

INDUSTRIAL PROCESS NEWS

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IPN

Retail security dilemmas solved with ShopShield

This summer, countless retail, hospitality and entertainment properties across the whole country are standing closed and forlorn as a consequence of lockdown destroying their business one way or another. And, no matter what it says in their lease, tenants who have run out of the wherewithal to pay rent, arrears and monthly outgoings, won't worry about security for their abandoned premises. The responsibility, therefore, inevitably falls back on the sometimes-beleaguered landlord who has his own finance issues to deal with. Unfortunately, these empty units are like an open invitation to thieves, vandals, arsonists or squatters, even fly-tippers if there is an inviting forecourt to dump on. Landlords can well live without all this in terms of time and further cost.

Commercial security specialists, Clearway, have stepped into the breach with exactly what's needed to stop both criminals and mindless vandals: ShopShield One, a fixed-price,



retail security solution that is simple, affordable and ticks all the necessary boxes to keep the premises safe and secure until new tenants can move in.

Like an easy to understand and buy, one-stop-shop solution, ShopShield One will cover replacement locks, a temporary letterbox seal, Key safe and flammable waste removal. A comprehensive risk assessment is also carried out to highlight any other issues, for which a set of bolt-on services is available to provide additional security measures tailored to the individual needs of your premises.

www.clearway.co.uk/shopshield
T 01322 479652
enquiries@clearway.co.uk

SWEP fulfils All-Stainless range

SWEP, leading supplier of compact brazed plate heat exchangers (BPHEs), now enhances the existing All-Stainless product range with the introduction of new products developed for the most demanding applications and systems requiring 100% stainless steel components.



All-Stainless is a range of durable, compact, and efficient BPHEs for the most demanding applications that often use aggressive media such as ammonia, deionised water system, or fluids with high sulphur content, all of which can be corrosive to copper. All-Stainless is therefore ideal for a wide range

of industrial applications and utilities with high demands on corrosion resistance, low tolerance for contamination and/or high operating temperatures.

Learn more about the All-Stainless range: T 0046 766 354099 www.swep.net/campaigns/all-stainless/

Five benefits of remote CHP monitoring

Remote CHP monitoring systems give operators full control over their engine, promoting efficient operation, protecting staff & increasing engine uptime. James Thompson of Gen-C outlines 5 key benefits.



personnel are nearby before remotely restarting their CHP. Cameras also make it easier for companies such as Gen-C to remotely support customers, saving on monthly service fees.

Increased engine uptime
Monitoring systems send an instant alert whenever an engine shuts down. Operators can then remotely log into the control panel and alter any parameters before restarting their CHP within minutes, increasing engine uptime.

Extended equipment lifespan
Rapid worsening of oil quality could indicate contamination, making the oil abrasive and reducing engine lifespan. Detecting this early helps protect expensive parts.

Optimised fuel ratio
Remote monitoring systems allow operators to constantly track the fuel mixture, recording trends and flagging any immediate issues. They can then remotely adjust the ratio before performance is affected, ensuring their engine runs smoothly and efficiently.

Improved diagnostics
Remote monitoring also improves accuracy in diagnosing faults. After reviewing a client's data log, we recently discovered that the cause of their mixer fault was actually a problematic battery. We replaced it for just £40 - 10% of the cost of a new mixer.

Safer engine restarts
By linking a smart monitoring system to a camera, operators can verify that no

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Intricate, full-colour protein models

Biologic Models, US-based 3D-printed protein model and medical animation provider, is using Mimaki's 3D printing technology to produce intricate molecular visualisation models, bringing protein into the tangible world in incredible detail. With Canadian-based Mimaki customer, Objex Unlimited, the two have successfully embarked on multiple projects for clients in education, research, and art using Mimaki's full colour 3D-printer, the 3DUJ-553. Most recently, Biologic Models and Objex Unlimited have produced models of coronavirus (SARS-CoV-2) to help with the rapid development of countermeasures to address the ongoing outbreak.



Biologic Models has carved out a niche in creating precise 3D models of proteins for research facilities and collectors using clinical research and x-ray crystallography protein data. Initially working in powder-based 3D printing, the company found that printing with a photopolymer-based 3D materials was a more suitable option. Notably this process offered durability, detail, and quick turnarounds, alongside a

colour gamut 10x that of what is available with powder-based 3D printing. Another draw is how these prints, unlike sandstone, can be easily cleaned with a wet cloth, a necessary attribute in a post-COVID world for Biologic Model customers when displaying such items in exhibits. Last year, Biologic Models collaborated with Objex Unlimited to print its Collection of SARS-CoV-2 models with enhanced colour accuracy and varying degrees of transparency and opacity using the Mimaki 3DUJ-553.

www.mimakieurope.com/news/biologic-models

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R&D provides the springboard for success after success at William Hughes

Emma Burgon, Engineering Director at William Hughes Group, gives us a behind-the-scenes look at her company's product research and development efforts and explains how even the simplest product is backed by extensive engineering effort and expertise

Even if you only scratch the surface of the R&D efforts behind the design, fine tuning and testing of springs and wireforms, you will come away with a new-found appreciation of these apparently simple products... and indeed may never take them for granted again.

Admittedly, simple and cheap commodity products can be outsourced, and mass produced elsewhere, but when it comes specialist design and development, the UK is still the place to go. "Nothing easy is done in the UK anymore," Emma Burgon, Engineering Director at William Hughes Ltd explains. "It's all done abroad. Instead, I always tell my people that in the UK we're high-tech high-spec. From our perspective, this makes us keener to try and find the tough stuff. It also makes us harder to compete with!"

"We do like a challenge, and we have had some amazing ones thrown at us over the years," Burgon elaborates, "but we have always fallen back on our experience and knowledge of the mechanics, materials and processes. A major challenge in this industry is to remove hand operations. As soon as a person has to get involved, the costs start to rise. So, recently, when we were presented with a complex 3D wire form with multiple bends in just about every direction, of course we said yes... it was only afterwards that we were told that our competitor could not do it. However, our confidence – far from being bravado – was founded on the fact that we had a machine that we knew could do it. Of even more importance was that we had helped our supplier design



William Hughes specialises in the design and build of welding fixtures, or jigs

this machine, based on a capability gap we had seen in the market. So, it's not just about material knowledge and physics, it's about how you process materials too.

"As you can imagine, based on my eagerness to do the hard stuff, I have a bit of a love/hate relationship with the team in the tool room," she continues. "They do take a lot of flak, but if you were to grill them, I am sure they will admit that they enjoy the challenge. I always find it amusing that when we interview a potential new employee, department managers always say, 'You'll never get bored here, it's all change, every five seconds.'"

It is the company's own toolroom that gives it a competitive advantage and is what makes it such an attractive proposition for many of its returning blue-chip customers. "We make all of our own gauges, jigs and welding fixtures," Burgon elaborates, "and can manufacture a huge array of parts from a variety of materials and stock diameters – up to 16mm."

"We are also very proactive and have a real feel for the direction we need to be headed," Burgon explains. "An example of this is our move into the car seating market, specifically new metal/plastic hybrid parts. Only by speculatively investing significant funds into injection moulding technology for our new plant in Bulgaria, could we open up our capabilities to the car seat market. We now have eight machines in

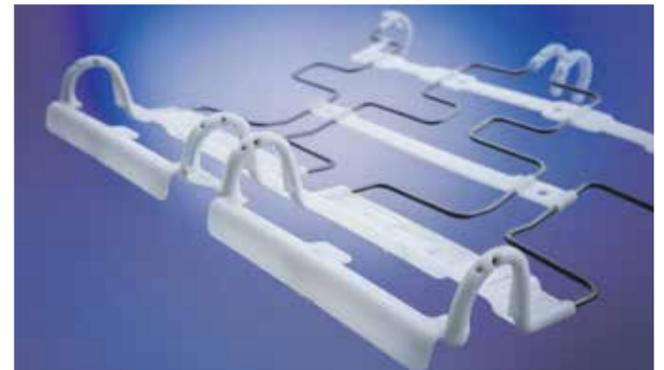
Bulgaria, 14 in Poland and our over-moulded products are on about a third of all cars made in Europe.

"When we get an idea, we stick with it," she adds. "In fact, our latest foray is into busbars for electric vehicles. We are investing in the CNC technology and capabilities to bend pre-coated rectangular copper wireforms, which deliver all the connection with EV drive systems."

"We're always looking for an edge and trying to be that little bit out of the ordinary," Burgon enthuses. "The aim is to be the best of the best and find the jobs that our competitors find difficult. Manufacturing is hard at the best of times. However, not only does it have an amazing legacy, but I think UK manufacturing also has a very strong future, as long as we keep doing the stuff we are good at; things that simply can't be outsourced to the cheapest labour market."

"Research and development is all about saying 'yeah, let's do it!'" Burgon concludes. "It might take a few years, but if you know what the market wants and you're confident in your own capabilities – some of which you may not even have on site yet – then you can achieve anything!"

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The William Hughes overmoulding capability demonstrated with this precision car seat assembly



The twin robot welding cell at William Hughes

Oil, Gas & Offshore News

Digital Edge Subsea

Digital Edge Subsea supplies the oil and gas industry with its digital video recording system.

The company, established more than 10 years ago, has nurtured strong customer relationships that has allowed for honest customer feedback, and this has been incorporated into the development of the Version 5 Edge DVR.

Conversations continue and now Digital Edge are pleased to be able to offer further software that will help their customers to serve their clients better.

Data Archive App

Digital Edge will soon release a data storage and back-up solution that uses an integral app within Edge architecture, to avoid needing a 3rd party app. Edge Archive handles the transfer of data

from the internal DVR drives to Client storage, either on a NAS, a Raid, or a phased delivery to multiple external hard drives.

Being a Native app, the data transfer ensures that the quality of Live recordings are not impacted by a 3rd party program trying to access the same file that the DVR app is currently using. Ensuring recorded data integrity and quality is of the highest importance.

Archive can act as a Simple data mirror of the correct internal drive data folders, or can be used to create multiple simultaneous backups of Client Deliverables. This can be done in continuous backup or a phased approach, ie. after each dive.

For more information or a demonstration of the system, contact: info@digitaledgesubsea.com or visit: www.digitaledgesubsea.com



Dialight launches ProSite LED floodlight range

Dialight Group, the leader in industrial LED lighting innovation, has launched its new ProSite LED floodlight range for the EMEA and APAC markets.

Launched at the Offshore Technology Conference (OTC) in Houston, the floodlights are designed for industrial applications providing superior visibility to external worksites with crisp, near daylight illumination to ensure the safety and security of a diverse range of facilities including oil & gas, petrochemical, transport and other external storage areas.

The new ProSite series is currently available in 12,000-65,000 lumen models, reaching up to 165 Lumens Per Watt (LPW), for mounting heights of up to 30 metres. The floodlights integrate highly



efficient precision optics, offering a wide range of beam patterns from narrow-spot to very wide, symmetric or asymmetric, and are capable of withstanding harsh environments. The in-house designed optical surfaces precisely distribute the

light over the target area with minimum light spill for optimal illumination without wasted light or unnecessary light pollution.

Offering maximum protection against water, dust, debris, vibration and impact with IP66/67, and IK10 (integrated polycarbonate optic/lens or lens cover) or IK08 (glass lens cover) ratings, the floodlights come with corrosion-resistant 316 stainless steel mounting hardware as standard. The ProSite can withstand a variety of environmental conditions and has a wide operating temperature range of -40°C to +65°C.

The new ProSite floodlights are now available. To learn more about them and Dialight's other market-leading industrial LED lighting solutions, visit: www.Dialight.com

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- Platform & Pipeline Inspections
- Construction & Decommissioning

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www.digitaledgesubsea.com

Innovation through automation

Here at Industrial Process News, we are pleased to announce TF Automation as our Process Automation Solutions Company of the Month.

TF Automation is a team of designers and engineers who manufacture process automation solutions, as well as supplying pneumatic and industrial components. Supporting a wide range of industries from automotive, aerospace, defence, medical, printing and packaging, the company specialises in providing clients with bespoke machine solutions to meet their individual needs.

Founded in 1975, as Time Factors Ltd, the company now trades under the name TF Automation reflecting its business activities. As production grew, the business was passed on and in 2004 Tony Hubbert became the third and current owner.

Based in Bradford, TF Automation employs 20 members of staff and works on projects ranging from full manufacturing units to specialist components, all of which are engineered to integrate fully with existing production lines and produced to customer's exact requirements.



"Our design and engineering team work with manufacturers on small to medium sized automation projects, from bench-top checking/gauging fixtures to multiple 6 Axis robotic



pick & place systems. TF Automation has particular expertise working with plastic components including assembly, machining and finishing. We specialise in assembly & testing, process automation, robotics and product handling, product marking including laser marking, manual workstations and more recently plasma treatment," stated Tony Hubbert.

Furthermore, it supplies and distributes a wide range of pneumatic and industrial components to other manufacturers across a range of sectors, enabling production facilities to minimise down time through excellent customer service, technical advice and 24 hour delivery.

TF Automation has found recently that many of its clients are focusing on product traceability,



particularly utilising laser marking technology as well as general product handling and testing projects. The company offers the latest technology across a wide range of disciplines and as it is completely independent from its suppliers, it can offer a complete bespoke solution to its clients. "We focus on the improvement of processes to ensure standardisation, uniformity and consistency. Through automation, both ourselves and our clients are keen to redeploy workers to higher value and more meaningful tasks," explained Tony.

All projects are carried out in-house, including concept design created in Solidworks 3D CAD, CNC machining, manufacturing (mechanical and electrical), testing, commissioning and programming. "Where we need to, we bring in expertise and components, only sourcing the most renowned and innovative brands and ensuring all materials and components meet strict quality standards. Through our project design process, we take the time to fully assess and understand the needs and expectations of each project, ensuring our designs transform ideas into reality and result in improved production efficiencies," stated Tony.

Looking ahead, Tony Hubbert comments, "We like to build on-going relationships with clients and are always keen to know that our machines are still operating efficiently even years down the line. Our design team expertise has been built up over



many years with a large proportion of our employees having been with us for over 10 years, which enables us to

use insight and experience from past projects, whilst also keeping up to date with the latest technology."

He continues, "That's not to say however, we are not encouraging and supporting the younger generation into manufacturing and engineering, which of course we are as we generally take on one new apprentice each year. We have engaged with the local education community in Bradford for many years to support learning, development and employment opportunities. Specifically, this is through our involvement with Bradford Manufacturing Week, providing an insight in to engineering and manufacturing to local schools and our partnership with The University of Bradford."

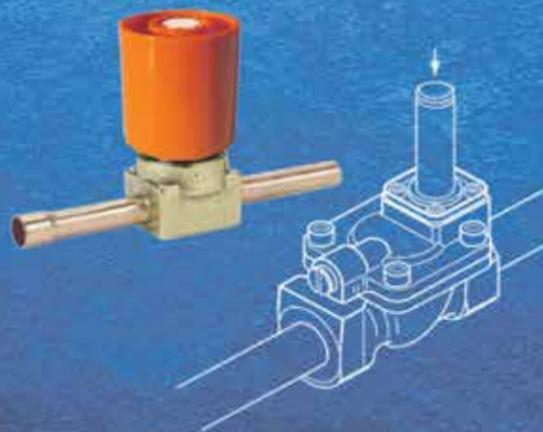
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Pumps & Valves News

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Automation at DD-Scientific

From our very beginning in 2011, DD-Scientific sensors have always been designed with simplicity in mind. The easier a product is to assemble, the fewer opportunities exist for variability and inconsistency. A fundamental pillar of our strategy has been to use automated manufacturing technology wherever possible during our production processes. We continue to invest every day in new technology to ensure our gas sensors lead the way in terms of quality, robustness and long-term performance as well as providing a cost-effective alternative to existing suppliers. Our ever-growing portfolio provides OEMs with a real choice, adding value to their business and their markets.



DD-Scientific launches new range of hydrogen sensors
DD-Scientific Ltd, a leading manufacturer of electrochemical gas sensors, is also pleased to announce the release of a suite of new products optimised for the measurement of hydrogen. Hydrogen detection is in significant demand currently both as a result of the monitoring of electrical vehicle batteries to detect critical failure and the proposal to add hydrogen to domestic gas supplies to reduce environmental damage. DD-Scientific's new sensors are ideally suited to the measurement of hydrogen in these applications providing reliable and accurate readings with excellent repeatability and long-term stability.

To learn more about this product or any of the high performance sensors in the DD-Scientific product range, please visit: www.ddscientific.com for more information or contact: sales@ddscientific.com for a more personal response.

Two new fluorescence live-cell imaging systems

CytoSMART Technologies recently announced the launch of two new fluorescence live-cell imaging systems – the Lux3 FL Duo Kit and the Multi Lux3 FL. The CytoSMART Lux3 FL Duo Kit is a compact and cost-effective imaging system consisting of two fluorescence microscopes, designed for side-by-side comparison of cell cultures. The CytoSMART Multi Lux3 FL fluorescence live-cell imaging system consists of four compact Lux3 FL devices, equipped with two fluorescent (green and red) and one brightfield channel, and designed for long-term comparative studies and larger research teams.



Both systems operate from within a standard CO₂-incubator or hypoxia chamber, allowing researchers to analyse cells in their desired culture environment. Each system of two and four microscopes is connected to a single laptop, maximising precious laboratory space. Monitoring and analysis of the running experiments can be done at any time from anywhere via the CytoSMART Cloud.

