



High Performance from Rexnord

## Overview of lubricants



## Lubricants

High Performance from Rexnord.



### The right factory-applied lubrication

- Outstanding corrosion protection
- Very good wear resistance properties
- Special food-grade lubricants, high- and low-temperature lubricants



### The right re-lubrication

- All oils and greases used by Rexnord contain no silicone or Teflon
- RexOil makes chain lubrication easy, reliable, economical and environmentally friendly
- Low environmental impact complies with the strict standards required by Environmental Management

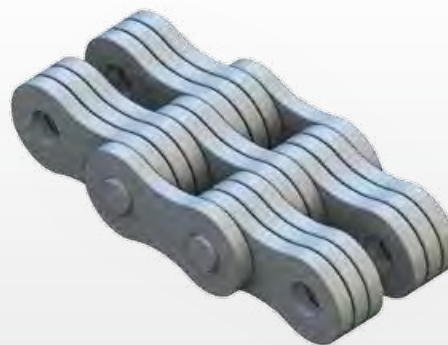
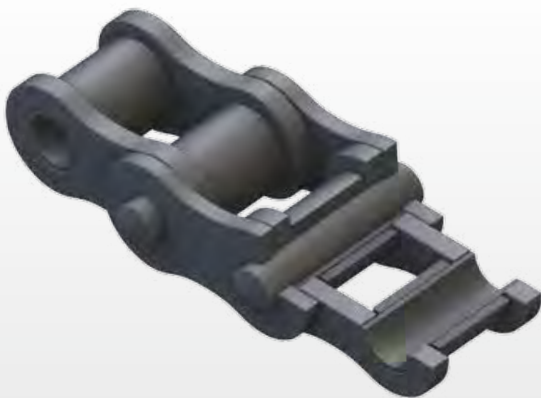


### The right lubrication intervals

- As long life lubricants are used, relubrication intervals are significantly longer
- In some cases, the use of lubricant waxes or compounds containing solid lubricants means that relubrication can be dispensed with altogether

## General principles of lubrication

For Roller- and Leaf chains.

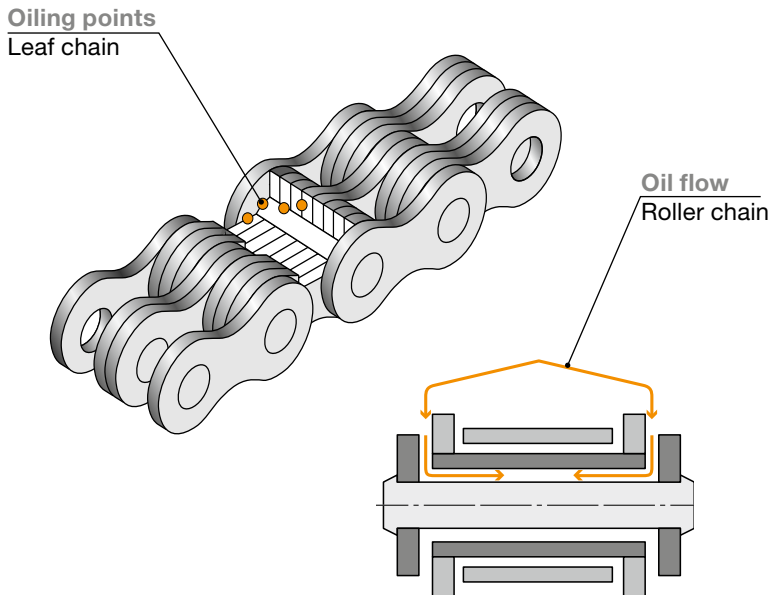


Recent statistics have shown that two-thirds of all chain defects are a result of incorrect lubrication. Even when lubrication has been carried out at the prescribed intervals, there is still a chance of fretting corrosion, twisted pins, metallic friction, stiff bearings,

undue running noise and pitting. This always happens when the applied lubricant only adheres to the chain surface without penetrating as far as the bearings. This phenomenon occurs when non-flowing lubricants are used.

