

EMS

ENGINEERING MAINTENANCE SOLUTIONS

The International Magazine For Maintenance & Engineering Professionals

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WHAT'S NEW IN
SAFE, ELECTRICAL
MAINTENANCE?

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Implementing a calibration system?



Our calibration and IT expertise helps you face calibration process improvement projects that are typically complex and consume a lot of time and resources. Only 20% to 30% of a calibration system upgrade is tools and technology, the rest is business culture and process. Therefore, the success of a new calibration system depends especially on the implementation of the system and the ability to define and adopt a new calibration process. We are the experts in both technology and implementation, so you can focus on the opportunities, while we support and guide you in the evolution of your calibration system and successful implementation of the calibration process change. Learn more at: beamex.com/CalibrationProcessImprovements

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Contacts

Publisher

Michael Dominguez

Editorial

editors/contributing: Jon Barret, Christer Idhammar

Advertising

Steve Aslett
Paul Miles
Brian Simpson

Production

Tom Britten

Email

Info@engineeringmaintenance.info

Website

www.engineeringmaintenance.info

Phone

tel: +44(0)1634 731646
Fax: +44(0)1634 731644

Address

MSL Media LTD, Cobalt House, Centre Court,
Sir Thomas Longley Road, Rochester, Kent,
ME2 4BQ



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Current Denso UK Chairman, David Winn OBE joins the Company's 'Hall of Fame'

To recognise 50 years of service to his company, David Winn OBE, Chairman of the global specialist Denso anti-corrosion products manufacturer, Winn & Coales International, was presented with a recently completed portrait at the company's Christmas annual Dinner Dance in December 2015.

The portrait, painted by renowned artist Hazel Morgan, was commissioned as a special gift to honour his long service which culminated in spending the past 25 years as Chairman. Being only the third Chairman in the company's 133 year history to-date, his portrait will take its place in the London headquarters boardroom alongside portraits of his two predecessors, founder Paul Winn (1883 - 1946) and Frank Coales (1946-1991).



With 25 years already under his belt as Chairman David Winn is still going strong today and during his period of leadership the company has built upon the success of his predecessors and flourished into a truly international organisation with subsidiaries in the USA, Canada, South Africa, Australia and New Zealand. Adding to that an extensive network of loyal and longstanding agents and distributors, today the company is able to supply its product solutions to virtually anywhere on the globe.

Winn & Coales International, Chapel Road, London SE27 0TR
Tel: 020 8670 7511. Fax 020 8761 2456
e-mail: mail@denso.net | Visit: www.denso.net

Senceive, Subcontractor of the Year – Micro, at the UKRIA 2016 Awards

Senceive are delighted to announce that they were awarded the prestigious 'Subcontractor of the Year – Micro' Award, at the UK International Rail Awards 2016 which took place on the 11th February 2016.

Senceive were pleased to be shortlisted in two main categories

In the category, 'Subcontractor of the Year – Micro' Senceive stole the lime light. The tough, easy to deploy/re-deploy, low power 15-year life monitoring systems enable rail staff to understand how an asset is affected by major construction or maintenance works, to fix issues in congested environments without needing external cables.



For Further Details:
Email: khawksworth@senceive.com
or Call +44(0)20 7731 8269.

7000 series of Digital Moisture Meters

British made, the 7000 series Moisture Meters are compact hand held instruments designed for building professionals and tradesmen.

Both units incorporate an easy to read LED display. Five different colour coded measurement scales are included – wood 1, wood 2, plaster, concrete and a reference scale, measuring moisture over the range 0.1 to 40.0%.

Two specific models are available, the 7000 with a remote probe, and the 7250 with an integral probe. Readings are instant, precise and specific to the contact area of the two pins.



Optional extras include, colour-coded protective silicone boot – making the instrument waterproof to IP64 and preventing against accidental damage on site, a deep wall probe and a heavy duty hammer probe.

Each moisture meter is supplied in a protective zip wallet, and is competitively priced, at £60 each for model 7250 (order code 224-075) or £80 each for model 7000 (order code 224-070) - all prices are exclusive of VAT, available direct from www.etilt.com



For further information contact
Electronic Temperature Instruments Ltd -
Easting Close, Worthing, West Sussex
BN14 8HQ Phone 01903 20215
email sales@etilt.com

BOSCH GETS BIM READY

Bosch Commercial and Industrial has launched brand new Building Information Modelling (BIM) level 2 files for its market leading range.



Working with BIMstore, the easily accessible data provides important technical information on a system's lifecycle including, outputs, efficiencies, emissions, weights and dimensions. The 3D files will feature on BIMstore.co.uk and Bosch's website meaning those tasked with the design and build of the physical infrastructure can directly import them into a project plan to enable the system, or a particular appliance, to be monitored.

The new files cover the entire commercial boiler range, Bosch's industrial boiler offering, including the robust UT-M and UT-L models ideal for hospitals, office buildings and residential blocks, as well as the UL-S steam boiler, suitable for commercial sector use. Also covered by the new BIM files are gas absorption heat pumps and the company's innovative energy saving CHP range up to 400kWe.

With the files available to all parties working on a project including clients, consultants, architects, contractors and maintenance organisations the modelling plays a vital role in designing layouts and trouble-shooting problems all from off-site.



Pete Mills, Commercial Technical Operations Manager at Bosch Commercial and Industrial comments: "Forming part UK Government requirement for projects over five million pounds, Building Information Modelling (BIM) is changing the way we plan, design, build and manage our buildings, infrastructure, and utilities.

"With a wide range of energy efficient products available, suiting a variety of projects, it is very important we make the information widely available to those who need it. Through the launch of our BIM files, we're embracing the potential the technology holds and playing our part in simplifying the design process as well as it's the ongoing maintenance of facilities management."

For more information on Bosch Commercial and Industrial and its range of products and services, including its comprehensive CHP range, please visit:

www.bosch-industrial.co.uk

or call 0330 123 3004.

Alternatively, follow Bosch Commercial and Industrial on Twitter (@BoschHeating_UK) and LinkedIn (Bosch Commercial and Industrial UK).

King's Boilers Turn Waste Into Clean Energy

As suppliers to Anaerobic Digestion* Plants, King's Boiler Hire are well aware of the huge potential of AD and its ability to help businesses make use of waste products and create a more sustainable environment.

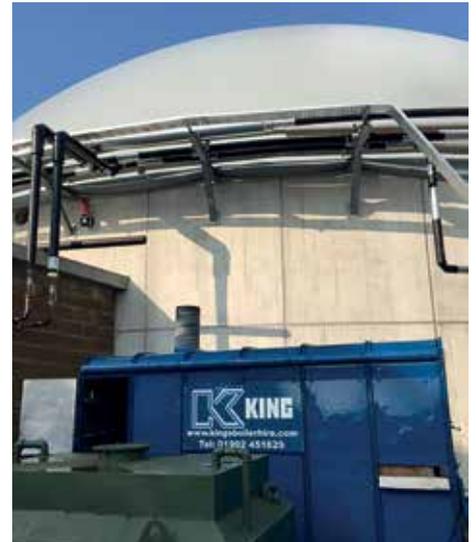
Anaerobic Digestion benefits many different groups; including the local community, industry, farmers, government and the environment.

King's Boiler Hire work with green energy specialists throughout the UK. One such company is Future Biogas, who specialise in the construction and operation of biogas plants. Their plants operate on a range of locally sourced biomass feedstocks to generate clean, reliable, renewable energy.

With two new anaerobic digestion plants under construction in Norfolk, Future Biogas needed hot water boilers for the initial start-up process and it was King's Boiler Hire that they contacted. With branches in nearby Mildenhall, King's in-house AD experts were able to discuss requirements and

delivery was promptly arranged. The first boiler, a 440kw unit, was delivered in October 2015 where a large anaerobic plant is turning pig and agricultural waste into biogas; enough to heat 4,500 homes in the winter and 60,000 homes in the summer. The second boiler, a 659kw unit, was delivered to their second site in November 2015 where the AD plant is to provide up to 4.7Mw of electricity.

**Anaerobic Digestion (AD) is the breakdown of organic material by micro-organisms in the absence of oxygen. AD produces biogas, a methane-rich gas that can be used as a fuel, and digestate, a source of nutrients that can be used as a fertiliser. Increasingly AD is being used to make the most of our waste by turning it into renewable energy.*



These are just two of the AD plants in the East Anglia region using the services of King's Boiler Hire to help turn waste into renewable energy. To find out how a King's boiler can boost your business speak to our experts today on +44(0)1992 451629 or Email sales@kingsboilerhire.com

Dialight's New Green LED Safety Shower Stainless Steel Luminaire Includes Integrated Battery Backup, Offers 5 Years of Maintenance-free Performance

World's First ATEX-Certified, IP 66/67 Rated Green LED Product Improves Safety, Withstands Extreme Conditions, Enables Easy, Stand-Alone Installation on Existing Infrastructure

Dialight (LSE: DIA.L), the innovative global leader in LED lighting technology for industrial applications, today announced the launch of its new SafeSite® Stainless Steel Green LED Linear Safety Shower luminaire that provides 5 full years of maintenance-free performance to ensure site safety. The new product is the first ATEX-certified safety shower luminaire of its kind with a built-in battery backup system for easy installation on existing wiring infrastructure.

The 2-foot stainless steel fitting is highly resistant to corrosive materials, and extremely durable for hot, cold, wet and high-vibration applications, such as offshore drilling platforms, chemical facilities and other harsh environments. An operating temperature range of -20°C to +60°C ensures reliable performance in any extreme climate including a full three-hour duration of emergency green light even at -20°C.

The system is designed to replace conventional fluorescent fittings that require frequent lamp changes and rely on green-coloured lens films that are prone

to peeling and fading. Unlike these high-maintenance products, Dialight's new stainless LED system uses green, long-life LEDs backed by a 5-year, full-performance warranty for exceptional reliability, improved safety and a dramatic reduction in maintenance costs and demands. The essential green colour required for safety shower applications is derived from the green LED's sealed inside, which ensures colour consistency is maintained with no need for externally mounted green films.

