

INDUSTRIAL PROCESS NEWS

Tel: 0121 550 2086 - www.industrialprocessnews.co.uk - May - Issue 720

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IPN

New e-commerce site from Interface Force Measurements

Interface Force Measurements, suppliers of the popular and whisper-quiet 1,200 precision series load cells are pleased to announce the launch of a brand new e-commerce website where you'll be able to order your load buttons, in-line load cells and mini s-beam load cells.

Going live on the 1st of April, <https://store.interfaceforce.co.uk> will feature the Interface G-Series of load buttons, in-line load cells and mini S-beam load cells. The Interface G-series has all the quality, reliability and performance you'd expect from a force transducer bearing the Interface name, but at very competitive prices.

<https://store.interfaceforce.co.uk> will offer our G-Series load cells on short lead times with next business day delivery for small quantities being the aim. Interface load cells at competitive prices with all the convenience purchasing online offers, what's not to like?

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- Individual calibration certificates to NIST traceable standards
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If you are interested in placing volume orders or have an OEM application that G-Series products might be suitable for, please contact us directly.

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Oliver Valves supply Manifolds to Saudi Arabia

After being awarded a huge contract to support the transmitter industry in the Middle East, Oliver Valves prepared its production facilities for the manufacture of nearly 2,000 units of their 2 and 5 valve consolidated Manifold Valves.

Winning the project comes down to a culmination of efforts, explains Business Development Manager, Haridas Embanath, "Oliver's are very excited to be working with our clients again to deliver on this huge project. When specifying work, it's often easy for a supplier's ability to fully understand the clients' project requirements to be overlooked in favour of a purely cost-driven solution. The close relationship we have with our clients, ensures a great trust between the two, not only in our ability to meet demanding schedules, and deliver customised valve solutions that are truly world-class, but also reductions in cost."

Having liaised with the client's procurement teams in Europe and



the Middle East over a 6-month period, Oliver Valves successfully delivered the best cost solution for the client, and is to provide engineering support throughout the project.

To find out how Oliver Valves can custom-manufacture your valves, telephone: +44 (0)1565 654089, email: sales@valves.co.uk or visit the website: www.valves.co.uk

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Adhesives & glue guns

AdCo UK is one of the largest manufacturers of shaped hotmelt adhesives and water-based adhesives for use in packaging and product assembly markets for over 21 years, from its Head Office and manufacturing facility in Liphook Hampshire with additional distribution facilities based in Leeds UK and a network of approved distributors based throughout the UK.

As well as supplying adhesives for all requirements, AdCo supplies a wide range of specialist applicators – from ProFlex industrial, heavy duty and professional glue guns to total melt, cartridge and bulk systems, we also manufacture and supply UF resins, PVA

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As part of our commitment to offer our customers the correct solution for their needs AdCo are continually investing in research and development along with new state of the art manufacturing equipment to ensure we continue to meet the ever changing needs of all types of industry.

Thanks to our unrivalled knowledge of adhesives and application techniques, our highly skilled technicians can offer a 'find and supply' service to all our customers. With a combined industry experience of over 120 years, our technicians can ensure that



any bonding problem can be solved quickly and efficiently.

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AdCo's HD 250 NV is a true standout among industrial-grade hot melt glue guns, and a go-to tool for contractors and tradesmen in many fields of work.

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FEATURES & HIGHLIGHTS

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PaintGuard™ is available to secure a range of container sizes from 750ml, 1L, 2.5L, and 5L pulp fitments, with single or double-pack carton options available. Contact Allpack today via telephone on: 01543 369888, or email: sales@allpack.uk.com to discuss how our new range of PaintGuard™ pulp fitments and carton ranges can assist your packaging requirements or view the entire PaintGuard™ range on our website at: www.allpack.uk.com/paintguard

Royal Mail install breaks record for Vivid

Royal Mail set a record for one of the biggest ever orders placed at Vivid. FOUR VeloBlade Nexus wide-format digital die-cutting systems were installed in one week at Royal Mail during the month of March!



Royal Mail purchased four VeloBlade Nexus bespoke wide-format digital die-cutting systems, each with front-end stack auto-feeders for full system automation. The Nexus systems are initially to be utilised for the manufacture of York sleeves for Royal Mail's roll containers across the business.

The installations were split across Royal Mail's two Super Hub sites, two in Warrington and the other two at its Midlands Super Hub, based in Northampton. Where more than one million items and parcels are processed daily.

Initial conversations regarding specifications lead to subsequent visits by the Royal Mail management team to Vivid's showroom in Ashby de la Zouch. Where thorough material cutting was tested and completed, along with cut-timing calculations to ensure that volumes could be completed in the required time frame.

The VeloBlade Nexus wide-format digital die-cutting system was seen as the perfect solution for The Royal Mail's requirements, with Vivid's responsiveness, flexibility and all-round 'can-do' attitude being highlighted as strong contributing factors to Vivid securing the order.

Congratulations to our Sales Executive, Duncan Cross, for facilitating this investment with Royal Mail from start to finish and, as a result of his hard work and dedication, achieved an incredible record-breaking sales order for Vivid!

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Putting manufacturing at the heart of the future

Smart Factory Expo, held at Exhibition Centre Liverpool from 16th-17th November 2022, brought to you by The Manufacturer (produced by Hennik Research, part of Nineteen Group), is the industry's leading manufacturing exhibition showcasing the latest digital innovations in technology, processes and thinking behind Industry 4.0.

Whatever the stage of their digital journey, visitors could see all the technologies enabling the industrial revolution under one roof, hear the latest best practices and strategies and connect with like-minded peers.

The goal of Smart Factory Expo is to offer the manufacturing industry cutting-edge solutions which will encompass advancements in hardware and software, while allowing visitors to keep their finger on the pulse of the important changes in their sector.

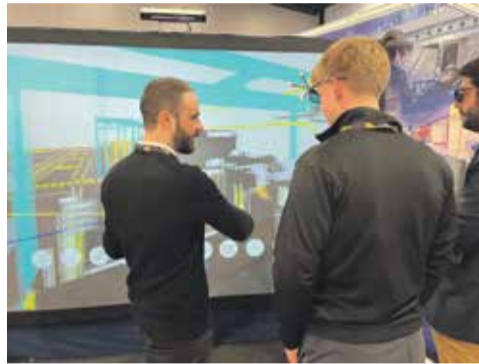
Visitors could take advantage of the tech hype around this event, which included everything from an innovation alley where startups exhibited their prototype solutions to the professional insights offered by leading figures in robotics and additive manufacturing.

Smart Factory Expo this year moves to Birmingham's NEC from 7th-8th June 2023, as part of Manufacturing + Engineering Week 2023 alongside Design + Engineering Expo, Drives & Controls Zone & Maintec. This is our pick of the best exhibitors from last year's event, listed here in alphabetical order: Ai Automation, Blackbird Aps, Growth Platform, Go Monitor, Kompozable, SAI Intelligence, Signify, Virtualis & We3D Technologies. Further details can be found on this page and a half.

www.mandeweek.co.uk/manufacturing-expo-home



Virtualis: Collaborate on complex products & processes using VR



Virtualis showcased the latest generation of its portable visualisation solution, the ActiveMove, powered by Visionary Render, at Smart Factory Expo. It demonstrated how immersive visualisation helps companies to collaborate on design reviews, catching potential issues much earlier in the process, and iterate on products without the need for physical prototypes.

Ford Motor Company presented onstage at the event to explain how Virtualis solutions accelerate its sign-off process for factory layouts. Ford also uses the technology to enhance understanding of proposed layouts with partners, carry out ergonomic reviews to check human factors and lines of sight, work with industry-standard file formats and collaborate across remote locations.

The benefits are impressive. Virtual reviews have reduced rework that could incur €10,000 per physical change. Engineer visits estimated to have reduced by 30%. And by designing out potential blind spots, the potential for accidents has been reduced.

T +44 (0)161 969 1155
marketing@virtualis.com
www.virtualis.com

Virtualis is a provider of immersive visualisation solutions to leading engineering and manufacturing organisations. These organisations use the solutions to design products and facilities faster, save money and mitigate risk, and collaborate with teams and supply chain. The Virtualis platform can run on hardware from desktops to virtual reality headsets, to room-scale systems such as Powerwall displays.

Clear Dynamics from SAI Intelligence



Clear Dynamics is a global business, with offices located in Australia and the UK. The company specialises in providing composable software solutions to businesses across 11 industries with a focus on manufacturing, FSI, Government and Education.

Clear Dynamics is committed to delivering high-quality software products and services that help businesses improve their efficiency, productivity, and profitability. The company's software solutions are highly customisable, allowing businesses to tailor them to their specific needs and requirements. Clear Dynamics has a team of highly experienced technologists who work closely with clients to understand their needs and deliver tailored solutions seamlessly.

Clear Dynamics' flagship software product is a cloud-based AI & ML enabled platform that generates composable business outcomes and processes. It does this by understanding data relationships between applications whilst modernising and harmonising the data. The

platform creates software solutions that help businesses streamline and automate their operations by removing legacy technology debt and modernising their data landscape. The Clear Dynamics approach integrates all of a business's data and processes into a single, easy-to-use platform, providing businesses with a comprehensive suite of tools to manage their operations more efficiently and deliver secure solutions at speed.

Clear Dynamics creates bespoke software applications that are 100% fit for purpose using its digital twinning capabilities and then gives the business the ability to reduce their technology debt by removing the burden of old systems in the environment. All delivered with smaller teams and in much faster timelines as the platform takes on the heavy lifting of generating its own code.

Contact Bryan Difford,
M 074 6888 2991
info@sai-intelligence.com
<https://sai-intelligence.com>

Ai Automation Ltd

Ai Automation Ltd is a leading provider of industrial automation solutions in the North West. Our specialties include vision applications, cobot systems and complete turnkey installation of bespoke automation solutions. Our team of experts works closely with clients to design and implement custom solutions that meet their unique needs and requirements.

We excel in delivering bespoke modern solutions and engineering expertise. Our goal is to help businesses increase efficiency, reduce costs, and improve their bottom line. We do this by providing innovative manufacturing solutions that are tailored to each client's specific needs.

Our vision systems use advanced vision technology to inspect products for quality control purposes. Our robotic systems are designed to automate repetitive tasks, freeing up workers for more complex tasks in industrial environments. Our turnkey systems provide complete end-to-end solutions for businesses looking to automate their own unique, customised processes.

In addition to these specialties, we also offer systems



integration services. This means that we can integrate our automation solutions with your existing systems and processes. This ensures a seamless transition to automation and helps you get the most out of your investment whilst also maximising manufacturing productivity. From customised PLC programs to replacing obsolete equipment, Ai Automation has the tools to modernise any industrial system to a standard that can largely improve maintainability and efficiency.

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www.aiauto.co.uk

Kompozable: Liberating data for Industry 4.0

The manufacturing industry is undergoing a digital transformation, Industry 4.0 emphasises the integration of automation, data exchange, and smart technologies in manufacturing processes.

The integration of physical processes with digital systems, enables machines and humans to interact in real-time. This allows for greater transparency, flexibility, and responsiveness in the manufacturing process, as machines and systems can respond to changing demands and circumstances.

Data and data integration is at the heart of Industry 4.0, and it is also one of the toughest challenges faced by manufacturers today.



At Kompozable, we help identify and implement business solutions to solve manufacturing, supply chain and operations problems at the intersection of process, data and intelligent technology.

We focus on delivering data-

driven platforms that liberate data from systems and integrate data from operational and traditional enterprise systems (OT/IT) to support real-time monitoring and optimisation of manufacturing operations. This supports data-driven decision making and enables everything from supply chain planning, to optimise inventory and customer service, to predictive maintenance, reducing downtime and increasing uptime.

Get in touch today to discuss your specific challenge: <https://kompozable.com/contact-us> or email me directly at: bryan.oak@kompozable.com quoting: 'Industrial Process News.'

Go Monitor

Go Monitor had a fantastic experience at Smart Factory Expo 2022. It was a valuable opportunity for us to meet attendees who had specific goals or problems they needed to solve and explain our advanced energy monitoring and smart-building solutions to them, and how they empower better business decision making.

We met other exhibitors and learned about what's going on at the cutting edge of smart manufacturing, as well as engaging with potential partners and suppliers. We also found it useful to connect with prospective clients who were drawn to our stand by our interactive setup, showing how IoT sensor devices can connect wirelessly, via radio and 4G, to the Go Monitor Cloud solution, transmitting live data to a custom dashboard.

We find that being able to breathe on one of our wireless CO₂ sensors and produce an immediate spike on a live atmospheric composition chart is a practical but simple way to demonstrate the capabilities of our technology.

Go Monitor are helping our partners and clients save millions of pounds on their energy spend, reducing carbon emissions by thousands of tonnes, and creating gigawatts of supply capacity in the process. Our mix and



match fleet of solutions can be applied to each unique business, ensuring a bespoke fit, and maximising value to the customer. Along with our capability to create a truly custom solution in rapid time, we're accelerating our clients' journeys to net zero.

Contact
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hello@gomonitor.co.uk
www.gomonitor.co.uk

Signify's connected lighting solutions help NSG Group achieve their sustainability and smart factory goals

In line with NSG's sustainability agenda, Signify has installed smart lighting solutions at several of NSG's sites in the UK. The lighting upgrades come as part of the NSG's global sustainability initiative, that will not only reduce carbon emissions, but also to improve on energy savings, operational efficiencies, and to align more closely with regulations and requirements.

Energy savings
Installing LED lighting in the facilities dramatically cuts energy consumption by almost 80%, when compared to the traditional technologies that were previously used. This is expected to save the sites over 170 tons of CO₂ each year.



Smart factory goals
The new Interact wireless LED luminaires and controls also provide several smart factory benefits, including data-driven insights which help in making decisions about its operations.

