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Global Maintenance And Reliability Experts Return To Birmingham – And This Time The Show Has Doubled

New research names twelve obstacles holding British industry back – from the retirement wave to a reactive culture nobody can break – as MAINSTREAM UK returns on 20–21 October.



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20–21 October, Birmingham

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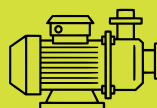
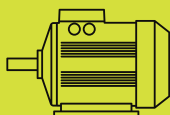
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Publisher

Michael Dominguez
editorial@engineeringmaintenance.info



Advertising

Steve Pheasant
stevep@engineeringmaintenance.info



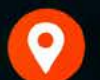
Website

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Telephone

+44(0)207 193 1396



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Global Maintenance And Reliability Experts Return To Birmingham – And This Time The Show Has Doubled

New research names twelve obstacles holding British industry back – from the retirement wave to a reactive culture nobody can break – as MAINSTREAM UK returns on 20–21 October.

When MAINSTREAM brought three decades of international maintenance and reliability expertise to British shores last October, more than 300 practitioners came to Birmingham. This year the event doubles: 500+ have already booked, and 95% of expo floor space was gone before the program was complete.

Behind that growth sits a body of research that has hardened. MAINSTREAM's 2026 UK study – drawn from surveys and roundtables – identifies twelve obstacles now defining the state of British and Irish industry. The most exposed nerve: 71% of respondents report no dedicated reliability engineering function at all.

The findings make uncomfortable reading. Reactive maintenance remains the dominant operating mode despite universal agreement that it is costly, unsafe and unsustainable. Practitioners describe maintenance as a "necessary evil" – celebrated when assets run, blamed when they fail, defunded when things are quiet. Obsolescence, not age, has emerged as the primary risk driver, with control system obsolescence creating multi-million-pound liabilities organisations keep deferring. The retirement wave has arrived, taking technical knowledge, asset history and operational judgement that exist nowhere in any system. "The barrier is not knowledge," the research team notes. "It's culture, incentives and leadership continuity."

Two new themes were elevated this year: change management capability – the recognition that failure to sustain improvement is a people problem, not a technical one – and the absence of a documented long-term asset strategy, itself a root cause of much of the rest.

Every session addresses these themes directly. Headlining is Ed Van Cise, NASA's 78th Flight Director, on Maintenance and Reliability at the permanent Moon Base NASA is establishing at the lunar south pole – an environment whose obsolescence and spares problems mirror those on British factory floors. Drew Troyer, the highest-rated speaker of 2025, returns with his Data to Dollars framework for organisations that are data rich but information poor. Russell Raath, formerly of Harvard professor John Kotter's global consulting business, examines why strategies stall.

The UK and Irish contingent is formidable. United Utilities' Chief Maintenance Officer Phil White is joined by Emily-Jo Howarth (Southern Water), Sven Brown (Severn Trent), Ross McCorriskien (Scottish Water) and Gerald Doocey (Affinity Water). Richard Barber brings Drax Power Station's perspective, Damien O'Neill speaks for Biffa, and food manufacturing is represented by David Stephens (Premier Foods), Jo Gillard (Finsbury Foods) and Sam Smith (The Compleat Food Group). Dan Everest (Greater Anglia), James Ayre (East Midlands Airport), Jonathan Watkinson (Babcock), Garrett Fitzgerald (Eli Lilly, Ireland) and Audrey

Kelleher (BioMarin) complete a cross-sector line-up.

The event delivers 70 case studies and sessions, six specialised tracks, six workshops, hands-on tutorials in the Education Pavilion, peer-to-peer Xchange sessions and a 50-partner expo, plus year-round MAINSTREAM Community membership and post-conference access to all content.

"MAINSTREAM is the world's most valuable Maintenance & Reliability Conference"

Christer Idhammar – IDCON Founder, prolific author, and known as the 'Godfather of Reliability'



MAINSTREAM UK takes place 20–21 October 2026 in Birmingham.
<https://www.mainstreamcommunity.com/uk-summit/home>

Reliability Isn't A Project. It's A Partnership

Most reliability improvement initiatives don't fail because the analysis was wrong. They fail because nothing was built to carry the work forward.

The pattern is familiar to anyone who has been in maintenance for more than a few years. A consultant arrives. An assessment is carried out. A report lands with a list of well-reasoned recommendations. Twelve months later the report is in a drawer, the internal champion has moved to another role, and the plant is still firefighting the same failures it was before.

The diagnosis is usually sound. What's missing is the mechanism - the structure, governance and sustained expertise that turns a set of recommendations into changed behaviour on the shop floor.

Pro-Reliability Solutions built the ReliabilityFocus™ Partnership Program to address exactly that gap. Rather than selling isolated projects or one-off training events, PRS engages organisations through long-term partnerships with a minimum 36-month term, structured around a defined maturity journey: stabilise, optimise, sustain.

Consulting, reliability engineering, training, coaching, digital tools and a prescribed calendar of on-site engagements are delivered as one continuous engagement rather than a series of separately commissioned pieces - so improvement work doesn't stall every time the next phase needs to be justified from scratch. Progress is governed rather than assumed, through scheduled KPI reviews, roadmap sessions and maturity re-assessments at fixed intervals.

Underpinning the Program is the ReliabilityFocus™ Platform, a digital environment that acts as the operating system for the partnership. Each site is assessed against a structured Reliability Maturity Assessment benchmarked to recognised asset management standards, producing a Reliability Maturity Index that establishes an objective starting point. Actions are then generated, assigned and tracked in a live register visible to both the client team and their dedicated PRS Partner - so improvement work has an owner, a date and a status, not just an intention.

Critically, the model remains consultant-led. The platform enables consistency, visibility and scale, but it does not replace the practition-

er. Software alone has never changed a maintenance culture; people supported by structure do.

Two elements tend to resonate most with plant leadership. The first is that the Program is explicitly designed to build internal capability. The objective is a client team that no longer needs external intervention to sustain performance. The second is commercial. The Platform's Cost of Unreliability calculation converts current losses, waste and unplanned downtime into a financial figure at the outset, and revisits it at each subsequent assessment. As maturity rises and the action programme is executed, that figure should fall - giving engineering managers something they are too often denied: a defensible number to take to the board.

For organisations wanting to establish a baseline before committing to anything, PRS offers a free ReliabilityFocus™ Self-Assessment. It benchmarks reliability practice across ten categories and returns an instant maturity report at no cost - a straightforward way to find out where you actually stand.

Because in most plants, the honest answer to "what is your reliability maturity?" is that nobody knows. And that, in itself, is the answer. To complete your self-assessment visit: <https://reliabilityfocus.app/assessment>.

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"Turning your reliability ambition into long-term asset performance."

Gary Tyne, CMRP
Director PRS

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Our solutions are designed to help maintenance and reliability teams make informed decisions that improve productivity, reduce operating costs, and maximise asset performance. We provide a comprehensive range of reliability services, including machinery lubrication programmes, laboratory analysis of lubricants, fuels and thermal fluids, remote machine condition monitoring, and expert engineering support. As the authorised Noria partner for Ireland, we deliver internationally recognised machinery lubrication training, consulting, and certification to help organisations build world-class lubrication and reliability programmes.

We also supply industry-leading fuel and lubrication management

products from manufactures including OilSafe®, Donaldson Hy-Pro filtration®, Fuelstat®, Checkfluid®, and Tan Delta® enabling customers to protect critical assets and maintain optimal equipment performance.

Guided by our commitment to Quality, Reliability, Innovation, and Sustainability, ARQ Reliability partners with customers in the energy, marine, pharmaceutical, manufacturing, and other asset-intensive sectors to transform maintenance practices, minimise disruption, and create lasting operational value.



Keep your critical equipment running. Reduce downtime. Extend asset life.

ARQ Reliability is a specialist reliability engineering company helping asset-intensive industries across Ireland and Europe improve equipment performance, reduce downtime and extend asset life.

We believe reliability should be practical, measurable and easy to achieve. By combining engineering expertise with innovative technologies and best-practice lubrication management, we simplify reliability for our customers.

