

ROCOL®

AUTOMOTIVE MANUFACTURING & ASSEMBLY

Lubrication Guide

Performance you can trust

ROCOL® A division of **TW** Ltd

Contents

From product concept, design and development through to technical expertise and customer services, ROCOL® supports all the lubrication needs in the automotive manufacturing and assembly process.

One simple solution	3
Performance you can trust	4
Driving the automotive journey forwards	6
Showcased products	8
Customer stories	10
Choosing the right products	14
Range of products	18
Forming and stamping lubricants	24
Choosing the right forming and stamping lubricants	25
Range of products	26
ROCOLCARE®	28
What is ROCOLCARE®	29
ROCOLCARE® training	30

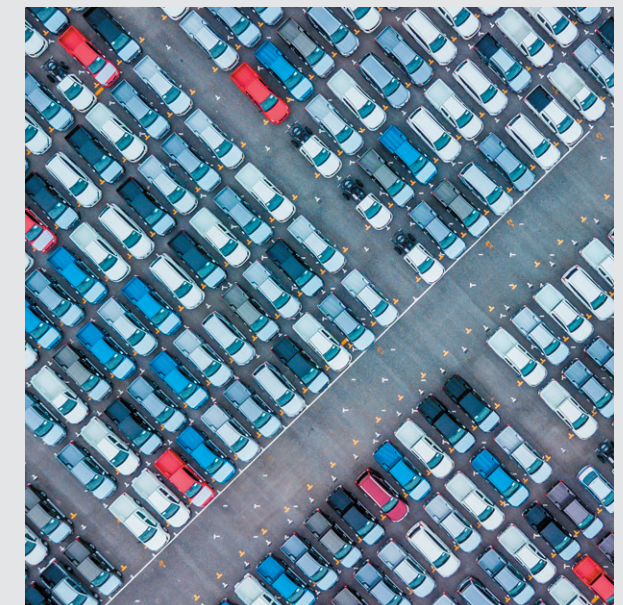
Customer Service: +44 (0)113 232 2700

One simple solution

Over 75 million passenger vehicles are produced each year across the globe, driving this fast-moving, billion-dollar industry forward.

With the introduction of innovative, greener technologies such as the electric vehicle, production has not slowed down, instead stepping up a pace to meet the demands of a growing world populace. It is critical that vehicle manufacturing continues to operate at speed and with minimal interruption – which requires ongoing specialist care for your production machinery.

A world-leader in high-performance lubrication and machine maintenance solutions, ROCOL® assists customers in the automotive 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 car manufacturers across the globe to keep their industry and customer base moving quickly and efficiently.



Performance you can trust

Our range of highly-developed, technically advanced lubricants and machine cleaning solutions meets the demands of our customers worldwide.

ROCOL BENEFITS IN BRIEF

- ▶ Extended component life
- ▶ Increased lubrication intervals
- ▶ Reduced downtime

