

Hazardous Engineering Solutions



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The International Magazine For
Hazardous Area Professionals

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Canadian Hospital Uses Ion Science Tiger Voc Detector To Ensure Safe Working Environment For Employees

Handheld photoionisation (PID) instrument used to monitor emissions from housekeeping products such as paints, adhesives and new furniture

In a move designed to help ensure the on-going health & safety of its 4000-strong workforce, especially those with known chemical sensitivities, Canada's St Boniface Hospital has ordered a handheld Tiger volatile organic compound (VOC) detector from Ion Science (www.ionscience.com).

The high performance PID instrument is being used by the tertiary care facility to monitor levels of potentially harmful emissions from housekeeping products such as paints, adhesives, floor coatings, new furniture and sanitizers.

Ion Science's Tiger will be used several times a month by St Boniface Hospital's health & safety team to obtain a single snapshot reading and for logging data which is then downloaded and converted into graph format for inclusion in hygiene surveys. These are then reported across the department that has been monitored.

Taras Stecy, Safety Co-ordinator at St Boniface Hospital says: "We are committed to providing a safe working environment for our staff and patients alike. We had a few issues with VOC levels in the past so decided to introduce an on-going monitoring process. Plus we know that some staff have sensitivities to VOCs and felt an obligation to protect them from the risk of overexposure.

Taras continues: "We purchased the Tiger from Ion Science's Canadian distributor, Levitt Safety. They offered advice on the most suitable instrument and also provided training to our entire safety group. This hands-on demonstration was extremely useful as it enabled all of us to practice using the equipment."

A robust hand held VOC detector, Tiger provides a dynamic detection range of 1 parts per billion (ppb) to 20,000 parts per million (ppm), offering the widest measurement range of any other VOC instrument on the market.

The Tiger handheld VOC detector leads the way with its humidity and contamination resistant PID technology, proven to be the best performing against competing instruments when operating in humid and contaminated environments where it provides the most stable, repeatable readings.

John Dodd, Health & Safety Assistant at St Boniface Hospital adds: "The Tiger is easy to use and the menu setup is great as it allows less proficient or technical users to operate it fairly easily. It is early days but so far it seems reliable and relatively maintenance free. I think the whole team would recommend the Tiger to other hospitals or healthcare facilities. It has a quick start up and is very user friendly."



Ready to use, straight out of the box, the Tiger requires no complex set up procedures via a PC to perform basic functions and provides the best available VOC detection and software features available.

Ion Science's Tiger also has the fastest response time on the market of just two seconds and can be connected directly to a PC via the USB offering extremely fast data download capabilities.

It has been designed for the safe replacement of batteries in hazardous environments and is intrinsically safe (IS) - meeting ATEX, IECEx, UL and CSA standards.

For product information please contact:
Sam Holson, Ion Science, The Way,
Fowlmere, SG8 7UJ, UK
tel: + 44 (0) 1763 208503
email: marketing@ionscience.com
Visit: www.ionscience.com

Next time you need Certified Equipment, ask the Ex-PERT!

A new website Ex-PERT has launched this year, allowing End-Users to more quickly and easily find and filter Hazardous Area Equipment based upon their specific demands.

Ex-PERT enables users of the site to filter products based on Certification, Hazardous Atmosphere, and Zone, right down to the Temperatures that the equipment must be suitable for.

This resource links you not only to the products, but to their suitability for your application, their datasheets, and other supporting documentation where available. Ex-PERT work closely with supplier's to produce quality listings that are informative, accurate and unbiased. The site gathers together key technical information and then presents

it in a uniform, easy to understand format. The result is a really easy to use tool that makes the relevant information much more accessible and the search much less laborious.

The HES Website will now feature Ex-PERT as their Ex Equipment Search Directory, so that site users can access the same information directly from the HES site. Kerry Norcross, Ex-PERT MD, explains - 'It's an absolute privilege to have our search site feature on HES. We see Ex-PERT as a real resource for anyone looking for Hazloc Equipment and so



to have HES as an outlet for this information is fantastic'.

Manufacturers wishing to list their products on Ex-PERT should contact the Ex-PERT team directly:

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Local display for easy operation on Michell's new explosion-proof moisture transmitter

Michell Instrument's newly launched Easidew PRO XP explosion proof dew-point transmitter is now available with an optional integral display, for improved ease of use.

The local display provides engineers with readings of moisture at the point of installation, enabling them to carry out checks and make adjustments conveniently and quickly without referring to their control room.



The Easidew PRO XP with display is capable of measuring moisture in both gases and non-polar liquids. The transmitter is housed in a tough, explosion-proof epoxy coated aluminium casing as standard, however, an alternative 316 Stainless steel casing, rated to IP66/NEMA 4, is available for offshore applications.

This versatility makes it an ideal option for systems integrators as they only need to stock one dew-point transmitter for all moisture measurement applications in hazardous areas.

The Easidew PRO XP moisture transmitter uses the latest ceramic moisture sensing technology from Michell, and is capable of measuring dew points in gases from -110°C to +20°C and 0-3000 ppm_v. In liquids the measurement range is from 0-3000 ppm_w. With a 450 bar (6527 psi) pressure rating, EN10204 3.1 material certified parts and NPL/NIST 13-point calibration certificate, it meets all the current demand of the process industry.

As part of their continuing programme of global certifications and pattern approvals, Michell has recently gained full Canadian CRN approvals and INMETRO approval for Brazil for the Easidew PRO XP. This is in addition to the certifications from ATEX, CSA and IECEx – making it acceptable in hazardous areas world-wide. Michell is working to gain further certifications to further enhance its global acceptance.

Michell Instruments
Tel - +44(0)1353 658 000 Email: uk.info@michell.com Visit: www.michell.com/uk

VdS approval for rugged metal enclosure fire system horn sounders

E2S Warning Signals has gained VdS approval and CPR compliance to directive 305/2011/EU for its AlertAlarm D112 alarm horn sounder by testing to EN54-3.

It combines the field-proven electronics of its AlertAlarm A Series with a robust, corrosion resistant marine grade LM6 aluminium alloy enclosure, giving greater mechanical and UV protection. The D112 has a maximum SPL of 119 dB(A) @ 1m at the nominal 24VDC fire alarm system operating voltage; the CPR compliance is valid for operation from 18 – 30VDC. The 48VDC version is also compliant.



The VdS approval covers the five most commonly used fire alarm warning tones and also confirms that the units operate to specification under conditions of dry and damp heat, cold, shock and vibration. The aluminium enclosure complies with Type B environmental category making it suitable for outdoor installation, and so supporting the extension of a fire detection system into areas beyond the relatively benign office environment, improving safety. Other tests include EMC, SO₂ corrosion resistance and dust and water ingress.

UL approved versions for general signalling use are also available. For this version, the aluminium enclosure is sealed to IP66, NEMA Type 4, 4X and 3R.

For use in a wide range of signalling applications, the AlertAlarm D112 offers a choice of 45 different alarm tones, and with the option of activating a second and third tone via additional control cables, it is a cost effective, sophisticated signalling solution providing the versatility of multiple tones from a single unit. It is also available as part of the DL112X, in which the horn sounder is integrated with a 5 Joule Xenon strobe, or as the DL112H combination unit, where the horn sounder is combined with a high output 24-unit LED array beacon.

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HES
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Standards, Classification and Marking of Hazardous Weighing Equipment

Equipment and products operating in hazardous areas are required to meet stringent criteria.

They must be 'protected' to avoid the possibility of them becoming a source of ignition. Weighing systems are often an integral part of a process within the hazardous area and therefore must have suitable protection

Many industries face major challenges when defining a zone as hazardous and this can have major implications for your business operation should you fail to meet the required legislative standards.



METTLER TOLEDO's simple and easy-to-read poster provides a comprehensive introduction to hazardous-area classifications, types of protection and how this information is reflected in the labeling of electrical equipment for hazardous areas.

