



PHARMACEUTICAL

Lubrication Guide

Performance you can trust



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From product concept, design and development through to technical expertise and customer services, Rocol® supports all pharmaceutical lubrication needs.

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Customer Service: +44 (0)113 232 2700

One simple solution

Medicine production is a multi-billion-pound industry. Across the world, world-leading pharmaceutical companies are operating day and night to service products to help manage sickness and provide pain relief.

Machinery used in pharmaceutical production needs constant care to keep it moving. Yet applying lubricants to mixers, coaters, blister machines and tablet presses, presents a route for contamination - and even a minor threat can lead to a plant's closure. Controlling all possible contamination routes is vital to reducing risk, which means using the correct type of food-grade lubricant in the right circumstances to ensure your machinery stays operational, compliant and contaminant-free.

A world-leader in high-performance lubrication and machine maintenance solutions, Rocol® products are designed by our highly-skilled engineers and chemists to provide optimum support to the pharmaceutical sector. More than creating technically advanced solutions that care for your equipment, our team empowers you with the necessary skills to maintain your machinery, keeping you operational and your environment free from contamination.

Helping peace of mind, you're left free to focus on **your** number one priority: creating the solutions that care for people and patient health.



Performance you can trust

Producing highly-developed and technically advanced solutions for customers in multiple sectors has been our priority for over 130 years.

A comprehensive range of food-safe lubricants, FOODLUBE® ensures a safe and compliant manufacturing process across the pharmaceutical industry.

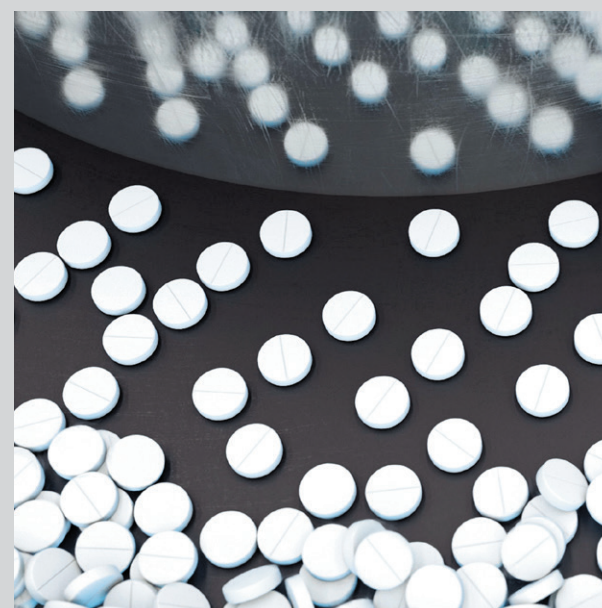
THE BENEFITS

- ▶ Extended component life – ensuring maximum efficiency and productivity
- ▶ Increased lubrication intervals – reducing overall lubricant and labour cost
- ▶ Reduced downtime

YOU CAN TRUST ROCOL® FOODLUBE® TO SUPPORT PHARMACEUTICALS

- ▶ Formulated using only FDA-regulated ingredients
- ▶ Free from GM, soya, nuts or nut derivatives and mineral hydrocarbons
- ▶ Manufactured under strict BS EN ISO standards
- ▶ Contamination-free lubrication ensuring plant efficiency site-wide
- ▶ ROCOLCARE® enables the achievement of Good Manufacturing Practice

Together, FOODLUBE® and ROCOLCARE® are meeting the demands of the pharmaceutical industry. It's all part of the superior lubricant performance you can expect from ROCOL.



Case study

Leading Pharmaceutical OEM

BACKGROUND

As an Original Equipment Manufacturer (OEM) to the pharmaceutical sector, our customer understands how vital it is their machinery is kept in tip-top condition to stay reliable.