The fitting is L70 rated for over 100,000 hours of performance and dependable lumen maintenance, and the product is factory sealed with both IP 66 and 67 ratings for water and dust ingress protection.

The built-in battery eliminates the need for an auxiliary battery or UPS system that requires added wiring, infrastructure and maintenance. The Dialight product can be installed quickly and easily on existing wiring for fast retrofit and upgrade to a more reliable and cost-effective system.



"The rugged, low-profile design of our Stainless Steel SafeSite Linears has already proven to be superior to anything else on the market in a variety of applications," said Stuart Head, Product Manager at Dialight. "The addition of green LEDs and the built-in emergency battery pack make this an ideal product for safety showers, resolving all of the biggest challenges of conventional solutions in critical Zone 1 and 21 applications. Personnel safety is paramount to operators, and this product eases some of those burdens by offering a solid product, requiring minimal maintenance."

The product offers a wide range of mounting options including pole clamp, eyelet and surface mount, plus wall mounting at 30, 45, 60 or 90 degrees.

For more information on Dialight's full line of LED industrial lighting solutions for hazardous environments, including IES files, LM79 reports and technical datasheets, visit: www.dialight.com Or call: +44 (0)1638 665161.

Go for zero with Lockout/Tagout

Lockout/Tagout can save lives during machine maintenance and interventions in production facilities.

15-20% of workplace accidents can be avoided with Lockout/Tagout which is why the procedure should be part of any ambitious go for zero programme that bans accidents from the workplace.

Machine specific isolation

In principle, Lockout/Tagout isolates machines from their energy supply during interventions, which prevents them from being reactivated prematurely. To implement Lockout/Tagout in the workplace, machine specific procedures need to list the necessary steps to isolate every machine. Writing these specific procedures requires some expertise and a thorough knowledge of Lockout/Tagout principles. Brady Corporation supports companies in creating and writing safe machine specific procedures based on worldwide best practices.



Easily implement procedures

Machine-specific procedures need to be evaluated by several stakeholders, often spread out over various sites. Brady proposes the LINK360™ software to easily introduce, approve or edit, scale and communicate machine-specific procedures for Lockout/Tagout.

Once approved, LINK360 enables users to upload on-site pictures of the machinery and its energy isolation points. Once finished, the cloud-based software can print the machine-specific procedure for communication near its machine.

Tools & devices

To actively isolate a machine in line with the company-approved procedures, a number of lockout devices and padlocks are needed. For every energy isolation point, including handles, buttons, valves, levers and others, a Lockout/Tagout device exists that blocks them in the off-position. A padlock will lock the device itself in place so that machinery that is being serviced, cannot be re-energised accidentally.

With best practice machine-specific procedures, software to easily create and evaluate them, and the tools to isolate any machine from its energy sources, companies can avoid accidents during machine interventions and push a go for zero programme to the next level.

Request the Lockout/Tagout guide book 'Safer machine interventions' for more information about Lockout/Tagout via www.bradyeurope.com/lotoservices.

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Fluid Power Solutions Team Marks 15th Anniversary

After notching up more than 600 years of industry experience across more than 20 technical and product specialists, Brammer's Fluid Power Solutions team is celebrating another major milestone in 2016, marking 15 years since its inception.



With expertise in product specification, energy efficiency standards, preventative maintenance and health & safety, the team also manages an industry-leading portfolio of more than 22,000 product lines.

For further information please visit:
www.brammeruk.com

Cirrus Environmental launch new Project Planning Service for Construction Sector

Environmental noise monitoring specialists Cirrus Environmental has launched its latest Project Planning Service to meet growing demand in the UK construction sector.

Already one of the leading manufacturers and suppliers of environmental noise monitoring equipment in the growing environmental monitoring industry, Cirrus Environmental is consolidating its position with this latest end to end offering.

The new revamped service covers every aspect of environmental noise monitoring, from equipment and software, right through to specific siting and ongoing support and service.

Each Planning Service can be tailored to an individual client and also includes follow up support and recalibration services to ensure the equipment is effective for the duration of the project, no matter how long term.



To find out more information please visit:
www.cirrus-environmental.com .
Cirrus Environmental can be contacted on 01723 891722
or via sales@cirrus-environmental.com.

Timken Names Roellgen, Ruel and Connors to Executive Sales and Marketing Roles

The Timken Company (NYSE: TKR; www.timken.com), the world leader in tapered roller bearings, has named Andreas Roellgen and Brian J. Ruel to the positions of vice president of sales.

Ruel leads the company's selling team across the Americas, and Roellgen will oversee the Timken sales organization for the rest of the world.

In addition, Michael J. Connors will lead the company's marketing organization as newly appointed vice president of global marketing.

"These appointments are part of the new organization we've put in place to increase speed to market and streamline decision making," said Christopher Coughlin, group president and executive vice president for Timken, in making the announcement. "We expect to leverage the collective experience now captured with these bearing leadership appointments to improve both our focus and accountability with regards to driving profitable growth."

Connors joined the company in 1983 as a manufacturing engineer and later assumed a series

of management positions in manufacturing, product management, marketing and business development, including director of large-bore bearing manufacturing and vice president of manufacturing. In 2004, Connors was named vice president of industrial equipment and then president of Process Industries, focused on serving customers in heavy industry, power transmission and wind energy markets. Most recently, Connors was vice president of distribution. He received a bachelor's degree in mechanical engineering from Worcester Polytechnic Institute and a master's degree in business administration from the University of Hartford.

Roellgen joined the company in 1997 as a business development manager in the company's European headquarters in Colmar, France. In 2000, he transferred to the new business development team in Canton, Ohio. He returned to Europe in 2003 and held various positions including general manager of warehousing, logistics, replenishment and customer service, and



was named director of supply chain Europe in 2007. In 2010, Roellgen was named managing director of Europe and, most recently, served as vice president of Process Industries and managing director of Europe. Roellgen earned master's degrees in mechanical engineering from Technical University of Munich, Germany, and in business administration from INSEAD in France.

Ruel joined the company in 1984 as a sales engineer, later assuming a series of automotive business leadership roles, including director of sales, director of new business development for the Asia Pacific region and director of quality and customer satisfaction. In 2010, Ruel was promoted to vice president of light vehicle systems and also served as vice president of rail. Most recently, he served as vice president of the company's Mobile Industries business. Ruel holds a bachelor's degree in mechanical engineering from the University of New Hampshire.

For Further Details:
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BSRIA Sponsors Investment In Training Award

BSRIA Instrument Solutions is pleased to be sponsoring the Investment in Training Award at the Commissioning Specialist Association (CSA) 26th anniversary gala to be held at the Copthorne Effingham Park Hotel, on Friday 17th June 2016

Alan Gilbert, BSRIA Instrument Solutions General Manager, said: "BSRIA has long been supporting CSA, as we share similar corporate values and aims. The CSA Awards 2016 rewards the achievements of individuals and companies operating within the building services sector and we are delighted to be sponsoring this award again. We believe that for the industry to grow it has a responsibility to produce the next generation of engineers and we are proud to recognise those organisations who are investing in tomorrow's workforce!"



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FLIR GF343 Detects Hard-to-find Carbon Dioxide Leaks

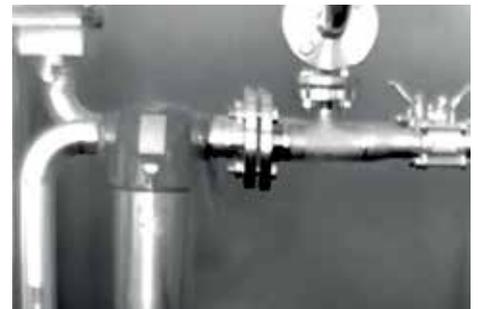
FLIR Systems GF343 is a high performance gas imaging camera designed to visually detect Carbon Dioxide (CO₂) in real time.

Incorporating a cooled Indium Antimonide (InSb) detector the FLIR GF343 is able to provide sensitive detection of even tiny CO₂ gas leaks. Carbon Dioxide gas leaks are displayed as plumes of vapour in the camera's infrared image.

Optical gas imaging using the FLIR GF343 is more effective than traditional CO₂ sensors because the camera scans a broader area much more rapidly enabling you to locate hard-to-find leaks more quickly. Because the GF343 lets you detect CO₂ gas leaks quickly, easily and from a safe remote distance it also offers significant advantages over contact measurement tools, particularly in difficult

to reach areas. A fixed mount version of the GF343 camera is available for inline tightness testing in quality assurance and manufacturing processes.

FLIR Systems GF343 OGI camera is a proven effective preventative maintenance tool for technicians and engineers seeking to inspect plant and equipment without interrupting the course of normal operations. Whether Carbon Dioxide is a by-product of a production process, a trace gas used to detect leaks from power generators, or part of an Enhanced Oil Recovery program, fast and accurate detection of a gas leak is key to keeping your operation running safely, efficiently, and profitably.



For further information on the GF343 OGI camera visit: www.flir.co.uk/ogi/display/?id=66607 or contact FLIR Systems on +32-3665-5100 / gasimaging@flir.com.

New RTV Silicone Adhesive Sealant Cures Fast!

Momentive's range of leading-edge silicone RTVs, available from UK based Techsil, are well used in the manufacturing sector to bond, seal and protect critical components.



Potential Applications include:

Sealing and bonding for Solar/PV module components; Insulating adhesive sealing and fixing for electrical and electronic parts; Waterproof sealant for electrical, electronic and communication equipment; General adhesive for metals, glass, and plastics.