Order your free poster and learn more about:

- Electrical equipment labeling according to IECEx, ATEX and FM standards
- Classification of hazardous areas
- Types of ignition protection

Download your free hazardous weighing poster today
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Sabre Safety Delivers New Compressor Technology To Improve Safety And Process

Sabre Safety, the global H₂S safety service provider, has recently delivered four of its self-contained ATEX Approved Zone 1 LP breathing air compressors to Sureclean, the international industrial cleaning and waste management specialist, based in Aberdeen and AIness.



Sureclean is enhancing its technologies to provide its services in a safer, more efficient and cost effective way, and this order from Sureclean is part of the company's equipment investment.

The compressor is ATEX certified for use in Zone 1 hazardous areas, allowing the compressors to be as close to the working environment as possible. Sureclean were looking for a BA compressor that would provide product up-time, with operations able to start immediately. Within the system, air is continuously available 24/7, even if scopes grow - and there is no downtime waiting on air bottle delivery, refilling or charging.

Easy to use and simple to deploy in operations, the ATEX Zone 1 compressor from Sabre comes with an auto shutdown facility that activates in the event of any ingress of gas into the Zone 1 area. It is a patented system that has been designed by Sabre's own in-house gas safety team in Aberdeen, and it

gives operators complete confidence in working in a Zone 1 location. Escape air is automatically supplied in the event of an auto shutdown, again providing air quality that exceeds the breathing air requirements of BS:EN12021:1999. By way of contrast, other 'designated' Zone 1 compressors run trunking into a Zone 1 area, which can require to be routed from 60 – 70 feet away in a typical scenario, and the installation of a fan (and associated cabling) to pressurise the trunking. Monitoring is carried out to ensure that positive pressure is being maintained, but this is at a distance from the compressor. Measures such as these mount up and make such systems harder to maintain and operate.

The technology has already been deployed to the Murchison Platform in support of vessel entry projects. The single enclosed unit has the benefit of providing one unit for all BA needs, delivering clean breathable air, at a desired temperature and constant air monitoring for enhanced safety. It is

not only decommissioning projects where these systems will be used; the international contractor is now widely using the compressor, within its wider tank cleaning operations including Inshore rig maintenance, offshore works and FPSO upgrade projects globally and to meet Lloyds, DNV and ABS standards.

Bespoke design for optimum performance and safety

Sureclean approached Sabre Safety with the company's requirements for a bespoke system, requesting a 4 outlet LP BA Compressor. Sureclean had a number of specific requirements for a failsafe system which included constant air monitoring and a temperature controlled system providing quality breathing air for up to 4 people simultaneously which can be used in all working environments.

Designed for use during confined-space entry works, the compressor provides real-time air quality monitoring and is easily deployed, complying with Sureclean's 'plug and play' philosophy. With an inbuilt failsafe system, it delivers air at the desired temperature, with the integrity of the air constantly monitored, simultaneously providing a more comfortable and a safer system.

The new Zone 1 compressor from Sabre Safety will be of use across a wide range of applications – from shotblasting and spraypainting to welding and confined space working including decom and leg entry work on rigs.

To find out more or to request a demonstration, just call:

Sabre Safety on 01224 729081
or email: admin@sabreh2s.com

J D NEUHAUS HOISTS FACILITATE CRANE REPAIRS ON OFFSHORE PLATFORM

Replacing the broken engine, which itself weighed-in at approximately 1750kg, presented some logistic problems.



The diesel engine replacement operation was successfully undertaken by the Gerritsen On- & Offshore Services BV company from their base in Amsterdam, with the work being completed in approximately one week.

As the replacement engine was too large and heavy to be ferried by helicopter, a lifting device was needed, that met requirements such as explosion-proof, lightweight and easy to handle to lift the replacement safely from the supply vessel. The suitable lifting device was sourced from the J D Neuhaus range of air operated hoists available in the Gerritsen rental fleet. It was a Profi 2TI model which had a lift capacity of 2 tonnes. This model is available as standard with a 3 metre lift, having an overall weight of approximately 110kg including the control system. This product was easily modified to provide the 40 metres lift required on site, involving an additional weight for the twin chain hoist mechanism at approximately 2kg per metre run.

With the replacement engine and its lifting equipment being transported by a supply vessel (16 hours sea time), provision was required for a further primary lifting unit to handle the Profi 2 TI hoist and its 40 metres drop of twin chains utilised for the major lifting operation. Once again, equipment that

Above: A J D Neuhaus hoist being utilised for a 40 metre lift on an offshore platform.

was light enough to be delivered to site by helicopter was selected from the Gerritsen rental fleet. This was a J D Neuhaus air operated Mini hoist, providing 980kg lift capacity to handle the larger and more powerful Profi hoist and its 40 metre chains. The Mini hoist plus an appropriate beam clamp for the hoist suspension support was helicoptered in (30 minutes air time) and mounted ready for the primary lift operation of the Profi hoist and chains utilising a big bag container. The more powerful Profi unit was then used to replace the Mini hoist, utilising the same beam clamp installation. The Profi hoist with a 2 tonne lifting capacity was then utilised to undertake the more difficult lift and location of the replacement diesel engine utilising a sling assembly. The work was undertaken with one rig personnel for safety inspection, together with one rigger and three scaffolders.

The J D Neuhaus range of air operated hoists are universally deployable, incorporating explosion protection and are suitable for use in hazardous areas. The Mini series is available in load capacities of 125, 250, 500 and 980kg together with a



A J D Neuhaus hoist being utilised for a 40 metre lift on an offshore platform.

manipulator version providing for one handed operation of lift, lower and hoist traverse operations. These products are explosion protected and feature an Ex classification of Ex II 3 GD IIA T4.

The Profi series hoists offer a more rugged build quality for heavier duty operations, and can be supplied with lift capacities from 250kg up to a full 100 tonnes. 100% duty rating and unlimited duty cycles are provided as standard, ensuring no down time and low maintenance requirements. They are supplied as standard with classification Ex II 2 GD IIA T4 / II 3 GD IIB T4, with increased spark protection to Ex II 2 GD IIB T4 and for explosion group IIC : Ex II 2 GD IIC T4. These products are insensitive to dust, humidity and temperatures ranging from -20°C to +70°C. They also provide infinitely variable speed controls for the precise positioning of loads.

Gerritsen On- & Offshore Services BV are the authorised Dutch Sole Importer of JDN products.

Further information is available on request to:
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Versatile ESD for North Sea platform's tie-backs

Hima-Sella to build Emergency Shutdown system for off-shore rig in readiness for its receipt of oil and gas from subsea wells.



Stockport, United Kingdom – Specialist Safety Instrumentation Systems provider Hima-Sella has been awarded a contract to develop an Emergency Shutdown (ESD) system for a North Sea oil platform; in relation to modifications being made in order for the platform to receive and process product from two subsea wells.

The platform's new ESD will be implemented using a HIMA HIMax, a Programmable Electronic System (PES) designed for use in production processes that can ill afford downtime. HIMax is extremely scalable as it has virtually unlimited expansion potential; and for this particular project the PES will initially have more than 300 I/O channels, which will interface with sensors and actuators.

Above: Hima-Sella is to build an Emergency Shutdown system for an off-shore rig in readiness for its receipt of oil and gas from subsea wells.

Moreover, HIMax delivers SIL3 protection that is 'NON-STOP', in that hardware and software changes can be made without interrupting the functionality of the system. It also offers scalable redundancy (which HIMA brands as 'XMR') for operation in quad, triple, dual or single mode.

Eddy Turnock, Hima-Sella's Sales & Marketing Director, comments: "HIMax is proving incredibly popular within the oil and gas sector. Operators and owners alike are appreciating how the system's flexibility, scalability and NON-STOP performance make HIMax – along with Hima-Sella's engineering

capabilities - the ideal solution for managing functional safety throughout the entire lifecycle of their platforms."

