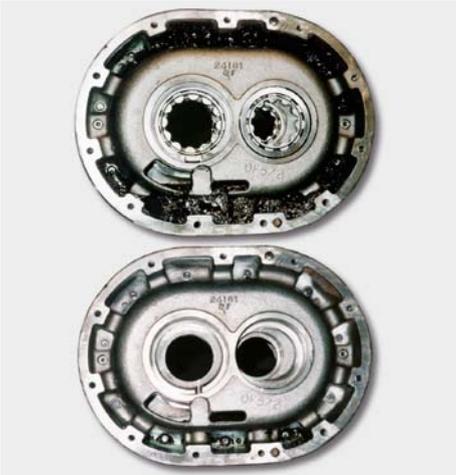
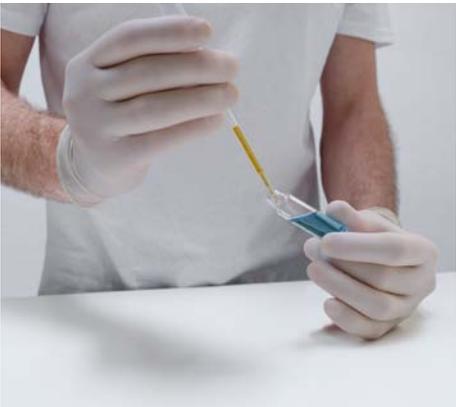


Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Fully synthetic high-temperature bearing grease for electric motors for temperatures up to 150 °C. 	<ul style="list-style-type: none"> - Reduced maintenance due to long relubrication intervals and lower cleaning requirements. - Higher operational safety due to reduced bearing wear. 	
<ul style="list-style-type: none"> - Fully synthetic high-temperature bearing grease for temperatures up to 180 °C. 	<ul style="list-style-type: none"> - Reduced maintenance due to long relubrication intervals and lower cleaning requirements. - Higher operational safety due to reduced bearing wear. 	
<ul style="list-style-type: none"> - Fully synthetic high-temperature long-term bearing grease for temperatures up to 260 °C. 	<ul style="list-style-type: none"> - Reduced maintenance due to long relubrication intervals and lower cleaning requirements. - Higher operational safety due to reduced bearing wear. 	
<ul style="list-style-type: none"> - Molybdenum disulphide bonded coating providing a dry lubricating film up to 450 °C. - Largely prevents sticking due to build-up of lint and contamination. Consequently, easy and accurate width adjustment is possible requiring comparatively little maintenance. 	<ul style="list-style-type: none"> - Ensures smooth width adjustment thus increasing process reliability. - Reduced maintenance. 	<p>MOLYBKOMBIN UMF T 4 SPRAY has also proven successful in workshops for the assembly of e.g. screw connections and bearing seats. Protects against seizure, especially at high temperatures.</p>
<ul style="list-style-type: none"> - Particularly for non-oiltight worm gears. - Compatible with standard oil sight glasses and paint coatings. 	<ul style="list-style-type: none"> - Reduced wear of gears, hence longer component life. 	<p>STRUCTOVIS BHD MF is an intrinsically viscous long-term and high-temperature lubricant which contains solid lubricants and is particularly suitable for worm gear drives in width adjustment spindles.</p>



