

The International Magazine For Hazardous Area Professionals

HAZARDOUS Engineering Solutions

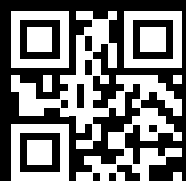
May/June 2024 - Issue 75

www.hazeng.com

Explosion Prevention In New Spheres

CO.Pilot

Explosion
Prevention
in New
Spheres



Safety is for life.™

Also in this edition: • ATEX • PPE • Handling equipment • Hazardous cable Glands • Slips trips and falls • Fire Safety • Gas detection • Explosion protection • Test & Measurement • Chemical Safety • Metering & Monitoring + More...

HAZENG
Hazardous Engineering Solutions



Safety is for life.™

**Sustainable
Explosion
Safety
starts with
trust.**

Reliable. German.
Safety. ●●●●



rembe.com



REMBE® GmbH Safety+Control
Gallbergweg 21 | 59929 Brilon, Germany
T +49 2961 7405-0
hello@rembe.com

Features

- *ATEX*
- *PPE*
- *Handling Equipment*
- *Hazardous cable Glands*
- *Slips trips and falls*
- *Fire Safety*
- *Gas detection*
- *Explosion Protection*
- *Test & Measurement*
- *Chemical Safety*
- *Metering & Monitoring*

Publisher

Michael Dominguez
editorial@engineeringmaintenance.info

Contributing Editor

Sean Clarke
info@exveritas.com

Advertising

Steve Pheasant
stevep@engineeringmaintenance.info

Website

www.hazeng.com

Telephone

+44(0)207 193 1396

MSL Media Ltd
New Stone Hill Farm,
Stone Hill Road,
Ashford,
Kent,
TN27 9DU
www.mslmedialtd.com

Company Number
05359182

Incorporated
09-02-2005



Explosion Prevention In New Spheres - *Inside The Cockpit Of The Co.pilot*

The topic of “explosion safety” is widespread for plant operators and OEM’s when it comes to handling or transporting combustible dusts. Despite the common assumption that an increased risk of explosion only exists for gases, enormous forces can also be released by explosive dust- / air mixtures.

If any one of the afore mentioned prerequisites is eliminated, explosion prevention has intrinsically been practiced. However, if this is not possible at all times and in all operating states, explosion hazards will still be present. In that case, it is necessary to divide any potentially explosive atmospheres into zones and systematically apply safety measures.

Drying processes in particular are used in many industries to produce material, for easier storage, more efficient transport and a longer shelf life. However, the combination of moisture extraction and high temperatures creates an increased risk of both fire and explosions.

To help minimize the risk of explosions when handling combustible dusts, it is important to understand the requirements for an explosion and the respective dust safety characteristics, which are described below. The following picture shows the explosion pentagon which must be taken into account.

The following conditions must exist for an explosion to occur within a production facility or machine:

If fires and/or explosions occur in drying plants, which are usually very large, the situation is not only extremely dangerous for the machines and the business, but especially for the employees on site.

Operators of spray dryers must combat a particular type of ignition source – namely smouldering nests that can lead to spontaneous combustion if the material undergoes excessive caking. Caking occurs due to sub-optimal drying of the material and its initially high moisture content.

The caked material is then insulated against the surrounding air by a build-up of moist material. The high temperatures ensure that the caked material is continuously heated until a biological reaction takes place involving protein, carbohydrates and water – known as the Maillard reaction. The Maillard reaction generates additional heat that cannot be dissipated due to the insulating layer of caked material. This exothermic process continues to accelerate until spontaneous combustion finally occurs.

Caking of this kind can build up both on the nozzles and the inner wall of the spray dryers. If the nozzle malfunctions, droplets may drip into the fluid bed and cause further clumping. If a smouldering nest is able to form, this can ignite the explosive atmosphere inside the dryer or the downstream machinery.

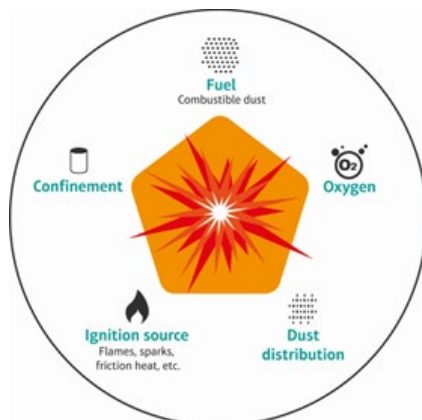


Fig. 1: Explosion pentagon

How can such conditions, which are frequently encountered in practice, be prevented?

Everything starts with the human factor, i.e. properly trained personnel for the respective processes. Optimal process control is also required to avoid caking. But without precise and reliable information/measurements, this is virtually impossible, even for specialists. Nowadays, humidity and one of the by-products of spontaneous combustion at early stages – carbon monoxide (CO) – are used as indicators to ensure a smooth and thus safe process. However, the fact that combined measurement systems cannot clearly distinguish between these two indicators is problematic and can result in inaccurate measurements.

The REMBE CO.Pilot – Synergistic CO and Humidity Measurement

The REMBE CO.Pilot autonomously performs continuous comparison of measured gas data with a synchronized database of stored reference gases that serve as “fingerprints” of the selected process and combustion gases. This allows the possibility to perform a real-time check to continuously verify the measurement accuracy as a self-calibration. At the same time, the real-time fingerprint analysis eliminates the cross-sensitivity to other gases in the measurement spectrum which is problematic with other commercial gas analysers.

To ensure a reliable measurement of the operating status, samples are sucked in from all of the dryer's relevant supply and exhaust air ducts under very high vacuum. REMBE calculates the delta CO value on the basis of the absolute values measured at the individual measuring points. This value is the mathematical difference between the CO content of the extract air and the CO content of the supply air. Thus, only events that actually occur in the respective process are detected. External factors that may disturb the measurement process can thus be ignored.

A proprietary evaluation algorithm, the REMBE Flow Algorithm, (RFA), enables the measured supply and exhaust gas stream values to be compared in real time. As a result, the REMBE CO.Pilot is the first system on the market that makes it possible to adjust the individual alarm limits and gas residence times for the individual measuring points in the dryer's various air throughputs without any delays.

The ratios of the different supply air channels and the associated predicted process gas streams are analysed via the software and calculated to determine an upset condition in the incipient stage.

Thus, if an increased carbon monoxide concentration is detected due to spontaneous combustion during the process, countermeasures can be initiated immediately.

But what does this mean in detail?

This special sampling process eliminates the need for costly and error-prone gas treatment, thus ensuring that the CO.Pilot is less susceptible to faults and requires less maintenance. Furthermore, this measurement method can make recurring calibrations unnecessary. Due to the precise measurement technology and the reproducible results, false alarms and downtimes can also be avoided. In combination with moisture measurements, the entire drying process can be optimally controlled, significantly increasing the energy efficiency of the system.

Fig. 2: REMBE CO.Pilot



Contact REMBE® Inc. at

info@rembe.us / www.rembe.us



Hart's Airports Mapped Out

Hart's map of its international airports' contracts has been upgraded to include its most recent one at Aruba, the island nation in the southern Caribbean Sea just north of the coast of Venezuela.

"It is an impressive display of our global reach," says Doug Hart, chairman and founder of Hart Door Systems. "And it underlines the value of our broad range of industrial doors enabling us to deliver solutions through our Speedor range of highspeed doors and our specialist shutters which includes our Conveyor door which is designed to integrate with third-party baggage handling systems."

Mr Hart adds: "I think it is a fair comment to say that 24 hours a day somewhere in the World there is a Hart door in operation at an international airport. As the map shows we range from the Falklands in the south, to Vladivostok in the east, Bergen to the north, Aruba in the west and a lot between."

"This is a tremendous accolade for the entire team at Hart. Our product specialism for airports is second to none and comes from our policy to drive airport door systems development and product testing that ensures the systems produced by Hart are reliable and work as specified."

"Airport doors play a huge role in the safety and security within airports, and specialist door systems play an integral part in controlling key areas. Our doors aid the management of security and fire risks by securing zones from the public or intruders and by providing a physical barrier from attack or reducing fire spread."

"The Hart Speedor Conveyor door is designed to integrate with third-party baggage handling systems. It is supplied as a built unit with easy 'plug and play' installation. Hart has the airport experience to deliver the required solutions in exceptionally busy environments."

"For automated security and fire separation, individually or collectively, Hart developed operating systems to be able to consider integration of doors into the building security and management systems along

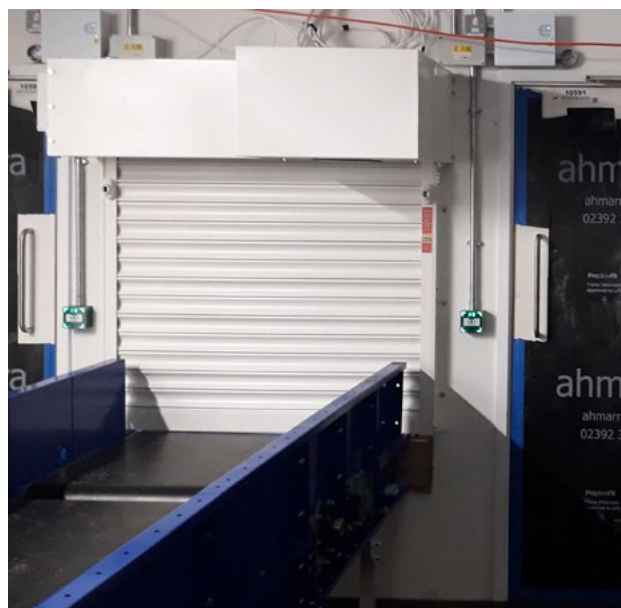
with standards compliance.

"For high wind resistance Typhoon roller shutters resist wind up to 3000 pascals and high security to BRE standards SR4 Terror Screen is your answer."

"Using these systems allows zones to be secured from intruders, delivering attack, threat and fire/smoke-spread prevention as well as safety for the public. We are even contributing to an airport's environmental strategy through the doors' energy saving qualities."

"All in all our considerable investment in product development that conform with relevant standards across the Globe has been very worthwhile not just for us but for our many clients."

www.hartdoors.com



Danfoss Power Solutions Names Domenico Traverso President Of Fluid Conveyance Division

Danfoss Power Solutions has appointed Domenico Traverso as the president of its Fluid Conveyance division, effective June 1. In addition to his new role, Traverso will continue to serve as president, Incubation division, and lead the Business Development and Innovation function. Traverso reports directly to Eric Alström, president of Danfoss Power Solutions, and plays a key role on the Power Solutions Leadership Team. He is based at the company's offices in Hamburg, Germany.

Traverso will take on overall responsibilities for Fluid Conveyance, leading its four business units – Rubber Hydraulic Hose and Fittings; Connectors; Fuel, Air Conditioning, Thermoplastic, and Specialty; and Private Label and SEL Hose – and all functional areas, including sales; engineering; strategy and business development; finance; human resources; procurement; and safety, environment, health, and quality. Traverso brings a proven track record in scaling innovation and internationalization to his new role, plus demonstrated success in effectively driving growth and profitability.

"My focus will be on optimizing our Fluid Conveyance business in its current markets and positioning it for growth in emerging and rapidly expanding market sectors," Traverso said. "Ensuring seamless operational performance is my top priority, as it directly impacts our customer experience through improved lead times, on-time delivery, and exceptional quality. Superior performance will also drive our growth and expansion efforts. There are significant needs and incredible potential for fluid conveyance systems in data centers and electric vehicles, and Danfoss is ready to deliver with the right components and deep application know-how."

"Domenico is a long-time trusted member of the Power Solutions Leadership Team, and we all value his entrepreneurial mindset, leadership experience, and positive energy," Alström added. "His unique perspective and skillset will make a difference as our Fluid Conveyance division adds new markets to its leading positions in mobile and industrial machinery."

Traverso joined Danfoss in 2010 as vice president at Sauer-Danfoss, where he led a portfolio of four independent businesses. In 2014, he was appointed president, Work Function division, a role he held until being named president, Editron and Incubation divisions, in 2021.

Prior to Danfoss, Traverso held a variety of management roles at GKN Automotive. He has more than 20 years of experience, specializing in turnarounds, mergers and acquisitions, carve-outs, and post-merger integrations.

Traverso holds certificates in executive management, finance, and business from the London Business School; International Institute for Management Development; University of California, Berkeley, Haas School of Business; MIT Sloan School of Management; and UCLA Anderson School of Management.



Mechanical Integrity Practitioner Certificate

Immediate benefits for efficient, safe primary containment

From day one, Learners on the EEMUA MIPC® training build a unique workbook of mechanical integrity know how tailored to each Learner, site and company.

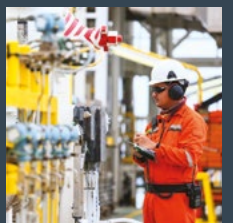
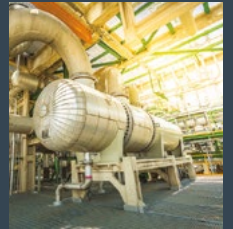
EEMUA's MIPC course helps practitioner-level engineers to be where they are needed – **on-site** and **on top of** the latest industry developments and good practice in **primary containment of hazardous substances**, including for pressure systems.

Flexible, in-depth training for engineers **on-site / on-call**, EEMUA's Mechanical Integrity Practitioner Certificate courses combine: **live online** classes; **I-I** sessions with expert Tutors; **on-demand e-learning**; and more – all enhanced by **Mentor support and guidance** throughout.

Covers: Inspection and Test Techniques; Asset Condition; Equipment Design Elements; Legislative Environment; Reporting; Risk and ALARP; Audit; User Responsibilities and Competencies; Postponement; Feedback; WSE; and more.

Adapts to engineering needs of each individual Learner, their company, and their site/s – **via a 2-hour Induction...**

Next MIPC course:
Induction to fit work diaries from September 2024.
Learning starts October 2024.
Registration open now.