Turnock goes on to say that improved drilling techniques and better access to subsea wells are extending the life of many oil and gas platforms, which need to be modified to accept and process product: "And with functional safety applicable to the entire lifecycle of a platform, in accordance with IEC 61508, the ESD and other safety systems must keep pace with any and all modifications."

The contract for the development of the ESD was awarded to Hima-Sella - following an extensive and rigorous evaluation process that began in late 2013 – by the engineering company responsible for making the modifications to enable the platform to accept and process oil from the two subsea wells. Hima-Sella is building the ESD at its headquarters in Stockport, United Kingdom, and the system functionality is being created using HIMA's SILworX programming tool. In addition, the development and verification of the ESD's functionality is being overseen by Hima-Sella's dedicated Functional Safety Management Team, on which only engineers certified to TÜV FSEng or FSP can work.

Factory acceptance testing is scheduled before the end of Q1 2015, after which the HIMax will be transported to the platform for installation and commissioning.

For information on Hima-Sella's Emergency Shutdown system capabilities please contact the company on: esd@hima-sella.co.uk.

Ion Science Launches World's First Continuous Benzene Specific Monitor

'Titan' specially designed for the detection of ambient benzene in petrochemical applications - providing the ultimate protection of workforce, environment & plant

Further underlining its position as a global leader in the design and manufacture of high performance gas detection instrumentation, Ion Science (www.ionscience.com) has unveiled the world's first continuous benzene specific monitor. The revolutionary 'Titan' has been specially designed for the accurate and reliable detection of ambient benzene in petrochemical applications where traditional methods suffer cross interference – providing the ultimate real-time protection of workforce, environment and plant.

Benzene is a constituent of crude oil and becomes gaseous during petrochemical processing but it is also used as a solvent in the production of drugs, plastics, synthetic rubbers and dyes. It is a carcinogen with very low work exposure limits making sub parts per million (ppm) measurement an essential requirement.

Traditional photoionisation detection (PID) monitors easily detect benzene but they also identify other less harmful volatile organic compound (VOC) gases that are normally present at the same time.

As the world's first truly selective wall-mounted benzene monitor, the Ion Science 'Titan' is set to be a real game changer for the petrochemical industry and refinery applications in particular. Incorporating the well proven Ion Science MiniPID technology at the heart of the instrument, 'Titan' is highly sensitive and capable of detecting benzene levels down to 0.1ppm and up to 20ppm.

Offering rapid and accurate detection, 'Titan' continuously samples and analyses the environment to provide real-time feedback of ambient benzene levels. When a sample is taken, the benzene

component is chemically filtered using a robust separation technology so ensuring no false-positives are measured with potential cross-contaminating compounds in the atmosphere.

Ion Science's 'Titan' features a clear display and provides users with an immediate warning alarm system when hazardous levels of benzene are detected ensuring the on-going safety and protection of workers.

The instrument provides two relays with configurable levels to integrate into site alarm systems. Flashing lights are used as an alarm signal to give a clear indication when benzene levels present.

'Titan' stores data internally and remotely connects to a PC. Its continuous, real-time measurement facilitates the analysis of trends and allows activity levels to be accurately identified.

Designed to operate in conditions ranging from -20 °C up to +60 °C, 'Titan' is unaffected by changes in ambient temperature. It incorporates two temperature regulation systems to ensure critical components perform optimally.

Modular in design, 'Titan' is easy to service and designed to operate for as long as possible without intervention. Working parts can be easily removed and serviced, or replaced by another 'plug and play' service module. It also provides removal of particulate contamination in the air stream to provide long-term service free sampling.

Like all Ion Science PID instruments, 'Titan' utilises the company's unique patented Fence Electrode technology for unrivalled resistance to humidity and



contamination. This key feature makes 'Titan' ideal for extended operation in harsh environments.

Duncan Johns, Managing Director at Ion Science says: "Like most Ion Science products, the 'Titan' has been developed as a result of listening to our customers and understanding the changing needs of our target markets. The petrochemical industry has been clamouring for a benzene specific monitor for some time so we're excited at being able to offer the 'Titan' as a robust, reliable and accurate solution.

Duncan adds: "The 'Titan' utilises Ion Science's 25 years' experience and is the result of significant research and development. It is truly revolutionary and a further reinforcement of our market-leading position at the forefront of global gas detection instrumentation."

'Titan' is designed to IP65 and meets ATEX / IECEx hazardous area safety approvals.

For product information please contact:
Sam Holson, Ion Science, The Way,
Fowlmere, SG8 7UJ, UK
tel: + 44 (0) 1763 208503
email: marketing@ionscience.com

Implementing A Calibration System – How To Overcome The Common Pitfalls

Why talk about calibration system implementation? Isn't it enough to focus on comparing equipment and software feature lists?

The reason is that a calibration system implementation is only about 20 to 30% technology, the rest is business culture and process. Calibration system implementation is also very time- and resource-consuming – the risk of failure is high. Typically, a calibration system implementation involves many different functions and departments within an organization and takes a long time to complete.

Why implement a new calibration system

An efficient, modern, automated, computer-based calibration system, and related processes, have many benefits, this kind of system will save money by reducing the costs of calibrations. The most significant savings are accrued when getting rid of the paper-based calibration system; electronic record keeping is more effective and it's possible to get rid of manual recording of calibration results in the field by using documenting calibrators. Calibrate less, because the system can help to concentrate on the most critical calibrations and avoid unnecessary calibrations.

Using electric record-keeping and documenting calibrators, the errors common in manual entries can be avoided. This will help to ensure compliance with quality system and regulatory requirements.

Why focus on the implementation process instead of product features

Often the components of the calibration system (software and calibrators) are selected and compared based on their features and functions only. However, even the components with the best features will not automatically change the way of working.

The implementation is a very time- and resource-consuming operation, and the risk of failure is therefore high. These facts need to be taken into account when implementing a new system.

Many companies have experience with ERP, accounting and other system implementations, but most often it is the first time the company/people implement a calibration system. This will increase the risk of failure.

Typical failures in IT project implementations include overruns of costs and schedule. Also, the expected benefits are not always obtained. Often, dissatisfaction is caused by the incapability of the system vendor/supplier to support the implementation process with required services and documentation.

1. Features – functions - price arms race

It is good to remember that the software that has the longest list of features and functions is not necessarily the best. Also, the cheapest software may become the most expensive in the end. It is important to analyze the weaknesses in the current calibration process as well as the goals for the new process. It is important to find the most suitable system and the best vendor as a partner to guide the company through the implementation process.

2. Unclear goal and purpose

First of all, it's essential to remember to specify a clear goal for the new calibration system. Without a target it is very easy to fall straight into the discussion of details and features. This causes a high risk for the failure of the process.

3. Modelling old legacy system into a new system

Sometimes there is a tendency to use the existing, old, paper-based legacy calibration process and force the new computer-based system to conform to the old one. This approach most often results in failure. When the technology and tools are updated, the calibration process should be updated, too. Also, this approach most often does not utilize the

benefits and possibilities of the modern automated calibration system.

4. Failing to gain early user and stakeholder adoption

The users and stakeholders must be involved at an early stage and remain throughout the whole implementation process. The bigger the process changes are, the more important to involve the users. The stakeholders include, for example, calibration process owners, IT, compliance and quality.

5. The "Big Bang" implementation

For large, multi-site implementations, the "Big Bang" implementation style has proven unsuccessful and will more often result in failure. Instead, the successful calibration process implementation projects have been gradual roll-outs of the sites instead of one big launch. It is recommended to have a Proof-of-Concept approach where the solution is successfully implemented on one site before the roll-out to other sites starts.

6. Under-resourcing and lack of project organization

It is good to remember that a calibration system implementation is a joint-effort of the customer and the vendor. Often, three quarters of the resource requirements are the customer's responsibility and one quarter the vendor's.