Our solutions include machinery lubrication programmes, laboratory analysis of lubricants, fuels and thermal fluids, remote machine condition monitoring and expert engineering support, helping maintenance and reliability teams make informed decisions, reduce operating costs and maximise asset performance.

As the authorised **Noria** training partner for we deliver internationally recognised lubrication training, consulting and certification.

We supply industry-leading fuel and lubrication management products from OilSafe, Donaldson Hy-Pro Filtration, Fuelstat, Checkfluid and Tan Delta. Guided by our commitment to Quality, Reliability, Innovation and Sustainability, ARQ Reliability partners with organisations across energy, marine, pharmaceutical, manufacturing and other asset-intensive sectors to transform maintenance practices and create lasting operational value.



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We work with organisations across energy, marine, pharmaceutical, manufacturing and other asset-intensive sectors to deliver real improvements in reliability and performance.



Visit us at the upcoming **MAINSTREAM UK** Summit and talk to the ARQ Reliability team about your maintenance challenges.



Agility AI: Turning Your Operational Data Into Confident Maintenance Decisions

Maintenance and engineering teams already capture huge volumes of asset, work order, inventory, and operational data. But turning that data into a confident decision is rarely straightforward as priorities shift, people change, and processes evolve. This often means unplanned failures, maintenance budgets that are harder to justify, and engineering knowledge that's difficult to scale across the business.

Agility AI, built into Apteon Agility Enterprise Asset Management (EAM), changes this. It closes the gap between data and decisions. Your team can ask questions in natural language and immediately get insights drawn from live asset, maintenance, and operational data. It flags anomalies and delivers answers in seconds.

Agility AI is shaped by feedback from ten early adopter customers and is built to interpret questions with precision. It resolves ambiguity by clarifying next steps, and demonstrates exactly how each answer is

reached. This transparency, delivered through its Intelligence Trace capability, means your team can see the reasoning behind every response, so they can act with genuine confidence.

A common concern is that data needs to be perfect before AI can add value. In practice, the opposite is true. Agility AI's built-in Asset Intelligence Assessment shows exactly where your data needs attention and what to prioritise first, so you can start benefitting from AI while continuously improving the data behind it.

The results speak for themselves. Customers using Agility AI in production have already used it to surface early warning signs across sites, identify assets missing appropriate maintenance plans, and spend far less time exporting and interrogating reports, freeing up time to focus on the work that reduces downtime.

Come and see Agility AI for yourself. Visit us on Stand K8 at MAINSTREAM UK Summit or find out more at apteon.com.



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Smarter Maintenance Starts With AI-Powered Agility CMMS/EAM

Visit **Stand K8** at MAINSTREAM UK Summit and see how Agility AI can take the uncertainty out of your maintenance operations.

- ✓ Ask Agility AI to surface at-risk assets before they become downtime
- ✓ Get instant, plain-language answers to support faster decisions
- ✓ One connected view of your assets, people, parts and sites
- ✓ Drive measurable ROI across your operation



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The problem is simple, buyers rarely have all of that information in front of them when they place the next order.

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HOW IT WORKS



The Sourcing Agent is part of the Parts Control approach to **Agentic Spare Parts Management**, using the data you already have to continuously find better decisions and lower costs.



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Our AI Sourcing Agent constantly scans internal data and external markets to highlight opportunities you might miss manually – so you can buy smarter, cut costs and improve margins.

PARTS CONTROL CHANGES THAT.



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Industrial AI in EAM: Why the Workforce Gap Makes This More Than a **Tech Upgrade**

The maintenance and reliability sector has a knowledge problem more than a technology problem. As experienced engineers retire, they take decades of tacit know-how with them - the sound a failing bearing makes, the fault pattern that never shows up in a manual. No software licence replaces that overnight, and the industry doesn't have years to work out how to capture it.

That's why AI in enterprise asset management (EAM) needs to mean something more specific than a chatbot bolted onto existing software. The real opportunity is what Ultimo calls digital workers: AI agents built to absorb and apply an organisation's own operational history - not a generic model trained on the internet, but one that learns from a site's actual failure modes, work orders and technician judgement calls. That's the difference between AI as a feature and AI as a way of institutionalising expertise before it walks out the door.

Ultimo has been investing heavily here, with digital agents already supporting environment, health and safety management, maintenance planning and maintenance technician roles - with more in development. The goal isn't to replace engineers; it's to make their knowledge an asset the organisation keeps, rather than one person's memory. This is exactly the conversation Ultimo will be having at the Mainstream UK Summit in Birmingham this October. Ultimo is an Interaction Partner at the event and will be joined on stage by customer Forth Ports, bringing a practitioner's perspective to the discussion of what this shift means for the sector.

For teams grappling with an ageing workforce and a widening skills gap, this is worth seeing first-hand. Visit the Ultimo stand or catch the

Forth Ports session on 20-21 October to find out what "system of intelligence" actually looks like on the plant floor.

By Berend Booms, Head of Enterprise Asset Management Insights at Ultimo



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Hidden Problems, Visible Solutions: Modern Inspection Tools For An Efficient Inspection Workflow

Maintenance teams face a constant challenge: identifying problems before they become failures. While some issues reveal themselves through alarms, leaks, or breakdowns, many develop quietly over time, hidden behind walls, inside equipment, or within hard-to-reach areas. By the time visible symptoms appear, the resulting downtime, repair costs, and operational disruption can be significant.

The Cost of Hidden Problems

Moisture intrusion, corrosion, overheating electrical components, and internal equipment degradation are common examples of issues that can remain undetected during routine inspections. A small water leak behind a wall can eventually lead to structural damage, mold growth, or equipment failure. Similarly, a loose electrical connection may generate excess heat long before it causes an outage or safety incident. For maintenance professionals, the challenge is not simply fixing problems but finding them early enough to avoid costly consequences and unplanned downtime.

Finding What You Can't See

Modern inspection technologies help maintenance teams move beyond traditional visual checks. Thermal imaging has become a valuable tool for identifying temperature anomalies associated with electrical faults, overloaded circuits, failing components, and insulation or moisture issues. Compact thermal cameras such as the Flir C8 allow technicians to quickly scan equipment and facilities, helping pinpoint areas that require further investigation.

When moisture is suspected, dedicated moisture meters provide additional insight. The Flir MR277 combines thermal imaging and moisture measurement, while the MR59 pinless moisture meter helps assess moisture levels behind surfaces without causing damage. Together, these tools provide a more complete understanding of asset condition before minor issues develop into expensive repairs.

practical alternative. Solutions such as the Flir VS80 enable technicians to inspect machinery, ducts, wall cavities, and other confined spaces without extensive dismantling. By providing a direct view inside hard-to-reach areas, inspection cameras help verify findings, reduce troubleshooting time, and improve confidence in maintenance decisions.

A Practical Inspection Workflow

Many organizations are adopting a layered inspection approach. A technician might begin with a thermal scan using a Flir C8 to identify abnormal heat patterns. If water ingress is suspected, a Flir MR277 or MR59 can help verify the presence and extent of moisture. A Flir VS80 can then be used to inspect inside the affected area and confirm the root cause.

Compatible devices can also connect through the METERLiNK® app, enabling data sharing, remote monitoring, and more efficient documentation. This helps teams keep inspection records organized and communicate findings more effectively between the field and the office. Beyond Individual Tools

The most effective maintenance programs combine multiple sensing technologies. Alongside thermal cameras, moisture meters, and inspection cameras, Flir's portfolio includes electrical test tools, acoustic imaging systems, and fixed monitoring solutions. Together, these technologies help maintenance teams detect issues earlier, make better-informed decisions, and take a more proactive approach to asset management.

Ultimately, the goal is simple: make hidden problems visible before they become costly failures. For organizations focused on reliability, efficiency, and asset longevity, that visibility can make all the difference.

Learn more at www.flir.com.

Looking Inside Without Disassembly

Even after a potential problem has been identified, gaining access to the affected area can present another challenge. Disassembling equipment or opening structures for inspection can be time-consuming, disruptive, and costly.

