



ANTI-SEIZE

Lubrication Guide

Performance you can trust



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From product conception, design and development to technical expertise and customer services, Rocol® supports all lubrication and maintenance needs in manufacturing.

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Customer Service: +44 (0)113 232 2700

One simple solution

ROCOL® – EXPERTS IN ANTI-SEIZE SOLUTIONS

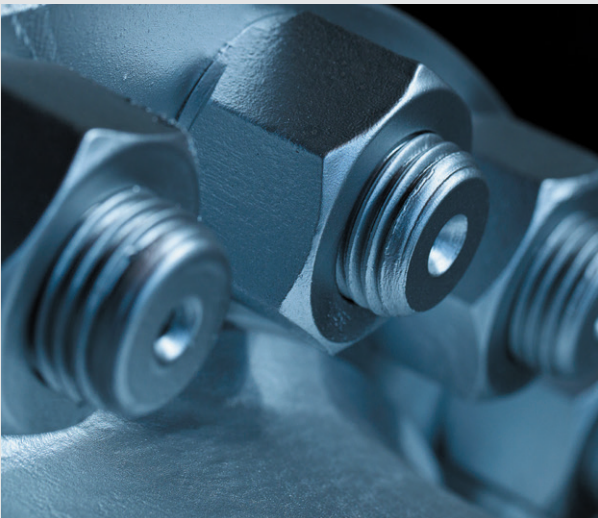
Many assemblies require anti-seize and assembly lubricants to protect components and aid disassembly during maintenance - yet not all compounds are equal.

THE Rocol® ADVANTAGE

When using torque controlled tensioning, it is critical to ensure an accurate and consistent coefficient of friction to prevent tightening issues - with under tightening causing leaks or excessive movement and overtightening damaging the fasteners and bolts, rendering them tough to remove.

The Rocol range demonstrates a highly consistent coefficient of friction, delivering precision and accuracy at each stage of the fastening process, giving maximum protection to machinery and peace of mind throughout production.

Optimised by experts for use in a range of applications, environments and alloy types, and with product selectors and sales engineers on hand to provide guidance, rest assured of having the correct product for the job in hand, with Rocol optimising your machinery to work harder at a lower cost.



Performance you can trust

Our range in highly-developed and technically advanced anti-seize lubricants and maintenance solutions meet the demands of our customers worldwide.

ROCOL RANGE: THE BENEFITS

- ▶ Generates consistent coefficient of friction, delivering controlled and repeatable tension without under or over tightening.
- ▶ Protects parts from galling, fretting and seizure, preventing damage during assembly and disassembly, quickening the process and lowering scrap costs.
- ▶ Protects against corrosion and ensures parts retain intact and are easy to disassemble.

ROCOL® meets stringent quality management standards and holds various accreditations including AS EN 9100:2018 and ISO 9001:2015.



Which is the right product for me?

STATIC SYSTEMS
are those where minimal external motion takes place.

During assembly, anti-seize lubrication helps prevent parts such as bolts, fasteners, gaskets and flanges used within static systems from tightening or coming loose.

ROCOL Anti-Seize solutions for static systems include:

- ▶ ANTI-SEIZE Compound
- ▶ ANTI-SEIZE Spray
- ▶ ANTI-SEIZE Stainless
- ▶ ANTI-SEIZE SA 610
- ▶ ANTI-SEIZE 797 Release Grade
- ▶ FOODLUBE® Anti-Seize
- ▶ FOODLUBE® MultiPaste
- ▶ FOODLUBE® MultiPaste Spray
- ▶ SAPPHIRE® Endure

DYNAMIC SYSTEMS
experience more interfacial motion.

Also suitable for static systems, assembly lubricants are optimised for dynamic interfaces to protect against fretting wear and are ideal for giving control and precision to assembly operations.

