ISSUE 51

KNOW +HOW

Clean Environments

In this edition, we delve into a spectrum of subjects, from lubrication techniques aimed at boosting efficiency and cutting workloads to ERIKS' innovative engineering solutions that ensure industry keeps running smoothly. Discover how choosing the correct PPE for your environment can transform cleanliness into a seamless process, ensuring staying clean isn't messy.

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Welcome

What is a Clean Environment? When you think of a Clean Environment, you might imagine a tidy desk or a well organised storeroom. Whilst that is a start, for industries where contamination simply isn't an option a Clean Environment requires much more precision and care.

Take the food industry for example. Here, cleanliness isn't just about neatness – it's about precision in every process, efficiency in every application, and meeting all regulatory standards to deliver perfect products to your plate. After all, no one wants anything in their food that shouldn't be there, right?

We kick this edition off with ERIKS In Action, where we hear from our new CEO for the UK & Ireland – Pamela Bingham. Having joined ERIKS in October '23 we take a look at what she has been up to as she understands the business and the people within it, and we get her thoughts on what the future looks like for the company. We also learn how the re-design and manufacture of a gearbox saved a pharmaceutical production line from catastrophic and costly downtime.

We then delve into our In Focus section where we take a look at Schaeffler's new bearing solution designed solely for the food and beverage industry, built to save time and money thanks to its key design features.

We also learn how a little bit of ERIKS know how kept porridge production flowing for a major manufacturer.

Making Industry Work Better shines a light on how something as small as an O Ring can play a mighty role in preventing contamination and ensuring that food products are safe for consumption. Meanwhile, we hear how an ERIKS engineering solution allowed a major UK theme park to continue to provide the thrills without incurring terrifying costs and complications.

Finally, our popular Debate piece asks the question: Will AI revolutionise MRO in manufacturing within the next 2-3 years? As AI continues to evolve its potential to transform MRO operations becomes more evident, but could there still be a long way to go?

We always enjoy our reader's feedback. So, if you would like to comment on the subjects covered, please join the discussion by emailing or tweeting us at @ERIKS_UK.

Richard Ludlam
Editor-in-Chief
Email me at:
knowhoweditor@eriks.co.uk

Published by ERIKS Industrial Services
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Oldbury, West Midlands,
B69 4JR, United Kingdom

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ISSUE 50

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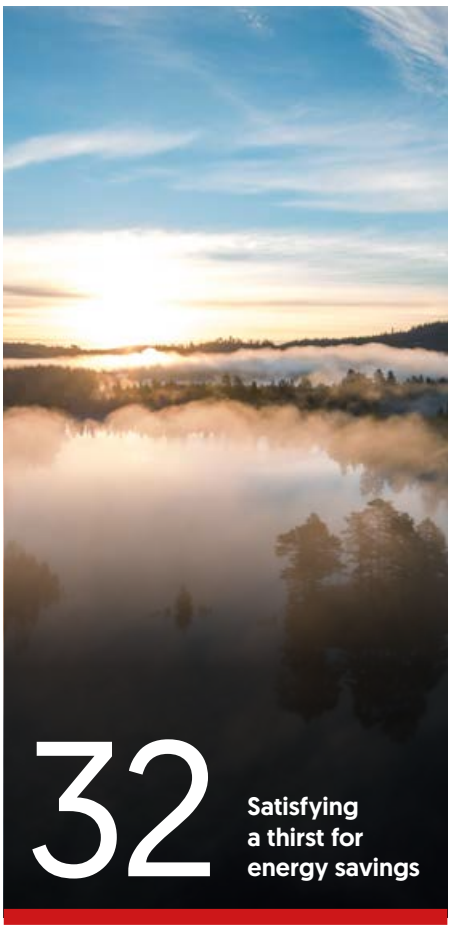
In Focus

Making Industry Work Better

Debate



HS2 launches market engagement for £600M construction cramework

HS2 Ltd has initiated market engagement for a substantial £500-600M framework aimed at completing various civils, environmental, and construction works along the route between London and Birmingham.

This move seeks to add flexibility by potentially bringing in additional contractors alongside the four existing consortia that have been handling major civils sections since the project's inception.

The new framework includes a diverse range of works such as civils construction, environmental measures, maintenance tasks, and both permanent and temporary asset construction. Additionally, it covers rail systems enabling scope, mechanical, electrical, and plumbing work, and noise barriers. Future packages may address integration between civils, rail systems, and station contracts.

HS2 Ltd has indicated that while it is progressing with these plans, there is no obligation to proceed with procurement or contract awards. The project timelines are currently uncertain due to the upcoming General Election.

Revolutionary UK method promises significant reduction in cement emissions

A team of scientists from Cambridge University has developed a method to recycle cement from demolished concrete, potentially revolutionising the construction industry.

Cement production, a major source of global CO_2 emissions, involves heating limestone to high temperatures using fossil fuels. The new method leverages electric arc furnaces, commonly used in steel recycling, which can be powered by renewable energy, thereby eliminating greenhouse gas emissions.

This innovative process, termed "electric cement," was successfully demonstrated at the Materials Processing Institute in Middlesbrough. The scientists discovered that the composition of used cement is similar to the slag used in steel recycling. By reactivating used cement at high temperatures in electric arc furnaces, they can produce zero-carbon cement.

This breakthrough could significantly reduce the carbon footprint of cement, which accounts for 7.5% of human-made CO_2 emissions. The potential impact is substantial; if scaled up, this process could meet a quarter of the UK's cement demand and be replicated globally. Spanish company Celsa is set to test the process in Cardiff, aiming for widespread adoption. This development marks a significant step towards sustainable construction and combating climate change.

Dame Judith Hackitt calls for unified effort to address skills gaps

Dame Judith Hackitt, Chair of the Enginuity Board, has issued a call to action for employers in the UK's engineering and manufacturing sectors to collaborate in tackling critical skills shortages.

Speaking at the launch of Enginuity's "Manifesto for Change," Hackitt emphasised the need for a concerted effort from policymakers, employers, and educational institutions to address these gaps and bolster the sector's global competitiveness.

The manifesto, which has been a decade in development, outlines five key priorities aimed at securing the future of UK engineering and manufacturing. These include making qualifications and learning more flexible, incentivising recruitment in industries with skills shortages, ensuring adequate funding for technical and vocational education, establishing a skills observatory using data and AI, and refining the Apprenticeship Levy to improve funding transparency.

With the next general election on the horizon, Hackitt stressed the importance of securing political backing to implement these changes. Several organizations, including Make UK, SDE Technology, and the Design and Technology Association, have already pledged their support for the manifesto.

Revival in manufacturing production boosts UK output growth in May

The UK manufacturing sector experienced a notable rebound in May, driving the manufacturing PMI (Purchasing Managers Index) to 51.3, up from 49.1 in April.

This marks the fastest growth in manufacturing production since April 2022. The resurgence in manufacturing activity significantly contributed to the UK's overall private sector expansion, despite a slight slowdown in services output.

The S&P Global Flash UK Manufacturing Output Index also saw a significant rise, reaching 52.7 from 49.4, indicating a robust recovery. This growth was driven by increased client demand and a stabilisation of new orders from both European and other international markets.

Manufacturers reported the lowest input price inflation in seven months, aiding business confidence, which reached its highest level since February 2022. This reduction in cost pressures was a result of softer labour costs and lower material prices, reflecting a more favourable economic environment for manufacturers.

Business optimism remains strong, with expectations of continued growth supported by rising new order volumes and improving export sales. This positive outlook is further bolstered by the easing of inflationary pressures, providing a conducive atmosphere for sustained manufacturing expansion.

The latest PMI data suggests the UK economy is on a recovery path, benefiting from revived manufacturing production and a cooling inflation landscape.

Record applications received for ERIKS Apprenticeship programme

ERIKS has received an incredible 2500 applications for its expanded 2024 apprenticeship programme, a significant increase from the 500 applications received in its inaugural year.

This surge highlights the company's commitment to developing future engineering talent and addressing the skills gap in the UK.

In 2023, ERIKS launched its apprenticeship programme, inducting 13 apprentices across its UK service centres. These apprentices received hands-on experience while studying for their Level 3 engineering fitter qualifications at SMB College in Leicester. Building on this success, the 2024 programme has expanded to 21 apprenticeships, including 17 in engineering and four in sales and service roles.

To manage the increased interest, ERIKS partnered with Carbon60, a specialist STEM talent consultancy. Carbon60 utilised a combination of technology and human engagement to streamline the application process, attracting candidates through various platforms such as UCAS, Indeed, LinkedIn, Facebook, and Instagram.

This approach ensured a thorough and efficient selection process, with 90 candidates advancing to the assessment stage.

The apprenticeship programme aims to cultivate long-term careers within ERIKS, and the company plans to further expand the programme in future years to continue providing specialised knowledge and support to its customers.

500,000 reasons to choose Econ®

Whatever equipment you're choosing, you always wonder how long it will last. So knowing the guaranteed service life of the new Econ® Rack and Pinion Pneumatic Actuators is 500,000 cycles should put your mind at rest.

Designed to operate butterfly, ball, plug and damper valves, as well as other quarter-turn devices, these new actuators are available in 18 different sizes.

Housed in an aluminium casing with a choice of anti-corrosive coatings (epoxy, polyurethane, PTFE or 3-layer epoxy/polyurethane), they are suitable for operation in high and low temperatures (+150°C to -40°C depending on version), and classified for use in potentially explosive atmospheres.

While anti-friction sliding bearings ensure long bearing life with no maintenance, captured springs help to make any maintenance safer. Fitted with stroke adjustments and air connections on one side, and visual position indicators for ease of use, Econ Rack and Pinion Pneumatic Actuators offer torque values up to 12,500Nm.

Manufactured to ISO 5211, they fit easily onto any valves – ECON or others – with ISO 5211 mountings.

Habasit Sphere Top belts are going your way

Whichever direction you want to move loads on a conveyor, the Habasit Sphere Top belt makes it easier and more cost-effective.

If the conveying system allows the load to move in a certain direction, the Sphere Top belt will move it more accurately and more easily. So during automated add-on applications – such as printing, scanning or rejection after inspection – the Sphere Top belt helps achieve high-performance handling of packed goods.

Packed with rotating sphere balls, the innovative Sphere Top belt modules are made from Polyoxymethylene plastic with Polyamide rods and spheres, to combine low friction with strong wear resistance. And unlike many belts, if the spheres are pushed down flush they pop back up, so performance doesn't suffer.

Made from hard-wearing materials to a cost-efficient design, the Habasit Sphere Top belt isn't just one way to improve movement of goods and reduce Total Cost of Ownership. It's every way.

Take more control with WEG

A recently launched series of WEG AC/DC converters gives you more motor control, with greater efficiency and exceptional performance.

Originally developed for DC motor control, the TPD32-EV-FC converters are also ideal for applications with highly inductive loads – such as electromagnets, chokes, synchronous motor excitation circuits, and electrolysis. Thyristor based, the converters provide precise control of the DC current or voltage supplies, to enhance any system's efficiency and reliability.

In addition, the WEG AC/DC converters can provide harmonic mitigation – to help improve operational efficiency, reduce equipment failure, and lengthen service life. With the converters appropriately configured, they can reduce the line harmonic total harmonic distortion from 35% to just 11%.

Providing precise DC current or voltage control, the converters have adjustable output currents and are available with a variety of motor ratings, power settings, output voltages and currents. With so many options and potential applications, the TPD32-EV-FC converter makes it easy to control your applications, but hard to control your excitement.

The sensor that makes more sense

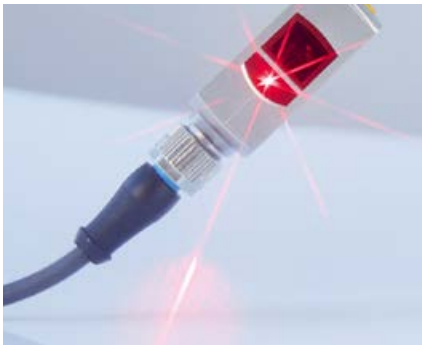
The new W10 photoelectric sensor from SICK is more intuitive, more simple to configure, and more secure – because it has the world's first touchscreen interface for sensor setup. And it may be the only sensor you ever need.

Instead of complicated manual configuration, the SICK W10 touchscreen interface guides users through a simple, intuitive installation process. Preconfigured Set Points mean the sensor can just power-up and go, with no need for adjustable potentiometers or external buttons.

