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The World's First ATEX Zone 1 Smartwatch

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**Explosion Prevention
In New Spheres - 14**



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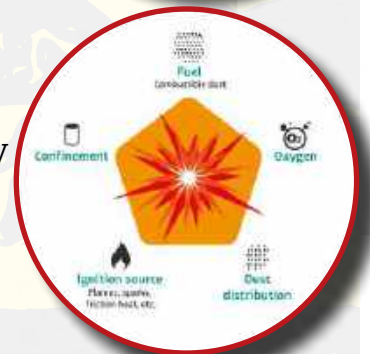
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Exloc INSTRUMENTS

Exloc instruments supply products to the process industry suitable for harsh and hazardous locations. Working with global suppliers, we have a market leading range of ATEX approved mobile products and Intrinsically Safe Interfacing solutions.



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The World's First ATEX Zone 1 Smartwatch

IS-SW1.1 is the World's first ATEX & IECEx-certified smartwatch with all safety-relevant functions to enable use in Zone 1/21. The smartwatch can be paired with i.safe MOBILE devices via Bluetooth and functions as a complementary hands-free wrist display for devices such as the IS530.1 Zone 1 Smartphone.

The IS-SW1.1 can emulate various RFID smartcards for access control systems while simultaneously monitoring the user's vital signs pulse and oxygen saturation. i.safe MOBILE's new product development closes a crucial gap in the area of employee safety for Zones 1/21 in the oil & gas, chemical and pharmaceutical industries.

ATEX/IECEX Certified Smartwatch for Maximum Employee Safety

With the IS-SW1.1 industrial smartwatch, it is now possible for the first time to use a "personal device" established in everyday life in ATEX/IECEX Zones 1/21 of the oil & gas, chemical and pharmaceutical industries. The smartwatch was developed by the i.safe MOBILE R&D team in Lauda-Koenigshofen/Germany and it displays all important messages, hazard messages and measured values directly on the user's wrist – "hands free". Since the smartphone no longer has to be picked up to read short messages, this feature represents a step-forward in employee safety. Furthermore, in an emergency situation, it is possible to make an emergency call directly via the SOS button of the smartwatch on the wrist (connected

to the emergency app of the smartphone) – the employee in distress can be located via GPS. The monitoring of the vital functions pulse and oxygen saturation additionally complement the safety concept. Coupled with a push-to-talk-enabled smartphone, users can employ the smartwatch as a remote PTT button. This means that all safety-relevant functions are available via the smartwatch on the employee's wrist.

Convenient Access Control and RFID Reader on the Wrist

The RFID chip integrated in the smartwatch can not only read various RFID tags, but also emulate different contactless chip cards (e.g. MIFARE) – the watch can thus be used in a highly flexible manner. With the reading function, RFID tags attached to machines or sensors, for example, can be read and then the associated measured values can be shown directly on the display of the clock. Due to the possibility of RFID card emulation, the watch is excellently suited for commercially available access control, time recording and payment function systems such as those based on MIFARE.

The IS-SW1.1 is the next in a line of industry changing mobility devices available from Exloc Instruments UK. We have a wide range of ATEX certified devices such as smartphones

and tablets as well as thermal cameras, barcode readers and head mounted tablets. If you are looking to level-up your hazardous area processes then contact Exloc for expert in-sight into hazardous area technology.

Exloc Instruments UK Ltd

Sales@Exloc.co.uk

01457 239 301



New Md, Expansion And Sales Growth Outline Bright Future For Hi-Line

Hi-line Industries, a UK-based leader in the design, manufacture and installation of energy-efficient compressed air purification equipment, has appointed Steve Smith as its new Managing Director. Replacing Mike Thurlow, who has retired, Smith is part of the company's original team, joining as Marketing Director in 2000 when the business began trading. He has purchased Thurlow's 50% share of the business and is now busy making plans to drive even greater success at Hi-line.

The outlook is extremely positive for this innovative and progressive UK manufacturer. At year-end (31 July 2022), Hi-line showed 27% growth in like-for-like sales, underpinned by a record year for the company's N2 nitrogen generator systems and HPSA desiccant dryers, both of which have features and functions that provide notable market differentiation.

Keeping pace with growing order levels is driving expansion at Hi-line's Burton-upon-Trent headquarters and production facility. A new building extension is under design, but such is current demand that the company recently erected two temporary warehouse buildings simply to hold the additional materials required for dryer builds. Several six-figure projects are underway for completion before year-end.

"This company has come a long way since it began in 2000, but we can achieve even more," says Smith. "We have new teams in the warehouse and service departments, which will help support our future growth in terms of both physical size and revenue. Despite our ambitions, however, the company's founding principles will not change. Our experienced and qualified engineers will continue designing and building to the highest standards. We have great confidence in our high-quality workmanship and materials, which reflects in our five-year warranty. I'm very excited to spearhead our ongoing development in the coming years."

Hi-line is ISO9001 certified and a member of the British Compressed Air Society. The company

also supports the 'Made in Britain' campaign, which highlights the passion around British-made brands and UK manufacturing. Hi-line's broad range of energy-efficient compressed air equipment includes air dryers, nitrogen and oxygen generators, filtration equipment, condensate management/drains, and service kits.

Further information is available from: Hi-line Industries Ltd,

Green Street, Burton on Trent, Staffordshire DE14 3RT

Telephone: 01283 533377

Fax: 01283 533367

e-mail: enquiries@hilineindustries.com

www.hilineindustries.com





Suit Up For Changeable Weather...

...with the Snickers Workwear System for Autumn.

Snickers Workwear's body-mapping Jackets, Tops, Trousers and Accessories work together for sustainable working comfort and protection wherever and whenever its needed.

Designed for professional craftsmen and women who want maximum functionality and mobility on site, they incorporate the very latest in high-tech fabric technology for top-class performance.

The new clothing in the Autumn Workwear System includes windproof, waterproof and Hi-Vis garments for both men and women to keep them

warm, dry and visible all day, every day.

So, when the weather takes a turn for the worse, make Snickers Workwear your first choice for tackling the toughest of jobs and the worst of weather.

For more information on the Autumn range from Snickers Workwear and the brand's sustainability philosophy, you can call the Helpline on 01484 854788; check out :

www.snickersworkwear.co.uk
or email sales@hultaforsgroup.co.uk

Hart Storms Ahead With New Speedor Variant

Hart Door Systems, the original British manufacturer of the high-speed door concept, is stream-lining its Speedor range with the introduction Speedor ECO which will complement Hart's very successful Speedor Storm, Speedor Mini and sub brands such as Speedor Conveyor and Speedor Cleanroom, further strengthening Hart's overall high-speed door offer.

Hart's chairman, Doug Hart, explains that the new Speedor ECO is a new mid-range variant suitable for external use up to Class 3 and available up to 5m x 5m size whereas the Speedor Mini is for internal use only to a maximum 4m x 4m size. The focus with these two Speedor options is on lower price and high-speed doors that can be tailored to meet clients' budgets.

Mr Hart says: "The new Speedor ECO is a mid-priced high-speed door variant with state of the art direct drives and controls which are BSEN safety compliant. ECO offers single or variable speed motor, heavy fabric and hand chain operation if necessary. This adds to ECO's safe operation, reliability and ruggedness.

"Without doubt there is demand for a mid-priced high-speed door variant such as ECO and given our considerable experience, we are the ones to deliver it," he adds. "ECO will appeal to companies requiring a high-speed door solution but within a tight budget. It is for frequent use, high traffic situations where low

maintenance is a priority.

"In all cases across our range of brands, we comply with the new code of practice announced by the DHF Door Hardware Federation and we are ever mindful of post installation maintenance costs. So while Mini and ECO cater for less demanding environments, Speedor Storm's increasing success is based on its improved, rugged, design predominately for external use up to 8m x 6m/6m x 8m) often in robust operating conditions with high wind loads.

"We have always had quality as our prime driver and our success with new variants, not just in high-speed doors but shutters such as our new Typhoon range, the fundamentals are quality throughout manufacture to installation and service to comply with changing national and international safety standards.

"We are also cognisant of Climate Change issues and the need to keep both Hart's and our clients carbon footprints to a minimum by using the latest manufacturing technology to streamline the manufacturing process. Where

possible we would use recyclable materials."

Hart Door Systems, now in its 75th year, is a global business supplying a range of door and shutter systems to sectors such as automotive, agriculture, communications, consumer foods, energy, environment, exports, food, logistics, manufacturing, power, sport, transport and utilities.

Contact www.hartdoors.com t: 0191 214 0404
sales@hartdoors.com



CHAS Launches Verification Service For Engineering Materials Suppliers

New from CHAS, the trusted expert in supply chain compliance, is a Verified Supplier, a compliance verification service which enables engineering material suppliers to showcase their commitment to operating credibly, safely and ethically.