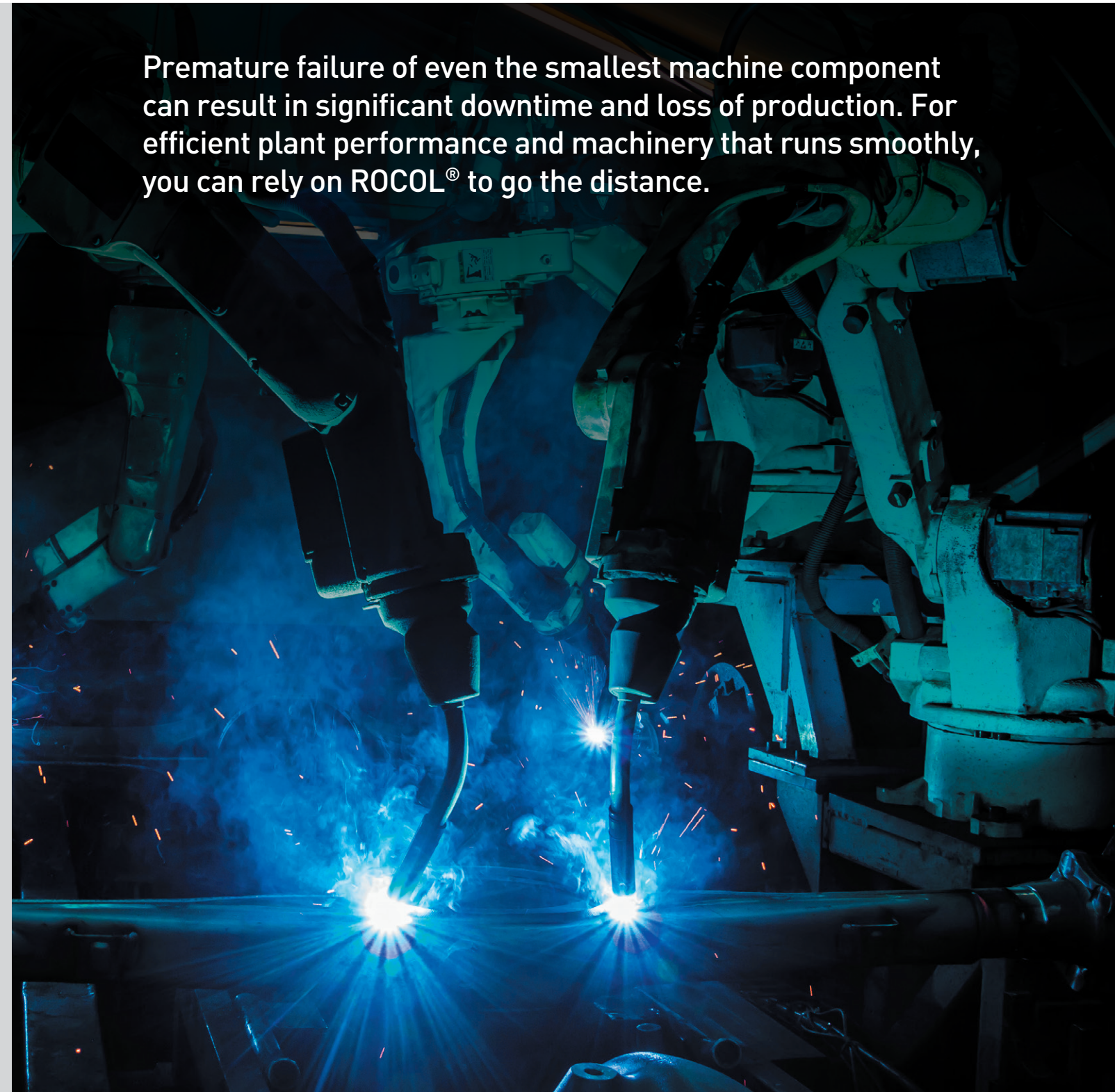
HOW OUR PRODUCTS ARE KEEPING THE AUTOMOTIVE INDUSTRY MOVING

- ▶ Keeping production lines free from failure or contaminants
- ▶ Protecting against corrosion to extend the machine life
- ▶ Lowering total cost of ownership and labour costs

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



Premature failure of even the smallest machine component can result in significant downtime and loss of production. For efficient plant performance and machinery that runs smoothly, you can rely on Rocol® to go the distance.



Driving the automotive industry forwards

Production lines across the globe rely on world-leading solutions to keep them moving. Who better to care for your automotive manufacturing machinery than ROCOL®.

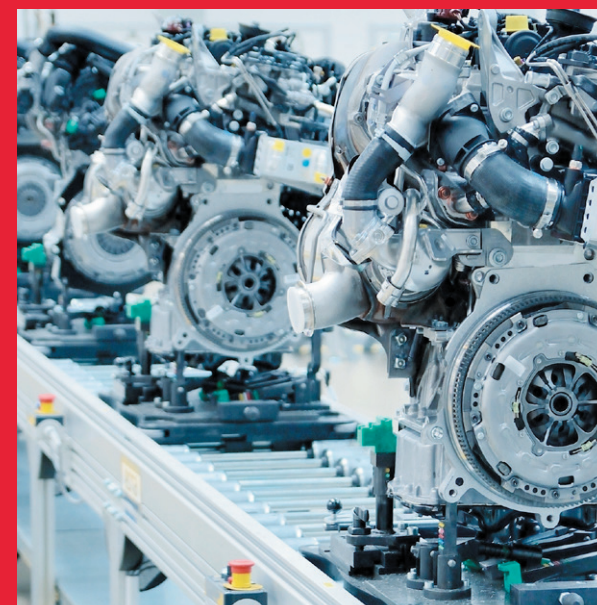
There are multiple steps in the automotive assembly journey, each one reliant on machinery that works efficiently, often on a continuous cycle 24/7. It takes having the greatest products and most advanced solutions to keep your machines moving so your vehicles are produced lean thanks to minimal downtime and unnecessary product faults.

MACHINE MAINTENANCE

Mass manufacturing production lines require optimum maintenance to keep them in the greatest condition for operational longevity.

As automotive manufacturers know, premature failure of even the smallest machine component can result in significant downtime and loss of production. It means every last piece in your machinery needs caring for so it stays clean, free from contaminants that can cause harm during the production-process, and fully functional.

Maintenance is critical within your assembly plant – that’s at every step in the production cycle.



ROCOL® is trusted by industry leaders in automotive production machinery like Honda, Nissan, Toyota, Jaguar Land Rover, Denso WEBB, Winar, Movetech, TAL and BASF

From the gears operating press shop machinery to the wire ropes lifting heavy vehicle parts along to the next stage.

ROCOL® technically advanced solutions provide the care your automotive plant machinery needs, with world-leading lubricants, oils and greases designed to optimise every last machine bearing, electrical contact or rope chain to achieve its best – day and night – ensuring your plant stays operational for longer, free from interruption.

PAINT SHOP

It takes several robotic sprays and ovens working to extreme temperatures to achieve the premium finish your customers are expecting from their new

vehicles. The slightest imperfection can lead to product rejection, forcing you to repeat the entire process – which costs you time and money.

ROCOL lubricants are optimised to withstand the range in conditions found in a paint shop to keep the machinery working effectively, for long periods that are free from issue.

For paint shops, our products are free from silicone, non dripping and suited to the atmospheric conditions with each one compatible with the paint in use to achieve the greatest results for your vehicle.

From the leading companies making the plant machinery to the global brands manufacturing vehicles for showrooms worldwide, ROCOL® is trusted by the automotive industry to reduce production downtime and operational costs with solutions that prove themselves time and time again to go the distance.



Showcased products

CHAINGUARD 230

High-temperature chain and conveyor lubricant for all drive and transport chains and bearings working in conditions up to 230°C. Specifically formulated with synthetic esters and antioxidants to ensure high performance.