Then, with the SICK W10 up and running, the button-free interface and lockout feature provide more security against unauthorised in-field changes.

But it's not only set-up that's simplified. Because the SICK W10 is designed as a 'one for all' sensor, it offers range, speed, resolution, precision and IP69K robustness for all applications.

So instead of ordering, stocking, training on and maintaining several different photoelectric sensors, ordering just one makes more sense – as long as it's the SICK W10.



ROCOL FoodLube sets the bar high for responsible manufacturing

FoodLube food-safe lubricants from ROCOL are already NSF-H1 registered for their hygienic formulation, use and handling. Now they've gone one step further with new PFAS-free formulations.

Per and polyfluoroalkyl substances (PFAS) are man-made chemicals with many applications, from household cleaning products to food packaging and lubricants. However, as their presence has been detected in food and water sources, regulatory bodies are drafting legislation to address their use, amid concerns about exposure for humans and animals.

Rather than wait for the legislation to be introduced, ROCOL are leading the way. Since 1st April 2024, all ROCOL FoodLube products and it's packaging are completely PFAS-free.

From gear oil to EP grease, and WD spray to chain fluid and dismantling spray, you can now choose food grade lubricants from ROCOL that are produced in line with the latest scientific understanding. Which means you can trust your food and beverage products to meet not only the needs of your customers, but also today's safe, responsible, conscientious manufacturing requirements.

Success in Sight:

Highlights from CEO Pamela Bingham's first six months

Pamela Bingham
CEO, ERIKS UK&I
ERIKS

Since joining ERIKS in October 2023, I have had the opportunity to immerse myself in the business and gain valuable insights. This period has been crucial for understanding the challenges and opportunities that lie ahead, as well as forming connections with the people who are the heart of our organisation.

> "Digital transformation continues to be a key focus for ERIKS"

One of my top priorities was to visit our branch network and engage with the staff who interact with you daily. I have been impressed by the depth of their relationships and their expertise in unburdening our customers.

The recent changes in our logistics, such as shipping goods directly from our Fulfilment Centre of Excellence (FCE) in Oldbury, have freed up time for branch staff to strengthen these connections further. By having more time to discuss problems and use our expertise to find solutions, we can continue to build strong, lasting relationships that benefit both your and our business.

Digital transformation continues to be a key focus for ERIKS. Our evolving digital infrastructure, including innovations like the digital replenishment App and the new automated track and trace function, is, we hope, enhancing your experience and providing seamless, automated service where required.

The digital replenishment App allows you to re-stock your stores at the touch of a button, making the process more efficient and convenient. Similarly, the automated track and trace function provides real-time updates on orders, just like in the consumer world, providing transparency and peace of mind. Attracting and developing talent is another area of focus for me. Having worked in the manufacturing sector for a long time, I am aware of the ongoing challenge to attract talent.

Successive governments have struggled to create a knowledge economy where young people can achieve academically and then view a career in manufacturing and engineering as an attractive next step. This is why I was thrilled to meet ERIKS' first cohort of apprentices who joined the business in October 2023. Despite the perception that 'no-one wants to work in engineering', ERIKS received more than 1000 applicants for its apprenticeship programme.

These apprentices, who are currently at work in branches across the UK, are thriving in their four-year programme that combines academic learning with hands-on experience. By investing in the next generation of talent, we are not only securing the future of our business but also contributing to the growth and development of the manufacturing and engineering sectors.

The OnSite part of ERIKS' business was another area I was keen to understand. ERIKS has operated in this way for more than 30 years, and we have a plethora of world-class customers who continue to sign multi-year contracts with us.

Winning the tender for the Weetabix business on seven separate occasions is an incredible achievement, and everyone at ERIKS, especially the OnSite team, is proud of that. This success is a testament to the hard work, dedication, and expertise of our OnSite team, who consistently deliver exceptional service, even in the face of complex challenges.

> "I was thrilled to meet ERIKS' first cohort of apprentices who joined the business in October 2023"

Plus, this unique element of our business continues to evolve, and we have launched a new modular structure for the OnSite offer so that it is easier to start to work in this manner - starting off simply and then expanding as time and budget allows.

Also, by combining OnSite with our reliability services capability it's possible to truly align maintenance practice with stores management, inventory and procurement bringing a raft of benefits and efficiencies.

One thing that I would like to point out to readers of Know+How is that we recently launched the MRO Supply Chain report, in association with the IET's Engineering + Technology magazine.

This report clearly shows the link between MRO practices and downtime and provides valuable insights into where there are profit opportunities in businesses that readers may not be aware of.

By bringing this report to your attention, I hope to empower you with the knowledge you need to ask the right questions in the right areas and reveal huge potential wins for your businesses. This is just one example of how ERIKS is committed to sharing our expertise and knowledge with the broader MRO community.

My first months at ERIKS have been a real pleasure – busy but exhilarating. There is much to do, as no business is perfect, but I am energised by what I have found and the people I have spoken to. I am looking forward to the coming months and sharing how my thoughts develop along the journey.

With a focus on engaging with our branch network, embracing digital transformation, investing in talent, celebrating our OnSite success, and empowering our peers with knowledge, I am confident that ERIKS will continue to thrive and grow, setting the standard for excellence in the industry.

Keep up to date by following Pamela on **LinkedIn!**

Small gearbox. Big issue.

Mahesh Patel
Engineering Manager, Rotating Equipment
ERIKS

'Twas the week before Christmas 2022, and all through the site the engineers were wondering if the gearbox on their critical asset would see out the year. Then a strip down and inspection revealed that it almost certainly wouldn't.

It's often not the size of the asset which piles on the pressure. It's the criticality. In this case the gearbox in question is small, but the part it plays in a pharmaceutical product labelling machine makes it crucial to maintaining production. So much so, that every day of gearbox downtime costs the customer close to £8,000.

> "Speed of response was critical"

That's not the kind of Christmas present anyone would wish for.

The customer had no spare gearbox ready to drop in. A replacement had been ordered from the OEM, but expected delivery was four months away. The only options left were a letter to Santa, or a word with the ERIKS On-Site Services team at the customer's facility.

Even without a sleigh or reindeer, ERIKS were confident they could deliver, and called in the experts from the Drives and Rotating Equipment Product Business Unit.

One problem; three solutions

It wasn't just the timing around Christmas that made a sticky problem even stickier. It was also the non-standard gearbox specification. Instead of the usual two shafts – one input and one output – this particular box includes a second input shaft to drive a tachometer.

With the condition of the gears suggesting catastrophic failure was imminent, speed of response was critical. So ERIKS arrived on site, inspected the gearbox, and presented the customer with three options – any of which could be initiated the very next day.

The first was to modify the input shaft to handle the tachometer connection. The second was to manufacture an entirely new double worm output shaft. And the third was to reposition the tachometer onto the non-drive end of the motor.

> "The customer always comes first"

After careful consideration the customer chose option one, but with a tricky Christmas caveat: they needed the job to be completed over the holiday period.

Christmas is cancelled

Apart from Santa and a few other special cases, most people expect a few days off over Christmas. But not ERIKS; not this time. Christmas may only come once a year, but the customer always comes first.

Putting festive plans on hold, ERIKS' engineers started work on designing and manufacturing the gearbox the customer needed.

The first step was to reduce the time required for manufacture, by starting not from scratch but from a standard gearbox. The next step was to adapt this to the double input that the customer required.

That wasn't as simple as it sounds.

There were complicated calculations to carry out, to ensure the modifications to the shaft would not affect transmission of the correct amount of torque. The risk of unacceptable torsional stresses and shearing of the shaft had to be avoided at all costs.

> "Running better than ever"

Happy New Year!

With more dedication to customer service than even Santa's elves, the ERIKS team got down to work. They were well aware that failure to deliver the new gearbox before the existing one failed would result in devastating downtime, and a loss of production amounting to 318,000 packs per week.

Calculations completed, manufacturing and adaptation could begin. This involved stripping down the standard gearbox, and modifying not only the shafts but also the gearbox casing.

Thanks to ERIKS' engineering know-how, the customer's worst-case scenario was avoided, and the replacement gearbox was delivered on 30th December for a local installer to fit in a day.

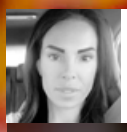
Based on the OEM's lead time for a new non-standard gearbox, the customer has calculated that ERIKS' quick response and Christmas holiday working delivered a saving of £165,000 in potential lost production.

And despite the high-speed turnaround, the customer's own engineers have described the new gearbox as 'running better than it ever has been' – perhaps due to ERIKS' attention to detail in modifying the standard box.

With the asset still running smoothly twelve months on, ERIKS also won the business to manufacture an additional spare gearbox. So, the customer's Christmas was saved, and everyone had a happy new year.

Check out our Repair and Replace services - **click here**

Hiss! Boo!



Natasha Dyke
Area Sales Manager, Basildon
ERIKS

Hear that hissing noise? Boo! It's bad news for your energy bill. Can't hear it? Boo! That's even worse news. Air leaks from your compressed air systems are obviously invisible, sometimes inaudible, but always an avoidable waste of compressed air, energy and money. A recent Air Leak Survey carried out by ERIKS for Procter & Gamble revealed leaks which were wasting significant amounts of compressed air, and the energy required to generate it. So the survey enabled repairs that saved tens of thousands of pounds.

“Detected over 100 leaks”

Compressed air is such an integral part of so many manufacturing and production processes, it's easy to forget about. It's just there. And even when something goes wrong, it's still there. It may be leaking, but you can't tell. It may be costing more to generate because so much is being wasted, but you don't notice. It may even be reducing the efficiency of your production process – but so gradually you've got used to it.

Faced with steadily decreasing efficiency and steadily rising energy bills, anyone would be quick to act. But when it's 'just' compressed air, it can easily slip to the bottom of the to-do list.

However, as more manufacturers set energy-saving KPIs, detecting and resolving compressed air leaks can be a highly effective way to meet – or even exceed – targets. That's why ERIKS proposed an Air Leak Survey at Procter & Gamble's washing powder production plant.

More than two ears required

Because most air leaks are inaudible, being a good listener isn't good enough. It also takes extensive experience of pneumatic air systems, an effective ultrasonic device, and system engineering know-how.

Experience means the surveyor knows the most likely places for air leaks to occur, so knows where to look for them. The ultrasonic detector means they can be quickly and easily detected. And engineering know-how means being able not just to find the leak, but to understand the reason for it – and how to resolve it.

For Procter & Gamble, the survey took just two working days and detected over 100 leaks.

Clearing the air

Sometimes customers find it hard to believe the extent and scale of air leaks in their plant. Or they're tempted to dismiss them as a minor consideration amongst other, more obvious energy wastage. So the ERIKS Air Leak Survey provides a comprehensive written report of the results, to help clear the air.

The report records the location of each leak, together with a photograph. It also identifies the cause of the leak (for example, poor or incorrect fitting of joints, or poor quality or damaged tubing) and the level of air loss.

Last but not least, it translates each leak into financial terms – because air leaks may be invisible, but their effect on the bottom line isn't.

“Initial cost saving of £60,000”

Take a deep breath

In Procter & Gamble's case, the 100-plus leaks detected were allowing a staggering total of £250,000 worth of energy to escape into thin air every 12 months.

However, fixing every leak at once would have been too great a strain on the available

in-house maintenance and repair resources, as well as representing a sizeable investment in parts.

So using the detailed information in the ERIKS' report, Procter & Gamble prioritised the leaks in terms of the potential energy savings generated and their criticality for production efficiency. Their own engineers were then tasked with tackling the leaks which would deliver the most immediate benefits.

“Allowing £250,000 worth of energy to escape”

The result has been an initial cost saving of £60,000. And that's a saving which will not only be repeated year after year, but will increase year-on-year as leaks lower down the list are fixed in turn.

Procter & Gamble spoke highly of the ERIKS Air Leak Survey, describing it as 'a major step towards [our] energy optimisation goals. It helped shine a light on an area often overlooked, but [which] cost the company and department a lot of money each year.'

But they know that actions speak louder than words. So a survey of another department has already been commissioned and completed – resulting in an additional £50,000 of energy savings per annum – and there are two more booked for next year. More savings are definitely in the air.