## RexOil – high-performance chain spray

Effective chain care.



Extended spray head: better accuracy and increased comfort of use, no wasted spray

### APPLICATIONS

- Tried and tested performance for forklift trucks, conveyor systems, packaging machines, textile machinery etc.
- Food, beverage and packaging industry

### CHARACTERISTICS

- Outstanding penetration and lubrication properties
- Ensures removal of residual lubricant
- Capable of infiltrating and displacing water
- Suitable for temperature ranges from -10°C to +150°C
- Adequate lubrication guarantees a longer lifespan than a dry running chain

### ADVANTAGES

- Effective corrosion protection and high oxidation stability
- Extended spray head for easy, comfortable handling
- CFC- and CPC-free
- Lubricant has NSF H2 certification
- Reliable, environmentally friendly, economical

### QUESTIONS ABOUT CHAIN LUBRICATION?

The Rexnord Technical Application Advisory Service will be glad to help you.  
Tel: +49 (0) 2741 284 0



## Lubricant characteristics and advantages

Identification	Viscosity	Flash point	Temperature range	Food-stuffs	Uses	Specials	Particular advantages
<b>VSK001</b> Pre-lubrication Corrosion protection		> 230° C	-30° C to 130° C	NSF H2	Lubrication and preservation of roller and leaf chains	WGK 2	<ul style="list-style-type: none"> <li>■ Good corrosion protection</li> <li>■ Good wear resistance</li> <li>■ Good adhesion</li> <li>■ NSF H2 certification</li> </ul>
<b>VSK005</b> Corrosion protection agent		56° C	-10° C to 40° C	no	Special anti-corrosion agent for chains in storage		<ul style="list-style-type: none"> <li>■ Good corrosion protection</li> <li>■ Displaces moisture</li> <li>■ Unproblematic relubrication with other media possible</li> </ul>
<b>VSK006</b> Long-term lubricant	3,1 (40° C)	> 200° C	0° C to 120° C	no	For exposed drive chains and lifting chains running at low to high speeds, papermaking-, packaging-, wood processing machines and industrial handlers; also for wit-running chains, with hydro-capillary effect		<ul style="list-style-type: none"> <li>■ Also suitable for high-speed applications</li> <li>■ Long-life product</li> <li>■ Good adhesion</li> <li>■ Good wear resistance</li> </ul>
<b>VSK008</b> High-temperature lubricant	7500 (40° C)	200° C	50° C to 400° C	no	Especially for drying kilns		<ul style="list-style-type: none"> <li>■ Drip-resistant</li> <li>■ Good wear resistance</li> <li>■ Dry lubrication at high temperatures</li> </ul>
<b>VSK010</b> Long-term lubricant for RexDura version	360 (40° C)	> 260° C	-15° C to 50° C	no	Drive chains and lifting chains in industrial handling equipment and toolmaking machines	Synthetic solid lubricants, high pressure resistance	<ul style="list-style-type: none"> <li>■ Good wear resistance</li> <li>■ Solid lubricants</li> <li>■ Long-term lubrication</li> <li>■ Drip-resistant</li> </ul>
<b>VSK012</b> High- and low-temperature lubricant	105 (40° C)	> 200° C	-40° C to 220° C	NSF H2	Good wear resistance and good emergency running characteristics in high-temperature applications. Suitable for lubrication of chains subject to high temperatures (conveyor systems, furnaces) and refrigerated warehouses.	Without solid lubricants, dry-running applications	<ul style="list-style-type: none"> <li>■ Good wear resistance</li> <li>■ Special solid lubricants</li> <li>■ With emergency running properties</li> <li>■ Fully synthetic</li> </ul>
<b>VSK014</b> High-temperature lubricant	320 (40° C)	> 250° C	-20° C to 250° C	no	Good wear resistance at high temperatures. Suitable for chain lubrication in high-temperature environments (drying machines).	without solid lubricants	<ul style="list-style-type: none"> <li>■ Without solid lubricants</li> <li>■ Good wear resistance</li> <li>■ Minimal residue formation</li> <li>■ Drip-proof</li> </ul>
<b>VSK016</b> Food-grade lubricant	1500 (40° C)	200° C	-25° C to +120° C	NSF H1	Food and pharmaceutical industry	Synthetic oil	<ul style="list-style-type: none"> <li>■ Food-grade certification NSF H1</li> <li>■ Good corrosion protection</li> <li>■ Good wear resistance</li> <li>■ Ageing and oxidation stability</li> </ul>
<b>VSK018</b> Food-grade lubricating wax	1500 (40° C)	200° C	-40° C to +120° C	NSF H1	Long-life and lifelong lubrication of all types of sliding surfaces with mainly mixed friction	Also for dusty environments	<ul style="list-style-type: none"> <li>■ Non-drip</li> <li>■ Non-slip surface</li> <li>■ Wax-like structure</li> <li>■ Food-grade lubricant with NSF H1 certification</li> <li>■ Long-life product</li> <li>■ Good wear resistance</li> <li>■ Good corrosion protection</li> </ul>
<b>VSK020</b> Food-grade lubricant	32 (40° C)	> 200° C	-35° C to +120° C	NSF H1	Food and beverage industry	Highly suitable for chains running in guide rails	<ul style="list-style-type: none"> <li>■ Food-grade lubricant with NSF H1 certification</li> <li>■ Good wear resistance</li> <li>■ Ageing and oxidation stability</li> </ul>