Integral to each machine's operation is a high-speed gearbox. When a particular gearbox was failing prematurely, ROCOL® engineers were called in to investigate why. Analysis uncovered three points of

concern: the operating temperature was high, the noise excessive and the grease was not remaining on the gear teeth. Collectively, this was resulting in excessive wear to the gear teeth and causing the machine's failure.

With a newly developed semi fluid grease ready for testing, this was an ideal opportunity for ROCOL to trial the product in a real-world application and a 50-hour controlled assessment commenced.

"The gearbox trial ran for 50 hours with **FOODLUBE® Hi-Load SF** and we didn't notice any changes in the temperature or noise, which is a real positive. We have had quite a few gearbox failures in the past where the gears have mashed together and the bearings have been destroyed. Now, using FOODLUBE Hi-Load SF, we feel that the moving parts will be constantly lubricated which, in turn, will dramatically reduce the risk of failure."

QUALITY ENGINEER

RESULTS

The trial found the product responsible for two key improvements:

The gearbox running temperature was significantly reduced by 15 °C

This means less wear and tear with the machine's gearbox running more efficiently and the customer saving on the time and cost of repairs or replacement.

The noise generated by the gearbox was also reduced by 15db

This means less noise pollution and a significant improvement to the health and safety of the customer's factory-based employees.



ROCOLCARE®

OUR HISTORY

Established in 1878, ROCOL® has become a market leader in the development of high-performing chemicals and lubricants, by understanding the complex needs of the industrial, clean and safety markets. Our comprehensive range includes high performance lubricants, cutting fluids, line marking and anti-slip systems. Operating to internationally-recognised standards in quality, environment, and safety, ROCOL is proud of its commitment to the continual engagement and development of staff and its Investors In People accreditation.

OUR PRODUCTS

ROCOL holds many patented trademark brands within the food and industrial manufacturing markets; brands such as FOODLUBE®, DETEX™, SAPPHIRE® and FLO-LINE® that help a facility to operate safely, without sacrificing performance.

Our portfolio features a wide range of lubricants developed to answer the specific needs of the most demanding applications in the markets we serve. Comprising of premium grade base oils, including synthetics, renewable oils and silicones, these lubricants are treated with the most effective additives to address the performance and application needs of today's varied industry-specific manufacturing processes. With higher load carrying capability, superior resistance to water washout, lower flammability ratings and greater temperature ranges, our products are designed to preserve and protect against costly breakdowns and ensure maximum performance.



ISO 21469 Certified

ISO 21469 CERTIFICATION

ROCOL takes pride in having become one of the first companies worldwide to achieve ISO 21469 approval.

This certification takes into consideration our manufacturing facility for hygiene, quality, dedicated manufacturing areas and good manufacturing practice.

NSF.org states: ISO 21469:2006 specifies hygiene requirements for the formulation, manufacture, use and handling of lubricants.

Within a factory environment, lubricants can have incidental contact with products and packaging used in the food, food-processing, cosmetics, pharmaceutical, tobacco or animal feeding-stuffs industries. All ROCOL food grade products are manufactured within the strict guidelines of ISO 21469:2006, ensuring zero risks to consumer products in the event of a contamination.

FULLY AUDITED PROCESS

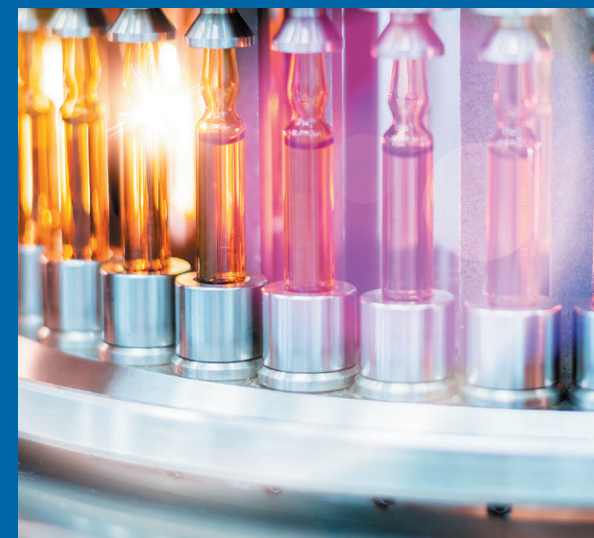
ROCOL is audited annually by NSF, ensuring the highest standards of hygiene and quality are maintained. A sample of every NSF H1 product manufactured by ROCOL has been tested in an NSF laboratory to ensure it complies with the highest standards of food safety. The ISO 21469 certification ensures that every ROCOL NSF H1 product comes from a strict recipe.



