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A WORD FROM THE PUBLISHER



On a recent visit to the Southern Manufacturing exhibition, I came to some interesting conclusions...

Many of the successful companies attending the exhibition paid no attention to World events. Yes there are terrible atrocities being committed by unstable regime's and there are many political and national instabilities. A new US president, Brexit negotiations and the rise of the far right in European establishments.

The fact is that the World has never been stable or without conflict and concerns. Business and enterprise must and has always continued regardless of outside distractions.

Organisations that focus on the job in hand thrive and often achieve their goals. I recently read an article by Christer Idhammar , that in my opinion assesses business achievement and the psychology behind it.

The 70/30 Phenomenon not only applies to employees , but also companies and businesses alike.

The 70/30 Phenomenon (Christer Idhammar)

When you ask front line supervisors or team leaders if all people in their teams are performing to the same standards or if some are doing more work and achieving more results than others, you will often get the same answer. All over the world, the most common answer, after some analysis, verifies that about 30% of the people do 70% of the work. This is not only true for front line people like mechanics and electricians, but also for planners, engineers, and other salaried employees. However, our focus in this column is on the front line of maintenance.

When I am involved in assessing maintenance performance for a customer, I always make an effort to talk one-on-one with individuals, but I also talk with a group of three to eight individuals. When you talk with people one-on-one, they are in most cases very open and honest about what they say. When you talk with a group of more than three, there will often be a change in attitudes.

In a good work system with a homogenous group of strong performers, there is not much difference in talking with people in a group or on an individual basis. However, in a typical work situation, it is common to see a big difference.

What I call "the griping level" is very high in a typical group. For example, in a group of nine, it is likely that three people will talk and complain about all the bad aspects of working in their mill, three people will show signs of support for the grippers, and three will say very little and remain passive.

I have discovered that the silent few are often very good craftspeople that belong to the group of good performers, the ones doing 70% of the work.

They are also sick and tired of hearing the grippers' constant complaints about everything that is wrong, especially when these grippers never do anything to improve the situation. As a manager, you should remember to listen to the good performers and to downplay comments from the grippers. You should give much more time and attention to the best performers; otherwise, you risk losing them.

When presenting observations and recommendations to a large, mixed group of people, I have often brought up the griping level as an improvement opportunity. After addressing this problem, I have had numerous craftspeople thank me for bringing it up. "If we could just get the 70% you talked about-and I believe you are correct with that figure in our organization — to pull their weight, we would do very well here," is a comment I have heard many times from individual crafts people.

I have also had human resource, production, and maintenance managers thank me for addressing the griping level. The fact is that people's attitudes change quickly after such an open discussion, especially after talking about the group they belong to. It is not positive to be branded as a griper, so the griping decreases and people start talking about more productive and positive issues. Then, when they hear others say that they do not have enough resources for a task, their reaction becomes "we must each do our own part of the work before we complain about not having enough people."

To really change the situation, supervisors or teams must start assigning work in such a way that all employees will have a chance to improve their performances. In a team environment, especially if teams are supposed to be self-directed, this can be difficult. In the pile of work orders that must be done, there are always jobs at the bottom of the stack that nobody wants.

As a supervisor, it is understandably tempting to hand work to your best performers, because you know it will get done and you won't need to worry about it anymore. However, to bring the whole team up to a high-performance level, you must make the effort to match the best performers with others when you assign work. It might take a little longer, but it pays off in the long run.

The same principal is vital when a proposed flexible work system transfers from the negotiated contract to reality. Unfortunately, it is common to see that after long negotiations, strikes, and increased pay, the flexibility agreement is not implemented. Remember that you only get the flexibility you have trained people for through their work assignments.

Michael Dominguez, Publisher.

In This Months Issue



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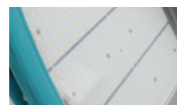
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How Can You Improve The Safety Of Lifting Operations In Hazardous Areas?

The global lifting industry faces substantial planning, logistical and procedural challenges during operations.

Operating critical machinery, often in hazardous offshore environments, comes with significant QHSE risks, and all the while companies strive for increased safety and cost efficiency.

This push for more cost-effective techniques creates demand for innovation that can help facilitate reduced costs and risks. Service providers like Scotload are responding to these increasing requirements by working closely with customers in the lifting industry to add value to their operations.

Recently, the company launched Zone I certified wireless SmartLoad® products to complement its range of hazardous area load monitoring solutions, delivering improved safety to complex lifting operations.

Describing how this innovative technology benefits customers, Simon Everett, managing director of Scotload says: "The exciting addition of SmartLoad

1Ex to our extensive portfolio enables us to assist customers in eliminating cables from critical work areas, helping to reduce associated maintenance costs and improve operational safety."

A project with lifting and mooring equipment specialist, Ansell Jones, demonstrates how collaborative working and the use of this innovative technology has benefited the industry. Ansell Jones approached Scotload with a requirement to convert a spider crane for Zone II environments on a North Sea offshore platform.

Typically offshore lifting operations need scaffolding and winches, but the spider crane's manoeuvrability will enable lifts to be performed quickly, safely and efficiently at multiple locations on the platform, significantly increasing operational efficiency and reducing costs. This conversion for Zone II rated use was an industry first.



SmartLoad includes numerous display options with are hazardous area certified, including an ergonomically designed handset featuring an intuitive menu. Requiring only one handset to connect load cells, load pins, links, shackles and tension line monitors, these simple plug and play products automatically detect all cells in range with a live simultaneous display of multiple cells, all of which are certified to the latest standards.

Adrian Coventry, Strainstall's engineering director explains: "We applied the latest wireless technology to enable SmartLoad to deliver increased range and signal reliability over any other hazardous area product currently on the market."

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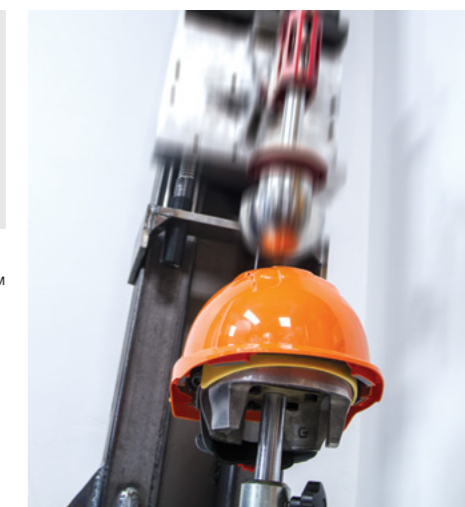
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Leading Risk Management Consultancy Awarded R&D Grant

A human factors, safety and risk consultancy that provides services to safety critical industries has been awarded an R&D grant worth almost £70,000 which will see the company make a significant contribution towards improving the safety and operations of civil nuclear power plants.



With the grant plus some internal funding, UK based Corporate Risk Associates (CRA) will be conducting a comprehensive research project which will significantly enhance the industry's understanding of potential system failures in nuclear power plants, aiding both plant safety and the uninterrupted supply of electricity.

Awarded by Innovate UK, the UK's innovation agency which works with people, companies and partner organisations to find and drive the science and technology innovations that will grow the UK economy, the research will be completed throughout the course of this year.

Speaking about the grant, Jasbir Sidhu, CEO and Founder of CRA said: "We are delighted to have been awarded this grant which will see CRA develop

a process to generate realistic reliability estimates of SMART Control and Instrumentation (SC&I) to increase the safety within nuclear power plants."

SC&I are intelligent control devices that employ programmable electronic components to collect and process data to enhance performance.

According to Jasbir, the industry uses assessments of the reliability of engineered systems to understand safety margins. The reliability of SC&I technology is difficult to substantiate due to the inclusion of software, and this leads to an assumption that it performs much worse than indicated by operational experience.

"Current methods adopted in the industry involve using high confidence values based on Safety

Integrity Levels (SILs), as stipulated in standards such as IEC 61508/IEC 61513. We firmly believe this current method does not give a good indication of the 'true' reliability, as SIL figures are considered to be highly conservative.

"As such, we are extremely passionate about this project and developing a process that can ensure future decisions are based on realistic reliability estimates.

"It is great that we have received this grant from Innovate UK in recognition of the significant impact this project will have on the nuclear, process, transportation, and other high hazard industries where safety is, of course, of paramount importance. Looking ahead this research will have a major impact on the understanding of risks from emerging and growing fields e.g. Data Centres."

The project will be led by experts at CRA, including the company's Principal Consultant Ashraf El-Shanawany and Consultants Francesca Brandford-Adams and Garth Rowlands who will be researching the approach of Structured Expert Judgement (SEJ).

Established in 2000, CRA boasts a team of 40 technical consultants. The company prides itself on managing safety, reliability and risk across the nuclear, rail, defence and process industries, where delivering a robust risk analysis is part of the licensing processes. The company has recently been awarded work with major organisations, including the Office of Nuclear Regulation, EDF Energy and Babcock International.

Rapid Contract Lifts and Transports Five Gas Tanks

Rapid Response Solutions (RRS) combined its lifting and transport capabilities to move five gas tanks from a live chemical plant in Middlesbrough, 300 miles south west to Cardiff, where they were to be refurbished for industrial gases company Air Products before installation at another site.