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> - Klübersynth GEM 4...N oils are miscible with mineral oil residues and are largely compatible with paints and seals. - Klübersynth GEM 4...N oils are available in all common ISO VG viscosity grades. - They offer good wear protection, also at extremely high tooth flank loads in the mixed friction regime (e.g. high torques at low speeds). 	<ul style="list-style-type: none"> - Significantly longer oil change intervals as the oils' ageing process sets in later compared to mineral oil products, even at high temperatures. 	<p>For special weaving machine gear oils, please see the chapter on weaving machines.</p>
<ul style="list-style-type: none"> - Owing to the good friction behaviour the gear temperature and thus the ageing of the oil can be reduced. - The oils offer good wear protection, also under high tooth flank loads in the mixed friction regime (e.g. high torques and low speeds). 	<ul style="list-style-type: none"> - Significantly longer oil change intervals as the oils' ageing process sets in later compared to mineral oil products, even at high temperatures. 	<p>Klüberynth GH 6 oils are not miscible with mineral oils or oils based on PAO. Compatibility with seal materials, paints and sight glasses has to be checked.</p>
<ul style="list-style-type: none"> - Klübersynth GH 6 oils have a good friction behaviour. They reduce gear temperatures considerably and increase gear efficiency by more than 25 %. - Owing to their special additives they reduce wear substantially, especially on materials that are typically used for worm gears. - Depending on the operating conditions, oil change intervals are at least five times longer than those of mineral oils. 	<ul style="list-style-type: none"> - These oils offer a better thermal stability than mineral oil products; therefore ageing sets in later and oil change intervals are extended. These oils also reduce wear of gears and hence extend the service life of components. 	<p>Klüberynth GH 6 oils are not miscible with mineral oils or oils based on PAO. Compatibility with seal materials, paints and sight glasses has to be checked.</p>
<ul style="list-style-type: none"> - Klübersynth GEM 4...N oils are miscible with mineral oil residues and are largely compatible with paints and seals. 		<p>Klübersynth GEM 4...N oils are available in all common ISO VG grades.</p>
<ul style="list-style-type: none"> - For operating temperatures up to 160 °C. 	<ul style="list-style-type: none"> - Prevents premature bearing failure and machine downtime. 	
<ul style="list-style-type: none"> - For operating temperatures up to 180 °C. 	<ul style="list-style-type: none"> - Prevents premature bearing failure and machine downtime. 	
<ul style="list-style-type: none"> - For lifetime lubrication. - Very high resistance to temperature and speed. 	<ul style="list-style-type: none"> - Prevents premature bearing failure and machine downtime. 	

Lubricants for compressors

Application	Machine / Component	Lubricant recommendation
	<p>Screw-type compressor</p>	<p>Klüber Summit SH oils</p> <hr/> <p>Klüber Summit SB oils</p> <hr/> <p>Klüber Summit PS oils</p>
	<p>Cleaning of rotary screw and rotary vane compressors</p>	<p>Klüber Summit Varnasolv</p>
	<p>Simple and quick method to analyse the compressor oil's condition in situ</p>	<p>Klüber Summit T.A.N. Kit</p>



Advantages and application notes	Your benefits	Notes
<ul style="list-style-type: none"> – Oil change intervals up to 10 000 hours. 	<ul style="list-style-type: none"> – Extends oil change intervals due to high oxidation stability. 	<p>For normal operating conditions, i.e. discharge temperature max. 85 °C (176 °F), discharge pressure max. 8 bar, dry and clean intake air and oil circulation number > 1.5.</p>
<ul style="list-style-type: none"> – Oil change intervals up to 8 000 hours. 	<ul style="list-style-type: none"> – Extends oil change intervals due to high oxidation stability. 	
<ul style="list-style-type: none"> – Oil change intervals up to 5 000 hours. 	<ul style="list-style-type: none"> – Extends oil change intervals due to high oxidation stability. 	
<ul style="list-style-type: none"> – Effectively dissolves residues and contamination caused by mineral oil (e.g. carbon and oxidation residues) and removes them when changing the oil. 	<ul style="list-style-type: none"> – No downtime due to cleaning. – Reduced costs due to easier cleaning process. – Economical operation of the cleaned compressor. 	<p>Cleaning fluid based on ester oil for screw-type, centrifugal and rotary vane compressors with oil circulation lubrication. Not miscible with oils based on polyglycol. Please see our product information leaflet for details on the cleaning process.</p>
<ul style="list-style-type: none"> – Quick method to analyse the condition (neutralisation number) of the compressor oil in situ. – Suitable for determining the compressor oil change intervals. 	<ul style="list-style-type: none"> – Optimum utilisation of the service life of compressor oils. 	<p>Suitable for all common types of synthetic or mineral oil-based compressor oils, with the exception of polyglycols.</p>

On the intention of this lubricant selection brochure

The intention of this lubricant selection is to provide a logical guide through the Klüber Lubrication specialised product range. The structure of the brochure considers firstly the various application requirements and then leads you toward selection of the appropriate lubricant solution.

Whenever products appear to have similar properties, we highlight the differences in grey in the respective fields to assist with the final product selection. Should you not find a lubricant “tailored” exactly to your requirements we recommend contact with your local Klüber Lubrication representative, who will be able to offer additional assistance with product selection from our extensive lubricant portfolio.

We generally recommend to consult our lubrication experts prior to selecting a lubricant.

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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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