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A Huge Leap In Technology For The Gas Detection Market - 4



Also in this edition: ATEX Buyers Guide | Hydrogen Awards 2024 | Digital Revolution For Hazardous Areas | Why Do We Need Intrinsically Safe Instrumentation + More...

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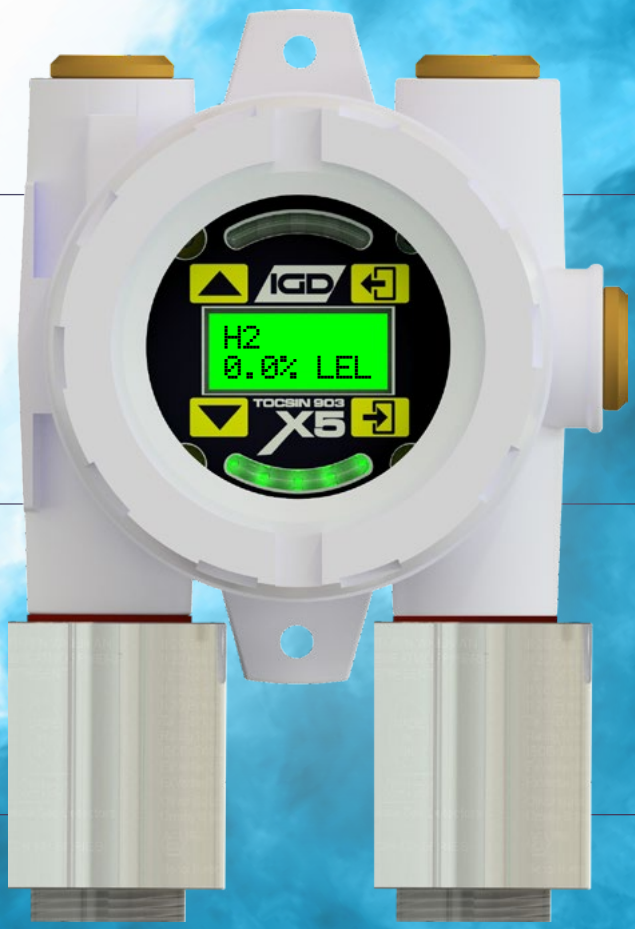
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A Huge Leap In Technology For The Gas Detection Market

International Gas Detectors, Ltd. are excited to announce the latest addition to our product range: the TOC-903-X5 gas transmitter. Our new gas detector transmitter provides a huge leap in technology to the gas detection market, with its dual gas sensing capabilities, remote detectors and onboard connectivity.

Wide-Range of Applications

Our TOC-903-X5 is approved for ATEX explosive zones 1 and 2 and, dust zones 21 and 22. Available as a standalone device, on our legacy 4-20mA analogue system or, on our unique 2-Wire addressable systems. Providing an all-in-one gas transmitter.

It also features non-intrusive, one-person calibration, perfect for simple and easy servicing in ATEX-zoned areas. We have designed this gas detector transmitter with the user in mind, including easy-to-navigate digital menus and an at-a-glance light ring for instant detector status. Ensuring you receive all of the vital information you need, as and when you require it.

Dual or Remote Gas Detector Capability:

The TOC-903-X5 brings dual sensor capability to the market. So you can have one directly connected or two directly connected gas sensors [Image A & B] of any mix, from our TOC-102 sensor range. This drastically reduces CAPEX cost by reducing the number of transmitters required.

For applications where you have a mixture of heavier and lighter than air gas types; our TOC-903-X5 has remote detector capabilities [Image C & D].

With easy integration into any new or existing IGD gas detection system, our TOC-903-X5 is incredibly flexible. With dual and remote sensing capability and over 400 gas sensors available with plug-replaceable capability, you can easily switch the sensors in your X5.

Leading Sensor Technology

Each sensor is guaranteed to come with IGD's leading sensor technology, ensuring you are getting the best possible gas detection capabilities with long operational life from an experienced manufacturer.

The TOC-903-X5 automatically updates when detectors are fitted, updating the information on the transmitter. Including the gas type, range, measurement type and, alarm levels.

There is no need to spend time setting the unit up, and minimises the potential human error, as the X5 does this for you. This latest gas transmitter is compatible with many of our accessories, so you know this versatile device is keeping your team safe.

Long-Life Guaranteed

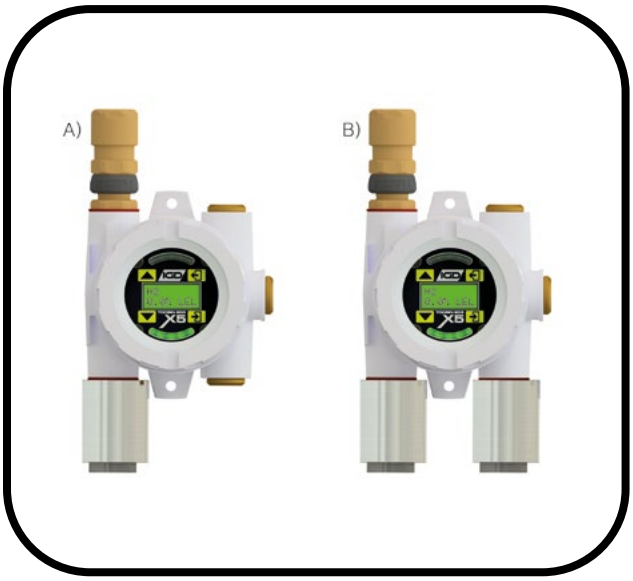
The X5 also comes with a 10-year warranty on electronics and full support from the service team at IGD. Reducing the cost of upkeep on your system, but also confirming that your gas transmitter is in perfect working condition throughout its life.

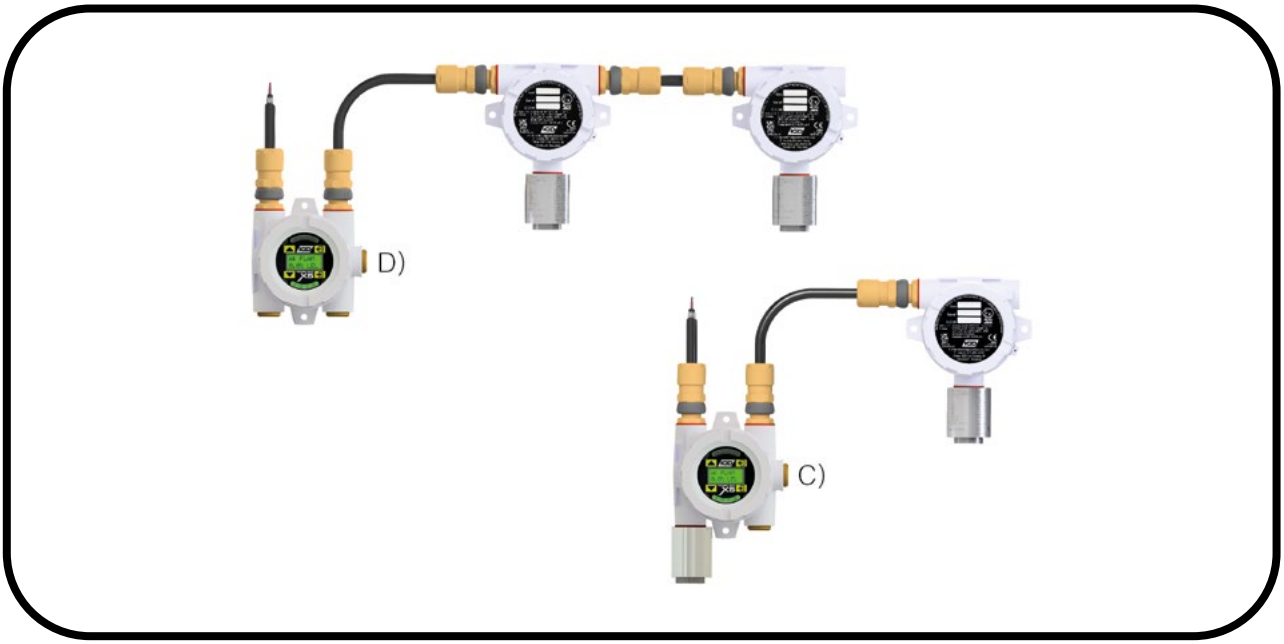
Manufactured utilising over a century of experience in the gas detection industry, guaranteeing a high-quality gas detector for your gas safety.

Contact IGD Today

It's easy to see why this is the most versatile gas transmitter available on the market. These are just a few of the features of the TOC-903-X5, check out the product page on our website for more information.

internationalgasdetectors.com





Atex Application For Water Re-Injection

Cat Pumps (U.K.) were contacted by an onshore wellsite operator looking for a complete pump and motor unit that was able to deliver the pressure and flowrate required for their water injection "downhole re-injection" system.

Following an online search, they discovered that Cat Pumps offer ATEX Pumps and Pump Motor Units that were a suitable solution for their application.

The operator, appraises and develops any hydrocarbons found at an onshore wellsite in the Weald Basin in the South of England, and wanted produced water from oil and gas fields to be reinjected into the formation to stimulate hydrocarbon production in aging wells known as water injection or water flooding. Produced water is very expensive to dispose of, so it is cost effective to re-inject into designated wells with compatible ground formations.

Cat Pumps has provided high-pressure pumps, pump systems and components to the well drilling industry for over 30 years. Due to the field-proven dependability and superior suction capabilities, our pumps have become the industry standard for water injection applications worldwide.

With field-proven dependability in applications around the globe, Cat Pumps provides the best value for water injection systems.

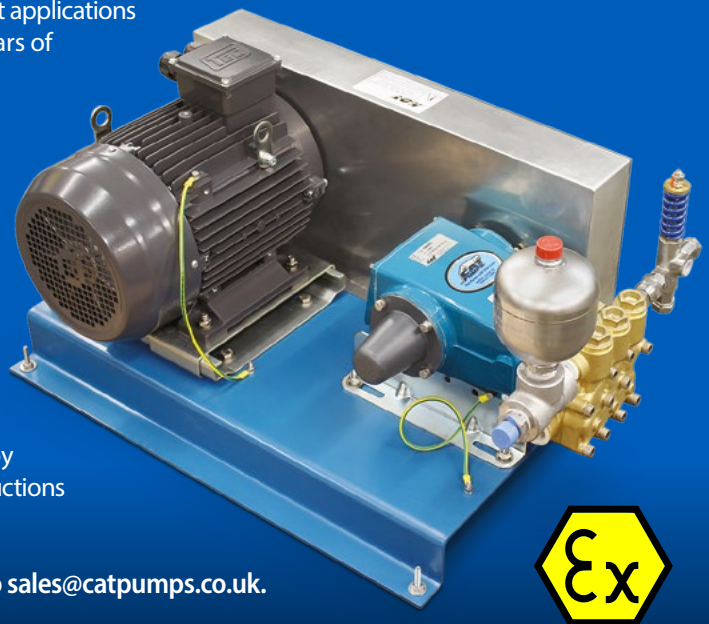
The onshore well operator advised:
"Cat Pumps had a very good understanding of our requirements. Their Technical support, after-purchase correspondence and ease of delivery to our location, made it a pleasure to do business. Any further requirements, we will contact Cat Pumps as our preferred supplier."

E: sales@catpumps.co.uk
W: www.catpumps.co.uk

Cat Pumps (U.K.) Limited

ATEX PUMPS AND PUMP PACKAGES

Cat Pumps offer ATEX High Pressure Pump packages to suit applications in an explosive atmosphere. Cat Pumps have over 30 years of experience designing, building and testing ATEX pump packages for use in zones 1 and 2 and meets the requirement of ATEX 114 "equipment" Directive 2014/34/EU — Equipment and protective systems intended for use in potentially explosive atmospheres.



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Call us today on 01252 622031 or email your enquiry to sales@catpumps.co.uk.

United Kingdom Ltd

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Enerpac Workshop Presses - Combine Safety And Superior Performance

Enerpac announces two series of workshop presses—the XLP-Series H-Frame Workshop Presses and VLP-Series Benchtop Presses. Whether for differential assembly in the automotive industry, gear components assembly in the aerospace industry, or bearing maintenance in the mining industry, the Enerpac VLP and XLP presses offer superior performance.