RRS accepted a scope of work to lift the tanks, ranging in size from 13m to 18m in length and 35t to 40t in weight, onto various transport vehicles chosen from its extensive fleet. In each case, the gas tanks had to be driven up a steep hill upon exit from the site, which was just one of a number of complications that had to be overcome.

Paul Barber, managing director at RRS, said: "The length of the tanks and the vehicles required presented a potential issue, largely owing to a steep hill that would be encountered at the outset of every journey. When it levelled off at road level, the trailers would be close to grounding out. However, the route had been surveyed before the project commenced and we had to make sure the suspension systems allowed for the contours to get the vehicles safely out onto the motorway."

For the largest tank (pictured), RRS used its four-axle 150t GVW Scania tractor unit with a four-axle extendable Nootboom low loader. The remaining, smaller tanks were moved by its three-axle 80t GVW Daf tractor units and four-axle extendable Faymonville semi low loaders. All vehicles were selected based on availability and suitability from the RRS fleet of 20 extendable trailers.

The tanks travelled with an accompanying escort

200t capacity LTM1200-5.1 was used with a smaller 90t capacity LTM1090-4.1 for tailing. The cranes were used over a three-day period to complete five tandem lifts. Each tank had fixed lifting attachments that double-up as securing points. RRS selected suitable chains to hold down the loads and secure them for transportation. The destination site in Cardiff has its own lifting equipment to move tanks during refurbishment.

RRS received detailed information about the dimensions and centre of gravity of each tank, which were drained of gas before arrival onsite. However, as Barber explained, further checks are always carried out to ensure accuracy and avoid potential problems once cranes are under load or vehicles are on public highways.

He said: "The customer provided us with comprehensive information in advance so we could select the cranes and vehicles required, but we always conduct our own weighing procedures and surveys. We have worked with many tank suppliers over the years and know that the information provided to us isn't always accurate. In this case we used two 25t Radiolink plus wireless load cells from Straightpoint, fitted to the LTM1200-5.1, to weigh the tanks when they were first lifted to cross reference information. The measurements were within 5%."

For further details visit: <http://www.rapidrs.co.uk>



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Akie Abe To Deliver Welcome Remark At Gastech 2017

Akie Abe, wife to Japanese Prime Minister Shinzo Abe, is at the forefront of the growing movement to empower more women in Japan to participate in the workforce and boost the country's shrinking workforce.

Mrs Abe will be delivering a welcome remark at a major forthcoming international energy event in Japan in April – the Gastech Exhibition & Conference – and will be using the opportunity to highlight to the energy industry the importance of developing a robust, professional female workforce.

In response to government findings that Japan's population is forecast to drastically shrink around 30% by 2060, the government has taken steps towards securing the nation's long-term economic future by unveiling a plan aimed at boosting the labour force by more than 1.1 million before 2020 – a significant proportion of which would include women.

Mrs Abe often speaks out about the country-wide initiative, known as 'Womenomics', which centres on enabling more working-age women in Japan to participate in the labour force. At present, just 63% of Japanese women undertake any form of paid employment, compared to nearly 85% of men, in one of the developed world's most conservative

economies where women are more often expected to remain home as housewives or as parents.

Often regarded as an outspoken voice in Japan on matters of social concern, Mrs Abe is particularly keen to drive more women into professional roles and into industries traditionally dominated by men – such as the energy sector – where very few Japanese women attain engineering or science degrees that lead into careers in these sectors.

Japan is one of the largest importers of energy – specifically natural gas in liquefied form (LNG) – with a huge employment base in the engineering, production, shipping and storage sectors. The increasingly-important role that women can play in this key Japanese sector will be discussed with the audience at Gastech, when Mrs Abe addresses a special 'Women in Energy' programme as part of the main conference programme.

Barbara Jinks, Women in Energy Program Manager states: "The presence of Mrs Abe lends weight to

the discussions around diversity in the gas industry and shows the importance of opening dialogue on this issue."

Now in its second edition, the 'Women in Energy' programme at Gastech recognises the talent and prospective career opportunities for women in energy. The agenda covers a range of topics including the championing of gender diversity in the workplace, breaking the glass ceiling, shaping a long-term career strategy, and personal stories from inspirational leaders in the global gas industry.

Gavin Sutcliffe, Head of the Gastech conference programme, comments: "Gastech's Women in Energy agenda examines the major benefits that a diversified, modern workforce brings to the energy sector. By continuing to drive improved diversity, the energy industry will be able to better identify and develop key talent pipelines. We are delighted to come to Japan and to be able to welcome such an honoured leader as Mrs Abe to speak about these issues."

For further details visit: www.gastechevent.co.uk.



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LNG still at the forefront of Japan's energy future

Mitsui & Co. sees LNG continuing to play a key role in supplying Japanese energy needs.

One of Japan's largest companies, the general trading giant and business developer Mitsui & Co., has underlined the importance of a stable liquefied natural gas (LNG) supply in order to fulfil future energy demand in Japan. Chief Operating Officer of Energy Business Unit II of Mitsui & Co., Hirotsu Fujiwara, commented, "LNG and gas will continue to play an important role long-term in a low-carbon global economy." He also stated that regardless of the fact it is forecasted that renewable energy may grow at a steady 2 percent per year, fossil fuels, especially LNG, will continue to be a significant source for meeting energy demand even in 2040.

As the world's largest importer of LNG – importing nearly one third of all global supplies – Japan relies on stable and trustworthy supplies of LNG. Following liberalization of its electricity market, which has led to new competition among electric utilities, Japan's

retail gas market is also planned to be liberalized in 2017, which makes this year one of the most pivotal in the country's energy market. Major utilities such as Tokyo Gas and JERA (a joint venture between Tokyo Electric and Chubu Electric) are leading the way in driving new international partnerships with Asian customers seeking to drive improved terms and conditions in their fuel procurement.

These recent movements in the energy market will be discussed and debated in early April in Tokyo, when the world's gas and LNG industries descend on Japan for the international Gastech Japan 2017 conference & exhibition – of which Mitsui & Co. are co-hosts, along with nine other major Japanese energy stakeholders including Tokyo Gas, JERA, Mitsubishi, INPEX, ITOCHU, JAPEX, JX Group, Marubeni and Sumitomo Corporation.

The event arrives in Japan for the first time in its 45-year history, during a pivotal period for Japan's energy industry and the government's energy policy. It will allow the world's largest customer of LNG to host the world's leading suppliers and industry professionals, with more than 20,000 expected to attend the exhibition and around 2,000 to attend the conference. Mr Fujiwara of Mitsui & Co. further comments that:

"We are proud to be one of the hosting companies of Gastech 2017, as it serves as an essential platform for networking among players in the global gas industry including producing countries and customers. We are expecting innovative discussions at Gastech on the production and liquefaction of gas, and we're excited to see many of the technology and engineering companies getting involved."

For further details visit: www.gastechevent.co.uk.

How does the Corporate Manslaughter Act put YOU at risk?

Simon Olliff, Managing Director at Banyard Solutions

A Manchester building contractor has been sent to jail for eight months for hiring two workers who were not qualified to carry out work at height and failing to provide fall protection measures on a roofing job, resulting in the death of a casual labourer who fell to his death. In another recent case, an engineering company in North East England was fined £150,000 for providing inadequate PPE to its workers who were severely burned carrying out cleaning tasks using corrosive substances. Could this be you and your business? These convictions have happened since the introduction of the new Sentencing Guidelines in February 2016 – with the potential for courts to levy increased fines and custodial sentences for serious breaches of health and safety.

Other high profile cases with huge fines include Merlin Attractions Operations: £5m, Conoco Philips: £3m, Cristel Pigment: £3m, Tata Steel: £1.98m, Foodles Production £1.6m. Think about it. What could getting it wrong cost you?

In Focus: Corporate Manslaughter Act

One element of these new Guidelines that could affect you includes the revisions to the 2007 Corporate Manslaughter Act – a landmark law at the time that made organisations accountable for corporate manslaughter incidents as the result of a serious management failure. The sentencing processes takes more into account than ever before, bringing in different elements of your business that you may not have initially realised.

Step 1 takes into account the seriousness of the incident, including the possible failure by employers to respond to near misses or to action advice from employees. Whether the offence demonstrates a lack of adherence to recognised standards, inadequate training, supervision or reporting is also considered. Other questions that help to determine the offence category of the incident include: Is it representative of fundamental systematic failings? Was there a death or serious personal injury? Is there a high risk of future deaths?

Category A groups incidents where answers to the questions indicate a high level of harm or culpability. Category B is in place when answers to the questions indicate a lower level of culpability. The fine eventually imposed on the organisation is usually dependant on turnover on the proviso that a

detailed and accurate record of financial information is provided. A medium organisation with a turnover between £10million- £50 million with an Offence Category A can expect a fine between £1,800,000 up to £7,500,000. For a small organisation with a turnover between £2million- £10million also grouped into Offence Category A, the fine can range from £540,000- £2,800,000. On the occasions where the financial information provided is not to the court's satisfaction, the fine can be unlimited.

