

Hazardous Engineering Solutions



Incorporating Health & Safety

The International Magazine For
Hazardous Area Professionals

Jan/Feb 2017 | Issue 33



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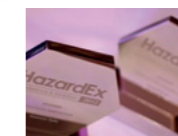


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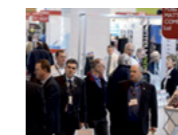
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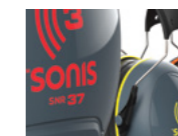
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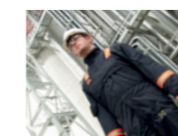
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HAZARDEX 2017 CONFERENCE & EXHIBITION

Holiday Inn Hotel, Runcorn, Cheshire, UK March 2&3 Following the success of the 2016 edition, the 2017 Conference - in Runcorn for the second time - will be a unique event capturing and distilling decades of process safety experience from around the world in two thought-provoking days of practical knowledge exchange.

The Conference brings together leaders and experts from across the region with one goal in mind: creating safer workplaces. Content is focused on the issues that affect your industry and will be delivered in high-energy sessions by leaders who have been there. Whether you're a senior executive, plant engineer, site-level safety manager/supervisor, or a worker at the front line, the sessions offer you the tools you need to make work and industry safer. The varied programme will give the latest insights

from regulators, certification bodies, end-users, manufacturers, consultants, scientists, engineers and safety specialists involved in hazardous area operations.

The associated Exhibition features many of the most prominent companies that supply products and services to the sector, and delegates will have many opportunities between conference sessions to browse displays and engage with

some of the top experts from companies whose efforts ensure process and occupational safety continues to improve across the industry. Guests will also enjoy a drinks reception, fine dining and after-dinner entertainment, this year sponsored by CSA-Sira Certification. Most of all, the Conference & Exhibition will provide a valuable networking opportunity with top experts and industry peers from across the UK and Europe. We hope you have a fulfilling and useful event.

DSEAR Workshop

All process operators handling flammable materials are subject to the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR). Many operators, having carried out Hazardous Area Classification and specified appropriately certified equipment, believe they have satisfied their obligations under DSEAR. However, DSEAR requires a more fundamental and high level approach to fully justify that all the risks associated with dangerous substances have been adequately addressed.

This workshop by ABB will provide an overview of the DSEAR regulations relating to risk assessment, application of the hierarchy of control, and a discussion of the routes to compliance for operators, focussing on the proportional techniques that can be applied dependent on existing risk assessments and complexity of operations.

Opening Times

Thursday March 2	
Conference registration opens	8:00
Exhibition opens	9:00
Chairman's address	9:20
Lunch	13:00
Conference closes	17:30
Exhibition closes	17:30
Drinks reception & dinner	18:30 Till late
Friday March 3	
Conference registration opens	8:30
Exhibition opens	9:00
Chairman's address	9:20
Lunch	13:00
Conference closes	15:30
Exhibition closes	15:30

Stand #	EXHIBITOR
1	MUTECH
2	XPLORE TECHNOLOGIES
3	R&M ELECTRICAL
4	BANELEC
5	HORNBILL ENGINEERING
6	MOORE INDUSTRIES
7	PEI GENESIS
8	SGS BASEEFA
9	ANAMET EUROPE
10	NIGHTSEARCHER
11	CROWCON
12	R STAHL
14	DEKRA INSIGHT
15	CSA SIRA
16	RUGGED MOBILE SYSTEMS
17	RANDALL & DANIELS
18	BEAMEX
19	EXHEAT
20	CMP PRODUCTS
21	CORDEX
22	INDUSTRIAL INTERFACE
23	MOBEXX
24	VEGA
25	BEKA
26	C&P ENGINEERING SERVICES
27	STS BESPOKE HANDLING SYS
28	RAS
29	FES EX
30	LEWDEN PALAZOLLI
31	WEG
32	DRAEGER
33	EXLOC / EXTRONICS
34	RHEINTACHO
35	GLAMOX
TABLE TOP	COGENT SKILLS
TABLE TOP	BARRIER EX
TABLE TOP	BRITISH STANDARDS INST
TABLE TOP	CCG UK
TABLE TOP	TEMPA PANO
TABLE TOP	INSPEC SYSTEMS
WORKSHOP	ABB
POSTER 1	ARGON
POSTER (2A)	WILD ANALYSIS
POSTER (3A)	ALLISON ENGINEERING
POSTER (3B)	FIBOS

EXHIBITOR LIST

Hazardous Area ATEX Inspection, Verification, Installation & Consultancy

Established in 1973, C&P Engineering Services Ltd is an award winning Electrical and Instrumentation Services contracting company that has a reputation of minimising explosive risk through safe, professional and versatile high quality electrical & instrumentation inspection, verification, installation and consultancy services.

We deliver hazardous area inspection, installation and maintenance services for customers across a wide range of industries, including the Chemical, Steel, Oil, Petro-chemical, Pharmaceutical, Gas & Heavy Engineering industries.

Over the last forty years we have continually developed and improved our knowledge base and operational systems to the point where we are now recognised as one of the UK's leading international hazardous area electrical contractors, with projects carried out safely, on time and on budget across the UK, EMEA and the Asia-Pacific Regions.

Compliance & Understanding

We operate internationally and understand that the world of potentially explosive atmospheres is becoming even more challenging and can assist you to provide assurance that you are in compliance with the requirements of IEC / BS EN 60079-14/17, ATEX directives, IECEx and the relevant international standards and regulations.

Our hazardous area inspection services provide assistance with the compliance of electrical and instrumentation installations in potentially explosive atmospheres for new and existing plant.

Our teams of competent hazardous area inspection engineers have worked in hazardous areas over many years and are CompEx qualified for explosive gases, vapours, combustible dusts and intrinsically safe systems.

Independent Inspection, Verification & Consultancy

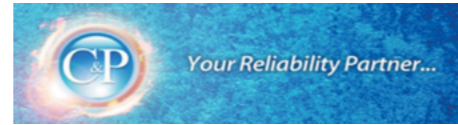
We provide hazardous area inspection engineers, electricians and technicians who are highly experienced in the field of hazardous area Ex, ATEX, DSEAR, IEC & NEC compliance.

C&P Engineering Services have been Assessed and Certified by the NICEIC (National Inspection Council for Electrical Installation Contractors) as having the technical capability to carry out electrical work in areas where potentially explosive atmospheres may be expected to occur in the form of explosive gases, vapours or combustible dusts and for intrinsically safe systems. C&P Engineering Services were one of the first UK companies to become accredited for Hazardous Areas Inspection services by the NICEIC.

Our Services

Through inspection, verification, installation, modification and repair, we assist customers with optimising their Ex asset performance, safety and integrity.

- ATEX / IECEx Inspection of Existing and New Ex Equipment
- Visual, Close & Detailed Inspections
- Inspection Strategy Development & Implementation
- Compiling Ex Registers and Client Databases
- Ensuring Verification of all Installed 'Ex' Equipment Databases
- Ensuring Compliance with all Standards and Regulations
- Gap Analysis and Reporting of Current Ex Inspection Procedures
- Explosion Protection Documents
- Ex Installation & Maintenance Project Management
- Ex Remedial Repairs
- High Level Technical Support
- Minimum Interruption to Your Processes and Plant
- E&I Installation & Maintenance
- Procurement
- Project Management



We assist companies with their asset management, verification of the integrity of their 'Ex' equipment, provide cost effective solutions and can ultimately help in developing a path towards full compliance.