- ▶ Excellent anti-wear properties at high temperatures for longer chain life and reduced wear
- ▶ Excellent frictional properties reducing power consumption on chain drive units
- ▶ High thermal stability and low evaporation loss
- ▶ Minimal deposit formation with no hard carbon
- ▶ Low fuming provides a clean and safe working environment

Part Code	Size
22255	5L
22265	20L

TEMP RANGE
+10°C to +230°C



CHAINGUARD 200P

A polyalkylene glycol based high-temperature lubricant specifically formulated for oven chains. Ideal for use in automotive paint plants, particularly those using water-based paints.

- ▶ Base fluid evaporates cleanly minimizing the risk of condensate formation
- ▶ Compatible with paint and coating systems reducing potential defects caused by non-compatible lubricants
- ▶ Excellent anti-wear properties reduce wear and extend chain life
- ▶ Molybdenum disulphide increases the temperature range and provides dry film lubrication when the wet film evaporates

Part Code	Size
22205	20L

WET FILM TEMP RANGE
-0°C to +220°C

DRY FILM TEMP RANGE
-0°C to +450°C



CHAINGUARD 280

High-temperature chain and conveyor lubricant for all drive and transport chains working in conditions up to 280°C. Specifically formulated with synthetic esters and antioxidants for optimum performance through thermal stability, low evaporation loss and minimal deposit formation.

- ▶ Excellent anti-wear properties at high temperatures for longer chain life and reduced wear
- ▶ Excellent frictional properties reducing power consumption on chain drive units
- ▶ Special antioxidant combination provides longer wet film life with low deposit and varnish formation
- ▶ Keeps oil-ways clear for more efficient lubrication
- ▶ Penetrates links and pins lubricating in the highest potential wear areas
- ▶ Low fuming provides a clean and safe working environment

Part Code	Size
22235	5L
22236	20L

TEMP RANGE
0°C to +280°C



SAPPHIRE® ULTRA

High Performance, Extreme Pressure (EP) PTFE Lubricant. Designed for use on anti-friction and plain bearings, small gears, slides, pins, valves, plungers and screws.

- ▶ Non-toxic lubricant with extremely high oxidation and thermal resistance
- ▶ Resistant to a wide range of chemicals
- ▶ Highly resistant to water and steam
- ▶ Exceptionally long service life providing extended lubrication intervals, reducing downtime and labour costs

Part Code	Size
12339	900g
12340	700g

TEMP RANGE
-25°C to +280°C



SAPPHIRE® PREMIER

Multi-purpose EP bearing grease fortified with PTFE for maximum bearing life. Ideal for a range of applications including low or high temperatures, high speeds, and as an effective electrical contact grease.

- ▶ Fully synthetic base oil leaves minimal residues even at elevated temperatures
- ▶ PTFE reduces friction and stick-slip on start-up through more controlled movement
- ▶ Outstanding performance at high-speed for most industry applications
- ▶ Prevents wear and corrosion on switchgear and electrical contacts in humid, damp or wet conditions

Part Code	Size
12471	380g
12474	18kg
12475	4kg
12479	170kg

TEMP RANGE
-50°C to +200°C



WIRE ROPE FLUID

High performance wire rope fluid ideal for use on pre-treatment conveyors chains and PT & CED oven chains.

- ▶ Protects against corrosion in humid acid and alkaline environments
- ▶ Non-drip formula
- ▶ Contains MoS₂ for wear protection and emergency dry lubrication
- ▶ Penetrating formula protects both outer wires and inner core
- ▶ Approved to stringent NATO and Naval standards demonstrating performance in highly regulated environments

Part Code	Size
20045	20L

TEMP RANGE
-30°C to +100°C



SAPPHIRE® 2

Heavy duty EP bearing grease designed to lubricate and protect all types of ball, roller and plain bearings.

Revolutionary multi-complex soap technology typically lasts three times longer than standard soap-based lubricants.

- ▶ Highly resistant to oxidation providing greatly extended lubrication intervals
- ▶ Excellent corrosion resistance in humid, damp or wet conditions
- ▶ Highly tenacious lubricant with outstanding film strength that stays intact even in severe operating conditions
- ▶ Multi-complex soap technology enhances shear stability

Part Code	Size
12171	400g
12176	5kg
12175	18kg
12178	50kg
12179	185kg

TEMP RANGE
-30°C to +160°C



CHAIN & DRIVE FLUID

High-performance EP chain and conveyor lubricant with a unique formula ensuring maximum performance for penetration, lubrication and corrosion protection.

- ▶ Provides excellent penetration into chain links and pins
- ▶ Highly tenacious water-resistant film to dewater and protect all types of chains in wet or humid environments
- ▶ Offers excellent corrosion protection on chains in hostile environments
- ▶ Great adhesion reducing drips and fling-off

Part Code	Size
22306	5L
22309	20L

TEMP RANGE
-15°C to +120°C



Customer stories

Case Study

Machinery in the customer's paint shop was experiencing increased downtime caused by heavy carbonisation to its Webb conveyor chains within its oven paint booth. The carbon caused by a competitor's semi-synthetic lubrication oil also created excess condensation in the oven, resulting in moisture dripping onto painted components and leading to their rejection.