Key Cases

This stringent approach has irrevocably altered the landscape of health and safety sentencing and the punishment inflicted on offending organisations. In the first sentencing under the new guidelines in July 2016, Monavon Construction Ltd pleaded guilty to two counts of corporate manslaughter, after two men fell into a 3.7 metre light well that only had perimeter edge protection, rather than metal railings, fixed around it in October 2013. Both men died at the scene. The judge fined the company £250,000 for each of the corporate manslaughter offences, plus £50,000 for breach of the Health and Safety at Work Act. This fine was based on the company being a micro organisation, taking into account the company's fundamentally good safety record, lack of previous prosecutions and the steps taken immediately after the incident to rectify the issue.

Be prepared

Just one year in action, these guidelines have resulted in more than 19 fines more than £1million, compared to three in 2015, and none in 2014. It is critical you understand the changes to the Corporate Manslaughter Act, how this has already seriously impacted offending organisations in terms of finances and reputation, and how you can protect your workforce and your business from serious failings and possible prosecution.

Aggravating factors within the sentencing process that could increase the fine given include cost cutting at the expense of health and safety, a poor health and safety record, and falsification of documents and licenses. Factors that could reduce the total fine include evidence of steps taken to remedy the issue, a good health and safety record and relevant procedures in place.



Whilst you can guarantee the efficiency and conformity of your written health and safety processes, you cannot be completely sure that firstly, these policies are being wholly implemented on site and secondly, that your entire supply chain is fully compliant.

E-permits, the web-based Permit-to-Work system improves your management control, reducing possible risk of injury to people by ensuring all of the individuals on your site have genuine, up to date qualifications meeting your criteria and standards – alerting you immediately if the situation changes. It enables you to have complete visibility of all of the contractors within your supply chain, providing an accurate overview to who is doing what, when, where, why and how in your buildings, connecting your internal policies and external legislation and regulation requirements. Incidents can be prevented from happening in the first place but on the rare occasion something does occur, the e-permits system enables you to demonstrate that you have put all reasonably practicable methods in place.

The revisions to the Corporate Manslaughter Act highlight that each incident is treated entirely in its own right but that the punishments for offending businesses are stronger than ever before. The sentencing process takes a plethora of factors into account, including an organisation's previous record and compliance, current health and safety systems and self reporting processes. The message is clear- fail to prepare with an effective e-permits solution that provides you with the transparency, compliance and assurance you need? Prepare to fail if something goes wrong.

Please visit:
<https://www.banyardsolutions.co.uk/>

Update your training for Ex-forklift engineers, advises Pyroban

Safety company Pyroban is advising companies that their forklift engineers may need new training ahead of the introduction of the updated EN1755:2015 standard for explosion protected forklifts in November 2017.



"To remain effective and safe, explosion protected forklift trucks must be serviced and maintained by trained engineers," explains Darren Boiling, Group After Sales Manager for Pyroban. "All engineers responsible for Pyroban explosion protected equipment in the field must first be trained to ensure they are qualified to work on the specific systems, and then regularly retrained to ensure their knowledge is in line with current product standards and legislation."

Due to the nature of risk and complexity of the technologies involved, explosion protection is a highly-regulated market. From November, the updated EN1755 standard for explosion protected materials handling equipment has amended mandatory requirements which apply to new forklifts ordered from June 2017, as well as forklift

maintenance. For example, the EN1755 standard has identified static electricity as a potential ignition risk during "normal" operation in Zone 2 applications, which means that, among other changes, there are new requirements for forklift batteries, seats and tyres.

"To ensure that works and maintenance engineers and managers know how the changes to EN1755 will affect their responsibilities, it's essential to check that all training is up to date," says Darren. "For example, to avoid downtime, engineers will now need to consider increased lead times for ordering specialist replacement components such as antistatic tyres or seats."

To support engineers working on equipment in potentially explosive atmospheres ahead of the

changes to EN1755, Pyroban offers training courses for works and maintenance engineers, field service engineers and service managers. Courses can include an introduction to explosion protection, methods of protection, requirements and standards, maintenance and inspection. The training, which is available year-round, supports fault diagnosis of Pyroban equipment, recommended maintenance schedules and is suitable for engineers working with Zone 1, 2, 21 and 22 diesel or electric equipment.

For further information or to enquire about training courses, visit www.pyroban.com or email training@pyroban.com.

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SGS BASEEFA TRAINING SERVICES

SGS Baseefa is a world renowned organisation in the field of explosion protection. Our training courses are designed to complement the services we provide to our customers. All SGS Baseefa training presenters are leaders in their field, providing delegates with expert opinions on subjects related to potentially explosive atmospheres. Our training programmes cover all our speciality technical subjects, but are delivered with a particular flair that makes SGS Baseefa training different and the learning experience that bit more enjoyable and memorable. SGS Baseefa Training is delivered at our purpose-built training facilities in Buxton; at our customers' premises; or at any suitable venue of convenience to you.

The SGS Baseefa portfolio of training services includes:



INTRODUCTION TO HAZARDOUS AREAS & PROTECTION TECHNIQUES (1 DAY)	£395 + VAT
<ul style="list-style-type: none"> Fundamental theory of explosions Hazardous installations Certification schemes and legislative aspects Types of protection Conformity assessment 	
HAZARDOUS AREA PRODUCTS - QA SYSTEM PLANNING (1 DAY)	£395 + VAT
<ul style="list-style-type: none"> Introduction to the terminology and protection concepts associated with Ex products Mandatory requirements for Ex product manufacturing Review of ISO/IEC 80079/34 requirements Identification of critical features for different protection concepts including practical examples 	
ATEX / DSEAR OVERVIEW (1 DAY)	£395 + VAT
<ul style="list-style-type: none"> The ATEX Directives and requirements of DSEAR Area classification – a brief overview Inspection and maintenance requirements - overview Equipment and installation – overview Fundamental theory of explosions 	
ATEX / DSEAR (2 DAYS)	£745 + VAT
<ul style="list-style-type: none"> The ATEX Directives and requirements of DSEAR Risk assessment and area classification – overview Non-electrical equipment – retrospective ignition hazard Assessment Installations in potentially explosive atmospheres – overview Inspection and maintenance requirements – overview Fundamental theory of explosions Protection concepts (electrical and non-electrical) 	
RISK ASSESSMENT AND HAZARDOUS AREA CLASSIFICATION (2 DAYS)	£745 + VAT
<ul style="list-style-type: none"> General principles relevant to area classification Explosion risk assessment techniques and basic consequence analysis Area classification using calculations for indoor and outdoor applications Use of area classification industry codes (IP15, EI15 etc.) Methodology, practical techniques and case studies Worked syndicate exercise of real classifications 	
SAFE USE OF ELECTRICITY IN POTENTIALLY EXPLOSIVE ATMOSPHERES & INTRINSIC SAFETY (4 DAYS)	£1450 + VAT
<ul style="list-style-type: none"> Flammable gases, vapours, dusts and ignition sources Protection concepts Safety with testing Maintenance and repair of Ex equipment Legal requirements ATEX Directive – safety of workers and regulations ATEX Product Directive Codes of practice selection and installation Electrical testing Installation of Ex equipment Intrinsic Safety Ex i applications and systems Piper Alpha incident review 	

Personal competency is a key element and company's employees, suppliers and contractors must be able to demonstrate before undertaking work in potentially explosive atmospheres. SGS Baseefa Training courses test delegate's knowledge progressively through the course delivery ensuring key learning points are clearly understood. Many courses provide certificates of achievement upon successful completion, which provides clear evidence of your personnel's skills and knowledge in this area, whilst also demonstrating your company's investment in their continued professional development.

Please contact Jayne Lingard for further information:

e: jayne.lingard@sgs.com

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Code expires 31/05/17

HAZARDOUS ATMOSPHERE TRAINING

COURSE TITLE	DURATION	DATE OF COURSE
Introduction to hazardous areas	1 day	25 April 2017
Hazardous area products – QA system planning	1 day	26 April 2017
ATEX/DSEAR overview	1 day	8 May 2017
ATEX/DSEAR	2 days	9 - 10 May 2017
Risk assessment and hazardous area classification	2 days	11 - 12 May 2017
Safe use of electricity in potentially explosive atmospheres and IS awareness	4 days	19 - 22 June 2017
ATEX/DSEAR overview	1 day	26 June 2017
ATEX/DSEAR	2 days	27 - 28 June 2017
Risk assessment and hazardous area classification	2 days	29 - 30 June 2017
Introduction to hazardous areas	1 day	22 August 2017
Hazardous area products – QA system planning	1 day	23 August 2017
ATEX/DSEAR overview	1 day	25 September 2017
ATEX/DSEAR	2 days	26 - 27 September 2017
Risk assessment and hazardous area classification	2 days	28 - 29 September 2017
Safe use of electricity in potentially explosive atmospheres and IS awareness	4 days	18 - 21 September 2017
ATEX/DSEAR overview	1 day	13 November 2017

PUBLIC COURSES

Joining one of our public courses gives you the opportunity to meet with individuals from related industries and discuss course topics with others who have identified the same types of issues. As a result, you can share and gain best practice knowledge, not only from our experts, but also from those in similar organisational roles. Public courses are on fixed dates throughout the year and are run at our premises in Buxton, Derbyshire. Please refer to the above training calendar for dates.