Our inspectors deliver comprehensive hazardous area inspection schedules and inspection reports, providing advice on any necessary corrective action and assurance that you are complying with all the very latest international standards, codes, practices and legal obligations.

Industry Experience

Our hazardous area inspection, installation and maintenance experience includes but is not limited to the following fields:

- Oil and Gas Processing
- Chemical Processing
- Steel Manufacturing
- Oil & Fuel Terminals
- Paint Spraying
- Fertiliser Manufacturers and Plants
- Pharmaceutical Manufacturers
- Oils and Gas drilling and refining (on and off shore)
- FPSO's & Refineries
- Distilleries
- Power Stations
- Warehousing of Dangerous Substances
- Fuel Farms
- Ammonia Plants
- Food Manufacturing
- Vehicle Manufacturing
- Airports & Aviation
- Water Treatment and Sewerage
- Hydrogen Cells

Contact us to find out more
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We understand the world of potentially explosive atmospheres is becoming even more challenging and can assist you to provide assurance that you are in compliance with the latest requirements of IEC 60079-14 / 17, ATEX & IECEx.

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- ATEX / IECEx Inspection Strategy Development & Implementation
- Compiling Ex Register Documentation and Client Databases
- Verification of 'Ex' Equipment Databases
- Compliance with the relevant Standards and Regulations
- Gap Analysis and Reporting of Current Inspection Procedures
- Project Management
- Explosion Protection Documents
- Remedial Repairs
- High Level Technical Support
- Minimum Interruption to Your Processes and Plant



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Hazardex 2017 Awards: Voting Now Open For The Best Hazardous Area Sector Product, System Or Service

A total of 20 nominations have been shortlisted across four categories for the Hazardex 2017 Awards, designed to recognise excellence in the hazardous area sector.



Voting is now open and will take place between 20th January 2017 and 20th February 2017. Winners in each category will be announced after the Hazardex 2017 Conference and Exhibition in early March.

Delegates at the Hazardex 2017 Conference and Exhibition in Runcorn will vote for an overall winner on 2 March 2017.

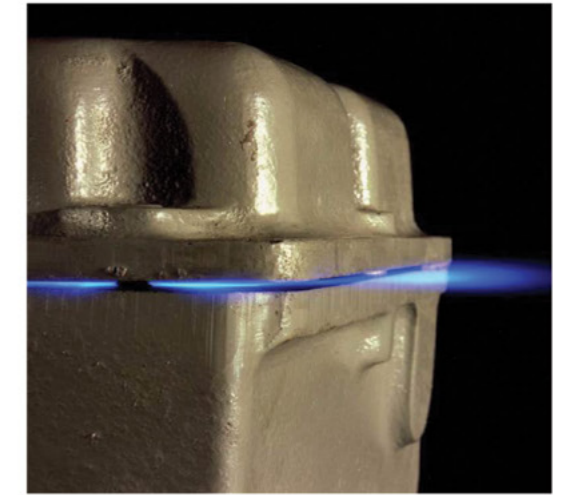
The Awards Ceremony will take place before the Gala Dinner on March 2 at the Hazardex 2017 Conference and Exhibition.

The five categories are:

- 1. Contribution to Safety (Sponsored by CSA Sira)** A product, system or service that has made a significant contribution to safety in the last two years.
- 2. Technical Innovation (Sponsored by CSA Sira)** An innovative product or system that has brought significant advantage to hazardous area operations
- 3. Best User Application (Sponsored by Banelec)** An application story highlighting the benefits of a product or service for hazardous areas

- 4. Best Customer Service (Sponsored by Banelec)** An account of customer service best practice within the hazardous area sector
- 5. Overall Winner** The best hazardous area sector product, system or service introduced over the last two years chosen from the winners of the first four categories, with voting restricted to delegates and attendees at the Hazardex 2017 Conference and Exhibition.

For information on the shortlisted nominees and to vote please visit www.hazardexonthenet.net



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TUV Rheinland Functional Safety (Engineer) Training - Places available

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Visualisation & Alarm Products:

- I.S. and ruggedised PC terminals and monitors
- Hazardous area beacons, sounders & call points
- Loop powered indicators and displays
- Handheld barcode scanners and RFID readers
- I.S. LED cluster lamps

Mobile Computing:

- Mobile and SmartPhones
- Zone 1 Windows 10 Tablet
- Digital and thermal imaging cameras
- Torches and portable lighting
- None-destructive testing systems

Networking:

- opis transceivers
- Ethernet switches / media converters
- Wireless Access Points



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WHEN YOU NEED TO BE SURE



Your Intrinsically Safe Toolkit from Shawcity

Intrinsic safety has for a long time been a recognised term in gas detection, however, in line with expanding requirements new and affordable IS technology is now available for other detection applications.



In the occupational hygiene arena, intrinsic safety and ATEX approval has often been difficult; to measure a specific criteria such as noise or air quality you would require a hot works permit and be provided with a gas monitor (usually 4-gas) for the duration of the monitoring. However, with the latest technologies available from Shawcity you can now measure what you need when you need to with Intrinsically Safe sound level meters, noise dosimeters and direct reading dust monitors, as well as gas monitors.

The SE-401 series of IS sound level meter offers a revolutionary Class One capability unavailable in any other instrument and noise dosimeters such as the SV 104IS have octave band measurement and voice comment and noise recording capabilities.

The newest addition to our range of direct reading dust monitors is the AM520i, which can give a direct

particulate reading in IS environments for all the parameters you need from Total Dust, PM10, PM2.5 and even PM1. Using the impactors provided you can now direct-read particulates in environments previously unmeasurable with these technologies. With these latest developments the working occupational hygienist can now measure, record and interpret data live, even in the most arduous environments.



Gas detection technology has also taken a huge leap. A standard 4-gas monitor for confined spaces has long been a requirement in a Zoned environment but the big draw back has always been battery life. However the latest instruments such as the Clip 4 from Honeywell and the MGC Simple from Gas Clip Technologies, which can provide a two year battery life – no charging required. Simply turn them on and in two years dispose of them; with a six-monthly calibration and a regular bump test you can be assured your instruments are always ready when you are.

We are all constantly seeing new technologies merge together to develop something new. For example, your mobile phone is now a phone, a messaging device, a camera, a pocket computer and more. The same is true of the gas detection industry technology and the latest communication and personal GPS location developments have now come together in the form of the G7 from Blackline Safety.

The modular G7 series is a ground-breaking, true 'Internet of Things' device and offers gas detection alongside two-way messaging and speakerphone, man down alarms, motion detection and GPS location tracking, all transmitted back to a remote base to provide whole environment monitoring anywhere in the world, 24 hours a day. If an alarm activates the issue is immediately and accurately diagnosed and the exact location pinpointed for instant response. The G7 is the most revolutionary technology available in the safety industry today and will be available from Shawcity in early 2017.

For further information contact us on
Tel: 01367 899565
or email: solutions@shawcity.co.uk

Shawcity's Intrinsically Safe Toolkit for the detection and monitoring of Gas, Sound, Noise, Air Quality and Dust.



Available early 2017

Blackline Safety G7

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Gas Clip MGC Simple

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SE-401-IS

Revolutionary and unique features in an intrinsically safe sound meter; engineered to Class 1 capability measuring noise levels in highly variable environments.

SV 104IS

Worn close to the ear, a cable-free personal noise dosimeter with octave band measurement as well as voice comment and noise recording capability, all stored in the 8Gb memory.

SidePak AM520i

A personal datalogging, light-scattering photometer for the worker's breathing zone that provides direct particulate readings in an IS environment for Total Dust, PM10, PM2.5 and PM1.