Inspection cameras and videoscopes offer a



Hart Doors Reacts To Strong Demand

Newcastle-based Hart Doors reports strong demand for its high-performance industrial doors ranging from its of high-speed Speedor doors to its Typhoon range of high-performance shutters. "Demand is across the board and as a result we have had to increase working shifts. All our brands are attracting significant interest which has prompted us to take positive action," says Hart's managing director Nick Hart.

"We are a global business with a strong base of clients spread across the UK. By increasing shifts we have been able to continue to accommodate demand-driven growth. Further As Britain's original manufacturer of the automatic high speed door "Speedor", we have always led the way with developments in commercial door technology. "We offer a comprehensive range of high speed roller shutter doors to suit a wide range of commercial applications, whether light internal use or heavy industrial use.

The Speedor high speed door is robustly engineered for frequent use in high-traffic situations. Our tried and tested vertical high speed doors can be used internally or externally to optimise traffic flow, improve working conditions and save energy.

Mr Hart adds: "Despite the recent holiday period demand for Speedor high speed doors, Typhoon and high level security doors was high. Such is the level of demand we have now started a two working shift pattern to keep up with client orders.

"Current examples of work include the production of six roller shutters to act as machine guards for a client to protect openings of between 3 and 7 meters in width. In addition we are at the final stages of handing over a High security roller "SR4 security door" being installed in a bank in Kuwait."

Only recently Hart introduced a demonstration vehicle to accommodate the growing need for installations across the UK. "All in all we are seeing growth on all fronts and have a great team at our Newcastle headquarters," says Mr Hart.

"We continue to emphasize that we are a specialist engineering company that specialises in the design and manufacture of a wide variety of door systems relevant to the challenges of everyday business. We resolve many issues within the built environmental and safety and security issues arising in many global sectors.

"Hart's products are in daily use across over 30 countries world-wide in sectors such as aviation, energy from waste, infrastructure, food and beverage production as well as a host of manufacturing processes.

Of Hart's many brands, it's the internationally recognised Speedor range of high-speed doors that has become so successful in establishing Hart's outstanding reputation. After all, a typical Speedor has on average a life expectancy with existing doors at 30 years plus and 1000,000 operational cycles in normal conditions. This attests to the quality of Hart's engineering.

www.hartdoors.com



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From our high-speed Speedor doors, to our high-performance Typhoon shutters, Hart Doors delivers innovative, reliable solutions trusted worldwide.



HIGH SPEED
Optimise traffic flow, improve efficiency and save energy.



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Engineered for frequent use in high-traffic and demanding environments.



GLOBAL TRUST
Proudly used in over 30 countries across a wide range of industries.



PROVEN QUALITY
Up to 30+ years life expectancy and 1,000,000 operational cycles.

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Speedor High Speed Doors
Typhoon Performance Shutters
High Security Roller Doors





INCREASED CAPACITY. ENHANCED SERVICE.
Now operating a two-shift pattern to keep up with growing global demand.

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1,000,000+ OPERATIONAL CYCLES IN NORMAL CONDITIONS

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New Mobile Facility For Hart Doors

Hart Doors, the oldest British manufacturer of industrial high-speed doors and shutters, has invested in a new mobile installation facility.

Chairman Douglas Hart explains: "The focus on the British Isles has been Hart's very rewarding market but with increasing sales from the north of Scotland to the south of England means a much sharper delivery/installation over a greater geographical area is required. The new facility is outstanding.

"Based in Newcastle UK, we are the most established British manufacturer of high-speed doors and shutters. Founded in 1946, we bring generations of engineering experience and pioneering product expertise to customers worldwide.

"Our innovative products, problem-solving approach and practical experience help companies contain noise, odour and environmental contaminants.

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How Reliability Begins with Correct Pump Selection

When it comes to transfer applications, there's no shortage of pumps to choose from. Often the challenge isn't finding a pump that will do the job – it's finding the right pump.

On paper, several options may look perfectly suitable. But real-world reliability often comes down to something that can't be found on a datasheet: experience.

Recently, an oil refinery approached us after experiencing repeated failures with two progressing cavity pumps used for slop water transfer. The pumps were failing when brought back into service following extended periods of shutdown.

Located at a remote site, the pumps were particularly susceptible to seal damage and rotor seizure after prolonged periods of inactivity. The site's remote location made regular maintenance visits both costly and time-consuming, while the need to attend to pump failures often arose at short notice, creating additional operational challenges.

Existing Process Pump Problems

There are applications where a progressing cavity pump is an excellent choice – particularly when handling water with an uncontrolled oil emulsion, with varying viscosity, and solids content, for a process which demands a consistent flow rate.

On paper, the pump selection appeared to tick all the right boxes. The duty was understood, the operating conditions were considered, and the pump looked like the right fit. But, as we know, what works on paper doesn't always in practice.

Irregular use was a major problem

Progressing cavity pumps are generally better suited to regular operation, as extended periods of inactivity can cause seal faces to stick and rotating components to bind or seize. To eliminate these recurring issues, our client wanted to replace the existing progressing cavity pumps with an alternative design that would be easier to maintain and better suited to intermittent or infrequent operation, without the risk of damage caused by prolonged periods of inactivity.

They also wanted to upgrade the existing produced water transfer pumps without making any changes to the site's electrical infrastructure. This placed two key requirements on the replacement pumps: the

motor power had to be limited to 7.5 kW or less, while the pumps also needed to be available within a lead time of 13 weeks.

Technical Considerations

The process also demanded a number of design considerations both for ease of process connection and enhanced durability. These included ANSI Class 150 flanges, and a flushed Mechanical Seal Plan (plan 11) where fluid is recirculated from the pump discharge through a pipe into the seal chamber, acting as a flush to keep seal faces clean and cool.

As an independent pump specialist, North Ridge Pumps is not tied to a single pump technology, allowing us to select the most suitable solution for each application with lifetime cost in mind.

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The process pumps chosen were our XCP end suction horizontal centrifugal pumps designed for clean or contaminated fluids with low viscosity. This is a robust process pump with additional bearings in the pump head in an oil bath designed for heavy duty 24/7 operation.

The pumps are designed for the transfer of low-viscosity, clean or slightly contaminated fluids. Manufactured to ATEX requirements, the units feature brass coupling guards, anti-static paint and dedicated earthing connections on the baseplates to ensure safe operation in potentially hazardous environments.

Following manufacture, the slop oil pumps underwent independent third-party BV Witness testing and inspection, including performance testing, hydrostatic pressure testing and material inspection to verify compliance with the required specifications.

If you have an application involving the transfer, circulation or injection of viscous solid-laden liquids and are unsure which pump to use, speak to North Ridge Pumps to see how we can help.

<https://www.northridgepumps.com/contact-us>



Is It My Oil Or My Equipment? **Which** Is Failing?

Often, when critical equipment fails on the plant or shop floor, that usually means one thing, production is halted. It becomes a sprint to fix the machine and get it back up and running before the losses begin accumulating. This is where reliability is usually built into the equipment through understanding and predicting failures, so there isn't a loss of production. However, oil which is seen as a consumable is the easiest player to blame during these high tensions and if someone was not monitoring the health of that oil, the blame is absorbed.

Some basic field tests

While out in the field, it may be difficult to get an oil sample, wait for it to be processed by the lab and then act on the results. There are a few basic tests that can be done in the field to get quick results.

Presence of water – Water in your oil is not a good thing, it can lead to degradation of the oil, an increase in viscosity, rusting of your components and leeching of the additives in the oil. If you are in the field (and you have cleared this with your safety department), you can place some of the oil from the machine into a metal spoon, heat that spoon with the oil in it and listen carefully for the sound of popping. The pops or crackles would indicate that there is a significant amount of water present in your oil. You can also look for an emulsified (or milky looking) mixture or the water actually separating out from the oil. In all of these cases, there is water in your oil in varying degrees which should be removed.

Presence of fuel – Especially for diesel engines, it is important to know if there is fuel dilution in your oil. If the levels are high, then this can decrease the viscosity of the oil causing wear on the inside of your engine. Simply use coffee filter paper and drop some oil on it and allow it to dry. When observing it, look for a fuel ring towards the end of the

spot as it has spread. This means that there is fuel present in your oil.