For details please contact EEMUA
online-learning@eemua.org
+44 (0)20 7488 0801
www.eemua.org



Pepperl+Fuchs Supplements the Tab-Ex® Family of Hazardous Area Tablets with the Tab-Ex® 04 Pro DZ2 and D2

Pepperl+Fuchs, a pioneer in hazardous area mobile devices, announces the expansion of its groundbreaking Tab-Ex® tablet series~ with the Tab-Ex 04 Pro DZ2 / D2. Based on the rugged Samsung Galaxy TabActive4 Pro, the tablet features a brighter, 480 nit 10" touch screen paired with the latest hardware and connectivity options. Combining high performance with innovative applications such as augmented reality, the new device also provides users with a unique desktop-like experience outside of the field, thanks to DeX Mode.

The Tab-Ex 04 Pro DZ2 / D2 is ideally suited for IIoT-capable applications and simplifies data exchange with SCADA / DCS systems, enterprise resource planning systems, project management systems, and computer-aided system planning. Even with its large 10" screen, the new tablet is compact, lightweight, and ideal for a wide range of tasks such as inventory, material tracking, maintenance, and supply chain and asset management. In addition, documents and templates can be viewed on the tablet's 10-inch display, increasing process efficiency.

More Computing Power for Complex Applications

The Tab-Ex 04 Pro DZ2 / D2 runs on a high-performance Android 13 operating system, featuring a powerful Qualcomm SM7325-2-AB Octa-Core 4x 2.4 GHz + 4x 1.8 GHz processor with up to 6GB of RAM, depending on the model. This improved hardware is capable of sup-

porting complex augmented reality applications. The software delivers all the underlying, existing data directly to the user in real time, while also making it shareable on the company network. Augmented reality provides more transparency and helps make processes safer and faster—from planning to operation and maintenance.

The Tab-Ex 04 Pro DZ2 / D2 also boasts 5G and Wi-Fi 6E connectivity for increased data connectivity speeds, ensuring seamless access to all information. It also features high-speed access to detailed master and repair data and other operational data, as well as connectivity that enables employees, experts, teams, and project groups to collaborate quickly and in real time.

Tablet as a Desktop Alternative

With Samsung DeX Mode, users can connect to workstations or larger monitors and work on the go with one easily portable device. Everyday projects and activities in the field can be brought to life on the big screen by connecting the Tab-Ex 04 Pro DZ2 / D2 to a monitor using a multiport connector and turning the tablet into a desktop PC. This allows videos, graphics, documents and classic Office applications to be viewed more closely on a larger screen.

From the office to the shop floor, tasks such as retrieving equipment data, checking inventory, resource planning, and schematics can be done seamlessly anywhere. Additionally, costs can be reduced signif-

icantly, since there is no more need for office computers, effectively eliminating their management and support.

Rugged Connectivity Opens up New Opportunities

Whether in the oil and gas industry, refineries, chemical plants, the pharmaceutical industry, or along the hydrogen value chain – there are virtually no limits on the uses for industrial tablets. The Tab-Ex 04 Pro DZ2 / D2 is dust and water resistant due to degree of protection (IP68) and meets the MIL-STD-810H standard, which means it is shock and vibration resistant. In addition, the tablet carries NEC/CEC Class I, Div. 2 certifications and FCC/IC compliance test approvals. It is also tested and compatible with the networks of manifold mobile service providers.

Strong Partners for Any Task

With Pepperl+Fuchs as an umbrella brand, customers benefit from a complete portfolio of hazardous area equipment. After all, Pepperl+Fuchs with its subsidiary ECOM Instruments has pioneered the world's first intrinsically safe GSM mobile phone 30 years ago, as well as the world's first intrinsically safe PDA 25 years ago. Mobile devices, HMI solutions, a variety of process related equipment, and sensors fit to-

gether perfectly for a wide range of offerings for your automation and digitalization needs. In addition, the Tab-Ex 04 Pro DZ2 / D2 is part of the Pepperl+Fuchs interlinked, hazardous area mobile worker concept, which includes smartphones, tablets, peripherals, and software applications. Mobile users can integrate additional Tab-Ex solution packages from a single source, such as Pepperl+Fuchs data capture, measurement and monitoring devices, headsets, AutoID, and Bluetooth beacons for tracking.

Designed in cooperation with Samsung, the Tab-Ex 04 Pro DZ2 / D2 offers a long product life cycle, state-of-the-art technology, reliability (TCO), and security thanks to Samsung Knox.

Additionally, in 2023 Pepperl+Fuchs confirmed its consultancy and support services by achieving Silver Partner status in the Android Enterprise Partner Program. Customers can be assured that not only Pepperl+Fuchs devices have achieved the Android Enterprise Recommended certification, but also that the consulting staff has been trained and certified accordingly. This means that Pepperl+Fuchs meets the highest requirements Google has set for use in the industrial sector and enterprise environments.

<https://www.pepperl-fuchs.com>





Pinpoint Precision - New Enerpac Portable Btw-Series Battery Torque Wrench

Industrial tools specialist, Enerpac, announces its most precise and fastest set-up battery-powered, torque wrench so far. The new BTW-Series Battery Torque Wrench allows operators to quickly move between bolting jobs, while achieving pinpoint torquing precision, thanks the most comprehensive pre-programming and calibration process of any battery torque wrench in the world, the company claims.

Weighing from just 4.7 kgs including reaction arm and battery, the BTW-Series is equipped with an integrated digital motor vectoring system delivering accurate and repeatable torque up to 8130 Nm. Available for $\frac{3}{4}$ " - 1 $\frac{1}{2}$ " square drive sizes, the BTW-Series Torque Wrench can be used for most bolting scenarios, providing a versatile solution, no matter the industry.

Compared with conventional bolting operations that demand multiple operators, along with air or electric-powered hydraulic pumps, hoses, and torque wrenches, the BTW-Series requires just a single operator. Ease of use and compact, handheld, battery-powered design makes it ideal for difficult to reach applications or where physical space is limited. By streamlining bolting workflow, the BTW-Series has the potential to double the productivity of two-man bolting teams.

Portable, compact, pinpoint precision

To achieve pinpoint torquing precision, Enerpac puts every BTW-Series Torque Wrench through a 60 point calibration process - far beyond the standard 7 points of competing products. As a result, BTW-Series Torque Wrenches achieve a +/- 5% accuracy across their entire operational range. Using the tool's intuitive LCD display, the required torque in Nm or ft.lbs is set at the touch of a button.

The BTW-Series is supplied as standard with two Enerpac 18v 5.5 Ah Lithium-ion batteries and a 60-minute fast-charger, enabling high-efficiency brushless motor bolting applications, even in remote or hard-to-reach areas. For added flexibility, the BTW-Series Torque Wrench will work with any compatible Cordless Alliance System (CAS) battery.

The BTW-Series also features an anti-slip pistol grip and a trigger for sturdy control and operator comfort. As well as a low maintenance brushless motor that run cooler and maximises productivity, the torque wrench uses a patented planetary gear with optimum tooth design for smooth and consistent torque. The BTW-Series is also constructed with a hardened alloy steel to withstand the elevated levels of torque. A robust reaction arm provides a strong reaction point when torquing.

"Enerpac's new BTW-Series raises the bar for precision and simplicity with battery powered torque wrenches," says Jon Bice, Bolting Product Specialist – Americas, Enerpac.

"We've listened to the market feedback and designed our new battery torque wrench to be safe, straight-forward and easy-to-use, while providing advanced precision of set-torque accuracy to +/- 5%."

For more information on the Enerpac BTW-Series Torque Wrench, visit www.enerpac.com.



Largest Benco Side-Mounting Turnover Engine Stand Supplied To Voith Turbo

Brixworth Engineering, manufacturer of the globally renowned Benco engine stands, has produced its largest-ever side-mounting turnover stand. Supplied to the Croydon facility of leading power transmission specialist Voith Turbo, the Benco 1050 (an upgrade to Brixworth's standard Benco 1000 engine stand) is helping this progressive plant to inspect and service a variety of engines and transmissions.

With a load capacity of 5000 kg (at 500 mm from the mounting spindle) and a turning capacity of 10,000 Nm, the Benco 1050 supplied to Voith Turbo facilitates the manipulation of complete engines for inspection, repair or modification. Moreover, it is a mobile version featuring a motor drive to deliver rotational speed up to 4 rpm, although customers can opt for floor mounting and manual operation if preferable.

Control of the Benco 1050 at Voith Turbo is via a fixed pushbutton station, with pendant control available as an option. As a further point of note, Brixworth designed and manufactured additional mounting arms to minimise deflection throughout the loading and rotation process.

Rugged, cost-effective Benco engine stands are ideal for undertaking a whole host of new-build, repair and refurbishment operations quickly and easily. With these popular engine stands, users can rotate or hori-

zontally and vertically manipulate engines with ease to minimise the dangers of personal injuries associated with the manual handling of heavy loads. An adjustable column facilitates working at a convenient height while maintaining access to all aspects of the operation.

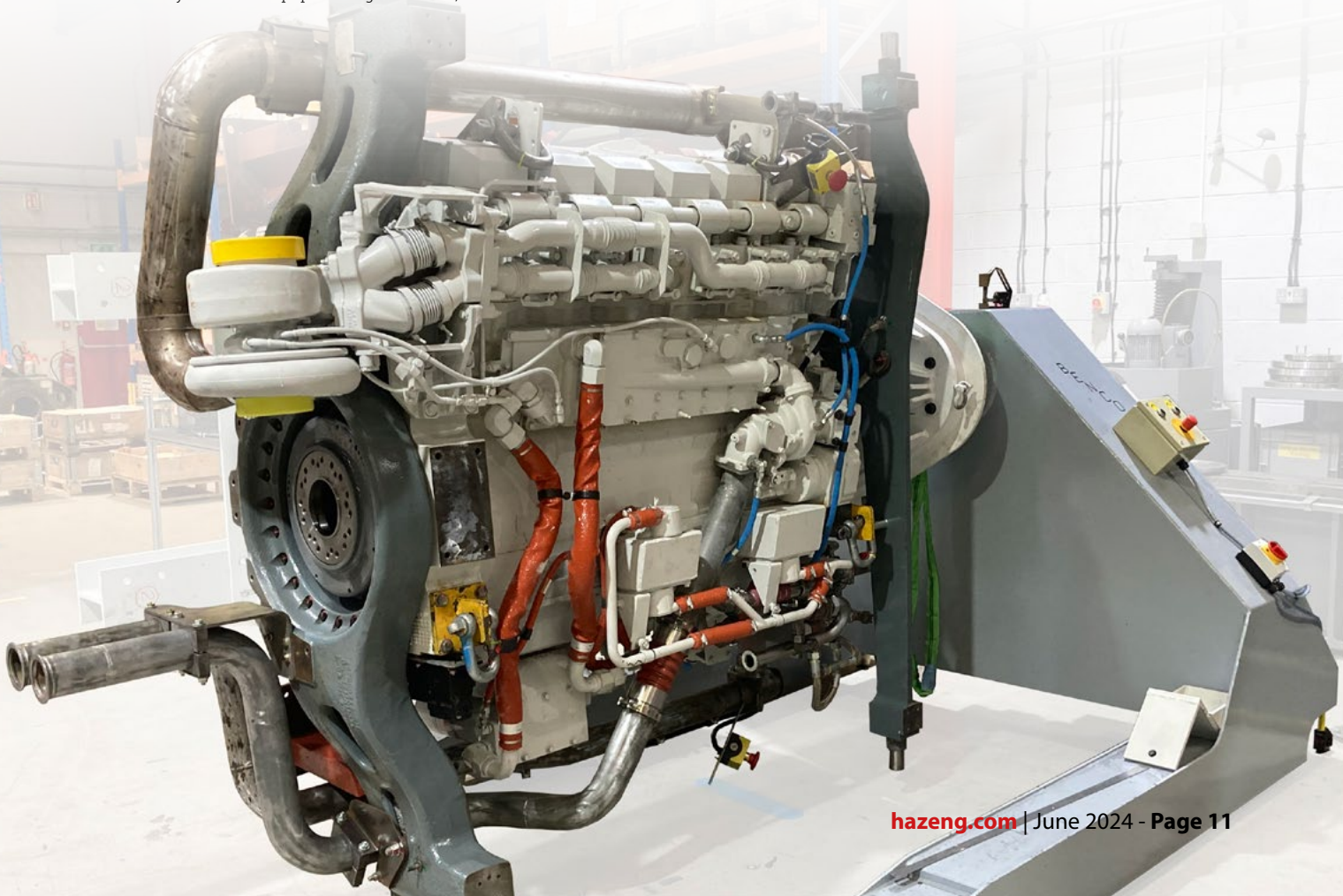
Although a comprehensive range of standard models is available, Brixworth has considerable experience in the design and manufacture of bespoke engine stands to suit individual customer requirements. The company can undertake site surveys and provide engineers to evaluate any special demands, ensuring the supply of a safe, effective and cost-competitive solution.

Developed over many years, Benco engine stands today enjoy a world-wide reputation for simplicity and reliability in the rotational handling of heavy, out-of-balance loads with the added benefit of near backlash-free movement. The stands, more than 5000 of which have been produced for use in over 20 countries, can reduce man hours by up to 50% through the elimination of non-productive handling procedures. They fully comply with all current working practices and safety regulations, and come with an extensive guarantee for complete peace-of-mind.

Telephone: 01604 880338

e-mail: sales@benco.co.uk

www.benco.co.uk



Doors Ready for Action



British manufacture and third party certified, options for security, fire, wind resistance and automated high speed.

**One stop door shop for new installation
and/or repairs and maintenance.**

speedor[®] firebrand Terror Screen

Globally recognised Hart's high speed doors and shutters deliver options and solutions for industry wherever you are.

**Take control of your
business environment.
Call 0191 214 0404
info@hartdoors.com**





Hydrogen And Fuel Cell Specialist Joins Hydrogen Safe To Support Business Growth

Hydrogen Safe, the hydrogen safety training specialist that acts as a conduit between industry and education, has announced the appointment of Amer Gaffar as Strategic Advisor as the company continues to expand.