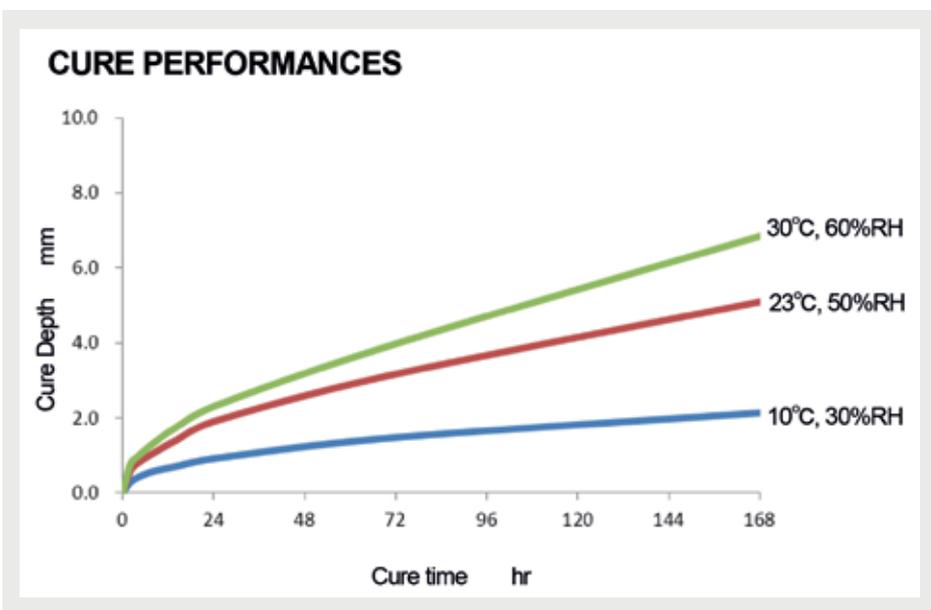


Their latest product to market is SnapSil TN8000 – a fast curing, one-component, flame retardant, RTV silicone adhesive. Easy to apply and versatile, it can adhere to many materials such as metals, plastics, glass and ceramics without the use of primers. Insulating and waterproof, it can be used in a wide array of sealing and bonding applications. SnapSil TN8000 adhesive is a one-component condensation-curing silicone rubber developed for bonding and sealing. It has a thixotropic paste consistency and exhibits excellent corrosion-free adhesion to many substrates such as metals (including copper), plastics, PPO/PPE, ceramics and glass - without the use of primers.

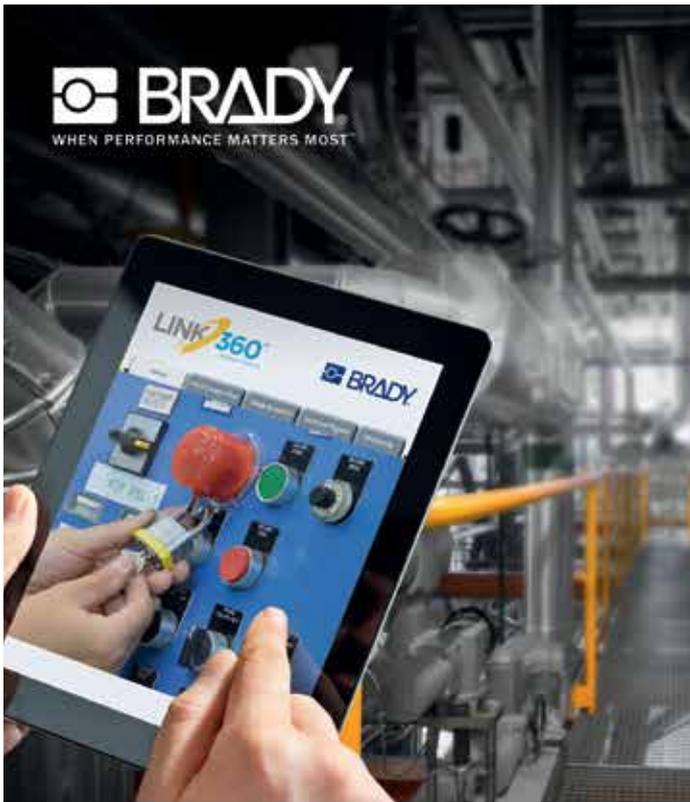
Key Features:

- Fast room temperature cure and neutral alkoxy cure type
- Primerless adhesion to many substrates
- All grades are flame retardant - UL94HB classified
- Excellent adhesion after extended aging
- High strength and elongation
- Impressive dielectric properties
- Excellent properties after high temperature & humidity (85C/85%RH)
- Very stable in storage
- Three colour options: White, Black, Grey

From automotive to healthcare, from electronics to construction, Momentive's silicone materials are practically everywhere you look. Momentive is a global leader in silicones with a 70+ year heritage of innovation and being first to market with performance applications that improve everyday life. Techsil are Momentive's RTV silicone distribution partner in the UK and Eire. They supply a wide selection of silicones for electronic applications and have a wealth of product knowledge and first hand application experience of real production environments. Working closely with customers they identify materials to overcome technical problems and provide innovative ways to provide significant production benefits.



For a datasheet and sample contact Techsil on: technical@techsil.co.uk



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Whitelegg at Drives & Controls Show 2016: Stand D680

The 2016 show will feature a major presentation of advanced Electric Motor Testing and Condition Monitoring Instruments from Whitelegg Machines.



Together with partners, Schleich GmbH, Whitelegg Machines of Crawley will be presenting a comprehensive array of advanced motor testing and condition monitoring equipment.

Spread across 6 workstations, visitors will have the opportunity to view hands-on demos of both off-line and on-line motor testing and analysis.

The range on display includes the portable Motatest 2, an economic and multifunction tester for many AC and DC tests for motors and windings up to 375kW

For testing operational (online) motors the Dynamic Motor Analyser will monitor the motor, power supply and load with automatic calculation of efficiency, torque, performance, harmonics, transients and many more. Also suitable for variable speed drive motors

This year sees the launch of the MTC2 Surge Tester offering partial discharge testing to EN60034-18-41 and incorporating a voltage analyser which measures the rise time and voltage at a motor's terminals

The new MTC3 is the only Fully Automatic Production Tester, fully configurable and incorporating, amongst other tests, Surge, AC testing and partial discharge.

The market for electrical white and brown good's testing is addressed by the new GLP2 Basic, a highly flexible multiple tester for safety and operational integrity in production, lab, test bench and QA environments.

Whitelegg are UK and Ireland sales and service and calibration agents for Schleich.

For further details visit:
www.whitelegg.com

New Cosasco® Bluetooth® Suite Provides Wireless Corrosion Monitoring

The new Cosasco® Bluetooth®-enabled suite installs in industrial pipes and vessels to monitor internal corrosion rates.



A Transfer Unit wirelessly configures and collects data, allowing users to determine the rate of metal loss and monitor the efficiency of chemical treatment programs.

The Cosasco Bluetooth Converter adapts legacy Cosasco instruments to communicate wirelessly with the Transfer Unit. Compatible Cosasco products include Microcor® ER, Electrical Resistance (ER), Linear Polarization Resistance (LPR) and Ultracorr® (Ultrasonic).

For further details please visit:
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The World's Sixth Sense®

What's New In Safe, Electrical Maintenance?

Keeping personnel away from energised equipment is of paramount importance but that doesn't mean operational efficiency can be neglected.



In short, EMSDs provide a cost-effective way for companies to comply with standards for maximum inspection safety while minimising commercial risk.

24/7 electrical asset monitoring

IRISS is a leading innovator in this field. It is best known for its polymer infrared windows and has recently added three new products to its portfolio. The first adds continuous monitoring to the company's capability list, both as a stand-alone system and as an addition to its patented window products.

Infrared imaging does a great job of detecting thermal anomalies caused by conditions such as loose connections, overhead circuits and unbalanced loads. It does, however, only provide a snapshot of the faults on the day of inspection, leaving the subject components unmonitored for the balance of the year.

To meet the clear need for continuous health monitoring, the IRISS range of electrical maintenance safety devices (EMSD) now includes Delta T Alert™, a self-contained, wireless temperature monitoring system that attaches to an electrical enclosure cover. It bridges the gap between infrared inspections by regularly recording and reporting critical temperatures within electro/mechanical enclosures.

The patented Delta T Alert™ unit is simple to install and comprises two temperature sensors. One monitors the interior temperature within the enclosure and the other, the ambient room temperature. Both are configured to collect data on a daily basis, at specific time intervals.

The data is wirelessly transmitted for analysis and trending and warns the operator if the internal temperature rises above pre-set thresholds. Remedial action can then be taken before the problem becomes serious and warrants unscheduled system shutdown, incurring costly downtime.

Productivity must be assured by systems that run optimally as losses are costly, not just in terms of output and reliable service provision but the company's reputation too.

Preventative maintenance is a key ingredient in this regard but meaningful quantitative test measurements can only be taken when the system is under load. It's a catch 22. How do you get the best indication of system health without compromising the safety of the maintenance team?

Inspecting the 'uninspectable'

A strategy that is gaining popularity is the adoption of electrical maintenance safety devices (EMSDs) that allow maintenance tasks to be completed while

the switchgear enclosure remains closed. Indeed, many companies are asking for these products to be incorporated by OEMs to the original product or system so it is 'safer by design', in line with IEEE recommendations.

So what is classified as an EMSD? Typically, they are devices such as, infrared windows for thermal inspection, ultrasound ports for airborne ultrasound, external voltage detection ports and voltage tap-off connection for motor current analysis. Inevitably they also allow the use of online monitoring systems to transmit data via wired or wireless sensor technology.

As no panels have to be removed, inspections require less manpower and lower PPE levels. They can also be conducted quicker and more efficiently.



Smart boiler plate

Also new from IRISS is an asset tagging system with a difference. In essence, the E Sentry Connect-IR Asset Tag is a smart boiler plate system that works with any make or model of infrared window.

While the majority of similar products operate using RFID technology, this new IRISS system works in tandem with a smart phone using near field communication (NFC). It's low cost and very easy to use, providing instant electronic access to inspection data to ensure quick, safe and effective thermal inspection.

IRISS E Sentry Connect-IR uses the principle of inductive coupling to transfer information between the tag and the smart phone. As the communication device powers the tag, no batteries are required.

The tag, which is activated when the phone is nearby, contains all of the information relating to the IR window and inspections that need to be completed, as well as historic data from previous inspections. It can also be programmed to automate tasks such as send a text message, go to a URL, launch an app and run a task on a smart phone; all stored data can be erased and re-written as needed.

The system can also back up the data, report alarms and transmit other alerts via the free IRISS app. As an option, this information can be uploaded to the cloud for access by asset managers. It provides a data exchange point for updating information from the inspections, for checking the assets' operational state and for setting inspection routes.