Presence of metal (wear) – While this cannot confirm which of the metals are present in your oil, it can give you an indication that there is significant wear occurring in your component (more than likely engine). Collect a sample and place a magnet near to the sample. If you see metal start to attach to the magnet, then some wear is occurring inside your oil.

While those are some basic field tests, there are also monthly lab tests which can provide more information on the oil.

Basic lab tests

While the in-field tests may be convenient, we need actual numbers to trend the progress of degradation or ingress / decrease of contamination or wear. Some of these tests include Viscosity, TAN / TBN, Presence of water (Karl Fischer), Presence of wear metals and contaminants (Spectroscopy), and the presence of fuel (fuel dilution).

In essence to determine which is failing, first examine if you are monitoring your oil and its patterns of behaviour and preventing contamination before it enters the machine. Then you can decide if the oil is no longer protecting the equipment, causing the equipment to fail. We will cover these and much more at the Mainstream conference in the UK in October, 2026.

Sanya Mathura
CEO & Founder, Strategic Reliability Solutions Ltd

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Hoist & Winch Supports Plant Maintenance Programme With Eight-Hoist Package

Maintaining critical equipment across a large industrial processing facility requires lifting systems tailored to the specific demands of each application area. For a UK dockside seed-crush and refinery plant, Hoist & Winch Ltd delivered a turnkey package of eight high-quality electric chain and wire rope hoists to support vital site-wide maintenance operations. Installed as part of a multi-year plant improvement programme, the high-performance hoists serve a variety of maintenance functions across indoor and outdoor process areas, including a quayside pump station, an ATEX-rated mineral oil extraction zone and several general production locations.

Following close customer consultation, Hoist & Winch specified and supplied equipment from three renowned European manufacturers, selecting individual hoist designs according to each location's operational requirements.

One of the most demanding applications involved the maintenance of process water pumps situated below sea level at the dockside. To support lifting operations, Hoist & Winch supplied two GIS electric chain hoists, each offering 6-ton safe working load (Swl). Capacity, reliability, travel performance and hook coverage were all key considerations during equipment selection.

The GIS hoists feature two-speed motion, cross-travel limit switches and remote radio control. Given their exposed quayside location, the hoists were also supplied with weather-resistant canvas covers and galvanised steel parking enclosures for protection when not in use.

Elsewhere on site, maintenance activities within the mineral oil extraction area required a lifting solution suitable for operation in a potentially explosive atmosphere. Hoist & Winch specified an Italkrane YY series 2-ton Swl electric chain hoist certified for ATEX applications up to Zone 1 II B T4.

The hoist incorporates flameproof electrical protection, anti-corrosion

finishes and anti-sparking components, including brass trolley wheels, load hook and anti-tip devices. A low-headroom design, two-speed operation, cross-travel limit switches and radio control functionality further enhance its suitability for lifting vessel hoods and other equipment during maintenance procedures. A Hoist & Winch CompEx-certified engineer undertook the installation of all ATEX electrical connections.

For the indoor and outdoor process plant locations, Hoist & Winch supplied Stahl ST series electric chain hoists with 3.2-ton Swl. These units provide maintenance teams with a reliable means of lifting equipment between ground level and elevated work areas.

A separate maintenance location required significantly higher lifting capacity, leading Hoist & Winch to specify a Stahl SH series wire rope hoist with 9-ton Swl. Here, low-headroom configuration was essential to maximise available lifting height while accommodating larger process plant components. Across locations, the hoists were again supplied with two-speed operation, cross-travel limit switches and radio control systems to improve operational control and positioning accuracy.

Electrical power distribution was tailored to suit the constraints of each installation area. In general process locations, festoon cable C-track systems were mounted alongside runway beams. For the dockside and ATEX installations, however, specialised festoon trolley arrangements running along the bottom flange of the hoist runway beams were employed to accommodate beam configurations and site clearance/access requirements.

Following installation, Hoist & Winch conducted comprehensive testing and certification of every lifting system. All hoist and runway beam installations underwent LOLER inspection, dynamic load testing and 125% proof-load testing before entering service. The company issued LOLER Thorough Examination reports for all installed systems.

"Every area of this facility presented its own technical challenges, from dockside lifting operations and ATEX requirements to low-headroom maintenance applications," says Hoist & Winch Director Andy Allen. "By selecting the most appropriate hoist technology for each location, we were able to provide the customer with a safe, reliable and long-term lifting solution that supports efficient maintenance across the entire plant."

Hoist & Winch completed its work on site by delivering operator training, covering safe use of the equipment, operating controls, limit switches, emergency stop functions, routine inspections, lubrication requirements and annual certification obligations.

Visit www.hoistandwinch.co.uk for further information and to view recent case studies.

Hoist and Winch Ltd
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How Cork-Rubber Delivers Superior Sealing Performance in Transformers

Sealing performance in power transmission and distribution equipment depends on the joint design and operating conditions. Flange distortion, surface irregularities, assembly torque and prolonged exposure to insulating oils can all affect the integrity of the seal over time.

Amorim T&D's cork-rubber materials have

long been used to address these challenges across power applications. Their optimized formulations combine cork with carefully selected elastomers to support reliable sealing performance and more efficient manufacturing and assembly processes.

Effective Sealing at Lower Loads

Compared with conventional rubber materials, cork-rubber can establish an effective seal at lower assembly loads. This can reduce tightening torque and limit flange distortion, while enabling more efficient fastening configurations.

Controlled Material Displacement

Conventional rubber is largely incompressible and requires lateral space to accommodate volume displacement under load. Cork-rubber composites exhibit significantly less side flow due to cork's internal compressibility and lower Poisson's ratio, helping the gasket remain stable within the joint.

Conformability to Irregular Surfaces

The inherent compressibility of cork-rubber allows the material to adapt to flange irregularities and rough surfaces. This conformability helps maintain consistent contact between the sealing surfaces, including in joints with high out-of-flatness.

Compatibility with Insulating Oils

Amorim T&D offers cork-rubber formulations developed for use with the principal insulating fluids found in power transmission and distribution equipment, including mineral and silicone oils, as well as natural and synthetic esters. Each formulation is designed to maintain stable sealing performance when exposed to its intended insulating fluid and operating conditions.

A Proven Material for Long-Term Transformer Sealing

By combining compressibility, controlled side flow and adaptability to irregular surfaces, cork-rubber addresses the conditions that make transformer sealing particularly demanding.

With formulations developed for different insulating fluids, Amorim T&D provides manufacturers with a proven material solution for maintaining reliable sealing performance throughout the transformer's service life.

www.amorimcorksolutions.com



Eyes On Site' Help Protect Port Of Dover Assets

The Port of Dover has installed an advanced monitoring system incorporating Meteor MRC cameras to gather detailed information on ferry berthing events and the real world performance of berth fender systems. The project is designed to provide asset engineers with reliable data to support maintenance planning and identify significant berthing events that could affect fender performance.

Sensors measure the magnitude of fender displacement as ferries berth, while an MRC camera provides visual verification of each vessel. Combining these datasets allows displacement measurements to be directly correlated with individual berthing events.

"The Meteor camera provides us with eyes on site," explains Nick Slater from I&M Solutions, who has been delivering the monitoring contract with Justin Roffey of Geo Sub Ltd. "As soon as a sensor registers an approaching vessel, the data logging system is activated, which in turn triggers the camera, allowing methodical collection of berthing data. This improves the response time for the port's engineers, saves time and money, and provides valuable operational context to support informed maintenance, asset integrity and future fender management decisions."

Ensuring Safe Operations in a Busy Port

The Port of Dover is the UK's busiest international ferry port, handling more than 11 million passengers and 33 percent of the UK's trade in goods with the EU. Ferry arrivals occur approximately twice every hour, making safe and efficient berthing essential.

Each of the port's six car ferry berths uses fender systems designed to absorb low velocity forces during docking. These systems make berthing smoother for passengers while reducing the risk of damage to vessels and quay infrastructure.

Fenders require routine servicing and maintenance to ensure long term performance. Traditionally, maintenance schedules have been based

largely on time intervals, compression numbers and manufacturers' specifications.

The new monitoring system enables Dover's operational and maintenance teams to use quantitative measurements when scheduling maintenance and repairs. This can help extend fender life while reducing the likelihood of reactive interventions that could require a berth to close temporarily.