ROCOL Anti-Seize solutions for dynamic systems include:

- ▶ DRY MOLY Fluid
- ▶ DRY MOLY Spray
- ▶ DRY MOLY Paste
- ▶ MTLM Assembly and Run In Paste
- ▶ OXYLUBE Spray

Static systems

Little relative movement
Suitable for bolts, joints and gaskets



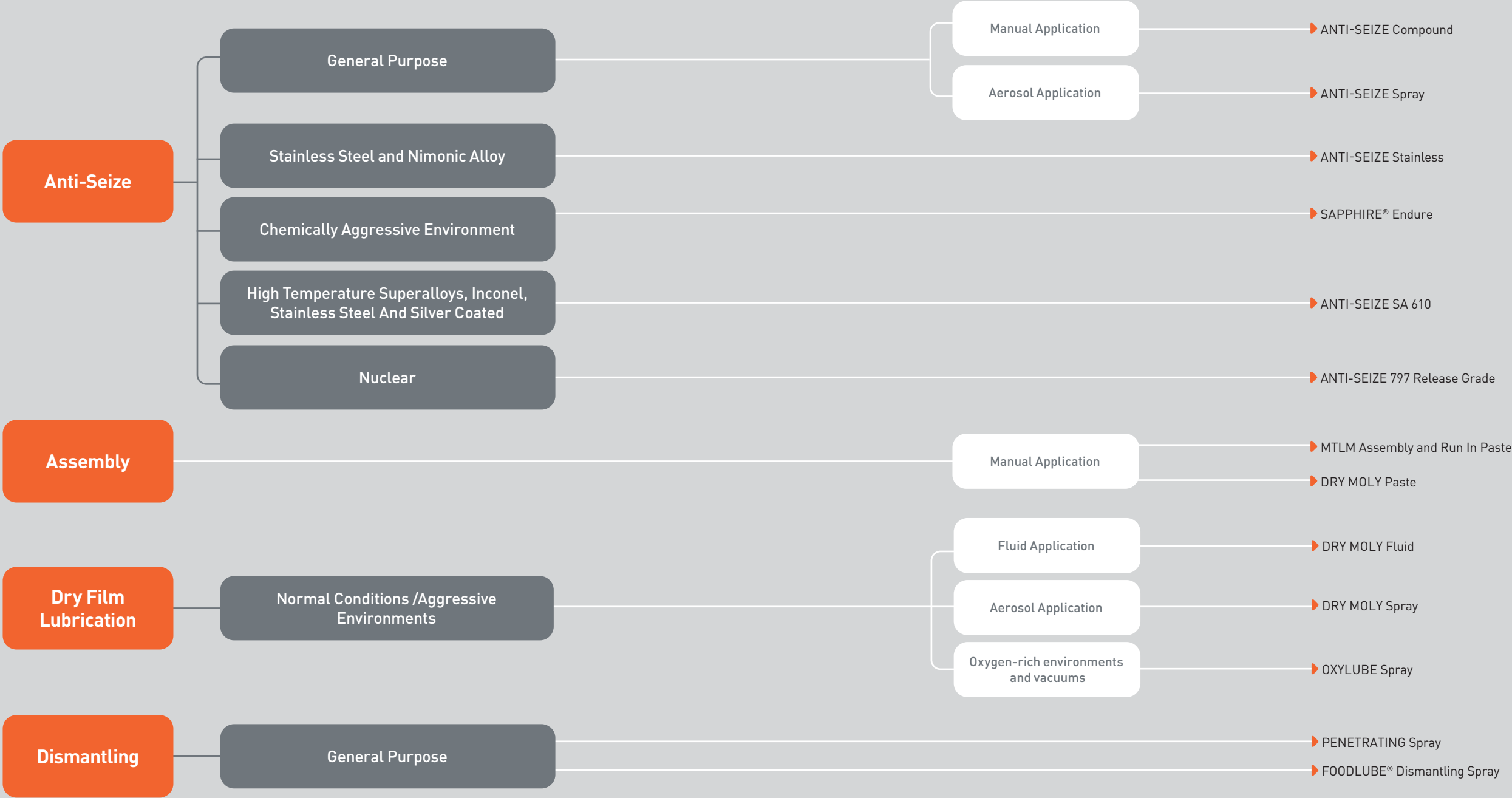
Dynamic systems

Vibration, Fretting
Suitable for splines, keyways and mountings



Anti-Seize and Assembly selection chart

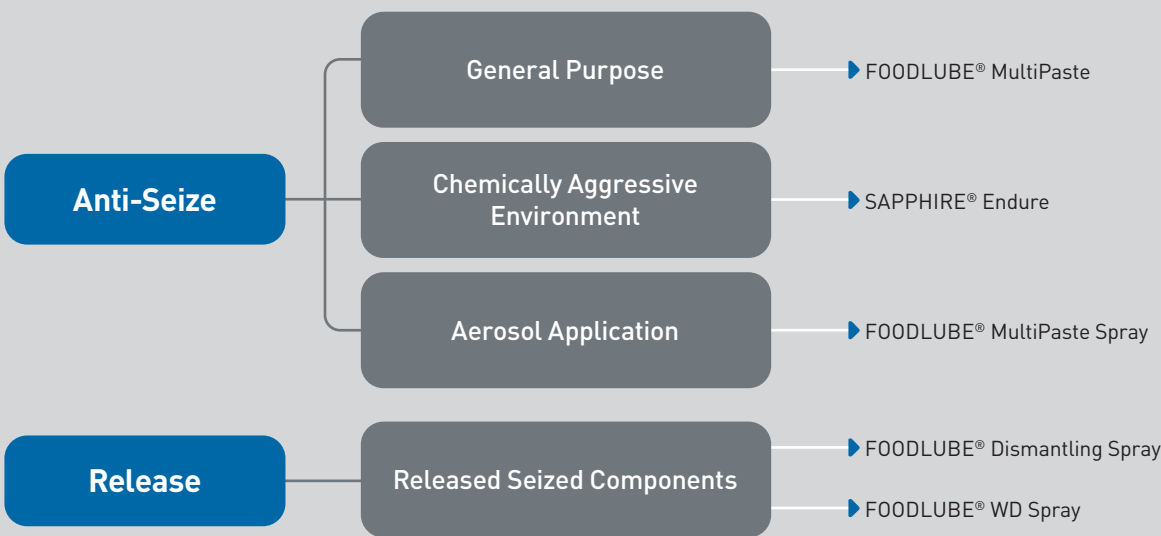
This selection chart has been designed to help you choose the correct lubricant for your application.



Food Grade application selection chart



This selection chart has been designed to help you choose the correct lubricant for your application.



SMOOTHER & LONGER PERFORMANCE

ROCOL® DRY MOLY Spray is an assembly / running in lubricant that creates less friction and in-service wear for your machinery helping it to perform at its best for longer.

Resin-bonded molybdenum disulphide film designed to lubricate sliding mechanisms - plain bearings, pins, cams and slides - where a fluid lubricant cannot be tolerated.



See page 14 of this brochure to discover more about the **ROCOL® DRY MOLY** range and part numbers.

PRECISE PERFORMANCE FROM EXTREME COLD TO EXTREME HEAT

ROCOL® ANTI-SEIZE Compound is a copper-based anti-seize paste for general purpose use and maintaining performance at extreme high temperatures.

- ▶ General purpose suits a wide range of applications
- ▶ Excellent water resistance in salt water and when submerged



See page 12 of this brochure to discover more about the **ROCOL® ANTI-SEIZE** range and part numbers.

Products for static systems

Help keep your machine parts in the right place with Rocol® best-in-class anti-seize solutions that:

- ▶ prevent galling and pick-up on assembly;
- ▶ protect parts against corrosion; and
- ▶ provide even tension during assembly of fasteners.