The Interact system, which is a cloud-based platform, collects data from all

the lights and sensors, which is then displayed, on a centralised dashboard. This enables better comparison, monitoring, and management of lighting across multiple locations.

High-speed connectivity through light
The sites feature Signify's fast, secure Trulifi that uses light waves to enable highly reliable, secure two-way wireless communication at speeds far above most conventional workplace wireless technologies.

Contact Clark Morrow, UK&I Marketing Manager, clark.morrow@signify.com https://www.signify.com/en-gb

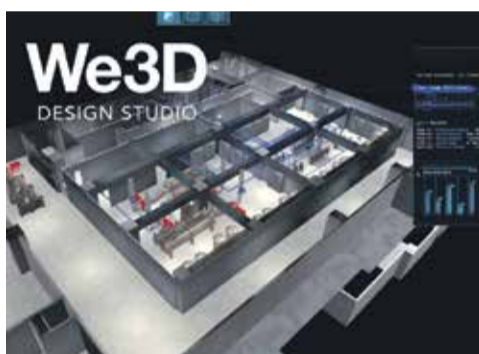
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Blackbird: A Manufacturing Digitalisation solution



Blackbird cloud application on any device

Blackbird Aps was thrilled to join the Smart Factory Expo in Liverpool in October 2022...so much so that we'll see everyone back in Birmingham in June of 2023.

We had two days of great conversations with manufacturers centered around the different solutions they were exploring to best take their factories into the world of Industry 4.0.

Takeaway from Smart Factory Expo 2022
Manufacturers who are looking to digitalise their production are often guided toward solutions like MES systems that take 12-18 months to implement, while



Edge device for plug-and-play data collection. Works with any digital and analog sensors in the market

costing hundreds of thousands of pounds. This isn't a tenable option for many of these manufacturers who are looking for an agile, plug n' play solution that is also cost-effective. Blackbird's solution provides exactly that; in fact, we can

pick any production line in any facility and showcase real-time data within 30 minutes...and we can do it for a fraction of the cost of similar solutions.

We are excited to continue to share our product and vision for helping manufacturers move quickly towards their goal of digitalisation... we gained multiple new Blackbird customers from the contacts we met in Liverpool and we're eager to welcome the next wave of Blackbird customers we meet in Birmingham in June.

info@blackbird.online https://blackbird.online

Inspiring Manufacturing in Liverpool City Region

Discover a Port location offering global trade opportunities, a skilled manufacturing workforce and the latest smart factory facilities. Liverpool City Region presents unrivalled transatlantic links, fast access to markets and customers across the world with the recently granted Freeport status offering tax and customs incentives.

From one of Europe's largest biomanufacturing clusters to leading research capabilities clustered in Liverpool's Knowledge Quarter and advanced manufacturing facilities across the City Region, you'll be joining the likes of Jaguar Land Rover, Unilever and Cammell Laird.



With a 50,000-strong, modern manufacturing workforce the skill base in Liverpool City Region is enriched by the long-term presence of major OEMs, world-leading Universities and an agile, industry 4.0-enabled supply chain.

Liverpool City Region is home to one of only seven UK government approved Manufacturing Technology Centres in the UK (MTC). You

can gain competitive advantage through accessible, state-of-the-art R&D infrastructure and dedicated digital manufacturing expertise as well as a progressive approach to sustainability.

Interested in finding out more about why Liverpool City Region is the perfect place to advance your manufacturing capabilities, attend the Manufacturing Leaders' Summit 2023 in Liverpool on 14th-15th November 2023 or visit: www.investliverpoolcityregion.com to speak to a local expert.

Contact Alice Lamb, Head of Inward Investment, alice.lamb@growthplatform.org

Electrical & Electronics




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It's time to get familiar with electric process heaters

Processing and refining hydrocarbons requires high heat for a number of critical steps, and heaters based on fossil fuels have traditionally filled those roles. But with mounting pressure to mitigate carbon dioxide emissions and advance long-term decarbonisation goals, engineers have been exploring the potential for electric process heaters. This would allow several heating steps to be completed using 'clean' electricity from renewable sources. In this article, Dennis Long, chief system designer at industrial electric heater manufacturer, Watlow, (pictured) explores the possibilities of electric process heaters.



Replacing fossil fuel heaters with electric heaters would allow for a reduction in 'Scope one' carbon dioxide emissions. As defined by Buehler, Scope one emissions are the direct result of burning fuels like natural gas or fuel oil for process heating. Scope two emissions result from the need to import energy, while Scope three emissions are produced while using a product.

What's holding back Scope one emission reduction?
A survey conducted by Watlow for its customers and prospects has revealed that a full 90% of oil and gas leaders are already actively engaged in decarbonisation efforts. Hydrocarbon processors are no longer focused on *if* they should decarbonise, but *how* they will decarbonise.

The good news for industry is that modern electric heaters can provide the same, or improved, performance that hydrocarbon engineers have come to expect from fossil fuel powered heaters and can therefore play a key role in decarbonisation efforts.

www.watlow.com

Selective Soldering: A need for innovation and development

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 2) Pillarhouse International Ltd., Rodney Way, Chelmsford, CM1 3BY, U.K.

Introduction
 Selective soldering utilises a nozzle to apply solder to components on the underside of printed circuit boards (PCBs). This nozzle can be moved to either perform dips (depositing solder to a single component) or draws (applying solder to several components in a single movement). The selective soldering methodology thereby allows the process to be tailored to specific joints and allows multiple nozzle types to be used if required on the circuit board.

Key attributes of nozzles

To ensure that controlled application of the solder is maintained, the solder must wet to the nozzle. Wettability is the study of the adhesion of liquids to solids due to the interaction between the surface energy of the solid and the surface tension of the liquid. The most common method of measuring wettability is determining the contact angle of a sessile droplet.

When in contact with a solid, a liquid droplet will deform and spread out. The amount of spreading and the angle of the interface between the liquid and solid is determined by the surface tension of the liquid and the surface energy of the solid. Figure 1 demonstrates scenarios with various levels of wetting. When the surface energy of the solid is greater than the surface tension of the liquid, the droplet will have a lower contact angle. Figure 1 (a) and (b) are an example of this.

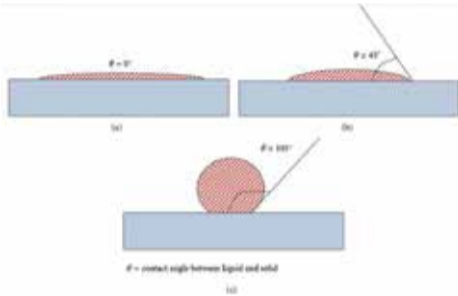


Figure 1. Examples of different contact angles between a droplet (stripped red) and solid (blue): (a) Contact angle of 0° demonstrating perfect wetting. (b) Contact angle less than 90° for a wetting surface. (c) Contact angle greater than 90° hydrophobic surface. By Idris.abk - Own work, CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=97191171>

For the wetting of the solder to the tip of the nozzle maintains a stable radial wave and achieves control during the soldering process by maintaining a stable dome shape to deposit solder. Figure 2 shows a well-wetted nozzle wherein the solder is adhered to the entire outer surface of the nozzle. This allows for good control during the selective soldering process. The static wettability for this nozzle would be akin to Figure 1 (a) or (b).



Figure 2. A wetted nozzle



Figure 3. A non-wetting nozzle

In the case of a material that solder does not readily wet to, the solder will maintain a single stream as shown in Figure 3. The static wettability of this nozzle would produce a large contact angle such as in Figure 1 (c).

To achieve wetting between liquid solder and a nozzle, there must be a clean interface. Flux is used to remove oxides and generate/maintain this clean interface before and during

operation. After cleaning, a chemical reaction between the solder and nozzle determines the extent of the wetting but this interaction also causes wear of the nozzle.

Therefore, a good nozzle must have good wettability to solder ensuring that control can be maintained during the selective soldering process in addition to a balance between the wear and wetting.

The need for development

The new nozzle will reduce operation and maintenance costs for manufacturers by reducing the number of nozzles

required overall and reducing downtime caused by nozzle failure. Improving the wettability of nozzles will allow for more challenging joints to be tackled using the selective method. This project has been undertaken due to customer requests to increase nozzle lifetime and reduce the maintenance required.

This research project, part funded by Innovate UK and

Pillarhouse International Ltd. is partnered with Coventry University through a knowledge transfer partnership scheme. The new AP Master Nozzle will be available in June of 2023.

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Interface G-series load cells fly off the shelves through its new e-commerce website

interface The World Leader in Force Measurement

Interface Force Measurement Solutions (Interface) is a UK company specialising in the supply and distribution of high-quality sensors and associated electronics and displays for a wide variety of industries. Working previously with clients such as Airbus, BAE Systems, and Formula One Teams, we spoke with Tony Rokins, Business Development & Pressure Mapping Specialist, who explained some of the companies well known products.

"Our product portfolio is applicable to many industries. For instance, we are well known for our high-quality pressure mapping systems that are used by many of our automotive and motorsport customers. Our sensors deliver highly accurate, repeatable measurements and many of our load cells are used by calibration houses as calibration reference devices. Our high-quality, yet competitively priced 3 and 6 axis load cells are used for many R&D, renewable energy and robotic applications."

In terms of recent developments, Tony continued,

"Being responsive to our customer's needs and being able to offer a high-quality product with strong product knowledge at a competitive price with the best possible lead times is our number one priority. Last year we launched our range of G-Series Load Cells. The range comprises of miniature and small sensors for industrial applications, with capacities starting from just 4.5N Newton up to 200kN with metric threads. These are high-performance devices but aimed at more cost-conscious applications. This is a new market for us, but we have already had increasing interest. We also launched our brand-new e-commerce website on the 1st of April for the G-Series that showcases Interface load cells at competitive prices with all the convenience purchasing online offers," stated Tony.

The new e-commerce website offers G-Series load cells on short lead times with next business day delivery for small quantities. Following its successful launch in 2021, it has become an increasingly popular product range for students, industrial engineers, OEMs and anyone requiring a small form force sensor offering accuracy, repeatability and Interface quality.

In the future, Interface is keen to continue its growth trajectory for 2023. Tony mentioned, "We are also working on new, wireless force and vibration sensors for remote monitoring in systems such as luggage carousels. One more area we are pushing for growth is with XSensor's pressure mapping systems, particularly in the Hi-speed systems designed for high-speed impact or crash testing and tire footprint research. These systems are capable of capturing data up to 2,500 frames per second. The tire sensor can be driven over at speeds of up to 140kph. I believe this is a unique capability we can bring to the industry."

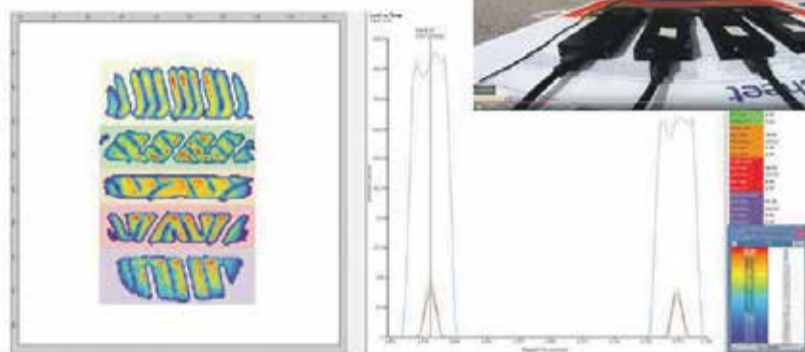
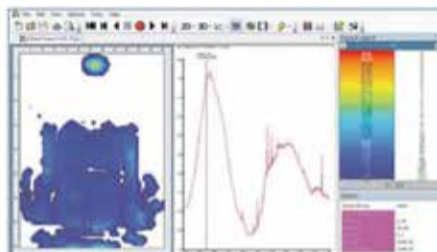
As the company looks to continue strengthening its position with its customers in its more traditional markets of aerospace, automotive, motorsport, Universities and alternative energy research, it will be attending some expos over the next 12 months and be readily

on hand to discuss any questions you may have about force, torque, pressure mapping or pressure, level & temperature measurement.

These expos include Instrumentation, Analysis & Testing Exhibition on the 16th of May 2023 at Silverstone Wing, Silverstone Race Circuit Manufacturing & Engineering at the NEC, Birmingham 7th & 8th June, Stand H48.

Automotive Test Expo, Messe, Stuttgart, Germany 12th to 15th June and Advanced Engineering 1st & 2nd November 2023 Stand P172 also at the NEC, Birmingham.

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SCAN TO SHOP

SPIE – The International Society for Optics and Photonics

SPIE is the UK's premier photonics event that widely addresses solutions, components, instruments and systems, vacuum enabled techniques and processes whilst simultaneously bringing together the entire supply chain that includes supplier companies, consultants, industrial users, researchers, science groups and innovative start-ups.

Held on the 6th-8th December last year, SPIE 2022 delivered an extensive event programme that consisted of presentations on the latest insights on business networks, innovations, investing and market updates. There were also a host of conferences and workshops put on designed to engage and attract active buyers to the event that included many interesting technical topics such as Quantum Technology, Silicon

SPIE.PHOTONEX

Photonics, Biophotonics and Imaging, Photoemission Spectroscopy for Materials Analysis, Hyperspectral Imaging, Organic Semiconductor Materials, and much more.

Over 1,000 members of the SPIE community came together at the three-day conference that was jointly chaired by Prof. Graham Reed of the ORC at the University of Southampton and Dr. Tariq Ali of the University of Birmingham. The conference focused on three key sectors which were silicon photonics, quantum technologies, and hyperspectral imaging. The exhibition floor-based industry program was chaired by Simon Andrews who leads Fraunhofer

UK Centre for Applied Photonics at the University of Strathclyde and Dr. Najwa Sidqi, Knowledge Transfer Manager in Quantum Technologies at the UK's Knowledge Transfer Network.