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Blackline Safety's NEW game-changing G7 'everything detection' modular system

Whole environment monitoring of hazards, gas concentrations, exact location and movement - with speakerphone



Shawcity are very pleased to announce the latest addition to our gas detection portfolio, the Blackline Safety G7. After nearly two years in development in response to customer feedback, the system is a world first; a work-anywhere, global employee safety monitoring system with total detection capacity.

Highly configurable, G7 warns both the user and monitoring personnel of exposure risks to both toxic and explosive gases in real time. G7 is a true 'Internet of Things' tool with wireless communications and location technology to empower real-time emergency response and evacuation management.

Traditional gas detectors work in isolation, only alerting the worker of imminent danger. Now, with G7, a monitoring team is alerted if an employee hasn't moved for a specific time and can utilise two-way phone and text communication. Also, with known gas concentration data readings from the worker's G7, any rescue is undertaken with pre-entry knowledge of risks in the area.

G7 uses a combination of GPS and indoor location technology to display a fallen or injured employee's exact location, enabling help to be dispatched quickly and accurately.

It is the first device anywhere that works straight out of the box to:

- Empower evacuations with mass notifications by speakerphone or text message
- Support customisation using interchangeable gas sensor cartridges with a choice of single or multiple gases (hydrogen sulphide, oxygen, combustible gases, carbon dioxide, carbon monoxide and ammonia).

The G7 is available in three models, G7c Standard, ideal for monitoring all personnel, lone workers and actively manage evacuations. Functionality includes always-connected 2G/3G wireless, GPS and indoor location technology, automatic incident detection, manual safety triggers plus two-way voice and text message communications.

The G7 Single-gas and G7 Quad-gas devices offer all of the above functionality and are also capable of supporting your choice of LEL, O2, H2S, CO, NH3 or CO2 gas sensors.

All three models will be available to order from Shawcity early in 2017.

For further information contact us on
Tel: 01367 899565
or email: solutions@shawcity.co.uk

EU Emissions Regulations Prioritise Safety In Potentially Explosive Atmospheres

Pyroban reports that the emissions regulations (EU 97/68/EC* Directive) have been amended to support the special application of diesel engines, such as those in forklifts, used in potentially explosive atmospheres, where safety is paramount.



"The conflict between the safety requirements of the ATEX directive and the technologies applied to meet the requirements of the emissions directive have been a cause for concern for several years," says Steve Noakes, Engineering Manager for explosion protection conversion experts Pyroban. "For example, during self-cleaning cycles, diesel particulate filters (DPFs) within lower emissions engines exceed the internal and external surface temperatures permitted under the ATEX directive."

"Furthermore, future emissions requirements will include complex exhaust control systems which

pose additional conflicts with ATEX requirements. Removing or bypassing these systems isn't permitted and can create error codes which prevent forklift trucks from operating," he continues.

ATEX compliant forklift trucks are regularly used in chemical, pharmaceutical, waste, cosmetics and food and drink sectors. Explosion protection involves big changes to the engine to reduce the engine exhaust gas temperatures and surface temperatures which could pose a risk of ignition.

To help forklift users overcome these issues, the UK government has been instrumental in lobbying for current and future emissions directives to be amended. As a result, an amendment to 97/68/EC was published in September 2016 which states that the EU 'may authorise, on request by an OEM, the placing on the market of engines that meet Stage III A emission limit values, provided that those engines are intended for use in non-road mobile machinery to be used in potentially explosive atmospheres as defined in...Directive 2014/34/EU**'.

This amended directive means that the emissions limits for ATEX converted trucks are capped at Stage IIIA levels, ensuring that the engines can still be converted for safe use in potentially explosive atmospheres. However, to comply with the

derogated regulations, engines fulfilling the above requirements will be required to carry additional labelling.

"Many truck manufacturers supply non-EU countries where higher emissions levels are permitted, so they can now legitimately provide trucks with these same engines into Europe for use in ATEX applications," explains Steve. "This will benefit operations that need higher capacity forklifts, such as LPG bottling plants, as they will now legally be able to opt for these trucks with simpler engines."

The derogation applies from 6th October 2016 as a temporary measure in place until Stage V emissions regulations start to come into force for engines or machinery placed on the market in January 2019. The Stage V requirements will continue to permit Stage IIIA emission level engines on non-road mobile machinery for use in potentially explosive atmospheres.

"Influencing and changing directives is not easy but working with the UK government on this project in recent years has been a key priority for Pyroban as it is so crucial to the whole industry," says Steve. "We are grateful for the support of the EU commission and member states who understand the importance of safety and have supported these changes."

For more information on the amended regulations and explosion protection for forklift trucks and materials handling equipment, contact safety company Pyroban. www.pyroban.com

*97/68/EC – European regulation which limits pollutant emissions of Non-Road Mobile Machinery
** Article 61, Amendments to Directive 97/68/EC - <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2016:252:0053:0117:EN:PDF>

Hot Work In Explosive Atmospheres

Ineffective management of combustible materials in a high risk environment presents numerous health and safety risks with significant consequences.



Using 'hot' tools to carry out cutting, soldering or welding in a hazardous area increases the risk of fire, or even worse, an explosion. One of the many causes of explosive atmospheres is the presence of flammable gases. In large enough quantities, flammable gases mixed with air and the presence of an ignition source have the potential to result in catastrophic consequences.

Fires and explosions remain an overly common occurrence in any industry where flammable gases, vapours, mists or combustible dusts are present. The plethora of risks present in these environments makes the success of completing hot work, whilst also attempting to control and manage risks, very challenging. Preventing the release of dangerous substances, which can create explosive atmospheres is of course the preferable method of controlling the risks associated with working in explosive conditions. Preventing sources of ignition is another widely used way of reducing the risk. In certain industries and sectors this is not always possible. In the oil and gas industry, the presence of numerous combustible materials and gases means the risks are amplified ten-fold. Using the correct equipment can assist efforts to make hot work safer, greatly.

In order to effectively mitigate the risks associated with carrying out work in explosive environments, employers are required to follow a range of directives and regulations which have been put in place to

ensure safety and welfare is paramount at all times. When it is apparent that a working environment is considered to be an explosive atmosphere, that area must be assessed on its likelihood and persistence and zoned accordingly. Areas which have been zoned should then be protected from ignition sources by selecting equipment and protective systems which meet the requirements of the relevant ATEX product regulations.

It is important to understand that whilst there is a need for significant cost saving within the oil and gas industry, safety should never be compromised. As many believe the only option to carrying out inherently risky hot work in a zoned area is by conducting any routine maintenance works in costly full or partial shutdowns it is avoided altogether, therefore making working environments unsafe. Pressure to meet deadlines and keep cost efficiencies at a maximum is resulting on less focus on necessary safety measures. Many people do not fully understand just how dangerous conducting hot work in zoned areas can be and are therefore willing to take risks as the consequences are not fully appreciated. In 2012, an incident at the Houston-based Black Elk Energy's West Delta 32 production platform resulted in a major fire at the facility. It was suggested that the use of a cutting torch ignited flammable vapors which created an explosion in connected oil tanks, resulting in the death of one worker and causing several others to be critically injured.



15 years ago Safehouse drew on specialist knowledge of the oil and gas industry to create the world's first fully accredited and certified pressurised flexible enclosures to provide a safe environment for hot work in potentially flammable hazardous areas. Habitats are pressurised modular flexible enclosures with integral monitoring and control systems which are constructed on site to create a safe working environment for personnel to conduct maintenance work, including hot work. Habitats achieve the creation of a safer and better working environment through containment, pressurisation, modular construction, air extraction and temperature control. Although initially developed for use in oil and gas industry, the habitat can be applied to any industry or sector where the creation of a safe area within an otherwise hazardous working environment can be beneficial.

