

ROCOL®

BAKERY INDUSTRY

Lubrication Guide

Performance you can trust

Contents

From product design and development to technical expertise and customer services, ROCOL® supports your lubrication needs.

Performance you can trust	3
Food grade lubricants from ROCOL®	4
DETEX®	6
Lube Shuttle	7
Case studies	8
ROCOL® bakery products	10
ROCOLCARE®	14
Training	15



Customer Service: +44 (0)113 232 2700

Performance you can trust

Bread and bakery food manufacturers face multiple lubrication challenges every day:

RISK OF CONTAMINATION

Lubricating equipment such as mixers, moulders, chillers, rollers, slicers, baggers and ovens all present a possible route to foreign body contamination.

HIGH TEMPERATURES

Extreme operating temperatures of up to 600°C in bakery ovens lead to excessive solids buildup, causing chain climb, screeching and contamination of the baked product.

LOW TEMPERATURES

Chiller drive trains operating at temperatures as low as -50°C are susceptible to chatter and shudder, causing drag & an increase in power consumption, while condensation in chillers causes corrosion.

WATER RESISTANCE

Strict cleaning regimes with regular wash downs, especially around mixers, dividers & moulders, remove essential lubricants, exposing parts to corrosion, increased wear & shortened life.

PROCESS CONTROL

The rigorous demands of internal & external audits and HACCP procedures to maintain a safe environment reduce resources that could be used for plant lubrication.

ONE SIMPLE SOLUTION

A world leader in high-performance lubrication and machine maintenance solutions, ROCOL® assists customers in the bakery industry with products specific to their sector needs assuring their equipment is cared for and production lines stay operational. Developed by our in-house team of highly skilled engineers and chemists, our technically advanced systems are relied on by leading food manufacturers globally to keep their industry moving quickly and efficiently to meet customer demands.

AUDIT COMPLIANT

ROCOL® takes great pride in maintaining a strong commitment to audit compliance, particularly concerning the British Retail Consortium (BRC) standards. We understand the critical importance of adhering to the rigorous requirements set forth by BRC, which are designed to ensure the highest levels of safety, quality, and consistency in our products and processes. By implementing comprehensive internal auditing practices and regularly participating in external audits, ROCOL continuously strives to meet and exceed BRC's stringent guidelines. Our dedication to audit compliance reflects our unwavering dedication to providing our customers with products that meet the highest industry standards and demonstrate our unwavering commitment to quality and excellence.



Food grade lubrication from ROCOL®

ROCOL® takes immense pride in ensuring that all our products in the FOODLUBE® range are manufactured in our state-of-the-art facility in Leeds, UK.

The globally recognised ISO 21469:2006 certification ticks an important box for auditors as it provides credible, independent assurance that all ROCOL products are formulated, manufactured and supplied hygienically and safely.

WHAT IS ISO 21469?

For any food and drink manufacturer using FOODLUBE lubricants, especially those reliant on leading retailers through long-term contracts, this provides a vital first step towards conforming with major supermarket, European Food Safety Inspection Service and British Retail Consortium audit requirements.

Products in the FOODLUBE range are already NSF-H1 registered, which specifies the requirements for the formulation of lubricants that may incidentally come into contact with products during manufacture.

ISO 21469:2006 builds on the product-specific NSF-H1 standard to represent another important layer of safety approval. It means that products are manufactured to stringent recipe and hygiene standards using good manufacturing practices, dedicated equipment and strict handling procedures. Each product is hygiene assured as it has been independently verified by an NSF inspector and tested in their laboratories. It is then deemed safe for incidental food contact and certified as being manufactured only from FDA listed ingredients which are free from animal derived materials, nut oils, soya, dairy and genetically modified ingredients.



ISO 21469 Certified



DETEX®

DETEX® metal and x-ray detectable detachable plastic components on aerosols and standard grease cartridges are designed to assist food processing plants in meeting strict HACCP requirements regarding the use of lubricants.

All blue, removable plastic components are metal detectable and capable of detection by most metal detection equipment and x-ray machines.

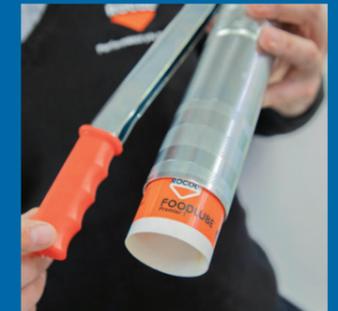
- ▶ Reduce concerns of food product contamination and assist with HACCP requirements
- ▶ All blue, removable plastic components are GRAS listed (Generally Regarded As Safe – FDA 21 C.F.R Sections 177 and 178)
- ▶ Meets FDA requirements as acceptable material for use in food processing plants



LUBE SHUTTLE

The only 'best practice', audit compliant, method of applying grease for the food industry.