Use your phone camera to scan the QR code to find out more

What is ROCOLCARE®

- ▶ **Full Audit Compliance** – ROCOL® is the UK's first ISO21469:2006 certified lubricants manufacturer. ISO21469 is a globally-recognised hygiene certification that ticks an important box for auditors in providing credible, independent assurance that all ROCOL products are formulated, manufactured, and supplied hygienically and safely.
- ▶ **Increased Efficiency** – Increases lubricant efficiency, improvements in plant productivity and a reduction in costs.
- ▶ **Risk Reduction** – Establishes all your lubricant requirements and ensures contamination free lubrication.
- ▶ **Rationalisation** – Rationalises your lubricant usage, reduces stock holding on site and enables Good Manufacturing Practice (GMP) to be achieved.
- ▶ **Training** – Best practice lubrication training is available. ROCOLCARE® is the premium service package for food, clean and industrial markets that offers many features and benefits.



ROCOLCARE® CUSTOMERS – WHAT TO EXPECT

- ▶ **Enjoy peace of mind** – Assurance that you and the lubrication experts are working together in partnership.
- ▶ **Achieve operational excellence** – Efficiencies are increased through the ROCOL preventative and proactive approach to lubrication management.
- ▶ **Assurance of full traceability** – All ROCOL products are developed, manufactured, passed through a stringent QC process and dispatched from our UK manufacturing site.

Product selection



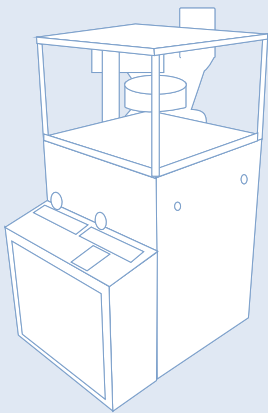
Tablet Press / Compactors

Used to compress powder into single pill form.

Manufacturers:

- ▶ Alexanderwerk
- ▶ Beta
- ▶ Courtoy
- ▶ Fette
- ▶ Hata
- ▶ Manesty

Applications	Solution	Page
Chains	▶ FOODLUBE® Multilube	11
Gearboxes	▶ FOODLUBE® Hi-Torque 220 – 460	12
Open Gears	▶ FOODLUBE® Multipaste	13
Slides	▶ FOODLUBE® Multilube	11
Central Lubrication System	▶ FOODLUBE® Hi Torque 220 – 460	12



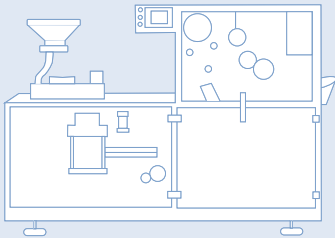
Blister Machines

Used to form packaging with individual compartments for products.