Visit top companies at the free SPIE Photonex 2023 exhibition on the 25th-26th October in Glasgow, Scotland.

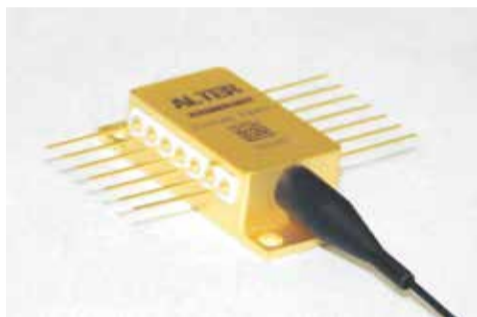
This is our pick of the best exhibitors from last year's event, listed here in alphabetical order: ALTER TECHNOLOGY TÜV NORD UK Ltd, Invacua Ltd, L-electronics & Optics.org. Further details can be found on this page.

Contact <https://spie.org>

ALTER TECHNOLOGY TÜV NORD UK Ltd

ALTER TECHNOLOGY TÜV NORD UK Ltd is proud to announce two new laser diode, 14 pin butterfly modules for 2023; the Drummond and the Auerbach. The Drummond is a free-space collimated diode laser module for OEM's and system integrators who require specifications and performance not available from off-the-shelf devices. The Auerbach modules offer a fibre coupled version.

Both modules can accommodate various single mode chip structures, from numerous manufacturers over multiple wavelengths in high reliability, thermally controlled configurations for Aerospace, Defence and Space markets on prompt lead times. We can offer defined, optical, electrical, thermal and mechanical performance specs in a range of industrial packages including TO cans in prototype and volume quantities. The modules operate over a wide range of standard wavelengths of 700 to 2,500nm, with options down to 400nm, using different laser chip structures from multiple manufacturers. Hermetically sealed housing and specialist inert gas sealing environments for spectroscopy applications are standard. Internal optical isolation and other products available include technologies for reducing the



linewidths make them ideal for Raman spectroscopy and quantum technology applications. We can also offer space qualification through our partners, Alter Technology Spain.

Contact Rob Roach, Business Development Manager – Photonics, T +44 (0)1506 403550 (Switchboard) info@uk.altertechnology.com www.altertechnology-group.com

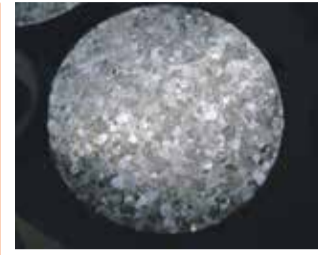
Invacua Ltd: Specialising in the design and manufacture of precision mechanical assemblies



Invacua Ltd is a growing engineering company that specialises in the design and manufacture of precision mechanical assemblies that are supplied into a wide range of industries. Invacua has multiple in-house specialist joining capabilities as well as access to a host of high-quality subcontract component manufacturers at its disposal. This enables Invacua to provide end-to-end manufacturing lifecycle solutions for its customers.

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- Vacuum Induction Brazing



- Precision Pulsed TIG Welding (0.1-100 Amps)
- Helium leak testing to $\leq 5.0 \times 10^{-12}$ mbar.L.s⁻¹
- Magnetic permeability testing

These precision joining processes allow the customer to cost-effectively procure unique and novel assemblies by employing the appropriate technique, or combination of the

above techniques. An extensive range of metallic, non-metallic and dissimilar materials can be joined, giving the customer low cost and high-tech competitive advantages.

As a certified ISO9001 company, all Invacua process are monitored by fully calibrated equipment that is fully traceable to UKAS standards. This ensures quality and repeatability throughout development and production activities.

Our services and range of techniques will be of particular interest to the Accelerator Physics, Aerospace, Medical, Space, Transducer and Nuclear industries for the assembly of bespoke, high end scientific instruments.

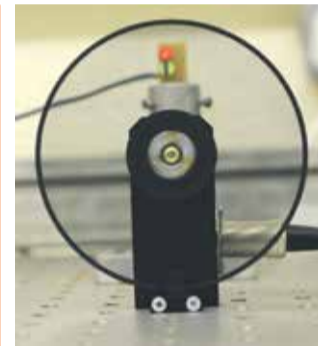
T 01202 735656 www.invacua.com

L-electronics

L-electronics provides expertise and facilities in electronics and photonics (optics) for product demonstrators/development, prototyping, systems integration, analytical evaluations and bespoke instrumentation.

Exhibited at SPIE Photonex 2022 were phase synchronisers for DC motor driven optical choppers. These allow an optical chopper to be synchronised to a reference signal and have been applied to pulse picking from a laser pulse train, probe beam modulation for synchronous detection and complex shutter patterns linked to camera acquisition cycles.

The synchronisers provide phase locking to multiples or sub-multiples



of the reference signal over frequency ranges from a few Hz up to 110KHz depending on the application and also allow synchronised operation of multiple choppers. Shown here is the

rotation of an optical chopper disc synchronised to an alternating Red/Green LED pulse train. The phase has been adjusted so that the spokes of the chopping disc coincide with the Green LED on time and the clear space between spokes with the Red LED on time.

L-electronics projects have been in collaboration with institutions of all sizes including SMEs, academic and research institutions also manufacturers across varied sectors including aerospace, electric power trains and laboratory instrumentation.

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Cognex outlook hit as logistics customers rein in spending

Machine vision pioneer's stock price drops 13% following latest financial update.

Cognex, the Massachusetts-based company that specializes in machine vision technology, has reported sales of just over \$1 billion in 2022 - down 3 per cent on the figure for 2021.

That translated to a 21 per cent decline in annual income, while weaker than expected bookings amid a slowdown in investment by some of the firm's largest customers will hit Cognex's growth prospects in 2023.

Although still confident of hitting long-term growth targets, CEO Rob Willett told an investor conference call:

"We are navigating through a challenging business environment. A few of our largest e-commerce customers have paused most of their investments. At the end of 2022, we observed slower trends across our broader factory automation business, and we have seen this carry [on] into the beginning of 2023.

"Looking beyond this temporary pause, we continue to expect logistics to be our highest-growth end market over the mid- to long-term."

EV battery inspection

For the closing quarter of 2022, sales of \$239 million were also slightly lower than the final three months of 2021, although that was partly due to currency effects.

"Outside of logistics, revenue from the remainder of our end markets grew in 2022 roughly in line on a constant-currency basis with what we would expect over the long term," reported Willett, who is targeting long-term annual sales growth of 15 per cent for Cognex.

"As our history demonstrates, we can experience periods of softness in between periods of robust growth."

However, as with other providers of optics and photonics technologies, the automotive sector is providing a boost to business currently as it transitions to electric vehicle (EV) production.

"Our largest end market in 2022 was automotive, which represented approximately 25 per cent of our revenue," Willett pointed out. That proportion is up from 20 per cent in 2021.

A particularly significant automotive application for Cognex is EV battery inspection, where it is critical to identify scratches and other defects that may pose a fire risk.

That market is part of the rationale behind the company's recent acquisition of Karlsruhe, Germany-based computational lighting firm Sirius Advanced Cybernetics (SAC).

"Combining SAC's capabilities with Cognex's vision and AI tools equips us with an industry-leading offering for battery inspection," said Willett. "The acquisition will support our strategy to capture a larger share of the high-growth battery inspection market."

Lighting is considered key to battery inspection because it illuminates small defects on surfaces that could result in safety-critical failures if undetected, explained Cognex when it completed the SAC deal in December.

Slow period

Looking ahead, the Cognex executive team is expecting sales of between \$180 million and \$200 million for the opening quarter of 2023 - a result that would represent a stark decline from \$282 million posted for the first three months of 2022, although that represented an unusually strong opening quarter for the company.

"As we manage through this slow period, we remain focused on the long term," said Willett.

"We have important new product launches coming up



In November, Cognex introduced a series of "modular vision tunnels" designed for high-speed, high-throughput logistics operations. However, key logistics customers - including some of the world's largest e-commerce companies - have postponed large-scale investments in what Cognex described as a continued post-pandemic slowdown while the customers absorb their recently expanded capacity.

this year. These products bring powerful, easy-to-use technology which expands the number of customers we can serve. And we are investing in our sales and marketing organization to reach more of these emerging customers."

- Following the update Cognex's stock price dropped in value by close to 13 per cent on the Nasdaq, giving up all of the gains made since the start of 2023.

Currently trading at around \$47, the stock equates to a market capitalization in the region of \$8 billion.

<https://optics.org/news/14/2/26>
e: rob.fisher@optics.org
t: +44 (0)117 905 5330

Saving lives and making life better through well-being solutions

In this issue of Industrial Process News, we are proud to announce GOJO Industries-Europe as our Skin Health and Hygiene Company of the Month.

Hand hygiene is routinely considered to be paramount in the prevention and control of many illnesses from flu, food poisoning to COVID-19. Good hand hygiene can dramatically reduce infection spread from person-to-person, especially as many germs are invisible to the naked eye.

GOJO Industries-Europe is a leading supplier of skin and surface hand sanitising products to diverse industries from: manufacturing and heavy industries through to healthcare, leisure, education, retail catering and hospitality.

The internationally-renowned PURELL® brand is one of the most trusted brands for skin sanitising and GOJO® provides specialised soaps and tough soils cleaning solutions.

Many of the PURELL and GOJO products help prevent occupational dermatitis: a common but painful condition across many industries.

The company was established during the Second World War by Goldie and Jerry Lippman in Ohio, USA. Goldie worked



as a rubber factory supervisor: manufacturing rafts and rubber products for the 'war effort'. At the end of a hard day's work, it was impossible for Goldie and her workers to thoroughly clean their hands.

Prior to the war, it had been commonplace for the male workers in rubber factories to remove graphite and carbon black by dipping their hands in kerosene and benzene. These harsh chemicals caused unforeseen skin damage. Goldie and Jerry decided to find an alternative, less abrasive solution for these rubber factory workers, as Rachel Stephenson, European Trade Marketing Manager explains further, "Goldie and Jerry kindled the spirit of innovation that led to the founding of GOJO in 1946, with the first GOJO® heavy-duty hand cleaner."

"This passion to innovate has led us to create products that are sustainable, gentle to skin but effective against the most common soils and germs faced by workers in a variety of sectors, including those in heavy industries."



This passion for innovation continues today. Since 2021, the company has launched new dispenser ranges, and a brand-new type of soap, PURELL HEALTHY SOAP™.

Using innovative 'CLEAN RELEASE™ Technology' (CRT), the fast-working soap works on unreachable areas of the skin, resulting in up to 3.4 fewer germs left on the skin, compared to more conventional soaps. The mild, yet hard-working soap is dermatologically tested and especially formulated for dry and sensitive skin, making it perfect for all users, across many industries.

With the company headquarters in Akron, Ohio: USA and multiple offices and facilities throughout North America, South America, Asia, Australasia and Europe, this is a truly global business.

The European headquarters are in Milton Keynes, Buckinghamshire UK with convenient manufacturing facilities close by in France.

We spoke to Rachel Stephenson, European Trade Marketing Manager to find out more about these truly innovative products.

"GOJO® and PURELL® products are made with only the highest quality ingredients and our scientific approach means that all claims can be proven with published test results and peer reviewed literature."

"Our exclusive, new Hand & Surface Scrubbing Wipes are ideal for tough soils environments. The wipes can be used from construction sites to factories for assured, heavy-duty cleaning. The cleaning and degreasing solution has the dual-purpose of acting fast on heavy soils but remaining gentle to skin. Suitable for use on hands and arms, as well as tools, and surfaces, the wipes act quickly to remove tar, paint, sealant, grease and oil, without the need for water."

"The extra-large and thick non-woven wipes are design

engineered to remove heavy soils through its more abrasive side, with a unique smoother side, leaving hands soft. As with all our products, they are dermatologically tested but this time, the wipes are enriched with Vitamin E, leaving skin smooth and clean."



"We're continuing the legacy of original trailblazers: Goldie and Jerry Lippman with these latest wipes."

The future looks bright for GOJO: innovative new product launches, a new manufacturing plant in Croissy Beaubourg, France opening soon and a 'Journey to Green' sustainability manifesto.

The manifesto details four core principles: plastics and circularity, clean chemistry, resilience and climate responsibility, and flourishing team GOJO.

From May 2023, all GOJO's collapsible refill cartridges will be made from 100% recycled Polyethylene Terephthalate (R-PET): a first for the hygiene market.

By 2025, there will be 100% recyclable plastic packaging on all GOJO's cartridges and bottles.

The company are going further by pledging that by 2030, 100% of cosmetic formulas will be classed as 'biodegradable' and by 2050, the French headquarters and manufacturing plant will be net-zero.

For more information on this innovative, trailblazing company, please see the details below:
info@purell.eu
<https://www.gojo.eu/uk>
www.purell.co.uk

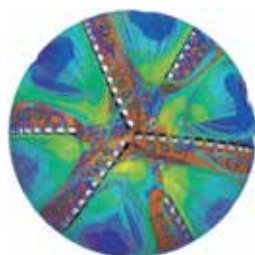
Your drilling bit engineering & performance partner

ZerdaLab Ltd, a UK-based company headquartered in Aberdeen, a drill bit engineering and drilling-data analytics company, has been named Drill Engineering Company of the Month in this issue of Industrial Process News.

The company is trailblazing polycrystalline diamond compact (PDC) drill bit design and development for geothermal drilling applications.

Geothermal energy is an untapped, reliable renewable global energy source, particularly in the UK market. However, traditional designs such as the Roller Cone have lacked the capacity for drilling through high temperatures and hard rock beneath the earth. High costs have also prohibited drilling, with almost a quarter of geothermal project budget spent on the drilling phase alone. ZerdaLab's PDC drill bit technology and unique business model aims to change this scenario.