Who can you rely on when **the chips are down?**

Philip Taylor
Reliability Manager, Unified Operations (OnSites)
ERIKS

Lost production is the problem no-one wants to have. Whatever the cause, it's always essential to get your line back up-and-running as soon as possible. But what if your Reliability Partner turns out not to be reliable enough, and you find yourself looking at a complete shutdown? For this customer, the losses could have been almost a quarter of a million pounds. That's why they asked ERIKS to chip in with urgent engineering support.

This particular customer is the biggest buyer of British potatoes. That's a great deal of spud bashing to get the potatoes clean and ready for processing. Large quantities of silt and sand have to be removed, and a problem at this stage has a massive knock-on effect right down the line.

That was just what threatened to happen – before ERIKS turned up to save everyone's favourite fries.

All washed up

The customers production line incorporates one duty and one standby pump, driven by Variable Speed Drives, which remove the harmless effluent from the potato washing and discharge it to sea. When the duty pump fails, it should be a simple matter to switch to the standby pump while the first pump is repaired.

> "Losses could have been £¼m"

Unfortunately this time, the standby pump failed too.

The customer's Reliability Partner quickly identified the cause of the first pump's failure as a split pipe. So it should have been a simple matter to swap-out the pipe for a new one and get production back online.

But even with the new pipe in place and the pump apparently working as normal, the waste water still wasn't being pumped away in the necessary quantities. Instead of being up to their necks in clean potatoes, the production line workers were almost up to their ankles in dirty process water.

Worse still, this time the Reliability Partner couldn't spot the cause of the problem.

This left the customer with two options. One: shut down production on both lines for at least twelve hours, to allow for removal of the effluent by tanker, and enable access to

the suction pipework to look for the cause. Or two: call ERIKS for a better solution.

Which do you think they did next?

Reliably reliable

The customer were sure they could rely on ERIKS in an emergency. And they were right. An ERIKS Pump Application Engineer quickly rearranged all his appointments, and arrived on-site the very next day.

His visual inspection didn't reveal any new information, and even photographs and videos provided by the customer didn't help to clear up the mystery. However, when the ERIKS engineer asked to view the customer's

> "Rely on ERIKS in an emergency"

Building Management System – which also recorded the pumps' flow rates and pressures – he had a lightbulb moment.

The data showed a 90% drop in the pumps' performance, even before the outlet pipe had split. With flows varying from 300m3/hr down to as little as 30-40m3/hr, it was clear that the pumps were drastically failing to keep up with the flow of effluent.

But why?

Keeping it clean

The ERIKS Pump Application Engineer knew that, connected as they were to 8" diameter pipework, pumps of this capacity should operate at 2.7 – 3.5m/sec velocity to be self- cleaning. He also knew that these particular pumps were operating at well below that rate.

The result was ever-increasing clogging of the suction apertures with silt and sand from the potato washing process, so that excess water overflowed into the surrounding area.

A quick calculation (quick for someone with ERIKS' know-how, anyway) showed that if the pumps were run at 120% they would achieve 3m/sec velocity with a 330m3/hr flow rate, and self-cleaning would kick in. So the VSD was adjusted, the duty pump was switched on – and within 90 seconds the pump was back to full flow. When the standby pump was run at the same rate, the same result occurred.

> "Back to full flow within 90 seconds"

If ERIKS had failed to resolve the problem, the customer would have had to tanker away the effluent to enable access to the submersible pumps. That would have meant a twelve hour shutdown of two production lines, and a cost of lost production totalling £24,000. Which is big potatoes in anyone's book.

See how we can help you and meet your maintenance needs **click here**

100% service for 1% of the motor market

Andrew Sheppard
Service Centre Manager, Direct Engineering
ERIKS

Of all the motors in operation in the UK, less than 1% are DC motors. But that doesn't mean they deserve service that's anything less than 100%. And simply because they are old technology doesn't mean there's no scope for innovation and improvement. So even as the major motor manufacturers abandon support for their own products, ERIKS continues to offer commutator and slip ring know-how, to repair, refurbish and revitalise the performance of your DC motors.

As part of the nationwide ERIKS network, Lambeth Commutators supports customers and ERIKS branches nationwide, with a service that's unique in the UK.

Manufacturing and repairing all sizes from 100-1000mm. It mills its own copper segments on-site – saving time and, with no minimum order requirement, enabling the cost-effective production of one-offs.

It maintains its own stock of mica insulation, rather than forcing customers to endure a six-week delivery lead-time for insulation from India. And lastly, for customers who demand new steel and for new manufacturing, it keeps a stock of steel on-site, to cut lead times and speed-up turnaround and final delivery.

But manufacturing and repairing commutators isn't just about how quickly it's done. It's also about how well it's done.

> "Repair, refurbish and revitalise"

Success under pressure

One innovation which helps to ensure a higher-quality product is the unique Lambeth Commutators pressing procedure.

Developed and tested in-house, and proven during numerous manufacturing operations, the procedure provides greatly improved results compared with the traditional rotary seasoning used by other manufacturers and repairers.

By pressing under a heavy tonnage until stabilisation is achieved, the procedure eliminates the bar lift which can occur with rotary seasoning. The result is a higher quality, more robust and more reliable commutator.

Drawing on experience

Whether it's a commutator or slip ring you need repaired or replaced, coming to ERIKS will give you a head start. That's because Lambeth Commutators holds a large library of manufacturers' drawings.

So all work can be carried out to the precise OE specifications.

> "Cut lead times and speed-up turnaround and final delivery"

If the drawings are not in the files, Lambeth Commutators can acquire the required dimensions from the original component, for reverse engineering. Even a burnt, collapsed or worn slip ring can provide the necessary information for accurate reproduction.

With over 50 years' experience behind them, the company's technical engineers ensure that the motor is rebuilt to an even higher standard and better quality than the original. Or if there's a recurring fault, instead of simply replacing like-with-like, the engineers can propose, design and manufacture a special or redesign.

When the going gets tough...

It doesn't matter how well-designed or well-engineered a commutator is, if it's manufactured with poor quality materials. So Lambeth Commutators are made using only high quality metals and insulation.

For example, the copper component of each commutator includes 0.03 – 0.1% silver. This enhances the ability of the copper to withstand heat and stress even for prolonged periods.

Whilst inferior commutators may use a variety of different materials for insulation, those made by Lambeth Commutators use only epoxy binder mica, which is the most effective material for insulating the copper segments from each other and from the steel body. The mica beads are manufactured on site, and where required can withstand test loads as high as 7,500V.

Equally robust, the steel bodies of the commutators employ steel with a tensile strength of 40 tons/sq.in.

DC motors may be only 1% of those in operation. But if yours fails it's 100% of the problem. Depend on ERIKS and Lambeth Commutators to provide the solution.

> "Higher quality, more robust and more reliable"

Contact our dedicated Commutators team today - **click here**

We're really motoring

A high-quality repair should go without saying – or you could find that your commutator is back in the workshop again far sooner than it ought to be. But sometimes, speed is just as important as quality.

That was the case with a customer in Sweden, whose motor failed on a Friday due to blown insulation on the commutator. With downtime ticking away and the costs of lost production rapidly racking up, they realised that flying the failed asset to the UK for repair was their quickest and most cost-effective option.

Thanks to Lambeth Commutators' technical expertise, dedicated engineers, and in-house stocks of mica insulation, the repair was completed over the weekend and the good-as-new commutator flown back to the customer by Monday morning.

For clean food production environments

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20% of your MRO spend is wasted... Here's how to get it back.

Julia Mullar
Operations Director, OnSites
ERIKS

A major survey into the MRO supply chain has revealed that UK manufacturers are writing-off millions of pounds of stock every year. Yet saving up to 20% of MRO spending – while also increasing productivity and efficiency – is so simple, you don't even have to leave your site.

Because, as the name suggests, the ERIKS OnSite specialist team comes to you.

ERIKS OnSite is the integrated supply chain service, based on your site, that will maximise the performance of your engineering stores, using know-how in vendor-managed inventory, MRO procurement, inventory control and engineering stores management. Plus the support of ERIKS' major multinational supply chain, which helps to ensure continuity of supply and perfectly scheduled parts deliveries, even when unforeseen outside forces are causing disruption to other suppliers.

> "Perfectly scheduled parts deliveries"

It's something ERIKS has been doing for almost three decades, for numerous manufacturers in a wide range of industries throughout the UK and Ireland.

Smashing the window

One company making the most of ERIKS OnSite Services is SAI Automotive in Lichfield.

As a leading supplier to Jaguar Land Rover, the business manufactures door panels within a six-hour production window. Any longer, and their customer's own production will be delayed at a cost of £30,000 - £80,000 per minute.

Clearly SAI Automotive can't afford any hitches. And with ERIKS OnSite running their supply chain, they don't have any. In fact, of over 500 items delivered in a given month, those recorded as 'on time' represented 91-96%.

More for less

Over the past decade, economic operating conditions in the wider world have led to manufacturers moving from a 'just in time' approach to 'just in case'. This has led to more stockpiling of more parts – with more money lost in write-offs.

> "Gain more control"

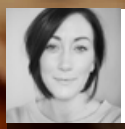
With ERIKS OnSite Services, on the other hand, you gain more control, more data insight and more efficient stores – all for lower cost. And you free-up your engineers to spend time doing what they do best, rather than wasting time finding and sourcing the parts they need.

To find out how and why manufacturers are wasting 20% of their MRO spend, and how you could buck the trend, visit the ERIKS OnSite Services webpage and download your copy of the MRO Supply Chain report.

Also, don't forget to stay up to date with all things OnSite and follow our dedicated LinkedIn page.

Follow ERIKS OnSite Solutions on LinkedIn - **click here**

Choosing bakery lubricants? Use your loaf



Amy Jasper
Bearing Product Manager - Rotating Equipment
ERIKS

Like many food production sites, a bakery is a challenging environment for processing machinery, and for the lubricants needed to keep it running. High-speed operating and regular washdowns can take their toll, and strict hygiene and food safety regulations are always there to catch out the unprepared. A regular maintenance schedule is the first step to reducing unplanned downtime and staying on the right side of the regulations. Careful lubricant choice does the rest.

> "The food-grade lubricants market has become increasingly sophisticated"

The growth in food-grade lubricants has definitely helped to make it easier for bakeries to maintain equipment while reducing the risk of contamination and meeting hygiene requirements. But on the other hand, the expansion of the market has also made life harder. With so many products to choose from, how do you pick the ones that are right for your site?

NSF – Not Simply Foolproof

The first step to choosing a lubricant for bakery use is to look for its NSF registration. All registered lubricants must display the NSF logo, the relevant category code(s) for which they are registered and the NSF registration number.

But you can't just choose any NSF-certified product and assume it will be suitable for use in your factory.

There are different NSF categories for maintenance products, indicating where and how they can be used in food and beverage production facilities. Different machinery has different maintenance requirements, and these can vary again depending on the production environment the machinery is operating in.

So it's essential to know what the different NSF classification codes mean, and where and how different food-grade products can be used.

Making the grade

'Food grade' is a widely-used term applied to lubricants, but it's not a guarantee that the lubricant concerned is the right one for your equipment or your processing facility. It's only an indication that you are looking at the right standard of lubricant. Then you have to look more closely at the detail.

For example, is there a possibility of incidental food contact in the area where the equipment is operating? Then the 'food grade' lubricant you choose will have to

be NSF H1 certified. If, on the other hand, you can prove that there will be no chance of incidental food contact, then an NSF H2 certified lubricant will do the job.

In both cases, and whenever you are choosing a lubricant for a food and beverage production facility, you will also need to be sure it complies with ISO 21469 standards for food-grade lubricants.

> "Key advice from ROCOL"

Get any of this wrong, and reducing the performance of your machinery – or even damaging it – could be the least of your worries. If the wrong lubricant comes into contact with your food product, it could lead to a costly, reputation-destroying, product recall.

Choose or lose

Making the right choice of lubricant can be the difference between smooth-running production and unplanned shutdowns, and between extended equipment life and catastrophic failures.

As the food-grade lubricants market has become increasingly sophisticated, there are more products than ever available, that are more specifically formulated than ever, for ever-more closely defined sectors and machinery.

In the bakery industry, one site may include chains that have to withstand high temperatures, as well as low-temperature conveyors and slicers, and equipment subjected to frequent washdowns. The different operating conditions each demand different lubrication regimes, with different lubricants.

By making the right choices to match the lubricant to the conditions, you can enhance productivity, reduce maintenance, and achieve greater value from your equipment investment.