As supply chains come under increasing scrutiny, material suppliers must confirm they are compliant with a growing list of legislation and guidelines covering health and safety, quality assurance, environmental protection and ethical practices, among others.

Easily demonstrate compliance

Becoming a CHAS Verified Supplier is a convenient way to demonstrate compliance across a range of risk management areas via a single verification, reducing duplication of prequalification questionnaires (PQs) and making it faster and easier to pre-qualify for contracts across the UK.

As well as demonstrating a supplier's commitment to quality practices and processes, achieving CHAS Verified Supplier helps suppliers highlight compliance with the following laws and regulations:

- UK GDPR
- Health and Safety at Work etc. Act 1974
- Modern Slavery Act 2015

- Environment Act 2021
- Equality Act 2010

Verified Suppliers also get access to CHAS's growing bank of exclusive benefits, including discounted training courses, free legal advice and exclusive savings with TradePoint, Speedy Hire, Checkatrade and more.

Streamline supply chain risk management
Specifying CHAS Verified Supplier gives clients confidence that their suppliers operate to a consistently high standard. This helps protect clients from the disruption and reputational harm that can arise from non-compliant supply chains. Clients can find verified materials suppliers quickly and easily alongside verified subcontractors via the free CHAS Client Portal, helping to streamline their supply chain risk management processes.

Commenting on the launch of Verified Supplier, CHAS Managing Director Ian McKinnon says: "We are delighted to launch the CHAS Verified Supplier service and make it easier for responsible materials suppliers to highlight their credentials to potential customers.

"The launch of CHAS Verified Supplier underlines CHAS's commitment to simplifying prequalification while raising risk management standards and ensuring that responsible businesses thrive."

Contact CHAS today to learn more about becoming a Verified Supplier and join CHAS's growing community of suppliers committed to observing and increasing industry best practices.

About CHAS:

CHAS is the leading provider of risk prevention, compliance and supply chain management services for clients and contractors. Our aims are to:

standardise and simplify health and safety assessment for contractors

support organisations in efficiently managing their supply chains deliver a full suite of supply chain management tools.

Find out more at: www.chas.co.uk or call 0345 521 9111.



Why Does My Torch Have That Little Screw?

The little screw is referred to as a special fastener and is a safety feature required for a Class/Division, ATEX, and MSHA certification.

The use of a special fastener is required for certification of lighting products used in hazardous locations. Commonly referred to as a "set screw" or "locking screw," this special fastener is typically found on the battery compartment enclosure.

Manufacturers of products intended for use in hazardous locations must meet the specialty fastener requirements set forth by both North American and international safety committees.

- UL 913 Eighth Edition Section 5.5
- MSHA ACR12001 Section 9.3.10.2.2 and 9.3.14.3
- EN/IEC 60079-0 Section 9.2 Special Fasteners
- EN/IEC 60079-11 Section 7.4.8 (a, b & c)

This special fastener/tool requirement is intended to prevent the exchange of batteries using common items such as coins or fingernails while working in a hazardous atmosphere. Therefore, battery replacement for Intrinsically Safe (IS) products is only performed in an area known to be non-hazardous.

The quality of your lighting equipment is vital in potentially explosive environments. You must ensure your lighting is manufactured by a reputable company with documented experience in creating IS products. The ideal situation would be to purchase all of your IS lighting products from a single manufacturer rather than mixing and matching products from several companies. A single source manufacturer ensures consistent quality and safety across the entire product line. Because of the knowledge, time, and expense required to engineer and produce IS products, a very limited number of companies can achieve this.

Nightstick, a global manufacturer of intrinsically safe, professional, portable LED lighting products that exceed industry standards in performance, quality, and user safety, has over fifty IS products to meet your needs. From pocket-sized penlights to wide-area floodlights, for use above ground or below ground, Nightstick has you covered. You can focus on completing your job with confidence, knowing your equipment was designed and rated for the highest safety levels when your Life Depends on Light, choose Nightstick!

Find the certification level you require with our **Light Finder** tool at nightstick.com/lightfinder

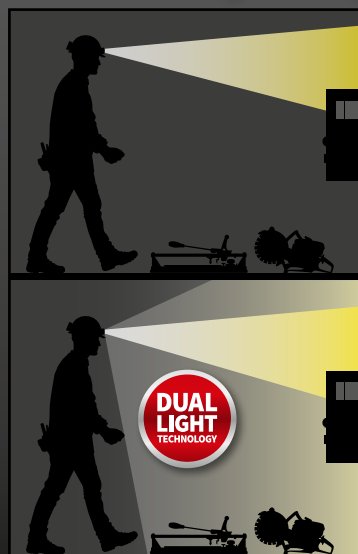


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Eaton Adds New Battery-Powered Emergency Light Option To Its ExLin LED Lighting Range For Hazardous Areas

CLEVELAND ... Power management company Eaton has today announced an important addition to its CEAG ExLin linear LED lighting fixtures for hazardous area applications. The new, battery-powered ExLin NE+ provides a decentralized LED solution for mandatory emergency lighting in case of power failure, in compliance with EN 60598-2-22.

Offering a safe, reliable and cost-efficient LED lighting solution for hazardous areas, the ExLin range is certified for use in Zone 1 and Zone 21. Typical applications include oil & gas and petrochemical processing facilities, as well as chemical and pharmaceutical manufacturing.

The ExLin NE+ combines lithium batteries (which are more environmentally friendly than nickel cadmium types), state-of-the-art LED technology with optimized thermal management, and a time-tested enclosure to deliver reliable performance for longer in harsh and hazardous environments.

Offering standard, narrow and wide beam illumination options, ExLin NE+ luminaires

enable illumination to be tailored to the needs of the application. They are available in 3L or 5L versions, delivering approximately 1000 lm / 2000 lm for up to three hours in emergency mode. The emergency lighting cycle can be set locally for 1.5 or 3 hours. Robust and versatile, these LED lighting fixtures will work effectively in ambient temperatures ranging from -40°C to +45°C.

ExLin NE+ lighting fixtures can vary the power consumption of the entire LED module via their electronics. This enables homogeneous illumination of escape routes in accordance with the local conditions, even in the emergency lighting mode.

Installation and maintenance are significantly reduced thanks to the innovative battery design. The ExLin NE+ lithium battery has no memory effect and a more stable capacity for emergency lighting compared to standard

NiCd batteries. In addition, these innovative batteries have faster charging, which means emergency lighting is fully available more quickly. Improved charging capabilities ensure a more stable and robust charging cycle, thus resulting in longer lifetime. ExLin NE+ LED lighting fixtures also incorporate Hot Swap technology, which allows an easy exchange of the battery in Ex areas without disconnecting the power.

ExLin NE+ LED lighting fixtures are equipped with integrated software that monitors the functions of the luminaire and automatically performs the prescribed function tests and quarterly, partial duty-cycle test in accordance with DIN EN 50172. A two-diode LED display shows charge and battery status for at-a-glance confirmation of operational integrity.

www.eaton.com



CHAS Helps Environmental Charity Grow Its Impact In Local Community

Donations from Merton-based supply chain compliance expert, CHAS, are helping fund the essential work of local environmental charity Sustainable Merton.

Founded in 2007, Sustainable Merton is dedicated to inspiring, mobilising and enabling the Merton community to respond to the climate emergency while also improving local quality of life. With the support of its army of volunteers, it works to champion sustainability and make a difference through community-led projects that address issues around waste, air quality, energy and food.

CHAS, a leading provider of risk prevention, compliance and supply chain management services, has been making donations to the charity every time a member chooses to opt-out of receiving paper accreditation certificates or CHAS van stickers. As a result, it has donated more than £6,500 towards Sustainable Merton's sustainability initiatives and community projects in the last 12 months.

Commenting on the initiative, CHAS Managing Director, Ian McKinnon, explains: "An important part of CHAS's work involves helping businesses demonstrate how they are meeting their obligations towards the planet and society through our environmental and corporate social responsibility accreditation schemes. Naturally, this means we are committed to ensuring our own organisation strives to have a positive impact."

"Working with Sustainable Merton provides the perfect opportunity to improve our environmental credentials while supporting our local community."

"As we celebrate our 25th year of operation in 2022, we are proud to have played a key role in simplifying health and safety prequalification and raising standards of risk management in the UK. This initiative reinforces our ongoing commitment to promoting responsible business practices."

Diana Sterck, CEO of Sustainable Merton, adds: "The flexibility of getting donations from businesses such as CHAS makes an enormous difference for us. Unlike grant funding, the donations enable us to build

our activity without being beholden to pre-specified commitments or restrictions. When we get money from CHAS, we can really put that anywhere."

This means Sustainable Merton can adapt as needs shift, allowing the charity to focus predominantly on its 'Growing Spaces' and 'Merton's Community Fridge' initiatives in recent times.