The most common method of applying grease to a bearing is through the use of a grease gun. This can cause serious non-conformances for audit purposes. The biggest non-conformance being that it is not possible to see what type of grease is loaded into the grease gun.



FEATURES AND BENEFITS OF THE LUBE SHUTTLE:

When placed into the Lube Shuttle grease gun, the Shuttle cartridge has a dedicated space to display important audit information. Rocol has printed the product name, NSF category and registration number, and other audit specific information in this space.

- ▶ It has easy to change cartridges - screw threaded. Quick and easy for operators to use.
- ▶ The quantity of grease remaining in the cartridge is visible at all times - no wasted time or product.



Case Study: Hovis and DETEX[®]

Hovis is a leading manufacturer of bread and bakery products based in Bradford, UK, and one of the best known in the country.

THE CHALLENGE

A number of DETEX[®] metal and X-ray detectable caps and actuators were hidden in a known number of loaves of bread, sent through the production process then identified using the in-line metal detection equipment.

THE Rocol[®] SOLUTION

The hidden parts were all 'found', showing that any accidentally lost caps or actuators during production could easily be identified. The work between Rocol[®] and Hovis showed that hidden plastic components were detected on the installed metal detection equipment with 100% accuracy. The customer was assured in a real situation, Rocol[®] FOODLUBE[®] products fitted with DETEX actuators or caps would detect any DETEX[®] components accidentally falling into the food, reducing the risk of plastic contamination-related recalls.



“It is of utmost importance at Hovis to be vigilant and proactive in eliminating any potential risk no matter how slight to our products during production, and any inventive products such as the DETEX[®] aerosol range are always welcomed and embraced by us.”

Andy Houlden, Lubrication Engineer, Hovis

Case Study: FOODLUBE[®] XT Chain Fluid[®]

A multinational food processing bakery was experiencing several challenges using graphite based oil on its Meccatherm ovens.

THE CHALLENGE

Graphite based oils must be hand applied by brush. Ovens are hot environments with rotating equipment, presenting clear health and safety risks to the engineers applying the oil. The process forces ovens to be shut down, resulting in lost production. In addition, when applied to hot chains, a graphite based oil will fume, raising health and safety concerns. This leads to lengthy oven shut downs to allow the chains to cool. Due to the oven layout, there is a risk of the chain oil falling from the chain onto the food line. A graphite based product is not NSF H1 registered, presenting a risk of a costly product recall.

THE Rocol[®] SOLUTION

Rocol[®] suggested applying FOODLUBE[®] XT Chain Fluid via auto-lubrication to the ovens. Auto-lubrication systems are cost items but are proven to boost productivity within oven applications. Despite the additional expenditure involved, Rocol[®] demonstrates cost savings when using this system.

FOODLUBE[®] XT CHAIN FLUID:

- ▶ Can be applied whilst the oven is running at high temperatures which reduces down-time/loss of production and reduces risk to employee safety.
- ▶ Is low fuming so it can be applied to the chain at a high temperature. This means there is no need to shut down the oven and wait for it to cool which increases productivity. As this is a more effective way of lubrication it extends the life of the chain.
- ▶ Is NSF H1 and ISO 21469 registered for full audit compliance and peace of mind which reduces risk of costly product recalls



“Since introducing XT Chain Fluid, the chain has run trouble free. In the past, the chain would have been used without lubricant as we couldn’t apply the oil whilst the oven was running. We would have needed to wait until the weekend shutdown to reapply the oil. During this period, the chain would wear more due to lack of lubrication which ultimately shortens the life of the chain and costs us more money - chains can cost more than £15,000”

Maintenance Engineer

ROCOL® products designed to keep your bakery running smoothly

BLOWERS

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

Manufactures: HR Blowers, Dresser Utility Solutions, Gardner Denver

Gearboxes	FOODLUBE® Hi-Torque 150/220
Bearings	FOODLUBE® Premier 1

MIXERS

Generally slow moving stirrers are used to mix the various ingredients

Manufactures: Baker Perkins, Eurobake, WP Kemper, Hobart

Gearboxes	FOODLUBE® Hi-Torque 220
Bearings	FOODLUBE® Premier 1

DIVIDERS

Often called dough dividers as they are generally used to divide dough

Manufactures: Baker Perkins, Mecatherm, Eurobake, WP Kemper, Koenig

Gearboxes	FOODLUBE® Hi-Torque 460
Bearings	FOODLUBE® Extreme
Open Gears	FOODLUBE® Spray Grease
Open Gears	PUROL™ Spray Grease