For example, for machinery located in high washdown areas, using products formulated especially to protect against contamination-related damage will help to significantly extend equipment life.

Lubrication masterclass

The right lubricant used in the wrong way can be as ineffective or inefficient as using the wrong lubricant. So ensuring that your maintenance team is using lubricants effectively can have a major positive impact on overall production efficiency.

The basis of all effective lubrication is to develop the correct application technique. Investing time in helping and training the maintenance team to become skilled and confident in the correct application of lubricants will pay off in the long-run. Some lubricant manufacturers even provide this kind of training to maintenance teams, and it is worth investing to help improve their skills and capabilities.

The key advice from ROCOL, who frequently advise customers on lubricant choices and usage, is that the recommended amount of lubricant is the correct amount. Adding too much in the belief it will do more, or too little to try to save on lubricant, is likely only to lead to equipment breakdown or contamination issues.

Getting the right quantity in the right place at the right intervals means that you won't overspend because of product overuse, and your equipment will remain at peak performance at all times.

> “So much at stake if you get it wrong”

In the food industry, it's equally important to understand the specific lubricant requirements of each operational and maintenance process in your factory.

With so many products to choose from, so many food and hygiene regulations to consider – and so much at stake if you get it wrong – don't take any risks. If you are in any doubt about which products are most suitable, or you would like to know more about training your maintenance team in lubricant selection and use, contact a member of the ERIKS team for advice and guidance.

And of course, you can expect the whole process to run smoothy.

Download your copy of ROCOL Bakery Solutions - **click here**

The ‘no-time-to-spare’ RIBBS

Martin Ryan
Industrial Distribution Director, UK & Eire
SCHAEFFLER

In manufacturing, it goes without saying that time is money - whether it’s downtime, maintenance time or component service-life time. So, a new bearing solution from Schaeffler, built to save time all round and specially designed for the food and beverage industry, has to be worth a closer look. Especially when it’s so easy to spot.

One of the things which make the Schaeffler RIBB (Radial Insert Ball Bearing) housing unit outstanding is its prominent, white appearance.

> “The white plastic finish is not the only difference”

So, it not only looks clean, it's also easier to keep clean because you can clearly see that it is clean. Which, when food safety standards and regulations are only going to get stricter, is a real benefit. However, the white plastic finish is not the only significant difference about Schaeffler's new (RIBB) housing unit. It's just the first of many.

The Schaeffler RIBB housing incorporates a high-quality, watertight sealing system that helps to prolong the component's life, as well as increasing the maintenance intervals. The enhanced corrosion-resistance and reduced cleaning time also help minimise production downtime. The unit's efficiency contributes to lower CO_2 emissions, as well as the lowering of operating costs and higher plant availability.

While the radial insert ball bearings are pre-fitted and integrated, it also means faster installation in any application – from conveyor belts, to drive shafts, to packaging equipment.

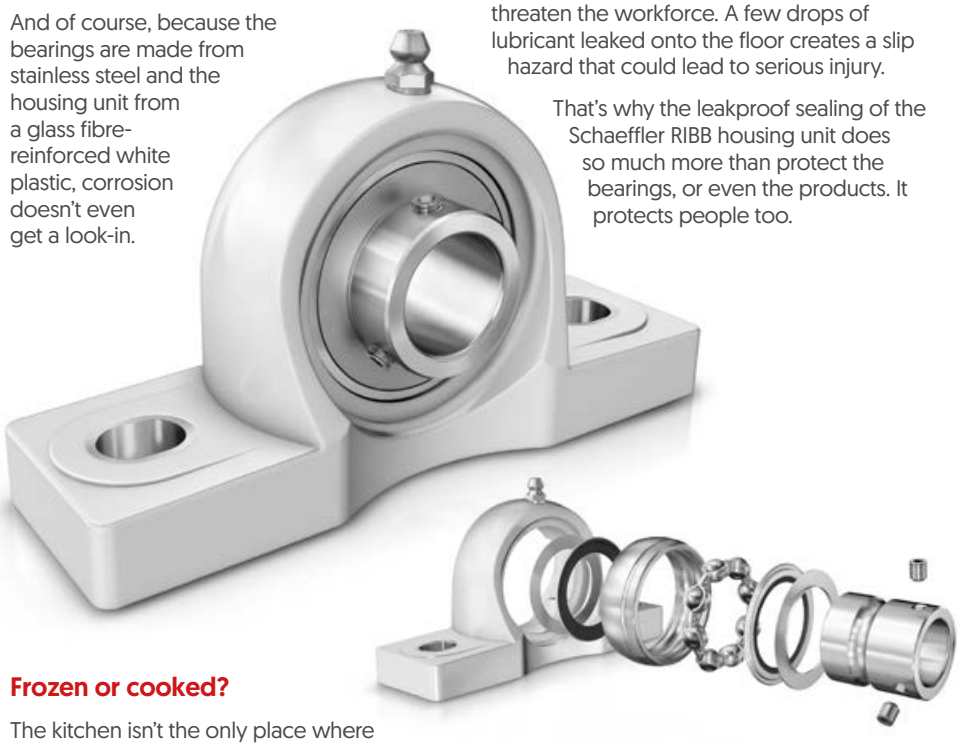
> “Corrosion doesn't even get a look-in”

A no-corrosion zone

Food and beverage manufacturing environments are notoriously tough on bearings. Aggressive cleaning regimes using high-pressure jets of water or cleaning fluids create the perfect conditions for corrosion to get a toehold. And a jet that's powerful enough to dislodge dirt can easily drive out grease if the bearing housing isn't sufficiently sealed.

The robust sealed construction of the Schaeffler RIBB housing protects the bearing against corrosion, while preventing grease from leaking into the processing environment. As contamination can work both ways, the unit also protects the bearings within against intrusion and damage from production line debris.

And of course, because the bearings are made from stainless steel and the housing unit from a glass fibre-reinforced white plastic, corrosion doesn't even get a look-in.



Frozen or cooked?

The kitchen isn't the only place where food and beverage products face extreme temperatures. The manufacturing process itself often involves extremely high or extremely low temperatures, which can have a devastating effect on bearings not built to cope.

Fortunately, because it has been specifically designed for the food and beverage manufacturing environment, the Schaeffler RIBB housing unit is up to the challenge at both ends of the thermometer.

It can brush off temperatures as low as -30°C and as high as 100°C with no noticeable effect on the operation of the bearings. This means that when the operating conditions go to extremes, you know where to go to find the bearing that can handle them.

No slip-ups

While manufacturers in this sector rightly focus on food safety, workplace health and safety can't be forgotten.

Leaked lubrication is a major hazard on production lines. Even if it doesn't contaminate the product, it can seriously threaten the workforce. A few drops of lubricant leaked onto the floor creates a slip hazard that could lead to serious injury.

That's why the leakproof sealing of the Schaeffler RIBB housing unit does so much more than protect the bearings, or even the products. It protects people too.

Seal of approval

Contained within the unit by the highly effective sealing system, is a high-quality lubricant with all the relevant approvals for food and beverage manufacturing environments.

> “The Schaeffler RIBB housing is up to the challenge”

As part of the Schaeffler FD FOOD program of products, the RIBB housing units employ a lubricant which has food grade approval to category NSFH1. This means it is food-safe, and halal- and kosher-certified. In addition, all materials used for the unit are EU- and FDA-compliant.

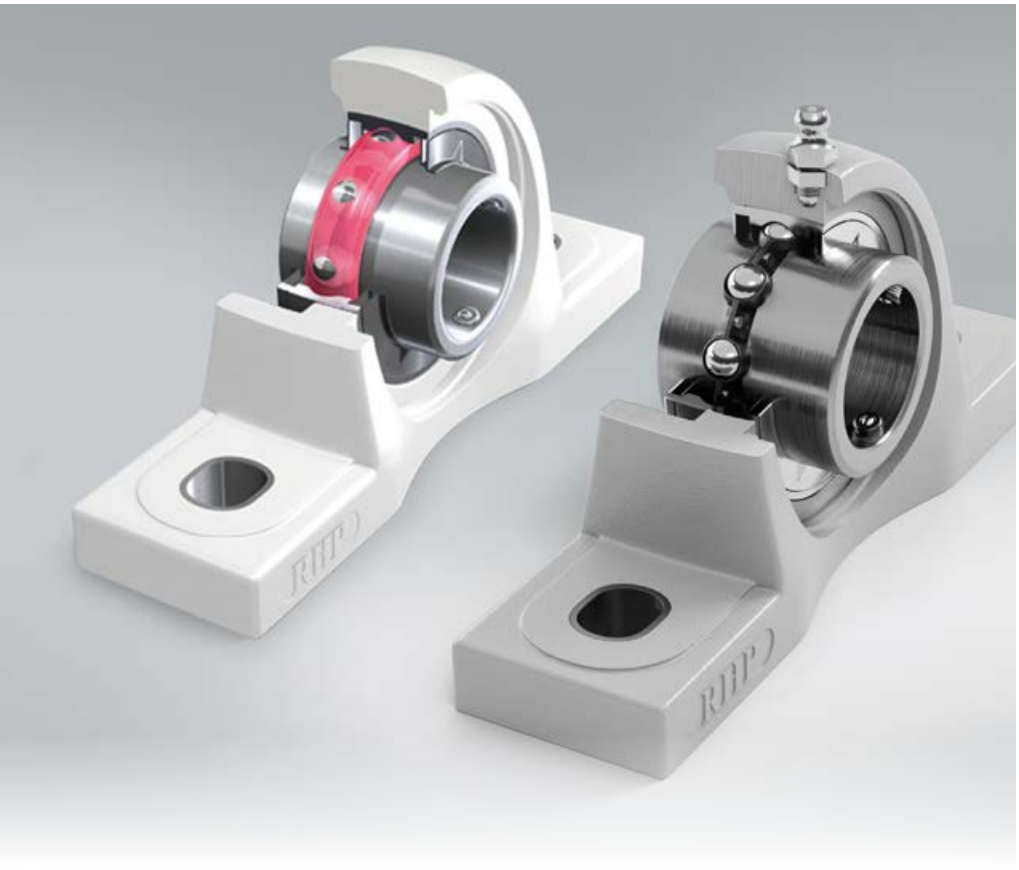
So, the white plastic may be the first thing you notice about the new Schaeffler RIBB housings, but there are many more benefits to discover for your production line, your productivity and your efficiency. Your usual ERIKS contact can talk you through them all.

Check out our range of Schaeffler products - **click here**

SilverLube gets gold

Dennis Briggs-Price
UK Aftermarket Field Sales Manager
NSK

If there were medals awarded for bearings designed for the food, beverage and pharmaceutical sectors, the RHP SilverLube from NSK would have a handful. Not just the winner's medal for being first to the market almost thirty years ago, but also trophies for design innovation, corrosion resistance, minimum maintenance and maximum service life.



There's a real challenge for any bearing in a clean environment. The challenge is: what's good for the product and the consumer is bad for the bearing. While any food, drink or drug needs to be produced under conditions of the strictest hygiene and spotless cleanliness, that can take litres of water and cleaning chemicals to maintain.

Often applied under high-pressure at washdown, these can penetrate poorly-sealed bearings, wash out the lubricating grease and create ideal conditions for corrosion to take hold.

Of course no-one's suggesting you should compromise on cleanliness. But you definitely shouldn't compromise on your bearings either.

> "You shouldn't compromise on your bearings"

More steel. More protection

The first thing you'll notice about SilverLube bearings is their stainless steel construction. Clearly the most effective material to resist corrosion, it's used for every conceivable SilverLube component where there's a risk of exposure to water or chemicals.

So naturally the obvious suspects – bearing rings, cage, flingers, balls– are all manufactured from corrosion-resistant stainless steel. But also the less noticeable but equally at-risk parts, such as the seal core, grub screws, grease nipples and bolt hole liners, are made from the same material.

> "NSK SilverLube features even more protection"

Then, for additional protection, the inserts sit inside a high-strength thermoplastic polyester resin housing, which simply can't corrode. (Plastic end covers are also available.)

However wash-down water and chemicals can do more damage than just enabling corrosion to set in. Which is why the NSK SilverLube features even more protection against them.

Sealing the deal

If the stainless steel construction of SilverLube bearings hasn't convinced you of their benefits, then their high standard of sealing will.

The heat-resistant silicone rubber seals used in the bearings provide effective protection against any penetration by water, chemicals and dirt. But they do more than simply offer another defence against the causes of corrosion.