The IRISS E Sentry Asset Tag is now a standard feature on the IRISS CAP series infrared window and available as an option on the VP Systems. It can also be purchased separately to use as required.

In conclusion, the incorporation of EMSDs, either when the system is specified or when it's in the field of proving an excellent way of minimising multiple risks. They avert electrical fires, minimise loss of production and safeguard maintenance engineers. They are a win-win for any business.

This IRISS technology can also be specified as an integral capability of its polymer window products. The combination ensures the problem is verified with no operational disruption. The on-board Delta T Alert™ system sends a remote alarm giving the location of the problem and temperature details. The maintenance engineer can then conduct a thermal scan of the live system, through the IRISS infrared window, in complete safety.

Once the repair is completed and the system re-energised, a second infrared inspection will confirm the fault has been eliminated. The electrical enclosure can then be benchmarked and the system reset with the new baseline temperature delta.

The IRISS Delta T Alert™ monitoring system complements and enhances the safety and effectiveness of any electrical maintenance programme and its application is not restricted to electrical distribution systems, transformers and switchgear. It can also be used to monitor the health of a wide variety of motors and mechanical equipment, isophase and bus bar systems, controls and other enclosed systems.

Most durable infrared window

Infrared windows that are designed to withstand the rigours of the industrial environment and maintain accuracy are the products for which IRISS is already world-renowned. With the IRISS CAP-ENV, however, the company has set the bar even higher in terms of product durability. This new product is unequivocally the toughest and most reliable infrared window available and suitable for thermal inspection of energised equipment in the visual, UV and all three infrared wavelengths.

What sets this product apart from others in the IRISS range is a stainless steel housing complete with a reinforced, lockable door which is environmentally sealed to IP67/NEMA 6. IRISS CAP-ENV is therefore particularly suited to offshore, onshore or marine applications, exposed industrial environments and in climates characterised by temperature extremes.

These credentials are assured by a series of certifications and, in common with all IRISS products, the CAP-ENV is also protected by the IRISS unconditional lifetime warranty.



IRISS Ltd, Unit 2 Grafton Place, Montrose Road, Chelmsford, Essex, CM2 6TG
Tel: +44 (0) 1245-399-713
info-emea@iriss.com | www.iriss.com

MAINTEC 2016 SET TO TAKE THE NEC BY STORM

Maintec 2016, the UK's leading maintenance, plant and asset management event, will be returning to the NEC, Birmingham on 22 - 24 March with a new seminar programme, an expanded show floor and the latest industry innovations.

maintec 2016
NEC, Birmingham
22 - 24 March 2016



Exhibitors

Some of the biggest UK suppliers are on board, including show regulars such as Atlas Copco Compressors, Fluke, Flotech Performance Systems, Hansford Sensors, Shire Systems, AV Technology and UE Systems. They will be using the show to launch products to the UK market or unveil their very latest upgrades designed to cut costs, increase productivity, improve reliability and deliver a better ROI.

Shire Systems will be launching its new Pirana CMMS. Its fully integrated maintenance management system has cost saving and strategic decision making functionality. Plus, it has also introduced new mobile applications for work orders, materials and data collection, which can be used both online or offline.

UE Systems will present its new The Ultraprobe 401 Digital Grease Caddy Pro, which has the ability to measure, data log and trend the amount of lubricant used in order to optimise equipment maintenance.

Hansford Sensors will showcase its selection of market leading vibration monitoring solutions. This includes the HS-100 series – an AC industrial accelerometer that enables quick and easy measuring of vibrations in rotating machine components. It will also present the HS-620 Vibration Monitoring Kit, which enables maintenance technicians to measure bearing condition and levels of velocity, acceleration and displacement.

Keytracker will showcase its products including its original Peg in-Peg out board, Electronic Key Management Systems, Key Control Software and iLockerz Intelligent locker Systems

Technical Training Solutions will present its practical industrial engineering skills training courses, including Electrical and Mechanical Maintenance Skills, PLC Faultfinding, Instrumentation, 17th Edition Wiring Regulations, Pneumatics and Hydraulics.

Exel Computer Systems Plc will exhibit its Eagle Field Service system. The mobile management solution provides real-time information and resources to field based engineers directly to their mobile device.

Seminar Programme

New for 2016, the Maintec seminar programme will feature two keynote speakers every day, alongside a host of exhibitor presentations. Those in attendance will therefore have plenty of educational opportunities to hear about the latest industry trends and innovations throughout the three day show.

The keynote sessions will include Phil Reeves, Vice President of Stratays Consulting who will discuss the 'Potential for 3D printing in the maintenance function'. Paul Hingley, CMR Business Manager at Siemens Customer Services, will look at 'Where maintenance collides with Industry 4.0 and the internet of things'. While Alan Gane Maintenance Manager at Jaguar Land Rover will explore 'Developing Maintenance Skills', with more to be announced.

Complimentary shows

The show will once again be running alongside two highly practical co-located shows. The first of these is Facilities Management 2016, the UK's only event to focus on the large scale and multi-site facilities industry, which features a Cleaning Zone. This zone focuses on buyers and suppliers from within the cleaning industry and will include the top innovations at the heart of the facilities industry.

The second co-location is the Health and Safety Event, run by Western Business Exhibitions, a leader in the health and safety sector. As many Maintec visitors now have a wider FM and health & safety remit, these co-locations provide a perfect fit.

Visitors will be able to access all three shows with one badge, further demonstrating the commitment Maintec 2016 has to providing an educational and industry focused event.

Networking opportunities

In addition to having three shows under one roof, those in attendance will have full access to the Networking Bar throughout the event, where they will have the opportunity to meet with industry peers and network with like-minded individuals. Don't miss the Maintec 2016 official networking drinks on Tuesday 22nd March.

Registration is now open for Maintec 2016. Please visit the website or call: +44 (0)20 8843 8800 to register for free.

For exhibiting opportunities at Maintec 2016 contact Daniel Gray on: +44 (0)20 8843 8800 or email daniel.gray@easyfairs.com.

For more information on the show, visit www.maintecuk.com.

The Complete Maintenance Software Solution At Maintec..... And It's Affordable!

Shire Systems design and supply Pirana CMMS, the affordable, UK No 1 maintenance software solution. Stand M423

Pirana is becoming increasingly popular as the cost effective, quick start-up Maintenance Software choice. Shire also delivers a range of 'hands-on' training courses at their modern training centres, as well as free 'try-before-you-buy' regional roadshows. And if that doesn't convince, then there is always the fully functional free software trial.

All in all it's the complete CMMS solution. The team at Shire are uniquely experienced and are more than happy to offer help and advice on CMMS generally. Visit Stand 423 at Maintec.

Organisations are catching on to the benefits of the fresh looking suite of products and services from the award winning, UK based, Shire Systems Limited.

About Pirana CMMS

Pirana CMMS software is scalable and there are no hidden costs. The interface is incredibly easy to pick up; it's possible to get started in minutes. The layout is effortlessly navigated via the quick access icons and it's possible to boost usability even further by setting customisable components.

Besides being supremely easy to use and deploy, Pirana CMMS delivers a full suite of products providing the rich functionality that maintenance managers would expect from the market leader:

- Fully featured Asset, Meter and Task Registers
- Checklists and Condition Monitoring, supporting Servicing and Inspection
- Preventive Maintenance – Scheduling based on custom triggers, such as meter readings
- Predictive Maintenance
- Materials, Inventory and Purchasing control
- Costs & Charges Management Tools
- Management KPIs and detailed reports
- Comprehensive range of Mobile solutions

Conveniently, there are two setup options:

1. On-premise (installed on your own network)
2. On-demand (cloud).

The price performance of Pirana just goes to prove that organisations don't have to look towards expensive and



complex systems to meet maintenance goals. So if you want to extend asset life, cut costs, meet compliance and move towards your sustainability goals, then look no further.

FREE Roadshows

Shire has a regular schedule of free roadshows. Quite simply, it's a fantastic opportunity to experience the solutions first hand. The Shire Team are familiar with the most common concerns, whether switching systems or tackling CMMS for the first time.

Contact Shire to organise a free, fully functional 30 day trial.
www.shiresystems.co.uk
Telephone +44 (0)23 8022 4111
E-mail sales@shiresystems.co.uk

SPM Instrument - Condition monitoring expertise for every industry - Stand M104 at Maintec 2016

SPM Instrument, leading worldwide provider of condition monitoring technology offers a wide product range from high-tech portable instruments to online systems and comprehensive software.



SPM's portable instruments that will be at this year's show include;

Leonova Diamond

Leonova Diamond is a portable instrument for condition measurement in rough industrial surroundings.

Leonova Emerald

Leonova Emerald is a data collector in the Leonova line of portable instruments and sibling to Leonova Diamond.

BearingChecker

Lightweight and pocket sized instrument for fast measurement and evaluation of ball and roller bearing condition.

VibChecker

Cost-effective and user friendly portable instrument for on-site vibration measurement and assessment.

SPM Electronic Stethoscope

The SPM Electronic Stethoscope ELS14 is a new generation sensitive listening device, used to locate the sources of all kinds of mechanical noise.

Stroboscope 16936

The Digital Hand Stroboscope 16936 is suitable for non-contact RPM measurements and for observation of fast, repeated motions of machines.

Easy Laser Shaft Alignment D550 Extreme Ex

Easy-Laser® Extreme™ is one of the toughest and most robust measurement and alignment systems on the market for work in potentially explosive environments. Easy-Laser® Extreme™ is intrinsically

safe and complies with the latest ATEX standards for work in such environments.

Easy Laser Alignment E710

Easy-Laser® E710 is an alignment system that is complete in its full meaning. It does not just give you all the functions for shaft alignment, it also gives the opportunity to check the machine base and any bearing play using the standard equipment!

On top of the portable instruments, SPM will also be exhibiting Intellinova Compact and Intellinova Parallel our latest offering for online systems with the unique SPMHD and ENVHD technologies for superior bearing and vibration analysis.

SPM Instrument
www.spminstrument.co.uk

Effective Monitoring Of Vibration On Low Speed Machines

Slow speed rotating machinery (typically, less than 300 RPM) is commonplace in many industrial applications, for example; cooling towers, hydro-electric turbines and wind power generation.