As regards the customer, there must always be a well-defined project organization with a dedicated project manager. As mentioned earlier, other resources typically needed are application and process experts, IT resources. Legal council is needed in the contract phase.

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Momentum Gathers for Maintec 2015

There is more on offer than ever before at Maintec 2015, which is returning to the NEC, Birmingham on 24 – 26 March.



The leading UK event for the maintenance, plant and asset management industry has a packed hall full of industry leading exhibitors, content rich seminars and the latest innovations.

This will be the fortieth year for the show. In the events industry that is a major landmark, and it's testament to the critical part the show plays in the industry. However, all the signs are that 2015 will be a big year for Maintec in other ways too!

Complementary Co-Locations

Building on last year, which saw Maintec's floor plan and visitor base expand massively, Easyfairs have confirmed that it will again run alongside Facilities Management - the UK's only event for the facilities industry outside London. The Health & Safety Event will also return for its second year. Finally rounding off the clever co-locations will be Easyfairs' new show, Cleaning 2015, which is focused on buyers and suppliers from within the cleaning industry.

Industry Leading Exhibitors

Exhibitors at Maintec 2015 include all the major names and show regulars such as Hörmann UK, Pruftechnik, Thermaflue, KeyTracker and AV

Technology, many of whom will be using the show to launch new products to the market or unveil their very latest upgrades.

For all those looking for the latest in CMMS systems, the Ashcom Technology stand is a must see.

The company will be showcasing its MaintiMizer BlackBox, which is an all-in-one CMMS/EAM solution created for businesses with small or non-existent IT departments. It contains everything needed to be successful wrapped up in a self-contained network appliance. Also on display will be its flagship product, the MaintiMizer Web Edition and its Software as a Service, MaintiMizer.com.

Lobo Systems will be showcasing its platform scaffold products. These combine the flexibility and strength of traditional scaffolding with the simplicity and mobility of tower systems, but are much more versatile. They need no assembly tools and can be made into any shape or size, which is perfect for maintenance and production applications. The scaffold products flat pack for transportation and are easy and quick to erect, meaning in house maintenance personnel can complete assembly themselves.

Acutest will be displaying its HT MacroTest G3 Multifunction Meter, an innovative instrument capable of carrying out safety tests on domestic and industrial electric systems. The Cable Detection EZITEX t100 Signal Transmitter and the FLIR E8 Thermal Imaging Camera will also be exhibited.

The quick connect specialist, CEJN, will be exhibiting its MultiFLOW Air & Fluid Gun, which effectively cleans surfaces with air or water, using an unparalleled blowing force. Also on display will be CEJN's coupling series eSafe and its full range of hose and cable reels.

Show Floor Entertainment

Visitors will have plenty of learning opportunities at Maintec 2015 too, including a return of The Business Exchange, a selection of free content-rich practical talks full of the latest research, new innovations and case studies exploring the hottest topics, challenges and trends. There will also be a return for The Business Strategy Forum, which will include sessions from expert speakers and major industry names.

There will be additional showfloor entertainment in the form of show favourite, Lions' Lair, which will once again be returning to Maintec with brave exhibitors presenting their new technologies, innovations and concepts to a panel of experts, in front of a live audience, in a bid to be voted best of show.

For further information about Maintec 2015 and to register for free entry, please visit www.maintecuk.com

Arco Offers Expert Advice At This Year's Health & Safety Event 2015

Arco, the UK's leading safety company, returns as an event sponsor to the Health & Safety Event (24th – 26th March 2015, NEC) this spring, with dedicated specialists on hand to offer expert knowledge and guidance on all aspects of workplace safety.



As well as providing visitors with valuable advice, Arco will be showcasing a variety of innovative products on stand H30, including a full range of flame resistant (FR) garments, ArcoPro fall arrest equipment and the latest Assembly range of gloves.

Committed to getting people home safe at the end of the working day, Arco has developed the ArcoPro range of FR garments that offer multi-norm protection and meet the requirements of Category III of the European PPE Directive. Customers can be assured that each garment meets the highest

safety standards as Arco is the first distributor in the industry to test its garment combinations using both Thermal Mannequin and TPP (Thermal Protection Performance) testing; tests that not only record heat and flame resistance, but also measure the time between the wearer feeling pain and receiving a second degree burn. The ArcoPro products are incorporated into a range of complementary products from world leading brands, including base layers, mid layers, workwear, weather protection and chemical protection.

Understanding the risks customers face whilst at work lies at the heart of the design of Arco's new collection of ArcoPro Fall Protection. All three safety harnesses in the range are approved to meet EN361:2002 and are custom built to be extremely comfortable, lightweight and robust.

Visitors to stand H30 will also be able to try on the latest gloves from Arco, including the new Assembly Range. Gloves in the range are comfortable, lightweight and dextrous, making them ideal for precision manufacture, light assembly, electronics and white goods manufacturing, as well as micro construction. For full product demonstrations and the chance to get your gloves queries answered, Arco's Technical Gloves Specialist will be on hand throughout all three days of the show.

For further information, please visit the Arco team on stand H30 or visit www.arco.co.uk.

Don't Confuse Climbing Helmets with Industrial Helmets for Working at Height warns JSP

Climbing helmets designed for leisure activities are increasingly being used on construction sites, especially where scaffolding is present.

But, cautions JSP, climbing helmets that only conform to climbing helmet standard EN12492 and not also to industrial safety standards EN397 or EN14052 may not perform adequately as industrial helmets, posing serious risks to workers that they may not be aware of.

Matthew Judson, JSP's Technical Director, explains: "Many workers and health and safety officers mistakenly think that climbing helmets are suitable for wear on scaffolding, because if the helmets are hit by a falling object they are held on the head by the chinstrap. However, wearing these helmets can be dangerous. The chinstrap on industrial safety helmets is designed to break and the helmet to come off if the person should fall and become caught up by the helmet, causing less harm to the worker."

JSP's EVOLite® Skyworker™ industrial safety helmet is certified to climbing helmet standard EN12492 as well as to EN397. JSP has added features, including side impact protection, to its renowned EVOLite® helmet so that it

also performs to the climbing helmet standard and can be used for both purposes.

There are three basic differences between climbing helmets and industrial safety helmets:

1. The amount of the load passed to the wearer's neck used in testing. When a 5kg flat striker is dropped from two metres onto the top of a climbing helmet, the force through the neck must not exceed 10 kilo Newtons (kN); a 5kg hemispherical striker dropped from two metres onto a high performance industrial helmet is only allowed a maximum load of 5 kN. So, permanent or serious injuries to the neck are more likely with a climbing helmet.
2. Industrial safety helmets have deliberately breakable chinstraps to avoid strangulation.
3. Climbing helmets are allowed larger ventilation holes, which could be penetrated by falling objects, such as a piece of metal, chisel or screwdriver.



Matthew adds: "JSP advises people to determine what the risk is, assess it, and then choose the right product for the right risk environment. It is all about understanding the differences between leisure and industrial safety helmets and choosing a product, such as JSP's Skyworker™, that will be safe for use in the workplace as well as for climbing. Workers have a right to expect to be protected at work, and not go home with serious injuries that would be avoidable with the correct helmet."

More information is available from:
www.jsp.co.uk
by emailing uksales@jsp.co.uk
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SPM Instrument launches Intellinova® Compact online system for Ex environments

SPM Instrument, leading worldwide provider of condition monitoring technology and products, now announces the introduction of Intellinova® Compact Ex, the latest addition to the successful Intellinova product line for online condition monitoring of rotating machinery.

An Ex approved version now joins the Intellinova family of online systems. Intellinova Compact Ex is a high performance online condition monitoring system, well suited for safe remote monitoring of industrial environments with measuring points in hazardous areas. The oil and gas, offshore, petrochemical, mining and sugar industries are a few examples where Intellinova Compact Ex is the ideal solution for condition monitoring.