ANTI-SEIZE SA 610

Premium non-metal, calcium-free anti-seize paste for use on high temperature alloys at temperatures above 300°C

- ▶ Optimised for high-temperature alloys – stainless steel, Inconel, silver-plated fasteners
- ▶ High purity metal free formulation with extremely low levels of sulphur and chlorine
- ▶ No or negligible Cr(VI) retained even at high temperatures
- ▶ Approved by Siemens Turbomachinery for friction, release and Cr(VI) retention

Size	Part Code
500g	14153



ANTI-SEIZE Stainless

Anti-seize paste specially formulated for stainless steel and nimonic

- ▶ Rolls Royce MSRR 4008
- ▶ Rolls Royce OMAT 4/62
- ▶ Rolls Royce OMAT 10123 (spec for V2500)
- ▶ Rolls Royce COMAT 10-110
- ▶ Naval Cat No: 0475-179-9539
- ▶ NATO Stock No: 8030-99-179-9539
- ▶ BAE Systems approved for high nickel alloys

- ▶ Optimised for high temperatures – stainless steel, Inconel, Ag-plated
- ▶ Proven in demanding aerospace systems

Size	Part Code
500g	14143



Products for static systems

ANTI-SEIZE Compound

Copper-based anti-seize paste for general purpose use and maintaining performance at extreme high temperatures.

- ▶ Naval Cat No: 0475-541-8659 (6kg)
- ▶ RAF Ref No: 34D/301-6210 (85g)
34D/224-6794 (500g)
- ▶ NATO Stock No: 8030-99-301-6210 (85g)
8030-99-224-6794 (500g)
8030-99-541-8659 (6kg)

- ▶ General purpose suits a wide range of applications
- ▶ Excellent water resistance in salt water and when submerged

Size	Part Code
85g	14030
500g	14033
6kg	14035
18kg	14038
185kg	14039



ANTI-SEIZE Spray

Copper-based anti-seize spray with aluminium.

- ▶ General purpose suits a wide range of applications
- ▶ Convenient aerosol application
- ▶ Excellent water resistance in salt water and when submerged

Size	Part Code
400ml	14015



ANTI-SEIZE 797 RELEASE GRADE

Nickel-based, nuclear grade anti-seize paste effective at extreme high temperatures.

- ▶ High Purity
- ▶ Rolls Royce MSRR 9380
- ▶ Rolls Royce OMAT 4/56
- ▶ DTD 900/6128 ASF 1925
- ▶ Nato Stock Number 8030 99 007-9949

- ▶ Nuclear grade, high purity formulation with extremely low levels of sulphur and chlorine

Size	Part Code
500g	16403



FOODLUBE® MultiPaste
and MultiPaste Spray

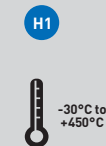
Food grade, multi-purpose anti-seize and lubricating paste, optimised for stainless steels.

- ▶ Does not contain: mineral hydrocarbons, animal derived materials, nut oils or genetically modified ingredients
- ▶ Manufactured from only FDA listed ingredients: FDA Group 21 CFR 178.3570

- ▶ Extremely tenacious – resists water washout
- ▶ NSF H1 and Vegan Trademark registered, and HALAL and Kosher certified

MultiPaste Spray	
Size	Part Code
400ml	15751

MultiPaste	
Size	Part Code
85g	15750
500g	15753
5kg	15756



SAPPHIRE® Endure

Food grade, high performance, extreme pressure (EP) PFPE lubricant fortified with PTFE

- ▶ Does not contain: mineral hydrocarbons, animal derived materials, nut oils or genetically modified ingredients
- ▶ Manufactured from only FDA listed ingredients: FDA Group 21 CFR 178.3570

- ▶ Oxygen-resistant, non-toxic lubricant with high oxidation and thermal resistance
- ▶ Used in chemically-aggressive systems with no detriment to most rubbers, plastics or metals
- ▶ WRAS-approved for use in drinking water systems
- ▶ Outstanding EP performance with weld loads up to 620kg
- ▶ NSF H1 and Vegan Trademark registered, and HALAL and Kosher certified

Size	Part Code
100g	12330
700g	12331
1kg	12334
5kg	12336
18kg	12337
50kg	12338



Products for dynamic systems

Create less friction and in-service wear for your machinery with the leaders in lubrication, Rocol®. Our products for dynamic systems:

- ▶ prevent galling, pick up and seizure on assembly, during initial running-in and during operation;
- ▶ offer excellent wear resistance (high molybdenum disulphide content); and
- ▶ are resistant to high loads.