IN-HOUSE COURSES

Running a standard or bespoke course at your premises allows you to shape the message and style of the presentation to suit the culture of your organisation. It is the most convenient and cost-effective solution should you wish to train a number of staff in the same location, or when confidentiality is an issue. Once we have agreed the dates and location of your training course, our experts work with you to identify and evaluate your training objectives and to customise the course content to ensure they are met. Contact us today for a no-obligation quote.

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WHEN YOU NEED TO BE SURE



Meet The Future: 4-Gas Detection with 2-Year Runtime is Here

Shawcity announce not one but TWO next generation products from two of the world's leading manufacturers in gas detection, both designed to push the boundaries of personal, always-on protection.



Always striving to introduce the very latest technology from tried and tested worldwide brands, Shawcity is delighted to add both devices to its portfolio and offer customers the widest independent choice on the market.

These instruments are changing the way industries use personal gas monitoring equipment by offering a continuous use two-year life span with:

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- No calibration.

These benefits mean a huge difference to the end user - no downtime and low overall cost of ownership. Easy to use, they each offer one-button operation. Just switch them on for immediate peace of mind and know that you're covered for two years.

The new BW Clip4 and Multi Gas Clip Simple both detect H₂S, CO, O₂ and combustible gases (LEL) and both are intrinsically safe. Each comes with its own compatible dock, allowing quick bump testing and easy data transfer.

Both instruments are ergonomic, lightweight and durable and offer significant benefits including time



savings, test gas savings and dramatically reduced maintenance costs. Fleet numbers can potentially be halved as monitors can be passed straight from one shift to the next without the need for re-charging in between.

Thanks to IR technology, the pair also work in oxygen-enriched and oxygen-deficient environments and the LEL sensors are immune to H₂S and silicone poisoning.

The BW Clip4 and Multi Gas Clip Simple offer similar high levels of performance and will both be available direct from Shawcity in April 2017.

For more information visit:
www.shawcity.co.uk, contact us at:
solutions@shawcity.co.uk
 or call us on 01367 899419.



Dust and Particulates: Monitoring Solutions for Every Work Environment

Shawcity offers a comprehensive range of air quality and dust sampling monitors from personal aerosol monitors for individual workers and indoor or outdoor workplace monitors right up to environmental monitoring site stations for construction and demolition sites.



Personal

The SidePak AM520 and AM520i is the industry's smallest portable, battery-operated, data logging, light-scattering photometer. It provides immediate access to aerosol contaminant mass concentration readings within a worker's breathing zone including dust, fumes, mists, smoke and fog.

This monitor is the perfect solution for a variety of workplace environments, including but not limited to general industry, foundries, construction sites, chemical plants, refineries, petrochemical, power and utilities, transportation, aerospace, maritime, confined space and mining.

Traditional gravimetric reference samplers collect a sample on a cartridge over an eight hour period, which then needs to be sent off to a laboratory for analysis. The AM520 gives the user real time measurements and instant data, with audible and visible alarms which allow for quick reaction to any situation, including evacuation of the area, in a way similar to gas monitors.

Newly designed inlet conditioners increase the mass concentration capability and provide size fraction cut points for PM10, Respirable (PM4), PM2.5, PM1, and 0.8µm Diesel Particulate Matter (DPM).

Overall cost of ownership is lower as there are no cartridges or laboratory costs to pay for and with an intrinsically safe model also available the AM520 offers an even wider range of applications.

Workplace

The DustTrak II and DRX handheld models work on the same principle of light-scattering photometry as the AM520 and use a sheath air system to isolate the aerosol in the optics chamber for improved reliability and low maintenance.

It measures PM1, PM2.5, Respirable or PM10 size fractions and is ideal for walk-through monitoring of clean office settings as well as harsher industrial workplaces, construction and remediation sites and other outdoor environments.



The DustTrak II and DRX desktop range offers the same technology and capability (pictured left) as the handheld models and is ideal for industrial hygiene surveys, indoor air quality investigations, emissions, aerosol research studies and outdoor environmental and remote monitoring.

Only the DustTrak™ DRX Aerosol Monitor 8534 and 8533 can simultaneously measure both mass and size fraction - no other monitors can do both.

Environmental

Shawcity also offers a purpose-built solution for real time environmental monitoring with the DustTrak Environmental Aerosol Monitor, available in three models depending on application (pictured above) requirements: EDTPM2.5, EDTPM10 and EDTDRX.

Its robust, weather-proof design is perfect for long-term runtime studies with a need to monitor fugitive emissions, site perimeters and fence lines, construction and remediation sites, mining, hazardous waste and dust control. It will withstand extreme outdoor temperatures and works with a cloud-based management system which allows for remote real-time data access and monitoring.

Our air quality and dust range is available to buy or hire. For more information, visit www.shawcity.co.uk, contact us at: solutions@shawcity.co.uk or call us on 01367 899419.

Filtermist's Extraction Experts Discuss Dust

Dust particles generated in a wide range of manufacturing and production processes pose a significant hazard to health.

They can cause respiratory diseases, skin irritation and eye problems, and, in some instances, can result in deadly explosions if left to accumulate in the atmosphere.

Effective control measures play a vital role in protecting people from the effects of inhaling contaminated air and should always be designed, installed and maintained by industry professionals.

Filtermist International has almost 50 years' experience in ensuring workshop air is clean and safe to breathe. Kevin Hood, Sales Director at Filtermist subsidiary Multi Fan Systems, and Jamie Allen, one of Filtermist's dedicated LEV (local exhaust ventilation) engineers, discuss the importance of working with professionals with specialist expertise.

Extraction System Specification

"Regulations including CoSHH (Control of Substances Hazardous to Health) and DSEAR (Dangerous Substances and Explosive Atmospheres Regulations 2002) require exposure to hazardous, potentially explosive substances to be prevented or minimised as much as possible," says Kevin.

"The best way to do this is by installing an LEV system to extract and filter contaminated air at source – this approach protects operatives by ensuring that the hazardous substance does not enter workplace air.

"From the outset, it is vital to establish exactly what substances need removing. If the substance is classified as explosive, such as flour, wood or

aluminum dust, ATEX rated explosion relief panels should be incorporated into the design of the LEV system. This can have implications on the position of the filtration unit - ideally the unit should be located outside so that in the event of an explosion occurring, the blast is outside away from works personnel, rather than inside, the factory.

"However, when this isn't possible, effective suppression systems should be incorporated into the system design."

Explosion relief panels are also a consideration for Filtermist's LEV engineers during routine LEV Tests, as Jamie explains, "We carry out a comprehensive risk assessment as part of all LEV Tests and if this shows that the system is being used to extract potentially explosive substances, we will check to make sure ATEX rated panels are in use.

"If they are missing, we will include a recommendation that they need installing immediately in the report submitted to the customer. We strongly advise that all of our recommendations are acted on, but in hazardous environments this is even more important as it can literally mean the difference between life and death."

Correct design of all dust control systems is key as Kevin explains, "We provide customised systems depending on specific client requirements and will select which dust filter is used depending on the characteristics of the dust that needs extracting.

"As well as vented explosion relief panels, certified ATEX equipment including anti-static filter bags, earth bonds, and non-sparking components can all be used to handle potentially explosive particulate. Explosion isolation valves and possibly fire dampers should also be incorporated into the ducting to prevent propagation of explosions or fire spreading in the event of an incident."

Performance monitoring

Once the extraction system has been installed, it is then the responsibility of the employer to ensure it consistently performs as intended. CoSHH regulation 9.2 requires most LEV systems to be tested by a competent person at least once every 14 months.



As well as employers' responsibilities under CoSHH regulations, employees are also required to play their part in safeguarding the workforce. Operatives are required to report 'forthwith' any defects in the LEV system which could impact on its ability to work as intended.

Jamie elaborates on how this requirement can be achieved; "There are a number of ways of checking that an LEV system is working correctly between routine LEV Tests. Daily checks should be carried out to look for any obvious signs of wear and tear, or indications that there may be contamination in the air.

"Pressure gauges and airflow indicators can be used to clearly identify pressure drops or other potential issues with the system. Using a dust lamp makes it easy to see airborne particulate, as well as checking that the fan is drawing the contaminated air into the filtration system.

"Smoke sticks can also be used to check the direction of extraction. Observations and data should be recorded in a log-book which can be used as an auditable trail in the event of any issues with the LEV system."

Filtermist's Director of Sales, Stuart Plimmer, concludes, "All employers have a duty to protect people from exposure to dust particles - nowhere is this more important than in environments where potentially explosive dust is created.

"Filtermist provides a comprehensive nationwide dust removal service for facilities of all sizes. From system design and installation, to routine maintenance, LEV testing and air monitoring – our turnkey service ensures workers are safe."

Find out more by visiting www.filtermist.co.uk.



Scott Safety takes half mask respiratory protection to the next level with its new AVIVA

The new AVIVA is the latest innovative half mask from Scott Safety, a world leader in the design and manufacture of respirators and personal protective equipment.