ZerdaLab is developing a unique automated approach to drill bit selection and performance assessment, all in-house. The machine-learning-enabled application uses a physics-based model to match the optimal cutting structure for each application, maximizing the bit's performance.



L-R: Vasily Zbaraskiy, Director, Rob Tipples, Product R&D & Serdar Bayramov, Data Analyst

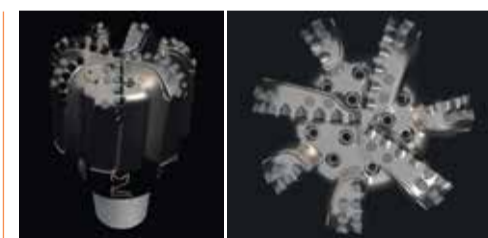
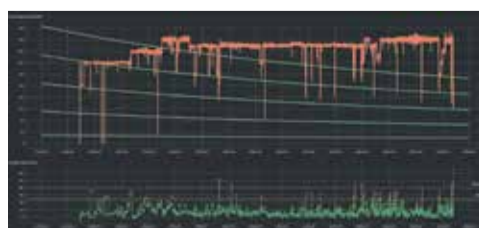
A Computer Vision AI application is used to assess the bit's condition after use, calibrating the selection algorithms. This objective bit performance assessment ultimately leads to



better drilling performance and cost and energy input reduction of geothermal wells.



ZerdaLab is a member of the Scale-Up Programme, which helps to fast-track start-up development. The company was nominated for Innovation of the Year by The European Commission of Geothermal Energy in Germany. It has also been awarded a grant by InnovateUK to develop an R&D project on bit construction with the University of Bath. Since its inception in 2022, ZerdaLab continues to develop its business model and bit design philosophy to find the best fit for the market.



The company's focus is on optimizing the performance of its drill bits and reducing the costs for customers, paving the way forward to sustainable geothermal drilling. The team is developing a global network of manufacturing partners to make the drill bits as close to the drilling sites as possible. ZerdaLab will soon be launching both its AI dull grading app and its ML-enabled drill bit selection tool.

As Vasily Zbaraskiy, co-founder, explains, "We design tailored high-spec drill bits that can be manufactured locally – reducing cost, improving lead time and drilling performance, as well as cutting shipping-related CO₂ emissions. Our developing physics-based automated bit selection application will help to improve quality and speed by picking the right bit for application to maximise drilling performance."



To learn more about ZerdaLab and its services, please visit: www.zerdalab.com or contact the company at: info@zerdalab.com or +44 (0)7549 980407.

Industrial Process Technologies

Interpon helps CEMER switch from hot dip galvanizing to Interpon Redox for a more sustainable future

A global manufacturer of playground equipment and urban furniture is partnering with AkzoNobel to replace hot dip galvanizing (HDG) with a more sustainable alternative.



CEMER, a Turkish business, has switched to an Interpon Redox powder coating system, which not only delivers the anti-corrosion performance the business needs to compete on a global stage, but also helps CEMER to meet its sustainability ambitions.

Burak Eroglu, Chief Production Officer at CEMER, says that the system, comprising a primer and topcoat, is helping the business to compete on the international stage. "Working with AkzoNobel has helped us further improve the quality of our equipment. The durability of the powder coatings helps to guarantee that our products will last in extremes of hot and cold and all climates, in any of the 75 countries in the world where our products are used."

AkzoNobel is helping CEMER deliver significant process improvements. Using Interpon Redox in preference to HDG reduces costs and waste, while still meeting the market requirement for corrosion protection. HDG also requires the steel substrate to be pre-treated prior to a topcoat being applied, an additional process layer that is now removed.

A family-owned business founded in 1994, CEMER has a reputation for designing and creating equipment that is trusted by more than 5,000 customers the world over. Its products are instantly recognisable for the colour and quality of their cutting-edge designs.

www.akzonobel.com

Employee Benefits



Employee Benefits have now been integrated into Terryberry's Milestone and Recognition platform, creating an all-in-one engagement hub for employees.

As part of the integration, Terryberry have launched a new Offers and Discounts platform, designed to help as many businesses as possible to support their people during the cost-of-living crisis, with the platform giving users potential savings of up to £3,000 per year.

The idea behind bringing together their Employee Benefits and Reward and Recognition platform is so that Terryberry can offer businesses a seamless journey and a single place to house everything needed to create a culture of recognition within an organisation.

Village Hotels group have been the first company to launch with Benefits, Rewards and Recognition integrated into the same platform.

Lindsay Southward, Group Director of People and Operations at Village Hotels, said, "We are excited and delighted with our new bespoke one-stop benefits, reward and recognition platform. This now allows all our 4,500 employees across the UK to be recognised in real time whilst at the same time accessing their Benefits and Wellbeing offerings in one easy to access platform and App."

"We have worked with Terryberry for a number of years, and we were excited when we heard that they were bringing benefits, rewards and recognition into one easy to use platform and immediately took up the opportunity to roll this out to our teams."

If you are interested in an all-in-one Engagement, Reward, Recognition and Benefits platform for your business, visit: www.terryberry.com/gb/contact-us

TOPTICA is growing

Since March, TOPTICA has been welcoming its customers and employees in new premises at the Graefelfing site near Munich. On more than 300m², a modern reception area with a customer lounge and showroom as well as two new, large meeting rooms with state-of-the-art presentation technology have been created. At the same time, an additional 2,000m² of office and laboratory space was developed and opened at the site.

In addition, 5,800 square meters of new production space has been created near the company's headquarters. The existing building has already been gutted and remodelled and is being prepared for production and development. Several clean rooms ranging

from 400 to 1,100m² will be created.

The extensive renovations and new leases at the Lochhamer Schlag site were necessary to meet the increasing demands and requirements for office space, logistics areas, production facilities and clean rooms. The Supervisory Board saw this as a positive step in paving the way for the company's successful growth and continuous improvement in product quality. It is convinced that the investments in the Graefelfing site are an important step for the company's successful future.

The expansion of the company's headquarters is intended to further strengthen the company's

technological leadership and ensure a successful future for the German location.

Today, the TOPTICA Group employs 490 people worldwide in six individual companies and generates consolidated group sales of around €130 million (\$141 million). The portfolio includes diode lasers, ultrashort pulse lasers, terahertz systems and frequency combs. The lasers cover almost all wavelengths and are used primarily in the fields of quantum technology, biophotonics and industrial metrology.

T +49 89 858370
info@toptica.com
www.toptica.com




TOPTICA Management Board and Supervisory Board, from left to right: Dr. Thomas Weber, Dr. Dieter Schenk (Chairman), Dr. Thomas Renner (President, CSO), Dr. Wilhelm Kaenders (Founder and President, CTO), Simon Grimminger and Dr. Martin Hohla

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EXPECT PERFORMANCE

Mimaki Technology and collaborative approach set to captivate the Industry and bring 'new perspectives' to FESPA 2023

Mimaki Europe, the leading manufacturer of inkjet printing and cutting technologies, will make its return as a gold sponsor to the FESPA 2023 Global Print Expo (May 23rd–26th in Munich, Germany – **Stand B1-B10**). The company will join FESPA and the wider printing industry to look at the sector with a 'new perspective' with its latest innovations, technologies and collaborative projects. On its booth, Mimaki will display its flagship printers and cutters for the sign graphic,

industrial, and textile markets, including the recently announced TxF150-75 Direct-to-Film (DTF) machine, the high performing 330 Series and the entry-level 100 Series.

Mimaki's first foray into DTF technology, the TxF150-75 will make its international show debut at FESPA. Providing an easy and affordable process for decorating apparel, most commonly T-shirts, the TxF150-75 responds to the market need for a reliable, stable DTF

technology. Equipped with Mimaki's core technologies, it prevents common issues, such as poor ink ejection and white ink clogging, ensuring that processes are carried out efficiently with minimal intervention needed.

Please visit: <https://tinyurl.com/yckak3du> and enter the code: FESLelevx95 to get €50 off your FESPA entry ticket.

<https://www.mimakieurope.com>



VD800 compact vacuum meters: On the road to the future



Clean design, intuitive menu navigation, large data logger and precise measurement results – with its new VD800 series, Thyracont Vacuum Instruments is on the road to the future, consistently concentrating on the users' needs.

The VD800 vacuum meters measure absolute pressure in a large range of 2,000 to 5e-5 mbar and additionally relative pressure in the range of -1,060 to +1,200 mbar. Their big graphic display shows current measurement values and pressure graphs as well as minimum and maximum pressure. The 4+1 membrane keypad provides a comfortable, menu-driven operation. An integrated data logger saves multiple measurement series with their RTC data. With sampling rates from 50ms to 60s, the instruments are not only of interest for fast vacuum processes but also for long-term monitoring.

The USB-C interface – or optional Bluetooth® LE – allows a direct read-out of the measured data and the export of measurement series stored in the data logger. To charge the VD800 via its USB-C interface a standard power supply is sufficient.

Mobile use or permanent installation – the compact VD800 are perfect for service use, quality control and maintenance work or for leakage testing via rate of rise measurement.

www.thyracont-vacuum.com



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web: www.theinsertcompany.com

Confederation of British Metalforming

The Confederation of British Metalforming (CBM) is the UK's only specialist manufacturer organisation for experts in Metalforming. We have very strong membership retention and are here to serve our members' needs.



The CBM has a strong voice which is heard within Government and the wider manufacturing industry. We hold a weekly meeting with the Department for Business, and a number of CBM members attend these meetings, providing evidence from the coal face of challenges facing the industry. Recent Government lobbying has resulted in increased quotas on steel safeguard measures, saving members many thousands of pounds a year. We are active in inputting into many Government policies and consultations affected the Metalforming industry.

The CBM have for over 20 years been accredited to run a climate change energy tax rebate scheme with the Environment Agency, saving its members over £4m per year that they would otherwise pay in this energy tax.

We are also working hard to address the skills and labour shortage that the industry faces, we have recently developed and had approved a degree level apprenticeship standard and are currently working on the development of 2 more standards at Level 3.

If you would like to be part of CBM and find out more about how we can help your business, then please get in touch via email at: info@thebcm.co.uk or call: 0121 601 6350.

Southern Manufacturing & Electronics celebrates its 25th anniversary

On the 7th-9th February 2023, SME held its annual exhibition that was also co-located with AutoAero, an expo devoted to aerospace and automotive engineering at the Farnborough International Exhibition Centre.



Southern Manufacturing and Electronics is the most comprehensive annual industrial exhibition in the UK. Originating as a small, regional show, SME is now internationally recognised as a major-pan European showcase for new technology in machinery, production equipment, electronic production and assembly, tooling and components as well as subcontract services across the industry.

Each year, the event attracts hundreds of industry professionals, and 2023 was no different. A variety of businesses involved in mechanical engineering, electronics, robotics, printing,

instrumentation, and industrial manufacturing were at the show displaying and showcasing new and innovative products to potential and existing customers.

Complimentary seminar programmes ran over the three days in three separate theatres and addressed the technical, managerial and environmental issues currently facing the manufacturing and engineering sectors today.

Some of the seminars included talks from Chris Haydon, Head of Content at FINALLY Agency who gave a talk on 'How to build a content

marketing strategy for 2023,'Making it Happen: The Art of Effective Strategy Deployment' by Ailsa Carson from Onsite Insights, and 'CE and UKCA Marking, 2023 and beyond' by Tim Harrison from CE Marking Association.

SME 2024 will be held on the 6th-8th February at the Farnborough International Exhibition Centre. See below for more details on how to register.

This is our pick of the best exhibitors from this year's event, listed here in alphabetical order: ABL Components, Advanced Chemical Etching, Close Brothers Asset Finance, DMS Technologies, Harald PIHL AB, Hamamatsu Photonics, Inoplas Technology, WMH Transmissions. Further details can be found on the next page and a half.

<https://www.industrysouth.co.uk>

DMS technologies

At DMS technologies, we pride ourselves on being able to complete projects based on your unique specifications. We recognise that today's engineers require more than just a battery supplier. Organisations require a battery partner to fully understand their requirements and provide appropriate solutions. As an independent provider, we will evaluate your requirement and look to balance quality, performance, and cost to provide you with the best solution for your needs.

We started 30 years ago as a battery pack manufacturer and remain a leading UK pack builder, still manufacturing large numbers of our original 'Cyclon' battery packs. Gradually adding more and more technologies and suppliers. Using lithium, alkaline

and NiMH cells, we design and build packs for bespoke applications ranging from Oil & Gas to Emergency Lighting, offering a basic shrink wrap solution to a fully moulded plastic casing.

As a Yuasa, Enersys and Tadiran distributor we offer batteries for several different industrial applications, including, but not limited to:

- Emergency lighting
- Fire and Security
- UPS
- Telecom

Our team will work with you from conception through to design, build and release keeping you in touch at every stage of development.

Do you have projects in 2023 and beyond? Come and talk to the professionals.



Our range of batteries is also available on our online shop: <https://dmsshop.co.uk>. Our brands include Red Flash, Procell by Duracell, Skyrich and many more.

Call us on: +44 (0)1794 525400, email us on: sales@dmstech.co.uk or visit: <https://dmstech.co.uk>

The UK's market leader in high quality transmission products



WMH Transmissions Limited provides high-quality transmission products and is the UK's largest stockist of HIWIN linear motion technologies products. For over 30 years, WMH has been supplying OEMs nationwide, however more recently our trade division APEX Transmissions has become an authorised reseller of leading brands such as Schaeffler-INA, Ewellix, Bosch Rexroth, NTN Linear, IKO linear and NSK Seiki and has one of the most comprehensive linear offers in the UK.