- The main features and benefits of the CytoSMART fluorescence live-cell imaging systems include:
- Ideal for comparative studies
 - Versatile
 - Flexible
 - Incubator-friendly
 - Full remote access via the CytoSMART Cloud
 - Indispensable tool for long-term comparative studies
 - Cost-effective and efficient solution

Visit the official CytoSMART website for more information on the Lux3 FL Duo Kit (<https://hubs.la/H0P94d10>) and the Multi Lux3 FL (<https://hubs.la/H0P94cL0>).

Contact: Jan-Willem van Bree, CTO
T +31 88 203 2200
info@cytosmart.com

G-Series

Interface is pleased to announce the launch of the G-Series – a new, fully metric line of load cells and load buttons for industrial applications.

The demand for Interface products designed and manufactured in the International System of Units (SI), has been evident for several years. Interface's new Global Standard product line, known as the G Series, is designed for an international buyer and user.

Starting small, the series includes three load cell types – the load button, mini S-beam & threaded In-Line. With capacities ranging from 200 Newtons to 50kN. They are all fully stainless steel with an environmental protection rating of IP64 or better.

Each sensor is supplied with individual calibration certificates. So, even with their highly competitive price, you can be sure that like all Interface products,



the G-Series are built to the exacting standards that Interface are world-renowned for.

<https://interfaceforce.co.uk>

Accurate Inventory Knowledge is Key

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Cloud service for WTS Wireless Inclinometer Line

The WTS Wireless Tilt System is a flexible, all-weather radio telemetry system designed to provide high accuracy remote angle measurement data. The WTS gives surveyors, geotechnical specialists, and structural engineers the ability to record and log data remotely without the cost and inefficiency of traditional wired methods.



measurement system to be configured to suit any application. A variety of fixed base stations and hand-held readers are available to enable the user to tailor the system to their optimal requirements.

Highway agencies, bridge and civil structure owners spend large revenues assessing structural health by visual or other types of consuming inspection methods of bolted and welded joints, together with other vital structural elements. Obtaining multiple readings to monitoring the entire structure can be costly and labour intensive. Using the WTS Wireless Tilt System, a single structure is fitted with low power WTS Inclinometers at strategic points,

thus helping to determine where weak points may be and when maintenance is required. Additionally, the WTS Wireless Tilt System may be used in the verification of design calculations when new structures are manufactured providing valuable data to refine computer models of structural behaviour.

The new Sherborne SensorSpace solution brings the data into the cloud. Whether your data is needed every day or every few seconds, Sherborne's SensorSpace is optimized to receive, compute, and return millions of data points across the globe. And, with up to 3 years rolling data retention as standard, Sherborne's SensorSpace gives a place to store and mine data for added insights and analytic overlays like anomaly detection and predictive maintenance.

www.sherbornesensors.com

LAUDA Technology Ltd



LAUDA – Experts In Thermal Control And Measurement Providing Innovative Solutions For Thermal Process Control, Chilled Water Applications, Water Baths, Freezers, Incubators, Shakers, Stills, Tensiometers, Viscometers And Contact Angle Measurement.

LAUDA continues to provide an expanding range of feature-rich, future proof solutions with energy efficiency and connectivity front of mind, serving a diverse range of industries including chemical, pharmaceutical, biotechnology, oil and gas, composites, automotive, aerospace food & beverage, brewing, digital printing, laser and beyond.

LAUDA's new range of water chillers has been designed not only to comply with the new Eco-design directive, but to surpass it through the innovative use of variable speed modules that automatically reduce their duty cycle in line with the cooling demand hence reducing energy consumption and running costs, giving a tangible return on investment for the user, whilst ensuring full compliance with the latest regulations on refrigerant (fluorinated) gases.

Further portfolio expansion delivers the new LAUDA 'Versafreeze' ultra-freezers, (deep-freeze storage down to -85°), and higher power 'Integral' process circulators, (process control from -90 to 320°C with >25kW of cooling @20°C), with pressure overlay options to increase the working range of water/glycol up to 140°C.

Furthermore, for applications requiring customised solutions tailored to individual requirements, we offer a made-to-measure design service using a long-established and highly skilled team. Project engineering is a core competence of LAUDA and using the modular engineering approach we can design and scale a system specifically matched to the application needs.

With the capability to provide accurate heating and cooling in the range -150 to +550°C using a variety of proven modules including heat transfer systems, process cooling systems, secondary circuit systems, fired heaters and molten salt plants, we are able to provide unique, cost-effective solutions unparalleled by others.

Beyond temperature control, LAUDA has a well-established suite of solutions for measuring viscosity and surface/interfacial tension aimed at the development of polymers, oils, and surfactants. LAUDA is here to assist with your technical requirements from the first stage of the application discussion, all the way through the process to the final commissioning, and after-care services throughout the lifetime of the equipment.

A strong and experienced after-sales service function provides further peace of mind, with impressive first-time fix rates, and backed up by a fully kitted workshop at our newly configured facilities near Stamford.

We look forward to hearing from you.

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Miniature Broadcast Cameras Ltd



Rubi4G Live Video Streaming

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- Sends pictures and sound remotely anywhere via the Cellular Network and internet



Rubi4G Live Video Streaming applications

- a few examples shown below...

- A gas or oil rig in the North Sea has developed a very serious problem and it is imperative that senior engineers see live pictures of the situation from their office computers that may be many miles away
- A product in the design stage needs to be seen in the factory 500 miles away
- Using the Live Remote facility any of the emergency services can send live pictures to their respective control rooms
- Live pictures can be sent remotely from a moving vehicle



Rubi-Power Unit

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- **Examples:** Industrial applications, Camping equipment, Portable Lighting, DC Motors and Associated equipment

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Tickling the SPD nerve



“With Surge Protection Devices (SPD) becoming increasingly common in installations, it is surely time that there was an accepted test to confirm their efficacy,” says Brendan Beaver, Manager of Metrel UK, a manufacturer of innovative test solutions.

“The manufacturers say that they are 100% tested before they leave the factory, but it is not hugely reassuring to the installer whose insurance take on liability once they supply and install the SPD.

“Metrel multi-function testers have for more than 10 years offered a ramp facility on the insulation test which gives the ability to test varistors and some SPDs in the field.

“Maybe it is time that the powers that be recommend a test protocol which could be incorporated in all multi-function testers.”

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www.metrel.co.uk

Infrastructure applications



Advantech, a leading supplier of industrial communication solutions, is proud to release the EKI-2701MPI-5G PoE injector. This compact, industrial grade solution delivers Wi-Fi 6 network infrastructure, power over Ethernet (PoE) and advanced connectivity to out-of-date, extant infrastructure. It supports multiple data rates (10M/100M/1G/2.5G/5G) and IEEE802.3bt 90W PoE output; and is an excellent choice for obsolete infrastructure applications requiring heavy network connectivity.

Advantech’s EKI-2701MPI-5G supports downward compatible 2.5 and 5Gbps data rates to deliver Wi-Fi 6 capabilities to existing wireless infrastructure. It further serves as a PoE PSE – delivering up to 90W output to IP cameras, Wi-Fi 6 access points, and other connected devices. This injector’s PoE standard is downward compatible for 15, 30, and 60W PoE PD devices, easing network infrastructure upgrades. Using this solution to upgrade infrastructure saves manpower while reducing cabling weight and cost.

Advantech’s EKI-2701MPI-5G is PoE and data rate downward compatible. It helps extend extant device lifecycles and maximises return on investment by future-proofing infrastructure from different generations.

Advantech’s EKI-2701MPI-5G features a compact, palm-sized form factor adaptable to network infrastructure upgrade applications with limited space. Despite space constraints, EKI-2701MPI-5G is capable of delivering network service without overheating. Indeed, it supports wide operating temperatures (-40-75°C/-40-167°F) found in harsh working environments.

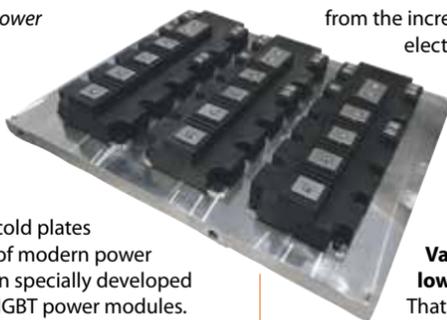
EKI-2701MPI-5G hardened multi-speed mega PoE will be available for order May 2021. For more information about this, or other Advantech products and services, please visit: www.advantech.com

Liquid cooling taken to the extreme

Innovative heat sinks for power modules

High cooling capacity with minimal pressure drop are convincing features of the new IsoMAXX cold plates from Mersen. The cold plates meet the high demands of modern power electronics and have been specially developed for the latest SiC, GaN or IGBT power modules.

Modern converters, transport systems, electric vehicles and alternative energy generators benefit



from the increasingly efficient wide bandgap electronics, which are optimised for operation at higher switching frequencies and temperatures and feature a much more compact design. Conventional heat sinks cannot meet these high cooling requirements.

Vacuum brazed and designed for low pressure drop

That is why Mersen developed IsoMAXX – a revolutionary vacuum brazed cold plate with unique features: The average thermal resistance (Rth)

is 6°C/kW. And at ~600 mbar, the pressure drop is substantially lower than that of all previous models. IsoMAXX cold plates ensure an optimal temperature range for power electronics, in which all single chips and modules on the cold plate remain at the same temperature. IsoMAXX helps development engineers to design solutions with increased efficiency and a minimal footprint: No minimum clearance is required between modules, which allows versatile integration regardless of the number of modules needed for the particular application.

For more information, visit: <http://ep.mersen.com>

Kazakhstan export success for North Sea Ventilation & IndEx Enclosures

IndEx Enclosures, the Kent-based manufacture of Hazardous Area and Industrial control gear enclosures has just dispatched the latest consignment of Activated Isolation, Modulation, Fire & Gas Damper junction boxes bound for the huge Tengiz oilfields of Kazakhstan.

The custom-designed ATEX Zone 1 certified and Industrial Standard enclosures, were ordered by North Sea Ventilation (NSV) Ltd of Hull.

Andrew Sully, NSV’s Project Manager, commented, “We originally began working with IndEx Enclosures on this contract back in 2016 leading to the supply of some 3,200 off ATEX-certified and Industrial Standard Junction Box enclosures destined for Kazakhstan which were delivered on time and as agreed. The ventilation systems on the various modules are obviously vital to the whole operation of the facility with the Actuated Dampers regulating the flow of air and extremely important parts of the systems which have to operate in potentially explosive atmospheres.

“After the supply of these enclosures over two years, during which time there had been no delays nor failures of ATEX testing, the scope of our contract was then



extended to include another 3,000 off Junction Boxes for field buildings which is just completing.

“What steered us towards IndEx Enclosures was their willingness to design and manufacture non-standard enclosures to our exact specification which includes their population with electrical terminals and supply of tri-language signage and certification. The products and service has been excellent and we now consider them as a primary preferred source of supply, not only for Kazakhstan, but all similar projects.”

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A wide range of Thumbwheel, Rotary DIP and Strip Switches these are still one of the best man/machine interface components available.

Elastomer Keypads are made to your own design, any size, shape and colour with legend protection enhancements.

Membrane Switches are a self contained printed keyboard which offers low cost and high reliability. They are custom designed, thin and flexible. They are available with tactile/non tactile feedback, surface embossing, backlit legends, silver or carbon tracking and RFI or EMC shielding if required.

Elastomeric connectors made from silicon rubber offer an economic and reliable solderless connection. They are widely used on digital screens, home electrical goods and communication equipment.

Ask about our Value Added Keypad Assemblies

New Kontron processors for Intelligent Edge Computing

Kontron, a leading global provider of IoT/Embedded Computing Technology (ECT), is expanding its extensive portfolio with the COM Express® Basic Type 6 module COMe-bTL6 (E2) with 11th Gen Intel® Core™ vPro®, Intel® Xeon® W-11000E and Intel® Celeron® processors (former codename Tiger Lake H). The CPUs are featuring up to 8 cores and are specifically suited for demanding Edge workloads and high-end, high-bandwidth applications. Intel® Iris® XeGraphics supports up to four independent 4K displays or one 8K HDR display. AI-workloads in machine vision or medical applications reach new levels of performance with the GPU and Intel® Deep Learning Boost. Integrated TSN- and Intel® TCC-functionality enable deterministic networks in Industry 4.0 as well as various real-time applications.



The TDP of the processor chips ranges from 25 to 45 watts, with eight processing cores enabling clock frequencies of up to 5.0GHz. A maximum of three DDR4 SO-DIMM sockets allow a memory expansion of up to 96 GBytes (non-ECC/ECC). With integrated Intel® UHD graphics supporting up to four independent 4K displays, up to 40 HD video streams can be processed and analysed in parallel at 1,080p/30fps resolution.

In addition, fast 2.5 GBit Ethernet with Time Sensitive Networking (TSN) and Intel® Time Coordinated Computing (Intel® TCC) predestines the module for demanding real-time applications.

Contact
www.kontron.com

Q Electrical Industrial Services Ltd emerges from acquisition

Despite uncertainty with Brexit and COVID-19, the continued growth of new VSD Contract Partnerships and Electrical Projects has led to Quantum Controls acquiring Lothian and Borders Electrical in East Lothian, Scotland.



Lothian and Borders electrical is one of Scotland's leading electrical contractors and through this acquisition Quantum now have a nationwide network of 6 Service Centres and a growing team of engineers providing a range of Electrical Services and solutions across the UK.

2020 was a difficult and challenging year for all, however as a service business with Key Worker status and over 250 VSD contracts, both companies have been extremely lucky to still be able to support our customers and experience significant growth in these troubled times. This has led to Quantum Controls being awarded the prestigious 'Drive & Motor Company of the Year' award from Industry Update.

The new Service Centre and experienced electricians will provide Electrical services such as:

- Electrical Contracting Services
- Electrical Installation in many industrial processes
- Turnkey projects from design to control panels, PLC programming, SCADA and Installation
- 10 Variable Speed Drive Service Engineers based in Scotland
- Electronic Repairs for industrial equipment & Instrumentation
- Inspection & Testing
- Power Factor Correction

If you would like to know more about our new services in Scotland, please contact Lyall Colvin, Managing Director. M 07775 666306 lyall@qelectrical.co.uk www.qelectrical.co.uk

Smart EA uniTFT(s) displays for instrument design

Designing a product with a colour TFT display and touch-screen does not have to be complex. MMS Electronics has available EA uniTFTs smart displays to get projects off to a flying start. With integrated graphics controller, extensive graphics functions, USB, I²C, SPI and serial interfaces. The displays are ready to run without additional peripherals. The EA uniTFT(s) displays use improved IPS-Panels with AACs technology (All Angle Colour Stability). This means contrast and colours are retained even at extreme viewing angles. High brightness typ. 1,000 cd/m² and above, readable in direct sunlight. Optically bonded PCAP touch. All functions are programmed using the new uniTFTDesigner Windows software tool. The IDE boasts a simple drag-and-drop interface with simulator and numerous ready to run examples. For quick evaluation download the uniTFTDesigner software and try out some examples or order the EA DEMOPACK-CLIMA. This demopack measures and displays temperature, humidity and CO₂ readings from the connected sensors. Other demopacks show how to use inputs, outputs, relays, current measurement, RGBLED and level converters. The EA uniTFTs displays come in size 2.0", 2.8", 3.5" and 4.3" and the larger EA uniTFT displays in 5.0", 7.0" and 10.1". For further details see our new MMS Electronics website and web shop.

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Innovating a safer tomorrow

In this issue of Industrial Process News, we are pleased to announce CoreAVI as our Safety Critical Experts Company of the Month.

CoreAVI is a global leader revolutionising the aviation, automotive and autonomous spaces with its safety critical innovations and inspiring cutting-edge technological advances. CoreAVI architects and delivers safety critical graphics, compute software drivers and libraries, embedded 'system on chip' and discrete graphics processor components and certifiable platform hardware IP. CoreAVI's comprehensive software suite enables development and deployment of complete safety critical solutions for automotive, industrial and aerospace applications requiring certification to the highest integrity levels coupled with full lifecycle support.

From safety critical hardware to the complete safety critical platform, CoreAVI's solutions support both graphics and compute applications including safe autonomy, machine vision and AI in the automotive, unmanned vehicle and industrial IoT markets, as well as commercial and military avionics systems.

Established in 2005 by Damian B. Fozard, CoreAVI was founded in the UK. Since 2008 the company has been headquartered in Tampa, Florida, USA, with offices in Canada, Netherlands, and Singapore.

In 2016, CoreAVI became the first company to provide the newest generation safety certifiable graphics/ArgusCore SC 2 (OpenGL SC 2) with certifiable programmable GPU shaders. In the same year, CoreAVI was the first to revolutionise GPU monitoring systems for safety certified cockpit display systems by displacing FPGAs with CoreAVI's TrueCore (software-only) solution.

In 2020, CoreAVI expanded its expertise to include safety critical computer vision and artificial intelligence with their VkCoreVX™ SC safety critical

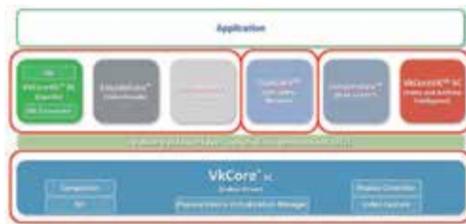


Industrial IoT Environment

implementations of Khronos' OpenVX™ 1.3 industry standard API.

As specialists in software development and suppliers of up-screened semiconductor components software reliability in today's aerospace, automotive and industrial sectors are paramount to CoreAVI's activity. From the top application layer to the middleware, drivers, operating systems and hardware, CoreAVI addresses the entire safety-critical systems stack and the best practices to accomplishing system certifiability.