Ensuring worker's wellbeing is priority; its low-profile head harness offers greater stability and compatibility with safety helmets and eye protection. Workers will relish the comfort that comes from the AVIVA half mask.

The cutting-edge half mask, which is silicone-free but designed with silicone-like comfort, features novel design elements. AVIVA offers a reflex seal which allows the wearer added movement and flexibility, a positive fit check button that is built into the device guaranteeing a secure fit of the half mask. Enhanced voice intelligibility enables the wearer to be clearly heard by those around ensuring clear lines of communication. The AVIVA half mask is available for use with a wide range of filters permitting use of

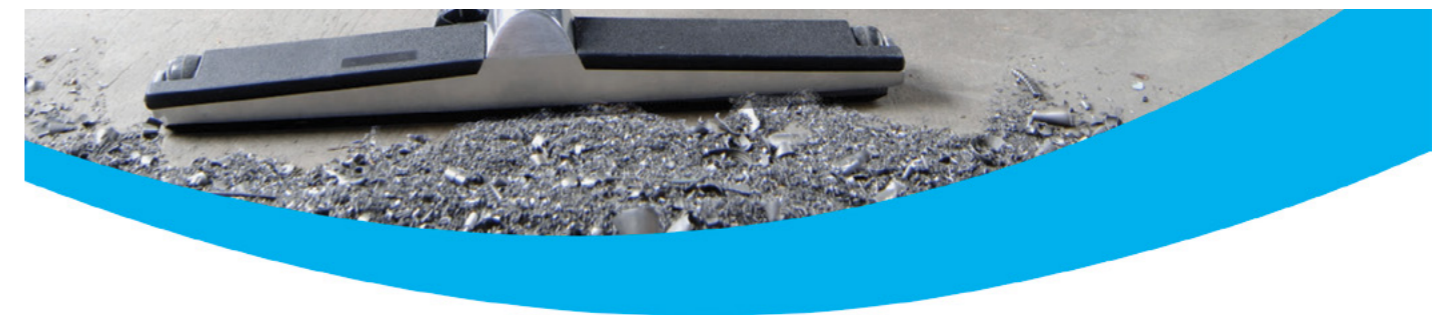
the device in a variety of applications and industrial situations such as asbestos removal, manufacturing, welding and pharmaceuticals.

Last year, around 33,000 workers suffered breathing or lung problems thought to be caused or made worse by their working environments[1]. One of the industry's biggest issues is badly fitted, uncomfortable equipment, discouraging workers to use their kit correctly. Scott Safety is helping to eradicate this problem with the introduction of this easy-to-use mask that provides complete respiratory protection, low breathing resistance and increased comfort and fit. The AVIVA half mask is available in small, medium and large sizes and a variety of packaging types including Readyapak options






for specific applications, some of which have the advantage of permitting the user to regularly store the half mask, keeping it clean and correctly formed for optimum fit.

AVIVA is now available from Scott Safety approved distributors. For more information please visit www.scottsafety.com/emea



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New "ATEX" lift trucks for Witton Chemicals

Manufacturer Witton Chemicals has selected Pyroban to provide explosion protection on its latest forklift trucks operating in Zone 2 hazardous areas.



"As a contract chemical manufacturer for blue chip companies, Witton provides a flexible and responsive service," says Steve Owen, Operations Manager for Witton Chemicals. "Our operations are highly productive with a quick turnaround, supporting a wide range of international customers including some of the largest adhesive, electronic, paint, sealant, petrochemical and pharmaceutical companies worldwide."

"The diversity of our work means that we handle many different raw materials, many of which are highly flammable," says Steve. "Operating as a COMAH* site, safety is our number one priority, and ATEX** and DSEAR*** regulations are central to our operation."

At the plant in Suffolk, UK, raw materials are mainly handled in liquid form, stored in sealed drums, IBCs and in bulk, with chemical process operators using forklift trucks to transport materials in the production areas. Over 40 employees work on a 24-hour shift basis at the site and the company operates a 4-day week, a business strategy that has been proven to be more efficient, allowing for growing capacity should its customers really need it.

"All of our production runs are customer specific and can be up to a thousand tonnes, so reliability of the forklift trucks is critical," insists Steve. "The reactors

must be fed at exactly the right time with the right materials, otherwise whole batches of product can be ruined."

The production areas where the forklifts operate at Witton Chemicals have been classified as Zone 2 hazardous areas which require specially adapted, ATEX 2014/34/EU compliant forklift trucks. Standard forklifts would otherwise be a source of an ignition in the event of a flammable gas or vapour release. Excess heat from the engine, motors, brakes and other components, a spark from unprotected electrical equipment or even a spark from static build up on the truck could create enough energy to cause an explosion.

To meet Witton's handling needs, two new Doosan D25S-5 diesel forklifts were converted by explosion protection safety company Pyroban for Zone 2 (category 3G) operation. Supplied through Windsor Materials Handling, the trucks feature Pyroban's system6000 which incorporates gas detection to continuously monitor the direct environment around each truck. In the event of a vapour release, it will alert the driver and automatically shut the trucks down where necessary, eliminating the risk of an explosion.

The Pyroban conversions also featured restricted breathing enclosures, stainless steel cladding of

forks and surface temperature cooling to ensure the engine, motors, brakes, electrics and other components remain below the auto-ignition temperatures of flammable materials.

"Since we started using forklift trucks, we've worked with Pyroban," says Steve, explaining that Witton Chemicals has been at the site since the 1970s.

"The current arrangement is the best we have ever had. It seems like the Pyroban system is totally integrated into the forklift truck and keeping us all safe each day."

"The benefit of the Doosan trucks on a site like this is the simplicity of design, which works very well with the Pyroban system and conversion process," says Josh Newton, Sales Manager, from Windsor Materials Handling. "They are solid and reliable trucks, which has been proven over the last year.

To cover every eventuality in this time sensitive production line, we also have a backup Zone 2 converted truck available to Witton."

Steve Owen adds "The service support has been excellent, both from Windsor and directly from Pyroban. We had some teething problems as expected, but they were dealt with very quickly and pro-actively by working in unison."

Inevitable wear and tear on forklift trucks operating in potentially explosive atmospheres can pose a safety risk. To counteract this, Windsor Materials Handling has established a system of preventative maintenance to ensure the equipment continues to be safe, and trucks are regularly serviced by an engineer trained to work on the Pyroban system.

In line with EN60079-17 and ATEX 1999/92/EC Witton Chemicals also instructed Pyroban to perform its annual safety audit (Ex-ASA) to ensure that the integrity and safety of the trucks were not compromised during the first year.

Visit www.pyroban.com
or www.windsor-mh.co.uk.

Safety First

"There are no new accidents, just lessons to be learnt from the ones we have already had."

The Honourable Mr Justice Haddon-Cave, speaking at Hazards 26

Hazards 27, IChemE's annual process safety conference, takes place in Birmingham, UK on 10-12 May and is set to provide a comprehensive review into how to reduce the risk of hazardous events.

Aimed at anyone who is active in process safety and risk management, this leading industry event will present latest developments, best practice guidance and lessons learned in process safety, sharing the knowledge and experience of over 100 experts from around the globe.

As well as a packed programme of technical presentations, there will be a trade exhibition showcasing products and services to manage risk

effectively, and optional pre-conference workshops exploring certain core topics in more depth.

Invited keynote speakers from BASF, Unilever, Shell and Marsh Energy will share their views on process safety management, with themes including: how to drive continuous process safety improvement; the importance and practical application of good process safety management in the FMCG sector; why process safety management systems are so important to a wide spectrum of industry and not just the high hazard chemical industries; the fundamentals - or 'life-saving rules' - of the process safety world; and insurance risk engineering.

Guest speaker, Formula One analyst, Mark



Gallagher, will draw parallels between risk management in the very different worlds of motorsport and the process industries, offering insights into the evolution of risk management and safety culture within Formula One, and discussing how the lessons learned can be transferred to the high hazard industries.

There will be plenty of opportunity to network with top experts and industry peers throughout the event, including a free welcome drinks reception in the exhibition area, and an informal social event.

Online registration is now open. For full conference details and to book a place visit www.icheme.org/hazards27

Hazards27

In association with the Mary Kay O'Connor Process Safety Center

10-12 May 2017, Birmingham, UK

If you are active in process safety and risk management, then Hazards 27 is a must.

This leading industry event will bring together international safety practitioners for a comprehensive review into how to reduce the risk of hazardous events.

Over 100 top experts from around the globe will share their knowledge and experience, including best practice guidance, lessons learned and latest research.

A trade exhibition will also showcase products and services to help manage and reduce risk effectively.

Find out more and register at www.icheme.org/hazards27

Conference partner



Artidor's Specialists Design Customized Explosion-Safe Solutions

Artidor Explosion Safety B.V. is a dutch company specialized in the development and production of explosion-safe products. Artidor has 30 years of relevant experience.

In a well-equipped workshop, Artidor's specialists design customized explosion-safe solutions, usually based on existing products. A number of these products are introduced to the market as Artidor branded products. The product range includes various explosion-safe LED lighting products, sensors, magnets, pressurized systems and air conditioners.