MOULDERS

Receives pieces of dough from the intermediate proofer and shapes them into cylinders ready to be placed in the pans

Manufactures: Baker Perkins, Spooner Vicars, Turkington

Gearboxes	FOODLUBE® Hi-Torque 460
Bearings	FOODLUBE® Extreme
Open Gears	FOODLUBE® Spray Grease
Open Gears	PUROL™ Spray Grease

SLICERS

Specialised piece of equipment to slice bread to provide consistent and uniform slices quickly and efficiently

Manufactures: Dowson

Gearboxes	FOODLUBE® Hi-Power 100
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PROOFERS

The dough passes through the proofers which generally operate at 40°C - 60°C & at high humidity to make the dough rise

Manufactures: Baker Perkins, Eurobake, Koenig

Gearboxes	FOODLUBE® Hi-Torque 220
Bearings	FOODLUBE® Premier 1
Chains	Rapid Demulse 220

OVENS

Used to bake the dough at temperatures between 160°C - 600°C depending on the oven type & items being baked

Manufactures: Baker Perkins, Eurobake, Sasib, Spooner Vicars

Gearboxes	FOODLUBE® Hi-Torque 220 / 320 / 460
Bearings	FOODLUBE® Premier 1
Bearings	SAPPHIRE® Endure
Chains	FOODLUBE® XT Chain Fluid
Chains	BAKERLUBE™ CL
Chains	BAKERLUBE™ HT

COOLERS

Used to quick freeze freshly baked products down to around -40°C.

Manufactures: Baker Perkins, Eurobake, Starfrost

Gearboxes	FOODLUBE® Hi-Torque 220 / 320 / 460
Bearings	FOODLUBE® Premier 1
Chains	FOODLUBE® Overhead Chain Fluid

BAGGERS

A device used to automatically package bakery products to streamline the packaging process and improve efficiency

Manufactures: Dowson

Gearboxes	FOODLUBE® Hi-Torque 220
Bearings	FOODLUBE® Premier 1



TPM (Total Productive Maintenance)

TPM numbers on our products serve as unique identifiers that allow for effective equipment tracking, quality control, and maintenance monitoring, ensuring streamlined production processes, reduced downtime, and enhanced equipment efficiency.



NSF (National Sanitation Foundation)

Conducts testing, evaluation, and certification processes to ensure that products, particularly in the food and water sectors, meet strict hygiene and safety requirements.

FOODLUBE® HI-TORQUE

Food grade gear oil with start up protection system.

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
- Hi-Torque 220 8 H1
- Hi-Torque 320 13 H1
- Hi-Torque 460 27 H1

TEMP RANGE
-20°C to +150°C



Scan here for full product range and part codes

TEMP RANGE
-30°C to +180°C



Scan here for full product range and part codes

FOODLUBE® SPRAY GREASE

High performance, multi-purpose, food grade grease.

Multi-purpose extreme pressure spray grease, fortified with PTFE, designed for the enhanced lubrication of all types of slides, bushes, pins and bearings.

- ▶ Superior load and wear properties - Significantly extends bearing life
- ▶ Highly resistant to water washout - Excellent corrosion protection

TEMP RANGE
-50°C to +160°C



Scan here for full product range and part codes

FOODLUBE® EXTREME

Food grade grease for extremely wet applications.

A highly tenacious extreme pressure bearing grease with superior performance in wet conditions, for the lubrication of all types of ball, roller and plain bearings.

- ▶ Superior water resistance - excellent corrosion protection
- ▶ High load and wear properties - significantly extends bearing life
- ▶ Resists water wash out

TEMP RANGE
-30°C to +180°C



Scan here for full product range and part codes

ROCOL® products designed to keep your bakery running smoothly

FOODLUBE® HI-POWER 100

High performance, food grade oils for compressor, hydraulics and airline systems.

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



TEMP RANGE
17 H1 -50 to +120°C



Scan here for full product range and part codes

FOODLUBE® XT CHAIN FLUID

Formulated from a combination of synthetic esters and a special antioxidant package.