Because they are resistant even to high-pressure washdown jets, they also prevent washout of the grease that fills and lubricates the bearings – helping to ensure a longer service life with less maintenance.

Smooth operator

The thermoplastic bearing housing is tough in itself and tough on bugs too. Designed with a smooth finish and no cavities, it's free from potential 'bug traps' where bacteria or mould could hide from washdowns and start to thrive.

The housing is also paint-free, so there's no danger of the finish flaking or chipping off and finding its way into the end product.

Filled with a USDA H1 food-grade grease, the NSK SilverLube bearing is available in four different geometries, suitable for high speeds and working temperatures from as low as

-20°C up to as high as +90°C. So if your application involves dehydration, frying, roasting, baking, refrigeration or freezing, you can still rely on SilverLube to keep working faultlessly – and keep your production rolling.

> "Longer service life with less maintenance"

Less maintenance. Longer life

While the corrosion-resistant construction and highly-effective sealing of the NSK SilverLube bearing help to reduce maintenance and downtime – and therefore increase productivity – the RHP LifeLube from NSK goes even further.

Another NSK innovation, the LifeLube bearing has all the features of SilverLube, plus even more effective sealing and lubrication properties, thanks to its Molded-Oil inserts.

Molded-Oil is an oil-impregnated polymer which creates a solid lubricant. This is used to completely fill the bearing cavity. As the bearing operates, the lubricant carrier slowly releases the oil to lubricate the bearing running surfaces. At the same time, it acts as a barrier to contamination from water and particulates.

These Molded-Oil inserts are maintenance-free for life, as no relubrication is ever required.

So if you want to keep cleanliness and productivity to a maximum, and maintenance and downtime to a minimum, RHP SilverLube and RHP LifeLube bearings from NSK give you a choice of solutions. And you can be sure that everyone's a winner.

Click here to check out our range of NSK SilverLube Bearing

SKF UK announces ERIKS UK and Ireland as its first maintenance partner for the UK

Kenney Harris
Business Development Manager
SKF

ERIKS is proud to have been appointed as the first SKF Maintenance Partner in the UK and Ireland. This new status recognises ERIKS' ability to offer industrial customers more than just a transactional relationship when it comes to SKF products and services.

The announcement was made during Maintec, the UK's longest-standing event dedicated to maintenance, reliability, and asset management, which took place as part of Smart Manufacturing & Engineering Week on 5-6 June.

An SKF Maintenance Partners is SKF's extended arm on your factory floor. An advisor who helps you pursue maintenance excellence and provides consistent high-quality monitoring, maintenance, and repairs.

As the 1st SKF Maintenace Partner, ERIKS uses its industry-specific knowledge to perform services such as root-cause failure analyses and advanced troubleshooting.

> "Significant extension to our partnership"

ERIKS UK & Ireland has been appointed by SKF due to its exceptional engineering capabilities, innovation, and dedication to long-term customer value creation. This is coupled with an investment in the SKF brand as ERIKS is extending the range of SKF products it stocks and will exclusively use SKF products in its UK repair facilities.

Speaking about the partnership Pamela Bingham, CEO of ERIKS UK & Ireland said, "We are delighted and proud to announce this significant extension to our partnership with a world-leading company such as SKF. To become SKF's Maintenance Partner we have had to meet a stringent set of requirements including support for the full range of SKF Products and Services in Bearings, Lubrication, Maintenance Products and Condition Monitoring."

The criteria to be an SKF Maintenance Partner is exacting but ERIKS was able to demonstrate throughout the process that it could be an authorised SKF distributor, a condition monitoring partner, that it had a certified repair workshop network, as well as regional teams for application engineering and project design.

Further requirements included demonstrating SKF product knowledge throughout the Service Centre network as well as specialist SKF technical knowledge at its European Power Transmission Centre of Expertise in in Kingswinford, Dudley.

Ian Peverill, Managing Director of SKF UK, and Aftermarket lead for Europe Northwest said:

"By choosing an SKF Maintenance Partner, you're not just choosing a service provider; you're selecting a partner dedicated to enhancing your operations with skilled engineers and technicians, backed by the robust support of SKF. This exciting new programme gives our customers a clear pathway to access the extensive scope of knowledge and innovation SKF can offer. Witnessing the skill and professionalism of the ERIKS team during the rigorous accreditation process gives me great confidence in appointing ERIKS as our first SKF Maintenance Partner. We look forward to elevating maintenance standards together."

> "Enhancing operations with skilled engineers"

ERIKS' expertise in bearings and lubrication is bolstered by its partnership with SKF. With a team of dedicated Lubrication Engineers and a national network of Service Centres, ERIKS provides the knowledge needed to choose the right lubricant, lubrication regime, and dispensing method.

One of the key products that ERIKS offers is SKF's range of spherical roller bearings designed specifically for the food and beverage industry. These bearings feature food-grade seals and grease to enhance food safety while offering three times longer service life compared to open bearings.

In addition to the SKF Maintenance Partner announcement, ERIKS showcased a range of cutting-edge MRO supply chain solutions at Maintec.

> "Reducing total cost with certified expertise"

On stand 4-G30, ERIKS displayed solutions aimed at simplifying procurement, optimising onsite stores, and improving asset availability for manufacturers and processors.

ERIKS also unveiled its newly restructured OnSite Solutions service, now offered in a modular format. This allows customers to focus on their major issues and add extra modules as time and resources permit, providing flexibility in addressing maintenance and reliability challenges.

The combination of ERIKS' extensive expertise and its strengthened partnership with SKF positions the company as a leading provider of industrial maintenance solutions in the UK and Ireland. Customers can expect enhanced support, innovative products, and tailored services to optimise their operations and reduce total cost of ownership.

About SKF Maintenance Partners

SKF Maintenance Partners are authorised SKF distributors with deep technical competence that invest in knowledge and expertise to enhance repair and maintenance services.

They have skilled engineers and technicians with expertise within industrial equipment and various industrial segments. Our partners have demonstrated best-in-class availability and reliability and a culture of continuous learning.

They are committed to improving sustainability in all processes and follow all relevant standards. The SKF Maintenace Partner Academy training program teaches the effective use of SKF technology and uniquely positions SKF Maintenance Partners on how the SKF portfolio can help solve process-related topics and prolong equipment lifespan to reduce customer's total cost of ownership (TCO). SKF administers regular audits to maintain the expected high standards.

How to save **thousands of pounds** before breakfast

Steve Parry
Application Engineering Manager, Rotating Equipment
ERIKS

Suppose one of your production line assets had a maintenance schedule that declined from every two months to every two weeks. Would you wake up and smell the coffee? Or, as one ERIKS' customer did, would you wake up and smell the porridge?

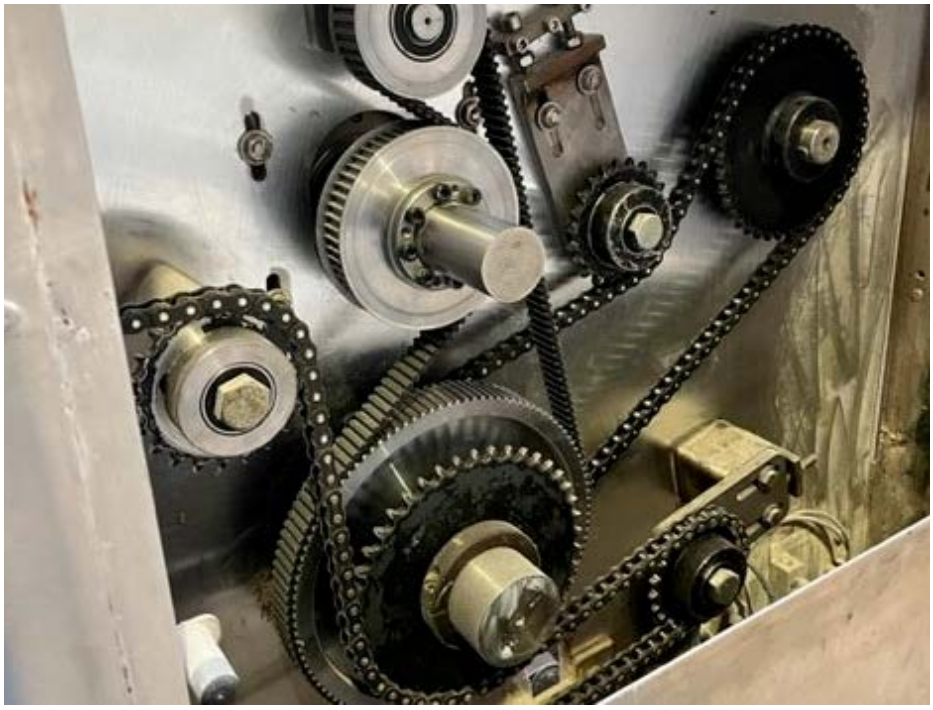
“Running to failure every three months”

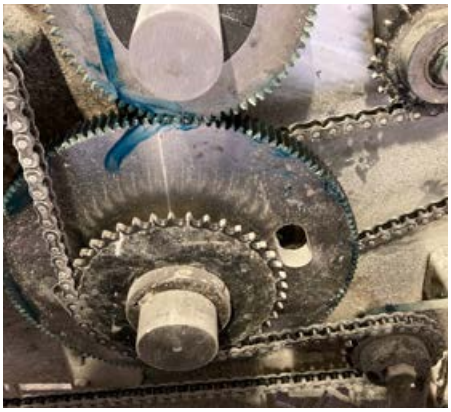
Whether you prefer breakfast porridge with sugar, salt, honey or syrup, one of the most convenient ways of making it is from a sachet. And the popularity of these sachets is why one porridge oats manufacturer has a high-speed production line which operates at 1,200 sachets per minute.

Or at least it did when it wasn't offline for maintenance, as it increasingly was.

Cutting production

The critical asset causing the problems was the knife tower of six flexible blades on a minor hub set and twelve fixed blades on a major hub set. These were driven by two gears at a ratio of 1:2, and work together like scissors to cut the bandolier of filled pouches into individual sachets.





A registration mark on each sachet is read by sensors, which send a signal to the knife tower servomotor. This then slows down or speeds up the process as appropriate, to ensure the bandolier is cut at the correct place to create the sachet.

As the knife tower's reliability declined, knife blades were being replaced every two weeks, rather than every two months as originally. In addition the drive gears, once replaced every twelve months as part of a preventative maintenance programme, were running to failure as often as every three months.

Changing the blades alone took up to six hours, and replacements were expensive. So costs and productivity were both being badly affected.

Time for ERIKS to take a look.

Repair, replace – or rethink?

The least attractive option to keep the porridge pouring would have been to repair – at a cost of £5,000 for a new pair of gears every three months.

“A way to make it perform more reliably”

Another option would have been to carry out a complete asset replacement – at a cost of several thousand pounds – hoping it would run at full speed and capacity for a while before the problems began to reoccur.

ERIKS' approach was different. Not to repair. Not to replace. But to go back to the drawing board and rethink. And not just to ask why the asset was failing, but also if there was a way of making it perform more reliably. ERIKS know-how provided the answers.

Changing gears

An assessment of the asset and its failure modes showed that the gears were the weak link in the set-up. So ERIKS' engineers designed an entirely new layout which maintained the performance but eliminated the gears – and the problems that went along with them.

“Lasted eight times longer than the gear-driven option”

By replacing the gears with belts and pulleys, gear wear through friction is eradicated. The noise level is reduced. And only the drive belt and bearings – inexpensive, off-the-shelf items – will need to be replaced over time.

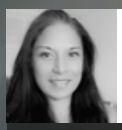
The cost to the customer of the new design was just £2,200 – or less than half the price of the previous set-up. When the belt does eventually need replacing, the downtime will be much reduced. And the belt itself will cost just a few hundred pounds rather than £5,000 for a new pair of gears every three months.

With the new ERIKS-designed belt-driven system in place, the customer undertook a test run which operated successfully at full speed for six weeks before the blades broke. This was three times the life of the previous asset.

After minor adjustments the line was restarted and this time the blades lasted sixteen weeks: eight times longer than the gear-driven version. The true efficiency of the line has been calculated to have increased from an average of 62% to 78% – reflecting the greatly increased reliability of the new gear-free design.

Pleased with the cost-savings and productivity improvements, the customer has now placed an order to swap gears for belts and pulleys on a second knife tower. So if you like your porridge in cost-effectively produced sachets, relax. A second helping is on its way.