WMH has stocked HIWIN linear motion products since 2012. Our current product range includes Guideways & Blocks, Ballscrews & Nuts, KK Units Linear Stages, Cross Roller Bearings, Precision Locknuts, Support Bearings, Clamps, Linear Bearings & Shafts, lubrication, Zimmer clamps and much more.

WMH also provide specialist services such as linear guide rail cutting, manufacture of precision leadscrews, design & re-engineering of ballscrew assemblies, rack & pinion's as



well as screw jack lifting systems. This is done in-house at our 40,000sq. ft. facility based in Tamworth, UK. WMH Robotics is a dedicated division of WMH Transmissions Limited with a single focus of being the leading supplier of robotics and standard solutions to manufacturers and integrators alike. As a preferred Universal Robot distributor in the UK, WMH Robotics provide affordable, quick to deploy and flexible automation solutions for all budgets. If you are looking for support from concept through to deployment, With the complete WMH portfolio we can ensure your requirements are met with **Quality, Service and Expertise.**

For more information, please see below:
<https://www.wmh-trans.co.uk>
<https://www.wmh-robotics.co.uk>

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- Incoloy 825
- Inconel 718
- Alloy DS
- Nimonic 75
- Nimonic 80A
- Nimonic 90
- Hastelloy C276
- Alloy C22
- Ni10 36
- Titanium GR1, GR2 & GR5



Asset Finance: Your next option for funding



Asset finance is a form of funding many firms know little about – we take a closer look at the products and why it could be the perfect option for your next purchase.

In short, asset finance is an alternative form of funding used by businesses to obtain the equipment they need to grow or access much-needed cash, and gives businesses access to the equipment they need without incurring the cash flow disadvantage of an outright purchase.

Agreements can also be customised with flexibility on both the term and repayment schedule.

A key product is Refinancing (capital release), which makes your assets work for you and releases cash back into the business. The finance company purchases the asset, financing it back to you, with repayments calculated in line with the income the asset is expected to generate; at the end of the refinance term, you own the asset.

Funders can also look to take over a finance agreement with another provider and extend the term, reducing monthly payments and easing cash flow pressure.

For more information, please visit:
<https://www.closeassetfinance.co.uk/asset-finance>

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50 years of Precision Injection Moulding & Overmoulding in the UK

Inoplas is a leading UK-based company that provides high-quality plastic injection moulding and toolmaking services to a wide range of industries. With 50 years of experience, the company has established itself as a reliable and trustworthy partner for businesses looking to manufacture high-quality plastic products.



department. With this impressive infrastructure, Inoplas can offer a wide range of services, from prototyping and design to production and assembly.

responsibilities seriously and is committed to sustainable manufacturing practices. The company has implemented a range of measures to minimise waste and reduce its carbon footprint, such as solar power generation.

Overall, Inoplas is a company that truly embodies excellence in plastic injection moulding and cable assembly. With its cutting-edge technology, highly skilled team, and commitment to sustainability, it is a trusted partner for businesses looking to bring their plastic product ideas to life.

T 01202 866000
sales@inoplas.co.uk
www.inoplas.co.uk

One of the key strengths of Inoplas is its state-of-the-art facility, which features a range of cutting-edge equipment and technologies. This includes advanced 3D printing, injection moulding as well as a fully equipped cable preparation

Another strength of Inoplas is its highly skilled team of engineers and technicians, who are dedicated to delivering exceptional results to every client. From initial concept development through to final product delivery, the team works closely with customers to ensure that their specific needs and requirements are met.

Inoplas also takes its environmental

ABL Aluminium Components now have two brand new SBZ 151 profile machines from Elumatec

Earlier this year, ABL was pleased to announce the extension of its services and product portfolio adding two state-of-the-art SBZ 151 Edition 90 Profile Machining Centres from Elumatec. ABL has invested large amounts of time and money into this expansion and its clients are already seeing the benefits.



Both are 5-axis profile machines, designed for flexible and efficient machining of aluminium and thin-walled steel profiles. The machines offer versatility to carry out operations including routing, drilling, tapping, thread milling, notching and sawing, while the profile bar is stationary to

Established in 1975, ABL has over 45 years' experience in the specialism of

fabrication, powder coating anodising and assembly of aluminium extrusions all under one roof. Operating from a 5,000m² facility in Birmingham, ABL's high level of customer service comes well recommended from its numerous clients that span across a broad range of industries.

If you're looking for help with the design, sourcing, fabrication or finishing of aluminium extrusions and components, ABL offers an end-to-end solution to suit your needs.

For more information, please see below:
www.ablcomponents.co.uk

Introducing the T-SMILS Laser Heating System

Laser Processing with Temperature Control Monitoring

Hamamatsu Photonics offer various kinds of semiconductor laser applied products, which can be used in a wide range of applications from R&D to full-scale production. Recently, Hamamatsu have introduced the T-SMILS Laser Heating system (L15570 series) as a new addition to the SPOLD product line, ideally suited to applications requiring critical temperature control. This product represents an upgrade to our previous laser heating technology, using a much faster sensing regime, which allows

you not only to monitor, but to use temperature instead of power as the main metric for laser processing. The current application focus for this system includes plastics welding. For many years, industry has struggled to use lasers for plastics welding as there have been many inconsistencies in plastics batch to batch, making it difficult to maintain continuous processes. Using this new temperature functionality, these inconsistencies are no longer an issue as the temperature at the melt-point is controlled automatically by this new sensing technology. However, the T-SMILS system can also be used for other



applications including sintering, curing and soldering.

With integrated real-time temperature control and monitoring, Hamamatsu can provide users with completely new possibilities for laser processing.

T 01707 294888
info@hamamatsu.co.uk
www.hamamatsu.co.uk

'Etching' proves popular as ACE seals five new wins at Southern Manufacturing & Electronics

'Etching is manufacturing's best-kept secret' was the message coming out of Southern Manufacturing & Electronics in February.



Telford-based Advanced Chemical Etching (ACE) took over 47 enquiries during the three days in Farnborough, with five of those already transferred into new orders for the fast-growing firm.

Three of the new wins had never used the process before but were convinced to try it after seeing samples on the ACE stand and following discussions with technical experts from the company.

The end applications for the components

will be spread across electronics, aerospace and general precision engineering, proving the diversity of the process.

Gary Marriott, Technical Sales Manager at Advanced Chemical Etching, commented, "Southern Manufacturing & Electronics was another great show for us, and we'll certainly be back next year.

"It's a great place to convert more people to the power of etching, many of whom had previously used stamping or laser cutting as their preferred process. We know we could do the same job more cost-effectively, quicker and to the exacting standards required.

"We're just about to press the button on two further 'Chemcut' etching machines, so we've got plenty of capacity to support industry."

For further information, please visit:
www.ace-uk.net

Coding

Rotech Solutions Alleviate Coding Pain-Points for CBD Wellness Company

Multiple award-winning wellness company, Orange County CBD sourced a RF Lite from Rotech to automate their batch coding process, after their boost in popularity meant that manual labelling was becoming too time-consuming and costly.

Established in 2019 and situated in London, Orange County CBD have an impressive portfolio of CBD products featuring oils, skincare and edible gummies, all manufactured in-house, using only the highest quality CBD, harvested from 100% organic hemp grown in the Golden State, California.

Their mission is to normalise the day-to-day use of CBD products, for individuals struggling with a variety of ailments that negatively impact their lives, such as stress, poor sleep, anxiety and ongoing pain. This not-so-modest mission is one they seem to be conquering at great speed. The company has



an ever-growing army of loyal customers alongside hundreds of glowing reviews citing how the products have changed the users' lives for the better.

A rise in CBD use – a movement for better wellbeing
The rising awareness of the benefits of CBD, along with the popularity of Orange County's quality products meant that Co-Founder, Aaron Spinks began to look for alternative ways to apply batch codes to their cartons. Previously they were

labelling the boxes and cartons by hand – a process that was becoming too labour intensive and costly. He also required something that could guarantee clear, permanent codes and eliminate mislabelling errors for good.

After an enquiry was made with Rotech, Sales Manager Steve Ryan offered a quick and knowledgeable response, suggesting the RF Lite as an ideal solution for overprinting their cartons – backing this up with an impressive video of the system running the carton samples with ease.

The compact coding system is primarily designed to help users automate their coding process for the first time. Fitted with clean, user-friendly thermal inkjet (TIJ) technology, the innovative machine automatically takes flat-form packaging from a stack and applies a code to it, consistently and reliably, before stacking it again, ready for operator removal.

The RF Lite is perfect for quick growing companies such as Orange County, as it is capable of running at high speeds of up to 60m/min – a key consideration for Aaron, as he needed it to keep up with increasing production volumes – the company now prints over 10k cartons per day!

Sticking with Rotech

Happy that the introduction of the RF Lite had made a positive impact to their production process, Orange County looked to Rotech for a way to automatically overprint variable data directly to the labels being applied to the vials of oil.

The compact nature of Rotech's Integra TIJ printer means that it can be easily integrated into existing production lines, to work seamlessly with other equipment, including label applicators.

The addition of the TIJ printer to Orange County's labeller meant that they no longer had to pre-print labels or apply fiddly secondary labels by hand, meaning they saved a lot of time and no longer faced overstock/waste.

The printer also comes with its own iDesign formatting software. The company can create and edit batch and date



codes, control output speeds, view job status and check ink levels. The software allows them to set the printer to print their Batch and Expiry information onto the exact area on the wraparound label.

Orange county is definitely feeling the effects of automating and streamlining their coding processes with clever coding. They've been able to drastically reduce labour costs, improve production throughput, and reduce costs involved with pre-printed stock.

Our team has been highly praised since the installation. Head of R&D and Production at Orange County said, "We couldn't be happier about our experience working with Rotech! When we needed a coding machine for our business, they came highly recommended, and they didn't disappoint. The team at Rotech was incredibly knowledgeable, professional, and attentive to our specific needs. They helped us select the perfect coder that streamlined our production process and improved our efficiency. Their exceptional customer service and after-sales support have made us feel valued and confident in our investment – we couldn't be happier with the results. I highly recommend Rotech to anyone in need of top-quality coding solutions!"

T +44 (0)1707 393700
sales@rotechmachines.com
https://rotechmachines.com



Health, Safety, Cleaning & Hygiene

Rapid response cleaning and improved hygiene products



Having a clean place to work and operate is essential for both employee welfare and mental wellbeing. Facilities, which have a clean environment, are generally more enjoyable to work in and also more likely to be visited by customers too. Between this scrutiny and government hygiene guidelines it is vital businesses do all they can to foster a clean working space for all who will experience it.

As long-standing wholesalers of cleaning and hygiene equipment, we at Alliance Online can suggest products, which can help, keep your workspaces cleaner for longer.

Rapid response cleaning by SYR

Sometimes, facilities do not require huge hygiene solutions or complete cleaning systems and if your business falls into that category, a great option, which can be used, is the rapid response one system from leading cleaning suppliers SYR. The highly visible, tall mobile safety cone, with lockable door and internal shelves comes equipped with a durable foldaway mop holder, top handle and braked castor to prevent movement once locked.

The system is light and easy to transport and is brilliant for getting to the point of any spillage fast. Complete with a SYR rapid mop, which is made up of a light and mobile bucket less water fed pole and coupled with an enclosed lobby pan and brush set, the system is perfect for managing spillages and dry dirt debris.



Commercial cleaning with Evans Vanodine

If your premises are large or you have a multi-site work area which requires a more full cleaning solution which incorporates a wide variety of surfaces and environments then the e:dose range from Evans is perfect. The range is an eco-concentrate and dosing system, which delivers a perfectly measured solution easily and economically in a simple, colour-co-ordinated system that, covers all significant cleaning areas. These super concentrate cleaning products have been formulated by selecting highly effective ingredients and combining them with clean, fresh perfumes to provide exceptional cleaning performance with a refreshing fragrance. The range also includes two unperfumed products for areas where fragrance is not appropriate.

Whether you have a large and complex cleaning requirement or a more straight-forward system, hygiene is a necessity in all work environments and employers need to be able to provide such for their staff. Alliance Online have been helping businesses from a wide variety of industries achieve this goal through their wide and inclusive cleaning product range, for help and information contact us on: 01270 252333 or email us on: hello@allianceonline.co.uk.

Assessing the life cycle of an industrial or commercial metal roof before PV panel installation

Due to the significant costs of a solar PV system, the condition of the roof is critical so it should be assessed prior to installation. The expected life cycle of commercial solar PV systems is around 20 to 25 years, therefore it is crucial that your roof is able to match this.

Failure to bring the roof back to standard can lead to corrosion of the roof sheets beneath the PV panels. Uninstalling and reinstalling PV panels in order to refurbish the roof or undertake a full roof replacement would be a costly and time consuming process.

For these reasons, it is essential that commercial metal roofs are inspected and refurbished prior to the

installation of any solar PV panel systems. Sharmans have two roof refurbishment systems:

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- **Seamsil® – The Cut Edge Corrosion Treatment**
Backed by an industry leading 15 year product guarantee.

Sharmans market leading roof refurbishment systems



Delcote® and Seamsil® are proven to extend the life cycle of industrial and commercial roofs, therefore protecting the long term investment of a solar PV panel system.

Protect your solar PV investment and ensure that your roof is fit for purpose with Delcote® and Seamsil®.

Contact
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www.hdsharman.co.uk

Breathe some Swiss Alpine air

The optrel swiss air respiratory protection system enables wearers to breathe in air of exceptional quality, similar to that found in the Swiss Alps.

The TH3 respiratory protection system features a ventilated half mask that creates a breathing space around the wearer's mouth and nose, reducing breathing resistance through positive pressure. swiss air is self-sufficient and compatible with various protective gear from different manufacturers, making it easy to customise.