Growing Spaces is about bringing people together and addressing food poverty by helping residents of all ages access, grow and cook fresh, healthy, nutritious food. The spaces allow residents to learn more about the food system, develop new skills, improve health and wellbeing, and feel more connected with their community.

The Community Fridge initiative has also seen exponential growth in recent times. It involves collecting food that would otherwise go to waste from businesses and redistributing it. In addition, the surplus from the Growing Spaces allotments provides a source of fresh fruit and vegetables.

Since May 2020, Sustainable Merton has given out the equivalent of 64,000 meals to people living in food insecurity, with even higher quantities expected to be needed in the months ahead.

Ian McKinnon adds: "At a time when the cost of living is spiralling, it's heartening for both CHAS and our customers to hear about the positive impact our donations are having on the lives of local people."

"We would urge any business in a position to support their local community to consider working with charities such as Sustainable Merton because as well as being extremely rewarding, it is an ideal way to demonstrate your commitment to improving your social value, an issue which is fast rising up the business agenda."

Beyond its food initiatives, Sustainable Merton works to encourage energy-saving behaviours and raise awareness of alternative energy options. It is also promoting means to improve air quality in the borough, while volunteers are carrying out air quality monitoring and working closely with the council. Waste is another key area for the charity, which encourages residents to upcycle items that would otherwise be thrown away. Project Preloved, for example, is a community hub for everything sewing, mending, and textile upcycling.

"We're a small, grassroots operation," adds Diana Sterck. "We try to connect the different elements of what's going on in our community to make the borough a better place and to achieve the climate change targets. We really appreciate the funding we receive from businesses like CHAS and we can make the money go a long way. It's about helping the local community and contributing to something that affects our lives and our children's lives."

For more information on Sustainable Merton, visit: www.sustainablemerton.org



Hellberg Safety – Continuous and Effective Noise Protection Against Hearing Loss.

Noise-induced hearing loss is one of the world's most commonly reported physical diseases – particularly in the workplace. It's an accumulated ailment that increases at every time of over-exposure to noise. The bad news is that hearing loss can be permanent.

That's why Hellberg Safety's new and improved noise protection technology has been developed to deliver the most advanced passive and active protection for a variety of risk environments.

The SECURE series features a choice of basic or multi-functional ear defenders and communication solutions, which are available in 3 protection levels.

The SECURE ACTIVE series with active listening systems, allow you to communicate with your colleagues, hear warning signals and other important information while protected from hazardous noise.

SECURE RELAX products protect your hearing while you enjoy listening to your favourite radio station, while SECURE REACT headsets allow you to listen to AM/FM radio and communicate with your colleagues while still being protected from harmful noise.

Hellberg Safety's SECURE series are market-leading hearing protection products within a wider range of Eye, Face, Hearing and Communication solutions that have been developed to deliver optimum personal wellbeing and safety at work.

Getting information on the new Hellberg Safety product range is easy - call the Hultafors Group UK Helpline on 01484 854788, check out the website www.hellbergsafety.com or email

sales@hultaforsgroup.co.uk



Ruggedized explosion-protected proximity switches with CSA approval for North America

EGE now also supplies the intrinsically safe inductive sensors IGEXa, IGEXHa, IGEXPa and IGEXUa as well as the evaluation device IKMb 122 Ex as versions certified according to CSA. The ruggedized proximity switches for metal detection are approved for use in zones 0 and 20 areas with potentially explosive atmospheres (HazLoc). They are available in M12, M18 and M30 standard designs. IGEXHa and IGEXPa are two sensors that withstand high-pressure cleaning and ambient temperatures up to 140 °C and down to -60 °C respectively. The corresponding IKMb 122 Ex evaluation device with a compact 22 mm wide DIN-rail

housing for galvanic isolation and evaluation is installed in a control cabinet outside hazardous zones. Green, yellow and red LEDs

on the housing front indicate the operating states of the connected proximity switch.

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Explosion Prevention In New Spheres

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

To help minimise the risk of explosions when handling combustible dusts, it is important to understand the requirements for an explosion and the respective dust safety characteristics, which are described below.

The following picture shows the fire triangle and the explosion pentagon which must be taken into account. The following conditions must exist for an explosion to occur within a production facility or machine:

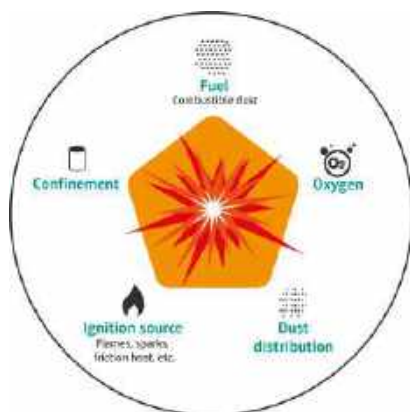


Fig. 1: Explosion pentagon

If any one of the aforementioned prerequisites is eliminated, explosion prevention has intrinsically been practised. However, if this is not possible at all times and in all operating

states, explosion hazards will still be present. In this case, it is necessary to divide any potentially explosive atmospheres into zones and systematically apply safety measures.

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

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

Operators of spray dryers must combat a particular type of ignition source – namely smouldering nests that can lead to spontaneous combustion if the material undergoes excessive caking. Caking occurs due to sub-optimal drying of the material and its initially high moisture content. The caked material is then insulated against the surrounding air by a build-up of moist material. The high temperatures ensure that the caked material is continuously heated until a biological reaction takes place involving

protein, carbohydrate and water – known as the Maillard reaction. The Maillard reaction generates additional heat that cannot be dissipated due to the insulating layer of caked material. This process continues to accelerate until spontaneous combustion finally occurs. Caking of this kind can build up both on the nozzles and the inner wall of the spray dryers. If the nozzle malfunctions, droplets may fall down into the fluid bed and cause further clumping. If a smouldering nest is able to form, this can ignite the explosive atmosphere inside the dryer or the downstream machinery.

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

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

is problematic and can result in inaccurate measurements.

The REMBE CO.Pilot makes exactly this symbiosis possible!

Via a permanent comparison of recorded data with a database of stored reference gases that serve as "fingerprints" of the selected gases, it is possible to perform a one-time check in real time and thus permanently verify the measurement accuracy. At the same time, the real-time fingerprint analysis eliminates the cross-sensitivity to other gases in the measurement spectrum that is common in commercial gas analysers.

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

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

The ratios of the different supply air channels

and the flexible operating hours are balanced via the software and calculated accordingly in the PLC.

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

But what does this mean in detail?

This special sampling process eliminates the need for costly and error-prone gas

treatment, thus ensuring that the CO.Pilot is less susceptible to faults and requires less maintenance. Furthermore, this measurement method can make recurring calibrations unnecessary. Due to the precise measurement technology and the reproducible results, false alarms and downtimes can also be avoided. And in combination with moisture measurements, the entire drying process can be optimally controlled, significantly increasing the energy efficiency of the system.

www.rembe.de



Fig. 2: REMBE CO.Pilot

Cementing The Benefits Of Specialist Services From Hoist & Winch

The varied and specialist services available from Hoist & Winch Ltd have come to the rescue of a cement industry customer that was looking to replace a large rotor used in its production process. Thanks to the design, manufacturing, test, certification and installation services offered by Hoist & Winch, the cement works was able to avoid the long lead times associated with buying original OEM equipment, and successfully complete a highly complex and challenging lifting operation.

In essence, the objective was to lift and replace a large rotor fitted with pivot-mounted hammers that break down the media as part of the cement manufacturing process. Located at the base of a very large production enclosure, a pair of bearing journals provides support for each end of the rotor. Hoist & Winch had to design and arrange manufacture of

equipment that would help to lift the worn and replacement rotors in and out of position in a precise manner without damaging any adjacent equipment, including the main drive motor and gearbox.

The cement works last performed this particular maintenance lift to replace a worn rotor in 2010 using a pair of lifting lugs that had since been disposed of. New replacement lugs were only available from the original supplier of the cement production process equipment on a very long lead time, which did not meet the requirements of the customer's programme.

With a total design weight of 80T, rotor lifting was courtesy of a pair of tandem-controlled 41T SWL (safe working load) wire rope hoists located on monorail beams arranged at 90° to the rotor bearing journal stub shafts.

Kicking off the scope of work and working

closely with a long standing trusted Sub Contractor, Hoist & Winch set about designing two 41T SWL rotor lifting lugs. As the basis for this task, the company used the customer's drawing of the 600mm diameter rotor stub shaft profile and site photographs of the original lifting lugs. Other assignments here included accurate surveys of the existing hoist runway beam centres and the hoist unit hook profile. Hoist & Winch then produced general assembly drawings for a final dimensional check on site and customer approval of the design concept.

As well as manufacturing the rotor lifting lugs, the Hoist & Winch scope included design and manufacture of a special mandrel that would allow proof load testing of the lifting lugs prior to delivery to site. Each 41T SWL rotor lifting lug had to undergo a test rig mounted, 200% static proof load test. Hoist & Winch also performed non-destructive testing (NDT) involving visual, X-ray and magnetic particle inspection (MPI)



procedures, while dynamic load testing of the rotor lifting lugs took place at the customer's site using the new replacement rotor as the test load in advance of the lifting operation.