Propelling innovation, CoreAVI strikes the perfect balance between functionally safe development features, certification and costs. "Our products, services and partnerships deliver a compelling value



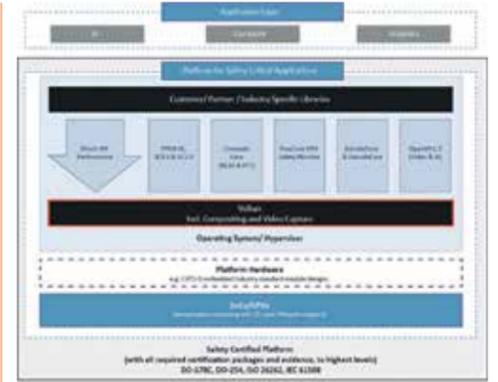
CoreAVI's functional safety software stack featuring their VkCore SC Vulkan-based graphics and compute driver

proposition with cost-effective scalability. We have the added value of providing an entire software portfolio, enabling shorter certification time while reducing overall costs," stated Neil Stroud, Vice President of Marketing and Business Development. This strategy effectively allows software developers to reuse software in safety critical applications, enabling them to efficiently scale across hardware architectures and shorten time to deployment.

Keen to further establish its partnerships with ecosystem players, Neil explained, "Functional safety is evolving and it's vitally important we all work together. No one company can do it alone – we must collaborate to make the world a safer place. In essence, with our partners, we deliver pre-assembled jigsaw pieces that customers can instantly use, allowing them to get their products to market quicker. As safety is moving up the priority list for companies all around the world, we need to work together to achieve greater efficiency and safety to reduce injuries as our interactions with technology increases exponentially."

CoreAVI is continually evolving at a steady pace as it pivots into new markets, developing close partnerships with semi-conductor industries. Recently, it announced a partnership with Intel® to provide a Platform for Safety Critical Applications (PSCA) with the new 11th generation Intel® Core™ i7 SoC. Built to reduce customers' mission computer system integration risks and speed up their time to deployment, this case study is a prime example showcasing the benefits of two companies working closely together. It is also extremely beneficial to the product developer's bottom line by saving them time, engineering resources and savings in platform safety certification.

As future plans go, CoreAVI is delving deeper into building industrial robotics and automation solutions and further its activity within the transportation



CoreAVI's Platforms for Safety Critical Applications Stack

and automotive sectors and will continue building partnerships to ensure increased safety solutions deployments.

For more information, see below.

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CoreAVI's office locations and international reps

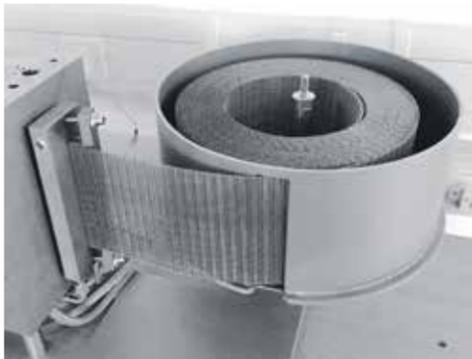
The new generation SiloScreen



Here at Industrial Process News, we are pleased to announce that Siloteq Ltd is the recipient of our Plastic Extrusion Company of the Month Award.

Since 2013, Siloteq Ltd has been the manufacturers and distributors of Continuous Screen Changers to the Plastic Extrusion Industry. Established by Patricia Stoker, Siloteq Ltd is located in Sunderland, North of England, where the new generation SiloScreen is manufactured.

"Our product is based on the concepts of the well-known Autoscreen that was invented, patented



and introduced by Process Developments Ltd in the late 1960s. We have built upon their beautiful engineering, and example of engineering simplicity. We manufacture the SiloScreen in one piece/block of steel, with no moving parts or hydraulics to break-down, and it is also leakproof. The result is a trouble and maintenance free operation, which lasts for years, with many of the original units still in operation 30 years after their installation," stated Patricia.

The SiloScreen concept offers a reliable performance with a long-life span that has been well documented and proven. Siloteq Ltd has improved the system by adding state-of-the-art manufacturing technologies with a digital control system. "The only spare parts recommended to have on hand are heater cartridges, a thermocouple and a melt pressure transducer," explained Patricia.

The SiloScreen has no motor, gearbox, hydraulics or pneumatics, and has no moving parts at all except for the screen itself, virtually eliminating any wear. As there is no manual replacement of screen packs or breaker plates, Siloteq Ltd has eliminated failures that can occur from working with hot and sticky components under pressure over time.

As it is made in one piece, this makes it completely leakproof with no bolts to tighten. The high-quality

cartridges are regulated by remote electronic controls and through the water-cooling technology, it maintains a constant self-renewing, pressure tight polymer seal at the screen entry port. Siloteq Ltd's standard SiloScreen is made for a 75-350 bar, but special units can be manufactured to work at much higher pressures.

The SiloScreen can be used with single or dual filters; when running with dual filters two cassettes are fitted. The Cassette one feeds the coarser screen, 132/18 – ca. 200 microns and the Cassette two feeds the finer screen, 250/40 – ca. 80-100 micron. The SiloScreen can come with a range of breaker plates, designed to suit each application. The control touch screen offers Vital Data portraying an accurate melt pressure, cooling water temperature, melt temperature, and information before and after the breaker plate. Complete with language options, The Controller offers German and English as standard and a third option can be installed at an additional fee.

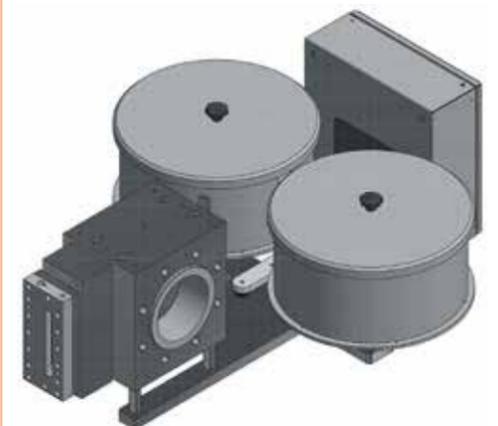
The SiloScreen is primarily supplied to businesses (or manufacturers) producing plastic pipes and profiles, blown and cast films, twines and ropes, and oriented tapes. However, it is also suitable for blow moulding, injection moulding, or any product that would benefit from uninterrupted extrusion and steady



process conditions.

In the future, Siloteq Ltd is preparing to test special units for PVC extrusion and PVC reprocessing and is looking to release a new Model Ø 220 with a higher capacity. As the company has just moved to a larger sales and admin office space, the plans for continued growth look positive for the future.

For more information, see below:
M 07733 111929
contact@siloteq.com
www.siloteq.com



ABB's virtual technical assistance support service

'A problem shared' – new virtual assistance support service from ABB provides instant access to virtual face to face expert technical advice

Getting to grips with robotic automation is now even easier with the launch of ABB's Virtual Assistance support service. The service uses a virtual platform to provide fast access to expert support to help solve technical queries and issues face to face, reducing downtime and increasing productivity.



be seen by a remote ABB technician who can provide expert assistance.

Using a smartphone camera, users can establish a video link with the technician to allow them to see the robot or controller. The technician can then make recommendations to the user on the appropriate steps to take, talking them through the steps needed to resolve a query or issue or obtain a further diagnosis for onsite

assistance.

As a means of providing customers with remote access to 24/7/365 technical support, the Virtual Assistance

support service is ideal for helping to address the current restrictions on travel and site access surrounding the COVID-19 pandemic. By enabling around 25% of enquiries to be resolved virtually, it can also help to reduce the environmental impact of engineers travelling to site.

As well as a standalone service, the Virtual Assistance app is also being offered as part of an expanded offering called Technical Support Plus. Including Virtual Assistance, a condition-based monitoring report and one ABB certified training course, Technical Support Plus is aimed at providing companies with a development path for training their own dedicated on-site engineers with basic robot programming, operation, and maintenance skills.

<https://bit.ly/3ra3PnVTA>

D-Sub demand drives connector specialist's expansion



Electrical connector specialist extends partnership with Positronic into Europe and Africa

PEI-Genesis, a leading provider of custom-engineered connector and cable interconnect solutions, has extended its partnership with global connector manufacturer Positronic across Europe and Africa. The expansion comes after considerable demand from customers in these regions. As of June 25, 2021, engineers in Africa and Europe can benefit from PEI-Genesis' value-add service of Positronic connectors. This service involves custom configuring the vast range of standard Positronic D-Subminiature connectors from component stock, meaning greater choice with shorter lead times.

Positronic, an Amphenol company, is known for the reliability of its connectors and offers customers a range of power and signal connectors for several critical sectors, including industrial and military. PEI-Genesis offers many products from Positronic's full portfolio of power and hybrid, rectangular and circular connectors, but it is the D-Sub product line in particular that has attracted demand from customers worldwide.

The previous franchise agreement covered the Americas, China, Southeast Asia, Oceania, and a few countries in Europe. After seeing success and demand for Positronic connectors in these regions, PEI-Genesis believes this expansion will help meet the growing needs of industrial businesses in the European and African markets, several of which have already expressed interest in the range.

"Our European and African customers have been keen for us to introduce the Positronic range, including connectors such as the D-Sub, to these markets for some time now," said Jonathan Parry, Senior Vice President, and MD Europe for PEI-Genesis. "The D-Sub is well known for its versatility as it is used in a range of sectors for transmitting data, power, and radio frequency signals. Additionally, its reliability and relatively low cost make it a popular choice for engineers."

Anita Warner, Director of Inside Sales and Distribution at Positronic, added, "PEI-Genesis has a strong reputation in the interconnect market for providing quick and easy access to electrical components. We are pleased to expand our relationship with them in Europe and Africa. This partnership will provide customers with an additional resource for sourcing world-class connector products."

As part of the new franchise agreement, PEI-Genesis will assemble components at its South Bend facility in Indiana, USA. By assembling connectors from component parts, instead of holding inventory of finished goods, the company can offer greater choice with over 88 million interconnect parts in stock.

For more information on PEI-Genesis' Positronic offerings, visit the website at: www.peigenesis.com



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Large-scale art scanning uses motion technology



Motion technology specialist, LG Motion, is helping museums and institutes better understand their artwork collections with the development of a large-scale digital scanning solution that also offers multi-spectral imaging.

Used at several high-profile museums and art galleries across the UK, Europe and North America, the Art Scanner system is enabling curators to catalogue large-scale artworks quickly and efficiently. The innovative technology captures high-resolution digital images, allowing them to uncover new insights and understanding into the provenance of works with IR, UV and X-Ray spectral imaging capabilities.

The art scanning solution incorporates motion technology that traverses in front of the artwork, surveying and gathering digital data and producing ultra-high resolution images with extraordinary detail and clarity. A combination of high-specification motion control equipment and bespoke software provides precise automated capture and assembly of the images. This can combine with an intelligent stitching algorithm that results in an incredibly high-resolution image of the whole painting, even with minimal visible data present within any single image.

In minutes, huge areas of the masterpiece can be captured and preserved digitally for further inspection and cataloguing. Often revealing unseen features, this process allows conservationists and historians to protect and document their artworks by reducing future handling and disturbance. The system also outputs meta-data for use in databases, triggering events to match various devices for faster and more accessible data extraction in the future.

www.lg-motion.co.uk

Continue ABB robotics masterclasses at home

ABB Robotics range of robot training courses have been available online for almost 12 months. Built on the same materials used in its popular classroom-based courses normally run at ABB's Robot Training Centre in Milton Keynes, the Virtual Classroom Training programme is ideal for beginners and experts alike, covering topics including programming, safety and operation.

Each course is instructor led, with options pitched at different competency levels running from two to five days depending on the course topic. Participants will get the same certificate as the normal Milton Keynes classroom-based courses.

The following courses are available:

- IRC5 Operator Course (2 days)
- IRC5 Programming and Operation (4 days)
- IRC5 Advanced Programming, Stage 1 (5 days)
- IRC5 SafeMove Second Generation (3 days)
- RobotStudio Offline Programming (5 days)



microphone and RobotStudio, which can be downloaded free of charge via our training portal page at https://bit.ly/ABB_VCT2021. A whole range of courses are available including classes that can be attended at the Milton Keynes facilities.

To find out more about each course, including associated

fees, and to register your place, visit https://bit.ly/ABB_VCT2021 or call +44 (0)1908 350481 ref. 'Virtual Classroom Training'.

To take part in the course you will only need a computer with internet connection, webcam, headset with

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Process & Control News

Introducing the GS4400

We are excited to announce our latest in product development, the GS4400. This GENSPEC pressure transmitter is designed to meet the operational requirements of demanding pressure measurement applications where good quality, fast delivery and low cost are of the highest priority.



Providing a half-duplex digital RS-485 output signal and 0-5V analogue output, the GS4400 provides high stability and repeatability. It can suit a multitude of applications and with proprietary RS-485 protocol, can operate up to 32 devices on the same BUS.

The unique Silicon-on-Sapphire sensor technology provides outstanding performance and gives excellent stability over a wide temperature range. The advanced sensor design consists of a piezoresistive silicon strain gauge circuit, which is epitaxially grown onto the surface of a sapphire diaphragm to form a single crystalline structure. The sapphire sensor is then molecularly bonded to a titanium alloy sub-diaphragm, enabling the sensor to endure higher over-pressures and providing superb corrosion resistance, virtually no hysteresis and excellent long-term stability.

Applications for the GS4400 include the continuous monitoring of hydraulic systems with oil, gas, water and other process liquids, industrial, medical and aerospace industries. Also ideal for the measurement and control of pressure in refrigeration, pneumatic, compressor, HVAC and engine monitoring systems.

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Innovative overseas operation maintains manufacturing standards

A renowned European manufacturing supplier is maintaining quality standards while also making circa 60% cost saving through the deployment of an innovative 'extended workbench' solution, developed by quality management expert G&P.

Central to the success of the operation is the ability to promote best working practice through close teamwork of the supplier's personnel and G&P's team members, effectively making them one team.

Meanwhile, logistically an off-site operation was established by G&P for the inspection and rework of components, primarily for use in the automotive sector, to ensure they met the correct quality standards. The savings far more than offset any additional logistics costs.

Geoff Cousins, chairman at G&P, said, "G&P has successfully been providing its extended workbench solution for the central European customer through an open and transparent operation with targeted KPIs to drive performance, which remains ongoing today. The result for the customer is that quality standards are maintained, efficiency is increased, costs are reduced and its reputation is protected."

G&P's off-site facility itself on behalf of the customer housed 90 work stations for inspection and rework, while G&P also handled all the human resource requirements in line with the customer volume demands.

Cousins added, "G&P, in essence, became the customer's team through our extended workbench solution. It was not G&P and the customer – it was one team. Such has been the



success that we have subsequently opened an additional facility in central Europe to implement the same solution for other customers."

To discover more about G&P's quality management services, visit: www.gpqm.com

New powder/liquid mixing solutions from Silverson Machines



The Silverson product range now has more powder/liquid mixing solutions than ever before with the development of the new FMX5 Laboratory scale powder/liquid mixer and a new version of the Flashmix which is supplied with a wand attachment.

Dispersing powders into liquids and creating a consistent, homogeneous product, time after time, is one of the most difficult of all mixing tasks. Whether the need is to incorporate large volumes of powders or handle small amounts of critical components such as active ingredients, Silverson has a comprehensive range of products designed to provide the most efficient means of incorporating powders into liquids.

For mixing on a laboratory scale Silverson can now provide customers with the same powder/liquid mixing advantages as larger scale production with the introduction of the new FMX5 to the product range. The FMX5 is a laboratory scale version of Silverson's production scale Flashmix mixers and provides a simple, effective and hygienic means of powder/liquid mixing on a Laboratory scale. It is also able to process higher viscosity mixes.

The FMX5 is suitable for small scale manufacturing and R&D work with a typical batch size of up to 10 litres, depending on viscosity. The mixer offers an accurate means of predicting the performance of the production scale Flashmix, making the scale-up process a simple task.

For larger scale powder dispersion, with fast powder incorporation rates of up to 15,000kg per hour, Silverson offers the Flashmix. The new version of the Silverson Flashmix is supplied with a powder feed wand attachment for powder incorporation, rather than the standard hopper. The wand is attached to the Flashmix via a specially modified powder inlet manifold which creates a vacuum, drawing the powder up through the wand and into the vessel. This enables the machine to suck powders into the mix straight from their original containers, minimising handling requirements. This is particularly useful for free-flowing powders which are prone to dusting, for example Aerosil.

With the use of either the standard Flashmix hopper or the wand attachment, problems occurring due to operator error, such as adding powders too quickly, are effectively eliminated. With the Silverson Flashmix range, the mixer dictates the powder addition rate, so repeatability is assured and a consistent homogeneous product will be produced batch after batch.

To find out more about the Silverson product range, visit the Silverson website at: www.silverson.co.uk



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World first: 3D-printed batteries

Blackstone Resources AG is pleased to announce that the management of Blackstone Resources AG will be supported by Serhat Yilmaz (pictured) as of September 1. As Chief Marketing Officer, the 35 year old Yilmaz will assume significant responsibility for the development of the group Investor Relations department and will also play a formative role in battery production at the Döbeln site, where he will be CMO for the subsidiary Blackstone Technology GmbH.



"Blackstone Resources AG is a major global shaper of the emission-free future. I look forward to joining this innovation-driven company," said Yilmaz. "Our progress in industrialising 3D-printed battery cells is now opening up immense potential, which I am particularly excited about."

Blackstone Technology produces climate-friendly & clean batteries for a sustainable transportation transition. With 3D-printed batteries, a world first in the manufacturing segment, they have now made the quantum leap: thanks to significantly increased energy density, the new charge carriers are also suitable for off-road applications.