Explosion-safe air conditioner AR051 is widely used in oil and gas extraction, the chemical and petrochemical industry and on board ships. It is certified in accordance with the European Directive 2014/34/EU (ATEX 114) and has a CE mark. Artidor air conditioners meet the requirements of product category 3G for use in Zone 2. The external unit has a compressor with a twin rotor. Good balancing helps the limitation of vibration and sound. The advanced direct current technology results in unprecedented levels of efficiency.

For further details visit: <http://artidor.com/en/>



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E2S showcases its globally approved hazardous area warning signals at OTC

On Booth 1639 at OTC, held from 01 – 04 May in Houston TX, E2S Warning Signals are demonstrating a selection of its portfolio of more than 250 different explosion proof and intrinsically safe warning devices for use in hazardous locations.

E2S alarm horns, PA loudspeakers, LED and Xenon strobes and integrated horn/strobe warning units employ the latest electronic technology and acoustic engineering to ensure high output, low current draw and extended reliability. To meet the differing requirements of systems in hazardous area environments, product families are available with a choice of different sound and light output levels in stainless steel, GRP or marine grade, LM6 aluminium enclosures, providing a wide choice of mechanical protection, corrosion resistance, weight

and cost. E2S products are approved to all major international and national standards, allowing them to be deployed in systems around the world with complete confidence that they conform to the required criteria. Devices conform to the ATEX, IECEx Directives, INMETRO and TR CU as well as NEC and CEC codes through third party testing by FM and UL.

Darren Mann, UK-based International Sales Manager and Marcel Minns, Houston-based Technical Sales



Manager, will be manning the booth to meet existing customers and contacts, demonstrate products, answer questions and discuss upcoming new product developments.

E2S Warning Signals
Tel: + 44 (0)20 8743 8880
sales@e2s.com
www.e2s.com

Suitable for all kinds of weather: Explosion-protected emergency luminaires with LEDs

With emergency luminaires series 6009/1, which are explosion protected in dust hazardous and gas hazardous areas and which have been especially developed for LED technology, R. STAHL presents the latest development in the EXLUX product line and thus complements the LED luminaires product portfolio.

The installation material and the central lock are the same as the ones used for the various other types of luminaires of this product line. The mounting possibilities, from ceiling mounting to pole mounting, are as flexible as always.

Generally, the emergency luminaires are used in offshore applications and on ships – but they may also be used in other applications where the focus is on individually supplied safety luminaires. They achieve a degree of protection IP66/67 and are impact resistant according to IK10. Suitability for ambient temperatures ranging from -30 °C to +60 °C and effective measures against corrosion make universal applicability possible – from clean rooms

in pharmaceutical or chemical facilities up to the extremely harsh environments of the oil and gas industry.

All the exposed parts are made of robust plastic or seawater-resistant stainless steel. The luminaires are certified pursuant to ATEX and IECEx and also pursuant to the national certificates in the key markets. To make world-wide application easier and to facilitate storage, the input voltages range from 110 to 240V in 50 or 60 Hz circuits. Easy through wiring has been provided for. Fed from a single battery, every EXLUX 6009/1 ensures up to three hours of standard-compliant emergency lighting, pursuant to EN 60598-2-22 and EN 61347-2-7.

The luminaires are available in two versions. The shorter version has a wattage of 28W and provides a luminous flux of 2440 lm. The longer variants with a wattage of 52W achieve 4980 lm. Even in emergency operation, 30% or 21% of these values provide adequate visibility.

The battery units can be easily replaced and all exchangeable parts are mounted on the easily accessible reflector sheet, so obligatory maintenance can be carried out quickly and requires only minimum expenditure. Compared to fluorescent lamps, the LED technology furthermore ensures a longer service life and lower operating costs, so the products will be amortized soon.

For further information please visit: www.rstahl.co.uk

Explosion Proof C Rails & Light Crane Systems

J D Neuhaus, world leader in air hoists, cranes, trolleys and monorail hoists, is now introducing a range of C rail and light crane systems for operation with the company's established and successful mini air hoist range.

Both the C rail/suspension tracks and the light crane systems are rated for use in explosion and hazardous dust-laden areas up to ATEX Zone 2, 22.

Featuring high quality standard elements, the modular C rail systems/suspension tracks make for simple assembly and smooth movement of loads in accordance with individual customer requirements. The units, which are ideal for flexible material transport applications, are purpose-engineered to offer high durability when deployed in challenging environmental conditions.

Similarly, the light crane systems offer easy adaptation to load and operating conditions. Available in four standard profile sizes, design modularity again provides users with the opportunity for light and easy assembly, the result of which is smooth movement of the reinforced crane bridge and optimal space utilisation at low headroom conditions. Air delivery is facilitated via hose trolleys in the crane rail.

To help maximise system life, users can pick from a range of surface protections for the crane rail and trolleys, including coated, zinc-plated or chromated, while stainless steel is available as an option for lighter capacities of 100 and 200kg.

Both the light cranes and C rail/suspension tracks give provision for straightforward system extension to accommodate changing requirements over a working life.

The crane track length is fully selectable in accordance with customer requirements, while the bridge length can be specified up to a maximum of 6000mm as standard, with larger sizes available upon request. Track width is dependent upon the bridge length, but typically, a system with a carrying capacity of 125kg would dictate a maximum track width of 4500mm. This rises to 5000mm for carrying capacities of 250, 500 and 980kg.

The carrying capacities are of course determined by the choice of pneumatic hoist utilised. Here, JDN offers its mini 125, mini 250, mini 500 and mini 1000

models, which are not only offer lube-free operation for use in hazardous areas, but a price-competitive alternative in comparison with other types of powered hoist.

Principal advantages of JDN mini air hoists include minimal components for ease of maintenance, a wear-resistant motor braking system and suitability for horizontal pulling (in addition to conventional lifting and lowering). Where fitted with an extremely sensitive lever control featuring an emergency shut-off valve, lifting heights of up to 8m can be specified.

With over 200 employees across the group, J D Neuhaus GmbH & Co. manufactures pneumatically and hydraulically-operated hoists and crane systems up to 115 tonne capacity from its state-of-the-art facility in Witten, Germany. This globally unique specialisation means that J D Neuhaus has set the quality standard for the market, a move that has seen the company become the established global leader in its technology field with customers in more than 90 countries worldwide.

Resilience and reliability are the key product differentiators, thanks largely to their explosive protection rating which makes them ideal for use even in the most challenging of operating environments. Extreme applications include oil and gas exploration in arctic temperatures as low as 45°C, along with underwater tasks such as ship hull repairs, and plenty of others in demanding sectors like mining, the chemical industry, heavy plant construction and many areas of logistics.

The wide portfolio of services provided by J D Neuhaus includes equipment assembly, inspection, maintenance and general overhaul, along with the supply of customer training courses.

Over 80% of production from the Witten plant is exported, which is why the company has long-established subsidiary companies in France, Great Britain, Singapore and the USA, all of which have helped create a tight-knit global network in collaboration with international partners.



J D Neuhaus has history that can be traced back to 1745, and is now in its seventh generation of family ownership. Visitors to the Hebezeug-Museum (Hoist Museum) in Witten, are able to see for themselves the remarkable history of this progressive company.

Further information is available on request to:
J D Neuhaus GmbH & Co. KG, 58449, Witten-Heven, Germany
Telephone: +49 2302 208-219
Fax: +49 2302 208-286
e-mail: info@jdn-group.com
www.jdn-group.com

ELA Container Offshore GmbH on worldwide tour Numerous exhibition dates confirmed for 2017

ELA Container Offshore GmbH has confirmed to be exhibiting at numerous exhibitions in 2017.



Not only international exhibitions will be attended this year, but also international exhibitions in the fields of Offshore Wind and Offshore Oil and Gas. "Participating in leading trade fairs is very important to us, since this enables us to meet with existing customers, strengthen customer loyalty and introduce our products to a large audience", says Katharina Pleus, Marketing Manager of ELA Container Offshore GmbH.

OTC 2017, 1st – 4th May 2017, Houston, Texas

The exhibition year of 2017 will start for ELA Offshore at the Offshore Technology Conference (OTC) in Houston, Texas. At the exhibition, which will take place from 1st – 4th of May 2017, ELA Offshore will be exhibiting a three story offshore accommodation complex at stand 11905 in the outdoor exhibition area. "Especially for our newly founded US subsidiary – ELA Container Offshore Corp. – this is an important step to further establish our products on the US market. Our first orders have already proven that our concept fits well to the American market and we are excited to see how our intelligent and cost effective solutions for Offshore accommodation will be received in the dredging industry of the US Oil and Gas market", says Hans Gatzemeier, Managing Director of ELA Container Offshore GmbH and CEO of ELA Offshore USA Corp.

WINDFORCE Conference, 9th – 11th May 2017, Bremerhaven

Immediately after the OTC, ELA Offshore will participate at the WINDFORCE conference in Bremerhaven. ELA Offshore has been a sponsor of the event since 2013. In the years 2015 and 2016

ELA Offshore took part in the event as the main sponsor, resulting in the decision to stay loyal to the event and become a partial sponsor in 2017 and 2018. Apart from international specialist speakers, the conference offers great networking possibilities. "We see great potential in the Offshore-Wind industry. The WINDFORCE conference offers us a great opportunity to meet up with our clients and present our products and services", states Pleus.