As Director of Manchester Fuel Cell Innovation Centre at Manchester Metropolitan University, Amer will bring with him a wealth of expertise and industry leading knowledge to the business.

As an authority on hydrogen fuel cells, he will be responsible for writing strategy papers, thought leadership articles, and providing insight to be used in developing new partnerships and programmes, while also delivering lectures and CPD sessions for the company.

Amer comments: "Hydrogen Safe is a progressive business with big ambitions and that really appealed to me. I've worked in the green energy sector for over two decades now, so it made sense for me to extend my remit and use the knowledge and insight I have developed in this new role.

"There is certainly a lot going on at the company and I'm very pleased to have joined at such an exciting time. I look forward to meeting with

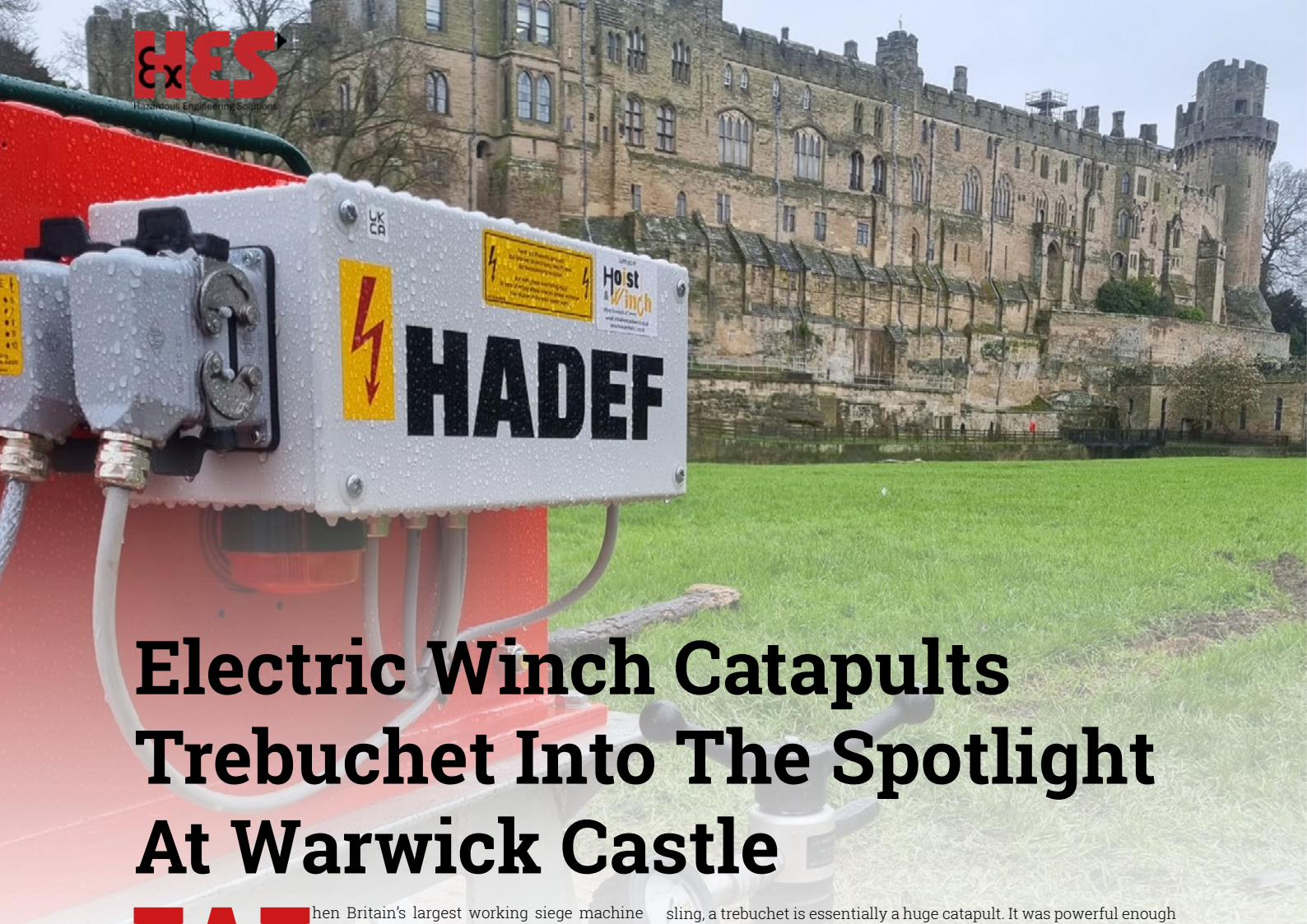
education providers and businesses that want to put the infrastructure in place to work confidently and safely with hydrogen as we transition to more sustainable ways of working."

CEO and Founder of Hydrogen Safe, Andy Lord, comments: "Amer is a wonderful addition to our team. His appointment reinforces our commitment to attracting industry leading expertise to the company. We know that we can continue to expand the business and become the trusted partner that our clients need us to be.

"We are very much looking forward to shaping our proposition as we set our sights on becoming the UK's leading training provider in hydrogen safety."

Members of Hydrogen UK; the Hydrogen Energy Association; the Hydrogen Skills Alliance; and NPTC Group of Colleges, Net Zero Skills Advisory Board, as well as being a corporate partner of the Greater Manchester Mayors Charity, Hydrogen Safe works with businesses, education providers and individuals to deliver courses that meet with their specific objectives and sustainability goals.

For more information, please visit: www.hydrogensafe.org and for regular updates follow: @Hydrogen Safe on LinkedIn.



Electric Winch Catapults Trebuchet Into The Spotlight At Warwick Castle

When Britain's largest working siege machine returned to Warwick Castle recently to form the centrepiece of a new and daring action-packed show - The Legend of the Trebuchet - the castle needed a way to provide the correct tensioning for this monster of ancient and medieval warfare. Hearing the call to arms, Hoist & Winch duly supplied a class-leading Hadeef electric winch offering 1500 Kg pulling force (safe working load) with supporting frame and foundations.

The trebuchet at Warwick Castle is an authentic recreation of one of the biggest and most deadly military machines of all time. Utilising a long rotating arm and the principles of leverage to launch projectiles from a

sling, a trebuchet is essentially a huge catapult. It was powerful enough to hurl huge rocks that could breach castle walls. Sometimes it would even launch manure and dead animals into besieged castles to spread disease. It remained a common warfare weapon until the 15th century, when gunpowder and cannons came to the fore.

To showcase the power of the mighty trebuchet and bring a highly entertaining and educational spectacle to the banks of the River Avon next to Warwick Castle, a new show - The Legend of the Trebuchet - opened on 23 March. In the lead-up, Warwick Castle required the services of a high-performance electric winch to ensure reliable and repeatable tensioning of the trebuchet prior to launching its projectiles. The choice was a Hadeef electric-powered wire-rope winch, delivered and installed by Hoist & Winch Ltd as part of a turnkey project.

After an initial site survey to discuss the requirements of this highly unusual application and specify the winch design features, Hoist & Winch returned to oversee a test fire of the trebuchet and measure its pulling force with a load cell and site tractor. Once complete, Hoist & Winch was in position to make a formal offer, comprising fully specified winch, mounting frame and foundation base.

At the centre of the solution is a Hadeef 400 V, three-phase, 50 Hz electric winch that delivers 1500 kg pulling force from its 25 m rope length. Control is via a low-voltage radio remote with back-up plug-in pendant. Features of note include: a pressure roller for the wire rope drum;



four-position top/bottom geared limit switches; a galvanised steel mounting frame for the winch; and electrical enclosures with IP66 protection rating.

Following order receipt and drawing approval, Hoist & Winch commenced on-site installation and commissioning, a process that included individual hydraulic pull tests of the resin anchor bolts for the winch frame. Test firing of the trebuchet also took place with measurement of the pulling force using a load cell for the LOLER (Lifting Operations and Lifting Equipment Regulations) certificate. Hoist & Winch also took care of customer handover training and issue of the LOLER Thorough Examination report.

Anyone interested in seeing the trebuchet in action can buy a ticket for The Legend of the Trebuchet, which runs until 4 November 2024. Built to a centuries-old design (with a little help from the latest electric winch technology), this incredible weapon takes centre stage in a show that combines thrilling live action and special effects throughout.

Visit www.hoistandwinch.co.uk



SubSea
engineering

EEMUA 194 Subsea Engineering Basics

Materials selection and corrosion control course – with reality built in

Blended online learning for design, commissioning, specification, operation, repair, maintenance, and refurbishment of ageing or new underwater energy production equipment – to optimise cost-effective and reliable long term operation.

EEMUA 194 Subsea Engineering Basics courses encompass the distilled know how of the industry captured in the practical 'how to' guidance of EEMUA Publication 194.

Course Tutors incorporate this industry know how with decades of their own expert materials corrosion experience – for effective learning with reality built in.

- Combines live online classes, e-learning and I-I tutorials for real-time interaction to assure Learners' correct understanding immediately.
- In-depth course structured as manageable sessions over three weeks to fit busy schedules.
- Enables team members to be where they're needed on-site and using industry's collected experience of real-world subsea engineering.
- Certification by exam to industry requirements.
- Adapts to the engineering needs of individual Learners and their companies, through Induction.

Registration open now for the next course.

Induction of 2 hours to fit diaries from October 2024. **Learning starts 4 November 2024.**

Find out more at www.eemua.org,
contact online-learning@eemua.org,
or call EEMUA on +44 (0) 20 7488 0801.





MACHINESAFE **COMPLIANCE SOFTWARE**

MachineSafe, The Safety And Compliance **Software Platform.**

Discover how MachineSafe can streamline your machinery safety and compliance process.

- Intuitive app ideal for carrying out 'at machinery' inspections.
- Web version for asset and inspection management.
- Various inspection modules available including:
 - PUWER.
 - Risk Assessments.
 - New Machinery Audit.
 - EN 60204, EN 4413 & EN 4414.
 - MachineSafe Audit.
- Users can add their own inspection templates.
- Scalable platform depending on number of assets.
- Add additional company users.
- Integrated inspection Risk Assessments.
- Professional Reports.
- Training and support available.

Contact MachineSafe to arrange your free Demonstration.

Kollmorgen Expands Its Line Of Certified Explosion-Proof Products With New Atex And Iecex/Cetlus Status For Goldline High-Voltage Servo Motors

For hazardous locations that require use of an explosion-proof motor, Kollmorgen's Goldline EB series of ATEX Certified and IECEx/cETLus Listed servo motors now includes the 480 Vac Goldline EBH.

Kollmorgen, a global leader in motion control systems, today announced ATEX certification and IECEx/cETLus listing for the explosion-proof Goldline EBH 480 Vac servo motor. These new explosion-proof approvals for the high-voltage Goldline EBH servo motor exemplify Kollmorgen's commitment to advancing the state of the art in motion control and meeting the most demanding application requirements.

The high-voltage Goldline EBH servo motor joins a broad selection of Kollmorgen explosion proof motors certified and listed according to UL, ATEX, IECEx and/or CSA standards. Explosion proof motors are required in hazardous locations where flammable gases, mists or vapors may exist in explosive or ignitable concentrations. Such environments are often found in mines, oil & gas refineries, textile mills, and industrial paint booths.

For high-voltage applications in hazardous locations, Goldline EBH servo motors offer speeds up to 7,500 rpm with exceptionally high torque density for maximum performance in a minimal installation footprint. Rugged resolver feedback and a built-in thermostat support reliable operation under harsh environmental conditions.

Goldline EBH servo motors in frame sizes 1 – 6 join other explosion-proof motors in the Goldline EB family that meet ATEX/IECEx standards, and more specifically CE 0081 Ex II 2 G Ex d IIB T3 Gb $-40^{\circ}\text{C} \leq \text{Ta} \leq 40^{\circ}\text{C}$. This classification indicates that the motors are suitable for use in any above-ground industry where easily ignited gases such as ethylene are likely to be present in the atmosphere for 10 to 1,000 hours/year during normal operation (Zones 1 and 2). Kollmorgen applies a flameproof method of protection to the motor so that any internal ignition is contained within the motor housing without the possibility of escape into the external atmosphere. The maximum surface temperature of the motor under fault conditions is 200°C .

For more information about the explosion-proof Goldline EBH high-voltage servo motor, visit <https://www.kollmorgen.com/ebh>.



Specialist Training for the Storage Tank Industry

Live online, classroom, blended, in-house or e-learning

- Gain or renew your **5-year Certificates of Competence***
- Courses based on **EEMUA 159**
- **English, Dutch, German and French language options**
- Select from **courses throughout 2024, including:**

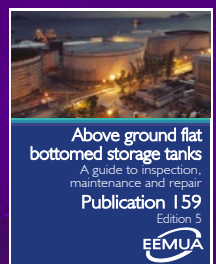
TankAssessor courses*

10-13 June 2024 – in French
– classroom – Paris, FR

9 September 2024 – in English
– classroom – Manchester, UK

14-17 October 2024 – in Dutch
– classroom – Rotterdam, NL

4-7 November 2024 – in German
– live online



TankInspector courses*

16-18 September 2024 – in French
– classroom – Paris, FR

16-18 September 2024 – in English
– live online – for **Houston time**

23-25 September 2024 – in Dutch
– classroom – Rotterdam, NL

28-30 October 2024 – in English
– classroom – London, UK



TankBasics courses

16 September - 25 October 2024
– in **English** – blended learning
(live online, e-learning, and more)

Storage Tanks e-learning

On-demand – in English or Dutch

In-house courses

By arrangement for **your choice of: time, language, location**

Also...