MACHINE FACTS

- ▶ Oven length – 228 metres
- ▶ Oven temperature – +170°C to +190°C
- ▶ Shift duration – 3

ROCOL® proposed **CHAINGUARD 230**, a 100% ester-based chain oil that operates at temperatures up to +230°C. With outstanding EP and anti-wear performance at high loads and long wet film life even at increased temperatures, it provided maximum lubrication without forming hard carbon deposits.

OUTCOMES

Over 40 days, our customer observed:

- ▶ Lower evaporation resulted in less consumption
- ▶ No carbonisation recorded
- ▶ No dripping
- ▶ Superior lubricity
- ▶ Reliability over a longer period eliminated other potential losses

The result - ROCOL® CHAINGUARD 230 significantly reduced the total cost of ownership for our customer.



Case Study

The paint shop was using a competitor's bearing grease to lubricate its Webb conveyor chain trolleys. Operating in an aggressive environment at 190°C, the base oil was separating from the grease and leading to excessive bearing carbonisation, in turn causing the machine to fail and the trolley to need replacing before its expected end of life.

MACHINE FACTS

- ▶ Oven length – 228 metres
- ▶ Oven temperature – +170°C to +190°C
- ▶ Shift duration – Continuous x 3

ROCOL® proposed **SAPPHIRE® Premier**, synthetic grease fortified with PTFE to optimise the life of ball, roller and plain bearings through maximum lubrication and protection in multiple applications. Its suitability at high speeds and in extremely high temperatures makes it the perfect solution for automotive vehicle paint booths.

OUTCOMES

Over 6 months, our customer observed:

- ▶ No re-application of the grease was required
- ▶ Provided excellent protection of bearings
- ▶ No dripping, oil separation or carbonisation
- ▶ Reliability over a longer period

The result - ROCOL® SAPPHIRE® PREMIER significantly reduced the total cost of ownership for our customer.



The customer was using a competitor's semi-synthetic oil to pre-treat its Webb conveyor chain links used within the paint shop. Operating in a high humidity acidic and alkaline environment where alkaline solution and chemical fumes are present – with a maximum tunnel temperature of 60°C - the solution was not suitable, drying out after one cycle and causing chain links to wear out prematurely.

MACHINE FACTS

- ▶ Oven length – 243 metres
- ▶ Oven temperature - +60°C
- ▶ Shift duration – Continuous x 3

ROCOL® proposed our **WIRE ROPE Fluid**, a high-performing MoS2-based de-watering lubricant designed to resist chemicals and provide optimum protection against corrosion in multiple applications including paint shops.

OUTCOMES

- ▶ Lasted twice as long as the competitor product due to its fluid nature
- ▶ Provided excellent protection of chains due to the MoS2 additive
- ▶ No dripping recorded
- ▶ Reliability over a longer period eliminated other potential losses

The result - ROCOL® WIRE ROPE FLUID significantly reduced the total cost of ownership for our customer.



Our solutions are helping customers in the automotive industry to manufacture vehicles at fast pace, to a high standard without any compromises to production. Trust ROCOL® to keep assembly lines moving quickly and efficiently, with minimal downtime.

Choosing the right products

General maintenance shop

General Cleaning Application

- ▶ HEAVY DUTY CLEANER SPRAY
See page 21
- ▶ INDUSTRIAL CLEANER RAPID DRY SPRAY
See page 21

L T Motor Bearings

- ▶ SAPPHIRE® ADVANCE 2
See page 18

Electrical Contact Cleaning

- ▶ ELECTRA CLEAN SPRAY
See page 21

H T Motor Bearings

- ▶ SAPPHIRE® PREMIER
See page 9

Bearing Lubrication/ Gear Coupling & Plummer Block

- ▶ SAPPHIRE® 2
See page 9

Tool room

Reaming, Tapping & Drilling

- ▶ RTD® COMPOUND/LIQUID
See page 23
- ▶ RTD® SPRAY/CLEAN CUT
See page 23

Transmission room

Reaming, Tapping & Drilling (spindle bearings)

- ▶ AEROSPEC 3052
See page 18

Press shop

Open Gears

- ▶ TUFGEAR UNIVERSAL
See page 20

Crane Gear Box

- ▶ SAPPHIRE® HI-TORQUE
See page 19
- ▶ MTLM ASSEMBLY AND RUNNING IN PASTE
See page 20

Crane Wire Ropes

- ▶ WIRE ROPE DRESSING
See page 20

Fly Wheel Bearings

- ▶ SAPPHIRE® 2
See page 9

Weld shop

All Welded Components

- ▶ SPATTER RELEASE OIL FREE
See page 21

Protection Of Welding Tables, Turning Tables & Joints From Spatters

- ▶ SPATTER RELEASE SPRAY
See page 21

Robot Turn Table

- ▶ SAPPHIRE® PREMIER
See page 9
- ▶ SAPPHIRE® UNILUBE
See page 19

Robotic Arms / Bearings

- ▶ SAPPHIRE® 000
See page 18

Body shop

Chain Conveyor	<ul style="list-style-type: none"> ▶ CHAIN & DRIVE FLUID See page 9
Plummer Block	<ul style="list-style-type: none"> ▶ SAPPHIRE® 2 See page 9
Rack & Pinion	<ul style="list-style-type: none"> ▶ SAPPHIRE® 2 See page 9
Sliding Surface	<ul style="list-style-type: none"> ▶ MTLM ASSEMBLY AND RUNNING IN PASTE See page 20