## Lubricant characteristics and advantages

VSK001	<p><b>Standard preservation – increased corrosion protection</b></p> <p>Significantly improved corrosion protection and improved wear resistance properties. Low environmental impact that complies with the strict standards required by the Environmental Management Certificate in accordance with DIN EN ISO 14001 and the environmental standards of leading market manufacturers. RexPro is suitable for food industry applications where direct contact with the products must be prevented. RexPro is registered in the NSF category H2 and suitable for use in the electrical and electronics industry. RexPro is ROHS compliant and drip-proof at ambient temperatures up to +50°C. Even distribution of lubricant film (reduced risk of over-oiling, more uniform distribution of protection against wear and corrosion). Can be used at temperatures between approx. -30°C and +130°C.</p>
VSK005	<p><b>VSK005 Corrosion protection – not a lubricant</b></p> <p>Water-repellent corrosion protection agent for chains in storage. Can be removed with alkaline degreasing solutions and used at temperatures between approx. -10°C and +60°C. Subsequent (re-)lubrication with other media is not a problem.</p>
VSK006	<p><b>Long-life lubricant</b></p> <p>The “long-life” product VSK 006 is particularly well suited for high-speed applications, such as packaging machines, wood processing machinery and conveyor systems. The product is a special lubricant made from mineral oil, with a viscosity and appearance similar to honey. VSK006 contains special adhesion improvers, which can significantly reduce or eliminate the risk that the material being transported will be contaminated by oil drips or spray from chains running at high speed. It provides good protection against wear and corrosion. VSK006 can be used at temperatures ranging from approx. 0°C to +120°C.</p>
VSK008	<p><b>High- and low-temperature lubricant</b></p> <p>The product VSK 008 with dry lubricating effect is suitable for temperatures between 0°C and +400°C. It contains a „package“ of solid lubricants such as molybdenum disulphide; these substances vaporize at around +180°C to form a dry lubricant film that remains effective at temperatures of up to +400°C. Suitable for temperatures between approx. -50°C and +180°C, with continued (dry) lubrication effect up to +400°C.</p>
VSK010	<p><b>Long-term lubricant for RexDura version</b></p> <p>A light-coloured, highly adhesive, solvent-free lubricant with excellent penetration characteristics. Its thixotropic properties ensure that the lubricant film retains a hard, wax-like consistency when the chain is not in motion, providing reliable protection against corrosion. As the lubricant rapidly softens again when the chain is set in motion, good penetration to all vital areas is assured.</p>