EEMUA Seminar Energy Transition
6 June 2024 – London, UK

EEMUA Seminar Storage Tanks
5 September 2024 – Birmingham, UK



More choices, information and registration at **www.eemua.org**





www.aqua-safety.com



MEETS
**ANSI
Z.358**

CORROSION
RESISTANT

MADE IN
BRITAIN

2-YEAR
WARRANTY

SUITABLE
FOR UP TO
60°C
(140 °F)



PROTECT YOUR WORKERS, PROTECT YOUR BUSINESS.

Find out how Aqua keep your team safe and site compliant. Contact our friendly experts today.

☎ +44(0) 1942 318096 ✉ sales@aquasafety.com

Aqua Safety Showers And The Importance Of Having An Emergency Safety Shower

Aqua Safety Showers International Ltd is a UK manufacturer and supplier of emergency safety showers and eyewashes and has over 30 years experience in this industry. Based in the Northwest of England, they have strived to build up a brand well known in the marketplace. Janet Wayne, Managing Director of Aqua Safety showers explains how important a safety shower is and what is required to meet legal requirements.

The Health and Safety at Work Act 1974 states all employees have a safe place to work. In industries and workplaces where employees handle hazardous materials, the importance of having an emergency safety shower cannot be overstated. Accidents can happen, and exposure to chemicals or other dangerous substances can occur unexpectedly, putting workers' health and well-being at risk.

By installing a safety shower unit, you are meeting your duty of care to your employees as well as promoting a culture of safety within your workplace.

The latest specifications for safety showers state that the shower should deliver tepid water to avoid thermal shock and further injury. The unit should be easily accessible and visible.

The best option to achieve this is to install a TS1500L self-contained safety shower. This unit holds 1500L of water which is warmed to 18-20°C and will deliver the required 15 minutes of tepid water both from the shower and eyewash (if fitted).

This unit is manufactured from stainless steel and GRP which are all corrosive resistant materials and comes with photo luminous signage as standard. Many optional extras are available to suit site requirements and specifications.

A washdown hose reel is a piece of equipment that should be installed at the side of the safety shower so the area can be hosed down after any spillage.

Aqua safety showers offer a range of retractable wash down hose reels which are built into a heavy-duty GRP

heated cabinet. The cabinet is mounted on a stainless-steel pedestal.

A safety shower is an asset and should last for approximately 20 years. To ensure this long service life of this piece of equipment the unit should be tested weekly to ensure correct operation and serviced ideally every 3-6 months. At Aqua, we understand the importance of keeping your safety shower in optimal condition to ensure the well-being of your workforce.

By ensuring a service contract is in place you are investing in the longevity and reliability of your asset. Aqua Safety showers offer a complete maintenance package for any model of safety showers and offers site surveys should this be required.

Conclusion:

Having an emergency safety shower in the workplace is not just a legal requirement; it is a vital investment in employee safety. By providing immediate access to decontamination, safety showers play a crucial role in preventing and reducing injuries resulting from exposure to hazardous materials. Moreover, they ensure compliance with regulations, enhance emergency preparedness, reduce costs, and promote a culture of safety within the organization. Employers should prioritize the installation, maintenance, and regular training on the usage of safety showers to create a safer and more secure work environment for their employees.

For more information or advice on please call us on +44(0)1942 318096 or visit www.aqua-safety.com

Aqua Safety Showers International Ltd, Redgate Rd, South Lincs Industrial Estate, Ashton-in-Makerfield, Wigan WN4 8DT.





peppers™

END—TO—END PERFORMANCE



peppers.co.uk





Peppers Cable Glands – Setting The Standard For On-Time Delivery

In the dynamic world of cable gland manufacturing, where precision and efficiency are paramount, the significance of on-time delivery cannot be overstated. As an industry that plays a vital role in powering various sectors such as aerospace, energy and automation, timely delivery is not just a matter of convenience but a fundamental necessity for seamless operations and customer satisfaction.

In this demanding landscape, Peppers Cable Glands has established itself as a supply chain front-runner, consistently surpassing expectations with an impeccable on-time delivery record on the hundreds of orders going out every week. On-time delivery is crucial for maintaining project schedules, and when downtime translates into lost productivity and revenue, timely delivery of essential components like cable glands is essential to keep operations running smoothly.

Peppers' reputation for punctuality extends beyond just meeting deadlines; they often surpass expectations by delivering ahead of schedule and are renowned for their impressive ahead of time dispatch. This proactive approach not only minimises the risk of delays but also allows customers to accelerate their timelines, gaining a competitive edge in the market.

Beyond the immediate operational implications, on-time delivery also has broader implications for supply chain efficiency and competitiveness. In today's globalised marketplace, where companies operate within complex networks of suppliers and partners, the ability to deliver products reliably and punctually can be a significant differentiator.

In addition, on-time delivery is essential for meeting regulatory requirements and industry standards. In sectors such as aerospace, automotive, and energy, where safety and reliability are paramount, Peppers' adheres to strict timelines to ensure compliance with regulatory frameworks and certification processes. Any delay in delivery could jeopardise the entire project or compromise the quality and safety of the end product.

On-time delivery is not just a logistical concern but a cornerstone of success in the cable gland manufacturing industry. By prioritising punctuality, Peppers enable their customers to maintain project schedules, build trust, optimise supply chain efficiency, and gain a competi-

tive edge in the market.

As the world continues to evolve and demand for high-quality, reliable products grows, the importance of on-time delivery will only become more pronounced, with Peppers serving as the industry benchmark for service and delivery.





Beacons: What Is The Meaning Of Each Colour Lens? (Iec 60073)

A red Ex-tech beacon light is usually associated with an emergency. This is also the case with red beacon lights on most, if not all signalling devices Atex or not. Red in the history of humanity has stood for Stop/Danger. In AVS signalling, red is no different and signals emergency, a dangerous or hazardous condition and A situation which requires immediate action. Signal lights with a red Ex-Tech beacon light are suitable for signalling system failures, values that lie outside their safe limits (e.g. temperature or pressure) or if there is danger.

Absolutely, a red Ex-tech beacon light is a critical situation that would require swift action in any application and is Hazard-implying. The highest warning level is indicated by a red beacon light. When it lights up, it stands for the highest level of urgency and not to be used in general IEC 600073 guidelines 'for a general warning'.

For example, in a manufacturing facility where Pressure or Temperature has increased beyond the safe range and immediate shutdown is required due to the action of the protective devices (equipment failure).

Exceptions to this rule are two-colour or multi-colour signal systems with only one red and one green warning light.

What is the meaning of a Yellow Lens Ex-Tech Beacon?

These colours, renowned for their intense brightness, are employed to draw attention to specific situations. Yellow and amber Ex-Tech beacon lights signal an impending critical state that necessitates human monitoring or intervention. Devices featuring such lights are adept at indicating overloads or surpassing standard values, provided the duration remains within permissible limits.

Required actions aim to forestall abnormal conditions and avert ensuing consequences. Yellow or amber Ex-Tech beacon lights are apt for cautioning against moderate dangers, serving as precautions and warnings. For example, in a manufacturing facility where Pressure or temperature has extended above the normal operating range however has not quite reached the unsafe range, but action within a line is imminently or currently taking place to return the operation of the facility to a safe range of conditions.

An amber Ex-tech beacon light is critical in any plant operation to ensure the safety of personnel. Where toxic and/or combustible gases, dust or liquids may be released generally through a form of a vent into the atmosphere (released by a pressure relief device such as a safety or Pressure relief valve).

What is the meaning of a Green Lens Ex-Tech Beacon?

The green colour simply denotes a safe normal state of operation or environment, requiring no immediate action. It's essential really to recognize green as just that- a safety colour, as opposed to a warning colour. Safety guidelines, which already indicate potential hazards, are more appropriately conveyed through blue signals.

Commonly, machines equipped with green Ex-Tech beacon lights signal readiness for operation or seamless functioning without any glitches. For example, a green Ex-Tech beacon light in a manufacturing



facility could signify pressure or temperature in a normal range and no further action is required other than seamless operation of the facility. Many plants use a green Ex-tech signalling beacon to inform other personnel simply that the plant is in operation and not the earlier information regarding what the conditions of the plant are. However, the latter is assumed otherwise operation would be put to a hold to ensure safe operation of the equipment and ultimate safety of all personnel within the facility.

What is the meaning of a Blue Lens Ex-Tech Beacon?

What does a blue Ex-Tech beacon light signify? Most linked with emergency services, these lights should refrain from usage on the road or in areas of public access. Of course, different nations operate their emergency services with different colours. However, in the UK and Europe certainly, blue is connoted to be the colour of emergency services. Many plants or manufacturers of signalling would suggest that Blue is a common alternative to red signalling. However, the true utility of the Blue Ex-Tech beacons signifies any condition necessitating a specific action by the operator, distinct from the states represented by red, yellow, orange, and green colours. Blue can be assigned various meanings beyond these.

This is best explained using an example to distinguish the true difference. For example, emergency evacuation on board a ship, a blue light could signal to an operator to abandon the ship. In manufacturing settings, a blue LED beacon often signifies a distinction, such as prompting a conditioned response to shut down safety-critical processes like switch off the line and evacuate the premises.

What is the meaning of a Clear/White Lens Ex-Tech Beacon?

An Opaque/Clear/White Ex-Tech beacon really carries ambiguity. It is best explained by what it should not be used for. Many of our new clients replace their clear domes on their push buttons with stop or off functions. While clear Ex-Tech beacon lights have high light transmission without consuming light, they are unequivocally unsuitable for drawing attention to warn of danger despite their brightness. As discussed, there are standards which must be met, and each colour has its own tailored usages.

A more appropriate selection of colour, a client would therefore have to choose specific to the application with the information provided with this article. In a nutshell, a

clear beacon light carries no distinct significance. It is employed when there's uncertainty regarding the use of red, yellow, green, or blue lights. Whether employee supervision or intervention is needed for the illumination of the clear dome must be evaluated case by case.

What is the meaning of a Purple Lens Ex-Tech Beacon?

At Ex-Tech, we are committed to delivering our customers the highest quality level of customer service. Purple plays a prolific role for our Oil and Gas Clients, especially in the UAE and USA as an alternative to red. When an Ex-Tech beacon light in the purple signal colour illuminates, individuals should promptly evacuate the area or trained personnel should take immediate necessary actions.



Phone: +44 (0)1752 333 933

E-mail: sales@ex-techsignalling.com





PRODUCT CERTIFICATION

ExVeritas offer highly accredited and internationally accepted product certification including UKCA Ex, ATEX, IECEx and North American Listing with award winning 'customer service' levels. Our unique 'CMS' system gives customer 24/7/365 access to their quotes, certification project status, and issued certificates. Whilst we specialise in explosion safety, we also have in house EMC and Electrical Safety testing to offer turnkey global approvals.



TRAINING AND COMPEX CERTIFICATION

ExVeritas are the leading CompEx provider with international practical training centres around the world. We have more experienced lecturers and more benefits than any other Ex training provider, including free software tools and pre-and post e-learning. Our unique speciality courses include 'advance' level Ex Inspector and 'Advanced Intrinsic Safety Circuit Design'. Only a company with ExVeritas depth of experience can deliver courses at this level.



The Explosive Atmosphere Safety Specialist

The ExVeritas Group provides Product Certification, Management System Certification, CompEx Certification and Site Safety Services. We are a UK Government Appointed Body for UKCA 'Ex', an ATEX Notified Body and an IECEx Certification Body and Test Laboratory

Our Product and System Certification is internationally recognised for global markets, and we can parallel issue UKCA, ATEX, IECEx and UKAS ISO9001 Certifications to save our clients time and money. For sites we offer safety consultancy on explosion safety including equipment risk assessments and Ex inspection. We also qualify people with CompEx certification as well as specialist and bespoke training.

ExVeritas is a multi-award-winning company including the 'Queen's Award', the highest honour that can be bestowed on a UK company. We have a proven track record of delivering world class certification, consultancy and training.

With Certification Bodies in the UK, Mainland Europe and North America and training facilities in the UK, Malta, Italy, Denmark and Ireland, we can offer a global service and a cost effective and efficient service.

UK

ExVeritas Limited Units 16-18,
Abenbury Way,
Wrexham Industrial Estate Wrexham
LL13 9UZ

United Kingdom
0845 862 2447

EUROPE

ExVeritas ApS, Severinsmindevej 6,
4420 Regstrup

+45 7734 4638

NORTH AMERICA

3000 Forest Ln, Suite 400,
Garland, TX 75042

+1-877-637-4322

MANAGEMENT SYSTEMS CERTIFICATION

ExVeritas are one of only a handful of companies in the world that can offer a time and cost saving combined audit. We can certify UKAS (ILAC) ISO9001 and other QMS systems, UKCA QAN, ATEX QAN and IECEx QAR audit in one visit. In addition, we can combine other audits such as INMETRO, FUS (for North America) and even IECEx Service Facility Certification for further cost savings. We have redefined the 'one stop shop' for QMS Certification with the customer in mind.



SITE SAFETY

ExVeritas conduct electrical and non-electrical 'Ex' Inspections. We also offer explosion risk assessments, fitness for purpose assessments and even 'on site' UKCA, Notified Body or IECEx Certification. All of this makes us uniquely positioned to deliver full compliant explosion safety solutions, including our unique online and tablet based 'iEx Inspection & Management' solution.



www.exveritas.com
info@exveritas.com

ATEX-Compliant Hydraulic Components

ELESA is thrilled to announce their breather cap product extension; providing solutions that redefine the functionality of sealing hydraulic tank fillers, alongside a new ATEX-compliant range, reflecting their commitment to industry-leading safety standards.

New Breather Cap Solutions

These innovative caps enable smooth air interchange as fluid is channelled to or from the hydraulic reservoir. With Elesa's unique labyrinth geometry, they act as a robust barrier to spillage, perfect for equipment used at variable angles or machines in transit.

ATEX-Compliant Hydraulic Components

In response to the ATEX regulations, Elesa introduces a series of hydraulic components designed specifically for systems adhering to these stringent guidelines. This range is beneficial to various sectors, including pumps, anti-spark installations, oil and gas, water and sewage, petrochemical plants, mines, and flour mills.