To ensure this type of machinery and plant is functioning at optimal levels it's essential to measure vibration, as much as it is a critical requirement for standard speed machinery applications. In all cases the focus should be; understand the dynamic behaviour, establish a baseline vibration performance, and then to detect the early onset of failure in rotating parts which if left un-checked has the potential to result in more serious damage affecting overall performance.

Whilst the use of accelerometers is common place on standard speed machinery (i.e. 1500 RPM) this becomes problematic at lower speeds as the absolute accelerations measured are much

smaller in value for similar vibration displacements. Condition monitoring specialists SENSONICS have recognised the need for a sensor which can meet these requirements and has developed the VEL/GLF, a new LOW FREQUENCY VELOCITY VIBRATION SENSOR. The VEL/GLF is an electro dynamic sensor which offers a superior performance compared to piezo-electric devices by combining high measurement sensitivity with a frequency response down to 0.5 Hz and is therefore ideally suited to measuring velocity vibration on equipment with speeds below 300 RPM.

The sensor offers a standard IEPE type interface to enable easy integration with existing plant protection

and monitoring equipment. Furthermore, the VEL/GLF provides advantages over traditional piezo-electric based velocity vibration sensors which are susceptible to many forms of interference in low frequency applications that can result in spurious readings and alarms. Typical causes include; base strain effects due to temperature changes amplified through the internal signal processing, high frequency and high g vibration events caused by auxiliary machine items resulting in transducer saturation and also mains voltage interference due to a combination of poor local plant earth and insufficient transducer internal isolation.

Thanks to its robust design, the VEL/GLF combats these effects, offering high noise immunity due to the low impedance electro dynamic nature of the sensor assembly. In addition to the filtering of high frequency events and since no electronic integration is required, the design is immune to the saturation problems that impair the reliability of piezoelectric devices.

Typical applications for the VEL/GLF will be found in cooling towers, hydroelectric and wind power generation, slow speed pumps and also structural monitoring.

Further details on VEL/GLF sensors are available from:

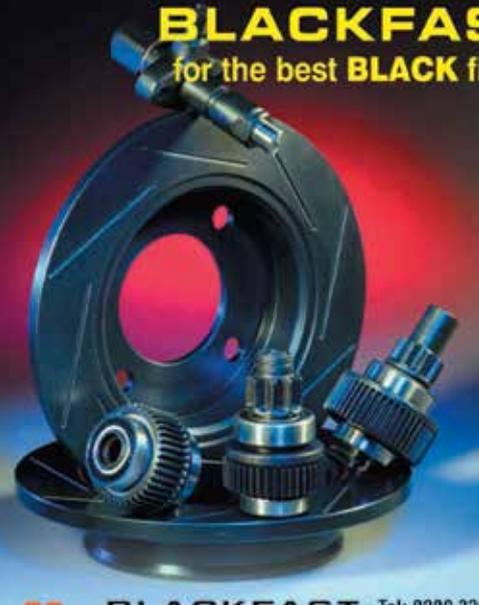
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PRUFTECHNIK – Market Leaders In Maintenance Technology – Stand Number M323

Pruftechnik are specialists in Rotating machine maintenance and monitoring systems.



For 40+ years we have been market leaders in the development of laser measurement and condition monitoring systems used extensively throughout UK industry.

The PRUFTECHNIK Group employs 500 people worldwide on whose commitment and know-how the high quality of our products and services rests. This knowhow extends to the supply of ATEX approved intrinsically safe equipment across the entire product range.

Laser Alignment - More than 10 generations of laser shaft alignment systems since the first OPTALIGN laser measurement system through to the all-NEW ROTALIGN touch system have ensured PRUFTECHNIK laser systems are market leaders in

terms of accuracy and simplicity of use. The laser measurement product range now encompasses multi coupling shaft alignment, roll (parallel) measurement, flatness, straightness and dynamic measurement of machine movement.

Condition Monitoring – for 25 years PRUFTECHNIK have continued to build upon the well established VIB..... range of systems. The current crop of vibration measurement systems presents a new pallet of tools aimed at providing fast intelligent portable and on-line CM systems which are simple to use but provide comprehensive data capture. The portable systems are headed by the VIBXPERT II dual channel analyser and balancer. On-line systems range from simple WIRELESS VIBCONNECT RF systems to the 140+ channel SIGNALMASTER systems for complex monitoring and analysis tasks.

Training, Service and Installation - To support our systems, we offer comprehensive customer support. Whether you need training, or our team of service specialists to run measurement tasks on your plant, we are committed to providing you with the highest standard of support available in the market.

At PRUFTECHNIK, we are committed to being your partners in the management of your rotating machinery. Contact us to discover more about the unique range of maintenance solutions we offer.

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maintec Stand 423
NEC 22-24 March

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Maintenance Management 4.0 - Softsols Group - Stand M324

The 2016 Maintec show is a very exciting one for SoftSols Group; at this year's exhibition we will be showing how our EAM and CMMS software solution Agility can be used to manage assets and maintenance in the 4.0 era.



Regardless of where you are on your journey into 'The Internet of Things'; whether you've already invested budget in new equipment or your route in will involve fitting sensors to existing equipment, we'll show you how you can manage your assets and maintenance with Agility.

With Agility Version 7, in conjunction with Agility Mobile Solutions we will show you how to monitor and measure asset performance and automatically raise and deploy work to the most relevant available resource.

Environmental changes, downtime and disruption can be detected with work requests automatically generated for; inspection by an engineer, changes to lubrication intervals or the office toilets to be cleaned. Keep your organisation running smoothly; with minimal administration and maximum efficiency.

Agility enables you to monitor, measure and maximise your asset performance and manage maintenance and services all in one system, giving you complete control in the new industrial age.

David Hipkin, SoftSols Group MD, will be running a seminar at 1pm on Tuesday 22nd discussing and demonstrating how Agility and the Internet of Things can be used to Manage Maintenance in the 4.0 era.

Visit stand M324 to meet the team and see Agility in action.
www.getagility.com

When health and safety depend on it - specify

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BVC's new range of vacuum cleaners have been specifically designed to meet the demands of industry and commerce.



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A schematic showing a typical Central Vacuum Cleaning System.

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Fluke ScopeMeter® 120B Series simplifies and speeds electro-mechanical troubleshooting

The new industrial handheld oscilloscope is the first with IntellaSet™ intelligent measurement detection that automatically displays the most relevant measurement value.

Today's industrial machinery is more reliable and efficient, but can also be more difficult to troubleshoot because of the complexities of its advanced systems. The new Fluke® ScopeMeter® 120B Series Industrial Handheld Oscilloscope is designed to address these challenges with innovative features that improve the speed, efficiency, and accuracy of troubleshooting complex electro-mechanical systems.

The compact ScopeMeter 120B Series features Connect-and-View™ technology that recognises signal patterns and automatically sets up the scope's triggering, amplitude, and time base, eliminating the typical trial-and-error setup process. Once the waveform is captured, the new IntellaSet™ intelligent measurement detection automatically selects key measurements based on the acquired waveform type and displays the most relevant measurement values (for example, Vrms and Hz for a line voltage signal, or Vpeak-peak and Hz for a square wave), helping technicians easily identify and characterise potential signal faults.

The 120B Series also features an Event Capture function that captures and identifies elusive intermittent events and lists all those events that exceed a predetermined threshold. This lets technicians identify key events quickly, rather than combing through large data sets, reading by reading.

As part of Fluke Connect®, a system of wireless test tools that communicate via the Fluke Connect® app, or Fluke Connect Assets software, a cloud-based solution that gathers measurements to provide a comprehensive view of critical equipment status, the 120B Series can automatically record waveform data to the Fluke Connect app on smartphones or tablets ensuring accuracy and eliminating manual recording of data. Those measurements are then wirelessly uploaded to the cloud and can be combined with measurement data from multiple Fluke Connect test tools to create and share reports from the job site via email and collaborate in real time with other colleagues, increasing productivity in the field.* Storing then comparing and contrasting waveforms of specific asset test points over time

enables maintenance engineers to better identify and troubleshoot conditions that can lead to failures.



The wireless 120B Series also allows technicians to place the meter in locations that are difficult to access or are potentially hazardous, then take measurements from a safe distance.

Information about all Fluke products can be obtained via the Fluke web site at www.fluke.co.uk.

**Within the provider's wireless service area and subject to the plan's pricing and other terms.*

For further information:
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Martin Potter Elected As New Chairman For The Air Treatment Committee

Martin Potter, general manager of BEKO TECHNOLOGIES has been elected by a ballot of the committee members as the new chairman for the Air Treatment and Applications Committee (formerly PCAT committee).

The British Compressed Air Society was founded in 1930 at the instigation of the British Government. It is the only UK Technical Trade Association open to manufacturers, distributors and end users of compressed air products, portable air compressors and services.

Society and its members have the following aims:

- To promote the use of safe and reliable power
- To improve the services they offer industry
- To encourage and help members to develop their professional competence.
- To bring the experience of members to bear on the conduct of business in industry for the common good.

The Society actively represents the interests of members and the compressed air industry to both United Kingdom Government, European and overseas Institutions.

There are currently five permanent committees:

- Compressors & Vacuum
- Industrial & Contractors Tools
- Air treatment and Control Group
- Distributors
- Education & Training

Martin says "I'm excited to be elected as chairman of this group, and very much look forward to helping the membership grow and see its members succeed with the support of the ATAC group"



BEKO TECHNOLOGIES Limited,

Tel: 01527 575778..

E-mail: info@beko-technologies.co.uk

Website: www.beko-technologies.co.uk

Come And See Beko Technologies At Air-Tech 2016

BEKO TECHNOLOGIES will be exhibiting at the Air-Tech show 2016 at the NEC, Birmingham from 12-14th April. Please come and see us in hall 3A at stand AF244.



With an extensive program BEKO TECHNOLOGIES stands for compressed air technology "at its best". For more than three decades, BEKO TECHNOLOGIES has developed, manufactured and sold high-quality, reliable and efficient components and systems for compressed air processing and condensate technology.