Offshore WIND ENERGY 2017, 6th – 8th June, London

Another highlight on this year's exhibition schedule is the Offshore WIND ENERGY in London, which takes place every 2 years and is being organized by WindEurope. At stand N-S30, visitors will have the possibility to view a two story exhibition stand with many new features and new container types.

Offshore Europe 2017, 5th – 8th September, Aberdeen

For the second time, ELA Container Offshore GmbH will be exhibiting at the Offshore Europe in Aberdeen. ELA Offshore was able to secure a stand in one of the halls, after having had a stand at the outdoor exhibition area in 2015. "With the changing weather conditions in Scotland, we are happy to have booked a stand in Hall 1 for the year 2017. The stand is directly located at the entrance of hall 1, providing us with good visibility and accessibility", explains Pleus.

HUSUM Wind 2017, 12th – 15th September 2017, Husum

Immediately after the Offshore Europe in Aberdeen, ELA Container Offshore GmbH will traditionally

be exhibiting in Husum. At the outside exhibition area, an ELA Offshore accommodation complex will be assembled and presented. As part of a cooperation with the HUSUM exhibition, ELA-Onshore-Containers will be placed on the entire exhibition grounds, ensuring high visibility. Especially for the use of temporary accommodation in harbors, construction sites or for the construction of wind turbines, ELA field workers Thomas Nohrn and Karsten Klatte will be present to actively advise visitors.

Offshore Energy 2017, 10th – 11th October 2017, Amsterdam

The last exhibition planned for 2017, will take place for ELA Offshore in Amsterdam. Just like last year, ELA Offshore will be Platinum Sponsor to the event and demonstrate the many possibilities of temporary accommodation at stand 1.111. "We are happy that ELA Offshore will be present everywhere at the exhibition as a Platinum Sponsor. Moreover our Dutch team Frank ter Haak and Esmee Haak will give customers a warm welcome", says Pleus.

All showcased containers, as well as all high quality ELA containers are "Made in Germany" according to German quality standards and possess all necessary certifications such as DNV 2.7-1 / EN 12079-1, DNV 2.7-2, based on SOLAS, IMO FSS Code and MLC as well as CSC and are approved from several IACS-companies. In terms of fire resistance, an A60 insulation provides high safety standards. Every container will be checked before delivery. Depending on customer requirements, ELA Offshore Containers are individually customized, immediately operational and are available at short notice.

The main features of ELA offshore accommodations include:

- Flexibility on demand
- One base type with various accommodation solutions
- Easy handling thanks to standard 20 ft High-Cube ISO standard dimensions
- Highest quality standards

For more information about the company, its products and services, please visit www.ela-offshore.com

Titan Launches New Responsive Website

Titan Enterprises, a leading developer of high quality flowmeters and flow instrumentation, has launched a new responsive website (www.flowmeters.co.uk) which ensures visitors automatically enjoy a perfectly formatted viewing experience from a desktop, tablet or mobile device.



Dee Stapley, Sales Manager said, "The clean design of the new Titan website allows visitors to simply and quickly locate pertinent product information including the full technical specifications of our extensive range of ultrasonic, oval gear and turbine flowmeters as well as flow instrumentation. In response to customer demand we have produced a series of new selection charts which enables you to quickly select which Titan product is the optimum choice in terms of handling the fluid type, flow rate, maximum pressure and maximum temperature your application requires. In addition, visitors can quickly access service and support information, flow meter calibration services and find where their local sales agent is located. Located at www.flowmeters.co.uk the site is well worth bookmarking by anyone required to meter the flow of fluids".

For further information please contact Titan Enterprises on +44-1935-812790 / sales@flowmeters.com.uk.

Kentec Protects New Specsavers Site

Kentec gas extinguishing fire safety panels are playing an important role helping protecting Specsavers' new £12 million West Midland manufacturing and distribution centre.

A new fire safety system, designed and installed by life safety systems specialists Leader Systems LLP, comprises Kentec K11031 M2 Sigma XT Automatic three zone Extinguishant Control Panels with Apollo conventional Series 65 devices plus conventional sounder/beacons and bells from Klaxon Signals.

This major new Specsavers' facility at Kidderminster, Worcestershire will combine the company's existing operations in the area, and will allow the company to double capacity with room to grow in the future. As part of the firm's existing Kidderminster operations, Specsavers' International Glazing Services business glazes customers' frames with prescription lenses

for stores in Northern European countries. The Lens Online business stocks and distributes lenses and contact lenses to stores in the UK and Ireland.

Kentec's Sigma XT is designed to comply with the requirements of EN12094-1, EN54-2 & EN54-4. It features 3 detection zones as standard, where any zone or any combination of zones can be configured to release the extinguishant gas and allows delay in first stage sounder and detection to be configured, with an instant release facility by using the manual release option. The Kentec Sigma XT is compatible with Intrinsically Safe barriers, which makes it ideal for use in hazardous areas.



Kentec, leaders in extinguishant technology since 1985, were the first company to introduce an EN12094-1:2003 compliant extinguishing panel and were able to apply the CE mark showing compliance with the Construction Products Directive to any type of fire control panel.

For product information Kentec +44 (0)1322 222121 or visit www.kentec.co.uk

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Lancashire Based Air Compressor Firm Delivers Impressive Cost Savings to Arnold Magnetic Technologies

Arnold Magnetic Technologies is a global manufacturer of high performance magnets, precision magnetic assemblies and thin metals.

Arnold has thousands of customers in markets from consumer, industrial, medical, aerospace, and telecommunications. Arnold's magnets, metals and systems are used in high-efficiency motors, batteries, and solar panels, and on commercial aircraft.

Glaston Compressor Services Ltd is a UK leading specialist in air compressor intelligent control, air compressor maintenance, nitrogen generators and energy management systems. With a comprehensive portfolio of energy efficient products, Glaston works with a diverse range of industries.

Steve Roberts, Production Development Engineer at Arnold Magnetic contacted Glaston as they were experiencing failures to their air flow. The Efficiency Engineer at Glaston ran a thermal mass flow metering exercise to assess how efficiently their

current air compressor was performing. A flowmeter is connected to the airline to see how economical the compressor is. This service provided by Glaston offers guaranteed findings as it works out the cost to run a compressor for a year, based on compressor size, electricity consumed and cost of purchase.

Glaston recommended replacing the existing compressor with a KAESER HPC ASD-60 SFC variable speed unit. This compressor pushes the boundaries of compressed air efficiency as it delivers more compressed air for less power consumption, whilst combining ease of use and maintenance with exceptional versatility and an environmentally responsible design. The IE3 motor is extremely efficient and is eligible for 100% ECA in year 1. It also comes with a 5 year warranty.

Steve Roberts comments "Glaston delivered a first



class service. Their knowledge and expertise has saved us money. Our running costs have been reduced from £6.5k a year to £4.5k. We also have invested in a larger compressor which allows for future expansion. We look forward to our new compressor providing a long and efficient life."

For more information about Glaston Compressor Services visit: www.glaston.com

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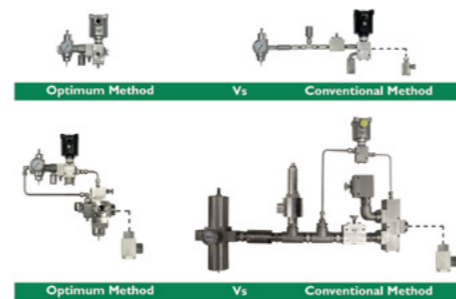
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details and a video outlining the above. You can also contact Bifold on +44 (0) 161 345 4777.

Bifold are dedicated to maintaining the excellence of their products and their new facility confirms their commitment to shortening lead times and meeting customer demands.

Bifold Group would like to take this opportunity to thank all their customers for their continued support.

Bifold Fluidpower Ltd
Tel. +44 (0) 161 345 4777
Web: bifold.co.uk

Shawcity Expand Their Product Specialist Team

Shawcity, the UK's leading specialists in monitoring instrumentation for the Health and Safety, Occupational Hygiene and Environmental markets, has just grown its Sales Team to support its ever-expanding customer base.

The Oxfordshire-based company has appointed three new Product Specialist Managers - Paul Cave, Peter Sherfield and Jonathan Whittam - to cover the UK and Ireland, each of whom offer a wide range of knowledge and industry experience.

Paul is a specialist in sales and business development with more than a decade of experience providing high tech solutions to the defence, nuclear, security, emergency services and HazMat response industries through working in partnership with a broad range of both government and civil organisations. Paul will be the main point of contact for Shawcity customers in the south east region.

Peter brings a wealth of experience to the team, with more than 30 years of key account management offering solutions to customers in the manufacturing, chemical, oil and gas, steel, construction, defence and food & beverage sectors with specialist product

knowledge including gas detection, dust monitoring and air quality. Peter will be the main point of contact for the south west area.