New XLP-Series Workshop Presses

Available in 25-, 50-, and 75-ton models, the XLP-Series Workshop Presses feature adjustable side-to-side cylinder movement, a locking winch for easy height adjustment of the press bed, and high-performance manual, pneumatic or electric pump options with remote valve operation. The 25-ton press has a simple, welded design and the 50- and 75-ton presses have an open frame and bolted design. The 50-and 75-ton models come standard as unassembled kits, and include complete press frame, winch, cylinder, pump with gauge, couplers and hose.

New VLP-Series Benchtop Presses

Enerpac VLP-Series Benchtop Presses work with manual or air pumps. They feature a welded frame and are available in 10-ton models.

To learn more about the Enerpac VLP and XLP Presses, visit www.enerpac.com



The World's First Work Trousers With Built-In, Certified Kneepads

Snickers Workwear has been inventing and reinventing Work Trousers with Kneepads since 1975.

Renowned for continual innovation, the process continues with the launch of the world's first built-in, certified kneepads which are completely integrated into a pair of Snickers Workwear's premium stretch Work Trousers.

The unique AllroundWork, Stretch Trousers with Capsulized™ Kneepads and Holster Pockets deliver low-profile, comfortable impact protection. They're an innovative combination of cutting-edge sportswear technology coupled with Snickers Workwear's world-renowned comfort, functionality and sustainable fabric design technology.

https://www.snickersworkwear.com/campaign/capsulized

These street-smart hard-working slim-fit Trousers combine enhanced flexibility and comfort with a 2-way stretch fabric plus additional 4-way stretch panels at key stress points. There's also CORDURA® reinforced holster, ruler, and cargo, pockets.

And, as is typical of all Snickers Workwear clothing, these durable and comfortable Work Trousers with the lightweight Capsulized™ kneepads provide in-place ergonomic protection all day, every day.

Getting more information on the Snickers Workwear AllroundWork, Stretch Trousers with Capsulized™ Kneepads and Holster Pockets is easy. You call the Helpline on 01484 854788; check out www.snickersworkwear.co.uk; or you can email sales@hultaforsgroup.co.uk



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Ensuring Safety In Hazardous Environments:
ATEX Safety Showers

In industries where flammable gases, vapours, and dusts are present, ensuring the safety of employees is of paramount importance. The European Union's ATEX Directive 2014/34/EU, aim to regulate equipment used in potentially explosive atmospheres, requiring companies to implement safety measures that mitigate the risk of ignition and protect personnel.

Background

All chemical manufacturing facilities that handle or specialise in the production of volatile chemicals should adhere to ATEX regulations to protect employees from potential hazards. One of the key aspects of ATEX compliance is the provision of safety equipment, including safety showers and eye wash stations.

The Challenge and Solution

Compliance with ATEX Regulations: The company needs to comply with ATEX Directive 2014/34/EU, which requires the implementation of safety measures to prevent explosions in areas with potentially explosive atmospheres. This includes providing ATEX-compliant safety showers.

Employee Safety: The safety of employees is a top priority. You need to ensure rapid and effective decontamination in case of chemical exposure.

Equipment Selection: Choosing the right ATEX-compliant equipment is essential. You must evaluate the specific requirements of your facility, including location, potential hazard levels, and the number of showers needed.

The Solution

Get peace of mind knowing that safety showers from Aqua Safety Showers will be manufactured from corrosion resistant materials and come with a two-year warranty, further promoting a safety-conscious workplace culture.

www.aqua-safety.com

MADE IN BRITAIN

Hydrogen Awards 2024

Finalist Companies Announced

The Hydrogen Awards have been established as an annual measure of enterprise, innovation and excellence – in standards, implementation and thinking about the future and about bringing the use of hydrogen to all industries and sectors and to the public. While the Awards are based in the UK it is now obvious they have international appeal.

The finalist companies for the 2024 awards are listed below. The results will be announced on February 27 at the Hydrogen Awards Dinner and Ceremony at Keele Hall.

BayoTech
Dubai Electricity Water Authority
Energy Safety Research Institute
First Hydrogen
GenHydro
GeoPura
Gexcon
Giancarlo Zema Design Group
HiiROC
HVS (Hydrogen Vehicle Systems)
Hydrogenscape
IKM Consulting
Johnson Matthey
Mattiq
McHenry Global Industries
Ohmium International
Parker HannifinUK
Toyota Motor Manufacturing

Finalist companies will have the opportunity to receive a category Winner or Award of Merit trophy on stage during the Awards' presentation. The evening event last year was a huge success and pictures of the 2023 dinner and awards are on the website, including a list of Winners on the Results page. The event is expected to attract even greater attendance this year.

Planning to attend the Hydrogen Awards for the second year running, Robert Airey, Market Development Manager – Clean Energy at Parker Hannifin, comments: "With Parker's 60 years of hydrogen experience we are delighted to not only be one of the named Finalist companies, but also be supporting other top performing companies across the sector as Headline Sponsor to the Hydrogen Awards. Looking at the list of Finalists, the hard work, innovation and dedication is evident as we all push towards enabling a greener energy future."

Nick Herbet, Luxfer Gas Cylinders sales director:

"It's inspiring to see a real passion for hydrogen in the automotive sector, and we commend the companies who have demonstrated industry-leading excellence, in order to achieve a shortlisting in this competitive category.

"At Luxfer Gas Cylinders, we are committed to supporting the adoption of hydrogen internationally – our engineers have worked for over two decades building hydrogen systems for a whole range of transport modes, from HGVs, to buses, boats and even drones.

"Alongside a significant legacy in gas storage and transportation, we're at the very forefront of hydrogen innovation, constantly adapting our trusted technology and applying our vast experience to ensure our solutions reflect how the market is moving. We are proud to be involved in these awards because they represent everything Luxfer stands for – celebrating the journey towards a safe, clean and energy efficient world. We wish these finalists, and fellow pioneers, the very best of luck."

Headline Sponsors Parker Hannifin

https://www.parker.com/gb/en/solutions/hydrogen.html

Category Sponsors Luxfer Gas Cylinders

https://www.luxfercylinders.com

Category Sponsors Energy Research Accelerator

https://www.era.ac.uk

Supporting Partners HyDEX

https://hydex.ac.uk

Media Partners

H2 View

https://www.h2-view.com

Engineering Hydrogen Solutions

https://engineeringhydrogensolutions.com

Places can be booked via the website and for more information please contact the event manager Helen Warrilow.



David Whitehouse Announced As SPE Offshore Europe 2025 Conference Chair

Offshore Energies UK (OEUK) CEO, David Whitehouse will chair the conference and executive committee for SPE Offshore Europe 2025 (OE25) being held at P&J Live, Aberdeen from 2-5 September 2025.

SPE Offshore Europe is organised by The Offshore Europe Partnership, a joint venture between RX (Reed Exhibitions) and the Society of Petroleum Engineers (SPE). Commenting on behalf of the partnership, SPE President, Terry Palisch said: "We are thrilled to welcome David Whitehouse as the Conference Chair for SPE Offshore Europe 2025.

As the CEO of Offshore Energies UK, a pivotal figure representing the UK's offshore energy industry, he brings thorough insights into the challenges and opportunities of this transformative era. David's leadership promises a fresh perspective, paving the way for the industry's transition. His strategic direction will navigate the conference towards dynamic discussions on emerging topics, creating an environment of innovation and progress. Under his stewardship, OE25 will spotlight pertinent topics, sparking collaborative efforts to propel the industry towards the era of unprecedented growth and pioneering advancements."

OEUK Chief Executive David Whitehouse said: "SPE Offshore Europe remains a key fixture for our collaborative, innovative industry and I'm pleased to take on the role of chair. The conference shines a spotlight on the UK sector and its excellent people to a global audience. As we consider the national and global challenges facing us, we must make sure everyone understands the enormous potential benefits of a transition led by integrated homegrown energies – oil, gas, hydrogen and wind and more."

The executive and technical committees will be in place in the first quarter of 2024 and the theme for OE25 agreed thereafter.

Approximately 30,000 people and 800 exhibitors attended the 50th anniversary edition of SPE Offshore Europe in September 2023.

www.rxglobal.com

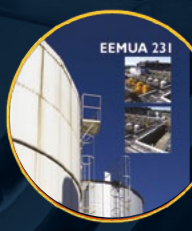


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EEMUA 231 Mechanical Integrity Basics – certificated via exam – blended, online learning – Basic application competency level – 4 hours of learning per week for 3 weeks – **Next course starts 26 February 2024**.

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EEMUA

Climate Challenge -

"Whatever the weather, business must go on" say Hart

With a significant number of major storms hitting the UK, Climate Change inevitably raises its threatening head yet again writes Nick Hart, managing director, Hart Door Systems.

As an island the UK's climate has always been influenced by its surrounding seas and the near Continent, be it Scandinavia or Europe. There are however subtle changes afoot as demonstrated by the 10 named storms between September 2023 and the end of January 2024 which most recently included warnings of isolated Tornados hitting us.

Under this process of change what does this mean for industry? We at Hart Door Systems lead the way in taking on the storm threat through our high-speed Speedor range of high-speed doors in particular with our Speedor Storm which has been specifically designed to face the storm challenge.
The automated Speedor Storm has wind resistance on a large external openings in mind, up to 6m x 8m or 8m x 6m. Available up to class 5 as defined by DIN EN 12424, the best maximum test pressure capable of withstanding 1250 Pa of pressure across the door face, the equivalent of wind in excess of 70 miles per hour.

The smaller the door the higher the wind speed it can withstand as all Speedor Storms have the same construction. If a client wants a door capable of even higher wind-loads than wind-class 5 then we offer the Typhoon door which can meet either a 3000Pa specification or a 4000Pa and can be made up to eight meters wide. This product is ideal for very high wind-load situations and is why it's been so successful in the Far East where they regularly experience tropical Cyclones.
Most recently Hart despatched an SR4 roller shutter for Indonesia. It is presently at sea around South Africa due to Red Sea security issues. When it arrives this very high security shutter with rapid door operation will be installed by the client with technical video support from Hart's headquarters at key stages of the installation process.

Returning to the issue of climate, clearly there is a need for industry to pay attention to accelerating storm threats because manufacturing and subsequent product distribution generates frequent use of industrial doors. If not automated, doors can be left open disrupting the working environment and wasting expensively heated air. Whatever the weather, business must go on.

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The Digital Revolution In Hazardous Areas

The new Smart-Ex® 03 smartphone paves the way for future-oriented digitalization of hazardous areas

ThPepperl+Fuchs presents the intrinsically safe Smart-Ex® 03, a new and resilient 5G- and Wi-Fi 6-enabled smartphone. The 6-inch device combines all the expertise and know-how of the Pepperl+Fuchs subsidiaries ECOM Instruments as a pioneer in intrinsically safe mobile devices, and Aava Mobile as an expert in industrial tablets and wireless technologies. In addition, the smartphone scores with global, competent, and customer-oriented support.

The smartphone, approved for use in Zone 1/21 and DIV 1, with AndroidTM 13 operating system complies with the latest technical standards such as 5G, Wi-Fi 6 and eSIM and is therefore ideally equipped for flexible worldwide use in public and private networks of mobile network providers or companies. Thanks to fast and security-focused transmission of large amounts of data, users benefit from state-of-the-art functions for communication and collaboration. These include, for example, remote support, video conferencing, or digital radio communication with lowest latency by means of Push-to-Talk over cellular (PTToC).

"We have built up profound expertise in communication infrastructures over many years, which is also manifested in our cooperation with Ericsson. We have incorporated this expertise into the development of the Smart-Ex® 03. As a result, users in hazardous areas in a wide range of industries benefit from a resilient 5G- and Wi-Fi 6-enabled smartphone that supports the latest technical standards and ensures outstanding connectivity," explains Jörg Hartleb, Head of Product Management for Mobile Computing and Communications at Pepperl+Fuchs.

Created for a wide range of applications

Another advantage: with the Qualcomm® QCM6490 processor the Smart-Ex® 03 is predestined for a wide range of applications such as communication, digital workflows and work order management, operational safety, scanning, asset management, predictive maintenance, augmented reality applications, or IoT integration. "The Smart-Ex® 03 advanced 5G rugged device is powered by the Qualcomm QCM6490 processor with international wireless connectivity support for ubiquitous coverage. The QCM6490 combines premium tier features, intelligent computing, and on-device AI for powerful long-term performance even in the toughest environments, such as the oil, gas, chemical, or hydrogen industries" adds Sebastiano Di Filippo, Senior Director, Business Development at Qualcomm Europe, Inc.