VSK012	<p><b>High- and low-temperature lubricant</b></p> <p>Our product VSK 012 is suitable for the temperature range -40°C to +220°C. On the one hand, it is used on chains operating at sub-zero temperatures e.g. lifting equipment in refrigerated warehouses and machinery located outdoors. On the other hand, it is also suitable for high-temperature applications and environments e.g. chains operating in furnaces and drying kilns. This thermally stable synthetic oil contains special solid lubricants with emergency running properties.</p>
VSK014	<p><b>High-temperature lubricant</b></p> <p>VSK 014 is suitable for high-temperature applications up to 250°C. Special adhesion additives prevent the lubricating oil from dripping or spraying, even when chains are running at high speeds. As the lubricant contains synthetic ingredients, very little residue is formed; it is easy to regenerate this positive characteristic by adding fresh oil. Reliable cold starting is assured by the favorable viscosity-temperature behavior of this product, which is used mainly for drying kilns, textile and plastic machines on account of the good wear resistance it offers, even at high temperatures.</p>
VSK016	<p><b>Food-grade lubricant</b></p> <p>VSK 016 is certified to NSF H1 standard, so it is suitable as a lubricant for food industry applications. It can be used at temperatures between approx. -25°C and +120°C and is compliant with the German Food and Feed Code LFGB, as well as fulfilling the requirements of the “Guidelines of Sec. 21 CFR 178.3570 of FDA regulations”. This oil, specially formulated for use in the food industry, offers good wear resistance and EP characteristics along with its good performance under cold conditions. Besides corrosion protection, 4 UH 1-1500 also provides oxidation stability and good ageing resistance.</p>
VSK018	<p><b>Food-grade lubricating wax</b></p> <p>Lubricant VSK 018 (or VSK 019 for rust- and acid-proof chains) is suitable for applications in a dusty environment such as packaging, paper or textile machinery, or for use in the food industry. The product can be used wherever technical considerations occasionally lead to unavoidable contact with foodstuffs. The wax is also an excellent corrosion protection agent. Condensation rate 0 is achieved after 30 cycles (= 720 hours) in a condensation alternating climate test (DIN 50017 KFW), which corresponds to the performance of high-quality rustproofing agents. It also provides excellent protection against friction, wear and tribo-corrosion (fretting corrosion).</p>
VSK020	<p><b>VSK020 Food-grade lubricant</b></p> <p>This lubricating oil, which is also NSF H1-registered, is used in the food and beverage industry. It is suitable for temperatures from approx. -40°C to +110°C and for chains running in guide rails. Additional features are good wear resistance, as well as ageing and oxidation stability.</p>



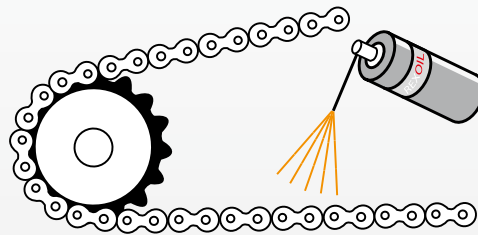
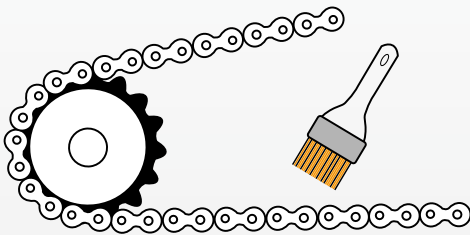
## Lubrication methods

Effective lubrication.