Manufacturers:

- ▶ Killain
- ▶ Marchesini
- ▶ Matic 90
- ▶ Pester

Applications	Solution	Page
Gearboxes	▶ FOODLUBE® Hi-Torque 220 – 460	12
Slides	▶ FOODLUBE® Multilube	11
Hydraulics	▶ FOODLUBE® Hi Power 22 – 46	12
Bearings	▶ FOODLUBE® Premier 1	11
	▶ FOODLUBE® Universal 2	11
Central Lubrication System	▶ FOODLUBE® Hi Torque 220 – 460	12
	▶ FOODLUBE® Hi Power 22 – 46	12



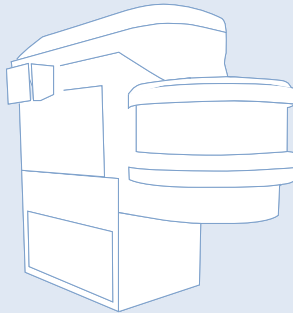
Mixers

Generally slow moving stirrers are used to mix the various ingredients.

Manufacturers:

- ▶ Flexicell
- ▶ Diosna
- ▶ Hobart
- ▶ MTI
- ▶ Winkworth
- ▶ Kemper
- ▶ Hobart

Applications	Solution	Page
Gearboxes	▶ FOODLUBE® Hi-Torque 220 – 460	12
Open Gears	▶ FOODLUBE® Multipaste	13
Grease Points	▶ FOODLUBE® Premier 1	11
	▶ FOODLUBE® Universal 2	11



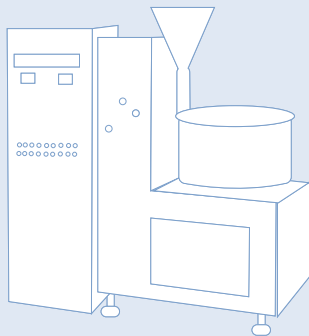
Coaters

Used to create a protective external glaze on each individual tablet.

Manufacturers:

- ▶ Glatt
- ▶ Vector

Applications	Solution	Page
Shafts	▶ FOODLUBE® Universal 2	11
Wipers	▶ FOODLUBE® Hi Power 68	12



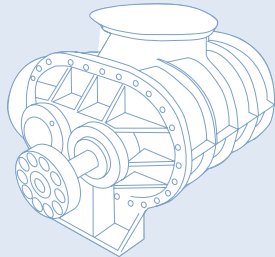
Blowers

Used for conveying powders through pipes to the next part of the process.

Manufacturers:

- ▶ Dresser Roots
- ▶ Gardener Denver
- ▶ Peabody Holmes

Applications	Solution	Page
Sump	▶ FOODLUBE® Hi-Torque 150-220	12
Bearings	▶ FOODLUBE® Universal 2	11



Product selection

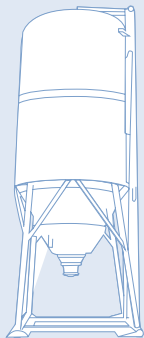
Silo

Vibratory shakers with gear couplings used to ensure the powder moves freely in silos.

Manufacturers:

- ▶ Lenze ▶ Renold Ajax ▶ Buhler

Applications	Solution	Page
Bearings	▶ FOODLUBE® Premier 1	11
	▶ FOODLUBE® Universal 2	11



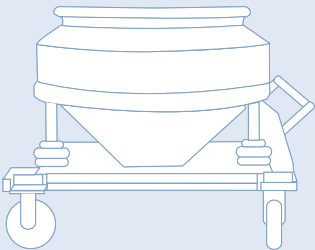
Hopper

A bulk storage system. Used to store large amounts of powder or individual tablets.

Manufacturers:

- ▶ Renold Ajax ▶ Buhler

Applications	Solution	Page
Gearboxes	▶ FOODLUBE® Hi Torque 220-460	12



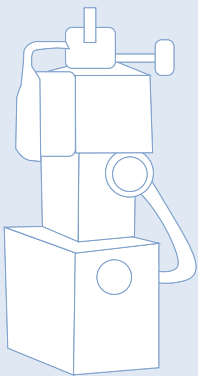
Vac Pumps

Used to extract air from packaging.