The smartphone has a state-of-the-art camera that precisely addresses the requirements of industry for scanning, documenting, or video conferencing. Even in harsh industrial environments or in sunlight, the camera delivers accurate, high-quality results. The Smart-Ex® 03 offers companies resilient technology and outstanding connectivity, especially in industries such as oil and gas, chemicals, petrochemicals, pharmaceuticals, energy, and mining. In line with the Pepperl+Fuchs "Enterprise Mobility" concept, the smartphone ensures maximum efficiency in terms of digitalization and cost savings.

Thanks to the desktop mode and full support of the USB 3.1 Type-C standard, the Smart-Ex® 03 can be connected directly to a computer monitor, keyboard and mouse via a multiport adapter or a docking station and thus can serve as a fully-fledged replacement for an office PC. This not only facilitates the further use of the data collected in the facility, which does not have to be transferred to another device first but can be transferred to the company network via a direct Ethernet connection. In addition, there is no need to provide a fixed workstation for mobile workers who only occasionally work in the office. As a further convenience and, above all, security feature, the Smart-Ex® 03 is the only intrinsically safe smartphone on the market to offer a fingerprint sensor that allows unlocking without entering a code and provides additional security thanks to multi-factor authentication.

Innovative security architecture

The successor to the Smart-Ex® 02, redesigned from the ground up, impresses with a further developed safety architecture, which is particularly effective when used in potentially explosive areas. This includes, for example, hardware and software self-monitoring by means of device health monitoring.

Sophisticated diagnostic tools, detailed log files and remote control by corporate IT pave the way for continuous device monitoring and targeted problem solving. Competent support from corporate IT or, if required, from Pepperl+Fuchs ensures optimum device availability. In addition, users benefit from the worldwide sales and service network with over 80 company-owned locations as well as remote support from Pepperl+Fuchs. This always guarantees direct contact and availability of highly qualified experts.

5G for brilliant connectivity

The 5G radio standard in particular allows the Smart-Ex® 03, which also supports 5G Standalone (SA), to provide outstanding connectivity. 5G has paved the way for industry 4.0 by significantly accelerating machine-to-machine communication.

The manufacturer is currently in the process of having the Smart-Ex® 03 smartphone tested and approved by international mobile network operators to ensure optimal network performance – including T-Mobile US, Vodafone, Orange, Telefónica, KPN, Claro, LG U+ and AT&T, among others.



This will ensure optimal connectivity around the globe – on both public and private mobile networks. At the same time, device and network management is significantly simplified by eSIM. This means that network changes can be carried out flexibly and remotely without having to replace a physical SIM card. In addition to an eSIM, the Smart-Ex® 03 can also be used with a nano-SIM.

Cutting-edge operating system supports segmented networks

The software of the smartphone also meets the latest technical standards: with AndroidTM 13, the Smart-Ex® 03 has a cutting-edge operating system that optimally supports communication within segmented networks. The smartphone can, in the future, be upgraded to at least AndroidTM 15. The intrinsically safe Smart-Ex® 03 fulfils the high specifications for AndroidTM Enterprise Recommended and thus meets the highest demands in terms of business use and security. And last but not least, up to 128 GB of internal memory offer sufficient capacity for all the digital documents and records that mobile workers need during their assignments.

https://www.pepperl-fuchs.com

Buoyant Start For Hart Doors In 2024

"I think it's the support and trust shown by our clients in Hart, many of which we have worked for over several decades, which is key"

Following a strong performance by Hart Door Systems in the last quarter of 2023, Gordon Kipling, Hart's Northern Sales Manager reports business levels continue to be robust.

"I think it's the support and trust shown by our clients in Hart, many of which we have worked for over several decades, which is key," says Mr Kipling.

A typical example of a continuing relationship with a client is the installation of several Speedor Storms at a major manufacturing plant in North East England.



"The Storms have replaced our older Speedor Super variant. Speedor Storms are designed to withstand harsh environments where exceptional wind resistance is required," says Mr Kipling.

The rapid roll Speedor Storm is robust with its high-speed opening and closing action, essential in high-traffic situations where constant opening/closing action is vital.

The energy-saving potential of this rapid roll door is high, controlling internal temperatures, escaping dirt, odours and noise.

Special features include; moisture-controlled electrics, mechanical components shielded from dust and dirt, and a unique guide system offering exceptional wind resistance up to class 5 as defined by DIN EN 12424.

The Speedor Storm is Hart's best-selling door, ideal for challenging applications where reliability is essential.

www.hartdoors.com

HART
DOOR SYSTEMS

Five Types Of Application-Specific SPE Cables

Extending its CATLine product series, SAB Bröckskes has launched application-tailored Single-Pair Ethernet (SPE) cables in five variants. A member of the SPE network, the special cable manufacturer drives the further development of this technology.

Compared to conventional 4-pair Ethernet connections, SPE offers significant savings potential in material, space and costs as high data rates can be transmitted over long distances with just one pair of copper cores. The CATLine SPE cables newly developed by SAB Bröckskes can withstand high mechanical loads and temperatures and are highly resistant to chemicals, oils and cleaning agents.

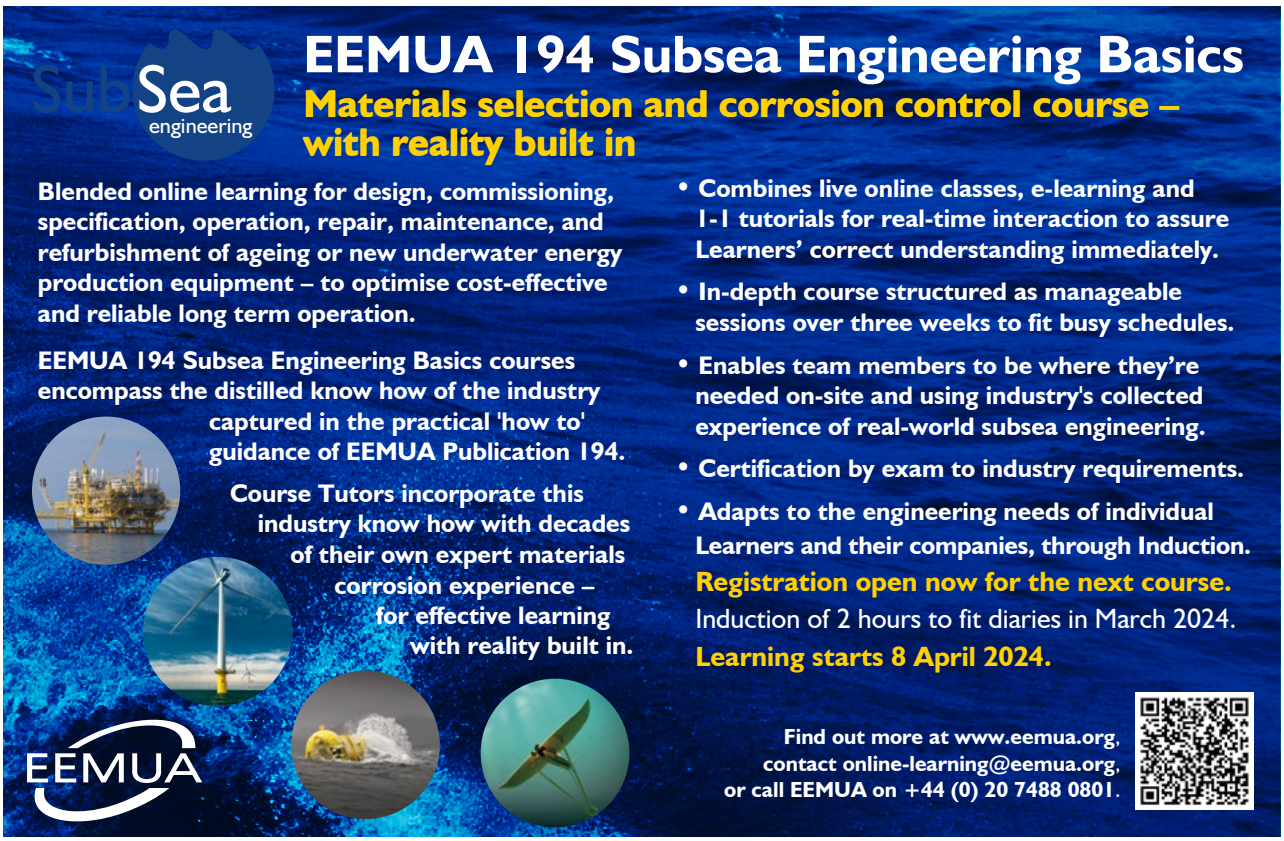
The portfolio includes the two variants CATLine SPE C-Track and SPE Robot, which are optimized for increasing data transmission rates in automation applications. The CATLine SPE C-Track cable, which is specified for drag chain use, features a permanently flexible design and an especially adapted stranding technology.

The version for robot use is characterized by its high torsional strength of +/- 180°. Both variants are UL-certified and ensure secure and reliable data transmission with bandwidths from 1MHz to 600MHz. In addition, they are RoHS-compliant and free of substances that could hinder coating processes. SAB Bröckskes also offers HT, Rugged and Rail SPE cable variants for high-temperature environments, rugged indoor and outdoor use and rail vehicles.

All cables are designed as a single pair (2 x AWG 26/7) and can also be provided as hybrid versions, depending on the application area.

www.gii.de







Historic Pub Strikes It Lucky With Horseshoe Manufacture

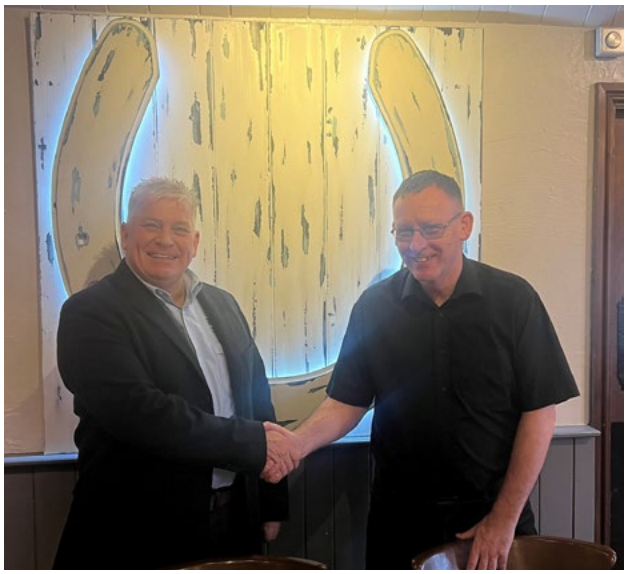
When the Horseshoe Inn, a historic 17th Century pub in a small Staffordshire village, wanted a large horseshoe symbolic of its name made from heavy-grade steel, it was unsure where to turn. Fortunately, businessman and Managing Director of successful manufacturing company Hi-line Industries, Steve Smith, lives nearby. Hi-line takes its support for local businesses very seriously, particularly ones that play such an important role in the community. The company therefore gladly stepped in to manufacture the customised horseshoe on the pub's behalf free of charge.

Hi-line Industries is a UK-based leader in the design, manufacture and installation of energy-efficient compressed air purification equipment, serving a rapidly expanding customer base across the UK. Although manufacturing large horseshoes is far from core business, the company has the know-how and expertise to turn concepts into reality at its production facility in Burton-upon-Trent. Notably, Hi-line is a proud supporter of the 'Made in Britain' campaign, highlighting the passion around British brands and UK manufacturing.

"Our facility in Green Street is only a couple of miles from the village of Tatenhill, home to the Horseshoe Inn," explains Steve Smith. "I know the pub personally because I live not far away. So when I heard about their requirement, I knew we could help. As a successful company prospering on a national scale, we always try to show our support for enterprising local businesses. We were very pleased to assist such an important establishment as the Horseshoe Inn, which has been at the heart of its community for centuries."