With the addition of Yilmaz, who previously worked at Quantron AG as CMO and at Framo AG as CMO and CBDO, Blackstone Resources AG in Switzerland gains an experienced personnel. Together with the recently granted funding and the operating license for the production of 3D batteries, the company is now in the starting blocks for the next stage. "The name Blackstone Resources is about to become a brand name in the gearbox of transportation transformation. We have every reason to be optimistic about the future," Yilmaz is certain.

info@blackstoneresources.ch
www.blackstoneresources.ch

Packaging the benefits of wood & hemp

With an increase in online shopping during the coronavirus pandemic, the development of alternative sustainable packagable packaging has never been more important.



However currently more than 95% of the foams, including polyurethane (PU) and polystyrene (PS), are made from petrochemicals – which release up to five times their mass in atmospheric CO₂ during manufacturing.

Now, for the first time, researchers at Scotland's Rural College (SRUC) and Riga Technical University (RTU) in Latvia, have found that waste materials from wood and hemp biomass can be processed into sustainable foams for use in packaging, cushions & insulation. Unlike foams sourced from petrochemicals, biomass-derived foams can significantly capture and sequester atmospheric CO₂. In addition, the biorenewable and biodegradable foams promise both high performance and sustainability.

The researchers used an economic process of microfluidic processing and freeze-drying to create nanocellulose (NC) foams from wood and hemp fibres. They found that while both types of NC foams showed great mechanical response, porosity, thermal conductivity and thermal degradation, those made from hemp demonstrated higher performance characteristics.

While other bio-based products have yet to be commercialised at scale due to high cost and low quality, this research has the potential to change the synthetic foam industry through the commercialisation of high-performance biodegradable materials – creating new jobs and addressing the key issue of synthetic polymers and plastics polluting the planet at the same time.

Vijay.Thakur@sruc.ac.uk

PhD has launched its brand new recyclable pouch range

The pouches are a high barrier laminate that is 100% recyclable. They have velcro instead of the standard or double press close zip which makes it so much easier to reclose. The designs excellent graphics are enhanced by foil inks and patterned soft touch and tactile lacquers. PhD was established in 2006 by two serious Yorkshire gym-goers on a mission to change the sports nutrition landscape.

"Building muscle isn't just about using a protein powder, and getting ripped isn't just about using a fat-burning capsule. Building true strength can't be done in a few weeks, it takes years and requires consistency. You won't progress without



great nutrition and without training smartly and consistently. The journey is definitely the destination and it should last a lifetime and the fun part should be the learning. So we hope that as well as fuelling your own greatness, we can educate you along the way to truly allow you to Perform Smart."

From these beginnings, PhD is now sold in over 45 countries and is truly a global performance nutrition brand. Yet the founding principles remain the same as in 2006: Innovation, honesty, results-driven and great taste.

The new packs look great and really fit the brief which was to keep the 'look and feel' of the existing pouches but be 100% recyclable, a very technical project.

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through to site surveys which would include high voltage, low voltage systems, installation of transformers and maintenance. We design, build and install control panels and supply switchgear as well as offering on site condition monitoring and in-house dynamic balancing," stated Lorraine Farrell, Growth Development Manager.

The group has built a strong and long-standing trading history across a significant number of industry sectors and maintains a strong reputation for providing great customer service.



Girona Project uses smart energy solutions combining renewables, storage and energy data. The Girona project is a one of a kind, custom-built, micro grid which has been created to digitalise and decarbonise, to help build a sustainable clean tech infrastructure for net zero.

It is the company's objective to see the commercialisation of innovate clean energy technologies and processes accelerated, with significant change brought about in the next 3-5 years, and growth and development delivered into 2030.



employees and we are looking to grow the teams further throughout the year. During the pandemic, we had some members of staff working from home that could work from home. We are classed as key workers so were able to offer our services to key customers throughout the COVID pandemic. As businesses start to open up, we are able to visit our customers' sites again to promote our valuable services and quality products that will help increase their plant uptime. There's a lot of growth going on at the moment within the business, which is fantastic, and within each department there's recruitment."

As the company looks to the future, GES Group plans to grow its customer base in southern Ireland following its new partnership with Nidec, and will expand our products and services to new and existing accounts. The company is continuing to recruit new employees and further its mission to provide renewable energy solutions.

T +44 (28)2565 6406
www.ges-group.com

In this issue of Industrial Process News, we are proud to announce that we have chosen GES Group as our Electrical Services Company of the Month.

Established in 1972 as Grants Electrical Services (NI) Ltd, the Company has grown and developed into GES Group, a leading Electrical and Mechanical Engineering business serving customers throughout Ireland, the UK and Europe. An award-winning industry-leading organisation, the company provide power, energy and turnkey solutions for SMEs and large multi-nationals across a range of industry sectors, including renewable energy for the UK, Ireland and beyond.

"We provide a variety of electrical and mechanical services, ranging from electric motor rewinds



"We provide a full turnkey service and unlike other competitors, we have five key divisions within the company offering our customers a holistic approach," noted Lorraine.

In terms of recent developments, in 2019 David Moore was appointed CEO at GES Group, having joined the company as Managing Director in 2008. Most recently David co-founded Girona Energy Limited as a Joint Venture created in 2019 and the Girona 'Smart-grid' project worth some £7.5m works by combining expertise in power engineering, FinTech and big data.

GES Group is offering a smart energy solution that will reduce energy bills for consumers by up to 30%. Using an energy management software platform, the

GES Group support a wide variety of renewable technologies, in-house within its own infrastructure, and is dedicated to working closely with its clients to outline and achieve specific 'Green' strategic targets and objectives.



Another notable development for the company, in January 2021 Nidec (Leroy-Somer Motors), appointed GES Group as an official distributor for Nidec within Southern Ireland. GES Group will stock and distribute the range of Nidec motors, and the new cloud based condition monitoring systems FORECYTE from both its Northern Ireland base and the Southern Ireland base.

After the impact of COVID-19, GES Group has seen some impressive growth and a successful past year. Lorraine explained, "From January this year we've employed a number of new



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printing, Datamark supply and manufacture a varied range of labelling solutions to a wide range of customers spread across various industries. Enlisting in the services of Datamark, customers can enjoy numerous benefits, for example gaining from the years of knowledge and experience amassed by Datamark.

Constantly innovating and seeking to add new products to their already extensive range, Datamark truly are the one stop shop for all of your labelling needs. Moving from strength to strength since its inception in 1995, Datamark offers customers competitive pricing, unparalleled customer service, reliable deliveries, rapid quote turnaround, and an extensive product range. Datamark's product range includes: Plain and Colourwashed Labels, Flexographic Printed Labels, A4 Sheeted Labels, Fanfolded Labels & Tags, Own Brand Thermal Transfer Ribbons, Thermal Transfer Ribbons, Thermal Transfer Bureau Print Solutions, GoDex and other brand Thermal Transfer Printers, Thermal Transfer and Direct Thermal Print Solutions, and TT Printers Service and Maintenance.

Driving the company forward, aside from its extensive product range, is its continued emphasis on providing the best customer service possible. It is no wonder that Datamark supplies such a wide variety of industries, including; food, distribution & logistics, storage & contract packers, electronics, homecare, automotive and industrial.

sales@datamarkuk.com
www.datamarkuk.com

M20 MILLTURN – SMART MACHINING is now!

The M20 MILLTURN is the latest addition to WFL's product portfolio and appeals to customer segments that are looking for a compact and powerful complete machining centre. Special features include the high stability of the machine as well as the integrated motor spindle concept for demanding machining technologies.

In 2020, WFL has manifested decades of expertise in complete machining in a machine that has been entirely redeveloped in terms of its design and technology. 'Smart machining' is at the heart of the technological innovations at WFL, bringing about an increase in performance thanks to the most diverse range of machining technologies. The range of applications covered by the M20 is almost infinite, capable of carrying out the demanding and complex machining tasks found in the aviation, automotive, engineering and plastics industries.

A particular highlight is the innovative design of the machine. The M20 MILLTURN has a one piece, straight-lined appearance, with a modern, functional design. The continuous front made from hardened glass features an integrated display of performance data as well as a sliding window to the tool magazine. The machine's fresh appearance is further supported by its new colouring. Optimum ergonomics as well as convenient, user-friendly operation round off the unique design.

The small machine for every task

When developing the M20 MILLTURN, the objective was to introduce a compact and rigid machine designed for long-term accuracy. With a length of 5,500mm, a depth of 3,190mm and a height of 2,500mm, the M20 is ideal for machining the most diverse range of workpieces. The M20 is a machine model with a 250mm or 315mm chuck diameter, with an impressive X-axis travel of 575mm (+475; -100), Y-axis travel of 260mm (±130) and Z-axis travel of 1,250mm. The machine is suitable for machining workpieces up to Ø 500mm and is equipped with a powerful 44kW (32) main spindle at 40% (100%) duty cycle and 4,000rpm. The M20 is equipped with a B-axis and a swivel range of ±120° for unlimited contour machining, as well as with the new 20,000rpm milling spindle.

This means that there is a universal range of possible applications for the use of high-speed tools. The motor spindle system is designed as a compact cartridge assembly with housing flange interface.

The machine frame is made from spheroidal graphite, which is extremely strong and guarantees excellent damping characteristics. Thanks to the construction of the machine, which incorporates vibration-absorbent cast components that offer optimum rigidity, even the heavy cuts that are required during machining are carried out without vibration. Large spaces between the guide rails and trolleys on the slide guides also guarantee a high degree of system rigidity.

The configuration of the machine allows for a wide range of possibilities: from a pure complete machining centre with steady rest and tailstock, as a counter spindle machine with tool turret or an individual tool holder at the bottom, as well as an optional integrated workpiece handling system.

Tool management & automation

The tool magazine can hold maximum 40 or optionally 80 tools with HSK-63 or PSC63 (Capto C6) accommodation. The maximum tool weight is 10kg and the maximum tool diameter is 90mm (adjacent) or 130mm (non-adjacent). In addition, the lower compound slide with tool turret can hold 12-24 tools. If necessary, the machine can be equipped with a bar feeder. A particular highlight is the automatic tool change into the lower individual tool holder with B-axis. This makes it possible to set up the tools parallel to machining time and then automatically access tools in the magazine. Stored tools can therefore be placed in the upper and lower tool holder. The internal coolant supply to the tool holders takes place at maximum 80 bar.

Based on the customer's specific needs, different automation options are available for automatic workpiece loading and unloading. An integrated workpiece handling and/or loading system, which can be added on the right side of the machine, represents a completely new variant of automation. The main guide rail for the handling system runs into the working area from the right. The gripper slide moves on the guide piston and can load and unload workpieces in this way. The workpieces are stored on a strip accumulator.

Huge variety for every application

The integrated motor spindle concept as a fundamental of the machine turns high dynamics into a reality. The M20 is perfectly suited to universal and demanding machining processes. The X travel at -100mm beneath the centerline also opens up new opportunities for complete machining. A drill pattern with a circumference up to a diameter of 200mm can be drilled by moving the XY coordinates, without moving the workpiece. The two B-axis systems in the machine also offer undreamed-of possibilities for machining thin-walled, funnel-shaped turbine parts.

The simultaneous B-axis turning is extremely useful here. The interpolating NC-driven B-axis is also suitable for turning with a pivoting B-axis. Thanks to the continuous

adjustment of the setting angle during the cut, a complex contour (eg. for turbine wheels or piston heads for large diesel engines) that would normally require multiple tools can be produced in a single cut. This reduces on the number of turning tools required and produces a seamless machining result.

New operator panel with modern design

For the controls, WFL relies on Siemens technology, namely the 840D sl. The control interface is visualised on a touchscreen. One of the many aspects that determine the performance of complete machining centres is the potential of the control system. The IPC 477E Industrial Flat Panels are ideally suited for use as screens and boast fast response times for instantaneous screen updates. The innovative multitouch variant with widescreen 24 inch front in 16:9

format and Full HD (1,920 x 1,080) is installed on the M20 MILLTURN.

Another special characteristic is the fact that the display can be divided and various programs can be displayed on multiple sub-sites. This allows functions such as WFL iControl process monitoring, graphics, programs, statistics and real-time data to be displayed in parallel. All of this results in optimized performance.

The CrashGuard, CrashGuard Studio and Millturn PRO programs can be displayed in the header bar in a clearly structured way. The window below this is used to display information on axis loads, tools, the CrashGuard Viewer, axis movements in real time and much more. This provides operators with a large number of options for monitoring



their manufacturing process.

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Lorien strengthens electrical engineering team

Lorien Engineering Solutions has strengthened its electrical engineering team with the appointment of Ian Cunningham (pictured) as Engineering Manager: Electrical and Control. The experienced engineer takes over from Tim Redfern who has fulfilled the department manager duties for over 15 years and will support the handover to Ian, while remaining in the business and continuing to support clients on long-term projects.



particularly in the drinks, dairy and food sectors.

He joins Lorien from Frederick Smith Electrical, an engineered electrical solutions company working

across food, beverage, automation, packaging, where he supported the managing director in resourcing and project planning, engineering and business operational requirements.

Previous experience includes FMA, where he was an electrical engineer working on global projects, and GEA Group, where he held overseas and UK roles, including Country Co-Ordinator for Electrical and Automation Engineering. He was most recently Head of Project Execution for GEA in the UK, responsible for the execution of equipment and service projects across the dairy, food processing, beverage and utilities industries and the development of automation support.

www.lorienengineering.com
www.gpstrategies.com

Lorien specialises in capital projects for food, brewing, drinks, life sciences, advanced manufacturing and logistics. The multi-disciplinary engineering and project management company is headquartered in Burton-upon-Trent, with international offices in Poland and South Africa.

Ian has 16 years of experience in electrical engineering and brings a wealth of industry knowledge to Lorien,

Award-winning noise & vibration damping technology

Sound Damped Steel (SDS) is a multi-award winning noise control company which was established by Les Thompson in 2003 with the main aim being to develop, manufacture and supply materials for industrial noise and vibration control applications.



SDS manufactures and supplies highly damped materials, complete kits and components that have been specifically designed to solve a very wide range of noise and vibration control problems at competitive, low costs. SDS utilises and draws upon over 30 years of experience in developing new and practical applications for the technology across an expansive range of projects to help both end users and leading noise and vibration control consultants solve their problems.

Gas, oil and other pipelines and their associated equipment such as valves, are renowned for generating high levels of noise that require a noise control solution to be applied. The current typical noise control measure that is used on pipelines, valves and other system components is the use of acoustic cladding, this however contains a multitude of drawbacks and additional associated problems.

To tackle this, SDS developed the Quiet Pipe Technology system which negates all the problems associated with current technology. How this works is instead of adapting conventional cladding techniques, the new system comprises interlocking acoustic close shields that convert the pipe itself into a silencer element to diminish noise.

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Engineering excellence

Industrial Process News is pleased to announce KOSO Kent Introl as our Control & Choke Valve Manufacturer of the Month.

KOSO Kent Introl engineer and supply high-quality valves to perform in some of the most severe service conditions throughout the world. As experienced valve manufacturers, the company has built a reputation for providing high-performance products on time at competitive prices.

Its products can be found across the globe and are backed by first-class technical expertise and a professional aftersales service that helps customers that operate in some of the world's most demanding industries. While the opportunities may be vast, the consequences of failure can also be catastrophic.



Its engineering quality, customer focus and fast technical responses give its customers the peace of mind they need.

Established in 1967, KOSO Kent Introl was initially known as Introl Ltd, since then, the company has had several changes of names and ownership. "Having worked in dynamic sectors such as Upstream, Midstream and Downstream oil, gas and power, we have become accustomed to embracing and adapting to changes and using them to our advantage," stated Stuart Billingham, Sales Director.

KOSO Kent Introl is part of the larger KOSO family which is headquartered in Tokyo, Japan. The KOSO Group has over 30 manufacturing plants and offices around the world, with the UK main facility situated in Brighouse, West Yorkshire.

Specialists in a plethora of industries, over the years KOSO Kent Introl has diversified across sectors such as oil and gas, petrochemical, power and industrial. In each of these sectors, KOSO Kent Introl has gained



the trust of some of the world's largest names. KOSO Kent Introl design and manufacture high-performance, reliable valves and solutions that meet and exceed all customer's needs. "Initially we were focused on the oil and gas industry, and to date this remains a key area of interest for us and accounts for a significant amount of our business. Another key area for us is subsea. We entered into this market in the late 80s with our subsea Choke range of products and over the years we have delivered some industry firsts in this segment," explained Stuart.

With over 50 years' experience within the industry, KOSO Kent Introl's team has an extensive application knowledge that can solve any customer enquiry or problem. Its broad range of products and technical solutions can be utilised to design from first principles to the development of bespoke specific solutions. "We specify, design, machine, assemble and test in a controlled environment using only the best quality suppliers and tools. Our aftermarket team can globally support the product in the field, from spares and service right through to upgrades or retrofit solutions for both surface and subsea



products. We can also offer Cradle to Grave care and support of our product," said Stuart.

Through integrity, honesty and fairness, KOSO Kent Introl win and retain customers by developing and providing products and services that help them run their businesses more successfully. Some of these customers include BP, Shell, Exxon Mobil, Chevron and many more. In addition, the company also support the EPC's and OEMS/integrators who supply into the oil and gas sector on a global scale.

Continuously looking to grow and evolve, KOSO Kent Introl remain heavily invested in the purchase of new machine tools to improve its efficiency and quality to systems and new techniques for the future, such as Additive Manufacture. We spoke with Stuart, who explained the company's future plans, "Our main focus is to strengthen and increase our position in our current markets globally, while also enhancing our capabilities in the subsea area. The drive to de-carbonise the energy sector is leading to some exciting challenges and potential new markets for us to explore and develop."

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www.kentintrol.com

The precision behind the process

In this issue of Industrial Process News, we are pleased to announce Analytical Technology and Control Limited (ATAC) as our Process Analysers Company of the Month.