The ATEX range features:

- GN 743.6 Oil Level Indicators: Made with aluminium and featuring ESG safety glass with FKM Viton® sealing ring.
- SFP+a-EX Breather Caps: Incorporating a splash guard and flat dipstick for added functionality.

- TN-EX Equipment Plugs: Crafted in glass-reinforced technopolymer with NBR synthetic sealing rings.

These components, laser engraved and supplied with a comprehensive instruction/safety leaflet, allow users to integrate them into systems in accordance with Health and Safety Requirements under the 94/9/EC ATEX European Directive (explosive atmospheres) for equipment in Group II, category 2GD.

Additional Offerings and Customizations

Elesa continues to provide versatility through a variety of options, including neutral caps, coloured caps, and adjustable threaded fixing. Two innovative designs, SFX and SFX+a, cater to varied industrial applications.

Explore Elesa's Pioneering Solutions

Elesa's new breather caps and ATEX-compliant hydraulic components exemplify the brand's excellence in innovation, safety, and performance. To learn more about these cutting-edge products and other offerings from Elesa, visit www.elesa.com



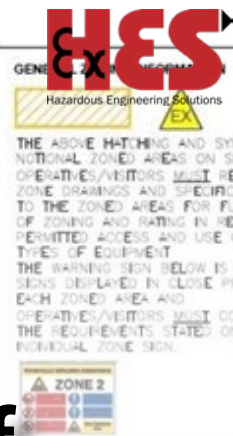
Always a step ahead!

Innovative mobile devices for ATEX/IECEEx with the most advanced technology.



i.safe MOBILE

isafe-mobile.com



Blog 91 Making Sense Of Process Safety

Over the past few months I have sporadically been presenting a DSEAR (Dangerous Substances and Explosive Atmospheres) training course to front line operators at an English Water Company (no, not that one, or even that one...). One of the topics covered is Zoning – the demarcation of areas of sites where the likelihood of an explosive atmosphere being present is elevated.

Process Safety is another, where one of the distinctions made with Occupational Safety (e.g. slips, trips and falls) is that, generally, Process Safety hazards are not readily detectable by our senses.

You should be able to see a step in front of you and hear a fork lift truck in your vicinity, but it is much more difficult to sense a Process safety hazard before any loss of containment (release of toxic or flammable fluids). Once this happens, your sense may be rapidly alerted – loud bang, almighty flash, overpowering smell or taste – before you (and those around you) succumb soon thereafter.

One approach to this challenge is to promote constant vigilance for personnel in facilities where there are Process Hazards – Chronic Unease. The idea may be attractive to its proponents, but in practice probably reduces safety by significantly raising personnel base levels of stress levels resulting in chronic health issues and/or operational transgressions.

The Water Company has adopted a different approach. I would say it is more realistic, humane and effective. It has started to provide what one could call 'sense' aids. Examples include generating clear signage such as in the image above depicting areas of heightened explosive risk.

These can help to engender appropriate levels of temporary unease (flipping our mental state from auto pilot to manual), prompting conscious thought and precaution. Another is portable dangerous substance monitors (indicating the proximity of threshold concentrations and translating this into a sound).

A third is a directive to 'take a break to reflect' if personnel sense (6th sense?) that something isn't right.

Our senses are our best defence for protecting ourselves in the realm of Occupational Safety.

Wouldn't it be great if we could harness them protect us (and our colleagues) from Process Hazards as well.



Safe & Efficient Drum Handling In Hazardous Areas

Do you have a need to lift or move drums, de-palletise or just generally move drums around a workshop or factory site in Hazardous Areas.

The St Clare Engineering range of Grab-O-Matic ATEX fork attachment and pedestrian drum handlers will provide a safe and efficient solution for you.

The popular and versatile Grab-O-Matic DLR range of rim grip fork attachment drum handlers are suitable for all types of steel drums, plastic 'L' ring drums and most fibre drums.

The extensive drum handling range includes the SC10 for lifting and rotating drums to dispense the contents, scissor grabs, base gripping units and waist grippers, the whole range can also be fitted to pedestrian stackers for use in confined spaces and places where fork trucks are banned. Bespoke units can be manufactured to suit customer specification.

We also have a range of Drum Cages for off-shore use and fork attach-

ment Whiskey/Wine Barrel Base Grippers for use in the drinks industry.

We have also developed a Quick Attach/Release drum handler fork attachment for use in ATEX hazardous areas.

All Grab-O-Matic models can be Quick Attach/Release units and are securely attached to the forks and released without the need for the truck driver to dismount from his cab, saving time and increasing safety!

The drum handlers can be manufactured completely from stainless steel or part stainless steel to suit customer requirements and the spark proof area the units are operating in.

All Grab-O-Matic fork attachments are issued with Test Certificates, CE marked and manufactured entirely in the UK to ISO 9001:2015 and will be certified for use in ATEX spark proof areas.

For more information on our extensive range of drum and materials handling equipment please contact Andy Bow on 02380 643402 or email sales@stclare-engineering.co.uk



Drum & Material Handling Equipment

Handle your drums Safely, Simply & Efficiently with the Grab-O-Matic Range of Stainless Steel /ATEX Drum Handling Equipment



Our Stainless Steel/ATEX Product Range Includes:

- Drum Handling Attachments (Rim and Waist Gripping)
- Drum Cages
- Pedestrian Drum Carriers
- Drum Rotation Units (Fork Mounted and Crane Slung)
- Self Dumping Hoppers
- Pallet & Stacker Trucks
- Pedestrian Drum Rotators
- Scissor Grab Drum Handler

St Clare Engineering Ltd (Grab-O-Matic)

Unit 1, Brookwood Industrial Estate, Brookwood Avenue, Eastleigh, Hampshire SO50 9EY

Tel: 02380 643402 Fax: 02380 642189 Email: sales@stclare-engineering.co.uk Web: www.stclare-engineering.co.uk

Flexible Heating Device

The flexible explosionproof heating device, type FHD, allows the uniform heating of surfaces in machinery and apparatus engineering, tank construction and the heating of enclosures for controls and analysing equipment for maintaining the function of built-in equipment at low ambient temperatures. The degree of protection of the flexible heaters is IP66.

Technical data

Certification	PTB 23 ATEX 1006 X IECEX PTB 23.0003X
Type of protection	Ex eb IIC T4-T6 Gb Ex tb IIIC T120°C-T80°C Db
Voltage	max. 400 V
Current	max. 16 A
Cross section	max. 2,5 mm ²
Ambient temperature	-20 °C à 40 °C (standard) -40 °C à 60 °C (extended range)

The flexible heaters consist of a self-adhesive silicone laminate with a built-in heating element. The clearance between the terminal box and the surface to be heated is such that the maximum surface temperature of the terminal box does not exceed 80 °C. Bolts for fixing the terminal box are welded on to the surface to be heated, so that it can be screwed firmly in position.

The contact protection of the heated surface is ensured by an 8 mm thick silicone foam that extends over the complete surface of the heater.

Stabilised version

If designed for low heating capacities, a stabilised version without temperature monitoring is

possible. The parameters specified during routine testing must not be changed by the user.

Temperature-controlled version

Pt-100 resistance sensors or explosionproof capillary tube thermostats are used for the regulation and monitoring of surface temperatures with higher heating capacities. The Pt-100 resistance sensors can be fitted directly into the silicone laminate and fulfil the requirements for simple apparatus. The evaluation is carried out via the associated apparatus in the type of protection Intrinsic Safety. Electronic safety temperature limiters according to EN 14597 or SIL 3 are used for limiting the surface temperature.

Explosionproof Signalling Devices

Ex db IIB/IIC T6 Gb
Ex tb IIIC T80°C Db



BVS 20 ATEX E 091 X
IECEX BVS 20.0073X

thuba®

THE EXPLOSIONPROOFING COMPANY

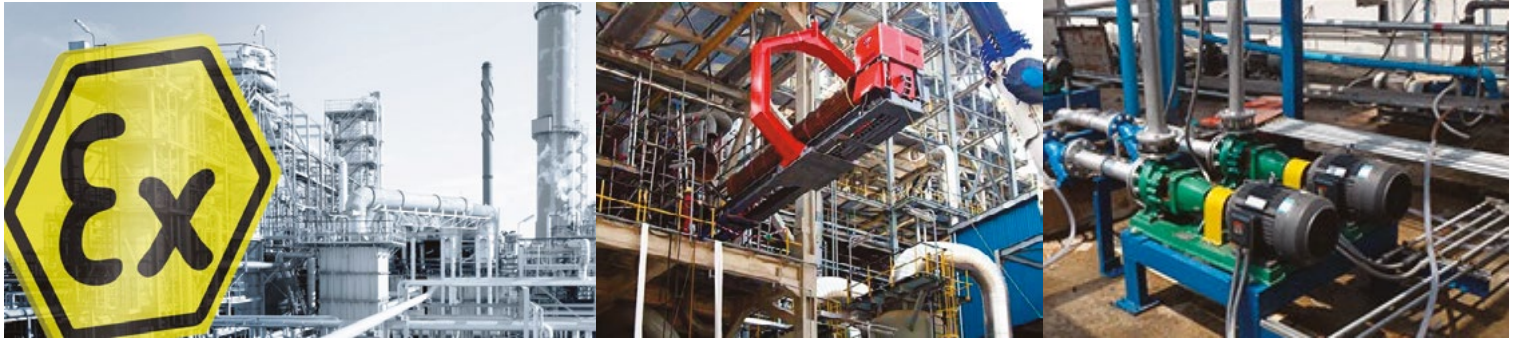


thuba Ltd.
CH-4002 Basel
Phone +41 61 307 80 00
customer.center@thuba.com
www.thuba.com



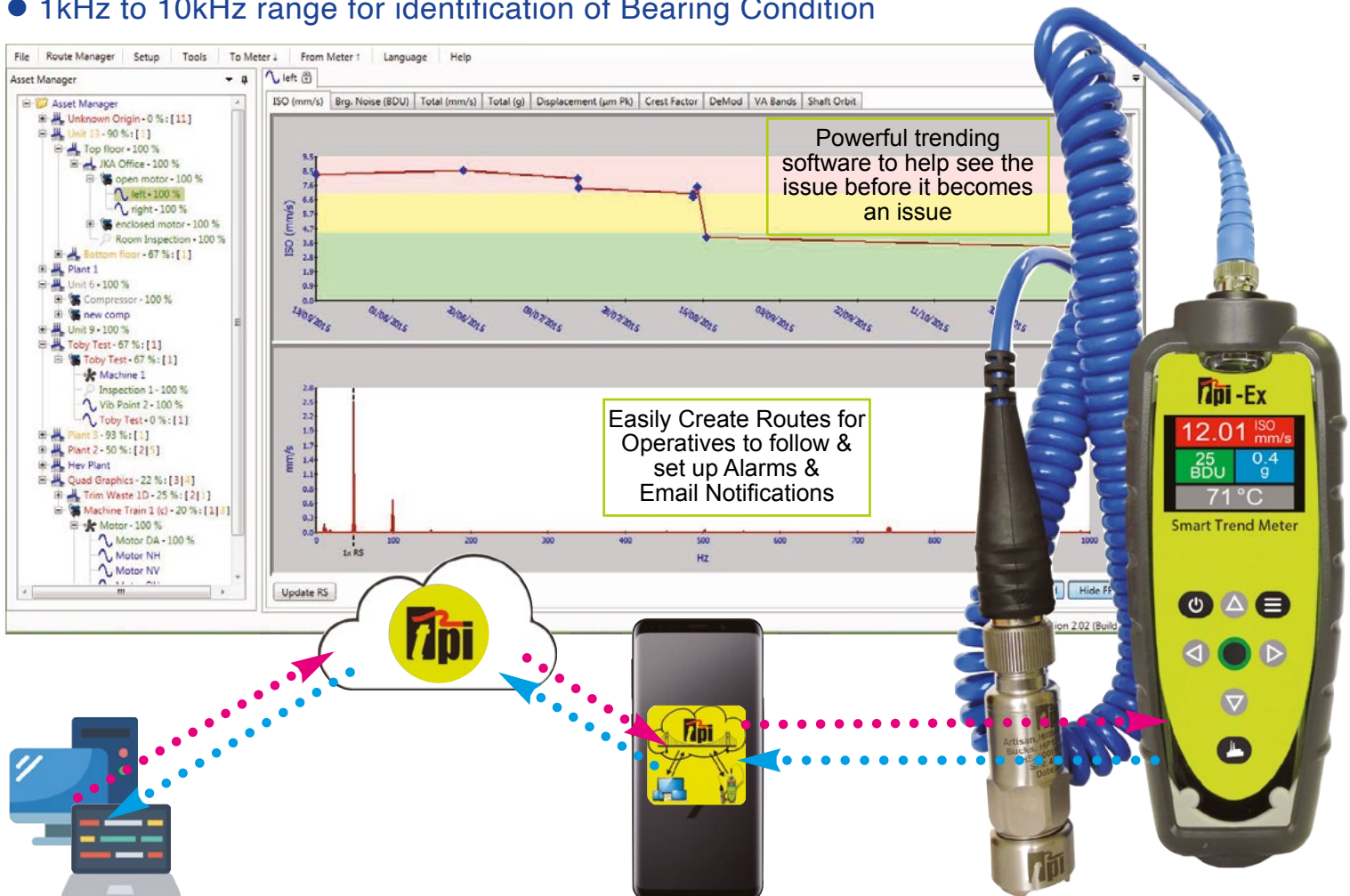
Test Products International Inc.

Do you need to monitor the condition of your machinery in Hazardous environments, including ZONE 0?



Then let TPI's 9085-Ex Vibration, Bearing Wear & Instantaneous Temperature Analyser HELP!!!