Monitoring Fender Performance

Port environments present significant challenges for monitoring equipment, with storms, waves, salt spray and high winds creating demanding operating conditions.

Geo Sub and I&M Solutions installed a long range Vega radar sensor to detect approaching ferries. Five additional sensors monitor selected fenders, measuring the distance between the quay wall and rear of each fender. Data is captured by bespoke wireless loggers.

When a vessel is detected, the fender sensors activate and measurements are recorded at 5Hz throughout the berthing process.

A specialist remote camera from Meteor Communications provides visual monitoring and records images for each docking event. Meteor's MCE mini pillar camera with IR illuminator was installed towards the end of 2024.

Nick Slater says: "It has performed flawlessly for the past year, delivering high quality images in all weathers to corroborate sensor data and enable us to view site conditions without requiring engineers to attend the berth unnecessarily."

The camera communicates through secure mobile network connections, while MeteorCloud provides a secure web portal through which engineers can access images, diagnostics and historical imagery.

Supporting Condition Based Maintenance

The combined monitoring system allows engineers to measure cyclical compression of fender components and identify potential reductions in performance. Crucially, it supports a move towards condition based maintenance rather than relying solely on fixed maintenance intervals.

This approach can reduce costs, improve berth availability and lower the operational carbon footprint while supporting ferry and port safety. Remote visualisation also allows engineers to assess site conditions without unnecessary visits and provides valuable evidence for future fender design.

Gennaro Acquaviva, Senior Engineer at the Port of Dover, says the system has provided valuable insight into the real world performance of berth infrastructure.

"The key benefit for us is the ability to make more informed engineering decisions. This data supports condition based maintenance, improves our understanding of fender integrity, and helps us plan replacements or design improvements based on evidence rather than assumption."

He adds that this delivers important benefits for safety, operational reliability and cost control, while supporting sustainability by avoiding unnecessary replacement of serviceable components and reducing the carbon impact associated with premature asset renewal.



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Beyond Visual Inspection: A Tiered Approach to Fuel Tank Integrity Testing

Standby power, fleet depots, marine terminals, industrial plant: different applications, the same testing problem.

Visual inspection has its limits. While it can identify obvious signs of deterioration such as coating breakdown, surface corrosion and staining, it cannot determine remaining wall thickness, weld integrity or the condition of internal surfaces. For many fuel tanks these hidden factors often represent the greatest risk.

This is where Non-Destructive Testing (NDT) provides value. Rather than relying solely on a visual inspection that cannot look deeper than the surface, NDT delivers measurable condition data that supports informed engineering decisions regarding maintenance, repair or replacement.

Tier 1: External Examination

Recommended annually for tanks.

This first level combines:

- Visual inspection of the tank external surfaces
- Ultrasonic Thickness (UT) measurements of the external surfaces
- Inspection of ancillary equipment, including pipework, vents, gauges and alarms

The objective is to establish a baseline condition assessment and identify potential areas of concern without interrupting normal tank operation.

Typically identifies:

- Surface corrosion
- Coating failure
- Equipment deterioration
- External metal loss

Tier 2: Targeted Assessment

Additional to Tier 1, a targeted inspection of known or suspected problem areas.

This level further enhances Tier 1 findings and focuses on locations commonly associated with accelerated deterioration, including:

- Lower shell sections
- Areas subject to increased external corrosion
- Accessible weld seams

Inspection techniques include:

- Detailed UT surveys
- Magnetic Particle Inspection (MPI) of welds

Typically identifies:

- Tank corrosion
- Localised thinning
- Weld cracking and defects

Tier 3: Full Internal Inspection

Tier 3 is the most comprehensive assessment available, encompassing Tiers 1 and 2, with the addition of the following inspection activities:

- Full internal visual inspection
- 100% MPI of internal welds
- Internal UT thickness testing
- Corrosion mapping

In order to carry out these inspections the tank must be:

- Taken out of service
- Cleaned internally
- Prepared for inspection
- Managed under confined-space procedures

This level provides a complete understanding of the tank's internal structural condition and potential remaining service life.

Additionally identifies:

- Internal pitting and corrosion
- Localised thinning
- Sub-surface defects within the welds
- Structural deterioration
- Weld cracking and defects

From Inspection to Asset Management

The true value of NDT lies not in a single inspection report, but in the ability to build a condition history over time.

Successive inspections provide evidence of:

- Corrosion progression rates and patterns
- Identification of any potential failure points
- Future maintenance requirements
- Remaining asset life

This data enables asset owners to make informed decisions rather than reactive ones.

Recommended Decision Path

Inspect Monitor Repair Replace

Inspect - Regular visual inspections

Monitor - Identify and track problem areas

Repair - Carry out remedial works to restore integrity

Replace - Structural condition no longer supports continued operation or economic repair

Specification Matters

Where replacement is necessary, specification is critical.

OTS manufactures fully enclosed bunded steel fuel tanks designed and constructed to BS 799-5:2010, the recognised industry standard for steel oil storage tanks. In addition, OTS are also certified to manufacture to OFTEC OFS T200, which verifies the integrity and performance of the complete bunded tank system, providing clients with enhanced confidence in compliance, quality and environmental protection.

NDT is more than a compliance exercise. It provides the evidence required to manage risk, extend asset life where appropriate, and make informed decisions on repair, refurbishment or replacement before failure becomes a business, environmental or safety issue. Better data. Better decisions. Safer assets.

For fuel tank NDT inspections or further information, contact OTS Group on 01386 853409 or visit otsgroup.co.uk.





Enerpac Launches LU-Series Lightweight Electric Torque Pump

Industrial tools and heavy lift systems specialist, Enerpac, announces the new LU-Series Electric Torque Pump specifically engineered for intermittent bolting applications. Lightweight and highly portable, the LU-Series is a compact alternative to the oversized, continuous-duty pumps traditionally used by maintenance and repair teams, without compromising on performance.

At just 15 kg empty, the Enerpac LU-Series is designed for safe handling and true portability. Its balanced lifting points and multiple carry points ensure that manoeuvring equipment across ladders, platforms, and tight spaces is simple and ergonomic. Critical components are fully protected, ensuring reliable operation in harsh field conditions where smaller, less robust pumps may fail.

"The Enerpac LU-Series provides a compact, right-sized solution that simplifies the workflow for field technicians and maintenance teams," said Angie Wallace, Global Product Manager, Enerpac. "Feedback from MRO technicians has included - lightweight and easy to transport thanks to the exposed frame design and multiple secure grip points - responsive and easier to operate remote control even with gloves on - a perfect combination of simplicity, size and weight."

Solving the Oversized Pump Burden in Intermittent Bolting

Intermittent bolting involves periodic or on-demand bolting in response to ongoing maintenance monitoring such as routine torque checks and servicing a limited number of bolts across multiple sites. Traditionally, technicians have had to transport heavy, continuous-duty industrial pumps for these quick, routine checks. The Enerpac LU-Series eliminates this logistical burden by delivering consistent, repeatable torque performance and the exact power required for standard maintenance, packaged in a significantly smaller, lighter footprint.

Designed for Real-World Bolting Maintenance

The introduction of the Enerpac LU-Series fills a critical gap in Enerpac's wider wind energy and industrial portfolio. While Enerpac's larger high-flow pumps remain the industry standard for heavy-duty, continuous installation operations, the LU-Series provides a dedicated, highly mobile solution for distributed, application-specific maintenance work.

The Enerpac LU-Series is fully optimised for the rapidly evolving wind energy sector, where technicians face intense pressure regarding mobility, tight maintenance windows, and challenging environments. Developed closely with operators, OEMs, and contractors, the pump's design directly addresses how crews interact with equipment in real-world conditions.

As maintenance and operation tasks grow larger and installations become more complex, Enerpac continues to support industry growth through practical, application-driven innovation that enhances safety, improves operator efficiency, and maximises uptime.

For more information on the Enerpac LU-Series lightweight electric torque pumps, visit www.enerpac.com.