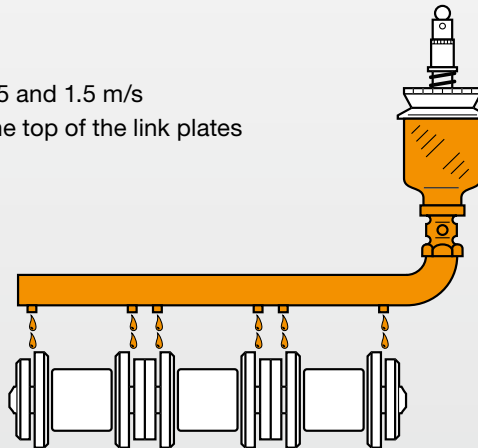
### MANUAL LUBRICATION

- For chain speeds up to approx. 0.5 m/s
- Apply oil with brush, oilcan or aerosol can
- Use free-flowing lubricant e.g. RexOil



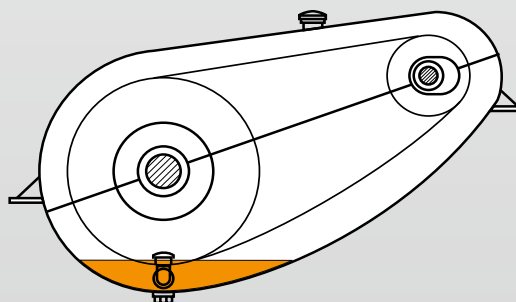
### DRIP LUBRICATION

- For chain speeds between 0.5 and 1.5 m/s
- Lubricant is only applied to the top of the link plates



### OIL BATH LUBRICATION

- For chain speeds between 1.5 and 8 m/s
- Fit an oil splasher disc next to the sprocket for speeds between 4 and 8 m/s
- Ensure that only the sprocket is immersed in oil to avoid the formation of foam





## Relubrication

### CORRECT VISCOSITY IS THE KEY

- Lubricating oil must remain fluid at all ambient temperatures
- Ideal viscosity is from SAE 20 to SAE 50 or 46 to 220 ISO VG at +40°C
- Rexnord lubricants remain fluid after application and possess special lubrication properties
- Rexnord high-performance chain spray „RexOil“ is suitable for heavy-duty chain drives and lifting chains running at low or high speeds.

### PREMATURE CHAIN FAILURE OR WEAR CAUSED BY INSUFFICIENT LUBRICATION

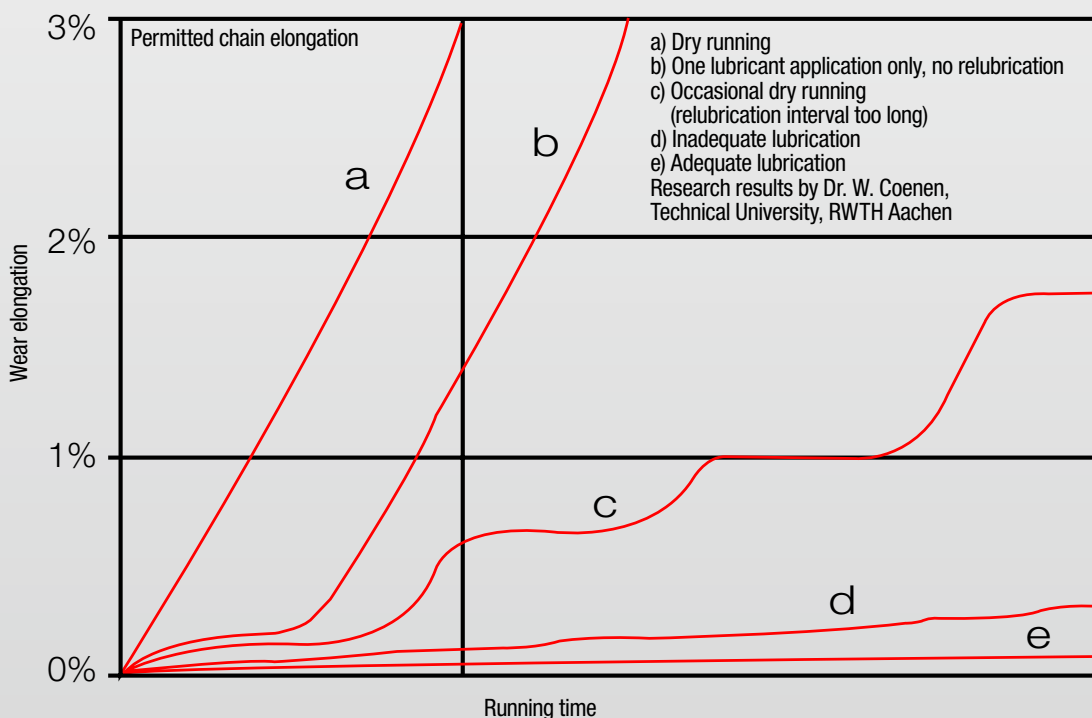
- In the short term, inadequate lubrication and high loading result in pitting and friction corrosion
- Bearings become stiff and the press fit between pin and link plate is destroyed  
i.e. the inner link rotates the pin in the outer link press fit
- Result: premature chain failure