The Horseshoe Inn is a family-friendly pub with a warm atmosphere that makes everyone feel at home, whether they are drinking or dining. This old village coaching inn, which dates back to the late 1600s, retains much of its charm despite extensive renovation over the years. The wood-panelled public bar has a homely feel and several of the linked rooms feature low-beamed ceilings and assorted breweriana. The new horseshoe custom-made by Hi-line Industries from 10mm thick steel will make a striking addition to this landmark structure and, hopefully, bring lots of luck for many years to come.

www.hilineindustries.com



Zero Ozone Depleting Potential With Tundra Refrigerant Air Dryers

As of 2024, the entire popular and high-performing Tundra range of refrigerant air dryers from Hi-line Industries will transition to R-513A, a refrigerant with zero ozone depleting potential (ODP) that helps customers to enhance their sustainability credentials. Although Hi-line attributes the success of the Tundra range in compressed air applications to its ultra-reliable performance, energy efficiency and reasonable price tag, the introduction of R513-A and its zero ODP means there really is no need to go anywhere else for refrigerant air dryers.

R-513A (Opteon™ XP10) refrigerant is a hydrofluoroolefin (HFO) based replacement for R-134a. Ideal for use in medium and low temperature refrigeration products, such as Tundra air dryers, R-513A offers 56% lower GWP (global warming potential) than R-134a, delivering long-term sustainability and F gas legislation compliance.

Notably, R-513A resides in the A1 (non-flammable) safety class, making it an ideal retrofit candidate for R-134a, while offering very similar cooling performance. R-513A also provides negligible temperature glide to ensure reliable performance day after day.



Despite the new innovation in refrigerant development, Hi-line intends to hold pricing for the Tundra range firm throughout 2024. This initiative will help customers combat challenging trading conditions and remain competitive in their respective industries.

Tundra refrigeration air dryers are in widespread use across UK industry, improving the quality of compressed air, protecting valuable assets, and outperforming rival technologies in energy efficiency by minimising pressure drop and lowering absorbed power.

Among further features driving Tundra's energy-efficient characteristics is a patented single-cell heat exchanger, which delivers highly efficient heat transfer at low energy costs, and a link between the controller and condensate removal valve for minimum loss of compressed air during condensate discharge. To indicate the regard held for Tundra as a value-added solution for companies running compressed air systems, this innovative product recently gained recognition at the prestigious iPlex Awards, in the 'Energy Management Innovation' category.

Indeed, the acknowledgement of Hi-line's impact on industry stretches far beyond Tundra refrigeration air dryers, with Managing Director Steve Smith's recent induction into the Industrial Plant and Equipment Hall of Fame a case in point. Steve Smith has a depth of experience in the compressed air sector that spans over 40 years.

In particular, the judges praised his commitment to corporate social responsibility, whether it is his willingness to take the lead on charity initiatives, or Hi-line's sponsorship of local sporting teams. On this note, the company will continue to sponsor Tom Hamer, defender at League One football club Burton Albion, throughout the 2023/24 season.

Hi-line are also sponsors of Burton Rugby Football Club – First Team with the logo on the chest of all the First Team Shirts. Along with the sponsorship of the Hi-line Moto X team, this year Hi-line's sponsorship is extend further by sponsoring Help for Heroes to enable the rehabilitation of war veterans to travel pillion on a motor cycle along Route 66.

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EGV HYP

EHEDG Certified Vent Panel For Production Facilities With Highly Elevated Hygienic Requirements

Meeting safety and process requirements at the same time is sometimes a challenge, especially in the pharmaceutical industry. Dust-handling equipment has to be equipped with explosion protective systems, which must also comply with all hygiene and sanitary requirements in production. The solution: Vent panels that can be used to produce hygienically sensitive powders.

The EGV HYP vent panel is an economical solution to the problem described, according to the strict criteria of the EHEDG (European Hygienic Engineering & Design Group). Specially designed for hygienically demanding processes, it protects the vessel in the event of an explosion by releasing flame and pressure.

The smooth surface with the patented, full-flat, chamfered gasket system prevents deposits during the production process and during the cleaning of the system and thereby cross-contamination between batch processes. With the new, contrasting blue color of the seal, it is also easy to see if the seal is damaged and/or a mounting failure has happened.

The EGV HYP can be used without hesitation in critical systems such as spray dryers with / without CIP cleaning, fluid bed dryers and mixers and therefore offers a cost-effective safety solution according to the requirements of hygienic design.

www.rembe.de

Fig.1: Certified in accordance with EHEDG: EGV HYP with patented, bevelled sealing concept for absolute hygiene.





ATEX, UKCA and IECEX Equipment Manufacturers Quality Requirements

Given the onerous nature of an explosion, special certification schemes have been set up to control the design and certification of equipment for use in potentially explosive atmospheres. Although the schemes differ globally (some are mandatory under law, some are simply procurement specifications), the bases for design and certification is similar, and the schemes normally rely on empirical testing, constructional assessment and 'production control' by a recognised Certification Body.

The production control (quality management) part of certification is known as a Quality Assurance Notification (ATEX and UKCA) or Quality Assurance Registration (IECEx) and the Standard that is applied is EN ISO IEC 80079-34. The Quality Module/Registration permits the manufacture of equipment that holds a 'Type Examination' Certificate where the concept of the certification (for example Flameproof, Ex d) is covered by the quality assessment and certificate. The Quality Module/Registration is considered an 'Add on' to ISO9001. It requires

ATEX to be addressed or considered in each applicable clause of the Standard of ISO9001 or that a 'Quality Plan' be created that also adequately addresses the requirements.

Quality Module/Registration audits are normally conducted by an auditor with experience of both Quality Systems and Hazardous Area products. Unlike an ISO audit, where the worst-case scenario is losing your ISO accreditation, non-compliances in a Quality Module/Registration could lead to your products being recalled from the market!

These requirements require an internal person (normally referred to as the 'Authorized Person' to have significant knowledge of EN ISO IEC 80079-34 and the protection concepts used for manufacturing. An example of the types of things the Ex

Quality System would need to address are given below:

• On receipt of an EX sales enquiry, how do you ensure that what the customer requests is covered by your certificate? (gas groups, zone, temperature class, etc.)

• How would you indicate and control an EX build from the design plan?

• Controls in place to ensure all units are built to within the scope of the 'schedule' drawings (the drawings listed on the certificate). Ensure these drawings remain unchanged, if a change is required apply for a 'variation' through the issuing Body.

• How would procurement be controlled to ensure suitably rated EX parts and/or materials are sourced and verified ?

• Are EX parts inspected prior to installing them by someone with appropriate competence ?

• How do you know what other special features are required for an EX build

• Is everyone who works on an EX unit specially trained on Ex equipment Installation and Inspection.

• Were all materials such as potting/encapsulation within 'use by' dates?

• Does the final inspection and test plan cover the EX routine tests and requirements?

• Record all routine tests with signatures/tractability. Ensure all equipment is calibrated.

• Ensure you have a record of where each ATEX certified unit is delivered in case there needs to be a re-call.

• Cover ATEX on agendas for management meetings (to discuss related issues) and in your audit schedule.

• Considered Standards listed on your CE/UKCA Declaration of Conformity within your Quality System as controlled documents. You should have a mechanism for knowing when these standards change or are withdrawn and take the appropriate action.

• Have an 'EX Authorized Person' listed in your ATEX Quality Module System, this person is normally technical and well trained in ATEX, and is the 'go to' person for interpreting the schedule drawings, working with the Notified Body and periodically reviewing the Standards.

ExVeritas issue ATEX and UKCA QANs, IECEx QARS, UKAS ISO9001 and other global quality approvals such as INMETO and CCC audits. ExVeritas also offer 'Ex Authorized Person' training for both internal and external auditors. Please view our training for more details.

www.exveritas.com


ExVeritas®

1 Quality Assurance Notification Annex IV

2 Equipment and protective systems intended for use in potentially explosive atmospheres

3 Certificate Number: ExVeritas YY PQAN NNNN

4 Equipment, Protective system or Components as listed in the schedule

5 Applicant: Ex Instruments Ltd. Any Industrial Estate, Wrexham, UK.

6 Manufacturer: Ex Instruments Ltd. Any Industrial Estate, Wrexham, UK.

7 ExVeritas, Notified Body number 2585 for Annexes IV and VII in accordance with Article 9 of the Council directive 2014/34/EU of 20 February 2014, notifies the applicant that the manufacturer has a quality system which complies with the requirements of EN ISO/IEC 80079-34:2011, and thereby, with the requirements of Annex IV of the directive.

8 This notification is based on Audit Report No RNNNN/A/1.

This Notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex IV. The Manufacturer is obliged to inform ExVeritas of any changes in their Quality System or other aspects upon which this notification has been given.

Results of periodical re-assessment of the quality system are a part of this notification.

9 This Notification is valid until: DD Month YYYY and can be withdrawn if the manufacturer does not satisfy the production quality assurance re-assessment

10 According to Article 10[1] of the directive 2014/34/EU the CE marking shall be followed by the identification number 2585 identifying the notified body involved in the production control stage.

On behalf of ExVeritas

Signature

A Braveperson
Certification Manager

Date: EXAMPLE

Certificate: ExVeritas YY PQAN NNNN

This certificate may only be reproduced in its entirety and without any change, schedule included. The certificate is only valid when it carries an original signature.
For help or assistance relating to this certificate, contact info@exveritas.com
ExVeritas, Units 16-18, Abenbury Way, Wrexham Industrial Estate, Wrexham, United Kingdom LL13 9UZ

Page 1 of 2

FO-CB-39- V1

ExVeritas®



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 word 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.

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.



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.



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.



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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.

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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 attachment 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

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Drum & Material Handling Equipment

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ESI Are Celebrating 30 Years Of The SOS Sensor This Year!

Silicon-on-Sapphire (SOS) sensor technology has emerged as a cornerstone in the design and functionality of ESI's intrinsically safe pressure transmitters, playing a pivotal role in ensuring reliable and accurate measurements in hazardous environments. The combination of silicon's sensing capabilities and sapphire's resilience creates a symbiotic relationship that addresses the challenges posed by harsh environments in hazardous locations.

The SOS sensor leverages the exceptional properties of both silicon and sapphire to deliver unparalleled performance. The Sapphire offers remarkable durability, chemical inertness, and resistance to extreme temperatures. The silicon is grown onto the surface of the sapphire substrate creating a sensor that benefits from the best of both materials. The silicon provides sensitivity and accuracy, while the sapphire substrate shields it from corrosive chemicals, abrasive substances, and high temperatures, ensuring long-term reliability in even the harshest environments.

The use of Silicon-on-Sapphire Technology is particularly crucial in intrinsically safe pressure transmitters designed for hazardous locations. In environments where the risk of explosion is present, safety is of utmost importance. Intrinsically safe devices are engineered to prevent the release of sufficient electrical or thermal energy to ignite a hazardous atmosphere. ESI's pressure transmitters, incorporating SOS sensor technology, meet these stringent safety requirements while delivering accurate and dependable pressure measurements.

The inherent electrical insulation properties of sapphire play a pivotal role in achieving intrinsic safety. Sapphire is an excellent insulator, preventing the passage of electric current and reducing the risk of sparking or overheating. This makes SOS sensors inherently safer for use in explosive atmospheres compared to traditional sensors that may pose a higher risk.

Additionally, silicon-on-sapphire technology enables ESI to create pressure transmitters with a compact design without compromising performance. The thin, yet robust, nature of the SOS sensor allows for the development of smaller and lighter devices, making them easier to install and maintain in tight spaces within industrial facilities.

As industries continue to prioritise safety and accuracy in their operations, SOS technology is poised to remain at the forefront of intrinsically safe pressure transmitter solutions, providing a reliable and durable solution for critical applications.



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Your expert for mobile communication devices and solutions in explosion hazardous and industrial areas.

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RealWear Navigator® Z1

The world's most advanced intrinsically safe head-mounted wearable is redefining smart glasses for ATEX/IECEx industry use

i.safe MOBILE, innovation and world market leader for explosion-proof mobile devices and solutions and RealWear, Inc., the pioneer of smart glasses for frontline workers, have launched with the RealWear Navigator Z1 the world's most advanced intrinsically safe and ATEX/IECEx certificated head-mounted wearable.