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Making A Comeback : The Fulton Horizontal Boiler Returns

Driven by growing market interest, Fulton is reintroducing the FBS horizontal firetube steam boiler to meet increasing demand for high-output solutions in applications where space and headroom limit the use of vertical models such as the VSRT. Engineered for demanding process environments, the FBS range will be available in the UK with steam outputs up to six tonnes.

Commenting for Fulton, Sales & Marketing Manager Mat King says: "Fulton is reintroducing the popular FBS to the UK for customers who need high steam outputs but do not have the required height for their vertical boilers. The FBS is already renowned across global markets and in the UK and will deliver the performance expected from Fulton in an architecture that fits the space and keeps projects moving."

Powerful steam performance

The FBS delivers robust steam outputs that suit sites with sustained, high-demand duty cycles, including manufacturing, food and beverage processing and large-scale laundry and dry-cleaning operations. Across the eight-model range, typical steam outputs are between 960 kg/h and 6,260 kg/h, giving end users the flexibility to match boiler

selection precisely to the load profile. Fulton's three-pass design provides efficient combustion, utilising corrugated furnaces that enhance efficiency and structural integrity by increasing heat transfer surface area and providing flexibility to absorb thermal expansion achieving long-term reductions in fuel use and operating costs.

Horizontal design for low headroom sites

As a horizontal firetube boiler, the FBS fits plant rooms where ceiling height limits the installation of vertical steam boilers and without compromising steam output or steam quality. Its generous water content and steam volume promote stable operation and high-quality, dry steam, which is essential for consistent process results and productive plant performance. The fully water-backed turnaround and carefully engineered pressure vessel design also help to minimise thermal stress and extend boiler life in tough operating environments.

"Plant operators want reliable steam, predictable operating costs and the confidence that their boiler choice supports their emissions strategy," adds Mat. "The FBS gives them that confidence, combining a low NOx burner, high efficiency and Fulton's proven firetube design to create a boiler that works brilliantly today and is ready for tomorrow's demands."

Ready for regulations and multiple fuels

Fulton equips the FBS with a low NOx burner package that enables the boiler to meet current emissions expectations, including MCPD requirements, when specified appropriately for the site. Burner options can fire on gas, oil or dual-fuel giving plant operators valuable flexibility where fuel availability, security of supply or resilience strategies demand a secondary option. In addition, the boiler's high efficiency and modern burner technology support decarbonisation plans by helping operators cut both fuel consumption and associated emissions.

Durability and low total cost of ownership

The FBS features pressure vessel thicknesses that exceed relevant code minimums and tubes that are significantly thicker than many industry-standard designs, reinforcing its rugged, long-life construction. Fulton's hinged front and rear doors make fire-side access straightforward, while seal-welded tubes and a fully water-backed rear turnaround reduce the risk of leaks and maintenance-related downtime.

Where design criteria demand even higher efficiencies, the FBS can be provided with a flue gas economiser, with every boiler supplied with brackets and supports to minimise the impact of having one retro fitted. In addition, high-density insulation reduces jacket heat loss, supporting overall system efficiency and helping to drive down total cost of ownership over the boiler's lifetime.

Summarising, Mat King says: "From food and beverage to healthcare, textiles and manufacturing, engineers can specify FBS knowing that its horizontal layout, high steam outputs and fuel flexibility will help them design a practical, productive and future-focused boiler plant room."

www.fulton.co.uk



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How Leading CFB Operators Are Breaking the Cycle of Tube Leaks

Author: Al Geraskin, Integrated Global Services (IGS)

Circulating fluidized bed (CFB) boilers operate under highly erosive conditions. High-velocity bed material, abrasive ash, and increasingly diverse fuel mixes can rapidly reduce tube wall thickness if left unmanaged. For many operators, recurring tube repairs have become an accepted part of every outage, increasing maintenance scope and creating the risk of unexpected tube leaks, and unpredictable and extended turnarounds.

Increasingly, however, that assumption is being challenged. Experience across a growing number of CFB plants shows that understanding wear mechanisms, rather than repeatedly repairing their consequences, can significantly improve long-term reliability. Once forced outages are brought under control, maintenance can shift from reactive repairs to planned refurbishment, more predictable outage scopes, and longer operating cycles.

The following case study draws on more than 40 years of experience protecting CFB boilers across North America, Europe, Asia and the Middle East.

From 500 Tube Repairs per Turnaround, to Zero

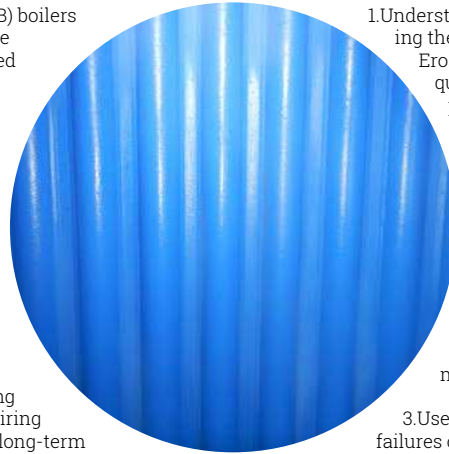
While the Texas plant demonstrates the long-term value of a proactive maintenance strategy, another North American CFB facility illustrates how quickly reliability can deteriorate when protection systems fail. The 300 MW units, firing a combination of coal and up to 20% biomass, had previously been protected using an off-the-shelf thermal spray system. Within a year, widespread coating failure had exposed the underlying tubes to severe erosion-corrosion, resulting in more than 500 tube repairs during a single outage. Inspection found that in many locations the coating had worn through completely, allowing deep gouging of the boiler tubes and creating a much larger mechanical repair scope than originally anticipated.

Rather than simply replacing the failed coating, the operator recognized that the problem needs a professional solution. IGS boiler reliability teams undertook non-destructive testing and mapped wear across the boiler. This information was used to prioritize mechanical repairs and develop an HVTs protection specification tailored to the wear characteristics of each boiler zone. Inspection and planned refurbishment were then incorporated into the long-term asset management plan, allowing protection to be monitored and renewed before significant tube loss occurred.

The results were immediate. Tube repairs fell from more than 500 during the rehabilitation outage to just five the following year, before reaching zero in subsequent outages. Equally important, the plant moved away from unpredictable emergency repairs towards a planned maintenance approach with a defined scope, enabling more accurate outage planning and reducing the risk of future forced outages. The benefits extended beyond reducing repair numbers. Once wear mechanisms are understood, protection is matched to local wear conditions, and refurbishment becomes part of a strategy, operators can begin extending inspection intervals and reducing outage frequency with greater confidence.

Lessons from the Field

Although the boilers described in these case studies differ in size, fuel type and operating conditions, they reveal a consistent approach to managing tube wastage. Rather than relying on recurring repairs, the operators focused on understanding the causes of degradation and using that information to build more predictable maintenance programs. Several practical lessons emerge.



1. Understand the degradation mechanism before selecting the repair.

Erosion, corrosion and erosion-corrosion each require different maintenance strategies. Effective programs begin with inspection data, thickness measurements, and an understanding of how operating conditions influence wear.

2. Match protection to the wear environment.

Degradation is rarely uniform throughout a boiler. The most successful approaches tailored protection to individual boiler zones, recognizing that areas such as refractory interfaces, cyclone inlets, and superheater banks experience different wear rates and mechanisms.

3. Use inspection data to plan refurbishment before failures occur.

Monitoring wear over time allows protective systems to be refurbished in a controlled manner, preventing significant tube thinning and reducing the likelihood of forced outages.

4. Place equal emphasis on application quality and quality assurance. Long-term performance depends not only on the protection system selected, but also on surface preparation, application procedures, inspection and ongoing verification that the specification has been achieved.

5. Treat maintenance as a reliability function rather than an outage activity.

Across each of the plants featured, the greatest improvements came when maintenance shifted from responding to tube failures towards managing wear over multiple operating cycles. The result was greater confidence in outage planning, fewer emergency repairs and improved operational continuity.