Paint shop

Paint baking oven conveyor chain & bearings

Sealer Oven	<p>CHAINS</p> <ul style="list-style-type: none"> ▶ CHAINGUARD 230 & 280 See page 8 ▶ CHAINGUARD 200P See page 8 <p>BEARINGS</p> <ul style="list-style-type: none"> ▶ SAPPHIRE® PREMIER See page 9
Primer Oven	
Top Coat Oven	
PT & CED Oven	<p>CHAINS</p> <ul style="list-style-type: none"> ▶ WIRE ROPE FLUID See page 9 <p>BEARINGS</p> <ul style="list-style-type: none"> ▶ SAPPHIRE® PREMIER See page 9

PT & CED Hanger Conveyor	<ul style="list-style-type: none"> ▶ SAPPHIRE® 2 See page 9
Guide Roller	<p>INSIDE OVEN</p> <ul style="list-style-type: none"> ▶ SAPPHIRE ULTRA See page 8 <p>OUTSIDE OVEN</p> <ul style="list-style-type: none"> ▶ SAPPHIRE® PREMIER See page 9 ▶ SAPPHIRE® 2 See page 9
PT & CED Hanger	<ul style="list-style-type: none"> ▶ SAPPHIRE® 2 See page 9
Pretreatment Conveyor Chains & Bearings	<p>CHAINS</p> <ul style="list-style-type: none"> ▶ WIRE ROPE FLUID See page 9 <p>BEARINGS</p> <ul style="list-style-type: none"> ▶ SAPPHIRE® 2 See page 9
Heavy Duty Gear Box	<ul style="list-style-type: none"> ▶ SAPPHIRE® HI-TORQUE See page 19
Power & Free Conveyor Chains & Bearings (Plummer Block)	<p>CHAINS</p> <ul style="list-style-type: none"> ▶ CHAIN & DRIVE FLUID See page 9 ▶ CHAINGUARD 200P See page 8 <p>BEARINGS</p> <ul style="list-style-type: none"> ▶ SAPPHIRE® 2 See page 9
Furnace Blower Fan Bearings	<ul style="list-style-type: none"> ▶ SAPPHIRE® PREMIER See page 9

If you require help in selecting a product, contact ROCOL direct: +44 (0) 113 232 2600

Range of products

SAPPHIRE® ADVANCE 2

Multi-purpose EP bearing grease fortified with PTFE for maximum bearing life.

Effective in a range of applications operating at high speeds such as electric motors and fan bearings.

- ▶ Lithium complex soap technology with EP additives for outstanding high load performance superior to standard soap-thickened lubricants
- ▶ Outstanding performance at high speed for most industrial applications
- ▶ PTFE reduces friction and stick-slip on start-up through more controlled movement

Part Code	Size	TEMP RANGE
12441	380g	-30°C to +160°C
12446	18kg	
		dmN factor
		450,000



SAPPHIRE® 000

Heavy duty bearing grease designed to lubricate and protect all types of ball, roller and plain bearings.

Lasts three times as long as standard soap-based lubricants and highly effective on cost.

- ▶ Excellent corrosion resistance in humid, damp or wet conditions
- ▶ Highly tenacious lubricants with outstanding film strength that stays intact even in severe operating conditions
- ▶ Multi-complex soap technology enhances shear stability

Part Code	Size	TEMP RANGE
12284	18kg	-30°C to +160°C



AEROSPEC 3052

Specifically designed for the effective lubrication and protection of all types of bearings where a high speed, low noise, grease is required.

- ▶ Low noise grease which is ideal when used in applications such as high-speed spindles
- ▶ Provides a long-lasting lubricant film even at extreme high speeds and eliminates the need for an external oil lubrication system.
- ▶ Extends component life by reducing frictional wear and providing excellent corrosion resistance.

Part Code	Size
16651	380g
16658	3kg
16654	18kg



SAPPHIRE® AUTOLUBE

High performance bearing grease designed for the effective lubrication and protection of all types of ball, roller and plain bearings.

- ▶ Lithium complex soap technology and EP additives, including PTFE, provides an outstanding high load, EP performance of 560kg that is superior to standard soap thickened lubricants.
- ▶ Highly resistant to oxidation, providing extended lubrication intervals whilst reducing equipment failure, downtime and lubricant usage.
- ▶ Excellent corrosion resistance to protect in humid, damp and even wet conditions.
- ▶ Outstanding high speed performance for most applications found in industry.
- ▶ PTFE has an extremely low coefficient of friction and its inclusion in SAPPHIRE Advance 2 reduces stick-slip on start-up ensuring a smooth controlled movement.

Part Code	Size	TEMP RANGE
12604	120ml	-30°C to +160°C



SAPPHIRE® UNILUBE

High performance lithium soap complex technology bearing grease with EP additives, including PTFE. Lubricates and protects of all types of ball, roller and plain bearings.

- ▶ Outstanding EP and high-speed performance on loads of 560kg
- ▶ Highly resistant to oxidation with extended lubrication intervals reducing frequency of applications and equipment failure
- ▶ Excellent corrosion resistance to protect in humid, damp and even wet conditions
- ▶ Superior to standard soap thickened lubricants
- ▶ Filled with SAPPHIRE Advance, it reduces manual labour and is ideal for hard to reach areas



Part Code	Size
13012	125ml

SAPPHIRE® HI-POWER

A range of hydraulic, compressor and airline oils, designed to maximise power transfer whilst lubricating and dissipating heat to protect machinery and extend equipment life.