The Navigator Z1 is particularly designed for use in hazardous areas for troubleshooting equipment via remote expert guidance, virtual training and for eworkers using Field Services Management (FSM) or streamlined inspection data management systems (IDMS). The Navigator Z1 delivers unparalleled performance with exceptional energy efficiency and is powered by an advanced chipset with a built-in advanced AI engine.

The platform lays the foundation for RealWear's broader AI Core vision for frontline workers. Navigator Z1 ensures voice recognition for fully hands-free use up to 100dBA, an essential feature for noisy oil and gas work environments. The Navigator Z1's unique modular design enables unprecedented customization for various add-ons like an IS-certified thermal camera and a swappable battery.

The main operational areas of the Navigator Z1 include the following: • Remote expert guidance and training Remote experts can conduct in-the-moment maintenance and repair, potentially reducing costly travel and downtime using popular apps like Microsoft Teams and Zoom. • Field Services Management (FSM) Using simple voice commands, workers can connect to FSM enterprise AI systems such as hands-free solutions from RealWear and OverIT to handle work orders safely and quickly, and conduct asset maintenance at reduced operational costs. p. 2/2

• Equipment and Site Inspection Rounds Inspectors can traverse safely around a job site, take high quality photos and dictate notes using the field data collection component of an Inspection Data Management System (IDMS) such as hands-free solutions from RealWear and HUVR. From there, the captured data is instantly uploaded and geocoded for integrity verification, auditing and compliance purposes.

The solution saves time and money, while enhancing safety and enabling further automation,3D digital twins and AI. "The design of the most powerful smart glasses for frontline professionals took incredible collaboration between RealWear and i.safe MOBILE," said Dirk Amann, CTO of i.safe MOBILE.

"We are pleased that we have been able to make a device that has met the requirements to achieve ATEX and IECEx for use in explosive atmospheres." "Worker safety and productivity must not be mutually exclusive," said Dr. Chris Parkinson, RealWear's cofounder and CEO. "With so many consumer-grade gadgets being hyped to industry, we have delivered something truly modern and in high demand for critical work procedures. With certification, we're able to fulfill our strong pre-order backlog. Navigator Z1 is laying the groundwork for an AI-enabled workforce in hazardous industries."

The RealWear Navigator Z1 has a series of major technical improvements:

• The introduction of RealWear's new AI Core, the most powerful processor ever in a RealWear device, especially designed for on-device enhanced AI experiences.

• Significantly lighter for added comfort, while maintaining its ruggedness and durability • Improved screen visibility with HD 720p display

• High resolution front-facing camera (48 MP) for better remote collaboration and low light image capture for inspections and auditing

• Enhanced noise cancellation for improved voice-responsiveness and accuracy

• Improved connectivity with faster Wi-Fi® 6 and an optional 5G intrinsically safe solution for private and secure enterprise connectivity • A thermal camera module to spot invisible issues before they become critical

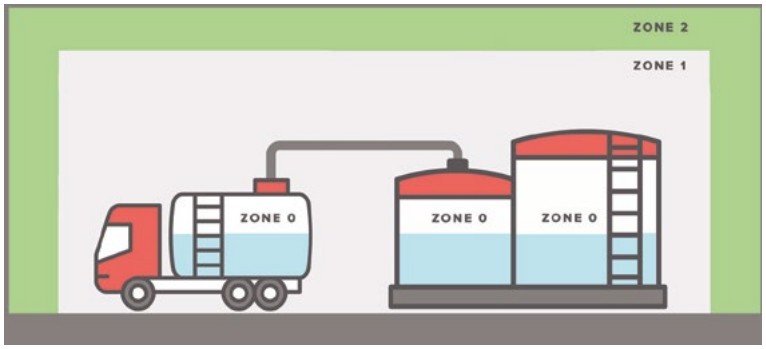
• A removable integrated snag-free battery for enhanced safety and for extended use • Enterprise Secure Android™ 12 The RealWear Navigator Z1 will be available from the end of Q1/2024 via i.safe MOBILE.



Test Products International Inc.

Condition Monitoring Solutions

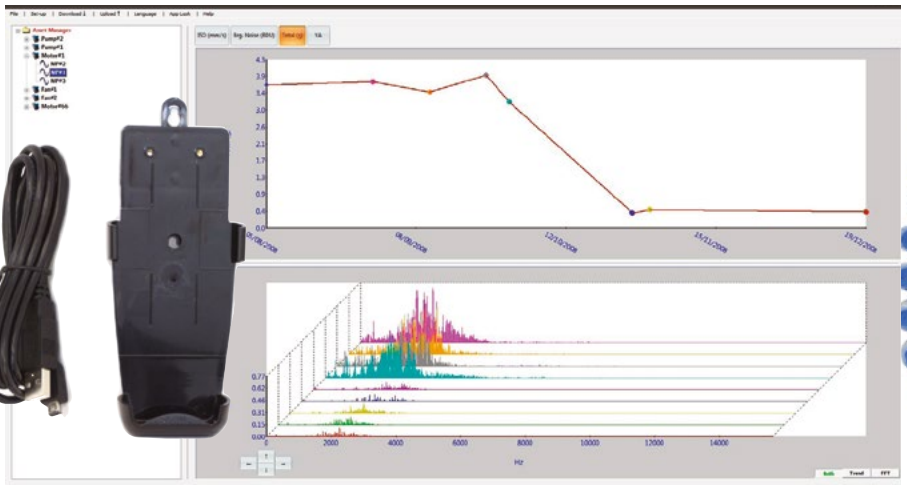
IECEx/ATEX and North American certified Vibration Analyser for use in Zones 1 & 2 hazardous locations anywhere in the World



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9080-Ex Analyse, Interpret & TREND readings.....

with VibTrend PC software, docking cradle & USB cable at a very affordable..... £3,500





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- Measure vibration to determine “Out of balance”, “Misalignment” or “Looseness” problems with built in band filters
- ISO Built-In Alarms as well as 800 line FFT spectrum, all on a Full Colour OLED Display
- Set Routes for personnel to follow to help with asset & test point identification
- Receive e-mail **ALERTS** when 9080 is docked and a potential problem is highlighted on a route
- Collect, Email & Trend Data over time to help predict potential problems **BEFORE** they happen

See the Problem before it becomes the Problem

01293 530196 ◆ cbmsales@tpieurope.com ◆ www.tpieurope.com

Why Do We Need Intrinsically Safe Instrumentation?

Typical hazardous locations include the more obvious places such as flour mills, coal mines, petrochemical plants, fuel transfer facilities etc. However, some not so obvious hazardous locations also include waste water treatment plants, saw mills, tunnels and underground passageways or any location where a build-up of naturally occurring flammable material (such as methane or dust) could occur.

In many of these locations there is a need for condition monitoring, i.e. measuring the vibration levels and temperature of rotating machinery. The equipment needed to do the monitoring must therefore be "intrinsically safe", in other words it must be incapable of igniting an explosive atmosphere, should one exist.

The Dangerous Substances and Explosive Atmospheres Regulations (DSEAR) require employers to control the risks to safety from fire and explosions. Consequently, this entails compliance with BS EN 1127 (Explosive atmospheres - explosion prevention and protection), which in turn requires that any electrical equipment used is intrinsically safe and complies with BS EN IEC 60079.

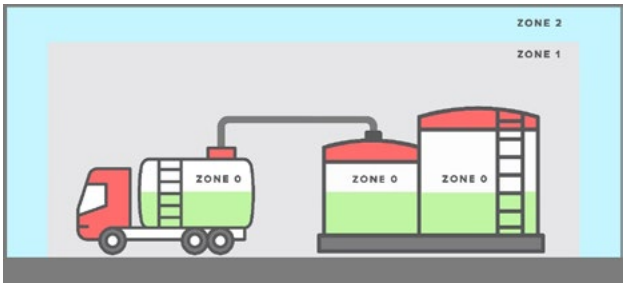
The likelihood of an explosive atmosphere existing is dealt with in these standards by the definition of various zones. However, it is the responsibility of the plant operator to decide which parts of their plant are in which zones.

For IECEx (Worldwide) & ATEX (European) standards the following zones are defined:

Zone 0 - an area in which an explosive atmosphere is present constantly or for long periods or frequently.

Zone 1 - an area in which an explosive atmosphere is likely to occur in normal operation occasionally.

Zone 2 - an area in which an explosive atmosphere is not likely to occur in normal operation but, if it does occur, will persist for a short period only.



Intrinsically safe instruments can cost many times more than their non-intrinsically safe equivalents. This is partly due to the increased manufacturing costs (e.g. additional safety components and encapsulation) but also due to the high cost of certification. However, Test Products International (TPI) believes it has achieved a real breakthrough with the very affordable TPI 9080Ex vibration analyser. The TPI 9080Ex combines on-meter diagnostics with the all-important ability to TREND readings over time to simplify condition based maintenance (CBM).

IECEx and ATEX certified for use in Zone 1 and with North American approval for Class I, Zone 1, the TPI 9080Ex is certified for use in hazardous locations anywhere in the world.
The TPI 9080Ex uses industry standard BNC connected intrinsically safe accelerometers and 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 9080Ex features colour coded 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.

The included free-to-use VibTrend PC-based trending and reporting software features high-end benefits such as automatic email notification of alarms and report generation to implement a full CBM strategy.

Routes and readings can easily be transferred to/from the TPI 9080Ex 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, no matter where they are in the world.

In-line with TPI's philosophy of being the value leader, the TPI 9080Ex has a list price of only £3,500.

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



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75 YEARS

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Made To Be Seen

Peppers Cable Glands and Accessories are the ultimate in design and functionality and so beautifully engineered you will want to wear them.

Developed over the course of seventy-five years, Peppers has become the name synonymous with quality and excellence – from the products to the service, every bit of the Peppers buying cycle is intended to be first-class.

Providing designer products at project pricing, Peppers Cable Glands and Accessories look and feel expensive and are the industry choice across the world. No corners are cut in the making of them and if quality and reliability is essential to your business, then you will appreciate their worth.

Their value lies in both the excellence of the products and the service that accompanies them, and Peppers understands the importance of both.

Fast-paced supply chains often veer towards cheaper cable glands, but with that comes unmitigated risk. When missing or faulty parts create a torrent of issues further down the supply chain and multi-million-pound projects can be derailed on the back of one missed component, businesses will learn the value of paying for a complete, end-to-end service.
Peppers is now a thriving, growing brand, spearheaded by a managing director who had a deliberate and purposeful approach to Peppers' growth.

The refusal to succumb to haste, borrow unnecessarily, or compete recklessly with larger counterparts, has been the cornerstone of their success.

"Customers choose our company, even if sometimes the products cost more than our competitors, not only because they know they are getting a superior cable gland but because they are getting it with a service that money simply cannot buy." Tush Thakore, Managing Director.