Satisfying a thirst for energy savings



Cheryl Louis-Taylor
Sales Development Manager – Industry Distribution UK
GRUNDFOS

Producing some of the UK's most iconic soft drinks would be enough of a challenge for most manufacturers. However, this particular beverages producer also wants to reduce their carbon emissions by 50% by 2030, and to net zero by 2050. Their unreliable, energy-wasting pump systems were not only interfering with their productivity and efficiency, but also making emissions reduction an uphill struggle. Could ERIKS and Grundfos pump up the progress towards the targets?

> "Highly efficient, electronically controlled, Grundfos E-pumps"

The manually-operated pumps at the customer's site were suffering continual breakdowns, poor performance even when they were actually operating, and causing system imbalances. Worse still, there was no early warning of problems. As the company's Energy and Sustainability Manager explained, "The first time we'd know of any problems on site [was when] we'd be getting a phone call from a production team saying that their water pressure was down or the quality was down."

As a first step towards being proactive rather than reactive, the customer agreed to a Grundfos Energy Check Advanced. This check involves service technicians analysing existing pump performance, and suggesting ways to find energy savings.

For this particular customer, the check was initially carried out as a trial across pump systems in four of their crucial applications: towns water, treated water, primary chilled water and central chilled pumping systems.

Delivering on demand

With the Energy Check Advanced confirming the customer's worst fears about their pump systems' efficiency, the next step was for Grundfos to propose a solution.

This took the form of highly efficient, electronically controlled, Grundfos E-pumps.

Featuring variable speed drives which operate on demand, with pressure and temperature control, these pumps run only when the system needs them – so they don't use energy unnecessarily. In addition, with Grundfos iSolutions digital cloud connectivity, there are more opportunities for energy savings, carbon savings, and improved system performance.

> "Impressive results in emissions and performance"

A treat for treated water

Completely convinced by the results of the Energy Check Advanced, the customer went ahead with Grundfos' recommendations, with some impressive results in emissions and performance.

For example, in the customer's treated water plant, the customer had been operating with four 37kW pumps and a standby duty pump. Having only basic pressure control available, during peak production periods all four pumps would be running. This could mean around 120kW of energy consumption.

Grundfos installed 22kW NBE end suction, close-coupled E-pumps, with highly efficient IE3 or IE5 motors, together with MPC-E controls and Grundfos Remote Management.

Now, with the pumps set to operate at their best efficiency point, energy consumption stays at 24kW or less – even during peak periods.

Rolling-out the pump retrofits across more areas within the site, the customer has seen energy-use reductions of 40-60% on all applications. Saving energy not only means reducing emissions but also cutting costs. According to the customer's Energy and Sustainability Manager, "I don't think we've had one [Grundfos pump] project where the payback has been more than two years so far."

A quiet revolution

With half a dozen pump retrofit projects on the site now complete, the carbon emissions reductions are approximately 4% across the factory.

Combined with the significant energy-use reductions and the increased reliability and productivity, the customer is more than satisfied with the results. In fact, they are discussing bringing forward one of next year's projects into this year, simply because another year of delay will mean another year of potential savings left unrealised.

There are more benefits which can't be measured simply in kilowatts of energy or tonnes of carbon.

> "Energy-use reductions of 40%-60%"

Remote monitoring of the pump systems enables maintenance engineers to be proactive rather than reactive. Combined with the pumps' higher reliability, that means less downtime and more productivity. The smaller size of the pumps makes them easier to handle if required, and because they are also quieter than the pumps they've replaced, there's no need for ear defenders to be worn in the area where they operate. This makes for safer and more comfortable working conditions.

To find out how Grundfos pumps could reduce your carbon emissions and energy costs, talk to your usual ERIKS contact. What they've done for soft drinks they can do for harder challenges too.

Contact your local expert today

Clean and Green: Revolutionising Sustainability in Cleanroom Consumables

Phil Balden
Area Sales Manager, UK EIRE
Ansell

Manufacturing in a clean environment doesn't leave room for compromise. Either the environment meets and maintains the necessary ISO 14644 cleanroom standard, or it doesn't. And if it doesn't, then the end product won't make the grade. But with the increasing industry-wide focus on sustainability, manufacturers are looking for alternatives to the high waste, large carbon footprint and excessive consumption of traditional clean environment solutions. Ansell has answers that protect people, products – and planet.

> Protect people, products – and planet

For pharmaceuticals, microelectronics, medical devices and many other products, manufacturing must take place in a cleanroom environment. And the greatest threat to the integrity of that environment is the people who work within it. Contamination – often in the form of particulates – can all too easily be introduced if workers fail to wear the appropriate PPE.

From disposable garments to gloves, goggles and facemasks, it's essential to select and wear the correct apparel in a cleanroom environment. And if it can help the wider environment at the same time, then everybody benefits.

> Now packaged in sustainable SMART Pack packaging

Hand-in-glove with sustainability

Gloves are a key piece of PPE in a clean environment. The correct gloves will protect the product, the process and the environment from a variety of contaminants, which can range from particles and fibres to static.

They also work in two ways: protecting not only the environment from contamination by the wearer, but also the wearer from contamination or harm from the environment. Depending on the product being manufactured, and the manufacturing process, the wearer could potentially be exposed to chemical or biological hazards, for example, which carefully selected gloves can help protect against.

By their nature, cleanroom gloves are classified as consumables, as single-use is essential to maintaining their cleanroom suitability and integrity. Ansell gloves for cleanrooms are processed using de-ionised water and packed in a cleanroom in non-linting plastic packaging. Through its Ansell Earth sustainability initiative, Ansell has also developed other PPE solutions which minimise their impact on the wider environment.

Packed with environmental advantages

Two of the most widely-used Ansell gloves – the AccuTech® 91-225 and TouchNTuff® 73-701 are now packaged in innovative, sustainable, SMART Pack packaging.

Firstly, the packing process has been automated to minimise human contact and reduce contamination risk. Secondly, the packing pouch size is now 56% smaller than previously – reducing consumption of packing materials. Traceability information is now inkjet printed along the bottom of the pouch, replacing paper barcode labels.

And because the packaging size has been reduced, the same number of gloves can be packed in a smaller space for shipping – reducing delivery journeys and cutting the carbon footprint of shipments.

The box-out details the reductions made across CO_2 emissions, plastic and waste thanks to the SMART Pack packaging alone, which is just one small part of the Ansell Earth initiative.

> 125 years of experience in PPE

Guarding against contamination

Ansell has 125 years of experience in PPE, available to you through the AnsellGUARDIAN® consultation service.

This service assesses your operations in relation to your PPE requirements, across seven functional areas: injury prevention, cost reduction, standardisation, SKU reduction, control (dispensing, usage and disposal), training and waste reduction.

To find out more about a free-of-charge AnsellGUARDIAN® assessment of your operations, or about Ansell PPE for your manufacturing environment, contact your usual ERIKS representative. Because your clean environment isn't the only environment you'll be helping.

Cleaning-up our act

You can find information about the environmental impact of our products and our sustainability efforts such as our Smart Pack packaging under our Ansell Earth initiative on our website. Through the SMART Pack packaging innovation alone, Ansell has:

- Reduced CO_2 emissions from shipments, from 63 tonnes CO_2 eq. to 41 tonnes CO_2 eq**. That's the equivalent of 73,340 fewer miles driven annually by delivery vans***.
- Saved 102,187 grams of plastic per year, through reducing the size of packaging pouches. That's the equivalent of 8,175 plastic water bottles^.
- Eliminated almost 1,000,000 plastic bags annually** by changing the packing configuration of the SMART Pack packaging, from 10 pairs per PE bag to 25 pairs per PE bag
- All SMART pack packaging components are recyclable, including 100% recycled content cardboard shipper cases, and pouches, inner and outer bags made from recyclable HDPE or LDPE*.
- Increased glove pairs per shipment by 18%, which reduces the number of shipments required – cutting emissions still further†.

* Always check your local recyclable status of HDPE and LDPE as these plastic materials may not be considered suitable for recycling in your country.

** Based on FY22 sales volumes (styles 91-225 & 73-701 only).

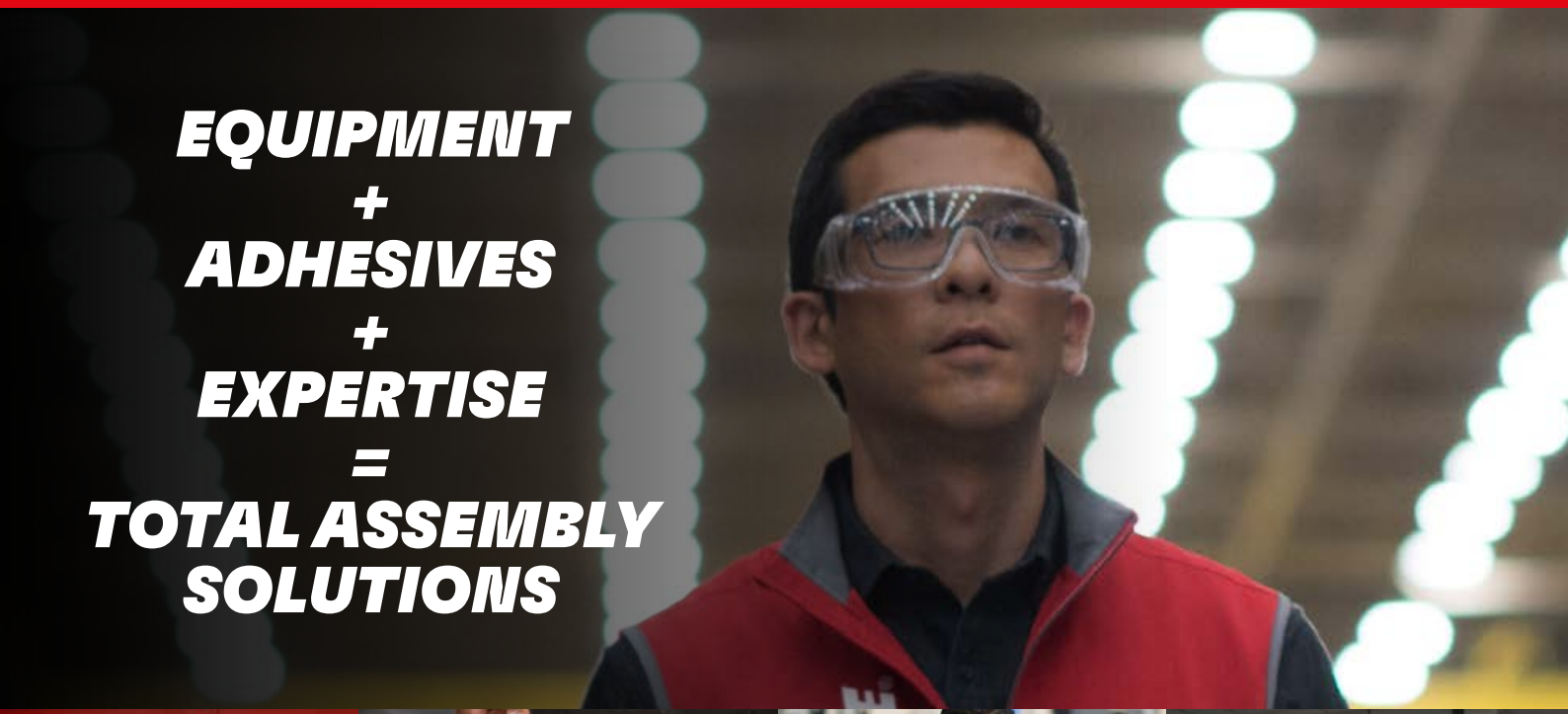
*** UK Government GHG Conversion Factors for Company Reporting, v1, 2021, average emission conversion factors for delivery van up to 3.5 ton (diesel).

^ Average 500ml plastic water bottle weighs 12.5grams.

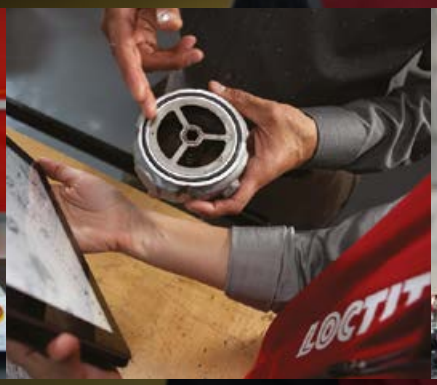
† Based on current 73-701 shipper case weight vs. SMART pack 73-701 shipper case weight.