After passing all testing requirements, Hoist & Winch issued a LOLER (Lifting Operations and Lifting Equipment Regulations) Thorough Examination Report and Proof Load Test Certificate for the new rotor lifting lugs, along with 3.1b Material Certification for all materials used.

To see the project to its conclusion, Hoist & Winch witnessed the customer's use of the rotor lugs during a planned plant shutdown for the lifting operation to take place. In so doing, the company also provided standby breakdown cover for the pair of tandem-controlled 41T SWL wire rope hoists.

"This project demonstrates how our diverse

and comprehensive portfolio of services can come to the aid of almost any lifting requirement," says Andy Allen, Director of Hoist & Winch Ltd. "Our professional team has decades of experience in lifting equipment services, for all applications. If your plant has any kind of lifting demand that would benefit from the input of industry experts, our team can help, beginning with a no-obligation discussion about the task in hand."

...

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

Hoist and Winch Ltd

Unit 20, 11B Arrow Business Park, Alcester
Employment Park, Arden Road, Alcester, B49
6HN

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web: www.hoistandwinch.co.uk

Wolf recommends ATEX certified lighting for safe use in potentially explosive hydrogen atmospheres

Using ATEX or IECEx certified lighting in atmospheres where hydrogen may be present is strongly recommended as a safety precaution by technical experts at Wolf Safety.

While acknowledging that hydrogen's 'green' credentials are highly encouraging, Wolf Safety believe the risks of explosion in atmospheres where hydrogen is present should not be underestimated.

As world leaders in the design and manufacture of portable and temporary lighting for use in hazardous areas, Wolf Safety are well aware of hydrogen related risks and offer safe, certified lighting solutions for use in hydrogen atmospheres.

Says Michael Morley, the company's Technical

Director: "Engineers and technicians working where hydrogen or other explosive gases or vapours could be present can be confident that Wolf has a safe, ATEX certified and cost-effective portable and temporary lighting solution which can be tailored to meet their specific needs."

The company's range of portable lighting, temporary lighting and power distribution solutions includes products already certified for safe use in workplaces where hydrogen gas could be present.

They include Wolf's robust yet highly portable WF-300@XL and WF-250XL LED floodlights which are used worldwide, especially by engineers inspecting, repairing and maintaining storage tanks in the oil and gas industry.

The robust WF-250XL, easy to carry and more

economical than comparable units, produces over 3,000 lumens of white light, more than enough to illuminate a 5m square tank or similar space without dazzling.

It effectively illuminates smaller work areas when using a limited power supply, providing the optimum level of light for working in confined spaces at lower cost. It's also lighter and more compact than similar products, is easily carried and consumes less electrical power."

Mains and low voltage versions of floodlights and luminaires, battery powered LED work lights, torches, handlamps, head torches and warning lights are also available from Wolf Safety.

For technical information visit:
www.wolfsafety.com

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ATEX-Certified Flow Monitors For Zones 2 And 22

The new ATEX-certified airflow monitors from the LC 518 GSP-EX22 series from EGE are used for

flow monitoring of gaseous media in exhaust and supply air lines that require category 3 sensors. The stainless-steel sensors are designed for a 0.5 m/s to 20 m/s detection range. In applications with a specified air flow, users can easily adjust the limit value during operation via an onboard potentiometer.

The flow state is indicated by a three-color light on the housing front and transmitted for further processing by a PNP switching output.

When the limit value is exceeded, the light changes from red to yellow, a further increase in the flow velocity is signaled by a green light.

The 80 mm long sensors are mounted directly in the wall of the ventilation duct with mounting nuts included in the scope of delivery. The M18 thread, which runs over the entire length of the housing, allows optimal positioning at different wall thicknesses. If the airflow is sufficient in the edge area, the measuring surface can be installed on a level with the inner wall of the duct. The sensors are designed in protection class

IP67 and connected via a 2 m long PUR cable.

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BEKA associates have introduced Pageant, a new intrinsically safe combined Operator Panel and Programmable Logic Controller with plug-in input and output modules allowing direct connection to hazardous area sensors. Its optional Modbus RTU port can transmit data to other equipment in the safe or hazardous area and also enables it to be used as a remote Modbus RTU display.

Pageant's state of the art, low power technology simplifies design and reduces the cost of providing operator displays and controls in a hazardous area. Multiple variables can be displayed simultaneously, plus eight touch switches with tricolour LED indicators significantly reduce panel space requirements. Intrinsic safety protection provides maximum safety and allows installation in almost any flammable gas or combustible dust atmosphere or Zone.

Featuring a 7 inch backlit trans-reflective display which can be read in all lighting conditions, the panel and all of the plug-in modules have Ex ia certification allowing installation in Zones 1, 2, 21 and 22. The IECEx, ATEX and UKCA certifications permit any combination of plug-in input and output modules to be fitted to the display without the

need for additional certification. Plug-in input and output modules for interfacing 4/20mA currents, switch contacts, proximity detectors and pulse sources are already available and more are being developed for other sensors.

The PLC employs industry standard CODESYS® runtime software which complies with IEC 61131 allowing programming in five different languages. The software includes a wealth of features and function blocks such as PID control and is supplied with a lifetime licence. CODESYS runtime software is already installed in more than 1,500 different products worldwide. It is supported by extensive documentation, including video presentations, and will therefore already be familiar to many users.

The display, eight programmable touch buttons and eight programmable tricolour

LEDs are mounted behind a 4mm thick toughened glass panel with a 316 stainless steel surround. The IP66 front is totally flat and easy to clean, making the Operator Panel ideal for petrochemical, pharmaceutical and distilling applications. The Operator Panel is lightweight and dissipates less than 5W making it easy to mount in instrument panels and enclosures.

Pageant Operator Panels have been designed to be powered by a BEKA Power Isolator which may be mounted in a safe area or in Zone 2. Two models are available, the BA212 for applications in IIA, IIB gases and dust atmospheres and the BA243 for IIC gas applications.

For further information please visit <https://www.beka.co.uk/pageant> or phone the BEKA sales office on +44 (0) 1462 438301

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- IP66 toughened glass and stainless steel front panel
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Pioneering Smart Universal Marshalling System From Eaton Achieves North American And Hazardous Area Mounting Accreditations

LUTON, UK... Power management company Eaton has attained US and Canadian certification, along with ATEX and IECEx approvals for mounting in a hazardous area, for its MTL SUM5 Smart Universal Marshalling system for process applications.

Commenting on the accreditation milestone, Simon Westwood-Marsh, Product Line Manager for MTL Process Connectivity at Eaton, says: "We knew MTL SUM5 represented a major step-change in marshalling technology and took the latest international standards into account when we were developing the system. Third party accreditation proves that SUM5 can be used with confidence in virtually any industrial application."

The pioneering modular design of SUM5 brings marshalling design into the 21st century by combining five key marshalling functions – intrinsic safety (IS) isolation, signal conditioning, relay interfaces, surge protection and loop disconnect – into a single cabinet: eliminating the need for complex wiring. This simplifies procurement, inventory management and documentation significantly. With fewer cabinets to install, process managers can reduce costs associated with installation, commissioning, start-up and maintenance. The SUM5 modules are designed for ambient operating temperatures from -40 to +70°C and can be mounted in field enclosures in harsh and hazardous areas, as well as in cabinets within control rooms. MTL SUM5 therefore delivers the lowest lifetime

costs and lowest installed cost while saving valuable space in a control room.

MTL SUM5 now holds SGS approval to UL913 and CSA-C22.2 standards for connection to IS devices in Class I, Div 1 and Class I Zone 0, and to UL and CAN/CSA 61010 for mounting in Ordinary Locations. It has also gained approval for mounting in Class I, Div 2 and Class I Zone 2 locations.

Additionally, SGS BASEEFA has issued ATEX and IECEx certificates for mounting the MTL SUM5 in a Zone 2 hazardous area. The equipment is certified Ex ec to IEC 60079-7:2015 (Equipment protection by increased safety "e") and so meets the Equipment Protection Level requirements for mounting

in Zone 2. This gives users confidence that the MTL SUM5 can be put into use in hazardous environments long after Ex nA protection becomes invalid and is no longer part of an ATEX harmonised standard. The certification requires the equipment to be installed in an Ex e certified enclosure providing a degree of protection of at least IP54. Eaton offers standard and customised enclosure solutions with the MTL SUM5.

In addition to these latest accreditations, MTL SUM5 holds ATEX and IECEx certifications for connection to intrinsically safe equipment.