This leading-edge system for Ex environments offers the strongest combination of measuring techniques available. Vibration measurement (DC to 40 kHz) with HD Order Tracking and sophisticated analysis, and the SPM HD® technique for condition monitoring of rolling element bearings in the 0.1-

20,000 RPM range provides maximum flexibility for detection of machine problems. The system also handles user defined measurements via analog inputs and OPC, e.g. pressure, flow, load, etc.

Intellinova Compact Ex is fully compatible with all other Intellinova versions. It can be run as standalone units or in an integrated system where the individual units communicate with a single shared database in a standard Ethernet network

Intellinova Compact Ex is available in four versions, each with a fixed channel configuration for shock pulse and/ or vibration measurement. All versions come with multiple rpm and analog inputs as well as status outputs.



The Intellinova Compact Ex system versions will be available for delivery in Q1, 2015.

SPM Instrument UK Ltd.
Tel +44 1706 835 331
info@spminstrument.co.uk
www.spminstrument.co.uk

Versatile Air/Gas Flow/Consumption Sensor

Thermal mass flowmeters are ideal for dry gas measurement as they are independent of pressure or temperature changes and offer very fast response times.

The CS 450/452 range of insertion and inline sensors offer these benefits with the addition of ATEX IIG Exd certification for potentially hazardous environments.

The wetted sensor parts are all 316L stainless steel ideal for corrosive gases and the units are available for line sizes up to D1500 for the insertion type CS 450 and DN80 for the inline CS 452.

Two analogue outputs or Modbus communication allow interfacing to a wide range of DCS or SCADA systems.



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New Manual Reset Namur Mounted Solenoid Valve

The new G50 series valve from Italian Manufacturer Nadi Srl offers the convenience of the namur interface mounting with the addition of manual reset functionality in 3/2 or 5/2 operations.

Available with or without ATEX Exd certification, the G50 enables the system designer to implement an operator safety input for a process valve actuator without the additional expense of hard piping an inline solenoid valve to do the same job. This reduces the instrumentation envelope as well as saving time and material costs for the installer.

Body material choices include brass or 316 stainless steel and variants for ambient temperatures down to -60°C.



Red Dragon Limited
www.reddragonvalves.co.uk
Sales@reddragonvalves.co.uk

SE-VTS-1 Emergency Tank Shower

The SE-VTS-1 Emergency Tank Shower is for use where a constant water supply or adequate water pressure is unavailable; this emergency safety shower is fully compliant with ANSI Z358.1 providing 2000ltr of tepid water to ensure a water flow of 75.7ltr per minute for 15 minutes.

Tepid water is crucial, medical professionals recommend that tepid water be used to treat chemically injuries to eyes and body tissue because temperatures that exceed 38°C can enhance chemical interaction with the eyes and skin. Additionally, flushing liquid temperatures below 16°C can cause hypothermic shock and prolonged exposure to cold fluids affect the ability to maintain adequate body temperature and can result in the premature cessation of first aid treatment.



For the full details or to arrange a site visit please contact us on: 01506 430309 or email enquiries@tankshower.co.uk

Thermographic Consultancy flies FLIR

Thermographic Consultancy, the leading UK thermal imaging consultancy, is a top distributor of FLIR Systems' thermal imaging equipment in the UK - and can now fly the camera by copter.

Thermographic Consultancy supplies FLIR products and provides expert technical advice about how to use them. The company will be training thermographic engineers on FLIR products across the country.

Speaking about the partnership with FLIR Systems, director of Thermographic Consultancy, Stuart Holland said: "We share FLIR's passion for thermal imaging, so it's great to be one of its preferred UK distributors. As pioneers of thermal imaging, FLIR has revolutionised equipment capable of aerial thermography."

Thermographic Consultancy can now fly its custom-built 1015mm diameter octocopter without the need for a pilot onboard. This means clients can get accurate surveys of complex or hazardous areas,

such as industrial sites and rigs, safely, quickly and cost-effectively.

Selling through www.thermalcam.co.uk or by direct contact, FLIR Systems is a world leader in the design and manufacture of sensor systems that increase perception and awareness. FLIR's advanced thermal imaging systems are used for a wide variety of imaging, thermography, and security applications, including research and development, search and rescue, surveillance and environmental monitoring.

Thermographic Consultancy provides comprehensive surveys of electrical or mechanical installation for predictive maintenance regimes. The company also offers inspections to assess thermal efficiency and identify areas of costly energy loss.



Stuart Holland is a Level 3 thermal imaging specialist in electromechanical engineering. He works with other skilled thermographers to identify heat loss, and monitor energy efficiency. Using the very best technology, Stuart can analyse images and video footage faster and more accurately than any other thermal imaging provider.

For more information about Stuart Holland and Thermographic Consultancy, visit: www.thermographicconsultancy.com.

What is hearing loss like, and how can you protect your employees?

- Loss of hearing can be incredibly distressing, and it can have a substantial impact on the individual concerned. Hearing loss can affect you personally, and it can prevent safety in the workplace, reducing awareness of surroundings and your ability to communicate and hear warning signs.
- WHO (World Health Organisation) says that noise exposure is the biggest cause for permanent hearing damage around the world- and it's avoidable.
- Under the Control of Noise at Regulations 2005, there are many responsibilities and duties to be undertaken by both employers and employees to comply with the law.



- Provide tools for training proper insertion techniques of ear plugs
- Helps employees become aware of the control they have in protecting their hearing.

How can you ensure that noise protection supplied to employees is working and providing the protection it should? At the same time, how do you monitor your employees' knowledge of risks and benefits of protection?

Without being educated about safety precautions, employees may take their ability to hear for granted. This could then lead to complications down the line for your business regarding your legal duty to provide health and safety.

Our products not only protect, but also help to educate and raise awareness of preventing Noise Induced Hearing Loss in the workplace. With all our products, technical advice and support is always available. The benefits are that employees will be more receptive of your legal duty to protect hearing and the support that you offer. This will create an environment where your employees feel they can report on noise related issues.

Noise Protection: Current problems and potential hazards being overlooked

Earplugs are often assumed to protect the employee from noise, however they can also underperform and be ineffective in protecting you from noise exposure. The two most common mistakes are not inserting the earplug correctly in the ear canal and the earplug not being the right size, failing to protect employees from noise exposure.

Our offer

In particular we offer protection against Noise Induced Hearing Loss for a Personal Attenuation Rating (PAR).

Our E-A-R fit Validation System has many features including your ability as an employer to monitor, maintain and protect your employees:

- Identify workers receiving inadequate protection that leaves them at risk

The National Hearing Conservation Association endorses fit testing citing the following benefits: refitting workers with declining hearing, and selecting adequate hearing protectors for specified noise environments.

It is important that you have the appropriate level of protection for your employees' given environments. In order to gauge the right level of protection you need to accurately measure those working environments.

Shawcity have equipment that assess, measure and manage noise exposure in the workplace, as well as sound and noise indicators that help identify if and when hearing protection needs to be worn.

Shawcity
www.shawcity.co.uk

Svantek To Show Wide Range Of Noise & Vibration Monitors Plus New Svanmobile Android App

Svantek will be showing a wide range of high performance noise and vibration monitoring instrumentation at The Health & Safety Event 2015, including the SV103 personal vibration dosimeter; SV104 personal noise dosimeter with octave band analysis; SV971 sound level meter and SV106 eight-channel human vibration meter.

The company will also be highlighting its newly launched Android 'app', SvanMobile, specially designed for use with the SVAN 977B and 979 sound level meters.

Using the built in Bluetooth functionality of the Android smartphone or tablet, Svantek's SvanMobile allows remote operation of the company's high performance SVAN 977B and SVAN 979 sound level meters when making general acoustic measurements or monitoring environmental and occupational noise and vibration. Users can set up and then control the meter using the app.