Manufacturers:

- ▶ Becker ▶ Busch ▶ Rietschle Thomas

Applications	Solution	Page
Vac Pumps	▶ Vac Pump Oil	13



Chains and bearings



FOODLUBE® MULTI-LUBE FLUID

A fully synthetic, multi-purpose lubricant, fortified with PTFE for effective lubrication particularly on chains, bearings and slides.

- ▶ Clean, non-toxic, thin film aids fast penetration for effective lubrication
- ▶ Good load carrying properties - protects components for longer
- ▶ Excellent corrosion protection
- ▶ Available as bulk or convenient trigger pack

15120	500ml	20 H1
15126	5L	20 H1

TEMP RANGE
-50°C to +180°C



FOODLUBE® PREMIER 1

A high performance EP grease, fortified with PTFE, designed for enhanced lubrication, particularly high speed and high temperature applications.

- ▶ For electric motors, fans and conveyor bearings
- ▶ High load and wear properties - significantly extends bearing life
- ▶ Highly resistant to water washout - excellent corrosion protection

15291	380g	42 H1
15281	380g (Shuttle Cartridge)	42 H1
15294	18kg	42 H1

TEMP RANGE
-30°C to +180°C



FOODLUBE®
UNIVERSAL GREASE 2

A truly universal, extreme pressure grease, fortified with PTFE, designed for the enhanced lubrication of all types of ball, roller and plain bearings.

- ▶ Superior load and wear properties - significantly extends bearing life
- ▶ Highly resistant to water washout - excellent corrosion protection
- ▶ Also available as an aerosol

15231	380g	7 H1
15236	4kg	7 H1
15234	18kg	7 H1

TEMP RANGE
-50°C to +160°C



Gearboxes and hydraulics

FOODLUBE® HI-TORQUE

High performance fully synthetic gear oils incorporating start up protection system (SUPS) and anti wear additives to provide maximum lubrication and protection in all types of gearboxes.

- ▶ SUPS – a unique protection for gear teeth on start up and in use
- ▶ Outstanding load carrying performance: FZG load stage 12
- ▶ Excellent anti-wear performance - no need for additional additive treatments

Hi-Torque 150 28 H1	15426	5L
	15425	20L
	15429	200L
Hi-Torque 220 8 H1	15526	5L
	15525	20L
	15529	200L
Hi-Torque 320 13 H1	15766	5L
	15765	20L
	15769	200L
Hi-Torque 460 27 H1	15775	20L
	15779	200L

TEMP RANGE

-20°C to +150°C



FOODLUBE® HI-POWER

High performance, fully synthetic oils incorporating an optimum blend of high performance additives. Suitable for use in hydraulics, air compressors and airline systems.

- ▶ Enhanced oxidation stability
- ▶ Extremely low sludge build up
- ▶ Minimal foaming
- ▶ Unique L-CO system, reduces carry over

Hi-Power 22 5 H1	15796	5L
	15795	20L
	15799	200L
Hi-Power 32 6 H1	15896	5L
	15895	20L
	15899	200L
Hi-Power 46 18 H1	15995	20L
	15999	200L
Hi-Power 68 3 H1	16006	5L
	16005	20L
	16009	200L

TEMP RANGE

-50°C to +120°C



General lubrication



FOODLUBE® HI-LOAD SF

A semi-fluid grease for use in automatic lubrication systems feeding highly loaded bearings. Also, very effective when used as a gearbox grease.

- ▶ Specifically designed for use on highly loaded bearings fed by small bore pipe work in automatic lubrication systems
- ▶ Good load carrying capability – 355kg Weld Load
- ▶ Excellent stability – extended relubrication intervals and a reduction in lubricant usage

15966	4kg	66 H1
15964	18kg	66 H1



VAC PUMP OIL

Food grade lubricant for extended vacuum pump life. High performance lubricating fluid for use in vac pumps.