The habitat concept was initially created to effectively manage the risks associated with hot work offshore, ensuring safety levels are maintained at all times. Through the development of innovative solutions, there is the opportunity to protect personnel and reduce the impact hot work has on productivity. Now more than ever, pressurised habitats remain the safest and most cost effective way of effectively managing the risks associated with explosive atmospheres by utilising ATEX equipment and working within the recommended guidelines.

Safehouse Habitats (Scotland) Ltd
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Spinaclean For Cleaning In Explosive Atmospheres

Following 3 years R&D, Spinaclean, manufacturer of SkyVac the world's no 1 indoor high level cleaning equipment, has developed the SkyVac ATEX* poles system.

This allows the operator to clean above the ground safely for the first time, solving the worry of possible disasters when cleaning in explosive or combustible atmospheres containing airborne vapour or dust.



The new SkyVac ATEX range is an independently certified high level cleaning vacuum suitable for use in these potentially dangerous combustible areas, which may include light metal manufacturing; production of animal feeds, flour, starch, grain

and sugar; wood, coal, plastics and textile works. Unlike standard high level cleaning vacuum systems, this range eliminates all risks of explosion, danger to fellow workers or damage to buildings. This is achieved by preventing any source of ignition of combustible dust or vapour either by sparks from the vacuum motor or by static discharge. SkyVac's ATEX pole has the same dimensions as its standard model but is manufactured with 100% carbon fibre to make it conductive and by far the lightest available at only 186 grams per metre. All



accessories, flexi-hose end tools and cotton holdall containing the equipment are all 'anti-static safe'. Like all SkyVac products, the lightweight carbon fibre pole system will reach 40 feet and requires only one operator.

SkyVac products are available from:
Spinaclean: 01327 831604 or
info@spinaclean.com
www.spinaclean.com

*ATEX is an acronym for 'Atmospheres explosive'.

Maintec 2017

The Future Of Maintenance Engineering

21 – 23 March 2017, NEC
Birmingham, B40 1NT

Maintec, the UK's premier event for the maintenance and asset management community, is undergoing a radical makeover.

2017 will see a 'new look' educational programme for the show featuring two new theatres, Maintec Dialogue and Maintec Summit packed with keynote speakers and high-level free to attend seminars.

During the three days of the event, enjoy free-to-attend educational conference and seminar content from industry leaders and engineering pioneers discussing the IIOT, smarter factories and the impact, challenges and opportunities facing the maintenance engineering community. Through two new theatres, Maintec Dialogue and Maintec Summit, the seminar programme will give attendees best practice advice on reducing downtime, energy management and lowering repair costs.

Maintec 2017 will discuss how the Internet of Things will change the face of Maintenance Engineering

The digitisation of manufacturing and the transformation in the way that products are serviced through the Internet of Things (IoT) are just some of the forward-looking trends that will be discussed at Maintec 2017, the UK's leading maintenance and asset management show.

The event takes place at Birmingham's NEC from 21-23 March, and will also be accompanied by a wide-ranging educational programme, featuring global perspectives on topics such as predictive maintenance and remote monitoring.

IoT will be a dominant theme at the show. The fitting of myriad equipment with sensors, and the ability to collect, transmit and interpret data in real-time, is enabling improved connectivity across industrial environments. It will provide companies with far better visibility of their assets, bringing the potential for smarter factories based on preventative maintenance methodologies.

"The move towards predictive methodologies means the maintenance role will become less about how

accompanying the event. "We felt it was important to increase the educational aspect of Maintec to reflect the rapid pace of technological change in the industrial sector," says Tim Else, Event Director. "IoT is set to revolutionise the way that modern maintenance engineers go about their daily tasks and it's important that this trend features prominently at the show."

Confirmed speakers include Steve Brambley, a director at Gambica, the trade association for instrumentation, control, automation and laboratory technology in the UK, who will speak about smart maintenance, focusing on how the industrial base can get involved with IoT demonstration efforts. Professor Rajkumar Roy, director of Through-life

"Maintec 2017 will discuss how the Internet of Things will change the face of Maintenance Engineering"

quickly employees can fix assets, and much more about preventing equipment from failing in the first place," says Lee Hibbert, industry analyst and content curator for Maintec 2017.

Maintec will also focus on how IoT will transform the way that equipment is monitored and repaired out in the field. For maintenance professionals, the increased connectivity will prompt the use of new technologies such as augmented reality and wearable devices, changing the way they perform their daily roles, and moving them up hierarchical structures.

These are also some of the topics, which are included in the extensive conference program

Engineering Services Centre, Operations Excellence Institute at Cranfield University, will speak on how digital technologies will underpin the concept of continuous maintenance, focusing at the foundations and technologies required to offer such service.

Meanwhile, Cyril Deschanel, head of IoT in Northern Europe for Vodafone, will discuss the role of IoT-enabled technologies in supporting reliable preventative maintenance programmes, while Chris Mitchell, principal consultant at US-software giant PTC will look at how augmented reality and wearable technology will change the way that factory equipment is maintained.

such as Jaguar Land Rover, Bentley Motors, Rolls-Royce, Network Rail and Robert Bosch.

Prioritise your visit to Maintec 2017

Whether your business covers multiple sites or is focussed in a particular region of the U.K., no venue can compete with Birmingham's NEC for accessibility. Situated at the heart of our transport networks no venue is better connected, which is why the NEC is the obvious choice when we bring the MRO community together in March.

New for 2017

We know just how valuable your time is and are therefore committed to the continuous improvement of the educational content we provide. Our range of conference and seminar topics is designed to inspire you to be heard and affect real workplace enhancement. Delivered by engaging and thought provoking individual speakers as well as carefully created expert panels, we provide the chance to exceed your CPD requirements without any delegate fees - entry is free to qualifying professionals who register online in advance.

Maintec is strategically co-located with 3 complementary exhibitions, all organised by the same team:

- The Health & Safety Event
- The Fire Safety Event
- Facilities Management

With access to over 400 exhibitors and no fewer than 8 focused educational theatres, these events combine to provide your Maintenance, FM, Safety, and Security teams with direct access to a compelling, entertaining and valuable visiting experience.

21 – 23 March 2017,
NEC Birmingham,
B40 1NT

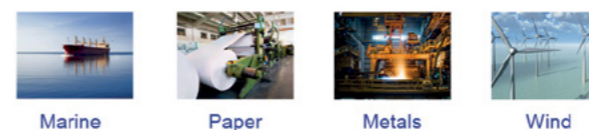
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Market leading attenuation for JSP's new range of Sonis® Ear Defenders

Developed in partnership with a leading research facility in the field of acoustic engineering, this new range meets the needs of an extensive range of industrial applications.

This exceptional range of Sonis® Ear Defenders is Kitemarked and meets EN352-1. The advantages of this range is that it offers a wide spread of attenuation with SNR values between 27 and 37 meaning that selecting the right model to match the wearers requirements is really straightforward.

The Sonis® range has been stylishly designed with a traffic light colour code for easy identification and selection. The range moves from the green Sonis® 1 for low level noise to the yellow Sonis® 2 and the orange Sonis® Compact for substantial Industrial noise through to the market leading SNR of 37 for the red Sonis® 3 to protect against extreme industrial noise.

The over moulded headband has a built in comfort area with ventilation to help reduce heat build-up. The headband force and the sealing ring surface area work together to provide optimum cushion pressure and therefore comfort, ensuring a good fit every time, delivering an ear defender which is a pleasure to wear.