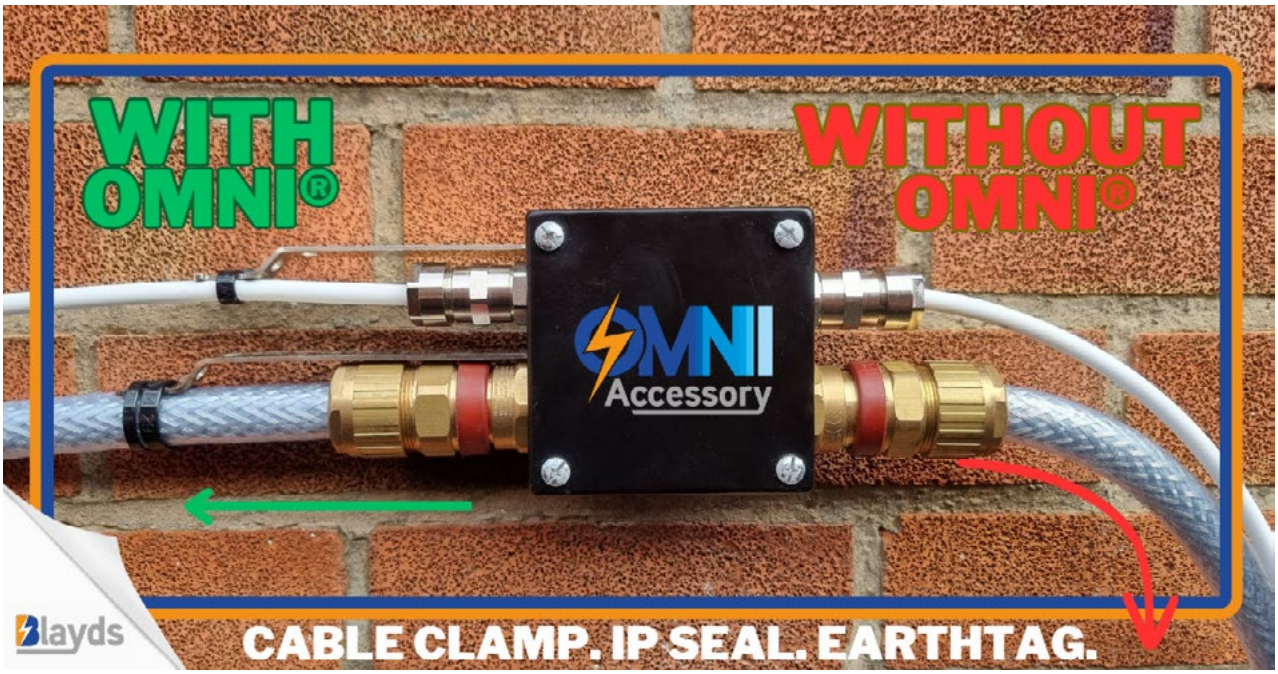
So, with Peppers, you can expect to receive a first-class service perfectly accessorized by the quality of its product. But without doubt, the jewel in the Peppers crown is the unyielding commitment to being the cable gland and accessory supplier of the ages. Exquisitely engineered Cable Glands and Accessories you'd be forgiven to want to wear, and a service based on integrity and trust; customers find it impossible to get the same package anywhere else in the world.

Peppers cable glands and accessories are fully certified and compliant – if the label is as important to you as it should be, Peppers is one you'd be happy to show off

Peppers maintains a quality management system approved to ISO 9001 :2015, ISO/IEC 80079-34:2011 Explosive atmospheres - Part 34: Application of quality systems for equipment manufacture and an Environmental System approved to ISO 14001 :2004 as well as operating within Occupational Health and Safety Management (OHS) to BS OHS AS 18001.

Peppers commitment to providing the ultimate cable gland solution is unwavering; a combination of industry knowledge, exceptional service and extraordinary attention to detail should put them at the top of any 'must-have supplier for 2024' list.





X Marks The Spot:

Hazardous Area Cable Gland Special Conditions

So, you've specified the correct cable gland for the application. You've checked that the gland is suitable for the method of protection employed. Job done, right? Not always!

Most hazardous area cable gland manufacturers A2F & E1WF type glands have a special condition for safe use requiring cables to be clamped to prevent twisting or pulling. EN60079-14 states that "a clamp should be placed as close as practical to the gland" - preferably within 300mm from the end of the gland. EN60079-14 also states that cables shall be routed straight to prevent the cable seal being compromised by lateral tension.

A poorly supported cable compromises the integrity of the equipment, invalidates the Hazardous Area certification and most importantly poses a serious safety risk to both plant and personnel.

Compatible with most major gland designs, the Omni® Accessory from Blayds Group ensures that cables are routed straight from the cable gland - preventing twisting or pulling of the cable whilst in operation. This securing of the cable also stops unnecessary pressure on the gland rear IP seal – a common place for water ingress. Manufactured from nickel plated brass, the Omni® Accessory also provides an earth connection, bonding point, integrated high-temperature silicone Ingress Protection washer and a cable identification location all in one easy-to-install accessory. The design also allows for disassembly and inspection of the gland without the need to move the cable marker as is often the case in many standard installations.

So, to make sure your installation is fully compliant, fit the Omni® Accessory. One part – multiple benefits. To receive a free sample simply email gareth@blayds.com or visit www.blayds.com for more information

UKMHA Updates LPG

Cold Starting Advice Following Recent Truck Failures

UKMHA has issued an updated LPG – Cold Starting Safety Alert following a spate of failures of LPG-powered forklift trucks.

Throughout 2023, UKMHA received numerous reports of premature failures due to the quality of some of the LPG fuel being placed on the UK market. The association is of the view that it now appeared contaminant issues were causing vaporisers to become clogged and in the process, creating a risk of fire.

The circumstances are currently being investigated by the Health and Safety Executive, but it appears that LPG fuel containing contamination, not present historically, is being placed on the UK market and that the fuel standard BS4250 does not provide adequate controls for this contamination.

The HSE investigation is ongoing and the problem continues to pose a risk to all LPG fuelled trucks, irrespective of manufacturer. UKMHA expects the HSE investigation to lead to a revision of BS 4250 and has repeatedly urged that enquiries be concluded expeditiously.

The HSE investigation is being carried out by a multi-disciplinary team comprising of regulatory, technical, scientific, product safety and industry experts. The executive has declared that it will share any safety critical or other information as appropriate.

Equipment with many years of proven reliability, both in the UK and around the world, is liable to experience premature failure when this fuel is used. However, the association stated that the problem appears to be confined to fuel supplied in the UK only, with issues concentrated in central and northern England.

The HSE has established the cause of three fires to be a sticking component in one make and model of vaporiser leading to release of unignited gas.

Vaporisers from the affected forklift trucks and a range of other models were tested by the executive's Science Division (SD), which revealed the presence of sticky contamination from LPG affecting all makes of truck.

The association can confirm that the manufacturer of the make and model of vaporiser identified by HSE has now made a retrofit modified unit available, via lift truck manufacturers. This will reduce the risk of future fires, but does not prevent the clogging, which is due to fuel quality.

UKMHA has been closely monitoring the situation in response to concerns from its members and has now updated its LPG – Cold Starting Safety Alert.

It states that use of contaminated fuel can cause deposits in the truck's fuel system leading to, for example, blocked vaporisers and sticking valves. Repeated or prolonged starting attempts on affected equipment can release unburned LPG, potentially creating a fire risk.
Importantly, the revised safety alert provides expanded advice both for equipment operators and service/maintenance engineers.

David Goss, Technical Director at UKMHA said: "UKMHA is aware of a number of incidents where both operators and technicians have attempted to aid starting through unorthodox and unapproved methods."

He continued: "Operating and maintenance practices need to be adapted to consider additional risks."

"Equipment operators and those maintaining and servicing equipment are advised to follow the guidelines as laid out in the Safety Alert."

About the UK Material Handling Association

The UK Material Handling Association (UKMHA) is a not-for-profit organisation representing all aspects of the UK's material handling industry, including manufacturers, suppliers and dealers.
Virtually all manufactured goods and commodities are moved by material handling equipment at some point in their journey from factory to end user. The material handling industry therefore plays a pivotal role in the UK economy and is almost unique in the way it operates across all industries, keeping the UK moving.

UKMHA has been formed by the merger of the industry's two most respected trade associations – the British Industrial Truck Association (BITA) and the Fork Lift Truck Association (FLTA), together with their co-owned subsidiary, Consolidated Fork Truck Services (CFTS).

For more information, visit www.ukmha.org.uk



Hoist & Winch Designs Bespoke Electric Winch System For 'Wet Room'

Among many notable recent successes, Hoist & Winch Ltd has come to the assistance of a large UK plant rental company with a very specific request. The company wanted a bespoke electric-powered winch lifting system to raise and lower large vinyl-type sheets in a purpose-built 'wet area'. With no challenge too demanding, Hoist & Winch stepped up to the task.

At the heart of the Hoist & Winch system are four floor-mounted Yale RPE 400V three-phase winches offering 150kg swl (safe working load) and 20 Pfaff roof-mounted diverter pulleys coupled to four 12m long tubular spreader beams. Each winch raises and lowers one of the 12 m long spreader beams which attach to the vinyl sheet via load-bearing karabiner clips. Each vinyl sheet weighs approximately 60kg.

The customer can operate all four winches individually via their own wall-mounted, low-voltage pendant controls, allowing the lifting of a single vinyl sheet as required at any time.

The innovative winch system raises the vinyl sheets safely and in a level position. This capability permits easy drying of the vinyl sheets after pressure washing, a process that removes any unwanted residual substances from the most recent hire job.

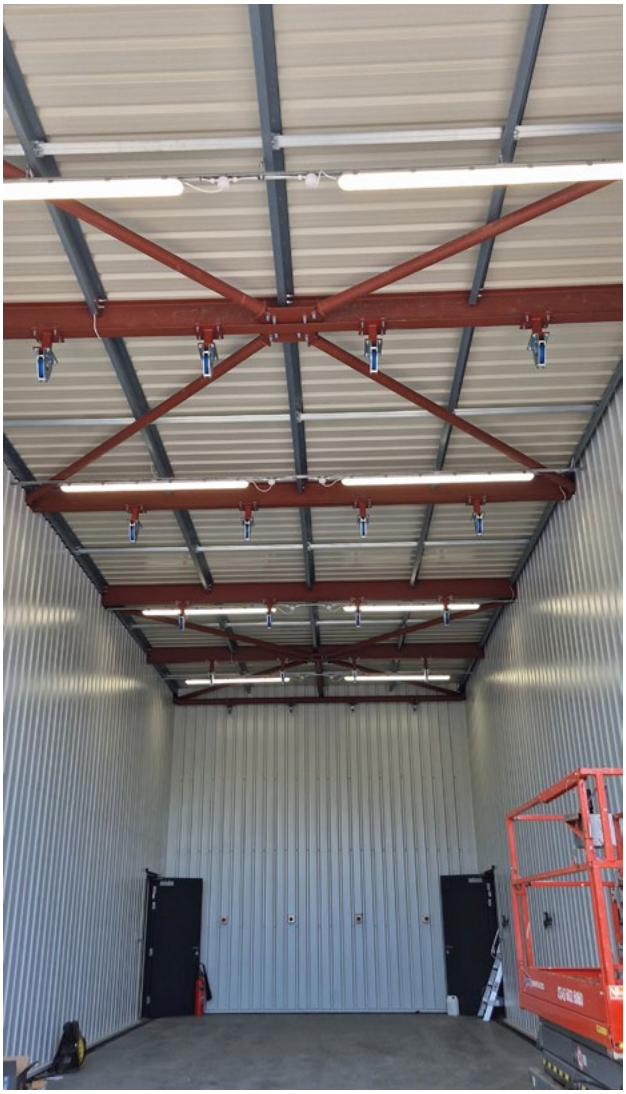
Each winch sits in purpose-manufactured mounting frames secured to the floor using four Hilti expansion anchors. The frame design allows orientation of the winch rope pay out at 90° to the first diverter pulley.

The room in which the washing, lifting, drying and lowering of vinyl sheets takes place is a purpose-built and enclosed 'wet area' with a cambered floor and drainage around the perimeter to support the removal of excess water during cleaning. Hoist & Winch Ltd provided PVC weather covers for the winch control panels to ensure safety at all times.

Ultimately, the system designed by Hoist & Winch Ltd significantly improves the whole operation to facilitate a quicker and far less labour-intensive turnaround of the vinyl sheets during busy periods of hire.

The scope of supply for Hoist & Winch Ltd included all pre-installation survey work to ensure correct the alignment and positioning of each winch, diverter pulley and all associated equipment, including top and bottom hook geared limit switches. The company also provided installation (using electric scissor lifts for working at height) over a seven-day period and subsequent commissioning. Further responsibilities included all wiring and load testing of the whole system. Once complete, Hoist & Winch Ltd issued a LOLER (Lifting Operations and Lifting Equipment Regulations) 'Thorough Examination' report.