ATAC is a leading manufacturer of Process Analysers, serving an array of industries such as oil and gas, paints and industrial coatings, adhesives, sealants and resins, energy and other manufacturing processes. Additionally, ATAC design and offer a wide range of ancillary systems including sample conditioning systems and sample recovery units as well as turnkey Analyser System Integration packages.

Established in 1993 as a private company, ATAC was primarily formed as a distributor of analytical products. In 2002, ATAC acquired Sysco Analytics which added Analyser System Integration capabilities to the company. In 2010, ATAC was acquired by Advanced Holdings Ltd – a mainboard-listed company on the Singapore Exchange. ATAC is just one of Advanced Holdings Ltd's global manufacturing facilities, with its UK office based in Wiltshire.

As well as manufacturing process analysers, ATAC provides service and technical support for its products. ATAC has an expanded and dedicated



Research and Development team who have been busy working on an ambitious program of enhancement to its existing process analysers as well as designing new products for new applications.

The company's well renowned brands of Hallikainen and Hone are known for their reliability, accuracy and durability. All ATAC products are designed to follow the ASTM methods, providing better precision and more accuracy than laboratory analysis with real time online data for a tighter process control.

Leading through innovation and design, ATACs latest product NµLine, is the next generation Cone & Plate Viscometer. Designed for fast, reliable quality control measurements across a wide range of industrial applications, the NµLine Cone & Plate Viscometer is a self-calibrating, highly adaptable 'At-Line' instrument designed to give a cost effective and robust option between sensitive laboratory instruments and the lower end 'Go-No-Go' type viscosity measurement devices currently on the market.

Providing significant benefits separating them from the competition, the NµLine Cone & Plate Viscometer features a dual language display allowing the user to choose



between English and a second language of their choice. Its PC software interface allows the user to remotely adjust the user parameters to run, display and record flow and time curve data. The Viscometer also includes a configurable temperature setting which is adjustable in 0.1°C increments and can also be selected as °F.

Furthermore, the machine is easy to clean and maintain in the harshest manufacturing environments and comes with the following range of fully interchangeable cone sizes: 2P, 5P, 10P, 20P, 40P and 100P. Some typical applications include decorative paints, industrial finishes, inks liquid and paste, motor finishes and powder coatings. The machine warms up in 10 minutes and its PC interface allows for USB, instrument range setting and control with graph plotting and storage settings.

The NµLine Cone & Plate Viscometer opens doors for ATAC to explore and enter new industry sectors. "The oil and gas industry in particular has suffered since COVID-19, and historically this is our core business sector. However, we have seen that with the advent of alternative energies, this sector has continued to decline. With this in mind, we want to develop more diversity of opportunity into other sectors as a way to grow the company," states John Kelly, Sales



and Marketing Director.

The future looks promising for ATAC as it looks to develop its viscosity measurement specialisation products into a wider range of solutions and applications. ATAC is fast on its way in becoming a market leader in process analysers and instrumentation, showcasing that with better control comes better manufacturing and product quality.

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Chamois Metrology

Chamois Metrology introduces the new Additel ADT686 Advanced Digital Pressure Gauge which includes a smartphone like touchscreen and graphical interface for a completely new way of interfacing the menus and features.

The ADT686 Advanced Digital Pressure Gauge comes with a built-in barometer and is available in pressure ranges from ± 2.5 mbar to 4,200 bar and comes standard with Wi-Fi and Bluetooth wireless communications, as well as a type-C USB port and cable (RS-232 and 4-20mA output communications are optional).



Additel 686 gauges cover, gauge, absolute, differential and compound pressure ranges. Each gauge contains a built-in barometer sensor which allows for the pressure reading to display in gauge pressure or absolute pressure with a

simple menu selection. These new gauges can also be configured with an optional data logging capability which allows users to store up to 10,000,000 readings.

Each gauge comes with an ISO-17025 accredited certificate of calibration. It is compatible with Additel's Link mobile app and 9502 Additel/Log II software, which enables the ability to monitor and display the real-time pressure measurements in a table or graphically.

For a demo in person or virtually, get in touch via: info@chamois.net or call 01926 812066.

New digital stereo system expands optical microscope capability

Vision Engineering Limited has announced the launch of DRV Stereo CAM, a new and innovative stereo camera system that converts optical stereo microscopes into high magnification, high definition 3D digital stereo microscopes.



DRV Stereo CAM integrates seamlessly with Vision Engineering's own award-winning ergonomic stereo microscope, the Lynx EVO, but it also upgrades compatible conventional binocular stereo microscopes to full HD 3D digital stereo imaging.

This unique system combines all the benefits of high resolution optical microscopy and Vision Engineering's patented DRV 'glasses-free' digital 3D stereo viewing technology.

The DRV Stereo CAM's novel design allows viewing to be separate from the target subject, enabling remote, safe and ergonomic positioning of the operator where the subject is required to be in a clean or aggressive environment. Samples in laminar flow cabinets, over production lines and in difficult to access areas can be safely and remotely viewed, in 3D, away from the microscope.

A further benefit of DRV Stereo CAM is the live distribution of viewed images and video, so now, high resolution 3D stereo images normally viewed in-situ through an optical microscope can be viewed, captured, recalled and shared across networks. Team members located within a building, across a company, or anywhere in the world can view in real-time, the same 3D HD images.

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Watlow's new 1/32 DIN PM LEGACY™ controller

Watlow®, an industry leader in the design and manufacture of complete thermal systems, recently introduced its new 1/32 DIN PM LEGACY™ controllers, which are the first 1/32 DIN controllers on the market to incorporate Bluetooth® wireless technology. Bluetooth® is used to enable EZ-LINK™, Watlow's mobile app for setting up, monitoring and adjusting PM PLUS™ and PM LEGACY™ controllers.



Watlow's PM LEGACY SERIES panel-mount controllers are industry-leading PID controllers that offer optimal performance utilising simple control and menu functionality without complex features. They are ideally suited for basic applications and usage levels.

PM LEGACY controllers include one universal input and an option for up to two outputs. These controllers can be ordered as PID process controllers or as dedicated over and under-temperature limit controllers. The LEGACY SERIES controllers feature a SMOOTH-TOUCH™ keypad eliminating contamination points on the front of the controller and creating a better seal on the front panel as well as a function key for simple, one-touch operating of user-defined, repetitive activities. PM LEGACY controllers are backward compatible with EZ-ZONE™ PM controllers.

"There was a need in the market for a simple controller for basic applications, so we developed the LEGACY SERIES to fulfil that void," said Andy Borkowski, product manager. "Our customers don't always want the most powerful, high-end controller. Some applications require basic control and this product line is made for those situations. Earlier this year we introduced the 1/16 DIN and now we can offer the 1/32 DIN as well, which is the first of this size in the industry to incorporate Bluetooth® technology."

www.watlow.com



PM LEGACY™ Panel Mount Controller

The Watlow® PM LEGACY™ series panel mount controller is an industry leading PID controller that allows optimal performance utilizing simple control and menu functionality without complex features.

- Simplified menu
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Ideally suited for basic applications or usage levels



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Contact your local Watlow representative or visit www.watlow.com to find out more



On the level, sticky situations resolved with RF admittance coating rejection

The coating rejection capability of the Drexelbrook RF Admittance level technology is key to its success in the measurement of highly viscous media. Drexelbrook's patented, proven Cote-Shield™ technology is able to ignore coating build-up on the probe ensuring accuracy and reliability with the elimination of false trips, regardless of product accumulation on the level transmitter.

This makes Drexelbrook level transmitters ideally suited for level measurement in applications involving adhesives, bitumen (asphalt), cement, tarmac, pitch & resins. Furthermore, other features such as its remote electronics ensure immunity to the high temperatures, pressures and significant vibration that are often associated with these manufacturing processes.

Petroleum Bitumen, normally called 'Bitumen' or 'Asphalt' is produced by refining crude oil. Used as a binder in road-building products, it is a very viscous



black or dark brown material.

At Nynas Bitumen's Eastham Plant at Ellesmere Port in Cheshire, which is a joint venture with Shell, the journey from crude to highly refined process oil starts in the distillation column. The crude oil is pumped from storage tanks through a heat exchanger system where its temperature is increased to about 200°C – and then further heated in a furnace to around 300°C where it is partly vaporised before entering an Atmospheric Distillation Column (ADC).

In the ADC the physical separation of the components takes place. The lighter components rise to the top and the heaviest components fall to the bottom of the column. The material from the bottom then enters a Vacuum Distillation Column via another heat exchanger. This is where the bitumen is produced. Vacuum distillation helps to maintain the inherently high binding characteristics of crude due to the lower operating temperatures.

As an approved supplier to Nynas, ABLE specified the Drexelbrook IntelliPoint RF Admittance Point Switch for the critical high level alarm duties on the bitumen storage tanks. Spillages from these tanks as a result of overfilling have a high potential



for serious injury, as bitumen is stored at high temperatures and has a large thermal capacity. Furthermore, the coating rejection capability of the IntelliPoint is key to the success of the measurement of this highly viscous medium. The subsequent reliable and repeatable performance of the IntelliPoint has allowed Nynas to raise the high alarm level set-point, thereby increasing the storage inventory of the vessels.

Nynas Senior Maintenance & Project Engineer, David Harrison, commented, "We had been having a lot of issues with unreliable high-level probes for some time and after some research and preliminary testing decided to use the Drexelbrook model RMT2 probes from ABLE. Along with the in house designed electrical panels we now have a more reliable probe with indication and controlled stop operations fed to/ from the DCS that can be relied upon. We will be purchasing further units for our production vessels and chemical tanks in the near future."

RF Admittance technology is impervious to changes in density, pressure, or electrical properties, even if they are coincidental, guaranteeing dependable level measurement performance in all kinds of process liquids, slurries,



granules, and interfaces.

RF Admittance at a glance:

- The most versatile level technology for liquids, slurries, interface, and granules measurement
- Proven Cote-Shield™ technology that ignores coating build-up on the probe
- No calibration shifts due to changes in temperature or material densities
- Can be remotely mounted up to 100 feet from the sensing element
- Available as intrinsically safe systems
- Output: 4-20 mA dc
- Immune to tank obstructions such as nozzles, ladders, pipes, and agitators
- SIL 1 and SIL 2 compliant models

For more information on the Drexelbrook range of RF Admittance Level Gauges, please call 0118 931 1188 or email: info@able.co.uk or visit us at: www.able.co.uk and www.247able.com for our ecommerce platform.



Training & Development News



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ESAB squarecut technology doubles cut speed, quality and hole cylindricality in automated plasma applications

Building on the success of its DMX Automated Plasma Beveller, ESAB has launched SquareCut Technology to further improve the productivity of automated plasma cutting operations. SquareCut Technology tilts the torch to compensate for the 1- to 3-degree edge angle inherent in high-precision plasma cutting to provide three distinct benefits:

- A High-Speed Mode cuts up to two times faster without increasing bevel angle
- A Quality Mode creates a cut surface with a 0 to 1 degree bevel
- Improved Enhanced Hole Technology cuts smaller holes with better cylindricality



"SquareCut Technology increases productivity significantly," says Steve Zlotnicki, Global Product Manager, ESAB Cutting Systems. "Using the High-Speed Mode, an ESAB plasma system can cut faster than any competitive system. It's the fastest, easiest and most intelligent way to increase plasma cutting profitability."

www.esab.com

SquareCut Technology works with ESAB's Columbus® CAD/CAM software, Vision T5 CNC, the DMX 5-axis beveller and iSeries high-precision power source. It works at cutting outputs from 100 to 400 amps when cutting mild steel plate from 6 to 40mm thick. SquareCut integrates all bevel compensations into the CNC. The technology simplifies making square cuts and allows any fine tuning to be done quickly and easily at the machine.

New from world leading welding inverter manufacturer JASIC are the TIG 200 Amp AC/DC machines

The JASIC TIG 202 Analogue Pulse AC/DC and JASIC TIG 202 Digital Pulse AC/DC are technologically advanced single-phase inverter power source suitable for medium production work.

The 202 Analogue has an innovative and user-friendly analogue control panel allowing full control of the welding parameters. The 202 Digital has an innovative and user-friendly digital control panel allowing full control of the welding parameters.

The excellent technical characteristics of these models make it an ideal choice for the professionally qualified TIG welders that require precise and reliable performance. Optional water cooler and large cylinder trolleys are available.

Both inverters come complete with TIG torch & adaptor, gas regulator, work return lead and clamp. All JASIC welding inverters carry in the UK and Eire a free 5 year warranty supported by factory trained technicians offering you total peace of mind.

T 0161 793 8127
www.wilkinsonstar.com



ESAB welding and cutting equipment now available via full-service rental partners throughout Europe

So construction companies, fabricators and others can gain immediate access to metalworking equipment, ESAB has launched a partnership with rental companies throughout Europe.

The initial roll out includes rental partners in France, Netherlands, Sweden, Finland, Denmark, Norway, Spain, Portugal and UK. ESAB equipment available for hire includes a range of ESAB's most innovative equipment with outputs for MMA, TIG, MIG/MAG, flux cored, multi-process welding, gouging and manual plasma cutting.

Whether customers need a welding machine for a week or for several months, they can now hire what they want from a rental outlet without having to purchase equipment outright, freeing up working capital.

ESAB partners can also supply the necessary filler metals, torches, PPE and accessories, so customers can one-stop-shop for their short- and medium-term welding requirements.

ESAB equipment in the rental fleet includes some of the industry's most compact, portable, powerful,

productive and energy efficient welding and cutting power sources. When end-users know that they have quick access to state-of-the-art equipment, they can tender for more work.

Should they win the contract, they will not need to make a heavy up-front investment in order to use the optimum technologies for each project, whereas they might otherwise purchase a welding machine that is perfect for one contract but sub-optimal for subsequent contracts.

www.esab.com



Fastenings & Adhesives News

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web: www.theinsertcompany.com

Born2Bond™

Bostik, an Arkema Company, has launched a new range of high-performance anaerobic adhesives to provide engineers with more reliable, cost effective and convenient alternatives to commonly used mechanical fastening solutions such as washers, gaskets, pins, hems and tapes.



An extension of its proven Born2Bond™ portfolio that includes instant adhesives, light cure adhesives, high-performance HM-PUR adhesives, UV-CIPG gasketing, and more – the new anaerobic range has been designed specifically to address challenges engineers face with increasingly demanding environmental and safety regulations, smaller and more complex designs, and more adaptable and faster processes. These challenges are particularly felt by engineers and designers working in automotive, electronics, general assembly, luxury goods, medical devices, maintenance repair and operations (MRO) and automotive aftermarket (AAM) sectors.

The range is designed for 'by-the-dot', metal-to-metal bonding and includes products designed to provide heat-resistance (up to 230°C, depending on product and category). They also offer single-component, non-solvent-based and multiple-strength/viscosity alternatives to threadlocking, pipe sealing, gasketing and retaining (bonding solutions for cylindrical assemblies that are highly resistant to dynamic loads).

The advantages of high-performance anaerobic adhesives over mechanical solutions include reduced inventory requirements (eg. for different size and design washers and gaskets), long-term reliability, increased versatility of application, protection against corrosion and resistance to vibration, heat and chemicals.

www.Bostik.com
<http://Born2Bond.Bostik.com>

SPIRALIFT® SC Screenings Conditioner

The SPIRALIFT SC Screenings Conditioner, washes, conditions and compacts screenings typically received from a bar screen discharge. This unit reduces odours, removes organics and makes the screenings suitable for disposal at ordinary landfills. This unit quickly pays for itself by reducing disposal costs. By combining a powerful grinder and effective wash press into one system, the SPIRALIFT SC achieves thorough washing unmatched for any other single technology.

As the screenings are received from the bar screen in the SC hopper, they are spray washed and finely ground by a heavy-duty TASKMASTER® grinder which exposes multiple surfaces to

the washing action. The solids then drop into a second zone for intensive washing under high pressure. A powerful screw press washes and drains liquids and contaminants and finally compacts them as they are discharged from the unit's 'elephant trunk'. The cleaned solids are discharged into a bin, container or onto a conveyor.

The SPIRALIFT SC is compact and freestanding and can be placed in tight plant locations. It can be installed behind a new mechanical bar screen or retrofitted to an existing installation. The unit can be fixed mounted or configured for portable operation to handle the output from multiple sources. The SPIRALIFT tank



enclosure and hopper are constructed of durable stainless steel. A PLC-based control system with a touch screen HMI interface is supplied. The control monitors and integrates all system functions.

Contact
UK +44 (0)161 302 7055
USA 001-973-535-9200
info@franklinmiller.com
www.franklinmiller.com

Direct Air Capture solution

As one of the UK's leading specialist engineering companies, Strata Technology is part of a UK-led consortium developing direct air capture technology.

Direct Air Capture involves removing carbon dioxide from the atmosphere which is then stored permanently so it cannot contribute to climate change. Some CO₂ can also be 'recycled' for other purposes such as conversion into synthetic fuels.

The consortium, led by Sizewell C, has been awarded £250,000 of Government funding to develop heat-powered direct air capture (DAC) technology and includes leading engineers and carbon capture experts from Strata Technology, as well as the University of Nottingham, Atkins and Doosan Babcock.



Strata has worked with Imperial College London and the University of Nottingham on a range of carbon capture, utilisation and storage (CCUS) projects, and brings its extensive knowledge and process development expertise to the consortium.

The unique low-carbon heat-powered DAC design will offer increased efficiency and less reliance on electricity compared to existing DAC technologies and will be powered by the new Sizewell C nuclear power station.