- Use the 9085-Ex literally anywhere in the world, so eliminating the need to question; Do I have the right instrument for the right Zone?
- Traffic light indication of potentially Good or Bad Vibration and/or Bearing Wear
- 2/10Hz to 1kHz ISO standard for assessing Unbalance, Misalignment or Looseness
- 1kHz to 10kHz range for identification of Bearing Condition



For technical information, solution range, applications, prices and where to buy - Contact TPI Europe on: -

+44 (0) 1293 530196 ♦ cbmsales@tpieurope.com ♦ www.tpieurope.com

Why Do We Need Zone 0 Certified Condition Based Maintenance Instruments?

Equipment breakdowns (e.g. pumps, motors, fans etc.) can be many times more bothersome if they occur in hazardous locations, e.g. potentially explosive atmospheres. This is because the entire process usually needs to be shut down to avoid the possibility of an ATEX (explosive atmosphere) existing during the repair/replacement. Particularly if power tools are likely to be required. This is why it is often essential to use a system of condition-based maintenance (CBM) to avoid unplanned shutdowns.

Given the obvious benefits, the adoption of CBM should be something of a no-brainer. Historically though, the high cost and complexity of Ex certified CBM equipment was often seen as something of a hurdle, with it typically costing over £20,000 for a complex Ex vibration analyser.

But not anymore! These days, as little as £4,250 gets you a simple-to-use instrument, such as the TPI 9085Ex, capable of simultaneous vibration and temperature analysis and certified worldwide for Zone 0 usage with any gas type.

The significant benefit of Zone 0 certification is that you simply don't have to think! That's because Zone 0 devices can literally be used in any hazardous location. Usually there is a price to pay for this flexibility however, as Zone 0 devices are typically more expensive due to increased manufacturing costs (e.g. additional safety components and higher levels of redundancy). However, building on its reputation for high quality but affordable instruments, Test Products International (TPI) has achieved a significant Zone 0 cost breakthrough with the very affordable TPI 9085Ex vibration analyser.

The TPI 9085Ex combines on-meter diagnostics with the all-important ability to TREND readings over time to simplify condition-based maintenance (CBM). Certified for Zone 0 with IECEX, ATEX and North American approval, the TPI 9085Ex can be used in ANY hazardous location anywhere in the world.

The TPI 9085Ex offers on-meter analysis for the detection of machine faults such as unbalance, misalignment, looseness and bearing wear. With full colour OLED display and Bluetooth communications, the TPI 9085Ex features colour coded (e.g. traffic light) alarms and zoomable on-screen vibration frequency plots with cursor readout. It can store lists (routes) of up to 1000 machines, each with up to 10 measurement points, with full waveform and frequency spectrum (FFT) capture and transfer to the included PC-based software.

Additionally, the TPI 9085Ex with its uniquely designed sensor, SIMULTANEOUSLY and virtually INSTANTANEOUSLY captures both VIBRATION and TEMPERATURE readings. So, if the indicated level of bearing wear is high and it's hot, then you can be sure that what you have is

a worn bearing and not for example something like pump cavitation.

The TPI 9085Ex comes complete with the included C-Trend II PC-based trending and reporting software featuring all the high-end benefits to implement a full CBM strategy, including automatic email notification of alarms and report generation. Routes and readings can also be transferred to/from the TPI 9085Ex via Bluetooth using a smart phone or tablet running the free TPI Cloud Bridge App. This allows service personnel to be sent routes and return readings over the Internet, no matter where they are in the world.

For more information please contact TPI Europe's head office on +44 1293 530196 or take a look on the website at www.tpieurope.com or email sales@tpieurope.com





International Gas Detectors
Detectably Better

TOC-903-X5: The Most **Versatile Gas Detector** Transmitter on the Market



Pole-Mounted with Sun
Shade (Shown Here)



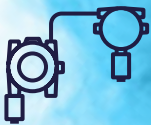
3 Interfaces: Digital,
4-20mA and Relays



ATEX/IECEx Zone 1 & 2
and, Dust 21 & 22



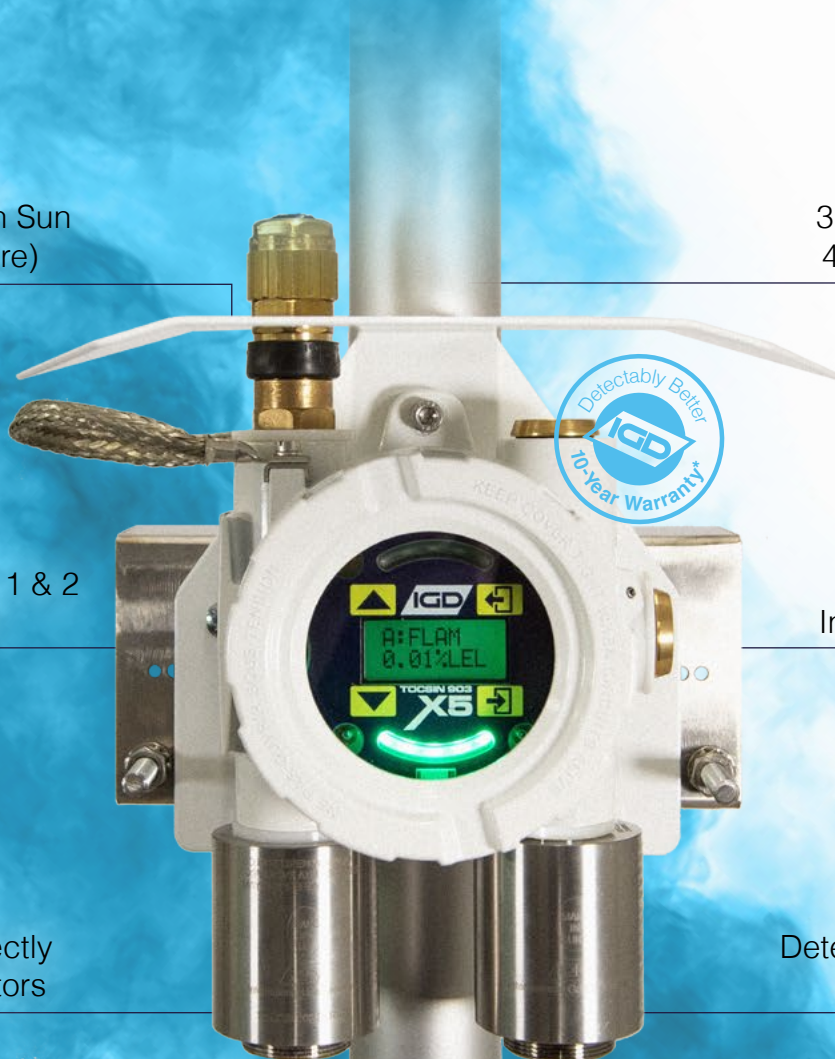
One-Person, Non-
Intrusive Calibration



<2 Remote or Directly
Connected Detectors



Detection for Over 400
Gases & Vapours



To find out more, contact us or scan the QR code



+44 (0) 161 483 1415



sales@internationalgasdetectors.com



[/international-gas-detectors-ltd](https://www.linkedin.com/company/international-gas-detectors-ltd)

Triton House
Stockport
SK2 6SH



*Terms and Conditions apply, check IGD website



A Standalone Detector Approved For Zone 1 & 2

This is the TOC-903-X5 from IGD – a standalone detector approved for Zone 1 & 2 (Gas) and Zone 21 & 22 (Dust) environments that offers dual gas detecting capabilities in one compact housing. When it comes to keeping you and your personnel safe, the TOC-903-X5 brings a variety of useful new tools to the table, none more important than its dual-gas detection capabilities.

When operating in a dangerous and potentially explosive environment there's a good chance that you'll encounter more than one hazardous gas. Our TOC-903-X5 provides you with the capacity to attach two of our Plug-and-Play smart sensors to monitor two different gases in the same space from one unit, simplifying the process and cutting costs.

Dual-gas detection is just one of the reasons that we've come to call the TOC-903-X5 "The World's Most Versatile Gas Detector Transmitter". Versatility is what sets the TOC-903-X5 apart from other ATEX gas detectors. It's the best option for a vast range of use cases and the multitude of potential installation options enables it to shine in almost any role and environment. Each of our huge range of sensors presents the opportunity for a different bespoke setup but, broadly speaking, there are five ways that the TOC-903-X5 can fit into your system and provide the solutions you need:

1. If you only require accurate, reliable detection for a single gas and you already have a system installed, then the standalone TOC-903-X5 and any one of our compatible plug-and-play sensors is all you will need
2. Adding one more sensor allows you to take advantage of the dual sensor capabilities by testing for two different gases from one point.
3. You can directly attach a sensor to the unit whilst running a remote sensor at another point. This is the easiest way of testing for two different gases residing at different levels.

4. ATEX environments often require gas monitoring in places that would present serious dangers to personnel, like the inside of an electrolyser. When combined with any remote sensors from our TOC range, the TOC-903-X5 can be placed in a safe area and used as a transmitter for the additional TOC ATEX Gas Detectors. This enables you to remotely monitor two different gases at a distance of up to 1km from the source.

5. The addition of IGD's Sentinel+™ 2-Wire addressable system introduces a huge range of potential set-up options. It also equips you with comprehensive digital monitoring, At-a-Glance status readings, digital readings, and simple calibration through the onboard Wi-Fi. Integrating our 2-Wire Addressable solution is the best option if you require multiple points of gas detection.

When you add our magnetic wand-enabled, one-person, non-intrusive calibration to the mix, you're left with one powerful, complete solution to almost any imaginable ATEX gas detection requirement.

Get in touch today to find out how our century of expertise and innovation and our 10-year electronics warranty can offer you and your personnel, ultimate protection against diverse gas risks.



**Tap, Assign, Monitor:
Msa Id Digital Device
Assignment Helps Drive
Accountability
And Simplify Compliance**

Numerous perks come with investing in the ruggedly tested, smartly connected ALTAIR io™ 4 Connected Gas Detector. One small feature, with big implications for how you and your team use the device, is the MSA id Tag. Every ALTAIR io 4 device comes with the MSA id digital device assignment feature, and it can help save you and your team time and effort. The key benefits to using the MSA id Tag are the fast and easy digital assigning of an ALTAIR io 4 device to a specific worker and seamless data monitoring of the device via MSA Grid cloud-based software while the worker is using it.

WHAT CHALLENGES CAN USING THE MSA ID TAG HELP SOLVE?

MSA estimates that around one in five gas detection devices is not returned to the fleet. It would be much easier to keep track of devices and who is using them if the detectors were digitally assigned to workers at the start of each shift. Using the MSA id Tag, you can do just that – assign a device to a user as soon as it's in their possession. The built-in RFID tagging system is intertwined with the MSA Grid cloud-based software meaning, once assigned, the device shows as being assigned to that specific worker by name; until it is returned, device usage and behavior data are linked to each worker and visible on the Grid dashboard. This helps support simplified recordkeeping, compliance, monitoring, and more.

HOW DOES THE MSA ID TAG WORK WITH ALTAIR IO 4 DEVICES?

The MSA id Tag was designed to function as simplistically as possible. It works by simply tapping the MSA id Tag to an ALTAIR io 4 device at the start of a worker's shift. The MSA id Tag instantly assigns the device to that worker. The device remains assigned to the worker until it is returned. Once the device is "clicked" back into the ALTAIR io Charge, the device status returns to being unassigned.

The digital assigning feature was designed to be easy to use and intended to help reduce the amount of training needed for implementation. There is also less hassle and wasted time at the start and end of a shift compared to the traditional manual process of checking out a device using pen and paper.

WHAT ARE THE BENEFITS OF THIS FEATURE?

The MSA id Tag helps promote worker accountability and compliance of use. MSA id allows you to monitor which worker is using which device and how the device is being used during each shift.

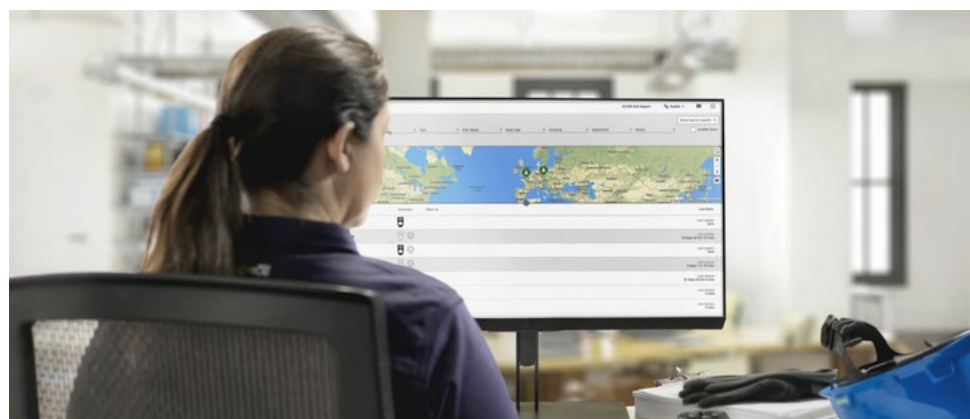
While signed out to an individual, all device data sent to the cloud is linked to that worker. You'll go from manual processes and pen-on-paper device tracking to a digital, cloud-based management system that allows you to monitor device usage and performance digitally and hold workers accountable for returning devices at the end of their shifts. This added accountability can help prevent unnecessary loss or damages associated with potentially careless handling of a device when no tracking mechanism is in use.