Jonathan, who has an MEng in Chemical Engineering from The University of Manchester, has technical knowledge of chemical, physical and biological processes, equipment and techniques used by manufacturers and safety issues within industry. Jonathan's skills in problem-solving combined with his ability to work with customers to identify their requirements gives an extra level of technical expertise to the team. Jonathan will be the main point of contact for northern England, Scotland and Ireland.

Neil O'Regan, Managing Director says: 'I am delighted to be able to announce such a strong new Product Specialist Team; their combined knowledge and experience along with our in-house technical



team, our service and calibration centre and our close relationships with manufacturers means we really do have all bases covered for our customers.'

For further information, please contact the Marketing Department at Shawcity Ltd:
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The High Cost of Exposing Workers to Chemicals at Point of Use

The tip-and-pour method, as well as poorly designed pumps, can expose workers to injury and companies to significant financial losses.



In the manufacturing of plastics, workers often transfer potentially hazardous liquid additives such as plasticizers, colorants, dyes, lubricants, antimicrobials, and flame retardants into smaller containers, vessels, or directly into tanks or machinery. At times, liquid solvents and cleaner used for maintenance may be transferred as well.

Chemicals such as acetone are also used in plastics machining and for 3D printed parts for vapor polishing, which when applied to the surface of plastic alters the finish to a high gloss.

However, this transfer of chemicals at the point of use, whether it's done in plastics manufacturing, fabricating or machining, can have serious consequences when manual "tip-and-pour" techniques or poorly designed pumps are used.

These chemicals are toxic, corrosive, reactive, flammable, emit volatile organic compounds (VOCs), or are even potentially explosive and the danger of accidental contact, even for short periods, can pose a severe hazard to workers.

In addition to the potential for injury, there can also be serious financial ramifications for the facility involved. The risks include the cost to treat injuries or perform cleanup, as well as workers' compensation claims, potential liability, OSHA fines, loss of expensive chemicals and even facility/production shutdown.

"It can be catastrophic to a company if toxic or highly flammable material is accidentally released at the point of use," says Deborah Grubbe, PE, CEng, and founder of Operations and Safety Solutions, a consulting firm specializing in industrial safety. "Companies have to assume that if something can go wrong during chemical transfer, it will, and take appropriate precautions to prevent what could be significant consequences."

Spiraling Costs of Loss of Containment
Grubbe, who has 40 years of experience working in the chemical, oil and gas industries, including at DuPont, NASA, and for the U.S. military, says "Any time you lose containment; you have an issue that can spiral out of control."

Corrosive chemicals, for example, can burn skin or flesh. Some chemicals are toxic when touched or inhaled. Cyanotic agents, for instance, can be particularly dangerous or even fatal, since they rob the body of oxygen.

Many chemicals are flammable as well and can be ignited by even the smallest spark from nearby motors or other mechanical equipment. "There is no such thing as a small fire in my business," says Grubbe.

In addition to cost of cleanup or treating injuries, there are also indirect costs that can be incurred. These include supervisors' time to document the incident and respond to any added government inspection or scrutiny, as well as the potential for temporary shutdown of the facility.

"The indirect costs can be as much as 2-4 times the direct costs," says Grubbe. "Not to mention potential liability, workers' compensation issues, regulatory fines or potential actions from OSHA or the EPA."

Chemical Transfer Techniques
Traditional practices of transferring liquid chemicals suffer from a number of drawbacks.

Manual techniques, such as the tip-and-pour method, are still common today. Tipping heavy barrels, however, can lead to overpouring or the barrel toppling.

"Some companies choose to transfer of chemicals manually, but it is extremely difficult to control heavy drums," cautions Grubbe. "I'd recommend against it because of the probability of a spill is so high."

Although a number of pump types exist for chemical transfer (rotary, siphon, lever-action, piston and electric), most are not engineered as a sealed, contained system. In addition, these pumps can have seals that leak, are known to wear out quickly, and can be difficult to operate, making precise volume control and dispensing difficult.

In contrast, sealed pump systems can dramatically improve the safety and efficiency of chemical transfer.



"A sealed, contained system is ideal when dealing with a toxic, flammable, or corrosive liquid," says Grubbe. "With sealed devices, like GoatThroat pumps, you can maintain a controlled containment from one vessel to another."

Small, versatile, hand-operated pressure pumps, such as those manufactured by GoatThroat Pumps, are engineered to work as a sealed system. The pumps can be used for the safe transfer of over 1400 industrial chemicals, including the most aggressive acids, caustics and solvents.

These pumps function essentially like a beer tap. The operator attaches the pump, presses the plunger several times to build up a low amount of internal pressure, and then dispenses the liquid. The tap is configured to provide precise control over the fluid delivery, from slow (1ML/ 1 oz.) up to 4.5 gallons per minute, depending on viscosity.

Because such pumps use very low pressure (<6 PSI) to transfer fluids through the line and contain automatic pressure relief valves, they are safe to use with virtually any container from 2-gallon jugs to 55-gallon drums.

Adoption of Sealed Pump Systems
East Coast Precision Manufacturing is a precision plastic part fabricator that machines many types of plastics such as acetal, abs, acrylic, nylon, PVC,

PTFE, phenolics, and polycarbonate. To improve the safety and efficiency of one of its processes, the Chester, Connecticut-based company sought to upgrade from a manual tip and pour method of transferring chemicals from a 5-gallon drum into a designated vessel.

"We wanted to avoid the potential strain or spillage of pouring from a 5-gallon drum," says Chris Marchand, an East Coast Precision Manufacturing engineer. "We needed a pump that was able to safely contain and resist aggressive chemicals."

As part of his online research, Marchand decided to utilize a sealed chemical pump system from GoatThroat.

"Because the GoatThroat pump system is sealed and uses low pressure to transfer chemicals, it prevents overpouring, spills, leaks, and keeps any potential VOCs contained," says Marchand. "We have found that it minimizes clean up and eliminates wasted inventory and content evaporation."

Marchand appreciates that an available version of the pump is safe to use around flammables because it is static conductive, and another version is explosion proof, though those capabilities are not required for his process.

He notes that the sealed pump system is easy to use, since operators only need to pump the plunger a few times and then open a tap.

"It is a much safer, more controlled approach than trying to lift and pour chemicals from a heavy 5-gallon drum," concludes Marchand. "We expect to get many years of use from our labor-efficient, flow engineered system."

For more info:
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Petrel Ltd provides a one stop solution for hazardous area lighting with LED products and a lighting design service all under one roof

The business operates in accordance with the ATEX directive which defines the mandatory requirements for manufacturers and users of all hazardous area equipment sold in (but not restricted to) the European Union which must have applicable ATEX certificates.



Above: ALED series arealight LED luminaire

Other countries accept the IECEx standard, which is derived from similar principles. As manufacturers Petrel design and construct products using a variety of different techniques and protection concepts to provide safety from ignition sources. These include for some products, the complete encapsulation of electrical and electronic components into resin or a similar nonconductive compound. In addition to the rigorous technical requirements demanded by the appropriate standards for each type of protection concept, the ATEX Directive imposes additional requirements on the certificate holder in terms of quality system, product documentation, installation information, possible limitations of use in the relation to its intended environment, labelling information etc.

Rightly proud of the "designed and made in Britain" status from a location in Birmingham UK, the Petrel manufacturing facility has an experienced team of

assembly operators and wherever possible, local suppliers are utilised to ensure that supply chain partnerships remain flexible and adaptable to the changing demands of customers and markets around the world. Alongside a strong value proposition of quality design and production, this flexibility in manufacturing supports a particular emphasis on short lead times to provide customers with a highly competitive solution.

During recent years the emergence of LED technology as a viable light source has driven considerable change throughout the entire lighting industry, providing more efficient and reliable lighting with a dramatic reduction in maintenance requirements. Petrel has embraced this technology shift and has used its in-house product design capability combined with more than 30 years' experience in hazardous area lighting, to develop a wide range of robust and durable LED lighting products.

A truly versatile product range is available covering both fixed and portable lighting solutions for a wide range of applications in Zones 1/21, 2/22 alongside a number of products suitable for general Industrial areas. Traditional lamp technologies are still available together with a wide range of LED products, in formats that include Linear, Wellglass, Bulkhead and Floodlight.

Recently, two innovative new products have been designed and added to the portfolio. The first of these is a highly durable portable LED work light, designed to withstand the harshest of hazardous area environments. Certified for use in Zone 1/21



the IP67 rated PLX portable was launched in 2016, and has quickly become the product of choice on a large number of Oil & Gas and Ministry of Defence sites. The very latest product to be added is a high performance Area Light which is available as a Zone 1/21, or 2/22, or as an Industrial variant. With a light output up to 24,000 lumens at 150W, this brand new product has class leading design, performance and efficiency.

With many years of experience in helping customers find the right lighting solution Petrel has recently launched a Lighting design service to complement its market leading range of products. Using cutting edge Relux visualisation software and AutoCad packages our design consultants are able to produce accurate and dynamic renderings with full 3D realisation of any project to ensure the most cost effective design is achieved. This free of charge service also includes full site surveys where appropriate or simply producing a design from existing site measurements.



More information about any Petrel products and services can be found at: www.petrel-ex.co.uk or contact the team on 0121 783 7161

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