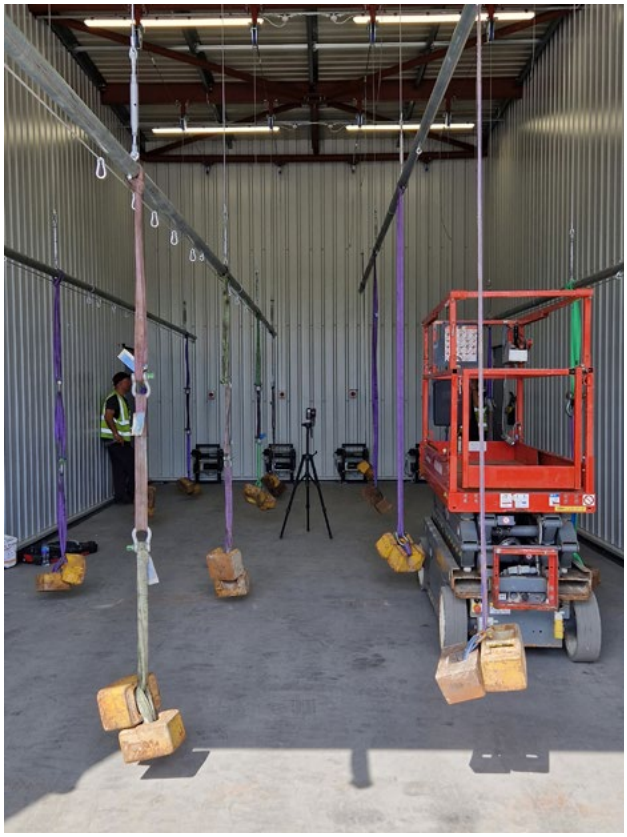
To ensure smooth handover, Hoist & Winch Ltd undertook comprehensive operator training covering: overview of the winch units and main components; operating controls and features; periodic checks and lubrication; annual inspection, service and certification requirements; and practical operation by each operator.



Hoist & Winch Ltd Director Andy Allen says: "This project set out a number of important stipulations to which we had to respond comprehensively and efficiently. A successful outcome that meets with the project's ambitions, delivered on-time and on-budget, is our primary aim. Once again our professional and experienced team of engineers here at Hoist & Winch Ltd came up with a safe, reliable, high-performance solution to the satisfaction of our valued customer."

www.hoistandwinch.co.uk







Nord Drivesystems

Provides Versatile, Robust Drive Solutions For Bulk Material Handling

NORD's reliable solutions are engineered to withstand the harsh ambient conditions in the bulk goods industry and feature a high level of versatility to precisely meet application demands.

NORD's MAXXDRIVE industrial gear unit series are built to handle the toughest loads and are engineered with an optimized temperature management system to withstand extreme environments.

To meet the requirements of various bulk material handling applications, NORD DRIVESYSTEMS engineers their products in a versatile, modular system comprised of gear units, electric motors, and variable frequency drives. The highly configurable solutions accommodate a wide range of plant arrangements and offer flexible implementation of customer-specific design specifications. Additional options such as couplings, brakes, fans, base frames, backstops, and hazard protection are also available for precise application needs.

For many systems in the bulk material handling industry, the drive solution includes a MAXXDRIVE® industrial gear unit. These gear units provide high output torques from 132,000 lb-in to 2,495,900 lb-in and ensure excellent load capacity, long service life, and quiet operation. They are made from a robust one-piece UNICASE™ housing and offer both right-angle and parallel designs.

MAXXDRIVE XD industrial gear units are NORD's most recent addition to the MAXXDRIVE product family and are ideal for lifting equipment such as cranes and hoists. They feature center distances increased by 35% compared to the standard housings, enabling a U-shaped system design with the cable drum and motor on the same side as the gearbox. Their hous-

ings are also optimized for downward radial loads and include an inspection cover for quick, easy maintenance.

The power and speed ranges of the two-stage MAXXDRIVE XT right-angle industrial gear units have been designed especially for applications requiring high speed ratios in combination with high powers. High thermal capacity is achieved through the special ribbed housing design along with the enhanced axial fans and air guide covers for greater heat dissipation. Due to their effective cooling, these drives offer a robust solution in environments with demanding ambient conditions and large temperature fluctuations. MAXXDRIVE XT units also offer a symmetrical design for mirror image installations where space is limited and can be mounted on a swing base depending on the application.

Standard MAXXDRIVE industrial gear units are extremely durable and engineered to handle the toughest loads. Their high torque capacity enables systems to efficiently handle the mass flow rate and reliably transport goods. They are highly versatile and can be configured with extensive input and output options, multiple installation positions, and various motor mounting options. A special sealing arrangement additionally reduces maintenance while large roller bearings and center distances increase the load capacity and service life of the components.

UNICASE helical bevel gear units are commonly used for conveyor applications within the bulk goods handling industry due to their compact design, high-efficiency, and high radial and axial load capacities. They are built using a robust, cast iron housing that enables long service life and low maintenance. These gear boxes also feature extensive life gearing, minimum backlash, and adaptable shaft, mounting, and bearing options.

UNICASE parallel shaft gear units are a compact, powerful solution with a performance range of 0.16 hp – 268 hp and torque up to 680,200 lb-in. The robust, cast iron housings require minimal maintenance while delivering reliable, cost-effective operation for a low Total Cost of Ownership (TCO). They have a variety of options to choose from including 15 case sizes, flexible mounting, and various shaft designs for adaptability to precisely fit system arrangements.

The NORDAC FLEX variable frequency drive is NORD's most flexible VFD with a wide range of scalable functions including functional safety, an integrated brake rectifier for motor brake control, and POSICON integrated positioning mode for precise control. These drives can be controlled individually to intelligently meter, weigh, and adjust the bulk goods flow rate for fewer backups and breakdowns. The VFDs can additionally be implemented with customer-specific process functions such as automatic blockage detection/elimination and automatic mass flow regulation.

NORDAC PRO SK 500P variable frequency drives are a control cabinet solution with five available frame sizes and tiered functionality ranging from basic to advanced versions. They feature several interface options including an integrated multi-protocol Ethernet interface for efficient connection to Ethernet-based control systems, a Bluetooth interface with an SD memory card as the parameter storage medium, and a USB interface for voltage-free parameterization even when the mains power is disconnected. With high precision regulation and large overload capacities for synchronous and asynchronous motors, these drives are well suited for the heavy loads of bulk goods handling.

With their widespread industry knowledge, application expertise, and technical support, NORD DRIVESYSTEMS develops complete drive solutions for all types of applications in the field of bulk handling, providing worldwide support for storing, conveying, weighing, dosing, loading, and unloading systems.

www.nord.com



Not Just A Hard Hat

When it comes to personal protective equipment (PPE), hard hats are sometimes seen as a box ticking exercise. However, it is important to provide workers with appropriate PPE for their specific requirements. Effectively reviewing what additional helmet enhancements would help to protect the workers and improve their productivity could seriously up your PPE compliance on a day-to-day basis.

There are a lot of hard hat variances and configurations, and selecting the appropriate helmet is just the beginning when it comes to head protection. There are a wide range of accessories and branding options available, which allows a hard hat to be adapted to enhance functionality for a range of different scenarios.

In this article, we suggest a 3-step process in selecting, accessorising, and branding an appropriate hard hat for your specific requirements.

Step 1: Choosing the appropriate helmet

Firstly, consider whether it is important that your safety helmet is CE marked, and meets the standards required for your specific working environments.

Primarily, there are two key industry standards to be aware of:

#1 - EN 397: industrial safety helmets

EN 397 is concerned with ensuring protection against falling objects and the consequences thereof, such as brain damage and skull fracture. To achieve this certification, key performance requirements include adequate shock absorption, penetration resistance, flame resistance and chin strap anchorage (whereby the chin strap will release at a minimum of 150N and maximum of 250N).

#2 - EN 50365: electrically insulated helmets

EN 50365 is concerned with ensuring protection against electric shocks and dangerous electric currents passing through the head. This is typically an additional standard required for safety helmets when working on low voltage live electrical installations up to 1,000V A.C. Therefore, helmets in this bracket need to comply with both EN 397 and EN 50365.

Step 2: Appropriate accessories you might consider

Once you have considered your working environment, and acquired a helmet that will best meet those regulatory requirements, you can begin to optimise your PPE by applying accessories you deem appropriate.

Hard hats should not hinder, but help, workers by empowering them at work and allowing them to focus on the job at hand. To achieve this, MSA Safety aims to deliver hard hats that are comfortable to wear and complementary to specific jobs, whilst enhancing safety performance.

Accessories can help to achieve this, and here are just a few that are worth considering:

- Sweatbands: Offering an additional layer of comfort. Consider options that have a large width to allow for better comfortability and sweat-absorption using soft, moisture-absorbing, and respiring materials that can be washed, reused, and eventually replaced.

- Winter liners: Winter liners can help protect workers from the cold, contributing to improved comfort. Consider checking whether the liner has been tested and certified for use with the helmet.

- Eye and face protectors: Many environments call for helmet accessories to protect an operative's face and eyes. When selecting a visor, consider whether it has anti-fog and anti-scratch coatings and whether it is suitable for use with or without spectacles.

- Lamp brackets: Lamp brackets can be attached to your helmet's shell, enabling you to attach convenient hands-free lamps that can be ideal for working in dark and confined spaces.

- Chinstraps: Consider whether using chinstraps can help enhance worker safety and the overall fit and comfort of a helmet.

- Ear defenders: Noise cancelling ear protection can be added to your helmet to protect against loud obtrusive noises, whilst still enabling face-to-face communication.

Step 3: Customising helmets with branding

While adding accessories can enhance functionality and safety on an individual level, other changes can also be made to enhance company-wide performance. Hard hats are often required in industrial settings where hundreds of workers may be operating.

In such scenarios, multiple sub-contractors are likely to be working in tandem, with each requiring specific hard hats with the right accessories. Electricians may need helmets compliant with EN 50365, while scaffolders may need EN 12492 certified models with four-point chinstraps for an improved fit.

To improve differentiation, hard hats can be customised with different colours and logos, making it easy for workers to immediately identify those models tailored to their specific working needs when they arrive on site. Additionally, further customisation can be added to enhance visibility or promote safety practices on site.

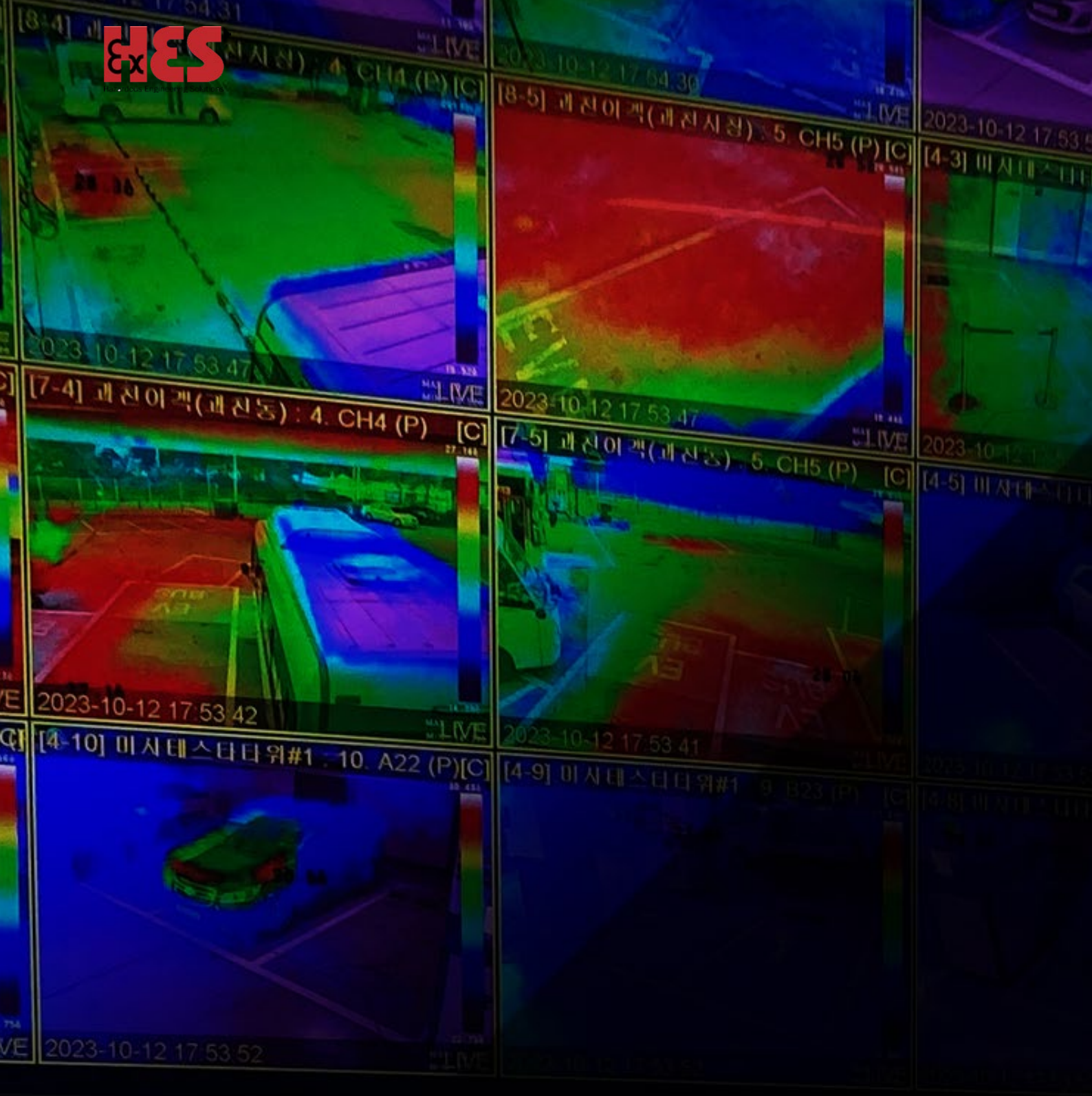
Company branding can be added to helmets which enhances professionalism and can provide subtle branding and marketing opportunities. This can also serve to unify workforces and foster a greater sense of pride and belonging.