Ensures the highest performance in terms of thermal stability, low evaporation loss and minimal deposit formation

- ▶ Excellent penetration properties
- ▶ Low evaporation rates – low fuming and longer wet film life
- ▶ Low deposit and varnish formation
- ▶ Excellent anti wear properties



TEMP RANGE
57 H1 -0°C to +280°C



Scan here for full product range and part codes

FOODLUBE® OVERHEAD CHAIN FLUID

Adhesive lubricant for abattoirs etc, where dripping cannot be tolerated

Non-Drip, Food Grade, Multi-Purpose, Chain and Conveyor Lubricant

- ▶ Extremely tenacious film
- ▶ No drip formulation
- ▶ Excellent corrosion protection
- ▶ Good water wash off properties



TEMP RANGE
25 H1 -20 to +150°C



Scan here for full product range and part codes

SAPPHIRE® ENDURE

Premium extreme temperature and chemical resistant grease.

Extreme performance perfluorinated polyether EP grease fortified with PTFE. Designed to operate where conventional greases fail due to chemical contamination or attack.

- ▶ Extreme chemical and solvent resistance - resists caustic wash down
- ▶ Greatly extends lubrication intervals - reduced lubricant usage
- ▶ Excellent load carrying and anti-wear properties - significantly extends bearing life



TEMP RANGE
56 H1 -25 to +280°C



Scan here for full product range and part codes



TPM (Total Productive Maintenance)

TPM numbers on our products serve as unique identifiers that allow for effective equipment tracking, quality control, and maintenance monitoring, ensuring streamlined production processes, reduced downtime, and enhanced equipment efficiency.



NSF (National Sanitation Foundation)

Conducts testing, evaluation, and certification processes to ensure that products, particularly in the food and water sectors, meet strict hygiene and safety requirements.

PUROL™ GREASE/SPRAY GREASE

Multi-purpose grease and food processing release agent for direct food contact.

- ▶ Does not contain animal derived materials, nut oils or genetically modified ingredients
- ▶ Reduces equipment down-time
- ▶ Increases re-lubrication intervals - reduced lubricant spend



52 H1 3H



Scan here for full product range and part codes

RAPID DEMULSE 220

High performance, food grade oil which rapidly separates from water and prolongs service life.

High performance oil formulated to maximise lubricant and machine lifetime of water cooled homogenisers and similar systems.

- ▶ Rapid water demulsification under conditions of high load and elevated temperature
- ▶ Allows quick water drainage for reduced downtime
- ▶ Good wear protection properties
- ▶ Clean, low odour product



TEMP RANGE
60 H1 -5°C to +130°C



Scan here for full product range and part codes

BAKERLUBE™ HT

High temperature, graphited, synthetic lubricant for bakery oven chains.

Extreme high temperature graphited chain lubricant for bakery oven chains.

- ▶ High load carrying performance
- ▶ Clean evaporating base oil
- ▶ For temperatures where conventional fluids fail
- ▶ Does not contain solvents



TEMP RANGE WET FILM
-10°C to +180°C
TEMP RANGE DRY FILM
up to +550°C



Scan here for full product range and part codes

BAKERLUBE™ CL

High temperature, synthetic lubricant for bakery oven chains.

High temperature, long life, extreme pressure chain and conveyor lubricant.

- ▶ Outstanding resistance to oxidation
- ▶ Solvent free formulation
- ▶ Excellent penetration
- ▶ Clean, residue free film
- ▶ Suitable for automatic lubricators



TEMP RANGE
44 H2 -0°C to +280°C



Scan here for full product range and part codes

What is ROCOLCARE®

ROCOLCARE® is the premium service package for food manufacturers offering the following features and benefits:

Full Audit Compliance – Assures customers all ROCOL® products are formulated and supplied hygienically and safely.

Increased Efficiency – Improves plant production efficiency to reduce costs.

Risk Reduction - Establishes all your lubricant requirements and ensures contamination-free lubrication.

Rationalisation - Rationalises your lubricant usage and reduces your stock holding on-site.

Training – Instructs your manufacturing teams about machine maintenance best-practise.



Learn more about ROCOLCARE®

Use your phone camera to scan the QR code and find out more about our history, products, quality accreditations and ROCOLCARE® training.



ROCOLCARE® Customers – what to expect

Enjoy peace of mind – ROCOLCARE® ensures 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, and pass through a stringent QC process before dispatch from the ROCOL® manufacturing site



ROCOLCARE® Training

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, extending equipment life, and demonstrating application techniques, your team feels empowered to make decisions on products that bring positive results.

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