- ▶ Suitable for high load and high pressure conditions
- ▶ Clean and low odour
- ▶ Low deposit formation
- ▶ Prevents corrosion from moisture ingress
- ▶ Ideal for use as a gear box flushing oil

16806	5L	35 H1
16805	20L	35 H1

TEMP RANGE

-5°C to +130°C



FOODLUBE® MULTI-PASTE

A superior performance, white paste developed for protecting fasteners and lubricating bushes, slides and small open gears.

- ▶ Ideally suited for use on a large range of surface including stainless steel
- ▶ Long life, up to six times more than the competition
- ▶ For high temperature applications
- ▶ Prevents galling and pick-up on assembly
- ▶ Extremely tenacious – resists water wash out

15750	85g	2 H1
15751	400ml	2 H1
15753	500g	2 H1
15756	5kg	2 H1



ROCOLCARE® Training

APPLICATION-FOCUSED TRAINING

The scale of production in the pharmaceutical industry is vast. The equipment used for production in the pharmaceutical industry is put through its paces every day, under conditions that differ depending upon the product. Which means the maintenance requirements for each piece of equipment can also vary dramatically, depending on their use.

When it comes to keeping your processing equipment in peak condition, a 'one size fits all' approach is not good enough. ROCOL® recognises the need to support engineering managers with added value, through support mechanisms tailored to the products and services in their industry niche.

A BESPOKE APPROACH

Each sub-segment of the food industry and manufacturing space has equipment, processes, regulations and unique requirements. No surprise, then, engineering managers find it a challenge to identify only those maintenance products amid the thousands available suited to their niche market. And, once they do uncover any relevant products, all too often the manufacturer focuses its product training on the lubricant's performance rather than its application.

OPERATOR TRAINING

ROCOL training for machine operators is delivered from our head office in Leeds or at your premises. The team at ROCOL helps your staff with multi-level training and support, from fundamentals such as "The Essential Principles of Lubrication" to advanced "Train the Trainer" courses designed to upskill your staff with the technical knowledge to conduct your training sessions in-house.

ONLINE TRAINING

At ROCOL, we're making it even easier for manufacturing and processing teams to improve efficiency and reduce down-time across their production facilities by introducing our brand new online training. ROCOL Online Training is designed for all operators and maintenance engineers involved in equipment maintenance – whether you're new in the role, or a seasoned engineer wanting to refresh your knowledge.

TECHNICAL SUPPORT

Our technical support team includes multiple experts such as chemists and professional engineers. Using a full range of testing equipment, the team at ROCOL is quick to investigate any mechanical failure, providing insight into the root cause before dealing with the identified issues swiftly.



FIND YOUR NICHE

Comprehensive, application-based training takes customers through a typical factory layout in their sub-sector, considering each major item of equipment used within this environment, and providing information and advice on the lubrication relevant to the equipment.

As a leading lubricant manufacturer, our responsibility extends beyond providing your products; it includes training for your operators that considers the equipment, operating conditions and the required registration specific to your industry segment. By highlighting the products most suited to reducing downtime and extending equipment life, and demonstrating application techniques, your team feels empowered to make decisions on products that bring positive results.



TAKING ADVANTAGE OF TECH

Drawing from our database of Standard Operating Procedures for lubricating major plant items across multiple sectors, our industry-specific lubrication training packages are among the most detailed and comprehensive for the niche they support.

During the current climate, when in-person training is less straightforward and virtual delivery is on the rise, training has become more accessible to larger groups residing in multiple locations. Our team has been making the most of video conferencing to begin delivering application-based training to our specialist distribution partners across the globe. While the feedback from our community has been positive, we are not stopping there, with the next phase - enabling our distribution partners to provide this application specific training themselves - next to roll-out.

To further support our customers across industry, our training courses are now available online. From courses which cover the general principals of lubrication, to more advanced sub-sector specific courses, each one is accessible at a time that is convenient to the customer.

If you are interested in application-based training, contact our technical team to find out more.

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Use your phone camera to scan the QR code to find out more

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