As the swiss air respiratory protection proofs: Optrel prioritises equipping its products with unique benefits, by a quarter of its workforce dedicated to research and development. For this focus, optrel has earned a reputation as an innovation leader in the industry.

Optrel offers other respiratory protection systems and welding helmets in addition to swiss air. The in1986 founded company is family-owned and produces all its products in Switzerland. As an SME, optrel listens to the manufacturing



industry's feedback to incorporate it into product development.

Contact:
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BICSc: The British Institute of Cleaning Science

How do you train your cleaning operatives, housekeepers, or cleaners, do you train them at all?

BICSc has an easy-to-follow route to train anyone who works in the cleaning and hygiene sector. It can all be done at a time to suit your business and can provide your staff with accreditations for the training they undertake.

To start with there are 4 free courses covering some of the most important safety aspects for anyone in a cleaning role – Understanding Colour-Coding, Hand Hygiene Explained, Understanding Chemical



Hazard Pictograms and Understanding PPE.

Once you have worked through these, we recommend our Licence to Practice (LTP) course, which covers the essential skills required for anyone who carries out cleaning tasks. Candidates must complete the LTP to understand the

reasons and practicalities of safe working before progressing to further skills training within the Cleaning Professional's Skills Suite.

Once the LTP is complete, we would recommend a choice of skills that best suit your business. There are over 40 skills and our most popular are available online.

Either visit our website: www.bics.org.uk to see what we offer, give us a call, or email us so that we can tailor the training to suit you on: 01604 678712 or trainingandservices@bics.org.uk.

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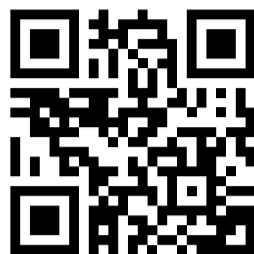
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Advanced Engineering Review

Innovation, collaboration, networking and sustainability



The UK's largest annual gathering of engineering and manufacturing professionals, Advanced Engineering, returned to the NEC, Birmingham on November 2nd and 3rd 2022 for its 13th edition. Here, companies at the forefront of the UK's engineering and manufacturing industry showcased their most cutting edge technology, and experts united to discover the latest innovations. Attendees were also treated to talks from leading industry figures, including representatives from Siemens, Ford, Jaguar Land Rover, Make UK, Rolls-Royce and Airbus.

409 exhibitors attended Advanced Engineering this year, with 85% rebooking for next year. Once again, the show was co-located with Lab Innovations, which also achieved record breaking rebooking rates. This year, over 8,800 people attended Advanced Engineering - 27% more than in 2021. This included representatives from Aston Martin, BAE Systems, Boeing, McLaren, Microsoft, Nissan and Toyota.

Advanced Engineering's dedicated innovation areas proved popular again this year, with the spaces across the show floor given to the University of Manchester, two Formula Student teams, Crover, Bcomp, Plastron and Attentional Machines. Here, visitors got to see the latest innovations in graphene, electric vehicles, composites, drone technology, spacecraft propulsion and robotics, from companies right at the forefront of their respective fields.

Advanced Engineering returns to Birmingham's NEC from 1st-2nd November 2023.

www.advancedengineeringuk.com

M-CNC Engineering

Based in Bridgwater, M-CNC Engineering has been supplying the aerospace, defence, oil & gas and motorsport sectors with precision manufacturing since 2011. Major investment in technology, staff, resource and location has paid dividends, attracting interest from industry heavyweights including Rolls Royce and Airbus.



For Business Development Manager, Leigh Howarth, engineering has shaped his career path and he's developed a passion for championing the future of UK manufacturing. "My career in engineering started when a teacher took the time to fire my imagination! They saw the potential in me that others didn't and opened my eyes to a world of creativity and innovation," comments Leigh. "We need to inspire a new breed of engineer who will continue to pioneer and shape the UK's undisputed heritage of manufacturing excellence."

Strong relationships with business critical suppliers, ongoing apprenticeship programmes with their neighbouring college network and a host of B2B trade events and networking supports the continued success of M-CNC Engineering. However, the longevity of UK manufacturing doesn't simply rely on advances in technology and process.

M-CNC Engineering is passionate about innovation in the UK manufacturing sector and the shared responsibility of businesses, enterprises, schools and colleges to inspire the next generation of master craftsmen. This passion led to the inception of Somerset's first Festival of British Engineering & Manufacturing, a two day manufacturing expo which debuted in 2021 and was a resounding success.

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3. Mechanical strength

The low compression set of Perlast® FFKM means that across both static and dynamic applications, Perlast® FFKM seals can be specified within fast-paced process lines that cannot be undermined by material weakness and unreliability.

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Perlast® FFKM is certified compliant to important standards across several industries, including food, dairy and pharmaceuticals (FDA, 3-A Sanitary Standards and USP), and energy (NORSOK M710, NACE, ISO23936, and ISO10423).

5. Availability

In recent months, the excellent availability of Perlast® FFKM has been a critical factor for equipment operators. An industry-wide shortage of FFKM ingredients has led to significant increases in lead times for major manufacturers and prominent FFKM grades. Perlast® FFKM has remained relatively unaffected by this supply chain complexity. Perlast® FFKM sealing components can be manufactured to order in as little as a month – up to six times quicker than some competitor grades.

Switching to Perlast® FFKM

PPE sealing specialists understand the difficulties involved in specifying and implementing a new sealing material. Arrange an initial consultation with a Perlast® specialist at www.perlast.com, or take a look at our videos and resources to explore the benefits of using Perlast® FFKM.

Precision Polymer Engineering are exhibiting at CHEMUK 2023 at the Birmingham NEC (10th-11th May) – so if you're attending, we'd love to welcome you to Stand M34 where our specialist sealing engineers have answers to all your industrial sealing questions.

Contact
T 01254 295400
prepol.sales@idexcorp.com
www.perlast.com



Screw & Barrel Wear – Keeping costs down

For plastics and rubber processing, Magog Industries constantly strive to offer solutions to reduce wear on screws and barrels but it is equally important to regularly monitor for early signs of wear.



With high volume but low cost/unit production, it is understandable to keep machines running where possible. But further challenges such as using more regrind along with fluctuation in polymer quality can only add to eventual problems such as higher temperatures, lower output and unwanted quality issues on the moulded product, leading to increasing the pressure, adding to energy use and eventually leading to increased costs of worn parts.

As a guide, the minimum gap between a 50mm screw O/D to the barrel bore is between 0.10mm to 0.25mm (max) and for a larger 150mm dia screw, from 0.30mm to 0.45mm. For mixing elements such as a Maddox the gap is between 0.50mm and 0.75mm. But screws and barrels tend to wear unevenly over time and to save cost in the long term, monitoring screw and barrel wear should be part of regular maintenance.

Visual inspection can show some obvious signs such as scored surfaces, pitting or material worn away especially to the flight sides on the screw. Accurate digital measurement of screws, barrels and associated parts provide a clear indication of the amount of wear and what action is needed.

At Magog Industries, our engineers conduct Inspections at our workshops or alternatively carry out the Inspection at the customer's site. A Report on the condition is made available with recommendation for repair, re-design or replacement.

Magog will be at *Sustainable Plastics Live 2023* at the Coventry Building Society Arena (formerly Ricoh Arena), Coventry 10th-11th May. Visit us on Stand B18, Hall 1.

We will be pleased to offer solutions available including surface coatings, alloys available and re-design to maximise effectiveness in plastics and rubber processing.

For more information, contact Magog Industries:
enquiries@magog.co.uk, telephone: 01920 465201
or visit: www.magog.co.uk

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PPE
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New Oliver Hydrogen Transportation Valves are about time

Oliver Hydcovalves have announced the design and manufacture of three new valves for hydrogen transportation and refuelling. Using high performance polymer bearings and seals in partnership with DuPont™, valves have been qualification tested to 102,000 cycles of operation while maintaining a fugitive emissions leakage class of BH.

Another unique feature of the valves is their full-bore design. This avoids restrictive flow, which appears to be a common problem in many valves on the market.

As the world continues to move towards sustainable energy sources, hydrogen is emerging as the promising fuel option for vehicles and industrial transportation on land, sea, and air. The transporting and dispensing of hydrogen fuel in working environments such as fuel stations and onsite fuel storage facilities, require specialist valves that have been designed and

engineered for continuous high cycle operative use and meet the requirements of ISO 19880-3.

This latest engineering achievement firmly places Oliver Hydcovalves at the forefront for hydrogen transportation valves. Built to the highest specifications using premium quality materials, and tested to the highest standards, it's logical to see how Oliver's claim to offer the best valve solution for hydrogen transportation and refuelling applications, certainly holds up.

Bore sizes include; 10mm, 14mm and 20mm.
To learn more about hydrogen transportation and for guidance on hydrogen specifications, applications, qualifications and pricing, contact Oliver Hydcovalves on: +44 (0)1565 632636 or visit their website at: www.valves.co.uk



Cutting-edge subsea technology

DIGITAL EDGE SUBSEA



OFFSHORE DIGITAL VIDEO+INSPECTION SYSTEMS



INTRODUCING EDGE DVR

The EdgeDVR is currently used worldwide by most of the major ROV and Diving contractors. With our Version 5 software, we have 6 models. The EdgeDVR has become an essential part of any ROV and Diving system offshore, easy to use and reliable. The system is capable of recording simultaneous High Definition and Standard Definition video, together with auto creation of Dive, Video, Photo and Anomaly logs. Multi channel digital overlay is also available for all recorded channels, logos and realtime survey data can be displayed. With around 800 systems now offshore, we have a proven record of reliability.

**Diving | Workclass & Inspection ROV
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DIGITAL EDGE SUBSEA

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Cumbria based Digital Edge Subsea is a world leader in offshore digital video recording (DVR) and inspection systems. The company supplies the oil and gas industry with its digital video recording system that includes diving, remote operated vehicle (ROV) and topside operations.

Digital Edge Subsea's products fit mainly into two categories, Subsea Robotics and Inspection Systems. The former includes both single and dual use modules as well as manipulators, which are high quality state of the art robotic solutions for the subsea market.

Digital Edge Subsea is also a market leader in producing subsea inspection systems, and with 10 years' experience in the industry has nurtured strong customer relationships allowing for honest customer feedback which has been incorporated into the development of the Version 5 EdgeDVR.

The EdgeDVR has become an essential part of any ROV and Diving system offshore as it is easy to use and reliable. The new V5 software includes an online training platform and certification, as well as a powerful portable laptop version which comes in addition to the original 4U rackmounted version.

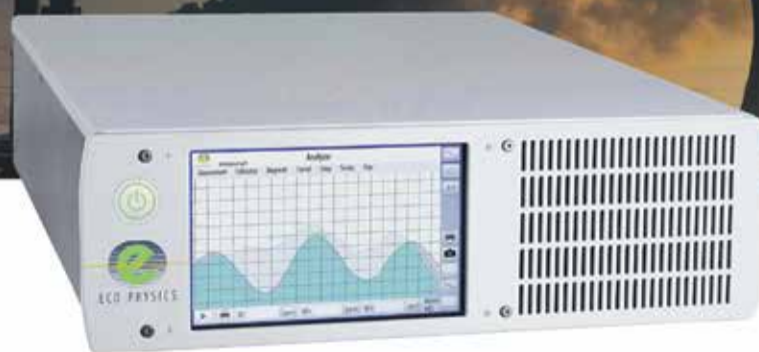
To work alongside this, Digital Edge Subsea has also recently released the Edge DVR Archive application. Edge Archive handles the transfer of data from the internal DVR drives to client storage, either on a NAS, a Raid, or a phased delivery to multiple external hard drives. Archive can act as a simple 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 that is conducted after each dive.

Digital Edge Subsea now produces a range of products, and supply systems to many of the major offshore operators worldwide. The company is a trusted brand with a reputation for excellent support. With around 750 systems in use offshore, the company has a proven record of reliability.

For further information regarding Digital Edge Subsea, please contact:
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www.digitaledgesubsea.com

ECO PHYSICS nCLD "Facelift" boxed solutions

AL, AL², EL S, EL, EL²



Measurement of:
 NO · NO₂ · NO_x

The one- and two-channel chemiluminescence based NOX analyzers of the nCLD "Facelift" box-solution analyzers detect NO, NO₂ and NO_x at concentrations ranging from 5 ppm to 5000 ppm with minimal detection limits averaging from 0.4 ppb to 0.5 ppm. They hereby focus on two main application areas, Ambient Air (AL, <50ppm) and Emission/Process (EL, <500ppm; EL S <5'000ppm) monitoring. The one-channel nCLD AL, EL and EL S feature an external pump, while the two-channel nCLD AL2 and EL2 include an internal pump. The nCLD "Facelift" boxed solutions consist of five, fixed and preconfigured analyzers. The nCLD AL (Ambient Level) and EL S/EL include a standard NO/NO_x measurement, with an optional NO₂ add-on, while AL2 and EL2 include, due to the two-channel set-up, a standard NO₂ detection. Additionally, all nCLD-models are capable of a remote power down/up including a failsafe feature. nCLD AL2 and EL2 are TÜV approved, qualified according to ISO EN 14211 and 15267 1-3.

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medmix wins landmark German court ruling on counterfeit static mixing tips

medmix, a global leader in high-precision delivery devices, has won a landmark court ruling in Germany to help protect its customers from counterfeit products. Found to be in breach of Unfair Competition Law, a distributor of cattle care products in Baden-Württemberg agreed to a Judgement by Acknowledgement at Cologne District Court for selling imitations of the patented Quadro™ static mixing tips, owned by medmix, type MFQ (Court ref: 84 O 131/22).

As well as agreeing to cease the infringement and provide information regarding the source of the counterfeits – this distributor will introduce high

quality, genuine Quadro mixing tips as part of its range.