LOCTITE®

WHATEVER YOUR INDUSTRY PAIN POINT OR CHALLENGE LOCTITE HAS AN ADHESIVE SOLUTION



EQUIPMENT + ADHESIVES + EXPERTISE = TOTAL ASSEMBLY SOLUTIONS



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Call 01442 278100 or email technicalservice.loctite@henkel.com our technical experts to see how we can support.
Visit www.henkel-adhesives.com/uk for more information

Henkel

BEYOND THE BOND

How to dispense with **manual lubrication**

Yves Rhyn
Area Sales Manager
simatec

Time is money and downtime means losses – in the food industry sector and many others. So getting rid of time-consuming, inefficient and imprecise manual lubrication can help to optimise efficiency, minimise downtime and extend equipment service life. Which is why the simalube automatic lubricator hasn't just revolutionised lubrication. It's transformed productivity.

> "A significant reduction in downtime"

Simalube lubricant dispensers can now be found in production environments from beverage bottling lines to vegetable processing plants. And the continuous and automatic lubrication they provide has not only increased efficiency but also reduced the workload of production staff.

By providing a continuous supply of perfectly placed, accurately measured lubricant to the lubrication points, simalube dispensers reduce friction and wear, which helps to extend machine service life. This in turn leads to a significant reduction in downtime and an increase in overall productivity.

> "Make your own payback calculation"

Success – bottled

At many well-known beverage production facilities worldwide, you can find simalube lubricators on filling lines, palletising systems, packaging and conveyor systems and more. And while this lubrication automation has improved system reliability, it has also led to cost savings.

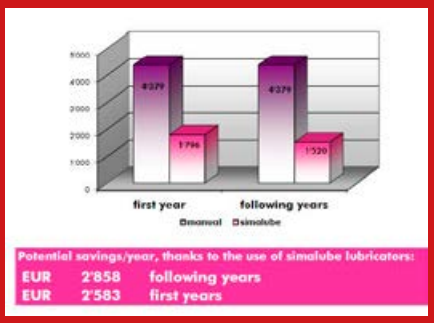
Similar successes have been recorded in a medium-sized vegetable trading company in Switzerland. simalube dispensers have helped to eliminate the daily, time-consuming lubrication process, and increase operational reliability.

It's payback time

According to Yves Rhyn, simatec AG's dedicated Area Sales Manager for the UK, 'the simalube pay-back calculation serves as a basis for decision-making. This calculation is the turning point for so many factories, away from manual lubrication and towards automatic lubrication with simalube.' [See box-out]

Now, says Rhyn, 'our mission is to transform the maintenance process in the food industry. We see a world in which machine downtime is reduced to a minimum and productivity is maximised. Simalube makes this possible.'

The simalube payback calculation



To make your own payback calculation and optimise your maintenance processes, talk to ERIKS about simalube, or scan the QR code.

Sustainability helps you breathe more easily

Paul Skade
Product Manager - PPE & Site Safety
ERIKS

Industries in every sector are striving to improve their sustainability. Perhaps by sourcing more environmentally-friendly raw materials, by reducing their carbon footprint, or by generating less waste from their production processes. Now the good news is that there's a new, quick and easy step to greater sustainability. And all it takes is changing one of your usual essential purchases to one that's manufactured with those sustainability goals in mind.

“A quick and easy step to greater sustainability”

If your business regularly buys Personal Protective Equipment (PPE), it's likely that includes particulate respirators. Essential in operating environments where the air contains potentially harmful particulates, these respirators cannot yet be recycled.

That's partly due to the complex mix of materials they incorporate, and partly due to the likelihood that they will be contaminated with whatever was in the atmosphere when they were being worn.

However making a product fully recyclable is not the only way to make it more sustainable. Manufacturing it from recycled material is an equally valid approach. And that's just what 3M™ have done with the 3M Aura™ Particulate Respirators 9300+ Series.

50 years behind the mask

Behind every Aura™ 9300+ Respirator lies almost half a century of commitment to sustainability.

- It was back in 1975 when 3M launched their Pollution Prevention Pays programme, which still continues today.
- It's more than 20 years ago that the business gained accreditation to ISO14001, which is the internationally recognised standard for environmental management systems.
- 5 years ago, 3M joined the global RE100 initiative, which aims to move member businesses towards 100% renewable energy. At the same time, the company began powering its global headquarters with 100% renewable electricity.

Now the upgraded 3M™ Aura™ Particulate Respirators 9300+ Series represents the next step towards more sustainable operations for the business. And while the product helps to support 3M's own sustainability commitment, it also helps the customers who choose it to reduce their own environmental impact in turn.

“Half a century of commitment”

Choose to be more sustainable

By choosing the Aura 9300+ Series, you are choosing a more sustainable path.

Every respirator in the series is made with a minimum of 25% recycled content. (The Particulate Respirator 9312 contains even more, at 30%.)

The content varies by product because of the different level of protection (FFP1, FFP2 and FFP3) offered by each one. Although the same weight of recycled content is added to each product, it represents a different percentage of the overall product weight.

Incorporating recycled content isn't straightforward. It's a question of balancing the quantity of recycled content against both the recyclability of the material, and the energy used / CO_2 emissions involved in transporting the product. That's why there is 30% recycled content in the individual wraps, but recycled content totals 76% in each shipper case, and 100% in the primary cartons.

The same, but different

By increasing the sustainability of the Aura respirator, 3M is helping customers towards achieving their own sustainability goals. So it's definitely a change for the better. But better still, some things haven't changed.

“Choosing a more sustainable path”

The upgraded products still look the same as previous versions. They still perform just as effectively to remove particulates. And wearers who have been previously face-fit tested for the earlier product version will not need to be tested again for the upgraded product.

All of which means the 3M™ Aura™ Particulate Respirators 9300+ Series lets your respirator wearers breathe more easily. And is a breath of fresh air for your sustainability champions.

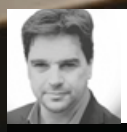
Protection and sustainability hand-in-hand

The highly sustainable 3M™ Aura™ Particulate Respirators 9300+ Series has a number of features and benefits which help to make it one of 3M's best-selling disposable respirators.

- 3M's Advanced Electrostatic Media enables easier breathing, and the 3M Cool Flow Exhalation Valve helps release warm and moist exhaled breath from inside the respirator
- The 3-panel design ensures a better fit for a wide range of face shapes and sizes
- The large soft nose foam material and smooth inner cover provide a soft and comfortable feel against the skin
- The embossed top panel helps reduce eyewear fogging
- An innovative chin tab improves ease of donning and adjustment
- Available in FFP1, FFP2 or FFP3 protection levels, with or without exhalation valve

Purchase your 3M Aura today - **click here**

O-Rings: A Crucial Guide for the Food Production Industry



Martin Gingles
Industrial Sealing Manager, Seals & Polymer
ERIKS

In the highly regulated world of food production, maintaining the highest standards of safety and hygiene is imperative. Amid the vast array of machinery and components that populate a food processing plant, O-rings - a small but essential element - play a pivotal role.

> "Meet rigorous regulatory standards"

Though often overlooked, the integrity of these seals is fundamental in preventing contamination and ensuring that food products are safe for consumption. This article explores why more careful attention to O-rings can significantly bolster food safety.

The crucial distinction: Food grade vs. food safe

The first step in ensuring the efficacy of O-rings in food production is understanding the difference between food-grade and food-safe materials. While both terms might suggest suitability for food contact, only food-safe materials guarantee the safety of the end products.

Food-safe O-rings are manufactured from materials that meet rigorous regulatory standards and can withstand the harsh conditions typical in food processing, including extreme temperatures and exposure to cleaning chemicals without degrading.

Certification under EC1935/2004 is a benchmark for O-rings, confirming that the material is suitable for prolonged contact with food items without leaching harmful substances or harbouring bacteria. These certifications are not just formalities; they are assurances to food manufacturers and consumers alike that the products coming off the production line are safe and uncontaminated.

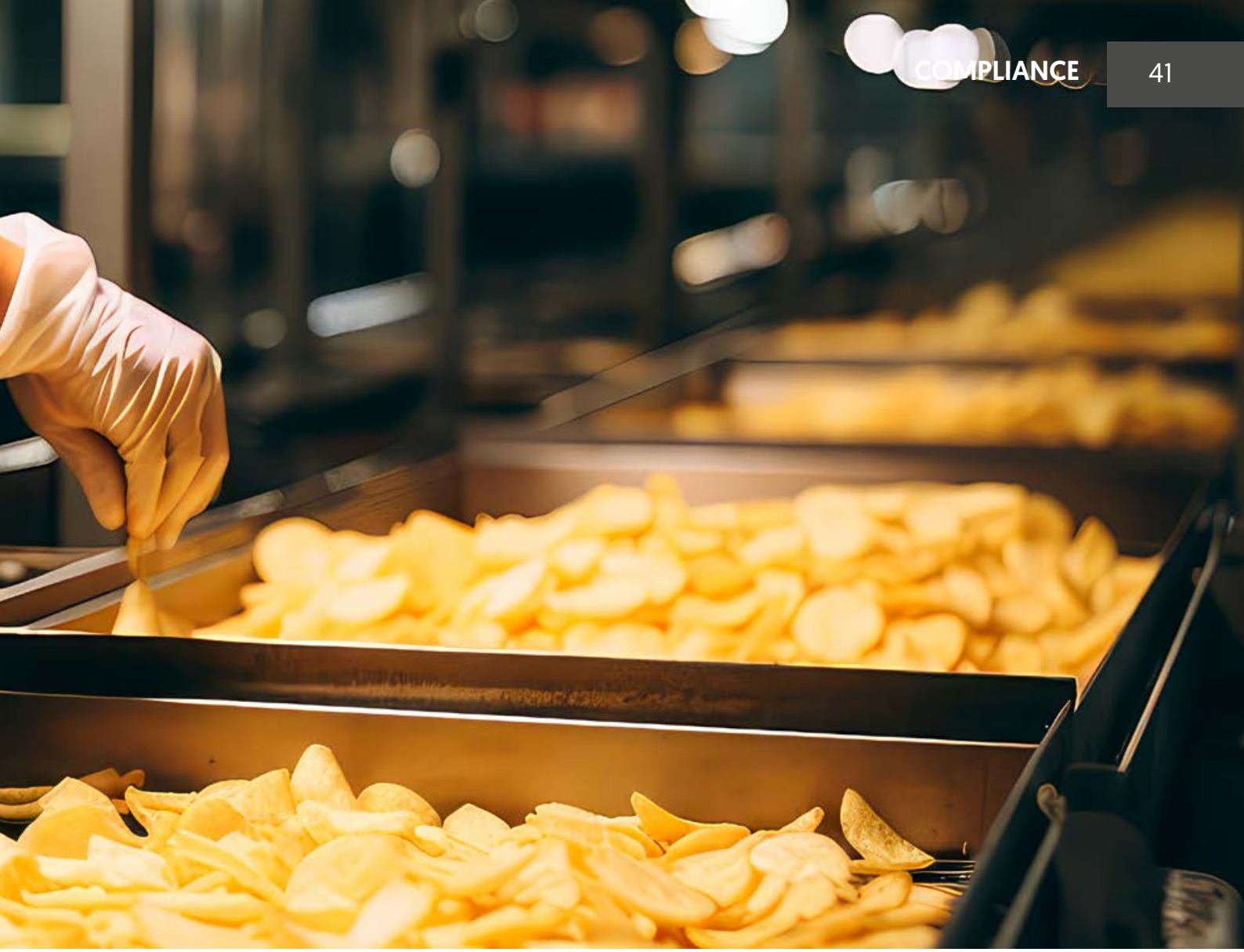
> "Aids in compliance with food safety audits"

Best practices in O-Ring installation and maintenance

Installing and maintaining O-rings correctly is just as important as selecting the right materials. Proper installation begins with

a thorough pre-installation inspection to ensure that the O-rings are free from defects and are the correct size for their intended applications. An improperly sized O-ring can lead to an inadequate seal, resulting in a leak that may actually cause food contamination.

Once installed, the integrity of the O-rings should be regularly checked as part of routine maintenance. The dynamic environment of food production machinery, characterised by frequent cleaning and temperature fluctuations, can stress O-rings and lead to premature failure.



