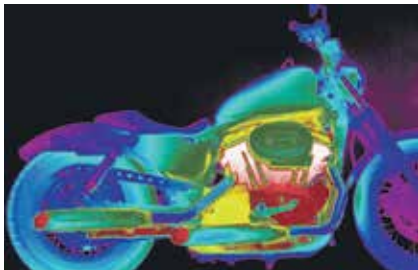


# INDUSTRIAL PROCESS NEWS

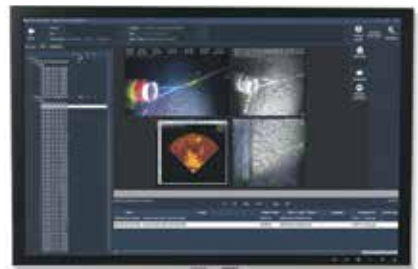
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# IPN

## Oliver Twinsafe customises valve for Gryphon FPSO

Oliver Twinsafe manufactures a 10" x 8", 900 class valve as a customised solution for the Maersk Gryphon floating production, storage and offloading vessel (FPSO) that's now owned by Total Energies and is operating 200 miles off the Aberdeen coast. The vessel is connected to subsea well clusters at a water depth of 112 metres, and

equipped with topside production facilities to separate gas, oil, water mixtures and compression of gas for export.

Offshore installations such as an FPSO, give critical consideration to the space and weight of valve design, so compact design is key. Twinsafe manufactured a valve to a Compact Standard Length (CSL), with face-to-face dimensions in accordance with ASME B16.10. The double block and bleed design allows the valve to be installed within the same space as a single isolated ball valve, but with two isolates and a bleed valve positioned in between to maximise safety.

The first isolated ball valve is fitted with a Rotork spring pneumatic actuator that's fitted with a limit switch for remote and local visual indication of the valve



position, and a control panel containing the air filter regulator and solenoid valve. The second isolated valve is fitted with a manual gearbox.

To find the perfect valve solution for your project, telephone Oliver Valves on +44 (0)1565 632636 or visit the website at: [www.valves.co.uk](http://www.valves.co.uk)

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## eschbach awarded Bronze Sustainability Rating from EcoVadis

Global software developer eschbach, the provider of Shiftconnector® enterprise software platform for process manufacturing, announces that it has received a Bronze Sustainability Rating from EcoVadis, which ranks the company in the top 50th percentile of organisations rated across the world. Achieving such a high ranking from EcoVadis, the world's largest and most trusted provider of business sustainability assessments,

reinforces eschbach's commitment to sustainability at all levels of its business.



"We are honoured to achieve this coveted Bronze status with EcoVadis. At eschbach, our Shiftconnector software platform provides data insights that benefit process manufacturers and accelerate their digital transformation and sustainability initiatives. Additionally, with recently added Artificial Intelligence (AI) search engine capabilities, we are excited to bring even greater levels of intelligence to the plant floor as well as improved asset performance and better communications among teams," says Andreas Eschbach, eschbach Founder and CEO. "Not only do we comply with EcoVadis standards but with our solution portfolio, we also empower our customers to achieve their goal of more sustainable production," Eschbach added.

The EcoVadis methodology scores companies on 21 sustainability criteria across four themes: Environment, Labour & Human Rights, Ethics, and Sustainable Procurement and produces a performance benchmark that can be used to track improvement over time. As part of its corporate mission, eschbach will continue to focus on sustainability in all areas of its business and continue to support ways in which Shiftconnector can assist process manufacturers in their efforts to meet these same Environment, Social, and Governance (ESG) criteria.

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# Leading steel fabricator focuses on growth and smart investments

In this issue of Industrial Process News, we are honoured to award C & C Fabrications with our highly prestigious Company of the Year Award for continuous outstanding steel fabrication.

We awarded C & C Fabrications with our Company of the Month Award last year and, although experiencing ongoing challenges from rising steel prices, the cost-of-living crisis and recruitment, this company comes out on top each time.

C & C Fabrications provide bespoke steel fabrication, specialist steel fabrication, laser cutting, and powder coating, incorporated into a complete fitting service for a wide range of sectors from: retail, manufacturing, warehousing and logistics, office, commercial, industrial to engineering. Their skilled team fabricates everything from mezzanine floors and safety barriers to machine guards, suspended walkways, platforms and backrests light guards. They can offer a full consultation on high-end specifications and have a heavyweight client portfolio including Next, DS Smith, Toyota Linde and Dawson Group.

Besides the aforementioned services, C & C Fabrications is the exclusive sole UK supplier of Laddermate: a globally renowned safety ladder that offers quality-assured health & safety compliance, by preventing the risk of accidents. It's become an essential piece of kit for a range of industry sectors.