“This is a landmark ruling against counterfeiters of our patented mixing tips for industrial sealants and adhesives,” said Hans-Peter Brack, Head of IP Management at medmix group. “We are totally committed to defending our rights and removing inferior counterfeit products from the market. We actively support distributors to supply only genuine Quadro products, ensuring that users receive the safest and most effective solution.”

Static mixing tips are used in two-component adhesives and sealant applications. In the case of the Quadro MFQ mixing tip, both material components of a cartridge are mixed by the specific inlet structure of the tip. Typically, this tip has always been designed with a unique and distinctive visual appearance in green with a white interface to be mounted on the cartridge. Mixing tips require regular replacement, and cheap counterfeits are often available on e-commerce websites. However, inferior tips can offer poor and even



Quadro mixer in the typical colours of white and green, quadratic shape and the Quadro logo

dangerous mixing results, as well as the risk of breakage or leakage, which could be avoided by using tested, high-quality originals.

“Hoof repair is usually an undertaking for farmers and vital to the welfare of the animal. Using an inferior mixing tip can mean that a cow or horse is receiving poor quality care, which may result in distress. By using a high-quality static mixing tip, farmers and veterinarians can ensure optimal treatment and a much happier animal,” Hans-Peter explained.

In this case, an approved distributor alerted medmix to the counterfeits, but the company takes further steps to identify poor quality imitations. medmix works with customs and border control to stop counterfeits entering local markets and regularly screens trade shows for counterfeits. Internet trademark and image monitoring are used with reference to 3D and other trademarks held by the business, allowing automated assistance in the identification of infringements. Information is also available on the medmix website to help customers spot and avoid fakes.

Hans-Peter added, “As well as defending the rights and safety of our customers and end users, we want to improve the supply chain. Accordingly, we will be supporting the corresponding distributor in Germany to provide original products, so that they can sell genuine, authentic mixing tips. We have also given permission for medmix branding to be incorporated in its brochures and other communication tools for the purpose of identifying our genuine Quadro products.”

“We are experienced at defending our rights in the dental industry, but this ruling shows that we are ready to protect our innovations for the industrial market too. As a technology company, we are dedicated to removing counterfeits from sale and ensuring that our customers and distributors, as well as end users, do not suffer the consequences of fake mixing tips.”

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Water, Energy & Environment

Future flood map points to need for site drainage optimisation

The most detailed predictions yet about how future floods could affect local areas across the UK point to the urgent need for businesses to optimise their site drainage systems, says Lanes Group plc.

Scientists have created a future flood map that has identified flood hotspots likely to emerge as climate change accelerates, making weather more volatile, the BBC has reported.

The research, carried out by Bristol University and flood consultancy Fathom, reveals locations in England, Scotland and Wales that could be hardest hit by flooding over the coming years.

Lanes Group Development Director, Richard Leigh said, “More accurate modelling like this is going to be crucial as we move into an era where volatile weather patterns makes flooding more likely.

“The maps show how a business may be at risk of flooding, while another very close-by may escape the deluge. These predictive tools can help property owners and managers, both residential and commercial, plan their flood defences to prevent damage or minimise it.

“A business at the epicentre of a huge flood event is unlikely to escape being affected. But those on the margins, or where flooding is less intense, can do a lot to protect their premises by ensuring their site drainage systems are working effectively.”

The annual cost of flood damage across the UK currently, according to the Association of British Insurers, is £700 million a year.

The researchers have found that annual damage figure could increase by over 20% over the next century.



They created their future flood map by simulating all types of flooding in the coming decades.

Information about terrain, river flow, rainfall patterns and sea level was fed into the model to create the most detailed picture currently possible about how homes and businesses will be affected.

Lanes, the UK's largest independent wastewater and

drainage specialist, has developed a 6-step checklist, which can form a critical element of a site drainage resilience review.

Know your flood risks

Use all evidence, including this latest research and advice from the Local Flood Authority, to assess the local flood risk, bearing in mind that the level of risk can change over time, depending on factors such as the level of local development.

Assess your drainage system

Have an accurate and up-to-date site drainage map. Every one of Lanes' 22 depots can be commissioned to carry out a CCTV site drainage survey to establish the condition of drains and sewers across any premises.

Carry out planned preventative maintenance (PPM)

In the long-term, preventing flooding is less costly than clearing up after it has occurred. Therefore, having a PPM schedule in place makes the best sense. System cleaning and flushing will reduce the risk of localised flooding disrupting business activities.

Address site drainage problems

If site drainage problems, such as pooling of water and slow draining of toilets and sinks, are already apparent, deal with them now, and take steps to prevent assets being compromised, for example by wet wipes being flushed down toilets.

Assess wider drainage issues

Off-site issues may increase flood risks, for example, if a local water course is blocked. Raising these issues with relevant authorities and property owners is an important step.

Prepare an emergency plan

Businesses must also be ready if the worst does happen. Ensuring a site flood response plan is built into business continuity planning is vital.

Having rapid access to a reputable drainage specialist that has all the expertise and specialist vehicles to deal with flooding problems, could be the difference between an inconvenience and catastrophe.

T 0800 526488
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Pump technology helps reduce plastic waste



Quantex offers off-the-shelf, recyclable pumps with additional varying flow-rate ranges. In 2021, Quantex was acquired by PSG, an operating company of Dover Corporation and now sits alongside 13 other pump and flow measurement brands. We caught up with Director of Marketing, Gillian Harding-Moore to find out more about last year, "We've had an exceptional year, full of change. Benefiting from a 'one company', collaborative culture, we've been integrating with sister brands in Germany, laying the foundations for rapid growth in 2023 and beyond.

"Perhaps the biggest change is the move of our Head Office to Duisburg in Germany, joining our PSG sister brands: Quattroflow, Almatec and Hydro, making future collaboration even easier. At this established and quality-assured facility, we have more resources and manufacturing facilities, including 380msq of ISO 7 certified clean room facilities."

Quantex's London office and dedicated manufacturing plant in High Wycombe remains fully operational and with a further rebranding of the high-quality pumps, Quantex has harnessed the power of visible readability for customers. The pumps have been renamed to match corresponding maximum flowrates, allowing customers to select the right pump quickly and accurately.

This leading company has doubled pump production since 2021, through increased manufacturing, showing this company's eager prowess in the industry. With a further automated assembly line planned for the Bag-in-Box pumps, it is expected that the pump production capability will triple this year.

Quantex is a very worthy recipient with exciting purposeful rebranding, exponential manufacturing figures, an incredible 100% growth in turnover during 2022, with its harmonious collaborative culture.

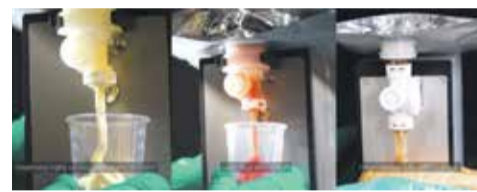
Quantex is the cutting-edge provider of recyclable pump technology, instead of the pump being attached to static equipment, it is uniquely fastened to liquid packaging, as part of a fully integrated fluid packaging system.

The pump is clipped into a motor drive, allowing the liquid to be dispensed at different flow rates, dependent on the liquid. Once the liquid supply is depleted, the customer replaces the bag with a corresponding new bag and pump, as Gillian illustrates, "Quantex Pumps carry an exceptionally hygienic solution, especially with possible aseptic and sterile versions of the pumps, meaning that cleaning is eliminated since no product travels through the fixed machine. In addition, multiple products can be swapped in and out of the same channels with no cross-contamination.

"Further advantages include: pump maintenance/calibration are eliminated due to Pumps being replaced



Bag-in-Box Pump fitted to liquid pack



with product packaging and the cost and footprint of the dispensing equipment is greatly reduced – due to the simplicity and wide availability of the mechanics required to drive the pump.

Furthermore, high vacuum capability means self-priming, better bag evacuation/less waste, and highly viscous fluids can be pumped successfully. Usability is increased by the reverse cycling of the pumps allowing the dispenser to suck the product back in to eliminate drips and provide a clean dispense.

Ultimately, if brands can create higher concentrations of their products, our dilution pumps will enable them to take water out of the distribution channel, saving shipping costs and carbon emissions."



Quantex recyclable pumps dilute to any ratio

Sustainability and cost-cutting are current priorities for many companies around the world and Quantex pumps help reduce expensive, rising shipping costs, offsetting carbon emissions by transporting less water, herby minimising product shelf-space requirements.

Quantex has been busy refining these existing, excellent pumps even further, as Gillian explains, "We have a number of exciting new products in the pipeline for 2023, including our new High-Speed Eco Pumps. These use air pressure to activate the diaphragm and seal the pumps instead of a silicone spring, so they are more easily recycled, and can run almost three times as fast as our standard or high-pressure pumps. We are also working on new, easy-to-use Evaluation kits and pump driver technology which is primarily designed to help our OEM customers evaluate and integrate our pumps into their equipment more swiftly."

The Quantex team had a successful run last year showcasing its unique recyclable pump technology



at The Packaging Innovations & Empack at the NEC last May. The team exhibited two of its most popular dispensing machines in beverages and retail refill: Fresh Blends® Frozen Beverages Self-Serve IoT Platform and Fillix's Supershelf™.

There was a flurry of interest in both products from interested trade delegates. The 'Supershelf™' is a state-of-the-art new dispenser, allowing retail customers to sustainably refill existing bottles from bulk containers, making unnecessary existing, packaged containers redundant. Single-use packaging is one of the biggest villains of the plastic waste industry and this innovative product is helping end endless landfill waste.

The future looks bright for Quantex with exciting progressive projects planned as Gillian demonstrates, "In the near future, we've got some exciting collaborative projects planned with our sister PSG brands in multiple sectors including Biopharma, Industrial Cleaning and Agriculture.

"Over the next few years, Quantex will be supporting its Refill OEM customers to develop and establish an optimal, standardised platform for retailers, combining a delightful user-experience with IoT technology, with streamlined supply chain and shop-floor maintenance.

"We will be growing our Industrial applications, where our pumps are used to reduce downtime for cleaning and maintenance in manufacturing lines.



"Our technology is entering the Biopharma sector, offering hygienic and low-shear micro-dosing capabilities for cell and gene therapy and low-flow upstream applications. It's an exciting sector where our pumps can make a difference."

Quantex has unreservedly demonstrated a commitment to not only continuously producing quality-assured pump technology but by fully embracing the technological age, it has once again contributed to leading sustainable, ecological products.

For more information, please see below:
T +49 (2065) 89205-0
www.quantex-arc.com



Surface Finishing

World leaders in providing innovative, long-term corrosion prevention solutions

Celebrating 140 years' service to industry this year, Denso is a leading manufacturer and supplier of corrosion and chemical resistant coatings and linings for long-term effective protection of buried, submerged, or exposed steel and concrete pipes, tanks, and structures.

"As a business, we have been supplying corrosion prevention-specific solutions to our customer's problems for the last 90 years. We are most famous for Denso™ Tape, our renowned multi-purpose, anti-corrosion petrolatum tape. Denso™ Tape is extremely versatile, easy to use, surface tolerant and long-lasting. This is what makes it such a popular choice on a variety of application types across a broad range of industries," stated Keith Corfield, UK Sales Manager.

The company is able to draw upon a wealth of experience in producing its well-known quality brands such as Denso™, Premier™, Archco™, Protal™, Premier Shrink Sleeves™, Steelcoat™, SeaShield™ and Sylglas™; all of which are synonymous with quality. "We have gained an enviable reputation, both nationally and internationally, for providing high-quality, long-lasting solutions to our



customers problems. Our products are designed for longevity with solutions that when applied correctly can offer up to 30 years of maintenance free service. We are committed to providing unrivalled service to our customers and have the knowledge and experience (supported by accurate, reliable information and data) to confidently recommend the most suitable and effective solution for the job. This attention to detail coupled with our ability to tailor bespoke solutions to our customer's problems, is what makes us stand apart from our competitors," added Keith.

One notable product from the Denso™ range is the Denso P1 System to which Denso™ Tape is a key component of. The Denso P1 System is a CESWI-compliant system for the protection of ferrous pipes, joints and fittings within the water industry. It comprises a coat of Denso Paste™ followed by the use of Denso Profiling Mastic™ to fill any pits or voids, and to form a smooth profile for wrapping any joints, flanges or couplings. The system is then completed with an application of a double layer of Denso™ Tape. The easy-to-apply system is produced in accordance with 'Civil Engineering Specification for the Water Industry – 7th Edition', can be cold-applied, and delivers effective, long-lasting protection when following correct application procedures. Case studies of where this product has been used can be viewed on the website.



Over the last few years, Denso have been implementing a programme of investment with updates to premises and manufacturing capabilities across the entire Winn & Coales International group of companies, in order to keep up with demand from its customers and to fuel continued growth. A major development from this occurred in 2021, when Denso welcomed the acquisition of the global Viscotaq™ business; the ultimate visco-elastic coating and sealant used for the protection of above and below ground substrates, across a broad range of sectors, from corrosion.

If you're interested in trying these products but would like

more guidance, Denso also offer training for this. "To ensure our customers receive the best out of our extensive range of products, we believe in educating them in correct product application techniques. We offer free training either onsite or in our dedicated training centre at our Head Office in South London. It's a great privilege to be recognised for the work that we do and comes at the start of a fantastic year celebrating 140 years of service to industry," said Keith.

For more information, please see below:
T 020 8670 7511
<https://www.denso.net>



Engineering & Machining

UNISIG's approach to automating surgical instrument manufacturing

As surgical instrument manufacturers pursue greater throughput while facing increased labor costs, automating the medical instrument manufacturing process has become a necessity. However, integrating automation into the gundrilling process for drilling deep holes in extremely precise surgical instruments in lights-out operation is a major engineering challenge requiring more than simply pairing a robot with a deep-hole drilling machine.