More information about SUM5 is available at:

eaton.com/sum5





PRODUCT CERTIFICATION

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



TRAINING AND COMPEX CERTIFICATION

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



The Explosive Atmosphere Safety Specialist

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

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

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

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

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MANAGEMENT SYSTEMS CERTIFICATION

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



SITE SAFETY

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



www.exveritas.com
info@exveritas.com

New conformity assessment and marking of Ex Products placed on the GB market from 1 January 2023

From 1 January 2023, equipment and protective systems intended for the GB market should be conformity assessed by a UK approved body where necessary and should be UKCA marked, not CE marked.

All new products that placed on the market previously would have needed an ATEX Notified

to declare existing product types as compliant with UKCA (assuming the ATEX Certificates are to the relevant UKCA Designated Standards)

of relevant UK designated standards and equivalent EU harmonised standards that apply to their product, as well as details of the ATEX Notified Body which carried out the conformity assessment procedures.

Body certificate will need a UKCA Ex Approved Body Certificate (and QAN as applicable)

Products must still bear UKCA marking. For ongoing production, they will need to undergo conformity assessment with a UK Approved

If the ATEX certificate was not issued before 1 January 2023, or a variation is issued to that certificate after that date then these products are considered 'new' and would require certification by an UKCA Ex Approved Body.

On 20 June 2022 however the Government announced it intends to introduce legislation which will allow completed conformity assessment activities carried out under EU requirements before 1 January 2023 to permit self-declaration under certain conditions for a limited period. It should be noted however that this legislation has not yet been passed so anyone considering this route is doing so under their own risk. It is planned for the proposed legislation change to be placed before Parliament in the autumn 2022 to give effect to this.

Body once any of the relevant certification has changed (for example with a variation to the EU-Type examination certificate after 1 January 2023 or the QAN expiring), or after 5 years (31 December 2027), whichever is sooner. This will allow manufacturers to apply the UKCA mark without the need for UK approved body involvement and continue to place their goods on the GB market, based on an existing EU type examination certificate issued before 31 December 2022.

This is also the case when the products are manufactured under an ATEX QAN, when the QAN expires the product will require a UKCA QAN issued by a UKCA Ex Approved Body. Please note that whilst this guidance is derived from published UK Government documents and feedback from BEIS, interpretations and legislation may change again before the end of the year!

The proposed legislation change will permit ATEX Notified body Certificates issued before 1 January 2023 to be used by manufacturers

Where manufacturers are using existing ATEX certification completed before 1 January 2023 as the basis to demonstrate compliance with UKCA for their products, they should include in the UK Declaration of Conformity the list

Sean Clarke CEng MSc FIET is the Managing Director of ExVeritas who a UKCA Approved 'Ex' Body, an ATEX Notified Body and IECEx Certification Body.

ATEX Certified Fans for Gas Group IIC: Hydrogen

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Stainless Steel Fans For ATEX & Corrosive Fume Extraction

The materials used to manufacture an industrial fan, whether stainless steel, aluminium, mild steel, or polypropylene, will hugely affect the versatility and uses of that fan. The materials of construction used in a centrifugal or axial fan affect weight, hygiene, maintenance, longevity, and appearance. For corrosive environments where hygiene, high temperature and higher duties are in place, stainless steel fans are the route to take.

What is 304 Stainless Steel

304 stainless steel is a corrosive resistant metal that offers low maintenance while withstanding high temperatures. It's robust and easy to clean making it ideal for intensive cleaning cycles. Particularly where plastic fans may be less suitable due to their size or inability to reach a particular airflow or pressure duty.

How is Stainless Steel Corrosion Resistant?

Stainless steel has built in corrosion resistance due to the amount of chromium present in its composition. Stainless contains a minimum of 10.5% chromium, this chromium reacts with the surrounding oxygen very quickly and forms a thin oxide layer on the steel's surface. The chromium oxide clings to the steel and acts as a protective barrier. The oxide is known as a passive film which seals the iron in the alloy, away from the air and water in the environment. This gives the stainless steel its rust resistance.

Should Internal Parts only or the Entire Fan be Stainless Steel?

Having only the internal parts constructed from stainless steel is only applicable when

these are the only parts of the fan exposed to the carried corrosive air, as in they're in the airstream. If the fan is situated permanently in the corrosive air and this affects the outer casing too, then the entire fan should be made from a stainless-steel housing and internal parts.

Can you Supply ATEX Stainless Steel Fans?

Whatever the application, our 304 stainless-steel corrosive resistant fans are suitable for high operating temperatures, contaminants, or chemicals and even zone 1 ATEX variants for explosive atmospheres. We'll always ensure we provide you with a fan in the most suitable construction materials. Our ATEX fans are suitable for zone 1 and 2 applications inline with the current ATEX Directive. As dictated in the legislation, fan selections will be made in line with DSEAR inspections, and the reliable information provided by the end user's specification.

Which Industrial Fans are Offered in Stainless Steel?

Stainless steel is available in most of our medium pressure and high-pressure collection of Casals industrial fans. For smaller corrosion resistant fans in the applications of moving corrosive air effectively, we have an extensive range of polypropylene corrosion resistant fans with an impressive ATEX zone 2 offering.

What are Stainless Steel Centrifugal Fan Lead Times

Our lead time are of the most competitive in the industry given the current issues in the

UK market. Bespoke stainless-steel items will always have a slightly extended lead times due to their nature of not being held in stock. This is standard across all fan manufacturers, and we'll always be competitive on both price and lead time when delivering quotes for bespoke items.

What Finishes are Available on Stainless Steel?

We offer a standard or electropolished finish on all our 304 or 316 stainless steel industrial fans for use in corrosive air or food processing applications. Some customers prefer the aesthetic look of a polished stainless-steel finish while others want a product suitable for purpose without the need to look so polished.

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KDSI-SR Modular Cable Entry Installed From The Outside

Conta-Clip introduces the new, inverse and modular KDSI-SR cable entry system for reliable sealing, maximum flexibility and time savings feed-through for cables with and without plugs. The system is designed for installation from the outside of a control cabinet, enclosure or machine. Part of the popular KDS Click cable management range, the KDSI-SR system, too, allows for comfortable, flexible reconfiguration of existing installations at any point in time. The components can be easily removed, exchanged and reassembled.

additional two-part cover with TPE seals in three levels. This ensures an absolutely tight fit of the sealing elements, which are available for one, two or four cables or as blanking plugs.

The sealing elements with serrated edges and a tapered design provide IP66 ingress protection and reliable static strain relief in compliance to DIN EN 62444. They also allow for high packing density in comparison to cable glands. The halogen- and silicone-free KDSI-SR cable entry system is suitable for a wide range of requirements and ambient temperatures from -40 °C to 120 °C. KDSI-SR

frames are available for 4, 6, 8 or 10 sealing elements in various configurations to match the number and diameters of cables.

www.conta-clip.com



The clever system concept for the separable insertion of individual sealing elements facilitates customized cable management – since cables with plugs do not have to be disassembled and reconnected for retrofits or servicing, the manufacturer's warranty is retained. The KDSI-SR system is based on the proven modular design and simple assembly concept of the KDS program. It merely features an inverse tapered design of the screw-on frame's opening and includes an

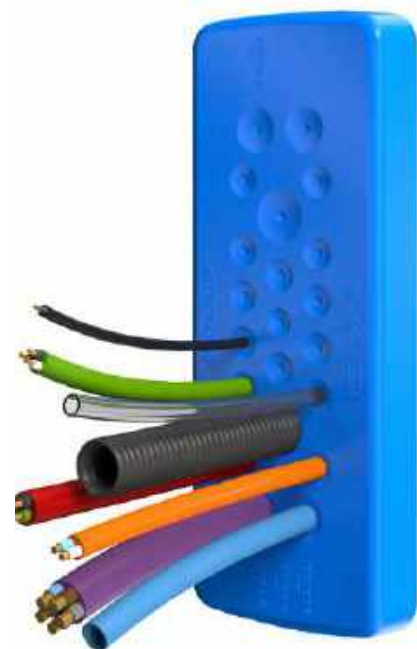


Hygienic FDA material compliant IP66 cable entry plates for up to 32 conductors

CONTA-CLIP expands its range of KES cable entry plates, adding eight new versions made of certified food-grade material for different cable diameters and numbers of entry points. Like the existing KES solutions, the hygienic variants from the new KES-GB-FDA series enable fast and particularly space-saving routing of up to 32 non-assembled cables into control cabinets or machine housings. The plates, manufactured from a robust polyamide frame injected with elastomer, include snap-in latches for easy mounting. They are first inserted into a 36 mm x 112 mm opening from the outside of the housing and then fixed from the inside with

screws. After piercing the outer membrane at marked insertion points, the cables can be easily pushed through. Conically shaped and TPE-molded sleeves on the back of the plate ensure reliable IP66 sealing and strain relief. The FDA-compliant elastomer used for the new KES-GB-FDA series meets the hygienic requirements for food approval according to 1935/2004/EC and (EU) 10/2011. The cable entry plates furthermore feature smooth surfaces, rounded corners and ECOLAB-certified material resistance to industrial cleaning agents to meet all hygiene requirements for use in the food or pharmaceutical industries.