Manufactured in Oxfordshire, the Sonis® cups can be coloured to meet a corporate identity and can also be printed with a company logo for improved brand recognition and to prevent theft.

JSP have invested in specialist acoustic and hearing test equipment to develop the Sonis® range in-



house, and refine each individual component. The materials have been chosen for both performance and comfort for extended periods of use. The headband is manufactured from TPE so is easy to wipe clean, there is no adhesive or welded parts, so they can be easily disassembled to replace hygiene kits which are available for each model.

For further information visit: www.jsp.co.uk

ATEX/IECEx approved high output portable floodlight for hazardous area use

Lumenox has announced its new LPX6 explosion proof ATEX/IECEx approved high output LED portable floodlight, lumenox.co.uk/lpx6, suitable for providing temporary portable lighting in Zone 1, 2, 21 and 22 gas and dust environments in oil and gas, petrochemical, aviation, marine, utility and other hazardous areas.



Powered from either 115 or 230VAC, the light output, generated from an array of 16 high efficiency LED light engines, is 5800 lumens at a colour temperature of 5000°K. LPX6 is IP66 sealed against the ingress of water or dust, allowing it to be used in harsh environments. Operating lifetime is in excess of 75,000 hours, and the colour temperature of the light is stable throughout the lifetime of the unit.

A single unit is powered directly from the mains supply though an integral 0.5m cable, terminated in a standard ATEX plug. An ATEX approved power supply and extension cable assembly enables up to four units to be powered from a single mains socket located inside the hazardous area. The marine grade corrosion resistant aluminium housing is contained within a stainless steel frame, which

allows the unit to be vertically adjusted through a wide angle to give optimum illumination as required.

For further information please visit: lumenox.co.uk/lpx6

Casella Celebrates Intrinsically Safe Approval For Apex2

Following a rigorous testing process, Casella has announced Intrinsically Safe approval for its Apex2 personal sampling pump range, with class leading performance and capability.

Instruments supplied for application in atmospheres where there is a risk of explosion must be designed with the appropriate safety requirement critical in achieving IS approval; protecting the equipment and ensuring it is safe to use. Achieving the IS certification for the Apex2 range ensures that monitoring and analysis of dust exposure can be carried out safely and effectively in these areas.

The range includes three separate models - the Apex 2, Apex 2 Plus and Apex 2 Pro, with different functionality to meet varying requirements; all designed to monitor workplace dust levels to help protect workers from developing long latency health problems as the result of occupational exposures.

Incorporating Bluetooth connectivity with Casella's bespoke Airwave software; workers can be monitored remotely without being distracted, boosting productivity levels. Monitoring specialists

can view the status of their dust sampling pump on a worker and start, stop or even pause the tool from a smart device. This software is simple and easy to use, providing real-time status updates, allowing collected data to be emailed alongside photos and notes, adding context to the data and further simplifying the reporting process.

Tim Turney, Casella's product manager said: "Achieving the IS accreditation for the Apex2 sampling pump demonstrates our commitment to providing solutions that ultimately help to enhance the long term health and quality of life for workers operating in high risk sectors. The Apex2 IS has also gained the certification without compromising the power and battery life that the Apex2 is known for, allowing it to be used with many types of air sampling media."

Start Seeing For Dust
Why Monitoring Matters

13,000 deaths in the UK in 15/16 linked to previous work exposures associated to chemical and dust exposures

14,000 estimated new cases of breathing lung problems annually

2,515 mesothelioma deaths in 2014

141,000 who have ever worked have breathing lung problems caused or made worse by work

Monitoring dust exposures must become an established part of business process ...

Key benefits of Workplace Dust Monitoring

- ✓ Recognise Invisible Killers
- ✓ Understand the risks of both long and short term latency impacts
- ✓ Mitigate exposure risks
- ✓ Develop engrained health awareness
- ✓ Increase individual worker and organisational responsibility towards health

Worker Exposure Limits (WELs) are in place to help mitigate some 500 substances that workers are regularly exposed to

Substances hazardous to health are defined under COSHH regulations as: Very Toxic, Toxic, Corrosive, Harmful or irritant

... CHANGE THE CULTURE

For further information visit: <http://www.casellasolutions.com>

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Never Risk Worker Safety, Use The New Arco Lockout Tagout Guide

Workers can face serious or fatal injuries if machinery starts up or 'energises' unexpectedly.



To ensure worker well-being and reduce the risk of employer liability and possible prosecution, planned procedures for isolating and clearly labelling restricted machinery is critical. Lockout Tagout (LOTO), available from Arco provides a physical method of isolating powered-down equipment plus highly visible warnings showing that equipment should not be used.

Arco, the UK's leading safety company, has created a comprehensive product guide featuring their wide range of Lockout Tagout devices, padlocks and signs and how to use them to create a safer working

environment. The guide, available online and in print, demonstrates how basic LOTO locking off steps are an effective way of reducing risks for those maintaining, cleaning or repairing equipment.

In a typical locking off situation, equipment is closed down safely, turned off and isolated from its energy sources using a disconnect switch, circuit breaker or valve. A lockout device is then fitted to each energy source and padlocked to prevent it being reactivated. To ward off potential users, a visual tag is attached to the device or piece of machinery. Often working situations involve multiple people;

these situations require greater attention and a more detailed control system. To ensure worker safety there is a sequence of steps and authorisations before the lockout device and tag are retrieved and the equipment safely reactivated. A properly planned and executed LOTO procedure is an efficient and effective way of reducing the risks for all involved, whilst also protecting equipment.

Within the guide there is helpful advice on the basics of implementing an effective LOTO programme, information on the various types of lockout equipment and details of the different keying systems available and their uses in different industrial settings. To make product selection easier, Arco provides pre-selected LOTO kits curated especially for certain industries, each supplied in a convenient carrying case. The Arco LOTO product guide also provides current regulations and legislative information, emphasising self-regulation, risk assessment and workforce involvement in the control of health and safety.

Contact your local sales office to discuss your requirements.

Order online at www.arco.co.uk or visit www.arco.co.uk/LOTO for further information.



Introducing our newly extended suite of zone 1 and 2 hazardous area products – now with SmartLoad® technology!

Award winning SmartLoad® wireless ATEX and IECEx solutions improve workplace safety, reduce downtime and lower costs.

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Scott Safety Offers Solution Amid Bird Flu Concerns

New Powered Air Respirator, Duraflow, from Scott Safety provides protection for Scandinavian workers following outbreak in Denmark

Bird flu, or avian flu, is an infectious influenza that affects and is spread by birds, particularly poultry. Despite not being transmitted from human to human, particular strains of the bird flu virus can infect humans, leading to serious illness and even death.

Recent reports warn that a highly-infectious strain of the virus has emerged affecting 14 countries, including Germany, France and Denmark.

Denmark appears to be one of the worst hit countries: Danish authorities have ordered a cull of 63,000 broiler hens and imposed a ban on transporting all poultry materials amid fears the virus could sweep across the nation. Scott Safety is able to assist those dealing with the consequences of this virulent outbreak with its Duraflow Powered Air respiratory protection system.

Scott Safety is one of the world's leading

manufacturers of respiratory protective equipment (RPE), supplying to firefighters, industrial workers, militaries and rescue teams across the globe.

Respirators from Scott Safety meet the needs of those working with birds and poultry, those involved in clean-up and clearance operations, and individuals concerned about contact and infection. Scott Safety has been shipping orders of its latest respiratory innovation, the Duraflow to Denmark to support fighting this outbreak. With the Duraflow Scott Safety has recognised the need for comfort and practicality with its lightweight, ergonomic design to protect against viruses, bacteria and other micro-organisms.