DRY MOLY Fluid

Organic resin-bonded molybdenum disulphide film designed to lubricate sliding mechanisms - plain bearings, pins, cams and slides - where a fluid lubricant cannot be tolerated.

- ▶ NATO Stock number : 9150992826734
- ▶ NAVAL Cat number: 4752826734

- ▶ Dry film lubrication protects against contaminants

Size	Part Code
5 l	15751



DRY MOLY Paste

Highly effective dry film molybdenum disulphide coating in paste form.

- ▶ Rolls Royce Specification R-R OMAT 4/53
- ▶ Ideal assembly lubricant for disc spring assemblies, sliding mechanisms, plain bearings
- ▶ NATO Stock number: 8030992247380 (100g)
8030992247382 (750g)

- ▶ Dry film lubrication protects against contaminants

Size	Part Code
100g	10040
750g	10046
18kg	10047



DRY MOLY Spray

Resin-bonded molybdenum disulphide film designed to lubricate sliding mechanisms - plain bearings, pins, cams and slides - where a fluid lubricant cannot be tolerated.

- ▶ Rolls Royce Specification: R-R OMAT 4/52
- ▶ NATO Stock number: 9150992248709
- ▶ NAVAL Cat number: 4752248709

Size	Part Code
400ml	10025



MTLM Assembly and Run In Paste

A high content molybdenum disulphide paste, easing assembly and protecting against seizure during critical start-up and running-in periods. Suitable for dynamic applications like splines, couplings, keyways and helps resist fretting.

- ▶ Joint Services Designation - ZX 38
- ▶ JDefence Standard - DEF STAN 80-81//2 (S-722)

- ▶ Excellent lubrication for precision and interference fit parts
- ▶ Remains a tough, wear resisting film during operation

Size	Part Code
100g	10050
750g	10056
18kg	10057



OXYLUBE® Spray

Inorganic resin-bonded, dry film molybdenum disulphide coating in aerosol form.

- ▶ Rolls Royce Specification - R-R OMAT 4/54
- ▶ Naval Cat No: 0475-224-1963
- ▶ NATO Stock No: 9150-99-224-1963

- ▶ Inorganic resin used is suitable for oxygen and vacuum environments
- ▶ Suitable for precision and fine threaded components

Size	Part Code
400ml	10125



Products for dismantling

FOODLUBE® Dismantling Spray

A fast-acting, highly penetrating food-grade spray for the effective release of corroded and seized components, with short-term protection from corrosion.

- ▶ Does not contain: mineral hydrocarbons, animal derived materials, nut oils or genetically modified ingredients
- ▶ Manufactured from only FDA listed ingredients: FDA Group 21 CFR 178.3570

- ▶ DETEX technology - reduces risk of plastic contamination
- ▶ Excellent penetration of rust, scale, grease and dirt
- ▶ NSF H1 and Vegan Trademark registered, and HALAL and Kosher certified

Size	Part Code
300ml	15720



PENETRATING Spray

Extreme performance release spray, reinforced with Molybdenum Disulphide to aid dismantling.

- ▶ Ideal for corroded threaded fasteners, seized components, outdoor and marine environments and general industrial applications