Our latest addition to the BEKO portfolio is our particle tester which can measure compressed air quality to class 1 of the ISO standards for compressed air which is essential for the food, pharmaceutical, medical industry and many more. BEKO TECHNOLOGIES can now offer the complete package for testing in compressed air, water, oil and particulate.

At our stand we will also have a working demonstration showing some of the key products

for monitoring and saving energy within a compressed air system. Featured will be our mobile METPOINT range which can measure the pressure, flow, velocity, dewpoint and remaining oil content in compressed air. Completing the range is our leak detector METPOINT LKD.

Our METPOINT flowmeters and dewpoint meters make it easy for customers to find out the quality and consumption of their compressed air with BEKO's simple, accurate measuring solutions. Our leak Detector offers a simple and inexpensive way of reducing air loss in compressed air systems- after all, up to 1/3 of all compressed air just goes to waste! We can also show how leak surveys fit hand in hand with flow monitoring to create an ongoing virtuous circle of improving energy efficiency.

We will also be showing our ÖWAMAT oil and water

separators and BEKOSPLIT emulsion splitting plant. Not forgetting our trusty BEKOMAT condensate drains along with our range of refrigeration and membrane dryers which will be prominent also.

Come and see our products, and more, for yourself at Air-Tech. You can also meet the BEKO team of compressed air professionals who have the knowledge and experience to give you the answers to your compressed air challenges. If you would like more information or would like us to send you a ticket, please contact us on 01527 575778.

BEKO TECHNOLOGIES Limited,

Tel: 01527 575778..

E-mail: info@beko-technologies.co.uk

Website: www.beko-technologies.co.uk

Is Your Workforce Able To De-Dust Safely?

Installed in just about every factory and workshop around the World, compressed air is second only to electricity as the most commonly used source of energy but it is generally not given the same due care and respect as to its potential dangers.



Case Study: Bridgewood UK



"Here at Bridgewood we trim, cut and rout plastic mouldings" says Iain Douglas, Technical Manager. "Operators need to clean down between operations and machine processes primarily to stop cross-contamination of different plastics and colours. We have tried various types of compressed air guns, nozzles and restrictors and quite honestly has been unable to find a suitable solution. We even investigated fitting OSHA compliant equipment, but the problem with the OSHA compressed air gun and regulated airline is the pressure was not enough to remove the plastic swarf from clothing!"

He continues, "Within a week of initially contacting ACI by telephone, I was visited by their Business Development Manager and given a quick demonstration of how the unit worked. I was so impressed with the unit's performance we purchased 11 units for the Hessele factory site" Iain states.

Unfortunately, people forget the hazards it poses if used incorrectly and this can have serious consequences – both for the employee and the employer - particularly if misused, such as for de-dusting/cleaning workers and their clothes.

With compressed airline pressures typically between 90 and 120 psi (6.2 and 8.2 Bar), misuse can be dangerous, even fatal. It takes only moderate levels of air pressure to cause harm. For example, it only takes 12 psi (0.82 Bar) pressure to dislodge an eye. At modest operating pressures (30 psi/2 Bar) air can penetrate the skin – through clothing - get into the bloodstream and enter blood vessels, causing death if it reaches the brain. It can even get under the skin via a cut to cause infection. A man is known to have died following a practical joke when a colleague

put a compressed air line between his legs causing serious internal damage.

To eliminate such risks and facilitate de-dusting and cleaning of personnel there is a completely safe alternative. Called the 'JetBlack', it is a blower power unit that cleans using high volumes of air at low pressure – not small volumes at high pressure as with compressed air.

Operating at less than 2.5 psi, it can be directed safely at exposed skin with no risk of harm. So it is quite safe for all personnel cleaning requirements.

The JetBlack, from Air Control Industries (www.jetblack-air.com), also offers the advantage of being much quieter with noise output being less

than 78dB(A), which is significantly quieter than compressed air and below the 85dB(A) level that can lead to hearing loss.

There are two versions of the ACI JetBlack. One is a wall mounted unit intended for fixed cleaning stations and the other is a portable unit ideal for cleaning and removal of debris/dust with minimal risk of injury caused by ricocheting rubbish. Both have a flexible hose and trigger-operated hand gun. The portable JetBlack can be supplied with an optional 'Deionisation' pack if static neutralisation is required.

For Further Information Please Visit:
www.aircontrolindustries.com
Or www.jetblack-air.com
Call: (207) 445 2518

MORE DISTRIBUTOR SUPPORT AT HI-LINE

Hi-line Industries Ltd claim to be the compressed air industries leading air treatment company, selling to the compressor service sector via their own well established distributor network.



The "North" will be in the capable hands of a veteran compressed air buff, Simon Bailey. Simon joins the Hi-line team from a German High Pressure Compressor manufacturer, and with over 20 years experience in compressed air, Simon is well placed to offer technical support to all Hi-line distributors.

Based in the centre of his region in Cheshire, Simon is on the doorstep of many Hi-line customers in the North of England. Currently in an extensive training programme with the Hi-line team, he will be supporting distributors by the start of the New Year with a focus on helping all of their resellers get added value from Hi-line and their products.

As part of their continued growth strategy, Hi-line have invested in two regional 'Distribution Support Managers, who are based geographically in the North and South of the United Kingdom, and also backed-up by internal dedicated support staff.

Simon is married to Carrie and they have a 4 year old son Oliver, and any free time available is spent cycling, circuit training or keeping fit.



Hi-line has also appointed a high calibre Distribution Support Manager for the South of the nation and this will be announced in the New Year.

Further information is available from:
 Hi-line Industries Ltd,
 5 Crown Industrial Estate, Oxford Street,
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ATS Electro-Lube (UK) Ltd Have Added Another Product To Their Well Proven Range Of Self Contained Automatic Lubricators.

The new Jack-Luber is a fully self-contained battery powered lubricator available with either a 125cc or 250cc replaceable grease cartridge.

Grease cartridges can be supplied filled with the specific brand & type of grease type required for the application & can be changed in seconds by the user.

As the Jack-Luber is a motor-driven lubricator, it can generate up to 250psi operating pressure, meaning that it can be used with long feed lines or in cases where there is high back pressure at the bearing.

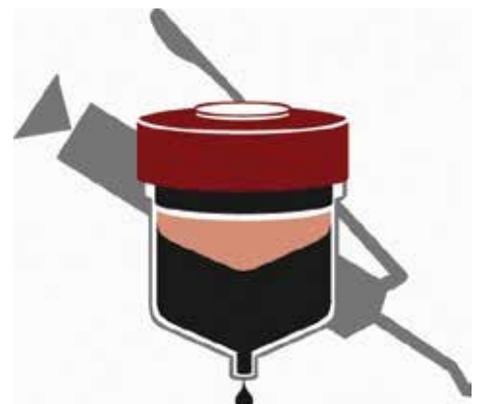


Jack-Luber Model 125 & Replacement Cartridge

The innovative new Jack-Luber incorporates a Jackscrew mechanism which reduces wear & therefore prolongs the operational life of the unit. Once activated, the Jack-Luber runs intermittently to supply grease on the optimum "Little and Often" principle. Integral switches allow users to set the required feed rate, allowing up to 2 years operation between cartridge/battery change.

The Jack-Luber is suitable for indoor or outdoor use and is not affected by changes in temperature. In addition, the Jack-Luber is certified intrinsically safe for use in hazardous areas.

This new addition fills the gap in the ATS Electro-Lube product range, fitting between the low pressure (50 psi) Electro-Luber Gas Series and the



higher pressure (900 psi) Ultimate-Luber Motor Drive Series.

Detailed information, including demonstration videos for the entire ATS Electro-Lube product range can be found at their new website:
www.atselectrolube.co.uk.

SICK Makes the Safe Factory More Productive at MACH2016

VISITORS to MACH 2016 are promised a glimpse of the future of industrial safety as the global market leader SICK continues its roll-out of next-generation safety products on stand 5969.



Safety and manufacturing specialists from SICK will demonstrate its new DFS60S Pro safety encoder, microScan3 safety laser scanner and deTec4 Prime safety light curtain, all designed to increase uptime and efficiency in automated production and warehousing environments through more dynamic safety.

"Dynamic safety is an enabler of improved productivity in the Industry 4.0 Smart Factory," explains Dr Martin Kidman, safety specialist from SICK UK. "We'll be introducing technologies developed to meet the needs of a more connected and fast-moving production environment.

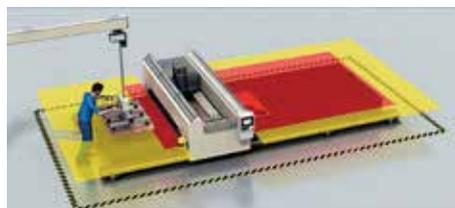
"Instead of cumbersome fenced-off areas that exclude personnel and introduce long downtimes when access is required, SICK is developing its industrial safety products to enable better human-machine collaboration through safe motion control and uninterrupted production with flowing protective fields."

SICK will be showing its DFS60S Pro incremental safety encoder, enabling motion to be safely monitored in Automated Guided Vehicles (AGV's) or

in machinery requiring frequent operator interaction. The DFS60S Pro enables safe operator interaction at reduced speeds without the need to stop the machine.

Especially when teamed with the Flexi Soft FX3-MOC Drive Monitor, the DFS60S Pro permits safe working without loss of productivity during routine operations such as piece part loading, magazine replacement, adjustment on machining centres or splicing of material on reel-fed machinery. Using a single DFS60S Pro, the rotating shaft speed can be monitored as part of a safety function with a required performance level of PLd / SIL2. If using two encoders, PLe / SIL3 can be achieved.

With the microScan3, SICK is launching a new generation of safety laser scanners at MACH 2016.



SICK has revised and optimised every detail of its laser scanner technology to set a new benchmark for individual safety and workflow efficiency.

With its patented safeHDDMTM scanning technology, the microScan3 has a compact and rugged design with a large 5.5m protective field and a scanning angle of 275°. The microScan3 is designed for long life, after which rapid device changeover is ensured through its Smart connectivity, configuration memory and easy commissioning with SICK's new Safety Designer software.