- ▶ Reduces material wear to significantly extend component life
- ▶ High thermal stability increases oil change intervals and prevents sludge formation
- ▶ Low carry-over system eases air and oil separation, ensuring clean air and maximum power transfer
- ▶ Available in a range of viscosities for all pneumatic and hydraulic applications

Hi-Power 32		Hi-Power 46	
Part Code	Size	Part Code	Size
52545	20l	52555	20l
52549	200l	52559	200l

Hi-Power 68		Hi-Power 100	
Part Code	Size	Part Code	Size
52565	20l	52575	20l
52569	200l	52579	200l

TEMP RANGE
-20°C to +120°C



SAPPHIRE® HI-TORQUE

High performance, semi-synthetic gearbox fluids.

- ▶ Reduces wear to significantly extend gear box life
- ▶ Contains unique SUPS technology to protect gear teeth on start-up
- ▶ Offers high performance even under extreme pressure
- ▶ Decreases oil change frequency reducing total cost of ownership

Hi-Torque 150		Hi-Torque 320	
Part Code	Size	Part Code	Size
21055	20l	21025	20l
21059	200l	21029	200l

Hi-Torque 220		Hi-Torque 460	
Part Code	Size	Part Code	Size
21015	20l	21035	20l
21019	200l		

Hi-Torque 680	
Part Code	Size
21045	20l

TEMP RANGE
-20°C to +120°C



* Images shown are a representation of each product. See part codes for range of each product.

Range of products

MTLM ASSEMBLY AND RUNNING IN PASTE

A very high content molybdenum disulphide paste designed to give a tough, wear-resistant grease film to protect against seizure, ease assembly and offer complete protection during the critical start-up and running-in periods.

- ▶ Prevents galling, pick-up and seizure on assembly and during initial running-in
- ▶ Lubricates valves and slow-moving parts under high loads
- ▶ Reduces the forces required for assembly of close fitting components
- ▶ Excellent wear resistance

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

TEMP RANGE
-50°C to +450°C



WIRE ROPE DRESSING

High performance semi-fluid wire rope dressing grease providing excellent corrosion protection particularly in humid environments. Ideal for use on press shop crane ropes.

- ▶ Semi-fluid grease penetrates rope core for total protection whilst resisting fling off in use
- ▶ Excellent lubrication properties reducing wear on wire strands to maximise life
- ▶ Offers outstanding corrosion protection

TEMP RANGE
-30°C to +100°C

Part Code	Size
20026	4kg
20024	18kg
20039	160kg



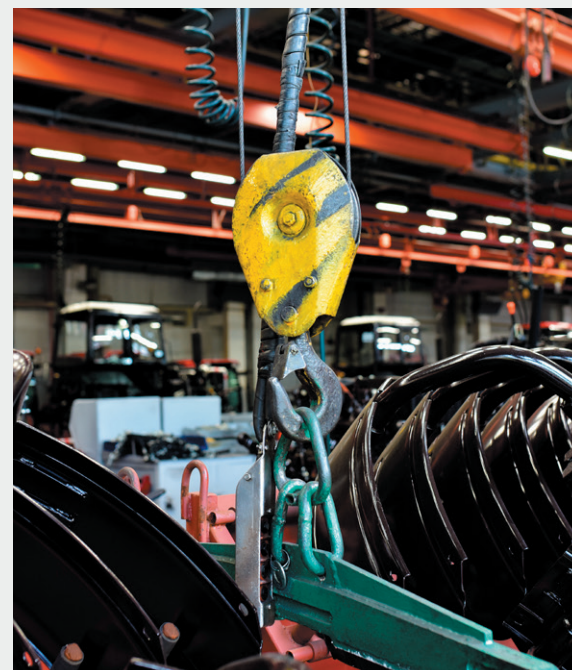
TUFGEAR UNIVERSAL

Heavy-duty open gear grease containing a blend of high load carrying solids designed to lubricate and protect gears used in extreme environments.

- ▶ Non-melting grease containing a blend of high load carrying solids
- ▶ Combination of high load carrying solids boosts the heavy-duty performance particularly in highly loaded applications
- ▶ Demonstrates outstanding EP performance with a weld load of 800 kg
- ▶ Excellent corrosion resistance to protect in humid, damp or wet conditions

TEMP RANGE
-40°C to +120°C

Part Code	Size
18302	400g
18305	5kg
18304	18kg



SPATTER RELEASE SPRAY

Designed to allow easy removal of weld spatter from metal surfaces, nozzles, jigs and fixtures.

- ▶ Exceptional spatter release – one pass coating
- ▶ Film allows multiple welds
- ▶ Silicone free
- ▶ Easy cleaning

Part Code	Size
66080	400ml



HEAVY DUTY CLEANER SPRAY

High performance, water-dispersible, heavy-duty cleaning fluid.

- ▶ Penetrates and loosens workplace grime, grease and dirt
- ▶ Emulsifies oil and grease to allow removal by hosing or wiping
- ▶ Safe on metal, paint and most plastics
- ▶ Free from chlorinated solvents
- ▶ Ideal for Industrial machinery, flooring, concrete and paving
- ▶ Easily washed or hosed off with water

Part Code	Size
34011	300ml



ELECTRA CLEAN SPRAY

A powerful, ultra-fast drying electrical contact, equipment and component cleaner.