SvanMobile enables the user to link measurement files from the sound level meter to media from smartphones such as images, videos and audio notes, as well as location and meteorological data. It is also possible to use SvanMobile to connect to the sound level meter over the internet if it has a GPRS modem or WiFi.

Svantek's SV103 is a small, rugged instrument which simply attaches to the user's arm whilst the lightweight MEMS accelerometer straps to

the hand. This innovative device features an easy to read colour OLED screen and all data can be quickly downloaded to a computer for analysis. The SV103 also has a unique additional contact force transducer that measures how firmly the tool is being gripped.

Svantek's compact and robust SV104 personal noise dosimeter offers a wide range of unrivalled features including octave band analysis for helping to select hearing protection, audio recording and full colour OLED screen. It also offers a revolutionary and virtually indestructible MEMS microphone and inbuilt tri-axial accelerometer for vibration shock detection.

Recognised as the smallest class 1 sound level meter on the market, Svantek's SVAN971 instrument also boasts a full colour OLED screen and is more cost effective than many class 2 meters. Benefits include 1/1 and 1/3 octave band analysis, audio event recording and the ability to store data on an



easily downloadable micro SD card. A full outdoor kit and microphone extension cable is also available with this model.

Svantek's SV106 has set a new benchmark in affordable hand-arm (HAV) and whole-body (WBV) vibration. This highly versatile human vibration meter and analyser offers good value for money and works with most accelerometers. It has eight channels which enables users to attach two tri-axial accelerometers at the same time.

For product information please contact Paul Rubens, Svantek
tel: 01296 682040
mob: 07815 087905
email: paulrubens@svantek.co.uk
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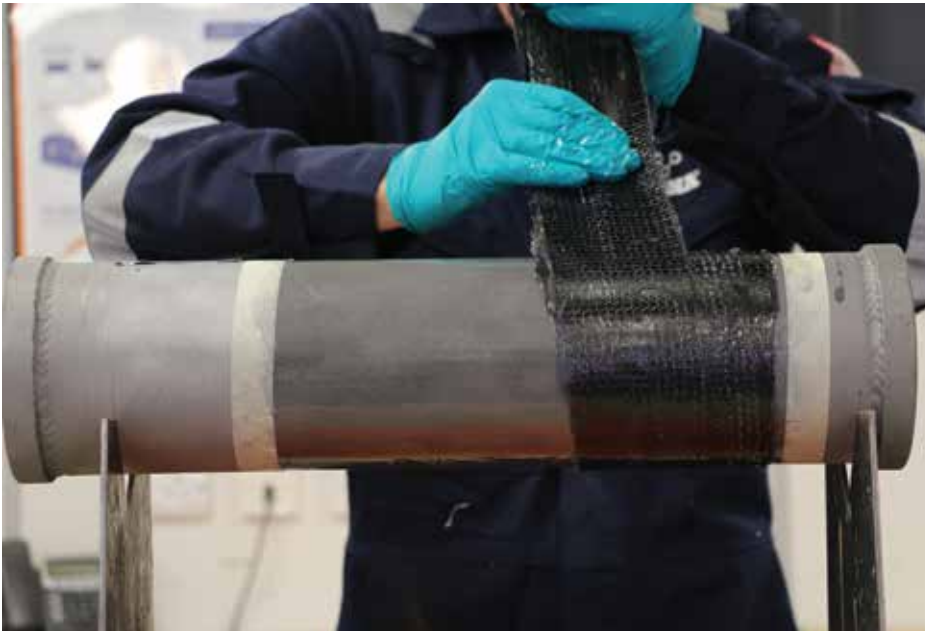
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 **EASYFAIRS**

Superior Composite Technology Developed for Pipe and Tank Repair and Protection

Already with a 100% application success rate, Belzona's high-tech pipe wrap repair system has undergone a major reformulation and enhancement.



Belzona Research and Development Manager, Jevon Pugh said, "Following the success and popularity of Belzona SuperWrap over the course of seven years, our R&D team has been busy developing and redesigning numerous aspects of the technology to create a superior composite repair and protection system, Belzona SuperWrap II."

Belzona SuperWrap II has achieved compliance with industry standards; ISO 24817 (Composite Repairs for Pipework) and ASME PCC-2 Article 4.1 (Nonmetallic Composite repair systems: high risk applications).

A Simple, Two-part Epoxy Resin System

Driven by SuperWrap's success and popularity, the Belzona R&D Department conducted a rigorous series of independent and in-house tests

Glass Transition Temperature, Shore D Hardness and Lap Shear testing, 1000 hour survival tests for through wall and thin wall defects, physical testing to validate that the repair system strength meets the values generated by the independent laboratory testing. Following this careful and painstaking process, SuperWrap II was born.

The new wrap system comprises of two Belzona products; a cold curing fluid grade epoxy resin and a hybrid reinforcement sheet consisting of glass fibre and carbon fibres, which have been woven together to give an optimised balance of strength and flexibility.

In order to achieve a versatile product, SuperWrap II is now available with two different resin grades, Belzona 1981 and Belzona 1982. The main difference between these resin grades is the end service temperature and working life of the resin. Belzona 1981 has been developed for cool ambient temperatures above 5°C and has a maximum service temperature of up to 60°C, while Belzona

Above:
Application of SuperWrap II on pipe spool

to determine ways in which the system could be enhanced. These tests include Young's modulus, Poisson's Ratio, Shear Modulus, Thermal expansion,

Below:
Pressurised to target pressure of 39.2MPa, pressure taken 5% over, no failure seen, but substrate began to yield





1982 has been designed for warm ambient temperatures above 20°C and has a maximum service temperature of up to 80°C.

Testing Performed- Wrap Outlasts Steel

During the Annex C test (ISO 24817) and Appendix III (ASME PCC-2 Article 4.1), a test designed to rebuild the damaged section of pipe back to its original yield strength, the repair withstood the calculated yield pressure of the substrate, whilst the original steel profile showed signs of yielding.

Quick and Easy Application Procedure

The fluid grade product and simple wet out procedure enables quick application times along with wet on wet application procedure.

1. First apply the selected resin grade product, Belzona 1981 or Belzona 1982, to the blasted substrate.
2. On to this, the Belzona 9381 reinforcement sheet, wetted with the selected low density resin (Belzona 1981 or Belzona 1982), is spiral wound onto the repair area, adding strength.

Above: Theoretical and practical training available at Belzona head offices

3. When all wraps have been applied to specification, further resin grade product is then applied on top of the reinforcement layers if required.
4. The repair is then consolidated by tightly wrapping the Belzona 9382 Release Film over the repair area, ensuring a high quality laminate, with no air entrapment or voids.

Because this system uses higher density carbon and glass reinforcement than most, typically only three or four spirals or wraps are required, significantly cutting application time when compared to other systems.

Theoretical and Practical Training

In addition to improving the material's characteristics, Belzona has also perfected the theoretical and practical training courses to ensure Belzona SuperWrap II designers, installers and supervisors are fully trained and proficient in the use of the system.

Belzona SuperWrap II- The Complete Package

- Suitable for service temperatures 5°C to 80°C
- 24 hour back in service (48 hour back in service at <10°C)
- Long usable life in hot climates (30 minutes at 30°C)
- Convenient mixing ratio
- Easy to apply (minimal downtime, simple techniques, ease of wetting out)
- Thermal expansion coefficient close to steel
- High Young's modulus
- Low Poisson's ratio

For further information on this application or to book an appointment with your local Belzona representative, please contact belzona@belzona.co.uk

Belzona Polymerics Limited

belzona@belzona.co.uk
www.belzona.com

Global Leader Asserts Superior Protection is achieved from Vent Explosion Technology in Comparison to Explosion Doors

A global leader in providing innovative ATEX certified explosion protection technologies warns process industries that explosion doors should be selected with caution – and must only be used for specific higher pressure applications.

Fike UK, based in Kent, stresses explosion venting is the most common and effective form of explosion protection offering overpressure protection from potential industrial explosions.