Strata Technology's Managing Director, Roger Kimber, added, "I am delighted that Strata can bring its extensive knowledge and experience of carbon capture to the consortium, and we're excited to be developing a technically and commercially viable solution for direct air capture with our partners."

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Technology boosts control panel business

Pioneering engraving specialist, Brunel Engraving, has reported a significant growth in demand from the control panel manufacturing industry following its investment in specialist state of the art engraving equipment.

The company has seen a substantial increase in the number of requests for bespoke metal and plastic components since it quadrupled its laser engraving and profiling capacity with the installation of three new machines at its production facility near Bristol last year.

Two laser engraving machines and a dedicated fibre laser profiling machine which can cut metals such as stainless steel, brass and aluminium, have enabled Brunel to produce profiles, shaped labels and control panels. In May 2021 the company also added a further laser cutting machine which

has the capability to cut plastics and acrylics up to 9mm thick.

In addition to the laser engraving and profiling equipment, Brunel has invested in a new state of the art flatbed printer which enables the engraving specialist to manufacture face or reverse printed control panels and labels.

"We are delighted that our further investment in high tech engraving equipment has really paid off and proved an enormous boost for our business with control panel manufacturers," said Martyn Wright, managing director and founder of Brunel Engraving.

"The technology has enabled us to extend our production capability and to answer the increasing demand for bespoke shape cutting and profiling



from new and existing customers within the industry."

Established over 30 years ago, Brunel Engraving leads the way in technical innovation. The company has ISO9001 accreditation and its highly skilled team of professional engravers is trained to the highest standards in the UK.

Contact: Tom Pycock, Sales Director
T 01275 871720
info@brunelengraving.co.uk
www.brunelengraving.co.uk

Continued investment plans for Kingston Engineering

Kingston Engineering is one of the UK's leading precision engineering companies, with expertise in the manufacture and production of bespoke power screws. Using materials and specifications to suit customer's exact specifications and needs, Kingston Engineering produces cutting-edge power screw components with complementary nuts and fittings.

Based in Hull in East Yorkshire, Kingston Engineering specialise in manufacturing Right Hand/Left Hand, Single/ Multi-start, Cut Thread Power Transmission Screws and Nuts, adaptable for mechanical power transmission. Kingston Engineering's products are provided to a diverse range of industry sectors in the UK and

across the globe, conforming to British, European and American standards.

All customised and purpose-built screws are manufactured and produced to the exacting quality standards of ISO 9001-2015 accreditation. Kingston Engineering also provide component reclamation, component enhancement, component repair & a corrosion prevention service.

Building a resilient future with a heritage built on engineering skill, innovation and expertise, Kingston Engineering has shown remarkable resilience and responsiveness to change across the decades. These are the core strengths that still form the cornerstone of the Kingston



Engineering business today.

As the company embraces the years ahead, the focus is to continually invest in state-of-the-art equipment, in-house facilities and advanced technologies. This will enable Kingston Engineering to continue to deliver leading precision engineering solutions to customers in both the UK and across the globe.

T +44 (0)1482 325676
sales@kingston-engineering.co.uk
www.kingston-engineering.co.uk

Dynamic Duo to launch industrial software solution in America

Affine Consulting has teamed up with IAMTech to provide a unique software solution that could save industrial companies millions of dollars.

IAMTech, whose products address critical gaps in the world's leading oil, gas, chemical, mining and energy companies, has launched its industrial software in America, after experiencing major success in the UK and across the world. The company's products are used across 23 countries by leading firms including ALTRAD, CF Industries, DIAB Engineering, INEOS and Kaefer.

iPlan, one of IAMTech's core products, provides critical information in real time, and has been developed to help industrial organisations with their routine maintenance on equipment as well as react swiftly in the event of a shutdown or outage.

The software, which includes a mobile app, improves safety, saves time, avoids costly mistakes and heightens compliance as well as productivity rates.

Available in three versions, the software can notify companies immediately when a shutdown is urgently needed, meaning that workers and third party contractors can access the information and task list they need urgently, without direct access to the core system, which is great for optimum security.

An industrial asset owner had an annual routine maintenance budget of \$37m and by using the new software, he saved \$3.6m in the first year, amongst other things, by eradicating the need for outsourcing work pack generation to expensive third parties.

Now Affine Consulting, an asset management consulting firm, has signed an agreement to bring the advanced software solutions IAMTech offer into a



range of markets abroad.

Owner, Doug Kibler, said, "The ability to improve planning operations with direct support of safety and environmental applications without impacting the core management systems is critical to improved operations at asset-intensive industries.

"Working with a company that has the confidence to publish its software prices for industrial solutions is unheard of in this market."

Ross Coulman, CEO of IAM Tech, added, "Affine will be supporting the market availability of these solutions in North America including Canada, mainland United States, Mexico, Brazil, and Chile. We are excited about the prospect of expanding our global footprint with our partnership with Affine Consulting."

IAMTech, the world's largest independent industrial software provider, also offers companies a chance to check out its return on investment calculator, to show them how much they could save by implementing the software.

To learn more, visit:
<https://launch.iamtech-solutions.com> or watch the video at: <https://vimeo.com/578415328>

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Titan bridges troubled waters for flow meter installation

Titan Enterprises has released video tutorials illustrating correct wiring of its pulse precision flow measurement devices to support customers with the installation of flow meters into their applications.

Within the flow metering industry, wiring a flow meter is often second nature to experienced engineers and may seem intuitive for established customers. However, Titan's flow meters are used throughout a wide variety of industries, processes and applications. New customers unfamiliar with our flow metering solutions may find themselves in turbulent water if the meters are wired incorrectly during the installation process.

The majority of Titan's flow meters use transistors which can be damaged through simple wiring mistakes, resulting in a defunct meter before the customer has even started! By

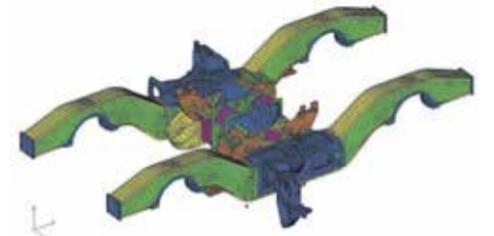


providing customers with clear visual methods of how to install a flow meter and correct wiring to the power source, we are aiming to save customers time and money in what are essentially preventable errors.

"Although all Titan flow measurement devices are supported with written data and instruction sheets, through our ISO 9001 examination of returns and call logs, we have found that a large percentage of flow meter installation issues result from miswiring," states Jeremy Thorne, Production Manager with Titan Enterprises.

For further information on flow measurement devices to suit specific applications, contact Titan Enterprises on +44 (0)1935 812790 or email: sales@flowmeters.co.uk – for Titan's video tutorials, visit Customer Resources at: www.flowmeters.co.uk/flow-meter-installation-tutorials

Analysis by Firth: Transforming product design



As a manufacturer or product designer are you:

- Looking to reduce design and development costs?
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At Analysis by Firth, we help you to resolve existing challenges and identify design issues before they turn into problems. With a proven track record of resolving problems in industries such as road and rail vehicles, aerospace and industrial plant, we understand manufacturers' needs. Our expertise has supported the successful development of everything from a foot file to a double decker bus. We pride ourselves on our client feedback which consistently highlights the quality of our personal and responsive services, even within the strictest of deadlines.

Get in touch to find out how we could help you – or find out more about our services or training courses.

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World's first stainless steel coolant distribution unit

A major manufacturer of data centre cooling units had received a request from one of its customers to supply its coolant distribution units (CDUs) with stainless steel pipework instead of the traditional brass or copper.



Realising this was a gap in the market that needed filling, the manufacturer turned to Stainless Fittings Limited (SFL) to see if it could help. Given SFL's extensive manufacturing knowledge of, and experience in, stainless steel pipework, it was in an excellent position to advise and guide the CDU manufacturer.

So began a four year journey where SFL assisted its client in the design, manufacture and assembly of the world's first stainless steel coolant distribution unit.

SFL's initial input into the project was to help in the design of the stainless steel pipework that would be installed in the CDU. Working as an extension of its client's engineering team, SFL helped create a series of 2D CAD drawings and 3D models.

One of the challenges SFL faced was how to fit the new pipework into the existing space, given that stainless steel isn't as malleable as brass or copper. Through its meticulous and methodical approach, the team successfully arrived at the first version of the CDU pipework that fitted perfectly into the same footprint.

SFL's next task was to manufacture the set of pipework for the prototype unit, ensuring the kit was manufactured to the highest possible standard. SFL then assisted in the assembly and successful fitting of the pipework into the initial unit.

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An unmissable showcase of the latest and best in intralogistics

Quite simply, this exciting event, held at Coventry's RICOH Arena from 1-2 July 2021, cut through the growing noise in the industry and provided visitors with the go-to platform for discovering logistics innovations.

IntraLogisteX is for logistics professionals who are looking for solutions to their current and future challenges, from the latest materials handling technologies to full-scale warehouse automation options. This event is designed for end-user/practitioner logistics professionals such as warehouse managers, heads of distribution, IT directors and lead project managers.

Visitors were able to meet industry leading exhibitors and discover how the latest technology can be applied to their operations to provide massive improvements in productivity and accuracy.

There was a completely free comprehensive Conference theatre. This free learning opportunity meant visitors could hear directly from the minds behind the latest technology, and listen to industry leaders as they shared their insights and gave real world examples of how they have automated their own and their customers' operations.

Visitors could condense weeks of online research into just a few hours – all the companies they needed to talk to were



gathered together in one venue. There was no better way of doing business than meeting face-to-face to get more value from interactions with potential suppliers and ensure they really understood visiting organisations' complex needs.

IntraLogisteX will return next year to the renamed CBS Arena, Coventry from 29-30 March 2022. This is our pick of the best exhibitors from this year's show, listed here in alphabetical order: Bots and Us, Eurotec, Hazel 4D, Modula, Orion MIS, Samuel Grant Packaging, Scaglia Indeva & Voxware. Further details can be found on this page and the next.

www.intralogistex.co.uk

New storage solutions

Modula SpA introduces new storage solutions designed to maintain the cold chain and operate in controlled environments.

The three solutions developed by Modula are:

- **Modula Climate Control** – Controlled temperature and humidity storage systems
- **Modula Clean Room** – Storage systems for clean rooms
- **Modula Dry** – Low humidity (dry room) storage systems

Today, companies in all sectors need to invest in logistics, a fundamental driver which is often a critical success factor. It is well known that a warehouse is not merely a storage place but a real backbone of the supply chain, a



catalyst of added value which, if well managed, can provide benefits to the entire chain, both upstream and downstream.

Those who work in sectors such as the pharmaceutical, food, chemical or electronics sector look for automated solutions that facilitate access to SKU codes while meeting the need to access a high number of items on the one hand and to make the most of the available space on the other.

In addition, the regulations in these sectors are often stringent and specific equipment and structures are required for the storage of certain goods. These were the needs that prompted Modula to develop its new storage solutions.

www.modula.eu/sales-network/europe/united-kingdom/
infoweb@modula.com
www.modula.eu

The UK's only EUMOS approved pallet stability testing centre

Samuel Grant Packaging is delighted to announce the launch of the Samson Nano Slingshot, which makes its pallet testing laboratory the only EUMOS certified centre for horizontal pallet load security testing in the UK.

This type of pallet stability testing machinery is already making an impact in mainland Europe, but the Slingshot is the first of its kind to be installed in the UK and unique to Samuel Grant Packaging. The Samson Nano Slingshot replicates the inertia of a vehicle and whether the load will potentially displace. The machine can initially test at 0.1G and work up to the EUMOS standard of 0.8G. From the pallet data entered, the maximum deformation of the load is calculated to create a pass or fail.

Revered in the transit packaging industry for their own pallet wrap system the Samson Nano, for which the company received a Queen's Award for Innovation, the investment in the Slingshot machine seemed an obvious progression for the company. Pallet stability and safety are crucial to manufacturers, who not only want their goods to reach their destination in perfect condition, but also need to keep their warehouse teams, logistics operations and the wider public, safe from displaced loads.

EUMOS is the European Safe Logistics Association, of which



Samuel Grant Packaging is a proud member. EUMOS is aiming to reduce the number of fatalities to zero by 2050, instilling safer working practices throughout the supply chain, and has created standards which are industry recognised. By using the Samson Nano Slingshot, Samuel Grant Packaging can guarantee compliance with the EUMOS:40509 2020 safety standards.

For more information, watch our video at: www.youtube.com/watch?v=m-JQJwAJsBM&t=73s or visit: www.samuelgrant.co.uk/test

Scaglia Indeva Liftronic® Mobile: A world-beating intelligent mobile handling device

To help speed up logistics operations and processes, warehouse operators need mobile lifting equipment that can offer optimum agility and flexibility in a fast moving environment. This allows them to react quickly and efficiently when a new lifting and handling task is required, even if that is on the other side of a facility to the manipulator's current position.

To meet these demands, the Liftronic® Mobile allows for easy movement of components and goods to wherever they are needed, meeting the requirement for a robust, flexible material handling system to optimise the flow of items throughout the warehouse, increase labour productivity and help control costs.

Easily mounted onto an electric pallet truck, the Liftronic® Mobile offers a choice of fast-change grippers such as pantograph, magnet, and vacuum – so the lifter can be used on different and diverse loads throughout a logistics or warehouse environment.

Liftronic® Mobile Key Technical Data:

- Gross load capacity: 50kg with a mechanical gripper
- Arm length: 2,530mm
- Vertical stroke: 1,500mm/1,900mm – based on column height
- Overall size: 812 x 851 x 2,440mm/2,840mm (depends on column height)



- Choice of grippers such as pantograph, magnet, and vacuum
- Vacuum gripper: air through the arm, no pipes needed

Indeva offers a comprehensive range of industrial manipulators to meet a wide variety of lifting requirements in manufacturing and logistics.

T 01246 252333
info@uk-indevagroup.co.uk

Automate your process with Orion

At Orion MIS, we are independent experts in automation, engineering and integration. With over 20 years' experience, we are renowned for finding the right solution for our customers by bringing together the best software and hardware solutions to enhance the operation. This is achieved by designing, building and integrating each project as a bespoke solution, whilst still provided from our modular designs that allow for the scope to increase in the future, should this be required. Our vision is to deliver unrivalled customer support and enhance the customer experience each time that they interact with Orion.



At Orion, we pride ourselves on offering unparalleled service with Management, Integration and Support.

Each service is adaptable to any industry, allowing customers to get the most out of their solution. By taking a holistic approach to automation, our customers are supported throughout the whole project experience and even well after project has been completed.

T 0333 335 5269
info@orionmis.co.uk
www.orionmis.co.uk

Hazel 4D helps mitigate plastic taxes with Atlanta pallet wrappers and Extremus film

With an ever-growing focus on the environmental impact of plastic, and more and more Government initiatives aimed at driving reductions in single use plastic, companies across the country are searching for ways to replace their plastic packaging. In most packaging areas this can be achieved quite effectively and, as packaging manufacturers apply their minds to developing plastic free products, the range on offer improves and becomes affordable for most companies.

However, there is one area where there is not yet a viable alternative to plastic – pallet wrapping. Literally millions of companies use plastic stretch wrap in huge quantities, and there's no sign of a viable plastic free solution on the horizon. Instead, the focus needs to be on reducing the single use plastic used in the pallet wrapping process.

This is where Hazel 4D can really help. They have brought together the Atlanta range of pallet wrapping machinery and the Extremus range of machine films to



create a winning combination. "We often talk to large users of pallet wrap who pay very little attention to this aspect of their process," says Kevin Oliver, Technical Sales Manager at Hazel 4D. "Many people don't spend much time reviewing the type of pallet wrap film they use, or the quality and condition of their machinery. Often the film is a lot thicker than it needs to be and the machines are old or not well maintained. However, the combination of a decent quality stretch film and a good pallet wrapping machine can not only have a profound effect on efficiency but, when optimised



correctly, can massively reduce the amount of plastic used and the cost per pallet wrapped, whilst simultaneously improving load stability."

"It really is a no brainer when you look at the numbers," continues Kevin. "We regularly demonstrate to companies that using our process and expertise, we can reduce their film usage by 80%, and their costs by 50-60% per pallet wrapped, AND improve the pallet load stability at the same time."

Get in touch to find out more:
T 0113 242 6999
wecare@hazel4d.com
www.hazel4d.com

Exploit the possibilities of robotics within your business

Transform your current process by automating your internal transport. Keep your current building, your load carriers and improve your flow and efficiency. We are committed to providing safe collaborative solutions that will help you revolutionise your intralogistics with out of the box technology.

The Lowpad is an autonomous mobile robot that can automate horizontal internal transport in a variety of logistical environments. Guided by the in-house developed software layers Lowpad Supervisor and Organiser, we can manage fleets up to a few hundred Lowpads and optimise several processes through intelligent task planning.

Lowpad's story began in 2017 when, by serendipity, a special project for a customer appeared to be a unique product that solved pressing



unresolved problems. Today, we offer a range of Lowpad solutions to industries such as post and parcel, grocery retail, third-party logistics, e-commerce, and horticulture. At Lowpad, we are taking on the challenge to help organisations improve their productivity and efficiency while decreasing costs.

Find out why leading organisations are deploying automation with Lowpad. Get started today by getting in touch with the automation experts at Lowpad.

Lowpad we like to move it move it
T +31 (0)184 69 11 05
sales@lowpad.com

Concerns were high!

"IntraLogisteX 2021 was a great post-COVID kickoff event!"
– CEO, Andrei Danescu

Coventry, IntraLogisteX Event – 1st to 2nd July 2021. The concerns were high! First post-COVID event. Are people ready to join live events already? Will visitors come to our stand? All our worries were forgotten after the first couple of hours at the event. This was the day we publicly announced that we are now expanding into the logistics sector with our Robotics & AI technology. Our autonomous solutions for streamlining warehouse operations will save the industry millions per warehouse every year.