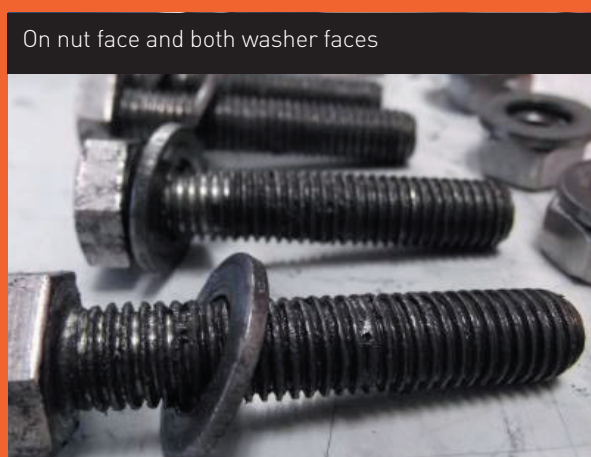
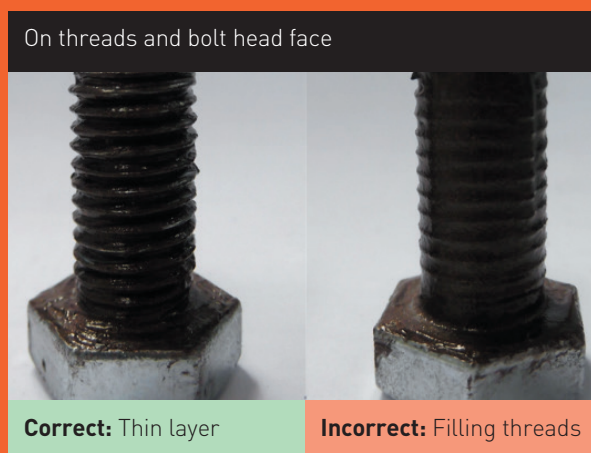
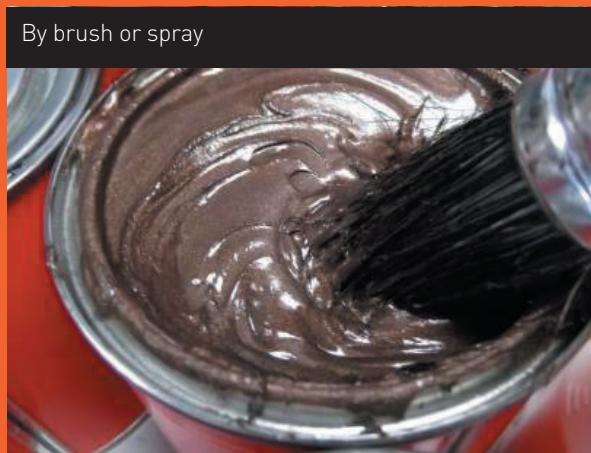
- ▶ A powerful jet application for fast-acting penetration
- ▶ Provides efficient loosening of seized components due to rust scale, dirt or grime
- ▶ Effective even after long periods of seizure
- ▶ Includes a light residual film to prevent short-term corrosion