With all of this in mind, it's easy to see the importance of selecting the appropriate hard hat for not only your job, but the environment you work in. A hard hat which can then be upgraded with appropriate accessories and customisation can boost worker comfort and productivity.

Once you have settled on exactly what you want, you don't want to be held up by the customisation process. At MSA Safety, our Logo Express service means that you can have branded hard hats manufactured within as little as five days.

If protecting one of the most vital organs in your body is a top priority for your workforce, consider whether you can make that decision easier by starting with these three simple considerations.

https://gb.msasafety.com/customhardhats



Early Fire Detection Systems Through Strategic Thermal



Teledyne FLIR, part of Teledyne Technologies Incorporated, today announced that Eye on Cloud (EOC) Tech, EOC, a Korea-based video security and thermal imaging IP camera company, will leverage the Teledyne FLIR Lepton® radiometric thermal camera module in its early fire detection (EFD) series of IP cameras. EOC is introducing the series of EFD cameras as part of its Thermal by FLIR collaboration.

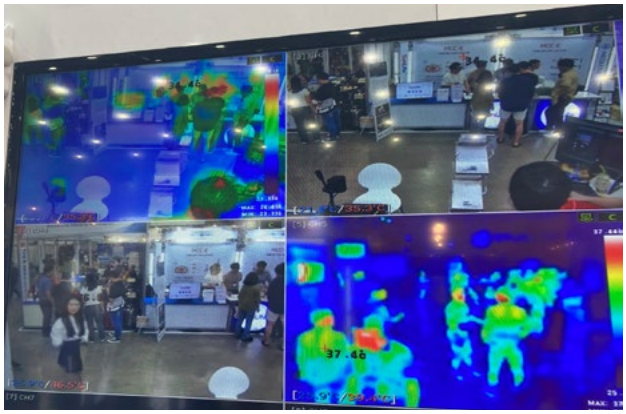
The HI1612-OH and HI1612-MW series cameras offer multiple resolution options for continuous monitoring of electric vehicle (EV) charging stations and other critical infrastructure, security, and facility applications. With non-contact temperature measuring, the FLIR Lepton can identify elevated heat before ignition, which then triggers an alarm system. EOC's ONVIF-compliant EFD cameras help improve safety while enabling fire personnel to attack a potential fire more quickly than when relying on traditional smoke alarms.

"We developed the Thermal by FLIR program to support customer innovations for new and developing applications," said Mike Walters, vice president, product development, Teledyne FLIR. "EOC Tech and its work with early fire detection for EV charging stations and other built environments is a natural collaboration for the FLIR Lepton and Thermal by FLIR program."

The Thermal by FLIR program is a cooperative product development and marketing program that supports original equipment manufacturers (OEMs), to integrate Teledyne FLIR thermal camera modules into products, along with go-to-market support for ensuing product innovations.

"Substation, building, and EV parking facility managers, including shopping centers and office buildings, need solutions that will help them better detect fires that can threaten life and property," said Dong Gyun Shin, CEO, EOC Tech. "Our line of EFD dual thermal-visible camera systems developed as part of the Thermal by FLIR program provide a relatively low cost yet effective method to identity potential fires before they ignite."

For more information about EOC Tech and its EFD systems, visit https://www.eoctech.net.





Teledyne Gas and Flame Detection:

Empowering Safety In Hydrogen Transitioning Projects

Hydrogen will be at the heart of the world's energy transition away from natural gas. However, while there are many ways to produce and use hydrogen, there is a common denominator: all require monitoring for safety. Today, Teledyne Gas and Flame Detection has a complete product offer for hydrogen that not only encompasses end-to-end gas, flame and fire detectors, but also a complementary range of leading-edge controllers, services and cloud data management options. As a result, more and more companies engaged in hydrogen transitioning projects are placing their trust in Teledyne Gas and Flame Detection as a one-stop-shop for all their safety needs.

Teledyne Gas and Flame Detection's innovative fixed and portable systems have been ensuring the safe use of hydrogen for decades, with the company today providing a critical contribution to a safe and efficient energy transition. Products, systems and services are available to support the full hydrogen spectrum – production, distribution and storage – across a host of established and new applications. In addition, a wide range of sensors is available for the main gases in the hydrogen value chain, including methane, ammonia, carbon monoxide and carbon dioxide. Many are suitable for integration into SIL2 or SIL3 systems.

Fixed gas detectors

A case in point is the highly successful DG7-SIL2 intelligent fixed gas detector with integral display, which is ideal for detecting hydrogen and other gases related to hydrogen and hydrogen derivatives. The microprocessor-driven DG7-SIL2 is fully configurable using a wireless hand-held terminal or a hard-wired HART option, providing true flexibility to the installer and reduced service costs. The unit can interface directly with a wide range of panels, controllers and PLCs.

Another attractive option in fixed gas detectors is the OLCT 100-SIL2, which offers a range of housings and sensors for the full hydrogen value chain. The popular OLCT 100-SIL2 comes with a 4-20mA output and carries SIL certification in accordance with EN 50402.

Part of the same product family, the compact OLCT 20 fixed gas detector is ideal for installation in shelters or on skids, where there is a need for monitoring in very small spaces or for on-board applications. The OLCT 20 transmitters again provide a 4-20mA output with the potential for direct connection to PLCs.

Flame detectors

Many customers ask if they can use their existing natural gas flame detector with hydrogen. However, many flame detection systems for use in hydrocarbon processing just 'see' combustion products such as water, soot or carbon dioxide. When pure hydrogen burns it forms only water, making it necessary to use special flame detection equipment.

Teledyne GFD has an exciting new offer in this area: the Spyglass IR3-H2-V flame detector quickly detects hydrogen and other 'energy transition' fires in support of rapid response efforts. A near-infrared camera provides personnel with the ability to see invisible hydrogen flames in all weather and light conditions. Notably, the detector automatically records video, providing additional means to study the cause and development of fires.

For building networks of wired or wireless gas and flame detection equipment to enable integrated site safety strategies, it will be necessary to employ a controller. Here, the Teledyne GFD modular and flexible MX62-SIL2 features a large, fully interactive 10" (up to 15") high-definition colour touchscreen, 64 secure channels and a back-up processor to ensure continual measurement.

Portable gas leak detectors

Portable gas detection equipment is perfect for use by personnel working in locations where compressed hydrogen is present and may potentially leak. Hydrogen has a wide flammability range in air: from 4% to 74% at atmospheric pressure. To ensure safety at all times, Teledyne Gas and Flame Detection portable gas detection systems have an alarm at 50% of the LEL, or 2% hydrogen.

Among the latest developments is the versatile GS700-Hydrogen, an upgraded version of the company's popular and successful Gasurveyor 700 (GS700) that adds the ability to detect hydrogen. The new ATEX-certified GS700-Hydrogen therefore offers both natural gas and hydrogen detection in a single instrument. Ideal for leak detection around major equipment, large sites, and pipeline installation and maintenance, the GS700 has an optional GPS mapping system. It is possible to store and process data from the field in Teledyne GDCloud software to map the location of measured data and pinpoint the geo-location of any leaks. The device, which offers exceptional flexibility and performance in all gas utility applications, has already seen adoption at several hydrogen network test sites.

Personal safety gas monitors

Teledyne Gas and Flame Detection can offer a comprehensive range of wearable devices for monitoring hydrogen, ammonia and all major gases relating to the hydrogen value chain. For example, the PS200 four-gas compliance monitor is compact, lightweight, water resistant and extremely robust, while the larger PS500 model provides the potential to detect up to five gases.

Ultimately there will be many roads to the hydrogen economy based on decarbonisation and new applications. And while some harbour concerns about hydrogen's tiny molecules that can leak through the smallest of cracks, Teledyne GFD has the expertise and solutions to render hydrogen a very ordinary gas. The company has been working with customers for decades to ensure the safety of personnel and assets when handling hydrogen. Today, a complete portfolio of hydrogen gas and flame detection systems from Teledyne Gas and Flame Detection is ready to empower a safe and efficient transition to the hydrogen economy.

For more information, visit www.teledynegasandflamedetection.com or contact gasandflamedetection@teledyne.com



Explosionproof Flexible Heating Device FHD

The flexible explosionproof heater, 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.

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.

thuba AG

Hazardous areas in a wide range of process industries need



reliable safety solutions when electrical equipment is in use. Nowadays the food, chemical, petrochemical, printing and power industries, manufacturers of aircraft and machinery, gas and oil producers, refrigeration engineers and other process-oriented companies all rely on certified explosionproof equipment and components manufactured by thuba.

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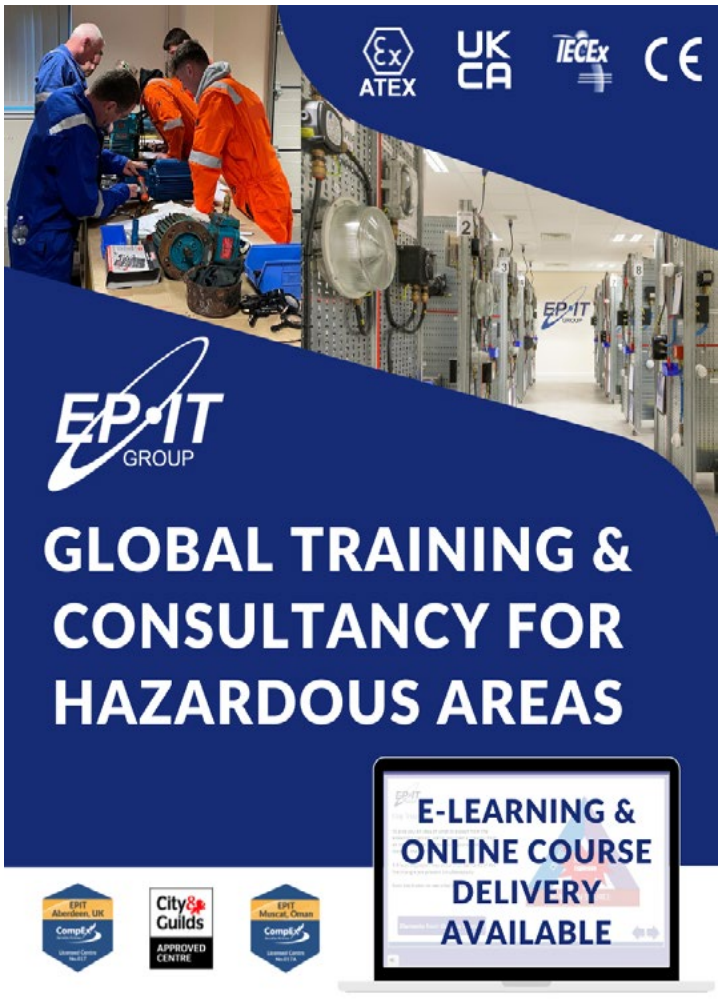
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The Hydrogen Americas Exhibition will gather the region's leading hydrogen stakeholders to meet technology manufacturers, private sector leaders, policy makers and innovators contributing to hydrogen's critical implementation. Showcase your latest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

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