The question we also asked ourselves was: Is the logistics industry ready for us? Ready to go another step towards automation and data-driven processes? And we can clearly say: Yes, the logistics industry is ready for us and autonomous robots. We really enjoyed the great opportunity to finally be able to showcase our technology live to industry leaders. After doing demos mostly online over the past 18 months, it was not only refreshing but also a great opportunity to bring our solutions in front of people.



The great conversations we had with industry experts & leaders showcased how valuable and well impactful our use cases are. This confirmed and validated that we are on the right track with our solutions. With this, we are very excited to nourish and strengthen the great contacts we made and grow our business exponentially over the next months. We already booked our stand for next year to build upon our success at the exhibition this year.

www.botsandus.com

Voxware's automation technology

Companies rely on Voxware's automation technology to

improve accuracy, efficiency and productivity to deliver a superior customer experience. Voxware's Voice Management Suite utilises multimodal technologies across all workflows (receiving, put away, packing/loading shipments and all processes in between), in the DC to ensure the right technology is being used for the task at hand. VoxPilot, Voxware's enterprise analytics solution, aggregates and analyses internal and external data sources and presents real-time and historical information, predicts future events and helps users navigate the right course of action to immediately resolve problems that may surface. Deploying Voxware VMS and VoxPilot can help drive up to 45% more productivity.

One example of how a Voxware



customer utilises the software is from a very large medical supply company. This customer approached Voxware with three requirements: multiple workflows (picking, putaway, replenishment and cycle counting); each workflow needed to be voice and scanning enabled; and dual language capabilities (English & Spanish). After addressing their challenges and helping them achieve significant results, this customer deployed a similar system in its second facility. Additionally, they deployed VoxPilot and in doing so, were able to better align their work process and their workforce requirements to eliminate seven figures in annual overtime.

Contact
T +44 (0)203 857 1540
www.voxware.com

Manufacturing News

Sandvik launches CRIBWISE SaaS tooling inventory management technology

Design & Planning Automation, a division within Sandvik Machining and Manufacturing Solutions, is launching CRIBWISE™, a new software as a service platform in the UK and Ireland.

CRIBWISE is a subscription-based Cloud inventory management solution that helps manufacturing

businesses take control of their tooling inventory and related processes. The software enables tool, spare part and equipment management, automated purchase and service orders, automated tool dispensing, manufacturer catalogue services and smart reporting.

CRIBWISE is modular, customisable and easy to

integrate for all sizes of machine shops. It helps improve productivity and machine life by reducing administrative time, hours spent searching for tools and production and maintenance delays. It also cuts unnecessary expenditure due to over-purchasing and over-stocking.

Without an effective tool-management system, machine shops can find themselves doing one of two things: rush orders of new tools when inventories are depleted unexpectedly or stock more tools than needed so that they do not run out in the first place. Both can significantly add costs and also cause problems on the shop floor.

Head of CRIBWISE, Joakim Johansson, says, "Tooling costs can easily run into tens of thousands of pounds, and much of this can be attributed to outdated and unconsolidated tooling inventories that take up space and cause frustration."



He adds, "With a standardised and consolidated tooling inventory system like CRIBWISE, machine shops can streamline purchasing, reduce costs and improve stock management. In fact, our 'early bird' customers have reduced tooling and equipment inventory costs by as much as 20%."

"An effective tool-management system will also generate data that owners and managers can use to make more informed strategic decisions about workforce productivity, machine optimisation, expenditure and inventory size."

To find out how CRIBWISE could help boost your business, visit: <https://cribwise.com/why-cribwise/>

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Is the recovery stalling for UK manufacturing?

Major supply chain issues and recruitment challenges are suppressing recovery for SME manufacturers, according to the latest Manufacturing Barometer report.

The Manufacturing Barometer is run by SWMAS (South West Manufacturing Advisory Service) and supported by the Manufacturing Growth Programme (MGP) to make the voice of SME manufacturers heard. This quarter's survey was completed by 260 SME business leaders, nearly all of whom have said they are struggling with price changes within their supply chain (96%).

Firms believe that rising costs are driven by lack of availability of raw materials (94%), rising transport costs (82%), and reduced capacity in the market to meet demand (63%). Further to these issues, almost half of all respondents (49%) are saying they are struggling to find staff as they attempt to scale back up after the pandemic.

Nick Golding, Managing Director of SWMAS, commented, "The last quarter showed a considerable jump in confidence, from 44% of respondents to 65% expecting sales to grow in the next six months based on increasing demand. With 65% highlighting potential future sales growth again this quarter, confidence appears to be levelling off. In addition, those expecting future profits to rise has dropped from 52% last quarter to 46%."

"We are seeing the first signs of supply chain struggles starting to hinder the upturn, and a lot of this has been caused by issues outside of industry's control. With nearly all respondents citing key challenges around availability of materials and logistics, these issues are potentially key constraints on the future productivity of



UK manufacturing.

"Freedom of movement is adding to recruitment pain, and problems securing raw materials seems to be partly due to logistics challenges of importing goods."

"To address this issue, companies are taking steps to increase and protect their own inventories, often paying extra to get the material they need. As a result, firms are having to compete with each other for scarce resources, which is driving price increases."

He continued, "The challenges highlighted have been caused in part by government policies as a direct result of Brexit and the COVID-19 pandemic. It is vital that firms across the sector receive guidance and support as a priority to help them address these issues and ensure their recovery is not impeded."

The Manufacturing Barometer is the only quarterly survey specifically aimed at UK SME manufacturers and covers trading activity in April, May, and June 2021, with responses collected in July.

Contact
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info@swmas.co.uk
www.swmas.co.uk

Multicar: The versatile monorail system

Multicar from Telexelift Logistics is distributed in the UK by Quirepace Ltd. Multicar is an innovative monorail system able to transport payloads up to 45kg. The system is based around a track network which can be routed horizontally, vertically and on any gradient. The tracks can be one-way or two-way and switches (or points) provide branches and interconnections.



On the track infrastructure autonomous trolleys are independently controlled and routed from and to anywhere on the network. The system is both modular and scalable; trolleys can run closely together so throughput capacity can be increased simply by adding additional trolleys.

The trolleys are available with many different load handling devices, the majority of which pivot to ensure the payload is kept horizontal at all times. This may be achieved either through a pendulum effect or through powered dynamic rotation.

Multicar can handle many different payloads. Used in automotive applications for payloads such as bumper assemblies and door cards, Multicar can also handle crates and cartons. Automatic load-unload is a standard option. Multicar can be controlled either through HMI, or can be connected via several different interfaces to WMS, SCADA, etc.

T 023 9260 3700
sales@quirepace.co.uk
www.quirepace.co.uk

Rubb's alternative, sustainable storage solutions

Rubb's innovative fabric engineered, modular warehouse structures offer proven storage solutions for a wide range of businesses and operations.



Rubb storage steel framed modular warehouses can be easily converted, adapted or relocated to store additional products,

providing a more flexible storage solution. Rubb storage buildings are easily custom designed to accommodate conveyors and other loading methods. Retaining sidewalls can also be integrated to resist lateral loadings.

Our large clear spans and high translucent ceilings provide a bright, efficient working environment. Rubb storage warehouses are built to last but are fully relocatable or extendable to meet changing needs.

Our storage buildings have been used to contain everything from biomass to perlite, and often serve as salt sheds for local authorities.

Our high-quality membrane materials and post-production galvanised welded frames deliver durability over time, making the cost of maintaining Rubb storage warehouses more economical compared to conventional structures.

Translucent PVC cladding allows natural daylight to illuminate the storage space while the white roof surface reflects heat. Optional Thermohall® insulation minimises heat transfer, prevents condensation and virtually eliminates thermal bridging and air infiltration.

To find out more, contact the team today.

T +44 (0)191 482 2211
info@rubbuk.com
www.rubbuk.com

ABB robots help RMGroup deliver fast palletising solution

ABB robots are being used as part of a palletising solution supplied by ABB Value Provider, RMGroup, to soft drinks company, Radnor Hills.

Robotics and automation specialists, RMGroup, has installed three end-of-line robotic palletisers for award-winning soft drinks business, Radnor Hills. Enabling fast palletising of multi-packs in a variety of combinations, the move has enabled the manufacturer to benefit from improved process efficiencies throughout their production.

Manufacturing a wide range of spring waters, flavoured waters, functional waters, school compliant drinks, premium sparkling pressés,



fruit juices and own label brands, Radnor Hills first approached RMGroup in 2018 to investigate automating an end-of-line palletising operation with a robot arm.

On the line, packs of bottles needed to be palletised at a rate of 14 packs per minute. Given the throughput and pallet stack formats, RMGroup needed to ensure that the robotic solution could multi pick packs up to four at any one time, and then place them onto a pallet in ones, twos, threes or fours, to keep up with the production line throughput.

http://bit.ly/ABB_VPs
T 01908 350300
robotics@gb.abb.com
www.abb.com/robotics
<https://rmrobotics.co.uk/products/>
<https://vimeo.com/536724534>

Quickline introduces the Vertimag VLM

Many companies are reviewing their current warehouse operation to meet the ever changing market demands. Quickline is the exclusive UK distributor of the Vertimag VLM, providing efficient storage solutions while reducing storage footprint, enhancing operator safety and increasing pick speed and accuracy.



The Vertimag VLM system maximises capacity, provides real-time and accurate inventory control, speeds up order preparation and decreases errors. It features a range of operator benefits, including user-friendly interface, ergonomic picking bay and enhanced safety elements. User experience is further enhanced through a wide range of accessories, including a sliding console, laser pointer, alphanumeric LED bar, barcode reader, piece counting scale and label printer.

The VLM can reach up to 12m high with maximum capacity of 70,000kg. It can be supplied with 6 different picking bays and 120 tray combinations – making it a truly customisable system

to meet your present, and future, storage demands.

With countless operational benefits, Vertimag is one of the safest, most efficient and ergonomic systems available, benefitting from 90% space optimisation to reduce the storage footprint, enabling businesses to improve workflow and warehouse efficiency, whilst providing optimised space management.

For more information about the Vertimag VLM, call 0113 880 0866 or visit: www.quicklinestorage.co.uk

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Rubb's innovative fabric-engineered structures offer proven solutions for a wide range of warehouse requirements. Our large clear spans and high translucent ceilings provide a bright, efficient working environment. Rubb structures are built to last, but are fully relocatable and extendable to meet changing needs.

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For all your storage needs



with end-to-end project management incorporating other ground works to ensure a smooth installation and to avoid any delays.

Specialising in the Logistics and Supply Chain industry, Quickline is the exclusive UK distributor of the Vertimag Vertical Life Module (VLM). It offers unrivalled warehouse storage efficiency, facilitated by an ergonomic, automated and space saving design.

But what makes it different? Unlike traditional warehouse storage solutions, the Vertimag VLM system maximises storage capacity and processing times, while enabling accurate stock control, picking and tracking. Delivering an abundance of benefits, it



enables management of any size, weight or format of goods. It has low energy consumption, provides maximum safety for demanding environments and contains 15 possible lift configurations to align with your requirements.

The Vertimag Lift comes with a 990kg capacity per tray, is faster than a double bay solution and is comprised of customisable tray compartments for mixed goods. These units are available in three depths and five widths with a system feature of a 12 inch touch screen interface which can be used with standard working gloves. This feature connects to corporate ERP systems and can read bar, QR and badge codes for total product traceability and managed access. The Vertimag Lift ensures a solution no matter what the storage and product requirements.

Quickline has remained fully operational over the past 12 months, continuing to offer its professional service to meet customer demands. Recent additions to the company have meant it is able to increase its dedicated service to its customers.

So, if you're looking for a bespoke storage solution offering exceptional service and value for money, Quickline is here. 2021 looks bright and promising for the company who has already seen such remarkable growth in a short space of time. The possibilities for Quickline are endless as it enters a new stage in its progress for bigger and better results come 2022.

If you're looking for expert design, affordable supply and professional installation of warehouse storage systems, please see below.

T 0113 880 0866
www.quicklinestorage.co.uk

Based in Wakefield, Quickline Ltd provides warehouse storage solutions, offering a bespoke consultation process enabling its customers to better utilise their warehouse space.

Quickline supplies pallet racking, industrial shelving, mezzanine floors and automated storage. Additionally, the company supports customers with solutions for new buildings, relocations and re-configurations, racking inspections and repairs.

Its experienced team conduct a thorough site visit to fully understand customer requirements before submitting a bespoke quote to deliver the optimal solution. The company also offers a turnkey service



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Bradshaw EV: PT2500



Bradshaw has announce the launch of its all new state of the art The PT2500, a fully electric, remote-controlled, pedestrian-operated tow tractor designed for moving articulated lorry trailers up to 25 tonnes in manufacturing and distribution applications.

Overview

The PT2500 is a powerful, robust, high performance articulated trailer mover. It is easy to operate and moves trailers safely with exceptional manoeuvrability, negating the need for terminal tractors. The high-performance electric motors can tow up to 25 tonnes, and the hydraulically powered column lift can hoist up to 6,000kg. The remote-control functionality provides enhanced flexibility, manoeuvrability, and safety and optimally uses limited space. Simple to operate and low maintenance, the PT2500 is an ideal partner for anyone working in logistics and distribution.

Enhanced visibility & manoeuvrability

The remote-controlled PT2500 allows trailers to be shunted safely and efficiently with no strain to the operator. Providing excellent visibility from any angle, the PT2500 and its remote control functionality let the operator walk around the trailer during manoeuvres, making them completely visible and the ability to be their own banksman, all from a safe distance. Connecting the PT2500 to the fifth wheel is quick and easy, thanks to its precise manoeuvring abilities.

Space-saving

With superior manoeuvrability, the PT2500 is ideal where space is a premium, presenting outstanding turning capabilities compared with terminal tractors. The PT2500 accesses tight spaces, turning almost on itself and allowing trailers to be parked tightly, thereby optimising limited space.

Remote control

Controlled via the MLTX2 bellybox transmitter, the system incorporates the latest electronic technology in a lightweight, comfortably contoured, and durable case. Easy to use, the angled lever controls enhance operator comfort. The remote-control housing is constructed from super-tough nylon to withstand shock, and the IP66-rated sealed unit can withstand harsh industrial conditions. Synthesised frequency generation enhances reliability for a robust and reliable signal. The access code system provides peace of mind, as the signal only operates the intended equipment. Designed to minimise power consumption, the NiMH battery packs provide longer life between charges. The PT2500 remote comes with two battery packs, one for the remote control and a backup; both can be charged on the vehicle.

Braking systems

The PT2500 features a built-in air compressor system to operate trailer brakes utilising a dual-air brake system via the service and emergency airlines. When the tractor brakes are activated, the trailer service brakes are also activated and vice versa. The trailer mover features an e-stop; if the e-stop on either vehicle or remote is activated, this will dump the air, activating the emergency trailer brakes. A speed limiter controlled via a pressure sensor on the mast hydraulics activates when operating the fifth wheel, reducing the vehicle's speed during coupling. The vehicle also features electronic regenerative braking under deceleration and dynamic speed-sensing to prevent over speeding. An automatically applied transmission parking brake ensures the vehicle remains stationary when not in use.

Fully electric

The robust and powerful high-performance trailer mover features an 80 volt AC controller, and the high-capacity 80V 210Ah lead-acid batteries provide high initial torque and smooth acceleration. Fully electric, the PT2500 is a

sustainable, environment-friendly, and cost-effective alternative to diesel shunters. Producing zero emissions and no exhaust fumes, the articulated trailer mover can be used indoors for a healthier working environment. In addition, the PT2500 lorry tug is silent to operate, making night and early morning operations possible, especially close to residential areas. In the absence of a combustion engine & fewer moving mechanical parts, the PT2500 is straightforward & cost-effective to maintain.

Cost efficiencies

Developed for logistics and distribution, the PT2500 trailer mover has been designed to aid 24 hour operations.

Negating the need for an HGV driver to be on-site, the remote-controlled technology means articulated trailer movement can be a one-person function. Anyone with operator training can operate the vehicle without an HGV licence.



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The PT2500, a fully electric, remote-controlled, pedestrian-operated tow tractor designed for moving articulated lorry trailers up to 25 tonnes.

Remote-control functionality provides enhanced flexibility, manoeuvrability, and safety and optimally uses limited space. Simple to operate and low maintenance, the PT2500 is an ideal partner for anyone working in logistics and distribution.

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LABINOX bespoke stainless steel vessel, filter & furniture manufacture

LABTEX, the Huddersfield-based laboratory and scale up chemistry equipment specialist, has introduced LABINOX as a sub-brand offering off the shelf and bespoke fabrications in metal.

Sourced in the UK, the EU and the USA, LABINOX offers plain and jacketed vessels and filters and furniture to customer specifications.

Our work ranges from simple fabrications and machining to high specification bespoke projects for the pharmaceutical, food processing, water, paper and chemical industries.

Working in conjunction with skilled fabricators and finishers, LABINOX ensures that work is completed to the highest standard and is in accordance with relevant EU directives – in particular, the pressure equipment, ATEX and machinery directives.

LABINOX will project manage manufacture and installation of assemblies, ensuring that not only stainless steel equipment but also associated equipment is procured and scheduled to meet your requirements.

Services include: draughting, design, quotation and feasibility



studies, fabrication supply, and project management.

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www.labtex.co.uk

T-T Pumps

T-T Pumps supplies pumping system to Lowestoft's flood risk management project



The consultants and contractors for the new pumping station at Velda Close looked no further than T-T Pumps to design, supply and install the equipment needed to meet the demands of the Lowestoft flood risk management project. Drawing on decades of technical and site expertise, T-T Pumps was an essential partner to ensure the scheme's success.