- ▶ Effectively degreases and cleans electrical switches and switchgear
- ▶ Rapid evaporation to leave no residue
- ▶ Removes light to medium grease and oil contamination
- ▶ Compatible with most plastics
- ▶ NSF K2 Registered

Part Code	Size
34066	300ml



INDUSTRIAL CLEANER RAPID DRY SPRAY

Food grade, quick-drying multi-purpose cleaner.

- ▶ Dries rapidly without leaving a residue
- ▶ Includes specially formulated blend of degreasing solvents
- ▶ Effectively removes grease, oil and workshop grime from all surfaces
- ▶ Safe on metal, most plastics and paints
- ▶ NSF K1 Registered

Part Code	Size
34131	300ml



* Images shown are a representation of each product. See part codes for range of each product.



RTD®
Our range of hand-applied cutting lubricants includes a unique formulation to provide superior performance across a range of ferrous and non-ferrous metals, including medium and difficult materials.

RTD® CLEAN CUT

Specially formulated, hand applied cutting lubricant designed to improve all day to day machining operations – whatever the metal being worked.

- ▶ Can be cut back with water – greater economy
- ▶ Compatible with water mix cutting fluids
- ▶ Does not stain aluminium and yellow metals
- ▶ Extends tool life
- ▶ Improves surface finish

Part Code	Size
53062	350g
53066	5l



RTD® SPRAY

Aerosol applied metal cutting lubricant consisting of a concentrate of extreme pressure additives.

- ▶ Superb cutting performance
- ▶ Suitable for all ferrous metals
- ▶ Ideal for reaming, tapping, drilling and general workshop operations
- ▶ Fast and convenient application

Part Code	Size
53011	400ml



RTD® LIQUID

- ▶ Flows to the cutting edge
- ▶ Oil and solvent free
- ▶ Available in a plastic squeeze bottle for easy application

Part Code	Size
53072	400 g
53076	5 l
53078	20 l



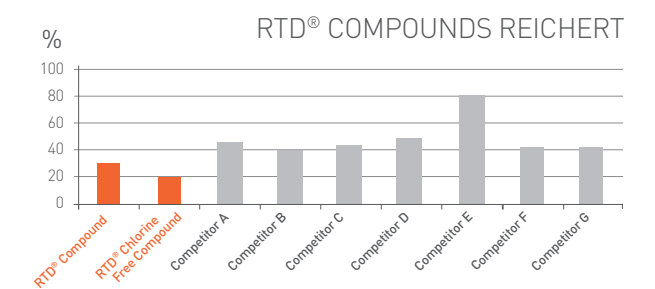
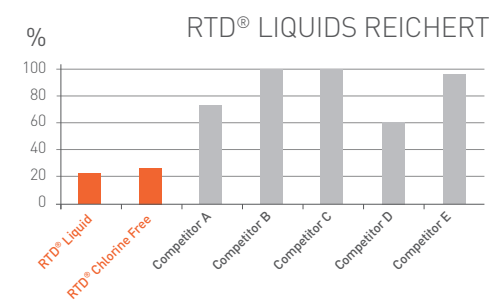
RTD® COMPOUND

- ▶ Soft low melting-point paste
- ▶ Formulated to cling to the tool staying in place for longer
- ▶ Rolls Royce approved - Spec CSS 137 Type B and C
- ▶ NATO Stock Number: 9150 99 220-2775
- ▶ NATO Stock Number: 9150 99 464-6766

Part Code	Size
53020	50 g
53023	500 g
53026	5 kg
53028	18 kg



The Reichert Wear Test is used to evaluate the extreme pressure (EP) properties of lubrication and cutting fluids. The test shows how much protection applies to the cutting tool and component during operation. The lower the result (measured in % wear), the more protection is provided. This industry-standard test demonstrates how RTD outperforms the competition, letting you cut with confidence.



Forming and stamping lubricants

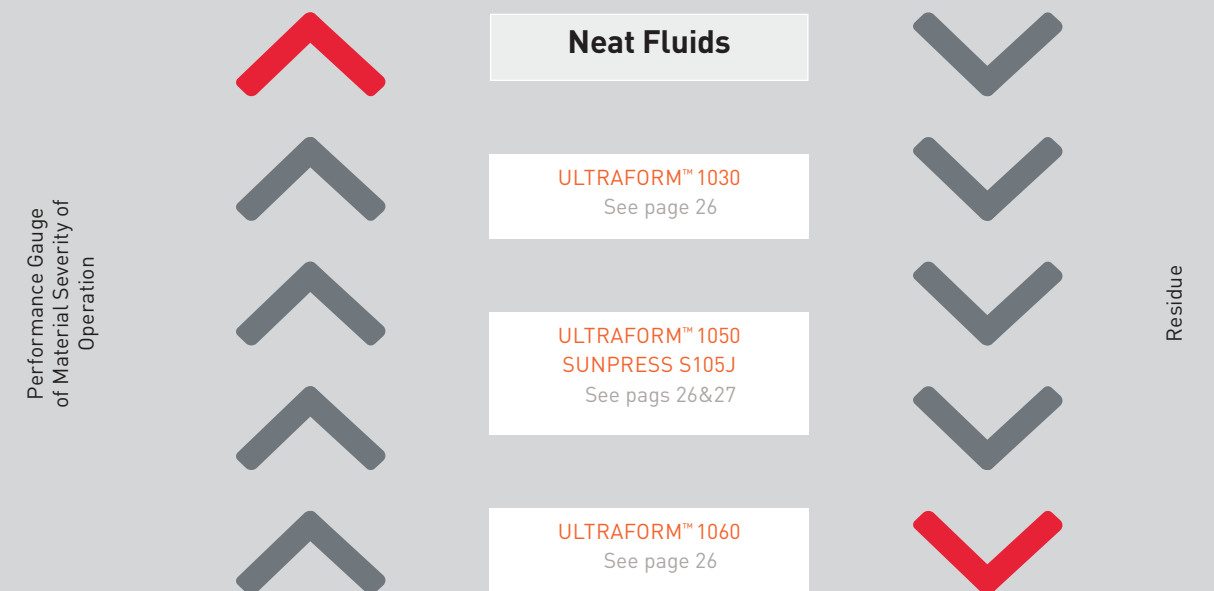
The ULTRAFORM™ range of forming and stamping lubricants are formulated for cold forming operations such as deep drawing, forming, piercing and blanking.