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Monitoring the world



Do Not Ignore Surface Preparation Prior To Adhesive Bonding

In terms of surface cleaning prior to any kind of adhesive bonding, Pratley highlights that surface preparation is critical to achieve a high bond strength and optimise the durability, reliability, and lifespan of any bonded joint or repair. "Some surfaces only need to be dusted, while other oily or dirty substrates may require more elaborate surface preparation prior to adhesive bonding," notes Mark Bell, National Sales and Marketing Manager for Adhesives.

Pratley Safety Cleaner is a versatile product with numerous applications in the DIY and industrial sectors. It is commonly used in the DIY market as a surface cleaner prior to adhesive bonding. Its versatility also makes it ideal as an electrical switch and component cleaner as well as a thread degreaser in workshops prior to using thread-locking adhesives.

"A clean, dry surface is necessary for effective adhesive bonding. If a dirty surface is bonded, the adhesive ends up adhering to the contaminants instead of the intended substrate, thus reducing bond strength. Most adhesives cannot penetrate surface contaminants and thus provide an optimum bond on an unclean or oily surface," cautions Bell.

Pratley Safety Cleaner is a specially formulated aerosol cleaner that has the major advantage of leaving no oily residue behind. Other benefits are that it is safe and non-flammable. The product is simply sprayed directly onto the surface to be cleaned and then wiped off with a lint free cloth. Being multipurpose and easy to use, Pratley Safety Cleaner is ideal for DIY home or workshop use, the electrical market, and engineering and industrial workshops. The product is available to the wholesale market in 12 x 200 g spray tins, whereafter it is dispensed in single tins for retail end-use.

"As a Pratley branded product, not only does it offer exceptional reliability, in accordance with our policy statement, our product performance must exceed all others on the global market," highlights Bell. Commenting further on adhesive surface preparation, Bell stresses the importance of 'roughening' surfaces prior to any type of adhesive bonding. "As a rule of thumb, and where possible, prior to cleaning you should also look at roughening the surface or bond joint using sandpaper prior to any type of adhesive bonding. This not only increases the surface area in contact with the adhesive, but it also allows for additional mechanical interlocking between the adhesive and the substrate," concludes Bell.

In addition to adhesive bonding preparation, Pratley Safety Cleaner is also ideal for the cleaning of:

- Switches
- Relay contacts
- Commutators
- Condensers
- Rheostat wipers
- Precision mechanical parts, and many more

Pull quote

"In terms of surface cleaning prior to any kind of adhesive bonding, surface preparation is critical to achieve a high bond strength and optimise the durability, reliability, and lifespan of any bonded joint or repair." – Mark Bell, National Sales and Marketing Manager for Adhesives, Pratley

Social media

Twitter

The versatile, easy-to-use #Pratley Safety Cleaner is perfect for DIY home use, the domestic and industrial electrical market, and engineering and industrial workshops.

Connect with Pratley on Social Media to receive the company's latest news

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<https://www.facebook.com/PratleySA/>

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Cygnus Launched A Brand New Ex Certified Thickness Gauge!

The wait is finally over. Lucky visitors to our stand at The Materials Testing Exhibition earlier this month, were first to see the much anticipated, new Cygnus Ex-certified product in the flesh. Now, it's time to reveal what the new Cygnus 1 Ex Ultrasonic Thickness Gauge is all about!

This rugged, IP67-rated, intrinsically-safe instrument is specially designed to take reliable thickness measurements in Zone 0 Explosive Atmospheres, including;

- Oil and Gas
- Mines
- Chemical Plants
- Fuel Depots
- Road Tankers
- Oil and Gas Tankers
- Explosive Atmospheres
- Hazardous Storage Tanks

What is special about this launch?

Like its predecessor, the Cygnus 1 Ex is the only one of its kind in the world certified Intrinsically Safe to ATEX, IECEx, UKEX for Zone 0 and NRTL for Class 1, Division 1. But the Ex takes a giant leap forward, offering impressive new selectable features including live A-Scan, comprehensive data-logging and manual measurement mode, which brings Cygnus' Intrinsically Safe offering up to speed with Cygnus' most advanced gauges.

First of all, the 3 measuring modes that we are familiar with amongst Cygnus' surface range, designed for varying levels of corrosion, multiple materials and through-coat measurement capability, are now built into

this new gauge and available to hazardous and explosive environments. Measurement verification and recording are also far more advanced. The addition of Live A-Scan and B-Scan allows precise measurement verification with on-screen visuals via the large 3.5" outdoor-readable display, and the comprehensive data-logging feature ensures seamless data analysis and report generation.

You'll find the entire gauge, from how it sits in your hand, to collecting and storing measurements, is entirely geared towards the best user experience, making inspection quick and easy, despite the challenging environment. Four new function keys are purposely integrated to maximise ease and speed of control, four dynamic screen views aimed to suit user requirements, and a user access feature to prevent access to protected features.

Why are Intrinsic Safety and Ex certification significant?

Carrying out inspections with testing equipment certified to a suitable protection level is vital to ensuring the testing operation does not jeopardise the safety of hazardous environments. It is important to understand which is the correct equipment, and where to use it.

For equipment that contains electronic components including batteries, the intrinsically safe protection concept ensures that under both normal uses and with applied fault conditions, no arc or spark can be generated, and no component can heat up enough to cause an explosion.

Some intrinsically safe design criteria,

- The output energy at the terminals is limited so a spark cannot ignite an explosive atmosphere.
- The equipment must be anti-static and not be able to hold a static electricity charge.
- Voltages must be electrically 'clamped' to safe levels.
- The use of redundant safety components.
- If a battery or component fails, it should not produce high temperatures that could be incendiary.

In both IECEx, ATEX and North American NRTL systems, intrinsically safe equipment can be used in any Zone or Division with the correct equipment protection level.

Under the IECEx and ATEX systems, explosion-proof/flame-proof equipment cannot be used in Zone 0 areas, regardless of equipment protection level.

Most importantly, only equipment that has an Ex Certificate (ATEX/IECEx/UKEX/NRTL) can be considered for use in Zone 0/1/2 areas.

In the USA, equipment that only has a MIL-STD-810G, Method 511.5, Procedure I test pass CANNOT be used in Zone 0/1/2 areas.

The Cygnus 1 Ex, like all Cygnus products, is

manufactured in the UK and is the only Zone

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“Measurement verification and recording are also far more advanced. The addition of Live A-Scan and B-Scan allows precise measurement verification with on-screen visuals via the large 3.5” outdoor-readable display, and the comprehensive data-logging feature ensures seamless data analysis and report generation.”



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www.esi-tec.com

Providing Marine Sediment Analysis for an Overseas Port Facility

In December 2020, SOCOTEC's Laboratory & Analytical division were contracted to provide chemical and physical testing services, supporting a design and build project for a new port facility in a British Overseas Territory. SOCOTEC's services would support our client's surveying works for the first phase of the project, with the results obtained from the samples tested used to inform decision making for the next phase of surveys.

Working on behalf of the client (a major civil engineering contractor), SOCOTEC was originally instructed to provide Marine Management Organisation (MMO) approved testing on marine sediment samples. However, once site works had officially commenced, SOCOTEC was subsequently instructed to also provide chemical testing services for environmental soils and borehole waters, as well as sediment, sludge and seawater from the ballast tanks within the existing port infrastructure.

Analysis of these samples would be used to identify sources of contamination within the boundary of the project site, providing the client with an in-depth understanding as to how to proceed with the environmental management of decommissioning the old infrastructure, as well as to reduce financial risks associated with the project.

Operational obstacles

Over the course of the project, SOCOTEC had

to overcome a series of logistical challenges, given that the works were taking place over 8,000 miles from the UK and in the midst of the COVID-19 pandemic, which had significantly reduced the free movement of people and goods. Due to these circumstances, the client experienced some difficulties in terms of delayed shipments of samples back to the UK for testing, with some of the analysis classed as deviating against holding times. In a bid to ensure that there was no repeat of this, SOCOTEC's technical specialists were drafted in by the client to help draw up a detailed sampling and logistics plan, which involved regular teleconference calls with key stakeholders.

Rising to the challenge

Despite the challenges, the second round of sampling proved a complete success, with all samples arriving safely and all results provided in full. The client was extremely pleased with the high level of collaboration, service solutions and technical expertise

that SOCOTEC provided throughout the project, including the arrangement of all international logistics for the second phase of the sampling, input into the sampling plan and out-of-the-box thinking in order to keep the project running to schedule in the midst of the global pandemic. The second round of sampling and results obtained by SOCOTEC proved invaluable to the client, ensuring the accuracy of the estimate to cover the costs of decommissioning the old infrastructure and construction of the new facility.