The right machine, tools and process must all come together to create small holes with extreme precision in difficult-to-machine materials such as titanium and surgical stainless steel. More importantly, the entire system must flow from a unified concept where the whole is greater than the sum of its parts.

To meet these challenges, UNISIG developed its UNE6-2i-750-CR dual independent spindle gundrilling machine. The UNE6-2i is capable of gundrilling hole diameters ranging from 0.8-6mm in part lengths measuring up to 30 inches with depth-to-diameter ratios from 20:1 to more than 100:1. The machine has a maximum combined drilling speed of 28,000rpm and a 3,000psi (207) bar programmable flow-based coolant system with dedicated pumps for each spindle to ensure precise coolant pressure control.

Automating hundreds of cycles of precision manufacturing, however, is not possible unless the overall operation is considered from the



outset. Surgical instrument manufacturing is a sequential process: parts must be loaded into the machine in a particular way for specific operations that happen in a specific order.

Workpiece length, shape and configuration determine where it is gripped by the robot when loaded into a machine, moved from spindle to spindle for drilling, residual cutting fluid removed, and returned to the pallet. Where a part is gripped impacts where it is clamped for drilling to ensure accuracy. Every variable along the process chain must be considered and accounted for, and the calculus is detailed and complicated.

Then there are unique customer needs and requirements. The equipment and process must accommodate a variety of part families and hundreds of parts to increase runtime and efficiency. Operators must be able to change over part types and programming without calling in an automation specialist, and the entire process must be controlled from a central



interface. Add to the mix that everything must be packaged in as small a footprint as possible, and the scope of the engineering challenge comes into focus.

UNISIG's approach to solving these problems, however, results in targeted automation that enhances the existing benefits of gundrilling, ensuring a solid foundation for reliable process-wide automation.

At its core, the automated UNE6-2i is a purpose-built machine with automation embedded in its design, not added as an afterthought. Flexibility and adaptability are maximised by a harmonious, interdependent mechanical, software and operational planning scheme.

To meet size constraints, a 6-axis robot was embedded in the machine with a pallet system on the backside of the machine, allowing easy operator access from the front to setup the machine without compromising ergonomics. The configuration enables quick setup changes

between prototype and proving operations and full production runs.

The robot automatically repositions the workpiece from the front of the first spindle into the rear of the second spindle without operator input. The process of drilling a part from both ends in a single-piece flow is unique to UNISIG. Workpieces with enlarged features on one side are loaded from the rear of the collet, solving a common problem in gundrilling medical surgical instruments with full automation.

Control of the UNE6-2i and a computer are consolidated into the Human Machine Interface (HMI), a menu-driven touch screen system for easy, intuitive operation. Training and operator engagement with the system is significantly reduced due to user-friendly UNISIG controller menus and prompts.

UNISIG's comprehensive and integrated approach to automating medical part manufacturing is a vision that sets it apart in the industry. It's more than drilling the impossible hole. It's a commitment to understanding and to the research that drives continuous improvement and innovation for automated part production at its full potential.

Further information on all machines and the complete UNISIG machine programme is available at: www.unisig.com or follow the company on LinkedIn and Twitter (@UNISIG). You will also meet us at the EMO 2023 show in Hannover, Germany, from 18th-23rd September.

Increase productivity and profit with gundrill resharpening

Gundrilling tools properly applied create impressive holes with very close diameter tolerances and roundness, good surface finishes and – of course – holes much straighter and deeper than those accomplished with a twist drill.

However, when the drill is used long enough to become dull, chip formation will change, hole quality will deteriorate, and eventually the gundrill will fail. It's important to stop drilling before failure to avoid the risk of scrapping the part or trying to retrieve a piece of broken carbide out of a deep hole. Gundrill failure also eliminates any chance to resharpen the tool.

Gundrills typically have a slight back taper along the head, so after each sharpening there is a minor change in drilling diameter. When the drill has been sharpened too many times, the head length and wear pads are too short to guide the tool, and it needs to be replaced.

Most types of gundrills are excellent candidates for resharpening, which can be done approximately eight to ten times. In most cases, resharpened gundrill performance will be similar to that of a new tool. Even coated gundrills can be resharpened, since the coating on the wear pads that burnish the holes while drilling remains, which is often the primary value of the coating. Twin-flute tools and those intended for ultra-high-feed applications with chip breakers below a coating usually require OEM resharpening.

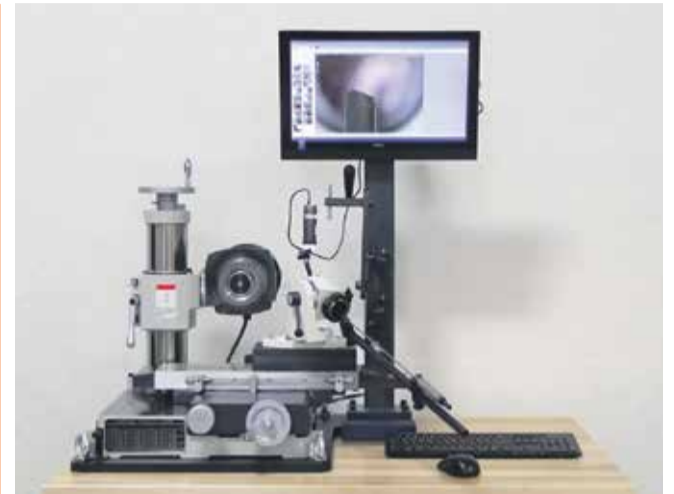
In a majority of cases, however, a dedicated gundrill grinding system enables shops to accurately resharpen gundrills in-house to save on labour, transportation and tool availability costs. Additionally, the understanding of the gundrilling gained by sharpening drills will encourage improvements in how the tools are applied.

Sharpening a gundrill will take less than 15 minutes with a good grinding system that includes step-by-step instructions and is often performed by a gundrilling cell operator while the machine is drilling



with other tools. The best grinding systems also provide information about tool performance before sharpening. Familiarity with normal wear patterns will enable a shop to adjust drilling parameters, extend time between resharpening operations and increase productivity and profits with higher feed rates, improved quality, better machine utilisation and fewer unexpected failures that disrupt production.

A dedicated gundrill resharpening system includes a manual tool grinder, a fixture designed to hold the drill for grinding and a digital inspection camera to view and store magnified images of the drill tip. The images enable users to perform measurements and identify problems without taking the tool out of the fixture. Users can then learn to identify the causes of extreme, uneven or unexpected wear or chipping and adjust speeds and feeds to optimise their cutting processes. A shop also can use saved drill images to communicate wear



modes to the drill manufacturer, who can provide advice on ways to limit wear and extend tool life.

Given the ease of use and the significant process optimisation opportunities the process provides, many shops should consider adding in-house gundrill resharpening capability to save time and maximise their tooling investment.

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Meet us at the EMO 2023 show in Hannover, Germany, from 18th-23rd September.

ABB robot ensures precise laser welding for chemical vessel production

A highly flexible ABB robot is helping a major UK chemicals company produce accurate laser welds on chemical production equipment.

The solution, developed by Cyan Tec Systems, is designed around an ABB IRB 6700 industrial robot carrying a laser welder to produce highly accurate welding on production vessels used in the manufacture of chlorine.

The end user was keen to solve logistical challenges by bringing the welding of the product in-house from a European sub-contractor. As well as offering more control over the process, reshoring production would avoid the need to deliver raw materials to the sub-contractor and ship back the finished product.

Laser welding offers the high accuracy

required in producing this type of process vessel. It gives better quality welds ensuring that the weld maintains high integrity and prevents any distortion that can result from the higher heat dispersion of other methods.

Because laser welding presents a risk of eye injury to human workers, a fully enclosed automated solution was required.

Cyan Tec Systems was asked to develop the solution. The company, an ABB Value Provider, has extensive experience designing and building robotic automation solutions for companies in industries including aerospace, automotive and nuclear.

go.abb/robotics



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Fountain Food Machinery is the UK's largest stockist and suppliers of new and used Food Processing & Packaging Machinery.



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From the company's large purpose built storage and workshop facility located in Nordeph, a small village in Norfolk, Fountain Food Machinery provides a comprehensive service for used food machinery. Fountain Food Machinery is equipped with the ability and experience to assist with all aspects of food machinery including sales, servicing and training.

For any further information, please see details below:
sales@fountainfoodmachinery.co.uk
www.fountainfoodmachinery.co.uk

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SCAN ME

Providing quality and innovative product identification solutions for industry

In this issue of Industrial Process News, we are proud to honour MTM Products (I.S.P.P) Ltd for Industry Excellence in label and nameplate innovation.

MTM Products has been a leading UK manufacturer and supplier of aluminium and stainless-steel nameplates, graphic overlays, plastic labels and signs, and lastly, vinyl-cut decals to OEM's in UK and Europe for the last forty years.

Using the latest state-of-the-art digital printers/cutter: this expert team offers the highest-quality labels.

Investing in next-generational technology, produces unrivalled printing results from construction aluminium labels that don't fade in the sun, to multilingual construction labels, labels on circular pillars to strongly adhesive labels for agricultural machinery.

There have been some recent changes at MTM Products to cater for expanding business: a new office for the design estimating and sales teams and a new Managing Director: Mark Niblett. The new MD has been participating in The Made in the Midlands roundtable discussions: the latest one looked at 'data strategy in manufacturing' with other participants from the Midlands and Yorkshire and focussed specifically on safeguarding against 'date rich, information poor' scenarios. We caught up with Mark to find out more about MTM Products, "Over the last 27 years, MTM have established themselves as one of the leading UK industrial graphics suppliers. We work to BS, ISO, and UL/ANSI standards, are ISO9001/14001 certificated and an UL-Authorised label supplier.



"The business has historically been situated in Chesterfield, Derbyshire, where we have two facilities (two factory units: 0.5km apart). Being in this central region of the country, we are ideally located for distribution throughout the UK, with great transport links to major motorways, ports and airfreight.

"MTM supply other original equipment manufacturers in the UK & EU particularly: automotive, electrical & electronic, rail, medical, construction and machinery equipment. We provide industry-specific stock management systems including lineside stocking, buffer stocks & call off orders.

We pride ourselves on our technical/applications engineering expertise, friendly teams, competitive prices and MTM Express quick turnaround service.

"We have recently invested in new, modern equipment for screen and digital printing and finishing equipment and a



digital transformation programme. We have expanded our workforce in areas like management accountancy and sales and continue to value our workers with longevity awards across the company."

MTM Products was formed in 1967, registered as a business in 1976 and has been under the current private ownership since 1987. Establishing itself as one of the UK's leading manufacturers of labels and nameplates, MTM Products is well equipped to assist its customers, utilising its expertise, experience and world class facilities.

MTM has the distinct advantage of being one of only a handful of UK label and nameplate manufacturers to receive American UL (Underwriters Laboratories' inc.) authorisation. This permits MTM to print UL certification marks across labels, nameplates and graphic overlays, as a sign of industry best practice.



Following on from supplying labelling to medical equipment customers for the flagship Nightingale Hospitals during the COVID-19 pandemic, MTM has continued to forge strong links in the medical sector, particularly medical device manufacturers. With an excellent in-house knowledge of medical device and safety labelling regulations in the UK, EU and North America, the company has continued expanding and printing UL logos on labels, overlays and aluminium nameplates applied to equipment that is also UL certified.

Hallmarks of best practice thread throughout the company, from its quality partnerships with customers, to investment in staff and their wellbeing. At the core is dedicated focussing on optimum labelling solutions for SMEs through to multinational companies, providing a full turnkey solution from design consultation to production.

With the capability to work across many diverse sectors, this cross-pollination approach has expanded a wealth base of knowledge, and resulted in innovative problem-solving through a wider lens.



Mark Niblett, Managing Director, MTM Products

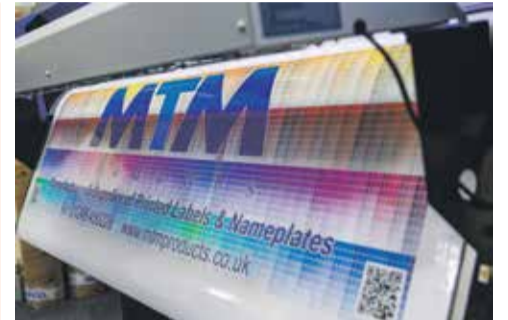
MTM Products prides itself on exceptional quality as a 'service company that makes things' with a collaborative partnership with customers. This has resulted in high customer retention across the board, with customers commenting that the MTM services 'can be used again and again.'

The plastic signs and labels for example, can be bespoke originals, through to repeat custom and over the years, MTM has designed for industries as diverse as agricultural, construction, fire life and safety, marine to electrical.

The materials are all eco-friendly and come with numerous options from: gloss, satin, reflective and photoluminescent and varying thickness. With easy-peel options; the bespoke signs and labels can be designed for clear or LED windows, with radius corners, include tactile and braille, and printed bar codes and QR codes, have anti-glare and anti-static features and even underwater application features.

The aluminium, steel and brass nameplates and labels are available in a variety of thickness, finishes and colours. The nameplates are exceptionally durable, available in satin, matt, and gloss silver quality finishes and have high dimension accuracy: BSEN22768-1 (m). They are abrasion-resistant, print sealed with aluminium complex, have complex graphics with fine details and a photo quality full colour prints.

The future looks bright for MTM Products as Mark elaborates, "We have the distinct advantage of in-house technical



expertise, devising tailored solutions for specific application, and we're very good at partnership-working on customer's new development projects. Going forward, we are focussed on further investment in our plant, facilities, digital transformation, people, and learning & development.

"We will continue to lead in industrial graphics for the short-to-mid-term, with possibly some further diversification longer term."

For more information, or to carry out a virtual site tour, please see the links below:
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