The versatile deTec4 Prime Safety Light Curtain, also launched at MACH 2016, adds extra functionality and flexibility to complement the highly successful deTec4 Core. The deTec4 Prime offers a scanning range up to 21m and is available in both finger (14mm) and hand protection (30mm), making it suitable even for exceptionally wide machines. Configured simply, it is suitable for a wide variety of applications. Commissioning is quick and safe and up to three deTec4 Prime safety light curtains can be cascaded minimising wiring complexity.

Concludes Martin Kidman: "With the deTec4 Prime, SICK has produced yet another functional safety device optimised for maximum uptime through ease of connectivity and quick commissioning whilst meeting the most stringent international safety standards.

"SICK has led the way in industrial safety for more than half a century and these latest product launches represent the next generation of devices, ready for use in the Industry 4.0 Smart Factory."

SICK will also be demonstrating its full range of Smart Sensors at MACH 2016, including the new Trisector 3D Vision Sensor, and its full industrial instrumentation product range.

For more information on the SICK range of products, please contact Andrea Hornby on 01727 831121 or email andrea.hornby@sick.co.uk

Chiller Hire Keeps Digester on Stream

A packaged chiller solution supplied by Andrews Chiller Hire enabled a waste processing plant to maintain full operational status of its anaerobic digesters by reducing elevated waste temperature by at least 10°C, creating an ideal environment for bacteria to produce usable gas output.



The company needed to reduce the temperature of waste to no more than 40°C, with approximately 90,000 litres of waste processed on a typical day.

The Process

Anaerobic digestion is the natural breakdown of organic materials into methane and carbon dioxide gas and fertiliser, the reaction is either naturally occurring or takes place within an anaerobic digester; an industrial process for handling large quantities of waste and a preferred environmentally friendly method.

There are essentially three main options for dealing with organic wastes:

1. bury it – a landfill option which is unpopular
2. burn it - which means incineration, gasification or pyrolysis
3. bio-digest it - which means either anaerobic digestion or composting

The process of anaerobic digestion provides a source of renewable energy, since food and other 'green' waste is broken down to produce biogas (a mixture of methane and carbon dioxide), which

is suitable for energy production. The biogas can be used to generate electricity and heat to power on-site equipment and the excess electricity can be exported to the National Grid. Also, after removing the carbon dioxide (and other trace gases using a variety of methods in a process known as upgrading) the remaining methane is known as Renewable Natural Gas or Biomethane. The uses for biomethane are therefore as varied as are those for natural gas, for heating, cooling, as a source of chemicals, fertiliser or hydrogen.

The Problem

When this major waste processing organisation experienced a slow-down in output due to an unexpected rise in waste processing temperature to 50°C, caused by equipment malfunction, it became too hot for the bacteria to produce gas. A call went out to Andrews Chiller Hire.

With more than 25 depots nationwide and access to experienced engineers 24hrs, seven days a week, Andrews Chiller Hire is able to respond promptly when an emergency situation occurs.

The swift reaction and local presence meant that Andrews Chiller Hire was able to conduct a thorough site survey within 24 hours of receiving the initial

call from the waste processing plant. It allowed a regional technician and the customer to liaise directly and make a swift decision about which size chiller would best suit their needs.

A stand-alone solution was required until their equipment could be repaired or replaced and put back on stream. To return the plant to normal processing duties Andrews delivered a total integrated solution including a 375kW chiller along with a generator and fuel tank to help bring temperatures down to the desired level. Once installed, the chiller reduced the temperature of the waste processing by 10°C, allowing proper bacteria reactions to take place and biogas manufacture.

Anaerobic digestion is the only system for dealing with organic waste which is sustainable, recovers the maximum energy, is a completely closed system with no emissions to air or land, which retains the fertiliser and water content, and facilitates the recovery of heavy metals

The intervention of Andrews Chiller Hire meant that the environmental waste company was then able to begin reproducing gas, feeding a turbine to re-start electricity production from the digestion plant.

Andrews Sykes Hire Limited
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Take a Deep Breath

By Tony Hopkins, Business Manager Products at Nederman

Breathing can be defined as the passage of air into and out of the lungs to supply the body with oxygen.



A simple involuntary act the vast majority of us take for granted. However, in a workplace without adequate dust or fume control, that simple act could be contributing to short or even long term health problems.

Workers in bakeries, paint sprayers and those who inhale solder fumes in the electronics industry are susceptible to Occupational Asthma. Welders can suffer from Chronic Obstructive Pulmonary Disease, whilst Occupational Alveolitis can develop in employees in food processing industries. Those who work with asbestos, nickel or chromium risk Lung Cancer.

The Control of Substances Hazardous to Health (COSHH) regulations, part of the Health and Safety at Work Act, places a duty on employers and employees to ensure that exposure to hazardous substances is either prevented or adequately controlled.

Where this exposure is caused by the potential release of hazardous dust or fumes into the air, the release must be controlled. This is achieved most effectively and economically by the use of Local Exhaust Ventilation (LEV) which aims, by the use of

effective hooding, booths, etc., to capture the dust or fumes at source and protect not only the process operator but also his or her colleagues in the general factory environment who would also be at risk should the dust or fumes be allowed to escape. The Health and Safety Executive has published a guide to LEV, HSG258 'Controlling airborne contaminants at work', aimed not only at the suppliers of LEV systems but also the employers and their representatives whose duty it is to manage these systems and prevent exposure of their workforce to airborne hazardous substances.

Regulation 9 of the COSHH Regulations requires that thorough examination and testing of LEV systems is carried out at least once every 14 months, however in some instances the testing intervals are much shorter. For example, processes involving the abrasive blasting of metal castings require monthly testing, whilst dust or fume generating processes in the non-ferrous casting industry require testing every 6 months. Employers not adhering to the required test frequency, or often not having any testing done at all, are putting their company at risk of enforcement action from the HSE. Furthermore, it puts employees at risk from potentially underperforming LEV systems that are



not providing an adequate level of control. Often a reduction in effectiveness of an LEV system can be a simple maintenance issue. This can include the need for new filter media, new fan belts or even wear and tear in the ductwork that can cause leaks and reduce the amount of air available at the point of dust or fume generation. This can be highlighted in an LEV report and suitable action can be taken.

Working closely with the HSE, the British Occupational Hygiene Society (BOHS) has developed the course P601: Thorough examination and testing of Local Exhaust Ventilation systems. Successful completion of the course enables an engineer to competently evaluate the design and effectiveness of LEV systems and their component parts, undertake the statutory testing in line with established procedures and record the results in a suitable format.

Nederman has a dedicated team of engineers P601 qualified to inspect, test and maintain all types of LEV systems irrespective of its design or manufacture and they are regionally based throughout the UK to provide nationwide coverage.

Nederman is a world leader in industrial air filtration. They are specialists in solving problems relating to fumes, gas, dust, recycling, working conditions and an efficient production environment. Many Nederman solutions have been ground-breaking innovations within the metal fabrications industry, vehicle repair shops, plastic and composite processing, the chemical, food and woodworking industries and many more. Services cover everything from project planning to installation, commissioning, testing and maintenance.

Tony Hopkins
Nederman Ltd
91 Seedlee Road
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PR5 8AE
Tel : 08452 743434
Email: info@nederman.co.uk
Web: www.nederman.co.uk

AIR OPERATED HOISTS ARE THE SAFE CHOICE FOR SPRAY BOOTH OPERATIONS

Air hoists from the J D Neuhaus Profi range have been successfully utilised within a paint booth to facilitate the movement of material in and out of the booth.



The installation has helped to boost productivity and was carried out by Engineered Lifting Systems (ELS), a major representative in the USA for the J D Neuhaus (JDN) range of high performance air operated lifting equipment.

ELS are particularly proud of this upgrade, carried out for a spray booth operated by one of their customers. The customer is equally pleased with the improved performance and increased output they have achieved, as well as maintaining a high finish level for their product lines.

The handling of components, designated for spray booth coating operations, had previously been undertaken utilising two manually operated chain hoists located on an overhead rail running the full length of the booth. The hoists provided the necessary lift and full horizontal travel movements required for work pieces being sprayed, with all the manual actions necessary being undertaken by the spray booth personnel. With individual loads of up to 2 tonnes being catered for, it was obvious that fully mechanised load movements would improve working conditions, increase productivity and potentially enhance finish quality.

ELS was both happy and confident to recommend the JDN Profi 2TI air operated hoists to their customer as the logical replacement for their existing pair of manually operated chain hoists. The choice of air operation throughout (for both lifting and load horizontal movement functions) ensured that the new hoists covered NEC ruling requirements to meet or exceed NFPA 33 standards. In fact the JDN products have a European rating EX II 2 GD IIA T4 / II 3 GD II T4 as standard, providing safe operation within hazardous or potentially explosive atmospheres as can exist in spray painting operations. Even higher safety ratings can be accommodated where increased spark protection is specified to achieve the EX II 2 GD IIC T4 safety standard.

The JDN hoists operate within an air pressure range of 4 or 6 bar, and when being used at the higher pressure rating a lift capacity of 2 tonnes per hoist is available, combined with a full load lift speed of 2.7 metres/min being achieved. All lift and load traverse movements are undertaken using pendant controllers (single handed operation), with a pendant

drop length provided to ensure that it can fully clear any freshly sprayed objects as well as providing a good working clearance for the spray gun operator. The hoists are suspended from trolleys running on the overhead standard beam, so providing the horizontal load movement. Each hoist is fitted with an airline filter regulator unit and a steel chain retention box, together with a muffler/oil collector to prevent spent oil mist dripping onto newly painted products.

The JDN Profi TI range of hoists are very robust and include units with individual lift/load capacities from 250kg up to an impressive 100 tonnes. These hoists may be used for oblique pulling under special safety provisions. In addition, hoists can be fitted with optional trolleys which run in an overhead support beam to provide horizontal load movements. Trolleys available include manual, reel chain or motor operated versions, depending upon the degree of mechanisation required.

The lift/lower and travel movements where incorporated are controlled with pendant hand controls. 3 metre lift chains and pendant control air supply leads are provided as standard, with other specific lengths available to suit user requirements. Optional operating systems are available including rope control, together with sensitive, single speed and multi function controllers, as well as both remote control and electropneumatic interface units.