> Critical role of O-rings in ensuring food safety

Documenting each O-ring's condition and replacement not only helps in maintaining the equipment but also aids in compliance with food safety audits.

Real-world impact

The practical impact of diligent O-ring management is significant. Consider a recent scenario where a major food processor faced recurrent contamination issues. Upon investigation, it was discovered that non-certified, degraded O-rings were to blame.

Simply replacing these with certified, high-quality O-rings tailored for high-temperature processes resolved the issues, highlighting the importance of using appropriate materials and regular maintenance.

A commitment to food safety

The critical role of O-rings in ensuring food safety cannot be overstated. As the food industry continues to evolve with increasingly stringent regulations and higher standards of consumer safety, the need for reliable, certified O-rings becomes more pronounced.

It is imperative for food production facilities to regularly assess and upgrade their O-ring protocols, ensuring all components are up to the task of safeguarding the food production process.

For industry professionals, investing in high-quality, certified O-rings is not just a regulatory obligation but a fundamental aspect of risk management and quality assurance in food production. By focusing on these small yet essential components, food manufacturers can make strides in delivering safe, high-quality food products to consumers worldwide. Insights from leaders in industrial component solutions like ERIKS further underline the importance of understanding specific food production requirements when selecting O-rings, ensuring both physical and chemical safety in food processes.

Scream if you wanna go more reliably!

Jason Lockett
Senior Project Manager, Rotating Project Management
ERIKS

There aren't many customer locations that leave ERIKS' engineers with their hearts in their mouths. But when there were repeated breakdowns at Europe's first fully-looping roller coaster, they needed a good head for heights as well as their usual engineering know-how.

> Manufactured to US - rather than European - standards

There are only three Arrow Development fully-looping shuttle roller coasters in existence. One is in Oklahoma, one in Colorado, and one at perhaps the UK's most famous amusement park. Even though it's still making visitors scream and shout, its operation hasn't always been a smooth ride.

That's partly due to the motor, manufactured to US – rather than European – standards. It was built with a 200V armature rather than the 400-460V which is common in the UK. Temperature changes throughout the day often caused the motor to trip-out, and an earlier rewind to bring it up to European specification created an imbalance when switching from one motor to another – leading to more trip-outs and breakdowns.

The motor had been removed and repaired numerous times, but breakdowns were still frequent. The customer finally decided it was time to take action.

Safety first

The customer's first instinct was to replace the ride entirely. After all, at over 40 years old, it was showing its age through constant breakdowns. But the ride occupies a prominent position in the centre of the park, on a very small footprint. The logistics of dismantling it and building a replacement in the same position were challenging.

> A solution without the scary costs and complications

So the question was: could ERIKS suggest a solution that would still provide the thrills – without the scary costs and complications?

Fortunately ERIKS had a maintenance upgrade proposal to make the existing ride more reliable, and to do it more cost-effectively, and in a shorter time-frame. The proposal involved new re-specified motors, repurposed drive equipment, and electrical modifications to ensure the electrics worked seamlessly with the new motors.

Of course all these proposed changes had to be reviewed and approved by the customer's safety consultants. Not only did they have to check that the acceleration G-forces would remain within the specified tolerances, but also that the mechanical strength of the new components met the required safety standards.

With the proposal approved by the safety experts, the customer gave ERIKS just one week – during an annual closure – to carry out the upgrade. Unfortunately that one week was in November, and at times the temperature at the top of the ride dropped as low as -6°C. So for the ERIKS engineers working at height, what was already a white-knuckle ride became a blue-fingered test of their endurance.

Along for the ride

The old and unreliable (Stab-Shunt wound) motors were lifted out and lowered to the ground by crane. Then three new 100kW shunt-wound DC motors (two for duty and one for spare) were lifted into position on newly manufactured and installed motor mounting bed plates.

> A blue-fingered test of endurance

After consulting with the customer and safety consultant, the existing AB Powerflex DC drive was repurposed. Its supply voltage was increased to 400V AC and its internal configuration changed to compensate for the new motors and tacho generators. Its output was increased from 200V to 400V , and an additional thermal monitoring relay was installed for additional protection. The new configuration also eliminated the step-down transformer required by the old system.

Commissioning of the AB Powerflex DC drive was then carried out to achieve the desired launch cycle, acceleration times and G force limits agreed with the safety consultants.

Once the rollercoaster was ready for operation, the customer's safety consultants carried out a further three days of safety testing. This included running the ride with sandbags in the seats to test the G-force. But that wasn't enough to satisfy ERIKS' lead engineer that the upgrade was a job well done.

A few weeks later he went back to the amusement park, this time with his children, and tried out the rollercoaster himself. Now that's real dedication.

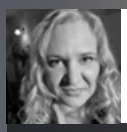
In the loop

The roller coaster upgraded by ERIKS was first opened in 1979, at a cost of £1,000,000.

As Europe's first fully looping roller coaster – known as a 'launched loop' model – it consists of two raised sections of track, with a vertical loop in the centre. Customers climb a series of stairs to reach the loading station, from where the train is launched. It then travels into the loop and up onto the second platform, where it repeats the process in reverse.

The ride reaches 17m (56ft) at its highest point, with a drop of 14m (47ft). The overall length is 194m (635ft) and the top speed achieved is 45mph with a G-force of 4.

Saving time, cutting costs and reducing electrical risks can be **shockingly easy**



Anna Wisniowska
Value Delivery Specialist, Nationwide
ERIKS

Maintenance engineers have no time to waste. So an electrical safety testing solution which takes almost no time at all – and saves them hours – is too good to miss out on. If it also saves over £100,000 on the cost of maintenance, downtime and lost production, then ignoring it would be shocking. No wonder British Gypsum were quickly switched on to the solution.

> "Less time, more convenience and even greater safety"

Regular and frequent predictive maintenance tests of electrical panels is the most effective way to maintain the efficiency of manufacturing equipment. But with dozens of panels across their sites in East Leake, Notts., and Robertsbridge, East Sussex, British Gypsum were experiencing excessive downtime for maintenance such as thermographic testing.

Before any maintenance can be carried out, the panels have to be disconnected from the power source, and have their absence of voltage verified. Disconnection is relatively quick and easy, but the traditional method of verifying absence of voltage is slow, complex, and open to error, complacency and risk.

Dressed to test

When using a portable, handheld, voltage test instrument, before an engineer can even start the verification process they have to don PPE – which takes time in itself. But even dressed appropriately, the risks are not completely removed.

If the instrument has a mechanical or electrical failure, or isn't used correctly, it could give a false result. Even the testing procedure is a risk to the user if voltage is present. Then, once the test has finally been completed correctly and successfully, there's more time wasted in taking off and storing the PPE.

> "Taken just seconds, and put safety first"

Throughout the testing of the tester itself, the voltage checking and the retesting, the operator is potentially exposed to electrical hazards. And all this time, the asset is out of action. So the only thing it's manufacturing is more costs.

A solution in seconds

Of course the answer can never be to take shortcuts or risks. But it can be to do the same testing in less time, with more convenience and even greater safety.

British Gypsum did take a shortcut of sorts – because they knew that ERIKS had the know-how they needed. And when an ERIKS electrical safety expert suggested the automated Panduit VeriSafe™ Absence of Voltage Tester (AVT), they knew they had the answer they needed too.

The VeriSafe™ AVT is the first AVT tailored for electrical enclosures. By simplifying and automating the voltage verification process, it shortens the procedure to a matter of

seconds, while maintaining absolute operator safety.

Using the VeriSafe™ AVT, all the engineer needs to do is activate the automated tester, note the indicator status and – if a green indicator is illuminated – open the enclosure to start work. There's no direct exposure to electrical hazards. And the voltage status is established before equipment is accessed.

It takes just seconds, and puts safety first.

In fact the amount of time which the VeriSafe™ AVT could save them on testing was so great, British Gypsum couldn't believe it. So ERIKS and Panduit not only provided an initial demonstration using a test rig, but followed it up with a VeriSafe™ installation on a number of electrical panels in a trial area at one of the customer's sites.

Shocked – in a good way

Once the trial was completed, British Gypsum were completely convinced.

> "Savings calculated at £121,298"

So convinced, that they have since installed over 103 Panduit VeriSafe™ AVTs at their Nottinghamshire site, 50 at their East Sussex site and another 20 at their site in Leeds. The resulting savings on maintenance time, downtime and lost production have been calculated by the customer as £121,298.

But it's not only the financial savings that have shocked them. Their maintenance engineers are now spending around half as much time on voltage testing and Lock Out Tag Out safety procedures. Which means they have more time to spare for more productive maintenance tasks which can enhance operational efficiency and productivity.

It's not often you can find a solution to a maintenance issue that's very safe, very efficient and very cost-effective. But Panduit have one – and they've just called it VeriSafe™ for short.

Will AI Revolutionise MRO for Manufacturers?

Artificial intelligence (AI) in industry has begun to prove itself in some sectors, particularly in predictive maintenance within aerospace. The question now looms: will AI revolutionise MRO in manufacturing within the next 2-3 years? As AI evolves, its potential to transform MRO operations is becoming evident, yet significant hurdles remain.

AI's role within MRO is multifaceted, encompassing predictive maintenance, inventory management, and operational optimisation. However, generative AI remains nascent and is still prone to errors, making human expertise more crucial than ever.

Predictive Maintenance: A Game Changer

AI's most significant contribution to date in MRO is predictive maintenance. By analysing data from sensors and historical records, AI algorithms can predict machine failures, allowing maintenance to be performed just in time, minimising downtime and reducing costs.

The airline industry uses AI to monitor aircraft components in real-time, predicting failures before they occur. Manufacturers can adopt similar practices to keep production lines running smoothly. However, expecting AI to completely take over in the next few years might overlook the complexities and human oversight required to manage such systems effectively.

Enhanced Inventory Management

AI also has the potential to transform inventory management within MRO operations. Traditional systems often struggle with inaccuracies, leading to either excess stock or shortages. AI-powered systems can dynamically adjust inventory levels by analysing usage patterns and predicting future needs.

This is crucial for manufacturers with complex supply chains and diverse equipment requirements. That said, achieving this requires overcoming significant data integration and quality challenges.

Operational Optimisation and Efficiency

Beyond maintenance and inventory, AI tools have the capability to analyse data to identify bottlenecks and suggest operational improvements, thereby enhancing productivity. In MRO, this means better scheduling, efficient workforce use, and improved resource allocation. AI-driven models can simulate operational scenarios, allowing managers to anticipate and mitigate potential disruptions.

Despite these benefits, the transition involves challenges like managing organisational change and ensuring regulatory compliance.

Looking Ahead: The Human Element in an AI-Driven Future

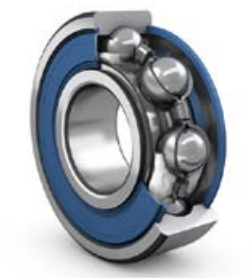
While AI's benefits are clear, implementation challenges include ensuring data quality and maintaining compliance. The airline industry example shows that AI can automate routine tasks, freeing technicians for complex issues and improving efficiency and safety. However, As AI grows more sophisticated, human expertise and oversight remains crucial.

For manufacturers, adopting AI in MRO requires continuous improvement. AI can transform processes, reducing downtime, optimising costs, and enhancing resilience. However, expecting a complete takeover in 2-3 years is optimistic. A hybrid approach, integrating AI and human expertise, is essential for navigating complexities and maximising AI's benefits.

More efficient and food-safe production. Less need for maintenance.

Spherical roller bearing

Stainless steel deep groove ball bearing



Deep groove ball bearing

MRC Ultra corrosion resistant sealed deep groove ball bearing

SKF Food line is a specialized range of bearings and bearing units designed explicitly for the unique needs of the food and beverage industry, addressing its critical challenges.

SKF Food line bearings are manufactured to the high standards of SKF Explorer performance class and ensure exceptional durability, strength, and reliability. With a design focused on containing grease and preventing contaminants, they are equipped with food-grade seals and grease, improving food safety and reducing maintenance. This makes them ideal for maintaining hygiene, enhancing productivity, and minimizing the environmental impact in food processing environments.

Scan the QR-code to find out more

High-performance food grade NSF H1 grease – optimized for the food and beverage industry. Grease is Halal and Kosher certified and complies with US Food and Drug Administration (FDA) and European Community (EC) recommendations.

Over 50% of manufacturers admit to downtime due to parts availability, find out why!

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