Size	Part Code
300ml	14021

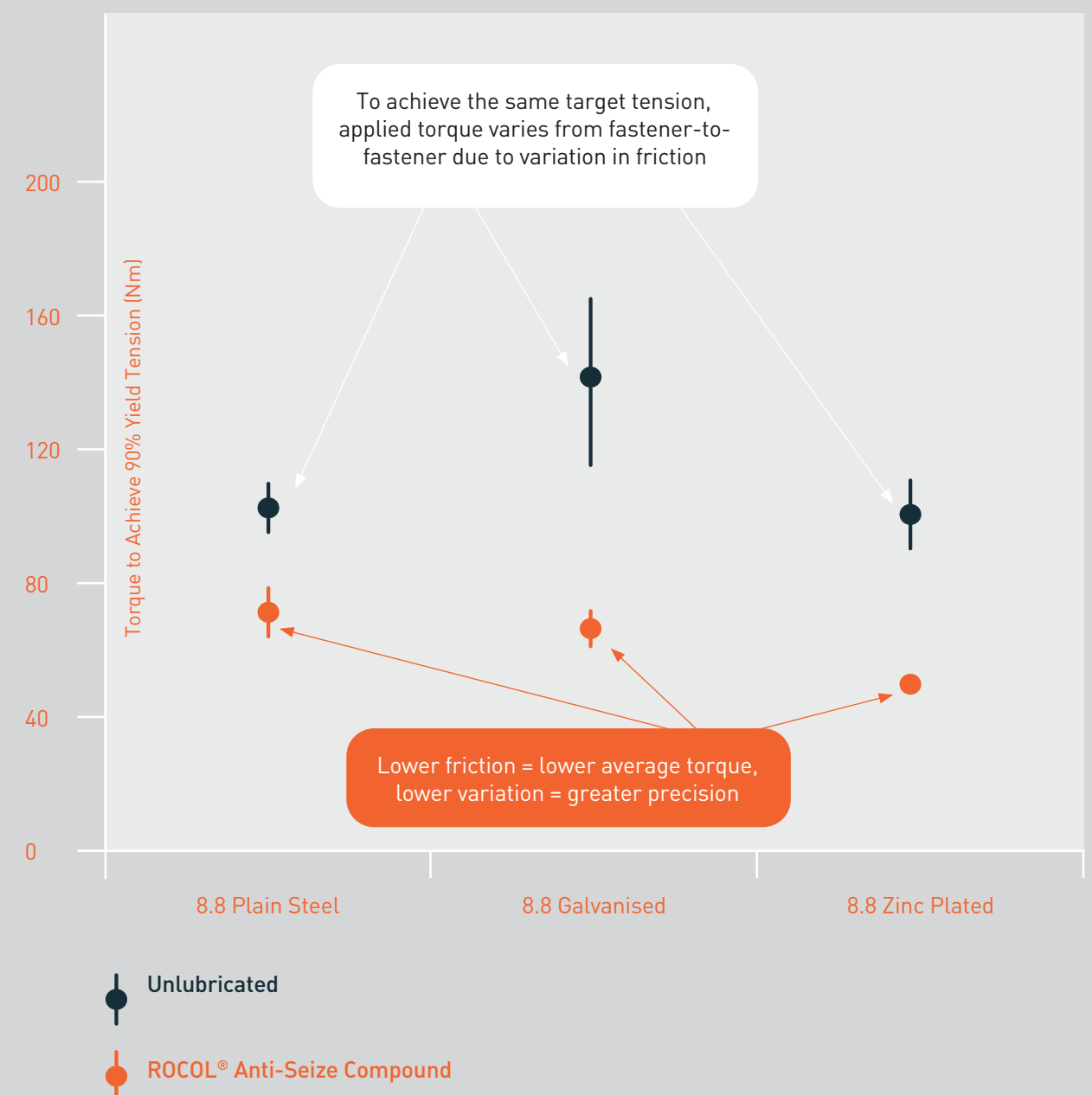


Applying anti-seize greases and pastes: best practice

1. Ensure all surfaces are clean and free from oil, grease or other contamination (note that many fasteners arrive pre-oiled to prevent corrosion during storage and require cleaning).
Use a residue-free cleaner such as Rocol Industrial Cleaner Rapid Dry Spray
2. Apply a thin layer to the contact surfaces, ideally using a brush or a wipe. On a fastener assembly, include the following surfaces:
 - The thread of the bolt or stud
 - Plain, unthreaded sections of the bolt or stud if they are inside the assembly
 - The face under the bolt head
 - The nut face
 - All parts of the washer (where included)
3. Take care not to over-apply, especially on sealed or gasketed joints, which can cause leakage.
4. Only use one product per brush to prevent cross-contamination and compromised performance.
5. After use, place the lid securely on the tin to stop the product from drying out or thickening, altering the friction coefficient and affecting performance.
6. It shouldn't be necessary to reapply as they should last the complete service interval. Only clean and reapply if disassembling the fastener or the interface has parted.
7. A standard industrial degreaser (e.g. Rocol Heavy Duty Cleaner or Remover & Degreaser Spray) or solvent cleaner (e.g. Rocol Industrial Cleaner Rapid Dry or Electra Clean) is recommended when cleaning an anti-seize compound from a component. Use a brush or rag for the cleaning process – abrasives can damage component surfaces and are not recommended.



Precise torque and clamping load reduces risk of leaks and failures



ROCOLCARE® training

APPLICATION-FOCUSED TRAINING

The scale of UK manufacturing is vast. Multiple types of machinery are put through their paces every day, under conditions that differ from one discipline to the next. This 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 within the manufacturing space has equipment, processes, regulations and unique requirements. No surprise, then, engineering managers find it challenging 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 multilevel 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 downtime 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 expert 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, 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 – soon to roll out.

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

If you are interested in application-based training, contact our technical team to find out more.
E: technical.lubricants@rocol.com
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Use your phone camera to scan the QR code to find out more

ROCOL®

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