We caught up with Managing Director, Chris Wallage, to gain an insight into the last year of trading, "The last year has been challenging for the industry as a whole, and us, especially with steel costs fluctuating. Many influences have caused this, most notably the COVID-19 pandemic, the war in Ukraine, steel demand and the policies of mills to close due to high energy costs. But we've also had a very successful year and that's thanks to our dedicated hard-working team and a constant focus on investing and growing for the future.

"To reward our hardworking teams we focused on giving back last year too. We've cut our working week to 37 hours and given staff an 8% pay rise. From this year we'll also be closing for Christmas every year so



that people can spend time with their families – this gives everyone three extra days holiday. As an extra thank you from me for all the hard work everyone does, they will have their birthday off each year now as well. All in all, the company has had a very successful year due to the hard work of all the people involved and this is our way of saying thank you."

The focus on staff wellbeing and morale has been hugely appreciated, especially at time when many staff are facing the double whammy of the cost-of-living and energy crisis. Chris and his management team have also turned their attention to streamlining the IT and solid works packages, by investing in the right software and employing the right calibre of staff. This careful planning has paid great dividends, with smoother day-to-day operations, happier staff, and increased production. Chris shared the Company's remarkable figures, following these salient changes,

"Year on year, C & C Fabrications has managed to increase turnover and profitability by being responsive to material costs and adjusting our prices, accordingly, attracting new customer in different sectors from warehousing to cycle furniture and finally working closely with existing customers, to make them fully aware of the services we can provide. Year on year we outdo the previous year's performance on turnover which is amazing considering some of the issues we have faced recently and are going through with the current climate. We are currently looking for an expert workshop supervisor, to steer our happy workforce, completing our highly skilled team."

Solidified procedures allow the management team to constantly review rising steel purchase costs with business insight, ensuring clarity on purchase costs versus sales costs going forward. This streamlined service allows greater clarity for passing on the most competitive prices to customers.

The company is already a leading UK market metal fabricator: with a one-stop shop encompassing quality-assured design, prototyping and manufacturing. Chris outlines the company's objectives going forward, "I believe that C & C is in a very good position, as we are very well known in the industry, have a fantastic customer base, and we offer a truly bespoke high-quality service. We will always do our best to support our customers in the best way possible. Our short-term plans are to refine and improve on our staff retention and wellbeing and our procedures, allowing us to become even more competitive within our sector and attract new customers.

"We are in the process of redesigning our Laddermate product. Hopefully by redesigning it we can make it flat packed and by doing so make it easier to distribute.

"We are also working on plans to merge our two factories into one unit which will allow us to streamline our processes. I am looking to do this within the next two years which will give us more control and allow us to expand even more. We are still looking to move into one unit but unfortunately it is proving difficult to find the right premises due to costs and location."

The company has already invested in a state-of-the-art 20,000ft<sup>2</sup> workshop, consolidating further manufacturing of steel fabricated racking, staircases, mezzanine floors, edge protection and fall protection, truss, shelving solutions, loading dock fit out and access point solutions, all with guaranteed robust, corrosive-resistance.

Industry-leading laser-machinery offers precision-cutting across the whole metal family: steel, stainless steel and aluminium. Expert machine operators execute a superior finish, compared to metal punching, with detailed, embellished shapes. C & C's powder coating service gives a smooth metal



finish, through an electrostatic powder application, completed with dry heating. The industrial powder generates a more robust layer, than traditional paint, with the bonus of not needing a solvent to attach to the metal.

Looking ahead to the future, C & C is laser focused on growth this year and looks certain to achieve its forecasted £6 million turnover by 2026, making this company a very worthy recipient of our Company of the Year award.

Chris was delighted to receive this award on behalf of C & C, "It is an honour to receive this award both for me and all the team at C & C, to show that all the hard work everyone does is well worth it."

**For more information, on this cutting-edge company, please see below:**  
T 01977 670067  
info@candcfabrications.co.uk  
www.candcfabricationsltd.co.uk





# Supercharging manufacturing and distribution – Staying ahead of the curve with automated intralogistics

**G**EBHARDT European Conveyor Systems Limited is an intralogistics solutions provider. Based in Nottingham, they install, manufacture, and maintain automated systems for handling goods.

John Bower founded European Conveyor Systems in 1992. Following two decades of success, GEBHARDT Intralogistics Group acquired European Conveyor Systems in 2013. The German group has manufactured manual handling solutions for over 70 years and owns seven international subsidiaries. European Conveyor Systems (rebranded as GEBHARDT European Conveyor Systems Limited) now handles all the UK projects for the group.