By engaging with SOCOTEC from the outset, our Laboratory and Analytical division will ensure that you meet all of your project requirements and objectives, with technical specialists on hand 24-hours a day to provide assistance as and when required.

Could your organisation/problem benefit from collaboration, solution finding and expertise in all aspects of marine sediment analysis?

<https://www.socotec.co.uk/contact-us>





Originally founded in 1982, Deeter Electronics is now celebrating its 40th year in business!

Joseph Whiteaker, our Managing Director, said:

"As a family business I

could not be more proud of us reaching our 40th birthday.

This would not have been possible without the incredible team we have here at Deeter Electronics, many of whom have been with us for most of this journey. The

high standards that our Deeter family manages to maintain each year is a fantastic achievement and a real source of pride.

I am very excited for what the future holds, and I look forward to the next 40 years"

www.deterelectronics.com

An advertisement for Deeter Electronics featuring three stainless steel float switches standing vertically against a blue sky and ocean background. In the distance, an offshore oil rig is visible on the horizon. The Deeter Electronics logo is prominently displayed at the top center. At the bottom left is the Ex symbol (a hexagon with 'Ex' inside), and at the bottom right is the IECEx logo. The text 'Your Home For Hazardous Area Float Switches' and the website 'deterelectronics.com' are centered at the bottom.

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deterelectronics.com

200 And Still Counting!

1 5th September 2022, Dubai, UAE: We are delighted to be celebrating this, the 200th edition of The Maritime Standard newsletter. Packed with news and updates on the shipping and maritime sectors, the newsletter has been published without missing a single issue since its first one on June 1st, 2014.

It has proved to be extremely popular, steadily increasing circulation over this period, and moving from having a primarily regional to a genuinely global readership, indicating a strong demand for information and intelligence about developments in the Middle East and the Indian Subcontinent shipping, ports, and related sectors.

Clive Woodbridge, TMS Editor, says, "It is a fantastic achievement to be reaching this milestone and we are grateful for the support of our readers and sponsors over the past eight years. We have strived to cover what is important in the regional maritime sector and have tried to put an insightful spin on news about the industry, drawing on our years of experience. We have been fortunate to have a network of invaluable contacts at high levels throughout the sector who have been kind enough to grant us the benefit of their insights. Hopefully, as an increasingly global brand, we can continue to serve the market as a valuable source of information for the next 200 editions also."

Over the past few years there have been a

whole host of significant developments relating to the maritime sector in the Middle East and the Indian Subcontinent. Mergers and acquisitions; new port projects; investments in new ships; and upgrades to shipbuilding and repair facilities. The Maritime Standard has been there to cover them all, in a timely manner and with an easy-to-read format.

The pace of development and change will not slow down, and fresh and innovative ventures and business ideas will be coming to fruition. Once again, through The Maritime Standard, readers will not miss a thing.

Clive adds, "There is no doubt that the regional maritime business will grow and develop further over the next few years. It is a market that deserves close attention and about which up-to-date and insightful information can be important in identifying business opportunities and securing competitive advantage."

The Maritime Standard is published by Flagship Events, a business which has been able to take full advantage of the wise leadership of the UAE, where it is based, to flourish as a media, events and conferences production company. The support given to the maritime sector by the leadership allowed activity to continue even during the pandemic, and this is truly appreciated.

The Maritime Standard also wishes to acknowledge the sponsorship and advertising support it has received from many of the region's biggest companies. These include leading players in the ports, shipping, insurance,

classification and marine services sectors.

TMS achievement in reaching the 200th edition has been praised by a number of prominent shipping and ports executives. Capt. Mohammed Juma Al Shamisi, Managing Director and Group CEO of Abu Dhabi Ports Group, commented "The progress that The Maritime Standard has made over the past eight years has been outstanding and we applaud the fact that it is now established as one of the leading online publications for the region." Abdulla Bin Damithan, CEO & Managing Director DP World UAE & Jafza said, "The Maritime Standard provides us with an excellent, well written source of information and it has earned its position of respect across the industry." Capt. Abdulkareem Al Masabi, CEO of ADNOC L&S, said, "The Maritime Standard newsletter has become an invaluable resource and it deserves every success. I wish it well for the future." Dr Ibrahim Al Nadhairi CEO of ASYAD Shipping and Drydocks echoes these sentiments, saying: "The Maritime Standard has helped raise the profile of the maritime industries in this region and as such has made an extremely valuable contribution, which is widely appreciated and acknowledged."

The TMS newsletter is the basis on which the TMS Awards and TMS Tanker Conference has taken root and flourished also. In November this year both events will return to the pre-covid venue of the Atlantis, one of the regions finest venues, and we are once again expecting a full house of over 800 people to pack the ballroom.



Safe & Efficient Drum Handling In Hazardous Areas

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

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

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

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

We also have a range of Drum Cages for off-shore use and fork 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 Rotator (SC10-St/St)

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- Pallet & Stacker Trucks
- Pedestrian Drum Rotators
- Scissor Grab Drum Handler

St Clare Engineering Ltd (Grab-O-Matic)

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

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

Hiab, Part Of Cargotec, Launches The New HIAB iQ.958 HiPro Heavy Loader Crane

Hiab, part of Cargotec, launches the new HIAB iQ.958 HiPro heavy loader crane with the new advanced operating system SPACEevo to improve productivity and safer operation. Due to its design, it delivers an excellent lift-to-weight ratio. The crane will be exhibited by Hiab at IAA, pavilion P35, in Hannover, Germany, 20 - 25 September.

The HIAB iQ.958 HiPro is a 90 tonne metre (tm) heavy range crane. It is the second model in the iQ range with the advanced technology platform introduced with the HIAB iQ.1188 HiPro.

The HIAB iQ.958 HiPro structurally builds on the V12-Power boom shape design for the crane and the JIB. The result is an extremely light and compact crane with an under two metres side section that can be installed on smaller trucks within the 4 axle 32 tonnes GVW (gross vehicle weight) category, leaving plenty of loading capacity that can reduce the number of trips needed. The lower vehicle weight when unloaded and subsequent need for fewer trips contributes to lower fuel consumption and reduced CO2 emissions in the customer's operation.

The crane uses the new control system SPACEevo that enables precise operations even at high speeds. It also offers advanced safety and productivity features like VSL+ (Variable Stability Logic PLUS) that can maximise the lifting capacity by calculating the stability according to the position of the stabiliser legs and the actual total weight of the truck.

The DLC-S (Dynamic Load Chart) lets the operator set up the crane quicker by simulating the load capacity before opening the stabilisers, avoiding lost time in finding the correct stabiliser position for maximum lifting. This can be done from the comfort of the truck cabin, particularly handy when operating in adverse weather conditions.

The standard XS Drive remote control can be substituted with the new optional CombiDrive 4 remote control. It enhances the crane operation with new safety features such as Confirm View to find the best field of view, three high definition and bright colour displays and a long-lasting battery with single-user operator personalisation settings. "The HIAB iQ.958 HiPro is a technologically advanced crane for its category, offering great performance for a wide variety of lifts both in horizontal and vertical positions. The crane offers among the best in class lifting performance when using the eighth extension in combination with the JIB with six extensions (JIB 155Q). This maximises the available JIB power to provide superior load capability," says Marcel Boxem, Director, Global Product Management, Loader Cranes Heavy & Super Heavy, Hiab.

The new models will also be offered in non-CE versions, equipped with the control system Space X4 and the optional CombiDrive 3 remote control.

Highlights

- 90tm range category
- SPACEevo control system.
- New, advanced V12-Power dodecagonal shaped boom and JIB profile for

lightweight and compact frame size fitting within a built in space of two metres and below the 4 metres height of passage doors with all the options and JIB installed.

- An all-purpose crane that delivers the performance of its category with the weight and frame size of the range below, increasing the available payload and making it possible to install on smaller truck sizes (4 axle 32 tonnes GVW) while keeping installation and running costs the most convenient possible.

- Variable pump, for increased flow performances and reduced fuel consumption

- nDurance nano-based technology coating assures long-lasting protection of the crane and its parts from corrosion, rust or external environmental factors that would affect its appearance and residual value over time.

- HIAB iQ.958 HiPro has in-built connectivity so that owners can access Hiab's HiConnect™.

- CE marked

- Non-CE version available

Further information:

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Eindhoven, Netherlands. 15 September 2022: Fluke, a global technology leader in the manufacture of compact, professional electronic test and measurement tools and software, has today launched a new eBook describing the many benefits of using digitised acoustic leak detection technology for facility and maintenance managers.

Entitled Fluke leak detection tools – Guide to acoustic leak detection technology, the eBook showcases how customers can boost energy efficiency and productivity in process and manufacturing facilities using powerful handheld and online tools.