Duraflow, the Powered Air Respirator (PAR) is equipped with sophisticated real-time air flow control technology and is highly versatile; providing protection against a variety of environmental hazards.

Respiratory protection from Scott Safety is designed to be fully compatible with other personal protective equipment and provides P3 particle filtration, the highest efficiency EN approval class. The Department for Environment, Food & Rural Affairs (DEFRA, UK) advises that the use of P3 filtration is obligatory in order to protect against viral infections, such as bird flu.

Cases of bird flu have now been found in the UK. Last year the government ordered a temporary poultry ban at bird shows as a result of an outbreak in Lincolnshire. 2,500 birds were destroyed following the identified risk. More recently, there have been cases of the virus found in southern England. The UK government has clarified that the infection "does not pose a food safety risk for UK consumers".



For further information on the Duraflow solution, please visit: www.scottsafety.com/emea

Confined Space Entry Protection / Manhole Protection Barrier

Manholes, crawl spafins, tunnels, sewers, tanks, pipelines and trenches, all have one thing in common, they are enclosed or partially enclosed and are refer to as confined spaces.



These confined spaces are not intended for continuous occupancy, why? If people work in a confined space, they could face life-threatening hazards such as toxic substances, electrocutions, explosions and asphyxiation, there could result in serious injury or death.

A confined space can be more hazardous than regular workspaces for many reasons, many workers are injured and killed each year while working in confined spaces. To effectively control the risks of accidents with unauthorized confined space entries, the entrance and exit should be restricted.

CableSafe's confined space entry protection barrier or manhole protection barrier is the ideal tool for employees and contractors to secure these dangerous openings. The barrier warns co-workers and public of dangers and prevents unauthorized (or accidental) entry.



"In the construction industry, entering confined spaces is often necessary, but fatalities don't have to happen," said Secretary of Labor Thomas E. Perez.

The law requires employers to provide their employees with safe and healthful workplaces. With Cablesafe range of safety products you can avoid penalties that come with non-compliance to safety standards and legislations.

Our range of confined space entry protection products includes:

Manhole Protection Barrier

This a heavy corrugated plastic manhole barriers that fits most standard manhole covers. It has an elastic cords with hooks enabling a very easy installation to the flange of the manhole. This Manhole protection barrier can withstands extreme conditions and contain a sign or vinyl label with messages warning everyone on the confined space entry danger.

Heavy Duty Quick Adaptable Confined Space Barrier

Designed as a physical barrier with a sign that hooks easily on the rungs so the warning cannot be missed. This prevents unauthorized entry to manholes, vessels, tanks and vaults.



The barrier is durable, has a diameter of 990 mm (appr. 40 inch) and a 4 mm thickness and can withstand impacts, scratches, and other industrial conditions.

For easy installation the barriers are equipped with bolts & nuts. Based on specific needs, magnets (95 Newton; 9.5 KG force) and locks can be provided on request for easy handling and/or locking of the confined space protection barrier.

Manhole entry barrier

Made of robust materials and easy to install. CableSafe's Manhole entry barriers do not only restrict entry into a confined space, it has been designed with visual cue to alert workers and public to hazard.

Manhole cover

Specially designed with a bright yellow color. CableSafe's manhole cover prevents a fall-in for workers while performing activities around an open manhole or handhole.

It is strong, can support 140 kilograms and the frame is furnished with anchor bolt holes.

Pricing and availability

For a free quote visit <http://www.cablesafe.com/dropped-objects-and-barriers/drops-prevention/> We offer standard off the shelf safety systems as well as customized solutions to meet specific jobsite requirements.

For more information contact:
Phone: +31.33.4614844;
Email: info@cablesafe.com;
Website: www.cablesafe.com

Dropped Objects Guard Net

Worksite cuts and abrasions are just a few minor injuries workers can sustain on a worksite due to falling or flying objects, much serious injuries includes concussion, blindness, and even death.



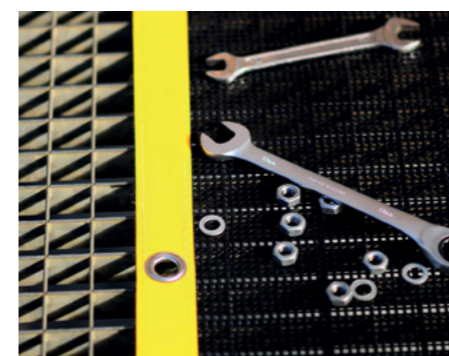
Working at height, beneath scaffolds or areas where overhead work is being performed puts workers and the public below at risk from falling (dropped) objects.

The term dropped object takes on a specific meaning, it can be:

- An object that falls from a height by its own weight and gravity, or
- An object that falls from a height due to contact with an energy source.

In either case, the result can be injury and harm to people, property or the environment.

According to Dropped Object Prevention Scheme (DROPS), an object that weighs less than three pounds if dropped from a height of 30 feet can



be fatal. If your worksites is typically elevated, you will definitely be dealing with such dropped object hazards on a daily basis.

You may have purchased or use several safety net/guard, the one that promise but does not deliver. We recommend that you use CableSafe's "Dropped Objects Guard Net", this is a safety guard that actually protects with a remarkable 7 years long standing history of high performance usage and reliability in offshore conditions. Our "Dropped Objects Guard Net" is ideal for use in Construction, Offshore industries and general industry.

CableSafe's "Dropped Objects Guard Net is a cost effective drop safety tool, that is made in Germany, and efficiently protect and prevent personnel from dropped objects accident in the worksite. The guard rail/net is made out of flame retardant coated polyester fabric with a reinforced hem provided all around, secured with lashing ratchets and come with a life span of 5 years.

Through our commitment to excellence, we have delivered top quality standard products to customers across the globe in many industries and we guarantee, that Dropped Objects Guard Net will brings safety to your "Work at Height" operations without requiring much active involvement of your worker or any one on the worksite site.



Benefits of Dropped Objects Guard Net

- Instant safety for your personnel and any one in the worksite.
- Cost effective
- Fast and easy to install
- Flame, Chemical and Corrosion resistant
- Reusable
- No hot work permit required
- Durable and long life

Technical data:

- Coated polyester mesh fabric
- Flame retardant (DIN4102B1)
- Strength: tensile 200N/50mm (ENISO1421/V1); tear 400N (DIN53363)
- Temperature: -20 °C + 70 °C (EN 1876-1)
- Weight: 295 g/m²
- Openness factor: 35%
- Air permeability: 7520 l/m²*sec

Pricing and availability

We offer standard off the shelf safety netting systems as well as customized solutions to meet your specific jobsite requirements. Dropped Objects Guards Net is available now, for a free quote, visit the link <http://www.cablesafe.com/dropped-objects-and-barriers/drops-prevention/>

Put your trust in CableSafe's fall protection "Dropped Objects Guard Net", we lead the industry in strength, impact resistance, durability and worker confidence - We'll catch any falling dropped object, including you.

For more information contact:
Phone: +31.33.4614844;
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Website: www.cablesafe.com

U-Power's New Smash GTX Safety Footwear is a Sure Fire Hit

The brand-new Smash GTX is the latest in U-Power's collection of original Italian-designed work-to-leisure footwear and is part of its new tough, but totally breathable and extremely waterproof, Gore-Tex-lined range.