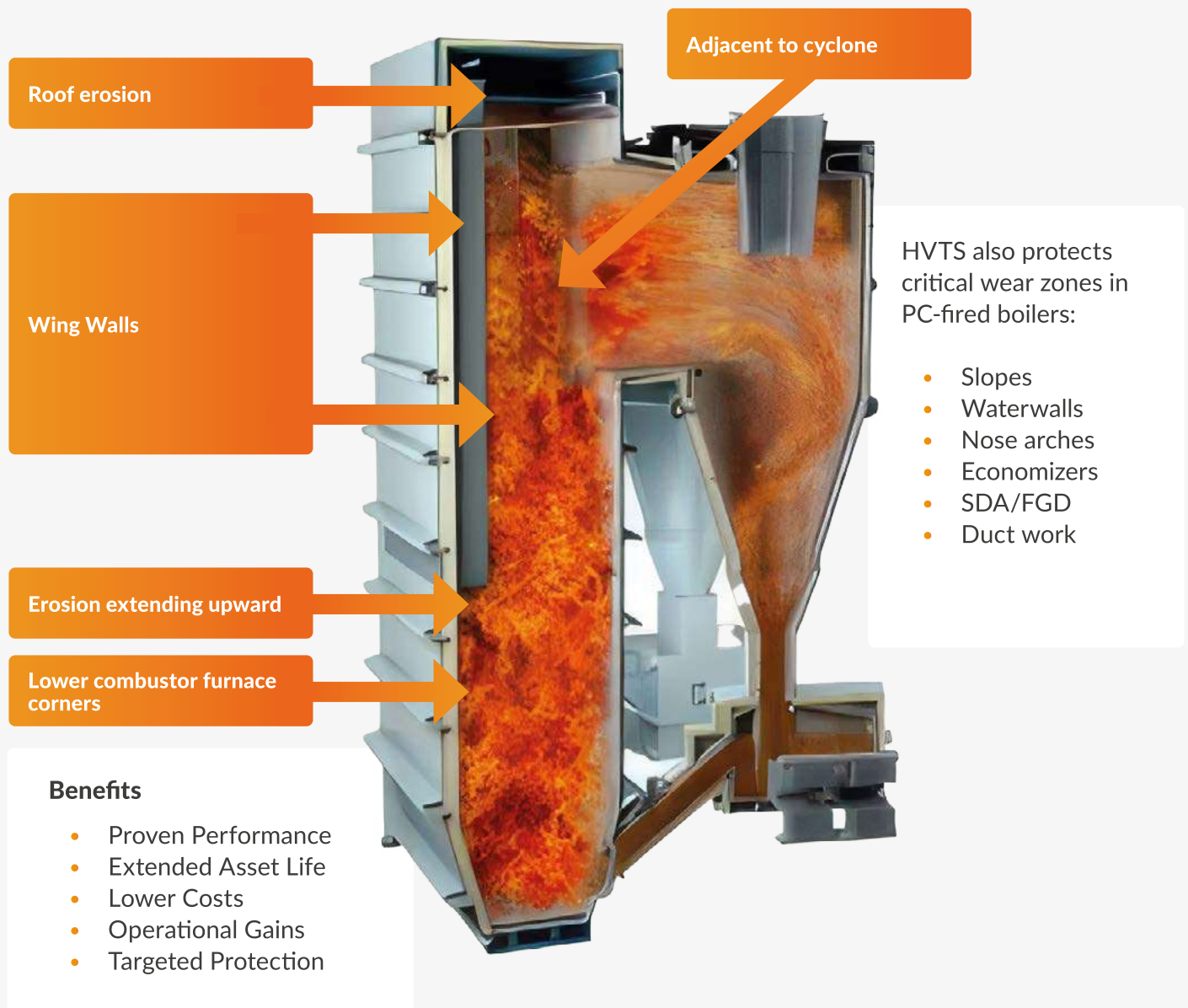
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Manufacturers Rethink Role Of Video Tech As Operational Pressures Grow

Research for first issue of 'In focus' series from Axis explores UK manufacturing challenges and why cost and quality pressures are driving demand for greater operational insight.

Axis Communications, a leader in network video, found in a survey of 600 UK manufacturing decision-makers in Q2 2026 that 39% say operational efficiency and productivity will be the greatest future value of security systems ahead of security and incident prevention at 33%. This reflects a growing demand for better visual intelligence to help control the industry's dominant pressure of rising costs, cited by 57%.

These are the findings of a new evidence-led series using independent research and expert analysis to examine how visual intelligence can support the digital transformation of key sectors. In focus: a spotlight on manufacturing by Axis explores how video data can help manufacturers add context to operations, close the visibility gap, and support smarter, safer and more efficient manufacturing.

Over one quarter of respondents said reducing cost would be the top priority to solve with better insight, and 45% see significant or some potential for network cameras beyond physical security. Yet while 96% use security technology for security and incident prevention, only 18% use it for operational efficiency and productivity currently.

The conclusions also point to a maturity gap. While visual intelligence can help teams find, understand and act on the causes of cost, including waste, rework, downtime, process variation, unsafe behaviours, manual inspections and delayed investigations, only 16% say security technology data is fully integrated into operational decision-making - 42% say it is used in some decisions and 27% say it is not used at all.

Key findings:

- Cost is the dominant pressure: 57% of UK manufacturers cite rising operational costs as a major operational challenge
- Insight is needed to control cost: 26% say reducing operational cost is the area where better operational insight could have the greatest immediate impact
- Visual data has clear operational potential: 45% see significant or some potential for network cameras or visual data to improve operations beyond physical security
- Security tech is still underused operationally: 96% use security

technology for security and incident prevention, but only 18% use it for operational efficiency and productivity

- Manufacturers expect a shift: 39% say operational efficiency and productivity will be the greatest future value of security systems over the next 3-5 yrs, ahead of security and incident prevention (33%)
- Integration for decision-making is limited: Only 16% say security-tech data is fully integrated into operational decision-making - 42% use the data in some decisions while 27% do not use it at all.

Gabriele Mangiafico, Business Development Manager EMEA, Axis Communications, says, "What is clear from the research is that for manufacturing to become truly smarter, it needs more context to better understand what is actually happening on the factory floor. The main challenges given by manufacturers are context-heavy problems, such as reducing waste, where visual intelligence can connect operational data to real-world events, helping teams investigate faster and act with greater confidence. This points to a strong shift. While security technology is still overwhelmingly viewed through a traditional protection lens, it will move from the control room into the operational core of manufacturing in the near future."

Health and safety is another area where visual intelligence can help manufacturers shift from forensic review to proactive prevention. While only 14% currently use security technology for health and safety improvement, 37% of Health and Safety respondents were unsure or have not considered the potential of visual data beyond security. Monitoring PPE use, verifying access rights to restricted or hazardous areas, detecting non-compliance and triggering visual or audible alerts are all strong use cases where network cameras can provide the real-time context needed to reduce risk before it becomes an incident.

Linn Storang, Regional Director, Northern & Eastern Europe, Axis Communications, commented, "The smart factory will not be built on data alone. Manufacturers also need context, and network camera technology can provide a vital layer of visual intelligence that many organisations have not yet fully explored. By connecting existing video data to operational decision-making, manufacturers can move beyond post-incident review and use visual insight to support productivity, quality, safety and resilience in real-time."

Explore more on Axis.com: 'In focus: a spotlight on manufacturing by Axis'

Watch Axis expert analysis on YouTube:

<https://youtu.be/pvZK6CnO1ro>

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Ellis Leads the Way with 57% Carbon Reduction and New **EPD** Milestone

Ellis has further strengthened its position as a sustainability leader in the cable management industry with the publication of a new Environmental Product Declaration (EPD) for its polymer cable cleat range and the release of its latest carbon footprint report showing a 57% reduction in Scope 1 and 2 emissions over the last eight years.

The EPD provides transparent lifecycle environmental data for Ellis's polymer cable cleats, enabling consultants, contractors, EPCs and end users to make more informed and sustainable specification decisions. The publication follows Ellis' industry-leading stainless steel cable cleat EPD and means the company now offers verified environmental data across both its main stainless steel and polymer cable cleat ranges.

Produced in accordance with EN 15804+A2, ISO 14025 and ISO 21930, the EPD assesses environmental impacts throughout the product lifecycle, from raw material extraction and manufacturing through to end-of-life disposal and recycling.