Keith Avila, General Manager at Fike UK said: "As a progressive company we are constantly developing the most effective and cost efficient explosion protection solutions. Over the years we have researched the attributes and qualities possessed by both explosion doors and vents and have found the benefits of vents significantly outweigh that of doors – and our customers are in agreement."

According to Fike, an explosion vent has proved to be the most effective method of passive explosion protection and can protect processes against the excessive pressures generated by an explosion. The explosion vent will provide an intended route for expanding gases to discharge and, as such, will prevent damage to industrial equipment.

Standard explosion vents will open at a defined activation pressure and the vent area will remain open - preventing build-up of vacuum pressure on cooling – as such guaranteeing not to fail. Explosion doors will also open at a defined activation point, but will generally re-close after the operation, with a



Above:
Explosion Door

device often being used to keep them closed, which is considered by many in the industry to not be as fail safe as the vent.

More recently, however, some explosion vents now have the ability to reclose, but not 100% seal, thus cutting off the majority of the oxygen supply to assist in firefighting but do not allow a vacuum to form on eventual cooling. These types of vents effectively provide all of the advantages of light weight explosion venting, with the reclosing function of doors.

Manufactured from thin stainless steel sheets of 1mm to 2mm, explosion vents are extremely lightweight allowing them to open fully almost instantaneously. Also, being classed as a more consumable part, explosion vents will be easier and less expensive to produce from materials compatible with the process. Conversely, doors are much heavier and, in certain instances, have very low efficiency, resulting in a larger venting area, a reduced explosion pressure or low burst pressure (Pstat).

Fike's specially designed explosion vents are passive explosion protection devices – with no moving parts to fail – and because of this they do not require any special maintenance. Easy to install, even in the most awkward and restricted locations, all vents come with optional weather protection covers to eliminate any potential damage from the elements and general debris.

Keith added: "Explosion pressure relief is best achieved through the use of devices with no moving parts as they offer the highest venting efficiency and cannot be tampered with. Vents are well known to provide superior process compatibility.



Above:
Explosion Vent

"With all of our explosion venting technology, we take into consideration design variables such as normal operating pressures, reduced explosion pressure and vent efficiency to name but a few. As with all Fike products, we follow industry best practice and in many cases exceed industry standards. Fike is fully committed to providing the most cost effective and safest solutions possible."

Fike is a globally recognised company with 70 years' experience. They provide fire, explosion and pressure relief equipment to protect people and critical assets from dangers faced in process industries. Supplying to companies in the food, power, wood, pharmaceutical and chemical industries, Fike has gained an unprecedented reputation for supplying the highest quality and safest solutions available. Their products range from bursting discs and explosion protection systems to energetic oil and gas products for the offshore markets. Other UK branches of Fike also provide fire suppression systems, fire detection devices and alarm panels.

Fike United Kingdom
Tel: +44 (0)1622 677081
Email: sales@fike.co.uk
www.fike.co.uk

Rheintacho UK launches contact tachometer with ATEX certification

The HTM tachometer was originally designed as a contact instrument for accurate measurement of rotational and surface speed without the need for power.

This flexibility has led to it being widely adopted for many applications. This included environments where battery powered products caused concerns, particularly in dusty factories and where hazardous substances form part of the manufacturing process. More recently it has become apparent that for customer confidence it is important to demonstrate that the HTM is safe for these applications, and so Rheintacho UK have carried out some modifications to achieve ATEX certification.

This ATEX HTM variant is distinguished from the standard by a yellow holster for easy identification, and retains the key features and benefits of the standard HTM. The large dial is calibrated to show readings for both rotational and linear speed, whilst the range selector allows easy switching between ratios according to the input speed. With an accuracy of +/-0.5% at full scale deflection, the full measurement range is 10-10,000rpm, or 1-1000m/min, and the range selector is used to ensure that the actual speed is scaled to suit the dial. The ATEX

HTM is surrounded with a rubber holster to provide protection as well as grip, and is ergonomically designed for single handed use.

Operation is straightforward, and since batteries are not used, there are no pre-checks required. To make a measurement, the correct contact tool selected, and attached to the HTM. This is then placed on the item to be measured, and the red locking button pressed. When the locking button is released, the pointer deflection is captured and held for ease of reading. When pressed again it automatically resets to zero.

Tachometers are frequently used as a simple method of calibrating or monitoring the speed of process equipment, or the components within them. The direct nature of the contact method means that the dial face is visible, and this can sometimes help to identify problems such as wear and vibration as they are reflected in pointer 'wobble' or unstable readings.



Contact Details:
 Rheintacho UK Ltd (Formerly
 Foundrometers Instrumentation)
 Tel: 0113 287 4411
 Email: sales@foundrometers.co.uk
 Web: www.rheintacho.com

Total Process Protection

Flameless Venting

Bursting Discs

Explosion Venting

Dust Detection

In these demanding times companies have a lot to deal with to meet financial targets. On top of that EHS departments have to ensure that adherence to the relevant H&S legislation such as ATEX and DSEAR for potentially explosive atmospheres and environmental legislation such as VOC & IPPC for fugitive emissions are dovetailed into safe working practices.

Fike are the experts in providing protection against dust/hybrid explosion protection and over-pressure or vacuum conditions.

We can work with you to protect your plant and personnel against such incidents and also assist in meeting the relevant EHS requirements of your site.

Our Total Process Protection capabilities include:

- Standard Bursting discs – flange mounted, to prevent against over pressure or vacuum conditions.
- Customised bursting discs – to suit bespoke mounting requirements.
- ValveGuard Bursting discs – to protect PRV's and reduce fugitive emissions.
- Explosion venting – where the product is not an environmental problem and can be vented into a safe area.
- Flameless venting – where you have to vent inside a building
- Active or passive explosion isolation – to prevent propagation.
- Active explosion suppression – where it is not suitable for flameless, or the product does not want to be released for economic or environmental reasons.
- Dust detection systems – to validate the protection strategy of non-zoned areas.

Please call 01622 677081 or email sales@fike.co.uk and our specialists will provide sound advice every step of the way to meet your goals.

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Exloc Instruments (UK) Ltd are pleased to introduce the new PSX1200 Series power supplies by GM International

The new PSX1200 Series power supplies have been designed to provide the greatest levels of availability and safety for high integrity and critical applications.

The PSX1200 series can be supplied in Wall, DIN-Rail, 7" or 19" rack mounting versions and their stand alone or modular configuration make them extremely versatile and ideal for a wide range of applications site wide. The new range is housed in stainless steel (AISI 304) and provides 24Vdc, 50 A output.

Safety

- The PSX1200 provides three independent overvoltage protections: 1 voltage limiting loop at 30Vdc and 1+1 crowbars at 31 Vdc.
- The power supply has under and over voltage alarm monitoring as standard and has high load fuses breaking capacity to ensure that, in the event that one load attached to the power supply fails, others are not affected.
- Units are SIL2/SIL3 according to IEC61508:2010 Ed. 2 (pending approval).

- The PSX1200 range have been specifically designed for installation in Zone 2 / Div. 2 hazardous locations and carry ATEX and IECEx Certifications (currently pending).

Availability

- Each power supply has two universal AC input lines and fully redundant options, all available with load sharing.

Features

- The supplies also benefit from Active Ideal Diode circuitry to provide lower internal power dissipation and greater operating efficiency.
- Tropicalisation of components offers higher resistance to heat and humidity.
- Operating temperature limits: -40 to +70°C derated linearly 65-70% load above 50°C.



Performance

- Each PSX1200 power supply can provide up to 1200 W per single unit or up to 6 units can provide 3600 W (fully redundant) if mounted within a 19" rack system.
- The PSX1200 has better than 87% efficiency with 0.98 Power Factor Correction.
- The PSX1200 series is designed for fast output dynamic response.

Call us on 01457 239301 / 07557 371373 or e-mail sales@exloc.co.uk for further details.