The extremely comfortable and sporty Smash GTX boot features a pull-up leather, waterproof upper, lined with a Gore-Tex membrane. The boot gives improved performance and well-being to the wearer, while boasting a host of innovative hi-tech safety features, such as U-Power's Air Toe breathable composite safety toe cap, a pierce-resistant lightweight Save & Flex Plus midsole and a thick, extremely comfortable, moisture-wicking, anatomic polysoft insole that gives excellent shock absorption and support to the foot.

The desirable Smash boot, with its slip and abrasion-resistant PU outer sole, is classified SRC, providing the highest level of slip resistance and grip. It is also metal-free, so reducing weight, increasing comfort, and allowing it to be worn safely in magnetic environments. And, as with all U-Power's footwear, the wearer will be happy to continue to wear it after the working day has finished.

More information is available from:
www.u-power.it
 by emailing info.uk@u-power.it
 or calling +44 1543 417 241

BSRIA supporting edie Live Exhibition & Conference

BSRIA is delighted to be supporting the edie Live Exhibition & Conference which celebrates energy, sustainability and resource efficiency, taking place on Tuesday 23rd – Wednesday 24th May at the Birmingham NEC.

edie Live is the only event in the calendar giving energy, sustainability and resource efficiency professionals the opportunity to experience everything that's "new in the marketplace", in real life.

From the energy management technology to waste and resource efficiency solutions, from water retail to re-use, recovery and recycling, from on-site generation to energy storage and demand response, edie Live will cover all aspects of sustainable business.

The annual flagship two-day exhibition and conference aims to attract thousands of energy, sustainability and resource efficiency professionals.

Jo Harris, BSRIA's Sustainable Construction Group Manager, said: "We urge members and industry

to attend this exhibition and take advantage of the chance to build relationships with these key individuals and companies and, of course, new contacts.

People will be connected with the information, ideas and the suppliers they need to make their businesses more sustainable.

And any event or exhibition which – not only raises the profile of – but explores and examines new and exciting products and ideas in energy, sustainability and resource efficiency is great for the industry."

From practical seminar theatres to the strategic keynote, from technology demonstrations and the latest business solutions to tailored visitor experiences via sustainability clinics and topic trails, edie Live brings "the edie network to life".



Strategic partnership opportunities:
 Contact: David Griffiths,
 business development director
 email: davidgriffiths@fav-house.com
 phone: +44 (0) 1342 332 068
 mobile: +44 (0) 7824 360 357

Innovative New Approach To Fall Prevention

Flocire and DuPont work together to develop new patented fall arrest coverall made from Nomex®

Falls from height were the most common cause of workplace fatalities in 2011/12 with 17 fatalities and 3,067 major injuries reported[i] and accounting for almost a quarter of all fatal injuries to workers[ii]. The Work at Height Regulations (2005) apply to all working at height situations where there is a risk of fall liable to cause personal injury. It requires every employer, so far as reasonably practicable, to provide sufficient work equipment to minimise the distance and limit injury if a fall does occur[iii]. The distance that a person can fall can be reduced with safety nets or fall arrest systems.

In working environments such as oil and gas refineries, search and rescue, large scale construction and industrial cleaning, a protective coverall may be required to protect the wearer from contamination and can be flame resistant to protect against heat and flame risks. Layering coveralls and harnesses can be risky, as it means the wearer must ensure the coveralls and harnesses are compatible, so extra training must be given and comfort could be compromised.

To combat these problems, Flocire, part of the Nomex® Partner Program, has designed and patented the new FallX fall arrest suit, a coverall made from DuPont™ Nomex® Comfort that combines a harness and a flame resistant coverall. The entire coverall is heat and flame resistant and is CE certified, removing the need for separate inspections, additional training and compliance worries. In addition to these properties the suit will also reduce the force of the fall, as the force is absorbed through the whole suit and not just the weight bearing points on a normal harness. The complete FallX fall arrest suit weighs approximately 1.5kg, compared to a conventional harness without a protective coverall, which weighs around 1.2kg. This lightweight solution helps reduce wearer fatigue and improve wearer compliance.

Nomex® Comfort fabric Ripstop fabric, made by Nomex® Partner Program weavers Sofileta, is an inherently flame resistant high temperature meta-

aramid fabric that does not have any FR chemical treatments applied throughout the textile process. It does not melt or drip or support combustion in the air, so offers the wearer a high level of protection from the risks of heat and flame. After flame engulfment during testing, the suit also passed the drop test, further proving the reliability of the fabrics suitability and quality.

The FallX fall arrest suit offers the wearer a variety of benefits, with comfort, multi-compliance cost-effectiveness and ease of use being the key benefits. Due to the construction of the suit, it is comfortable and allows a freedom of movement not usually available when wearing a harness. As a result it can be worn all day, even when sitting down or crouching. Eamonn McCann, who helped develop the new suit explained, "Separate harnesses and coveralls worn together can be uncomfortable and necessitates the procurement of two fully compliant products, so we designed the FallX suit to make it so much easier for the wearer. The suits can be washed the same way regular coveralls are, helping to take some of the impurities such as dust and grime out of the webbing, something not possible with conventional harnesses. In general they are easier to use, easier to train on and easier to maintain."

The coveralls offer added protection as the harness element is inside the coverall rather than on the outside. This means the webbing is protected from entanglement as well as exposure to normal day to day grime and dirt accumulations. This added protection is a welcomed benefit, as workers in small and confined environments can easily get stuck, accidentally hooked on or snagged, reducing the risk when working in tight or small environments. Inspection of the suits is also simplified compared to separate harnesses and coveralls. By opening up the suit you are able to check straps, joints, buckles and connection points before donning the suit.

Eamonn continued, "We met with companies in various industries to trial the suits to make sure that



they would really make a difference. It has taken us ten years, from the first idea to the final product, but we are absolutely thrilled with the results".

Elaina Harvey, Nomex® Account Manager at DuPont, commented "This is an innovative piece of kit and there is nothing else like this on the market. Wearers can feel confident that the suits they are wearing when working at height have been manufactured to the highest quality through companies with different expertises working together".

Through the Nomex® Partner Programme all garments made using the Nomex® fibre must undergo rigorous testing to prove that the quality and performance exceeds the standard quality criteria. All certified Nomex® fabrics carry distinctive labels inside the garments so customers can ensure their garments are from a reputable supplier they can trust.

For more information on the FallX fall arrest suit please email emccann@flocire.com or call +44 (0) 28 3753 9950. To find out more about DuPont please visit: www.nomex.co.uk/solutions.

Versatile Crane Systems Comply With International Regulations & Standards

The crane systems manufactured by material handling specialists J D Neuhaus are designed for arduous operating conditions, and have a proven track record throughout worldwide installations.



Industry applications include oil and gas exploration and processing locations, both on and offshore, where explosion-proof operating conditions are paramount. Utilising an impressive range of compliance standards ensures that the JDN equipment is also suitable for safe operation in a wide range of industrial and commercial activities, meeting the relevant safety standards where appropriate. Examples include, API 7K, Ansi B30.16, ABs, drv Approval Programs, norsok; tensile strength 2.5, dynamic factor 1.33; safety factor 5:1 acc to Ansi B30.16.

These JDN handling products are fully supported by a worldwide servicing operation providing product supply, installation, maintenance and service/repair services with traceability through the JDN unique parts marking system.