Alongside the new EPD, Ellis has published its latest Carbon Footprint Report, highlighting substantial progress towards its sustainability objectives.

The report shows that the company has reduced Scope 1 and 2 emissions by approximately 57% since its 2017/18 baseline year, driven by investments in renewable energy, electrification and continuous operational improvements. The latest figures also show solar power now contributes more than half of the company's energy requirements. Danny Macfarlane, Managing Director of Ellis, said:

"Sustainability is increasingly influencing decisions across the industries we serve, from data centres and renewable energy projects to power generation and critical infrastructure.

"Providing independently verified environmental data through EPDs gives customers the transparency they need to assess the environmental impact of their projects, while our latest carbon footprint report demonstrates that we are committed to reducing the environmental impact of our own operations as well.

"We believe environmental claims should be supported by robust evidence and measurable outcomes. These latest developments rein-

force our commitment to transparency, continuous improvement and supporting customers on their own sustainability journeys."

Environmental Product Declarations are often described as the environmental equivalent of nutritional labels. They provide objective data on a product's environmental performance and are increasingly being requested as part of project sustainability assessments, embodied carbon calculations and ESG reporting requirements.

As sustainability requirements continue to evolve across global infrastructure markets, Ellis remains committed to providing customers with both the products and the environmental data needed to support responsible project delivery.

The new Polymer Cable Cleat EPD and latest Carbon Footprint Report are available to download from the Ellis web site: <https://www.ellispatents.co.uk/sustainability>



Cooling Tower Cleaning and Preventive Maintenance

In an ideal world, a cooling tower would reliably deliver its design fluid temperature and flow rate relative to the prevailing ambient conditions indefinitely. In reality, cooling towers act as natural air scrubbers, removing impurities from the incoming air. Over time, these impurities can accumulate on the heat exchange media. At the same time, water evaporation concentrates dissolved solids, which can lead to scale deposition.

Water flow, airflow and heat exchange surface are the essential ingredients of cooling tower thermal performance. However, these three critical subsystems do not make up the entire cooling tower system.

Managing Airflow

Airflow is generated by fans driven by motors that are either directly connected to the fan or operate through gearboxes or belt drives. Maintenance of the air-moving equipment should focus on the condition and performance of the fans themselves. Where fan blades are adjustable, blade angles should be checked and correctly set to achieve the required airflow. Gearboxes and belt drives should also be inspected to ensure they are operating correctly, with bearings and gearboxes adequately lubricated in accordance with the manufacturer's requirements.

Regular inspection is essential to identify issues such as worn belts, damaged fan blades, excessive vibration, bearing deterioration or gearbox problems before they affect performance or lead to unplanned downtime.

Heat Exchange Media

The heat exchange media, or fill, should be selected to provide the optimum balance between heat transfer performance and resistance to fouling.

Maintenance should begin with checking the cleanliness and condition of the heat exchange surfaces, while also confirming that the correct type of fill is being used and that it has been installed correctly. Incorrect fill selection or poor installation can cause the packs to become blocked rapidly, increasing pressure drop and restricting airflow. Poorly fitted fill packs can also allow air to bypass the water through gaps within the pack. This reduces thermal performance and can increase drift rates.

Cleaning and inspection should therefore form a key part of any preventive maintenance programme, particularly where the cooling tower operates in an environment with high levels of airborne contamination or where water quality presents a significant scaling or fouling risk.

Managing Water Flow

The water distribution system is also essential to efficient cooling tower operation. Heat exchange surfaces can only perform effectively



when they receive a consistent and evenly distributed flow of water. Blocked, damaged or incorrectly positioned nozzles can cause an imbalance in water distribution, resulting in variations in wetting rates or even dry areas within the fill. These dry spots reduce the effectiveness of the available heat exchange surface and can significantly affect overall thermal performance.

Regular inspection and cleaning of distribution pipes, headers and nozzles should therefore be incorporated into the maintenance programme. Any damaged or blocked components should be repaired or replaced promptly to maintain uniform water distribution across the fill.

Beyond Cleaning

While water flow, airflow and heat exchange surface are the essential ingredients of cooling tower thermal performance, the wider system also requires regular inspection and maintenance.

Other important components include:

- Drift eliminators, which minimise the quantity of water droplets carried out of the cooling tower with the exhaust air.
- Air inlet screens and honeycomb panels, which help prevent direct sunlight from entering the tower and reduce the ingress of airborne contamination.
- Access and safety systems, which provide safe access for inspection, cleaning and ongoing maintenance.
- The tower structure and general fabric, which should be inspected to identify corrosion, deterioration, damage and other issues that could affect the integrity or performance of the system.

A Comprehensive Approach to Preventive Maintenance

A comprehensive cooling tower maintenance programme must go beyond cleanliness. Regular inspection, cleaning, servicing and replacement of components not only support safe operation but also help maintain thermal performance and minimise operating costs. Cooling towers are ultimately maintainable systems made up of a series of interconnected subsystems. Many of these components can be inspected, serviced, repaired or replaced relatively easily and cost-effectively when problems are identified early.

By maintaining airflow, water distribution, heat exchange surfaces and the supporting systems in good condition, cooling towers can continue to operate safely and efficiently for many years.

Preventive maintenance is therefore not simply about keeping a cooling tower clean; it is about maintaining the performance, reliability, safety and longevity of the complete system.

<http://www.dhdcolling.co.uk/>



Atexxo Introduces ATEX / IECEx Certified Samsung **Galaxy Tab Active5 (Pro) Series**

Digitalisation is rapidly transforming hazardous industries. From maintenance and inspection to asset management and remote collaboration, field workers increasingly depend on mobile technology. Atexxo Manufacturing now brings Samsung's latest rugged tablet technology into explosive atmospheres with ATEX-certified versions of the Samsung Galaxy Tab Active5 and Galaxy Tab Active5 Pro.

The compact Samsung Galaxy Tab Active5 ATEX is designed for use in gas Zone 1 and dust Zone 21 environments. Atexxo converts the original Samsung tablet using a modified aluminium enclosure and protected electrical circuitry, while retaining the functionality required by modern field workers. The device is certified as II 2G Ex db IIC T6 Gb and II 2D Ex tb IIIC T85°C Db under ATEX, with corresponding IECEx certification.

Its 8-inch, 120Hz display offers excellent visibility, while 5G, Wi-Fi 6, Bluetooth, Samsung Knox and physical SIM or eSIM connectivity support connected-worker applications. The tablet is available in Wi-Fi and Wi-Fi-plus-5G configurations, with 128GB or 256GB storage options.

For applications requiring a larger workspace, Atexxo offers the Samsung Galaxy Tab Active5 Pro ATEX for gas Zone 2 and dust Zone 22. Its 10.1-inch display provides additional space for technical drawings, digital work instructions, inspection forms and industrial software. The Atexxo version carries the markings II 3G Ex ec ic IIC T4 Gc and II 3D Ex tc IIIB T85°C Dc.

The Tab Active5 Pro combines 5G connectivity with a powerful processor, Samsung Knox security, glove-compatible operation and reinforced tether points. The original Samsung platform also offers a 120Hz display, up to 600-nit brightness and expandable storage, making it suitable for demanding industrial workflows.



Together, the two tablets provide organisations with a choice between a highly portable Zone 1/21 solution and a larger Zone 2/22 productivity platform. Applications include petrochemical facilities, offshore installations, hazardous-goods storage, maintenance, digital inspections, connected-worker systems and safe industrial photography. With these new products, Atexxo enables companies to introduce modern Samsung mobile technology into hazardous locations without compromising explosion safety.

For more information, visit www.atexxo.com





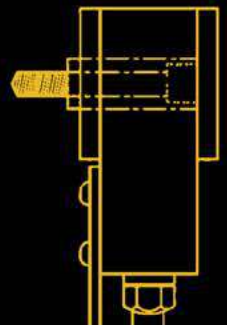
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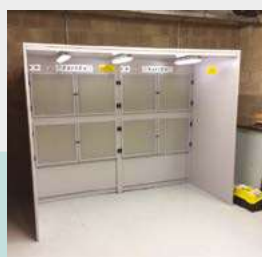
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