The technology they provide can support varied activities in manufacturing and distribution – goods receipt processing, goods storage, picking, sorting, packing and dispatch. As the systems they produce are made-to-measure, they can be customised to fit any industry.

With 30 years of expertise, GEBHARDT ECS is a one-stop shop for warehouse transformations. Their product range is diverse – conveyor systems, automatic storage and retrieval systems (ASRS), sorters, goods lifts, industrial workstations, and logistics software. The systems are individually tailored to the client's needs, with long-term goals, budget size, business sector & site space all factored into the final result.

Warehouse automation can improve supply chain productivity, order accuracy and site safety. The efficiency of automated solutions can also minimise operational costs, such as energy expenses.



"I think a lot of larger businesses are hesitant to move to embrace automation," says Managing Director, Terry Pullen. "It's understandable that change can be intimidating, but once they make the swap, they never look back. When automated systems are put in place to carry goods, it frees up your team to focus on other activities, such as picking. The machinery does all the heavy lifting for you, rather than workers on forklift trucks. It works extremely well."

Creating a new automated system is straightforward with GEBHARDT ECS. After discussing the client's specifications at length, the in-house design team will devise a system concept. The team will then provide the client with a complete proposal containing the system recommendation, a service quote, and an estimated timeframe for installation. If agreed, they will begin work on the project.

Following installation, the team will also provide system training and maintenance as required. If the client's needs change, GEBHARDT ECS can easily modify the existing system. By using components with a modular design, engineers can quickly scale up the system.

In comparison to most intralogistics providers, GEBHARDT ECS offers greater innovation and quality in the manual handling solutions market. Honouring their motto of 'Innovation by Tradition', the team continually builds on timeless logistics staples, such as conveyors, by implementing advanced technology such as barcode scanners.

GEBHARDT ECS has also created logistics software to control and monitor their automated equipment. Warehouse control

software (WCS) is used to instruct automated equipment to ensure a steady flow of materials. On the other hand, warehouse management software (WMS) acts as a business planning system, that handles tasks such as inventory management and quality control. Both can work alongside an enterprise resource planning (ERP) system to ensure maximum efficiency.

The company's 'mechanical-meets-digital' approach is reflected in its latest solution, the GEBHARDT SpeedSorter® line. Sortation systems can scan barcodes on passing units and divert the goods to their relevant destination. By combining these two actions, clients can improve their throughput rates. Switching from manual unit selection to automated sorting can also increase order accuracy.

Last year, the team exhibited the GEBHARDT SpeedSorter® line at IMHX in Birmingham, intriguing crowds. For GEBHARDT ECS, this was their first physical event since the pandemic. The company is likely to return to IMHX in 2025, although this is yet to be confirmed. Internationally, the group will be exhibiting at ProMat and LogiMAT this year.

The ingenuity of GEBHARDT ECS's systems has not gone unnoticed, attracting the likes of Envision AESC, a world-leading electric vehicle battery manufacturer. In a joint investment project with Nissan, Envision AESC will build a new battery gigafactory in Sunderland. The intralogistics system of the factory will be managed and installed by GEBHARDT ECS. With a goal of producing enough batteries to power 100,000 electric vehicles annually, the project will promote greener technologies in the UK.



"We're honoured to be a part of the latest Envision project. Promoting the adoption of environmentally friendly transportation is a very effective way to reduce the UK's carbon footprint," says Terry Pullen. "This investment in the Northeast will not only make electric vehicles more accessible but will also generate more employment opportunities in the area. It's a huge step in the right direction."

Sustainability is high on GEBHARDT ECS's agenda, having become a member of The Climate Pledge, founded by Amazon. Members who joined the initiative are actively tackling their carbon emissions, with a mission to become climate-neutral by 2040. To help this vision become a reality, GEBHARDT Intralogistics Group has already switched their company car choices to fully electric or hybrid. On top of this, they have built a new site in Sinsheim, Germany, powered by a photovoltaic system. Using solar panels, the site generates 254,000 kWh annually, equating to a CO<sub>2</sub> reduction of 150 tonnes.

This is not the first time GEBHARDT ECS has worked with a household name. The group has previously worked with Mercedes, Boots, Next, Kuehne + Nagel and more.

As for the future, in the next year, GEBHARDT ECS plan on moving to a new premise in Nottingham. By moving to a larger site, the team can increase its manufacturing capacity. This will enable them to take on more large-scale projects.

With many manufacturers and distributors switching to automated processes, the team is expected to have another busy year.