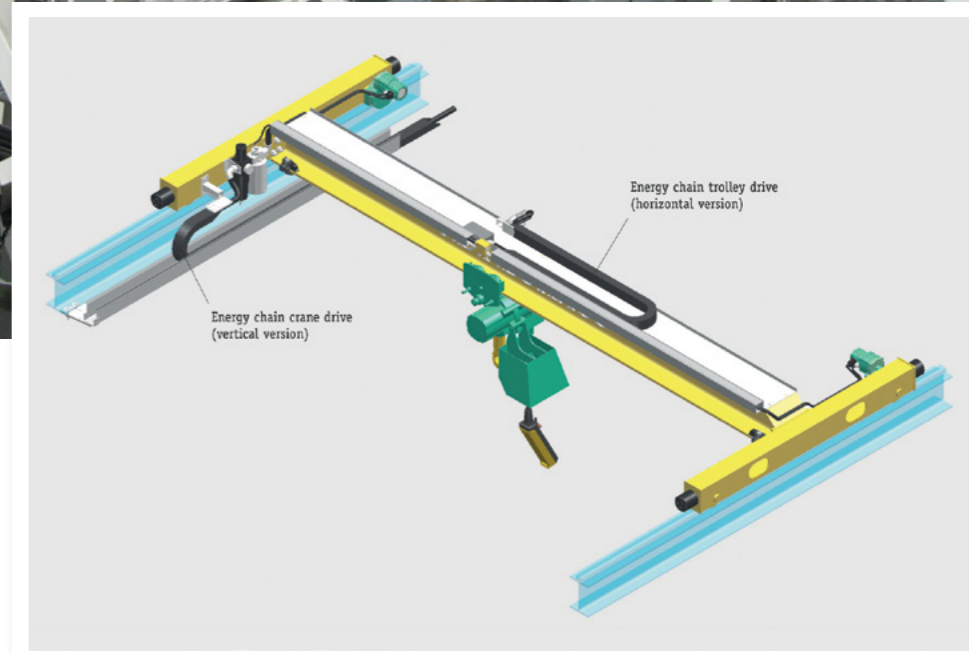
Typical standard crane systems currently available include: overhead cranes with single or double girder design; underhung cranes including low headroom design; jib cranes; cranes with in-line mechanically linked synchronised hoists; cranes with parallel operating hoists; crane capacities up to 100 tonnes; crane operation spans up to 36 metres. All products are suitable for both indoor or outdoor installations with optional power supplies for compressed air or hydraulics.

The J D Neuhaus cranes and hoists are resistant to dust, humidity and aggressive atmospheres as standard, operating within a temperature range of -20°C to +70°C. They provide 100% duty ratings with no downtime and only minimal maintenance requirements. Overload protection and fail-safe braking are incorporated with emergency-stop

safety features. Special limit switch arrangements for end-travel, anti-collision and protected zone status can also be incorporated as required.

Both standard and custom built crane designs can be supplied with crane kits, to fully accommodate customers' design and build requirements. Component kits complete with pneumatic or hydraulic drives can be supplied to crane manufacturers for overhead travelling cranes up to 10 tonnes capacity. The customer simply provides the main girder with JDN supplying all the necessary components for building a crane to their chosen design. Along with hoist and trolleys, JDN provide end carriages with drives, energy feed systems and appropriate safety accessories.

JDN crane systems have been utilised in many general engineering operations ranging from typical heavy duty operations like power plants, refineries, sawmills, foundries, shipyards to even explosives and pyrotechnics manufacture. The Ex classifications applicable to the JDN products



according to EC Directive on Hazardous Locations 2014/34/EU are EX II 2 GD IIA T4 / II 3 GD IIB T4. A higher rating available featuring increased spark protection is EX II 2 GD IIC T4.

Other industries that have less demanding load requirements, but still require explosion protection include chemical and cement plants, sawmills, paint shops, oil storage plants, electro-plating and some aspects of food production where there is potential for dust-laden (and potentially explosive) environments being created.

For general engineering requirements, super-silent operation is available in the hydraulic powered range, while oil or HFC pressure fluids can be used at intake pressures of 100 to 180 bar. Only two supply connections are required per hoist with leakage oil drained internally for maximum safety and cleanliness of the working environment.

The JDN range of compressed air operated hoists, operating at 4 or 6 bar pressure, incorporate integrated overload switch-off functions. They also feature sensitive, infinite controls with controlled load-lowering in the event of power failures.

J D Neuhaus also specialise in the provision of crane systems adapted to suit individual customer requirements. This can include remote radio control of the crane lift and traverse operations, covering comprehensive application requirements and even simultaneous operation of multiple hoists. For lifting operations on offshore rigs or sea going vessels, crane systems can be fitted with rack and pinion drive systems to ensure safe operation during bad-weather conditions. Control boxes with receiver can also be customised to suit specific electro-hydraulic interface requirements, together with all necessary system tubing in stainless steel where required.

Recently introduced nickel-plated hoist units have been introduced for operations where

wash-down cleaning is utilised, such as food and pharmaceuticals manufacture, or wherever other clean-room operating is needed.

Further information is available on request to:
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SPM Instrument presents HD Enveloping®

A new era in vibration monitoring SPM Instrument, Sweden, leading worldwide provider of condition monitoring technology and products, now announces the launch of HD Enveloping®, a new high definition vibration enveloping technique for detection of early stage gear and bearing faults.



A new achievement in vibration monitoring technology, HD Enveloping® is an ideal complement to traditional vibration analysis. Capable of detecting at a very early stage such machine problems which are generally difficult to find in good time with conventional non-enveloping techniques - for example gear and bearing damages - the method utilizes cleverly engineered and patented algorithms for digital signal processing, preserving the true highest peak of the vibration signal. Signals buried in machine noise are revealed through high definition digital enveloping, extracting and enhancing the signals of interest from the overall machinery vibration signal.

HD Enveloping® provides outstanding performance with the latest innovative technologies. The unit

of measurement is HD Real Peak, a scalar value expressed in decibels. Representing the true amplitude levels found in the envelope signal, HD Real Peak is the primary value to use for determining the severity of a given damage. It is also used for triggering alarms. Using order tracking and symptom enhancement, applying FFT on the signal is very useful to determine the source of the signal. Spectrums and time signals are marvels of clarity, providing a snapshot of machine condition to give the maintenance department a heads-up on potential problems.

The setup of HD Enveloping® measurements in the diagnostic software is straightforward. A set of predefined filters are available for easy selection; each designed to detect damages or anomalies in

different stages of development. HD Enveloping can be used to monitor applications in the 15-20,000 RPM range.

HD Enveloping® enables the detection of gear and bearing faults very early on in the damage process, making it possible to closely monitor the development throughout the stages. Significantly extending the planning horizon for predictive maintenance, the method is a boost to maintenance efficiency. The HD Enveloping® technique can be used with existing vibration transducer installations and thus quickly and easily integrates into existing industrial infrastructures.

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HD-ENVELOPING - a new era in vibration monitoring



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It explains in detail - What should I look for? How can failure occur? What should be done to prevent fire or explosion? - The questions answered.

gas groups, Category-groups, Temperature ratings and so forth.

Whilst similar to the structure of the DSC-Ltd one day IOSH certified course, the content depth and the number of topics covered in the new 3 day course is greatly increased. Dust is featured in far more depth and an additional section on ATEX classifications is also included, giving a greater understanding of ATEX and how it fits into the DSEAR equation. Explanations are provided on ATEX

Reference is also drawn to the theoretical understanding of flammable vapours with examples of how the Lower Explosive Limit can be converted into a meaningful quantity or volume of chemical per cubic metre of space. This all combines to providing the data and answers required, to understanding the final section of the course, How do I Zone my production operation?

Each delegate will receive a typical risk assessment template, along with a full and detailed 150 page training manual to assist with their learning. As with all courses, working group activities are required as part of each days learning, which further promotes discussion and ideas on how to resolve typical problems associated with dangerous substance hazards.

Further details are available from:
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