### THE DECISION IN FAVOUR OF A 60-FOLD, 12-FOLD OR MERELY INADEQUATE WEAR LIFETIME RESTS ENTIRELY WITH YOU!

### LUBRICATION ERRORS

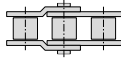
- Good lubrication is a decisive factor in determining a chain's wear lifetime
- Statistics show that about 60% of all chain faults are a result of incorrect lubrication
- Chain lubricants in aerosol cans often contain a solvent that vaporizes rapidly after application, leaving behind a film of sludgy, semi-fluid oil

## Good lubrication prolongs chain lifespan:



## Overview Rexnord roller chains

### Roller Chains



**REXNORD**

**RexPro**  
RexPro lubrication  
improved wear resistance  
high fatigue resistance

- Outstanding protection against corrosion and wear
- Unique protection against chain joint stiffness
- Extremely eco-friendly

**REXNORD**

**RexAthletic**  
good loading capacity  
extended lubrication intervals

- Durable and low-maintenance
- Longer servicing intervals
- High loading capacity

**REXNORD**

**RexCarbon**  
no lubrication  
low noise

- Maintenance-free
- Low noise
- Eco-friendly

**REXNORD**

**RexPlus**  
excellent corrosion resistance  
high reliability

- Excellent resistance to rust and acids
- Highly reliable
- Fulfills hygiene requirements
- NSF H1 certification

**REXNORD**

**RexPlusCarbon**  
no lubrication  
excellent corrosion resistance

- Combination of RexPlus and RexCarbon
- Excellent resistance to rust and acids
- Maintenance-free
- NSF H1 certification

**REXNORD**

**RexHiPro**  
good corrosion resistance  
excellent loading capacity

- Outstanding corrosion resistance
- Long service life
- High loading capacity

**Link-Belt**  
a brand of REXNORD

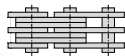
- The optimum choice for light and medium duty
- Good cost-benefit ratio
- High availability

**REXNORD**

**RexProX**  
RexPro lubrication  
improved wear resistance  
high fatigue resistance

- Extremely high loading capacity
- Long service life
- Outstanding protection against corrosion and wear

### Flyer Chains



**REXNORD**

**RexPro**  
RexPro lubrication  
improved wear resistance  
high fatigue resistance

- Outstanding protection against corrosion and wear
- Unique protection against chain joint stiffness
- Extremely eco-friendly

**REXNORD**

**RexHiPro**  
good corrosion resistance  
excellent loading capacity

- Outstanding corrosion resistance
- Long service life
- High loading capacity

**REXNORD**

**RexDura**  
improved wear resistance  
lubrication stay in chain hinge

- Durable and low-maintenance
- Longer servicing intervals
- High loading capacity
- Extreme wear resistance for double-length service life

**REXDL**  
a brand of REXNORD

- The optimum choice for light and medium duty
- Good cost-benefit ratio
- Good availability