Coastal flooding can be a devastating event. The tidal flooding in 1953 and more recently in 2013 that saw 160 properties damaged by an extreme rain event and again in 2015 prompted Lowestoft to take action to reinforce its flood defences. A range of options was considered to alleviate the risk posed by tidal flooding and the flood risk of Kirkley Stream. After consultation with residents, a new pumping station and flood wall were considered the most practical options to protect properties and businesses within the flood risk area.

As the pumping station would be an essential component of the long-term flood defence strategy, it was vital that suppliers had experience in water management and the capacity to supply the pumps to be used by the project.

T-T Pumps was the only choice made by the construction contractors. With an existing relationship built on trust and long-term supply reliability, the Velda Close pumping station component of Lowestoft's new flood defence project was in good hands.

As the pumping station would have unique characteristics to meet the project's strict requirements, T-T Pumps' involvement from the inception of the pumping station's design was critical to the entire project's success.

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Situated in the heart of Nottinghamshire's rural outpost and next-door to the famous Southwell Racecourse is Energy Manor, home of Energy Chemical & Equipment Company; Designers, Manufacturers and Suppliers of Energy Ram and Diaphragm Pumps for the Waste Water and Process Industries. Established since 1984, Energy Pumps excel as the preferred Sewage Pumps for the Waste Water Industries.

The heavy-duty, industrial Energy Ram-Piston and Diaphragm Pumps cope with a range of applications including the automatic Pump-desludging of Humus in Primary settlement tanks; Digester Feed; Long-Distance Sludge Transfer; RBC Feed and De-Sludging; Inlet Dosing; Raw Sewage Transfer; Filter-Press Feeds. Energy Pumps also Pump Silt in Quarries; Pulp in Paper Mills; Effluent in the Farming industry; plus Bone, Blood and Offal waste in Abattoirs throughout the United Kingdom.

Competitive, reliable and fully portable for smaller duties Energy Diaphragm and Ram-Piston Pumps have proved their worth time and again through clear, cost-effective, robust and wholly reliable Sludge and Slurry handling on many Sewage sites throughout the UK and beyond. These amazing, cost-effective Pumps are popular with engineers for their ease of maintenance and longevity. Energy Diaphragm Pumps will 'run-dry', never failing to impress on-site Engineers with their unbeatable, block-resistant suction and delivery. Energy Ram Pumps work solidly up-to 20Bar and are highly suited to extreme grit handling and sudden temperature changes.

Energy Pumps are complimented by Energy Chemical & Equipment Company's Patented selection of reinforced, rubber-based Diaphragms and Valves to provide your application with tough, sturdy serious Sludge-handling. Energy Pumps quality bases increase and sustain the overall working effectiveness and reliability of the Energy Pump. Energy Pumps put cost-effective Energy-efficiency into your Sludge-shifting, pumping application.

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Successful retrofit using AUMA PROFOX actuators

AUMA PROFOX actuators are proving themselves in the district cooling network of Qatar Cool, one of the leading district cooling suppliers in the Middle East. The compact and smart actuators are installed in the district cooling network for Pearl-Qatar, an artificial island close to Doha, Qatar.



The PROFOX actuators replace actuators of a different brand which, although only a few years old, did not stand up to the process conditions. Failures in the actuator electronics were frequent, and the hard plastic gears were worn out and could no longer deliver the required torque.

PROFOX actuators proved to be the perfect solution for the requirements of Qatar Cool, thanks to their high-quality, high-precision mechanics and their innovative design. A key benefit for the customer is easy operation of the actuators via Bluetooth, using the AUMA Assistant App. This means that the actuators can be easily operated locally, even though they are installed at a height that is difficult to access. In addition, the FOX-EYE indicator light clearly shows the actuator status, even from a distance. Another key reason to opt for PROFOX actuators was their numerous feedback signals, which the customer uses for process supervision.

Five PROFOX PF Q-300 part-turn actuators are currently in operation at Cool Qatar. They control the supply of chilled water from the district cooling network to the main heat exchanger of one of the connected buildings. More are to follow.

T +44 (0)1275 871141
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www.linkedin.com/company/auma-actuators-uk



Energy Chemical & Equipment Company
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VAT Number: GB 309538839

Eco-friendly workwear harnesses lifelong durability



Engel Workwear is a premium quality workwear brand that produces specialist ranges for different industries offering the best comfort, durability and protection for its wearers. The company constantly adapts to the demands of the market specialising in supplying work clothing and PPE to companies in all types of trade, construction, rail, offshore and many other industrial sectors – from individual businesses to some of Europe's largest companies.

The family-run company is part of the Danish company F. Engel K/S and was founded in 1927 by Carl J Engel Senior. To this day the company is still owned and run by the 4th generation of the Engel family. Headquartered in southern Denmark which oversees 140 of its employees, F. Engel also has two factories in Lithuania employing 570 specially trained machinists.

Always priding itself on the quality of its clothing, Engel's garments often outlast and outperform those of its competitors, leading to an overall cost-effective outcome for its clients.

In recent developments, Engel Workwear has launched a new sustainable Hi-Visibility range, 50% of each item of clothing being made with 'Repreve' which is a regenerated polyester material produced from recycled plastic bottles; this is combined with 40% cotton and 10% standard polyester to produce a cool to wear, durable fabric. Called 'Safety-Light' the collection is in line with the company's policy to help the environment where ever possible and is therefore an added incentive to buyers who also wish to support environmentally-friendly initiatives.

Another collection line which is being marketed in the UK is the company's High-Vis 'Super Stretch' range which provides flexibility with each movement of the body; elastic fibres are woven into a polyester and cotton mix resulting in an extremely comfortable yet strong stretching material that retains its original fit in any workplace situation.

The 'Super-Stretch' collection is also being offered during 2021 in a version incorporating the added environmental and sustainable safety benefits of 'Repreve' with an additional choice of waterproof garments.

With the company's tagline 'Passion for Work' playing a key role in its developments, recently Engel Workwear has installed a new robot autostore warehouse. This has made the company even more efficient and faster in getting orders sent out the same day as they are placed.

Firmly established as a leading designer and manufacturer of sustainable high-quality and value-for-money workwear in Europe, with its current extensive choice of clothing to suit any task and further new ranges on the horizon that will predominantly be based around the highly successful 'Repreve' quality collection, the company's future looks very bright indeed.

For more details, contact Gareth Bladen at: gbl@f-engel.com or call +44 (0)7759 520034 or visit: www.engel.eu/en or <https://youtu.be/nc2se7xKKIE>



RSS260 safety sensor with new cost-saving features

The Schmersal Group has further developed its compact RSS260 safety sensor and equipped it with new software – the sensor now offers four additional, optionally selectable functions:

- Feedback loop monitoring
- Automatic restart/manual restart
- Reset
- Emergency stop monitoring

On the F0/F1 version, the RSS260 assumes the tasks of a safety relay module, i.e. monitoring of the movable safety guard as well as of the contactors directly actuated by the sensor outputs – monitoring is carried out by the integrated logic in the sensor, rendering a separate evaluation device unnecessary.



On the F0 version, the machine restarts automatically as soon as all safety guards have been closed. An additional 'enable button', without edge monitoring, can be switched into the feedback loop. The F0 version is suitable for small machines without a protective space that can be accessed behind. The F1 version is recommended for smaller systems, where the hazardous area can be accessed by the operator, as it has a reset function. The edge-monitored reset button must be pressed before the machine is restarted – when it is clear that the system is in a safe state and that no one is in the hazardous area. This function is consistent with the 'manual reset function' in accordance with EN ISO 13849-1.

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AZM150 SOLENOID INTERLOCK:

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The AZM150 solenoid interlock can be combined with three different actuators for different installation situations: a straight actuator for sliding doors, an angled actuator for large revolving doors and a movable actuator for smaller revolving doors. One of the plus points of the interlock is the rotating actuator head which can be locked simply by putting the lid on rather than a screw fitting. The rotating actuator head has two feeder slots to enable a range of installation positions and approach options. This makes the interlock really flexible to use.

The AZM150 is an electromechanical design which can be combined with high safety standards. The interlock comes with a low coding level as standard but is also available with an optional high coding level. The benefit for users: In accordance with ISO 14119, a higher coding requires fewer measures to prevent the bypassing of locking mechanisms, such as fitting out of range or in a concealed position. Schmersal is the only manufacturer which can offer electromechanical safety switches and solenoid interlocks with high coding levels.

Scan the QR code to see the AZM150 in action or visit our website for more information.

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PEMAC Assets: A CMMS that uses data-led maintenance to simplify processes within compliance-intensive industries

PEMAC

Industrial Process News is proud to announce that PEMAC has been awarded our Asset & Maintenance Management Systems Company of the Month.

Asset and maintenance management can provide manufacturing organisations with a critical competitive advantage. In the digital age we live in, businesses are having to track and manage more assets than ever before.

PEMAC offers its clients a best-of-breed Computerised Maintenance Management System (CMMS) known as PEMAC Assets. Whilst enabling companies to comply with regulatory requirements, this user-friendly software solution also reduces operational costs, maximises the value of assets, improves operations and enables businesses to establish lean practices.

Founded in 1987 as the PM Group, PEMAC has a history of improving engineering, maintenance, and facilities management performance through its market leading software solutions. The original system, PEMAC 1 was a CMMS built for engineers, by engineers. This tradition has been maintained, with many of the original staff still influencing the design, development, and support of the PEMAC product. Noel O'Regan purchased the business, renamed PMI Software, in 2009. Through his leadership the company has developed an industry leading position in providing paperless asset management and health and safety software solutions.

With offices across the UK and Ireland, PEMAC has over 100 clients worldwide. The PEMAC software



has deployments in English, French, Danish and Polish and has a multi-sector offering. Typically serving manufacturing companies with over 100 employees, PEMAC specialises in delivering value for companies involved in Pharmaceutical and Medical Device manufacturing, Food and Beverage, Logistics, Transport, Ports, Airports, Hospitals and Healthcare.

We spoke with Alex Edwards, PEMAC's UK Head of Sales, on the services that the company provides, "PEMAC is a dedicated computerised maintenance management tool that helps reduce equipment breakdowns by analysing the reasons for failure and informing decision making. PEMAC Assets is a user friendly but powerful multi-site CMMS that allows companies to identify the ideal preventative maintenance strategy to maximise equipment uptime."

Providing a mature toolkit and an abundance of advanced



features, PEMAC excels in compliance-intensive industries. With over 30 years' experience in related industries, PEMAC enables compliance with demanding frameworks such as 21 CFR Part II and ISO 55000. Furthermore, PEMAC includes integrated tools

for managing permits, contractors, environments and health and safety events.

"Using PEMAC Assets, clients can continue to adapt core processes that have already been automated and streamlined. Our assets are highly configurable and will dramatically shrink core processes, such as work order approval, risk assessments, and extend lean and TPM methodologies. PEMAC eliminates reliance on paper-based processes through customisable electronic forms and digital signature capture, enabling users to have automated workflows and auto-generated notifications," states Alex.

Another noticeable benefit is that PEMAC Assets is structured to automatically capture data associated with key metrics such as total cost of ownership, equipment uptime, and mean time between failure (MTBF). PEMAC uses this data to automatically highlight potential enhancements and inform ongoing maintenance activities.

Typically delivering an 80% maintenance cost saving to clients, PEMAC Assets analyses historic and real-time maintenance data to provide users with intelligent insights to deliver time and performance-based improvements and ensure maximum asset availability.

PEMAC has seen continual development since the launch of PEMAC Assets in 2017. "PEMAC Assets is



constantly updated, our latest releases included enhancements to Google map integration, the ability to create forms and contractor visits via our mobile app, inventory cycle counting, production planning, maintenance enhancements, downtime tracking, new interactive dashboards, reports and more..." explained Alex.

PEMAC is scaling its global footprint through the development of a Channel Partner Programme. Its most recent partner is Promtek, a long-standing British software vendor specialising in the Bulk Ingredient Handling Industries.

PEMAC holds a prestigious position within the maintenance and asset management market, delivering excellence, efficiency and professionalism. With a greater view of sustainable working, PEMAC is providing increased visibility and traceability within the workplace, helping companies to maintain high production standards. In closing thoughts, "We would encourage businesses looking to improve their maintenance management performance to reach out to us for a product demo," emphasised Alex.

To learn more about PEMAC and how its CMMS can deliver value to your business, please call +353 1 466 3888 or email sales@pemac.com

You can also visit www.pemac.com for more information.

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MTM Products: The industrial graphics specialist

Industrial Process News is proud to announce that MTM Products has been selected as our Industrial Graphics Specialists Company of the Year.

MTM Products is a long established yet modern company with over 40 years' experience manufacturing and supplying labels, graphic overlays, metal nameplates, vinyl cut decals, bespoke safety signage and engraved products to OEMs in the UK and EU.

As one of the UK's leading manufacturers, MTM Products is experienced in helping its existing and potential customers establish an optimum cost-effective solution for their requirement. With the equipment to provide an end-to-end solution, from initial design through to volume production, MTM Products continuously invest in its people and equipment to ensure the customer is offered a high-quality solution.

Having a mutual trust with its stakeholders is the key value of MTM Products, making the effort to ensure its customers receive a friendly and approachable service. MTM Products sell cost effective solutions to ensure that its products are suitable for the environment in which they will be used. "We work across many industry sectors and frequently find that by combining knowledge from several sectors enables us to solve problems that competitors have struggled to achieve. We have a good number of strong competitors both in the UK and EU, and we intend to remain an industry leader for many years to come," stated Ian Greenaway, Managing Director.



Renowned for its impeccable service, MTM Products is optimistic about the future. "We think of ourselves as a 'service company that makes things'. We work collaboratively with many of our customers, sharing our expertise to develop new or enhanced products. In the last few months, we have recruited four people to our production team, all introduced to us by existing employees. They are all making a useful contribution to our success and say they are enjoying the work atmosphere and the variety of work," explained Ian. The company is close to finalising its capital expenditure plans for the next two years which will enable them to further improve efficiency and productivity ensuring that it remains internationally competitive.

Made with clinical excellence in mind, MTM Products has many customers in the medical sector and is looking to further its solid reputation. The company is currently developing an offer to the medical sector, particularly medical device manufacturers. "We are good application engineers, and it is surprising how



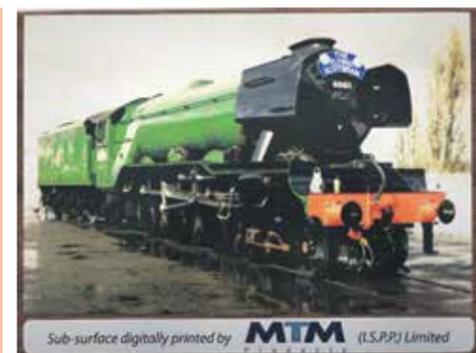
much research and development work we do to support new and existing customers and to provide them with cost effective industrial graphics solutions. Everything we make is specific to a particular customer. We have no standard products. We are trusted by our customers and suppliers to be a reliable and trustworthy partner. In the future we will have a targeted approach to expanding our presence in other sectors," said Ian. MTM Products is familiar with the regulations relating to medical devices and safety labelling in the UK, EU, and North America. It is a UL authorised supplier and is allowed to print the UL logo on labels, overlays and aluminium nameplates that are applied to equipment which has itself been UL certified.

12 months ago, MTM Products' order intake was less



than 50% of pre COVID-19 levels, which resulted in a greater reduction than during the 2008 financial crisis and recession. "I have lived and worked through five recessions, and although the pandemic is different in some respects, I had the confidence that MTM Products would get through the pandemic in one piece. The last 12 months have been difficult and without the furlough scheme life would have been considerably more difficult. We regrettably had to make a few of our team redundant in Autumn 2020 to safeguard the majority of jobs," stated Ian.

March 2020 welcomed the launch of the company's new website, and it has received resounding levels of positive feedback. The launch of the website generated a host of new enquiries and new business proposals for MTM Products over the past 12 months.



MTM Products is now starting to reap the rewards of clever business management as it continues off the back of a tough 12 months in the industry. "Half of our team have worked continuously throughout the pandemic, and the way in which they have worked together to keep customers happy has been fantastic," said Ian.

Since the beginning of 2021, MTM Products has seen impeccable growth within the business despite being hit by material shortages and unprecedented material price increases. Orders increased in the last quarter of 2020 and through to the first half of 2021, resulting in sales close to 10% above pre-COVID-19 levels.

As all businesses can relate, there are peaks and troughs along the way. "There are signs that the rate of growth is slowing, but maybe that is not such a bad thing as it gives us a chance to catch our breath and plan for a high productivity future," stated Ian. MTM Products exports 20% of its output to the EU and since 2021, this has been more challenging for the company with the extra bureaucracy. The level of uncertainty that businesses face is still high, however, MTM Products will continue to press forward and develop further in the industry.

"Forward planning is in some ways no more than a 'finger in the air'. What is important for us to secure a successful future is to be extremely agile, taking opportunities as they arise and mitigating against threats. We have a great team of people who are close to our customers. Our customer retention rate is very high and that is because we focus on the needs of each individual customer be they large or small," explained Ian.

As always, MTM Products will continue to invest in new equipment and its people. Recruiting individuals with the right aptitude and attitude is proving difficult for many businesses in the current environment, and MTM Products will increase capacity by year-on-year productivity improvements achieved by investing in its people and through higher levels of capital investment.

Described as a company whose services can be used again and again by its clients, Ian was delighted to have received our award and went on to say, "We work hard to win new customers and retain existing ones, and that is achieved by developing strong relationships based on trust and our expertise."

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