ULTRAFORM™ LUBRICANTS ARE FORMULATED TO:

- ▶ Increase production rates and reduce lubricant usage
- ▶ Provide optimum performance, preventing splitting, pick up & scoring, resulting in minimal scrap rates
- ▶ Be used on a wide range of metals
- ▶ Give maximum tool/die life
- ▶ Provide excellent process compatibility

Choosing the right forming and stamping lubricants



Range of products

ULTRAFORM™ 1030

High performance, medium viscosity cold metal forming lubricant, especially suitable for use with stainless steel and a wide range of ferrous and non-ferrous metals.

- ▶ Excellent performance on high carbon steels or stainless steel
- ▶ Suitable for high speed progressive pierce, form and drawing operations
- ▶ Reduces metal pick up and scoring
- ▶ Extends tool life

Part Code	Size
86083	20l
86089	200l



ULTRAFORM™ 1050

High performance, light viscosity cold metal forming lubricant, suitable for use with a wide range of ferrous and non-ferrous metals including a range of galvanized and Zintec-coated steels.

- ▶ Removes the need to clean or heat degrease components once formed
- ▶ Minimises 'slug pulling' on thin gauge materials
- ▶ Reduces metal pick up and scoring
- ▶ Easily cleaned

Part Code	Size
86103	20l
86109	200l



SUNPRESS S105J

High performance, low residue cold metal forming lubricant, especially suitable for use with a wide range of ferrous and non-ferrous metals including galvanized and Zintec-coated steels.

- ▶ Minimises "slug pulling" on thin gauge materials
- ▶ Reduces metal pick up and scoring
- ▶ Low residue
- ▶ Easily cleaned

Part Code	Size
85219	200l
85214	1000l



ULTRAFORM™ 1060

High performance, fast drying cold metal forming lubricant, suitable for use with a wide range of ferrous and non-ferrous metals, including a range of galvanized and zinc-coated steels.

- ▶ Vanishing film – removes the need to clean or heat degrease components once formed
- ▶ Prevents splitting, pick-up and scoring, resulting in minimal scrap rates
- ▶ Minimises 'slug pulling' on thin gauge materials
- ▶ Increases production rate with reduced lubricant usage

Part Code	Size
86213	20l
86219	200l



* Images shown are a representation of each product. See part codes for range of each product.

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.

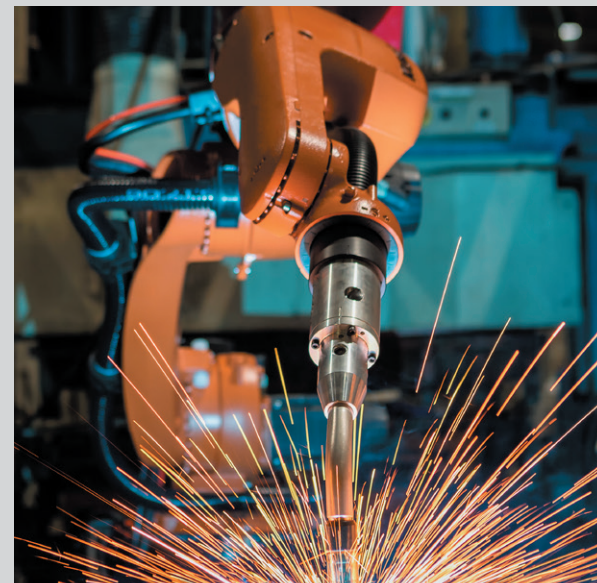
OUR PRODUCTS

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.

QUALITY

From product concept and design to technical expertise and customer services, all functions at ROCOL are carefully controlled within our AS EN 9100:2018 and ISO 9001:2015 accredited Quality Management System to ensure we continue delivering products that exceed your expectations.



What is ROCOLCARE®

- ▶ **Full Audit Compliance** – ROCOL® is BS EN 9100:2018 and ISO9001:2015 accredited, providing our customers with the assurance all ROCOL products are formulated, manufactured, and supplied safely using processes that adhere to rigorous quality standards recognised on a local and international scale.
- ▶ **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 and reduces your stock holding on-site.
- ▶ **Training** – Best practice lubrication training is available. ROCOLCARE® is the premium service package for food, clean and industrial markets offering 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.

ROCOLCARE® training

APPLICATION-FOCUSED TRAINING

The scale of UK manufacturing is vast. In the automotive production industry alone, 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 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. With a 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 – soon 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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