These JDN products are suitable for safe operation within hazardous areas and provide lube-free operation with no downtime. They are also 100% duty rated, with unlimited duty cycle capability and featuring fail-safe starting. They are also insensitive to dust and humidity as well as environmental operating temperatures ranging from 20°C to +70°C.

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

Belzona SuperWrap II Saves Failing Seawater Filter Vessel

During March 2015, an offshore Oil and Gas platform contacted Belzona requiring a unique solution for the repair of a seawater bulk media filter vessel.

Located in the Gulf of Mexico, USA, the bottom of the vessel was suffering from an internal leak due to internal corrosion at coating holidays. Furthermore, the damage involved a combination of both thin and a through-wall defect, posing a repair dilemma without emptying the entire vessel's contents.

In terms of functionality, seawater bulk media filter vessels simply remove the sediment and grit from the seawater pumped up to the platform. As the seawater enters at the top of the vessel, it passes through the bulk media, leaving the unwanted remains trapped in the beads of the media. Subsequently, this lean liquid is collected and drained for many uses that cover both on board and off procedures; in this case water flood injection.

Suspended particles in the seawater can cause continuous abrasion to the vessel lining, which in combination with the highly corrosive salt water, creates an extremely destructive environment. In this



Above: Leaking seawater filter vessel



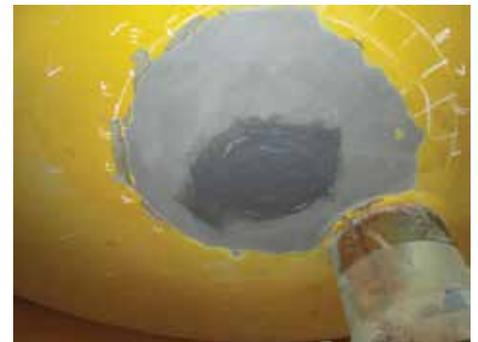
Above: Belzona 1212 heals thin and through-wall defects

instance, it had caused the vessel to leak due to a failure with the underdrain system. Consequently, the asset owner decided to use a bolt to arrest the leak, until a permanent compliant solution was implemented. Following investigation of alternatives, evidence suggested that competitor products were unable to provide a sufficient composite patch; therefore the customer selected Belzona SuperWrap II in order to complete the repair.

After careful selection, supported by an engineered design, the application was carried out in compliance with ASME standards. At the outset, the bolt plugging the hole was removed, allowing the remainder of the filtered water to be drained and complete access to the defected area. The through-wall defect was plugged first using Belzona 1291 (ES-Metal), a malleable epoxy compound that was shaped to fit the prescribed affected area. Highly adhesive and water resistant, the compound provided an excellent temporary solution to stop the vessel's leak. The original vessel coating was then removed by hand sanding before the carbon steel substrate's thin and through-wall failings were rebuilt with Belzona 1212. Designed to adhere to wet, oil contaminated and underwater substrates, this surface tolerant material was the most suitable repair solution for the aqueous environment.

Following the thin and through-wall repair, the substrate was then cleaned to the requirements of SSPC SP 10 (Near-White Metal) by abrasive blasting. In reference to the design, three wraps (6 layers) of Belzona SuperWrap II were applied to the repair area to reinforce the bottom of the filter vessel. This composite wrap was chosen because of its application versatility and proven efficiency with repairing weakened and holed vessel walls. Using Belzona 1121 (Super XL-Metal) epoxy resin to create a mould of the vessel's surface, the Belzona SuperWrap II repair was consolidated by applying pressure against the template, creating a secure and tight seal around the defect.

The customer chose Belzona SuperWrap II because of the long design life and overall ease of the repair



Above: Belzona SuperWrap II applied as per engineered design

process versus traditional welding methods, which can incur a number of health and safety issues. By using a composite patch they were able to avoid emptying the entire vessel, including filter media, hence saving a considerable amount of downtime and labour.

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DuPont™ Kalrez® perfluoroelastomer parts (FFKM) were developed some three decades ago and have delivered outstanding sealing reliability throughout, even in the most aggressive production and processing environments.



These high performance products are available in the UK from authorised distributor Dichtomatik Ltd.

The Kalrez® parts improve sealing reliability particularly in conditions where high heat, aggressive chemicals and plasma are utilised. Aerospace and downhole oil and gas applications were some of the first successful applications of Kalrez® products where seal failure was unacceptable. An outstanding resistance to fuels, additives, lubricating oils and corrosive chemicals has ensured the high durability expected and achieved with Kalrez® products. They also provide a broad chemical and high temperature resistance to acids, amines, ultrapure de-ionised water and strong bases etc. This ensures that chemical/hydrocarbon processing plants can run hotter, longer and with a wider range of chemical

products while also providing substantially increased MTBR times and improved operating safety.

With a combination of thermal and chemical performance as well as rubber-like sealing ability Kalrez® FDA compliant seals offer the pharmaceutical, food and beverage industries the highest level of protection against product contamination and seal failure. Within electronics manufacturing operations, unplanned maintenance due to incompatible sealing materials can also be dramatically reduced.

A typical example for the application of the Kalrez® products is their use as replacements for metal 'O' rings in a gear pump application, operating at temperatures up to 327°C and 100 bar pressures

within the chemical process industry. The installation involved exposure to highly aggressive media, as well as fluctuating internal sealing forces within asymmetric pump housings when pumps were situated within reactor environments. Long-term reliability and stringent performance were an absolute necessity, and operating times in excess of 10 years have been achieved without the occurrence of production problems through the loss of sealing performance. The changeover to Kalrez® seals was so successful that they are now fitted as standard equipment to the manufacturer's extensive range of gear pumps. The need for regular dismantling and re-assembly of pumps through seal failures has been eliminated, leading to cost savings through reduced maintenance and significant savings in production downtimes.

Superior chemical resistance to more than 1800 chemicals is provided while chemically induced swelling of sealing products can be eliminated, even where concentrated nitric acid, sodium hydroxide, ethylene diamine or even super-heated steam is involved.

Further information is available from:

Dichtomatik Ltd, Donington House,
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e-mail: kalrez@dichtomatik.co.uk

www.dichtomatik-kalrez.co.uk

Quick Hygiene Test For The Brewing Industry

Some of the major challenges for brewers are to make safe quality beer that maintains consumer confidence, while meeting retailer expectations and minimising both costs and wastage.



This has been achieved in many microbreweries by using a simple rapid test, to determine the hygienic quality of their production equipment and working surface areas.

Langham Brewery is a successful small independent steam-powered microbrewery situated between the West Sussex towns of Midhurst and Petworth in the beautiful South Downs National Park. Lesley Foulkes and James Berrow, Langham Brewery's partners, attribute much of the brewery's success in producing quality and consistent beer to maintaining high sanitation processes and keeping the busy brewery operations spic and span. A core part of these processes is achieved utilising the SystemSURE Plus products from Hygiena International for the quick and accurate ATP testing of surface areas.

Langham have been using Hygiena International's cleaning systems since 2008. ATP testing is a simple and affordable test method which verifies cleaning effectiveness in seconds. The science is based on the detection of organic residues on surfaces and in water samples using a bioluminescent reaction. Pen-shaped test devices contain a modified firefly enzyme that reacts with organic material to produce light, which is then measured in a handheld meter (called a luminometer) about the size of a TV remote control. The luminometer converts the light output into an RLU number (Relative Light Unit): the

lower that number, the cleaner the surface (or less contamination in the water sample if a CIP system is being tested).

The brewery relies on quick turnaround. As soon as a tank is emptied it is immediately deep cleaned ready for the next beer. The brewing team all are trained how to use the ATP meter to instantly validate their cleaning procedure. The ATP meter indicates what is clean and what is not clean. If occasionally a higher ATP level is indicated then another caustic cleaning cycle is undertaken, until the score gives confidence that the vessel is clean enough to ensure the quality and consistency of the next brew.

Established in 2005, Langham Brewery has been trading for eight years and is well known for its award winning beer – having more than 22 awards to its name, with six in 2015 alone! Its mission is to produce innovative, distinctive and flavoursome cask-conditioned real ales using the finest quality ingredients and traditional craft skills.

The brewery was hand-picked by the Food Certification Body SALSA (Safe and Local Supplier Approval), Cask Marque and SIBA as one of only 4 breweries to trial a new brewery focused standard for beer, "SALSA plus Beer". They successfully achieved this, and the standard was launched across the UK on the 30th of June 2015. SALSA

plus Beer allows small breweries and bottlers across the UK to follow a dedicated standard that gives confidence to customers and retailers that their beer is safe, and more importantly, of excellent quality and consistency. The aim is two-fold: to raise quality and compliance standards within the sector and to provide strengthened confidence for both retailers and 'on trade' buyers.

SALSA is a recognised food safety certification scheme that is widely accepted by both retailers and food service providers. It is a joint venture between four major trade associations representing the UK food chain and is administered and operated by the Institute of Food Science and Technology. A core element of the SALSA standard is strong and provable hygiene.

For Langham Brewery, the peace of mind brought by the SystemSURE ATP quick validation tool reinforces confidence in Langham's quality control systems, and what better proof of that than their SALSA plus Beer accreditation.

The practical benefits of ATP hygiene monitoring have been well proven and established for over 20 years. Ogden et al (1993) at the Green King brewery showed that the technology was used to change the assessment of brewery hygiene from a "retrospective exercise into a positive preventative measure" because "it detects 'soil' and not just microorganisms, it is likely to give a more accurate representation of the condition of the plant". Any unacceptable soiling is detected and used to positively release equipment into manufacturing. Over a one year period, the improvement in the pass rate on different vessels ranged from 27% to 90%. One recurring problem was found to cause 50% of all failure and it was quickly identified and remedied. The benefit from the ATP test included:

- Financial savings due to improved quality control and avoidance of spoilage
- Improved production efficiency (right first time)
- Improved confidence in product quality
- Increased motivation and productivity of staff

Further information is available on request to:
Hygiena International Ltd, Unit E, 3 Regal Way, Watford, Hertfordshire WD24 4YJ
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