Functional Safety Engineer (TÜV Rheinland) Training Manchester, March 17-20 and October 05-08 2015

Exloc Instruments are pleased to offer the next presentation of Functional Safety Engineer (TÜV Rheinland) training for Safety Instrumented System professionals, presented by renowned Functional Safety Expert, Tino Vande Capelle.

The course focuses on functional safety aspects of the process industries, providing vital knowledge based on the leading international functional safety standards IEC 61508 and IEC 61511.

..... So Why Should YOU Attend?

IEC 61508 ed2.0, released in April 2010, clearly indicates as a 'normative' requirement, that anybody involved in safety lifecycle activities shall be competent to carry out the activities for which they are accountable. The standard has gone from advocating a recommendation to a requirement.

This course provides you with the opportunity to gain certification by the TÜV Rheinland, proving your knowledge and competency in the field of Functional Safety to clients, peers and management.

Success in the final examination certifies your functional safety knowledge, adding great value to your professional career.

In accordance with the FS Engineer (TÜV Rheinland) Program the course requires an entry criteria of either:-

- Minimum 3 years experience in the field of functional safety.
- University degree (Masters or Bachelors degree in Engineering) or equivalent engineer level responsibilities status certified by employer.

Course duration is 3.5 days with a 4 hours closed book exam in the morning of the on the final day.



Contact Exloc on 01457 371373 or sales@exloc.co.uk for further details.

CompEx and Specialist Ex Training and Free Seminars for 2015 from ExVeritas

ExVeritas are a CompEx licenced centre and one of only a couple of centres worldwide that can present 'Ex12' for Designers, the highest level of CompEx training available and only ever uses senior working practitioners to present training, all of whom have at least 20 years' experience.

They are also the only training facility to run specialist courses such as 'Intrinsically Safe circuit design for electronics engineers' and 'ATEX turbine and engine safety'.

ExVeritas will also hold another FREE half-day ATEX Update and Refresher seminar on June 1st in Wrexham, Nr Chester.

This free seminar has been created to update EX Equipment Manufacturers on the New ATEX Directive and Standards Changes for ATEX and IECEx.

Course places are limited to 16 Delegates, light refreshments will be provided. The course places are allocated on a first come, first served basis.

At the end of the seminar delegates will have:

- Knowledge of ATEX and IECEx requirements
- An understanding of what needs to be done to ensure compliance with the New ATEX directive.
- ATEX and IECEx Update – Knowledge of the significant Standards changes
- Advanced notice of the changes that are likely to affect products in the future (draft Standards and new approaches)

The presenter has been certifying ATEX Products since 1996, has worked for several ATEX Notified Bodies and even set up and owned an ATEX Notified Body, helping to offer a unique perspective on the subject of certification!



Further information including ExVeritas' 2015 Training Calendar and booking details please visit www.exveritas.com/2015-training-and-free-seminars/

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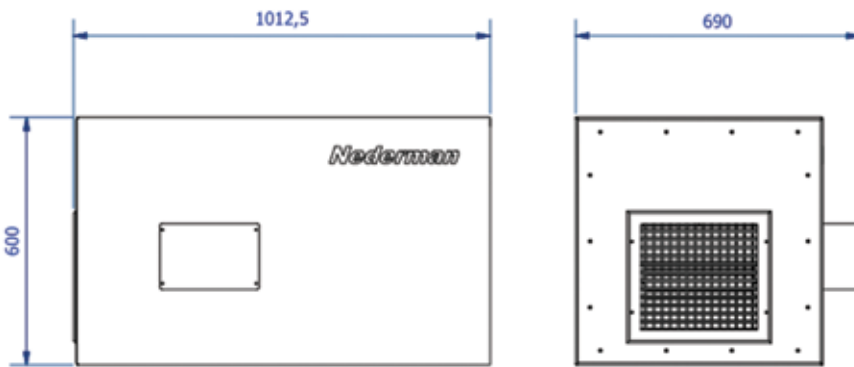
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Nederman Launches New Media Filtration System

To control light airborne dust/smoke in potentially hazardous environments, Nederman has now developed its new MF 12-15 media filtration system.



Above:
Fig. 1 Media Filter with system of mounting brackets and without.

The cost effective solution has been designed for free hanging applications to control light airborne particulate. The new MF12-15 units are ideal for applications that include the removal of diesel smoke, grinding dust, welding fumes and other airborne contaminants.

Considered a complete all-rounder for maintaining a high level of air quality in virtually all industry sectors, the MF12-15 has been designed specifically for indoor installation and must be protected from excessive moisture. The powerful new system has a 0.33kW motor that efficiently draws airborne particulate through the fan and into the air cleaner. The contaminants flow through the filters located at the front of the unit. The cleaned air is discharged at the rear of the unit via a double deflection grill.

With an air volume of 2550m³h and a pre-filtration efficiency above 90% and a main bag filtration efficiency between 90-95%, the new MF12-15 guarantees to clean up the workshop. By employing this high powered system, the MF12-15 also maintains a high air quality in the workshop, which is beneficial to the health and wellbeing of staff.

Furthermore, by removing particulate from the workshop environment, the MF12-15 contributes to a cleaner facility by drastically reducing surface dust.

The MF12-15 works with a standard 230V supply that simplifies installation whilst the compact 1012 by 690 by 600mm frame can be easily fitted with the Nederman range of mounting brackets. In addition, the MF12-15 is available with a media filtration indicator that enables the customer to monitor the efficiency of the filters. This ensures

that the customer can maintain optimal air quality levels and monitor filter life with ease. The pre-filter and main filter units are easily exchangeable and Nederman holds considerable stock levels to ensure rapid delivery of the filters. As an environmentally conscious manufacturer, Nederman has developed the MF12-15 with an extremely efficient motor that provides maximum particulate removal rates with a remarkably low power consumption that keeps running costs to a minimum.

For More Details Contact:
Nederman Ltd
91 Seedlee Road
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PR5 8AE
Tel : 08452 743434
Email: info@nederman.co.uk
Web: www.nederman.co.uk

Dialight Enhances its Emergency Linear Fixture Range with a Stainless Steel One-Piece Design

Emergency linear range with new one-piece housing design delivers three hours of illumination in battery backup for superior safety and reliability in industrial and hazardous areas



Dialight, the innovative global leader in LED lighting technology, today introduced the emergency version of its SafeSite and DuroSite Stainless Steel Linear fixtures with a new one-piece design. The well-established emergency fixtures, available with both CE and ATEX certifications, provide at least three hours and up to eight hours of battery backup in temperatures from -20°C to +65°C. With the ability to operate at this wide ranging temperature and featuring Dialight's exclusive integrated battery, the emergency fixtures provide the best alternative to conventional emergency luminaires and will meet the needs of a larger scope of emergency lighting applications.

The fixtures are ideal for industrial and hazardous applications, offering optimal safety, reliability

and illumination in an emergency, and particularly in applications prone to vibration and shock. Traditional luminaires will suffer from a shortened lamp life in these environments, whereas Dialight's emergency fixtures are designed to withstand harsh surroundings, including the added security of a one piece design and 316 Marine grade stainless steel housing.

Designed specifically to replicate the output of conventional 2x18W and 2x36W fluorescents, the extremely robust and energy efficient linear fixtures provide long-life emergency lighting, both delivering 270 lumens in battery backup mode which is maintained over the life of the battery.

The SafeSite and DuroSite LED linear fixtures leverage Dialight's industry-leading low wattage LED design, customised driver circuitry and optimised power supply to deliver years of stand-by life on the integrated, high performance 3.6V NiMH field replaceable battery. For additional safety the fixtures also feature a built-in battery status indicator that allows the battery to be monitored and tested without the need to touch the luminaire.

For more information about Dialight's Emergency fixture range, including IES files, LM79 reports and technical datasheets, visit www.dialight.com or call: +44 (0)1638 665161



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