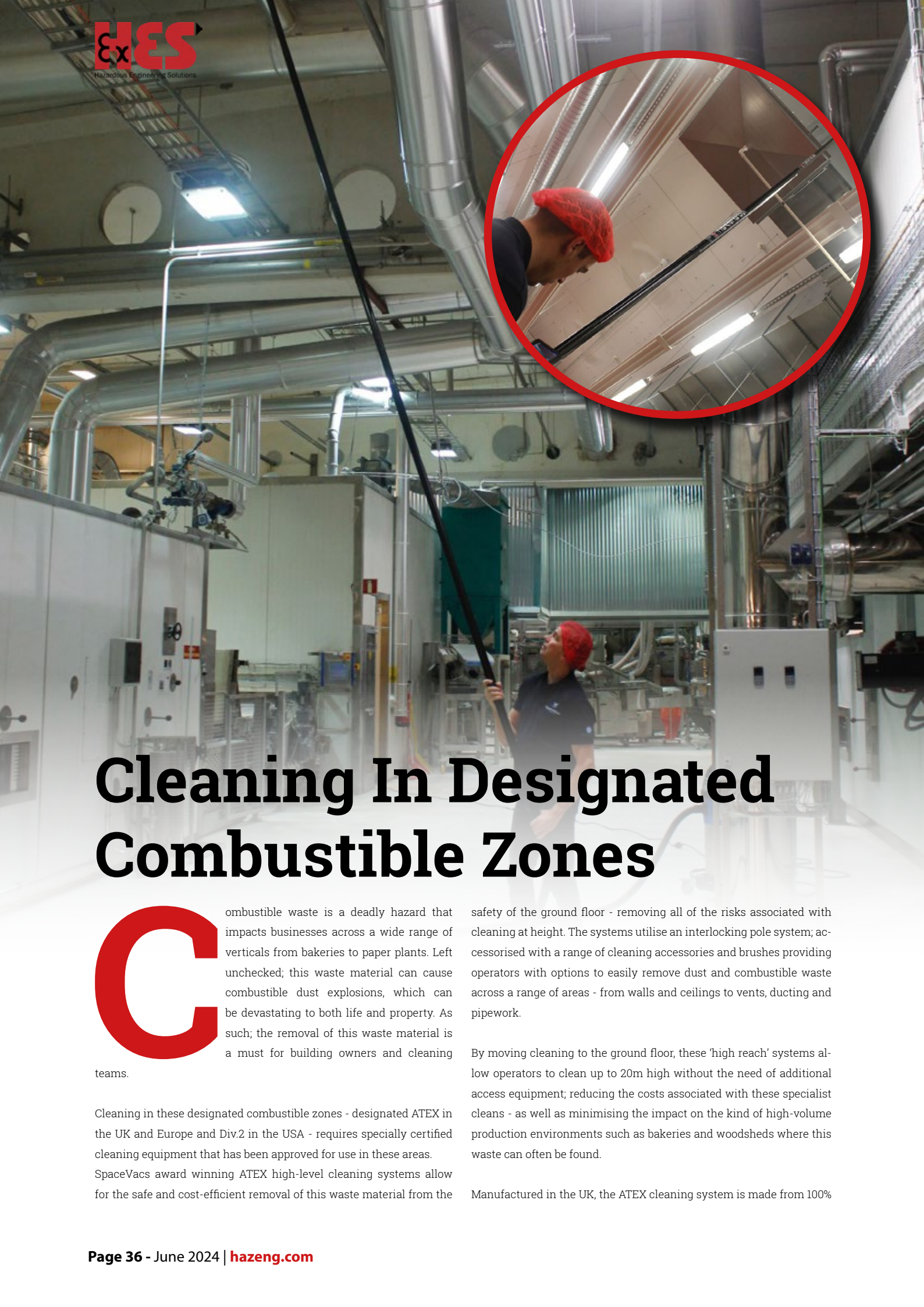
Other useful tracking tools can help ensure proper protocols and procedures are followed. MSA id enables you to monitor your workforce and easily track things like whether an individual device is active or whether an individual is responding to an alarm. All real-time and historical data will be tied to the user so you can monitor usage patterns and possible needs for additional support or training. This insight gives you the ability to respond to alarms and send help to workers when an alarm goes off. It also allows you to see areas where you can decide whether to implement enhanced training or other measures for your team to help support your culture of safety.

A subscription to MSA+, which includes ALTAIR io 4 devices with id Tags and Grid software, will give you access to even more powerful fleet management and live monitoring tools. You can choose a plan that works best for your organization and benefit from the real-time and historical cloud data.

MSA+ subscription options for Altair io 4 devices:

<https://gb.msasafety.com/subscription/altair-io4>





Cleaning In Designated Combustible Zones

Combustible waste is a deadly hazard that impacts businesses across a wide range of verticals from bakeries to paper plants. Left unchecked; this waste material can cause combustible dust explosions, which can be devastating to both life and property. As such; the removal of this waste material is a must for building owners and cleaning teams.

Cleaning in these designated combustible zones - designated ATEX in the UK and Europe and Div.2 in the USA - requires specially certified cleaning equipment that has been approved for use in these areas. SpaceVacs award winning ATEX high-level cleaning systems allow for the safe and cost-efficient removal of this waste material from the

safety of the ground floor - removing all of the risks associated with cleaning at height. The systems utilise an interlocking pole system; accessorised with a range of cleaning accessories and brushes providing operators with options to easily remove dust and combustible waste across a range of areas - from walls and ceilings to vents, ducting and pipework.

By moving cleaning to the ground floor, these 'high reach' systems allow operators to clean up to 20m high without the need of additional access equipment; reducing the costs associated with these specialist cleans - as well as minimising the impact on the kind of high-volume production environments such as bakeries and woodsheds where this waste can often be found.

Manufactured in the UK, the ATEX cleaning system is made from 100%

Carbon, making it completely conductive, and it was the first system of its kind anywhere in the world to be certified as safe for use in these specialist combustible environments.

In addition to these high-level cleaning systems, SpaceVac also offer a range of powerful industrial vacuums for the removal of combustible dusts - including the TITAN range of ATEX vacuums, the MERCURY line of ACD models (for removing combustible dust from non-combustible areas) and even specialist options for the removal of metal, pharmaceutical waste and other specialist materials.

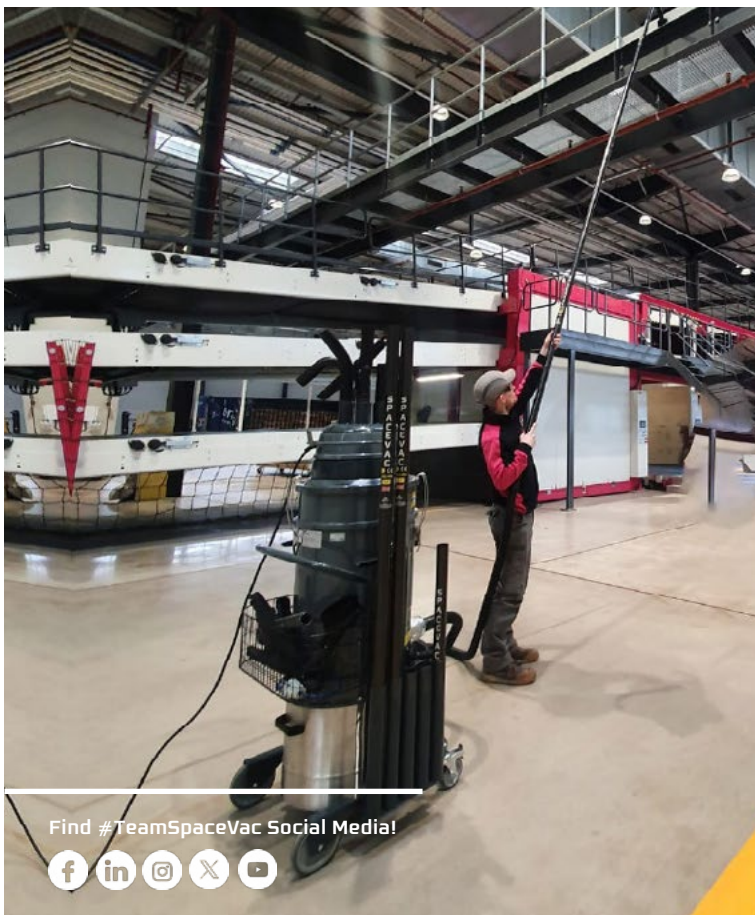
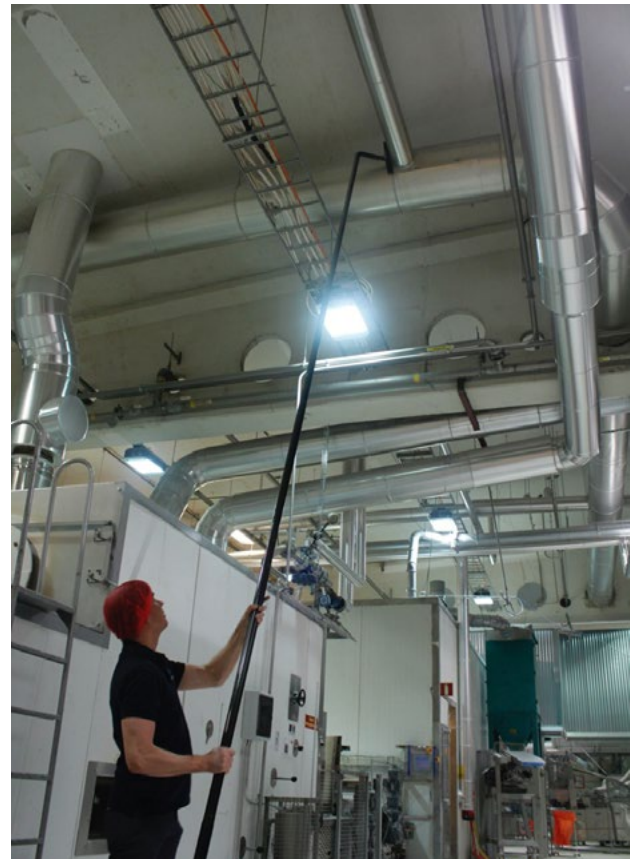
This family of new machines offer market leading filtration and suction as well as durable construction, to stand up to the rigours of cleaning in the industrial space.

In addition, the ATEX line can be further accessorised with a range of add-ons, including an ATEX certified wireless camera and monitoring system (the Explorer Extreme) which allows for real time monitoring of cleaning work, and even a set of brushes and tools specifically designed for use removing organic, combustible waste material from Food & Drink production environments.

After a decade at the forefront of cleaning innovation, SpaceVacs range of cleaning systems are trusted by some of the biggest companies in the world including Tesla, Nike, Facebook, Coca Cola, Harley Davidson and more...

To find out why, and to see the impact SpaceVac could have on your cleaning and facilities management regime -

be sure to reach out to the team to book a free consultation today at spacevacinternational.com or call the team to discuss your requirements on +44 1604 968668.



Find #TeamSpaceVac Social Media!



SpaceVac's NEW range of industrial vacuum cleaners have been developed to meet the demands of heavy industry, the intensity of food manufacturing and the exacting standards within the pharmaceutical sector.

This new range of vacuum systems include ATEX and ACD certified models for the removal of combustible waste and provide the perfect companion to our range of award winning high-level cleaning systems.

Book a **free presentation** today and find out why companies like Tesla, Coca Cola and Nike already trust SpaceVac to keep their facilities at their best!

spacevacinternational.com

VIEW FULL MAGAZINE ONLINE

- + Extra Articles and features
- + Full Business Directory
- + Much More...

EMSOnline

www.engineeringmaintenance.info

All of our articles are available to read online today!
Scan the QR code to go directly to the site



Visit Us Online

www.engineeringmaintenance.info

EMS
ENGINEERING MAINTENANCE SOLUTIONS

SAFETY IS NON-NEGOTIABLE



**CHOOSE WOLF SAFETY
ATEX LIGHTING FOR
UNPARALLELED PROTECTION.**

Wolf
WITHOUT COMPROMISE

WOLF SAFETY LAMP COMPANY - SAXON ROAD WORKS, SHEFFIELD S8 0YA T: +44 (0) 114 255 1051 | INFO@WOLFSAFETY.COM | [W: WOLFSAFETY.COM](http://W.WOLFSAFETY.COM) 

CHEMUK Expo Records A 17% Increase In Visitors For The 2024 Edition!

CHEMUK 2024 opened its doors on Wed 15th & Thu 16th May at the NEC in Birmingham to a record attendance of 4641 visitors (excluding exhibitor staff) over the two days, representing an increase of 17% from the 2023 edition. The total two-day attendance (visitors plus exhibitors) was 6677.

CHEMUK show founder, Ian Stone, sums up the positive response to this year's event: "Standing in the hall mid-morning on the first day was electric! So much volume and energy in the hall with our biggest concentrated audience ever, from literally every corner of the sector."

"I think the seniority of attending technical, scientific, supply chain, and business visitors rocketed to a whole new level this year, one visitor badge after the next from the biggest names across the sector." Minister Alan Mak represents the UK Government at CHEMUK 2024. Visitors to CHEMUK were invited to an exclusive pre-recorded address by Minister Mak, Minister for Industry and Economic Security at the Department for Business and Trade, and Minister for the Investment Security Unit at the Cabinet Office.

The address was supported by a comprehensive UK Government footprint at the show, with several government departments exhibiting this year, including the Department for Business and Trade, the Department for Environment, Food and Rural Affairs, the Health and Safety Executive, the Home Office, and the Department for Energy Security and NetZero.

CHEMUK Group of Events

CHEMUK redefined itself this year with the introduction of several sub-brands: the Chemical & Process Engineering Show, the Chemicals Supply Show, the Chemicals Management Show, and the Chemical Laboratory Show. The organising team was delighted to see not only an increase in the number of visitors but also an increase in the quality of visitors, which they largely attribute to the introduction of these more focused show zones.

Ian Stone commented on the new brands, "The introduction of individual sub-branded shows underneath the 'single destination' CHEMUK24 brand has been a great success and allowed attendee groups to lock onto their primary focus area, whether as a process engineer, analytical chemist, hazardous transportation manager, and so on, whilst still benefiting from the serendipitous opportunities, intelligence, and connections drawn from the other branded show streams."

The CHEMUK 2024 Conference covers the big issues

Reflecting on the enormous CHEMUK 2024 speaker programme, Ian Stone comments, "CHEMUK24 was our most comprehensive conference programme to date and certainly our best attended, with standing room only at so many of the keynotes and panel programmes. The 'drop-in' nature of the CHEMUK conference stages carries so much appeal, giving instant access to senior figures, expertise, technology, innovation, and the most topical and lively debates around the BIG issues affecting and influencing the sector, whether Sustainability, UKREACH, Decarbonisation, Future Skills, Digitalisation, Bio-based Transition, Scale-Up and so much more."