A major global food and beverage production plant located in Germany confirmed Fluke's innovative technology for detecting leaks in air, gas and vacuum systems has "already produced enormous savings". The Plant Energy Manager estimated an energy cost saving of between €120,000 and €150,000 per year could be achieved.

Eliminate wasted energy and reduce costs
Available for download in English and German, the exclusive eBook includes in-depth technical information and customer case studies which illustrate how acoustic imaging can transform plant efficiency through the fast identification of leaks in compressed gas systems, which have long been the cause of wasted energy and increased costs.

The eBook explains how the technology can be a game changer for factory managers seeking to meet an organisation's energy efficiency and productivity goals. Maintenance teams used to rely on the archaic and time-consuming methods of listening out for leaks or using the soap and water technique to identify faults in compressed gas systems. Today, advanced leak detection tools from Fluke can achieve real-time results within minutes, eliminating the need for unscheduled downtime.

Mark Bakker, Field Application Engineer at Fluke said: "Leaks are wasteful and can cause factory owners to overcompensate by using compressors that are larger than they need to be, increasing capital expenditure as well as the amount of energy used in a facility. Leaks can also lead to production delays, avoidable downtime and quality issues as well as increased maintenance of factory equipment." "Not only can finding and fixing leaks save money, but it can remove the need to build additional capacity into existing systems. Every facility or maintenance engineer will benefit from the insights shared within our new eBook and develop a greater understanding of the most advanced leak detection tools available from Fluke."

Fast and efficient leak detection

Some of the most common areas that problematic and costly leaks can occur include couplings, hoses, tubes, fittings, threaded pipe joints, quick disconnects, FLT (filter, regulator

and lubricator) combinations, condensate traps, valves, flanges, packings, air lines and pneumatic holding tanks. One maintenance manager quoted in the eBook stated that leak-related downtime at their factory costs more than €98,000 an hour in lost productivity.

A series of in-depth technical articles are featured in the eBook covering how the digitisation of leak detection has finally caught up with high-tech processing and manufacturing, and how easy-to-use maintenance tools can deliver huge energy savings for factories while reducing their carbon footprint.

The eBook also showcases Fluke's online return-on-investment (ROI) calculator that enables users to demonstrate the level of savings that can be made by quantifying leaks

using the Fluke ii900 Industrial Acoustic Imager and Fluke ii910 Precision Acoustic Imager. These sophisticated devices use an array of ultra-sensitive microphones with a range of 2kHz to 52kHz to locate the source of the problem. Capable of pinpointing leaks in even the noisiest of factory environments, the acoustic imagers provide users with a visual SoundMap of leaks displayed as a video or still image on a large 7" LCD touchscreen. Reports can be easily generated along with conducting fast routine inspections by maintenance teams once leaks have been repaired.

The new Fluke leak detection tools – Guide to acoustic leak detection technology eBook is available for free download in English and German.

FLUKE

Fluke launches eBook to help process and manufacturing companies improve energy efficiency and productivity

The new eBook, 'Fluke leak detection tools – Guide to acoustic leak detection technology', features testimonials from users of digitised leak detection tools as well as in-depth technical articles, case studies, product data and an online cost savings calculator for demonstrating ROI.



Fluke leak detection tools

Guide to acoustic leak detection technology



Exposure Limits And Worker Safety: Choosing The Right Personal Or Portable Gas Detector



Worker health and safety laws have come a long way in recent years. Even in the last few decades introductions of PPE (personal protective equipment), safer working conditions, and limits on exposure to dangerous chemicals and gases have become commonplace. A key part of being able to ensure these safety regulations are being met is through accurate and regular gas monitoring. ION Science offer world-leading VOC gas instruments that help keep workers safe and healthy both during their working life and long after.

Effective management of VOC (volatile organic compound) exposure on workers is critical for any business where there is a short-term or long-term risk to health (in some cases, both). Monitoring through STEL and TWA (short term exposure limit and time weighted average respectively) is a good way of ensuring workers are not being exposed unnecessarily. It's also important to provide employees with personal gas detection so they are safe in the event of an unregistered leak or industrial accident. This is particularly important for lone workers, or in those operating in confined spaces where it's harder to call for help.

Using PID (photoionisation detection) technology in personal and portable gas monitors is the most effective way to help protect workers from harmful VOC exposure. As experts in the development and manufacture of PID solutions, ION Science offer a range of industry-leading personal and portable gas detectors.

Depending on the industry application and the type of VOC to be monitored, the legally permitted workplace exposure limit (WEL) will vary. Having a fast and accurate response factor time is critical to ensure workers are not exposed more than necessary. ION Science's Tiger handheld portable gas detector offers the fastest response factor time on the market, able to detect and respond to VOCs in 2 seconds. It is ideal for use in laboratories, clean rooms, leak detection and land contamination.

The Tiger is available with a 10.6 eV sensor or 11.7 eV option and has a dynamic detection range of PPM and PPB. It is also available as the Tiger Select (benzene specific monitoring) and the Tiger LT (an essentials-

only version of the Tiger). All versions of the Tiger have a 24-hour battery life and are fully rechargeable. With its anti-contamination and humidity resistant design, the PID sensor in the Tiger can

operate at maximum capacity with no interference. It is also designed to be operated one handed and has a large keypad and back-lit screen to make use in low-light even easier. All these user interface features have been added to make the Tiger excellent for VOC detection, but also easy to use in multiple environments and applications to promote improved safety monitoring.

For protecting long-term worker health, PID gas detectors are much more sensitive than LEL (lower explosive limit) alternatives. Many VOCs can cause serious long term health issues (including cancers) even if exposure at the time was only minor. Protecting people against small exposures over a long period of time is more effective than only protecting them in the event of a large-scale leak or accident, as an LEL would.

Personal gas detection devices that use PID, such as ION Science's Cub, are an ideal way of protecting staff against VOC exposure. The Cub is designed to be worn on the person within the breathing zone to deliver maximum protection against VOCs. It is available in 10.0 eV, 10.6 eV and 11.7 eV options, allowing for a wide range of VOC detection. The 10.0 and 10.6 versions have a rapid response time of sub 13 seconds, while the 11.7 is even quicker, at sub 11 seconds. All versions are lightweight, have a 12-hour continuous use battery life, and are certified to ATEX and IECEx. Three alarms (audio, light and vibration) alert the wearer in the event of VOC limits being exceeded, and the Cub can operate in 0 - 55 °C, ideal for most environments where workers would be present.

ION Science are continuously researching and developing new ways to use PID technology to protect workers from harmful VOC exposure. The Cub and The Tiger are just two of the ways in which ION Science are helping keep workers safe by using fast response times and accurate detection.

To find out more about ION Science's range of sensors and gas detection instruments, please visit:

<https://bit.ly/3QA163t>

AO Launch Funded Gas Apprenticeships For The First Time

For Gas Safety Week, online electricals retailer AO announces today that it has introduced funded gas apprenticeships for the first time to both grow its fleet of qualified engineers and invest in training.

Following the introduction of the new apprenticeships, AO is now successfully upskilling and training several cohorts - many of whom were self-employed drivers contracted by the company. For the first time, the retailer has launched the fully funded course aimed at both current employees and contracted drivers, which provides an accessible pathway to the Level 3 gas qualification. This runs alongside a new apprenticeship funded by the government levy, which is open to anyone with a full driving license.

Lynne Wood, Director of Service Delivery at AO Logistics, said: "I'm so proud that we can now invest in providing accessible opportunities by offering these gas apprenticeships for the first time. Many of the contracted drivers and electrical installers have jumped at the chance to train in gas, and I'm so pleased we can support their future careers. With more qualified gas engineers on hand, we can also make our leading delivery and installation proposition even better for customers."

Running for up to 16 weeks, the fast-track programme consists of both online and classroom teaching, as well as on-the-road experience to quickly upskill participants. The AO funded scheme runs alongside an apprenticeship funded by the government apprentice levy that offers comprehensive training in driving a 3.5 tonne van, gas qualifications and functional skills across 16 months.

Edward Knight first crossed paths with AO in 2018 when he was contracted for driver services before training as an electrical installer and he is now participating in the first cohort of the gas apprenticeship. He said: "I'm really chuffed that I've had the chance to do my gas training, which adds another string to my bow when it comes to my career. I've always considered doing an apprenticeship, but it was never an option due to the cost - so I jumped at the chance when I saw that AO was offering to fund it and I've really enjoyed the training so far."

As part of AO's installation offering, the engineers disconnect the old appliance at the point of delivery and safely install the new one with a full health check. The engineers are accredited to the highest standards, with Gas Safe registration, NICEIC electrical accreditation and membership to CHAS, the UK's leading provider of compliance and risk management solutions.

AO acquired the two-person delivery company, formerly Expert Logistics, in 2009 and it now offers next day delivery to every UK postcode seven days a week on its range of 12,000 electrical products.

For information about applying for an apprenticeship at AO Logistics, visit: <https://www.ao-jobs.com/>



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