"It's pretty much a 'freeze frame' of where the industry is each year and is invaluable in intelligence gathering, empowering all important directional and investment decisions."

CHEMUK 2024 Partner support continues to underpin CHEMUK's growth

The 2024 show welcomed several key new partners to the show this year who brought invaluable content and member groups to the show. The new partnering organisations included the British Plastics Federation, IMechE, ScotCHEM, CICA (Chemical & Industrial Consultants), and the CHCS (Chemical Hazards Communication Society).

The show's success was underpinned by the continued support and input provided by their longstanding partner network, comprising the CBA, BCA, BASA, BVAA, BPMA, BioVale, BCMPA, BADGP, CPI, CCUK, IBioIC, GAMBICA, NEPIC, SIA, InnovateUK KTN, Chemicals Northwest, UKLA, and the UK & Ireland Spill Association, to name a few. Stone commented on the importance of CHEMUK's partner network, "The importance of our partnerships across the industry cannot be overstated, and from professional bodies such as RSC and IChemE

through to the wealth of invaluable trade, technical, industry, and innovation bodies that support the event and, in most cases, are active on the show floor or contribute to the high-quality content and session development in the conference, I think all partnering bodies and institutions place great value on disseminating their key roles, priority agendas, and outputs to a truly sector-wide audience annually through the CHEMUK experience.

RSC as CHEMUK 2024

The Royal Society of Chemistry (RSC) was again at the centre of CHEMUK, with a packed two-day programme including an RSC Team stand, an RSC Careers Clinic, an RSC Panel Discussion focusing on the importance of a positive science culture, an exclusive keynote from current RSC President, Professor Gill Reid, and a dedicated RSC member's reception.

IChemE at CHEMUK 2024

The IChemE brought together a fantastic programme of content that included two keynote addresses by current President and CEO, Nigel Hirst, and Yvonne Baker OBE. In addition, visitors were invited to a feature panel discussion around sustainable production. The Chemical Business Association's 'Chemical Supply Chain in Action' feature zone is a massive hit.

The Chemical Business Association team pulled out all the stops to present their 2024 feature zone, which represented some of the key support services and mechanics of the UK chemicals supply chain. The feature zone included DHL's Box Stacker VR game, Road Haulage Association HGV Drive Simulator, Brenntag Fleet Stainless Steel Tanker Exhibit, CBA Live People & Skills Hub, Meet Your Industry Stakeholders: DfT and Police (CDGFP), CBA Sustainability Hub, and DGSA Discussion with Sukhpal Randeva, DfT.

This was all in addition to the CBA's keynote address by CEO Tim Doggett and two panels entitled, "Transitioning into the Digitally-Enabled Age" How equipped is your Chemical Supply Chain?, and 'Achieving & Demonstrating Sustainability in the Chemical Supply Chain'.

CHEMUK 2025: Looking ahead

In 2025, CHEMUK will introduce 'The Formulated Product Manufacturer Show'. Ian Stone talked through his vision for 2025, 'CHEMUK is all about providing a single destination where all strands of the chemical industries converge through its individual show stream brands, and 2025 sees the introduction of a brand new '5th stream' with the 'Formulated Product Manufacturer' show.

Aimed squarely at the downstream consumer and industrial formulated product industries, from cleaning and disinfecting products to car care, from personal care and cosmetics to adhesives and sealants, coatings and paints, lubricants, oils and fluids, plastic compounds, etc., the list goes on.

For brand owners, large and small, formulators, contract and toll manufacturers, packaging, dispensing, and aerosol solutions, and all businesses involved in the business of formulating, producing, fulfilling, and packaging formulated chemical products, this will provide an intensive supply chain showcase supported with dedicated panel discussions and expert insight into the BIG issues shaping and influencing these downstream 'to the shelf' sectors."

Dates for Diary: CHEMUK 2024 (NEC, Birmingham) Wed 21st & Thu 22nd May 2025

www.chemicalukexpo.com





UVEX 1 Trainer Delivers On Fit, Comfort, Performance And Style

Uvex has launched an innovative trainer that combines strong PPE functionality with the fit, comfort and style of leisure footwear.

The uvex 1 trainer has been created for workers who spend all day on their feet and want safety footwear that offers high levels of comfort and support without sacrificing style.

Standing for long periods has been shown to increase the risk of varicose veins, bunions, plantar fasciitis, high blood pressure and poor circulation. Working on hard surfaces can also generate shock with every step, putting extra strain on the feet, ankles and calf muscles and potentially leading to discomfort in the feet, legs, hips, back, neck and shoulders.

Footwear that provides comfort, support, cushioning, breathability and is light on the feet is therefore vital to protect against ailments throughout the body.

The uvex 1 trainer has been designed to offer a solution that ticks every box. It provides support, anti-fatigue shock absorption, and high levels of slip-resistance, with breathable, flexible, ultra-lightweight materials. The trainer's sleek design has also been inspired by high-street fashion to help encourage maximum PPE compliance.

Clair Weston, head of marketing at uvex, said: "We often forget that looking after our feet can prevent difficulties throughout the body. The uvex 1 trainer provides excellent comfort and protection for those working on hard surfaces in manufacturing, warehousing and logistics, automotive and airport environments. It's also a good-looking shoe that can transition between work and leisure so helps to increase compliance and improve wearer wellbeing."

Premier protection

The uvex 1 trainer's non-metallic construction allows for the natural, flexible movement of the foot. Extra protection is afforded by a metal-free toe cap that is anatomically shaped to promote a biologically normal structure and function which offers good lateral stability and no thermal conductivity. The scuff cap also helps protect the upper material for longer-lasting wear.

Furthermore, the trainer features a metal-free, highly flexible, penetration-resistant midsole, and meets the ESD specification with volume resistance under 35 megaohms. Made from synthetic materials, the uvex 1 trainer is suitable for people allergic to chrome.

Built for comfort

The virtually seamless design eliminates pressure points for all-day comfort, while the soft textile upper delivers high-level breathability. A mesh lining allows feet to breathe while the soft-padded tongue and collar increase comfort.

Its removable comfort insole has antistatic properties and provides moisture control and enhanced shock absorption. The insole is also made of 73 percent recycled polyurethane with no impact on performance. The uvex 1 trainer's dual-density PU anti-fatigue, flexible sole has been developed to provide optimal slip-resistance, exceptional shock absorption in the heel and forefoot, and arch support.

User-friendly fashion

Available in black or blue, the uvex 1 trainer also offers user-friendly features including elastic 'speed' laces that allow the shoes to be individually and quickly adjusted, slipped on or off as well as a pull tab that offers an easy on-off fit. A reflective element on the logo and pull tab, meanwhile, enhances wearers' visibility to others.

For more information about the new uvex 1 trainer, visit: www.uvex-safety.co.uk

Employers, Duty Holders, And Safety Professionals: Shape The Future Of The Uk Safety Industry With The Bsif “Pilot Scheme”

The British Safety Industry Federation (BSiF), the leading membership organisation for PPE and safety equipment manufacturers, distributors, and specialist service providers, is excited to announce a groundbreaking initiative. They are inviting employers, duty holders, and safety professionals to join an exclusive Membership Pilot Project, set to launch on June 27, 2024.

Why participate?

There are no fees charged to join and participate in this innovative pilot scheme, participants will gain access to a range of invaluable benefits designed to enhance safety standards and practices across the UK:

- Manned, independent PPE helpline: Receive expert advice and support for all your PPE-related queries.
- Guidance on standards & PPE regulations: Stay informed with the latest regulations and compliance requirements.
- BSiF Bulletins for industry updates: Keep up-to-date with the latest news and developments within the industry.
- Exclusive white papers: Access in-depth research and insights on critical safety topics.

ical safety topics.

- Regional PPE/safety equipment development workshops & forums: Participate in local events to discuss and develop safety solutions.
- Opportunities to shape industry campaigns and standards: Play a direct role in influencing industry practices and policies.
- Discounts on BSiF training courses: Enhance your knowledge with courses such as “Sourcing Safety” at reduced rates.
- Networking events with industry peers: Build valuable connections within the safety community.
- Nomination for BSiF Committees: Contribute to national safety standards by representing your sector.

Be a pioneer in safety

Joining the BSiF Membership Pilot Scheme offers a unique opportunity to pioneer advancements in workplace safety. By collaborating directly with suppliers and buyers, participants will help shape a safer future for the UK workforce.

How to join

Express your interest in the BSiF Membership Pilot Scheme by contacting the BSiF at enquiries@bsif.co.uk or calling 01442 248744.

CALLING EMPLOYERS, DUTY HOLDERS AND SAFETY PROFESSIONALS!

Help shape the future of the UK Safety Industry

Join with the “BSiF Membership Pilot Scheme”
– launching
June 27, 2024

Register your interest by emailing:
enquiries@bsif.co.uk





Buyers Guide 2024



+44(0)151 356 2322
www.rotechsystems.co.uk
sales@rotechsystems.co.uk

ROTECH SYSTEMS

Rotech End of Shaft or belt driven units are used for monitoring:

- Stop/slip
- Underspeed/overspeed
- Interlocking/sequencing
- Distance/direction
- Rotation control
- Belt weighers



KEEP ON RUNNING WITH ROTECH



JCE GROUP

HAZARDOUS AND SAFE AREA ELECTRICAL CONTROL SYSTEMS

WWW.JCEGROUP.COM

ATEX UK CA IECEx NEC 500 MADE IN BRITAIN

4² 4 Square Engineering Consultancy Limited

ATEX / DSEAR

Inspection-Training-Consultancy-Gap Analysis

DSEAR Compliance & Verification

Explosion Protection Document

Ignition Risk Assessment

Compliance Audits

Tel +44 (0) 1506 823311 Web : www.4sq.co.uk

Mobile 07764 461694 e : info@4sq.co.uk

To Advertise In The Buyers Guide Please

Call +44(0)207 193 1396

or email:

stevep@mslmedialtd.com

SBES

Your 1st Call For Emergency Alarms *LIFE SAVER*

- Lone Worker Alarm Systems *TRACER*
- First Aid Alert Systems
- Emergency Help Points
- Leisure Centre & Pool Alarm Systems
- Lockdown Alarm Systems for Schools and Educational Centres *RESPONDER*

Call us now on +44 (0) 1737 226622 or visit www.sbes.co.uk

Ex UK CA CE *ISO 9001* *SSAIB* *CSA Group* *Alcumus*



J.B.Systems

Hazardous Area Specialists for Over 38 Year's
Providing Expert Design and Manufacture of Control Equipment

J.B.Systems is a Renowned Supplier of Brands Worldwide providing Ex systems, Flame Monitoring Systems, and other Hazardous Area Equipment of the very Highest Quality.

Serving the Industry for 38 Year's supplying complete Design and Manufacture of Control Equipment to the Petrochemical Sector.



J.B. Systems Limited,
13 Bridgegate Business Park,
Gatehouse Way, Aylesbury,
Buckinghamshire
HP19 8XN

+44 (0) 1296 489967
sales@jbsystems.co.uk
www.jbsystems.co.uk

GLOBAL TRAINING & CONSULTANCY FOR HAZARDOUS AREAS

ATEX UK CA IECEx CE



HYDROGEN AMERICAS 2024

SUMMIT & EXHIBITION

CO-HOSTED BY:

11 - 12 JUNE 2024

RONALD REAGAN INT. TRADE CENTER
WASHINGTON D.C.



The Hydrogen Americas Exhibition will gather the region's leading hydrogen stakeholders to meet technology manufacturers, private sector leaders, policy makers and innovators contributing to hydrogen's critical implementation. Showcase your latest innovative products for an opportunity to discuss, collaborate, and do business with investors looking to drive the hydrogen industry forward.

WHY SHOWCASE?

- Highlight your products and services to buyers and partners
- A cost and time effective way to discover new business opportunities
- Position your brand as a leader in the growing hydrogen market
- Exchange insights and answer your clients' questions instantly
- Be part of a growing hydrogen community in the region
- Generate new leads for your company in a highly targeted environment
- Host meetings and secure business deals right on your stand

LIMITED STANDS REMAINING



EXHIBITION SPACE & ONE SUMMIT DELEGATE

TOTAL (US DOLLARS)

ADDITIONAL - SUMMIT DELEGATE PLACES

OPTIONAL - TECHNICAL SESSION SPEAKER SLOT

EXHIBITION SIZE 10 X 10 FOOT

PRICE \$7,500

PRICE \$2,199

PRICE \$1,500

BOOK YOUR EXHIBITION STAND:

Contact: GURPREET HAYRE | +44 20 7978 0034 | Americas@sustainableenergycouncil.com

#H2AMERICAS2024
hydrogen-americas-summit.com



WJA TRADE SHOW

2024

**VISIT THE UK'S NEW
WATER JETTING SHOW**

FREE TICKETS NOW AVAILABLE

Book your free tickets online

Enquire about having a stand

Go to: waterjetting.org.uk/tradeshows



**STONEX STADIUM,
MILL HILL, LONDON, NW4 1RL**

A LOT TO SEE AND TALK ABOUT

- | Latest water jetting technology
- | Equipment displays
- | Outdoor exhibition area for larger machines
- | Training and health & safety expertise
- | The meeting place for industry professionals

ALL SECTORS REPRESENTED

- | Drainage and water utilities
- | Industrial cleaning
- | Surface preparation
- | Hydrodemolition
- | Pressure washing

**THURSDAY 12TH
SEPTEMBER 2024**



WJA TRADE SHOW SPONSORS



WANT TO TAKE PART?

Call the WJA to discuss options for booking a stand

Tel: +44 (0) 208 320 1090 Email: tradeshows@waterjetting.org.uk

www.waterjetting.org.uk

**FREE TO
ATTEND**