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# Consultancy company partners with manufacturing sector



**In this issue of Industrial Process News, we would like to award Applied Maintenance Technology with our Company of the Month Award for excellent reliability consultancy, with many manufacturing companies, including blue-chip.**

Applied Maintenance Technology is a leading reliability consultant, partnering with high-volume manufacturing sectors from petrochemical, automotive to paper and pulp by offering state-of-the-art condition monitoring systems to test machine efficiency.

Established by owner Graham Simpson, this Lymm-based consultancy has attracted major contracts across the manufacturing sector, with its cutting-edge monitoring solutions and reliability framework. We caught up with Graham to find out more, "We monitor many variables during our data acquisition, either on line or manually obtained; identifying a wider range of defects and failure modes, than many of our competitors. Our Operator Empowered Reliability® Framework delivers increased reliability performance by engaging operators and maintenance into a common process.

"We understand that manufacturing reliability is intrinsic

and can only be effectively delivered by our customers. As a consultant/contractor service, we are a 'reliability partner' rather than a 'service provider' to our clients, contributing our specialist skills, whilst advising and developing client personnel to deliver the most effective performance rates and cost efficiency."

The Operator Empowered Reliability® Framework is a fourth-generational approach to machinery maintenance. Curating a culture of mutual interdependence: production, maintenance and engineering teams support each other across the framework. The production operators monitor equipment efficiency from the frontline, identifying defects & faults, while carrying out routine lubrication maintenance. Skilled Operators ascertain the urgency of maintenance, based on real-time performance, balancing critical plant safety with output performance levels. Maintenance workers are the backbone of daily preventive maintenance schedule, overseeing the spare part stock and executing corrective tasks. Engineers further assist with capital project schemes.

The bespoke FETCH product was launched in 2022: an operator-based condition monitoring system,



enabling the operator to carry out an assessment of their equipment, based on current performance. If problems are detected, a report is prompted with full repair actions required. Engineers and analysts have access to cutting-edge investigative tools via the CBM database: vibration intensity evaluations detect faults in rotating element machinery by measuring velocity, acceleration and displacement. Faults with bearings and electrical defects are quickly pinpointed. Comprehensive oil debris analysis checks viscosity, solids content, water control and total acid number, prolonging the lifespan of precious machinery. Graham elaborates further, "Our FETCH® monitoring system is a multi-variable package, customised to every different machine, applying both generic and bespoke measurements to detect potential failures at the earliest, possible stage."

AMT has partnered with several blue-chip manufacturing companies over the past 14 years to develop maintenance monitoring programs, delivering improvement.

Notable successes have been achieved in: steel processing, paper and pulp, aggregates and asphalt and food processing, through deploying predictive



maintenance services alongside Operator Empowered Reliability. These elements included: criticality, workflow, FMEA and the application of precision maintenance.

AMT's multi-disciplined team, installs all of their online monitoring solutions. This ensures the highest quality electrical and mechanical standards are maintained and quality data is always obtained from the monitored equipment.

AMT has secured its leading reliability consultancy dominance but as Graham adds, it's not resting on its laurels anytime soon, "We have strong growth plans, based upon developing monitoring solutions for our clients and improving manufacturing reliability. We plan to launch a patent application during 2023, on a new to world monitoring solution. We will research new and novel measurement techniques and develop AI into our automation solutions, using our 30 years of experience in the field."

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## 3D Printing

Mimaki launches brand new product during insightful, information-packed Global Innovation Days



Fourth online education and networking event, Mimaki Innovation Days, was held for customers and industry peers on 21-23 February

Mimaki Europe, the leading manufacturer of inkjet printers and cutting systems, has recently announced that a new solution was officially launched at the company's highly anticipated Global Innovation Days online event. Designed to ensure its customers can run cutting-edge, productive businesses and meet the latest demands of the sectors they serve, this new solution is sure to generate huge interest and excitement within the industry.

From 21st to 23rd February, Mimaki hosted customers, influencers, and prospects during its fourth Innovation Days event. With the inevitable buzz of the new product announcement, combined with another packed programme of fascinating webinars focused on hot topics for the industry, this Innovation Days event was extremely popular with its many worldwide delegates.

"Innovation Days has been a highly successful initiative for all who attend due to the variety of information shared and the unique chance to gain insights into the worldwide print market. This year was another opportunity to see and hear from Mimaki's team from different corners of the globe, bringing that international industry perspective to individuals in the comfort of their own office or home," Danna Drion, General Marketing Manager at Mimaki Europe, explains. "On the second day of this eagerly awaited event we launched a brand new Mimaki solution. This printer breaks new ground for Mimaki technology, being the first of its kind to be added to our product portfolio."

"The technology focused sessions highlighted ways in which Mimaki printers can enable more efficient, automated and sustainable production – all of which are process improvements that are at the forefront of everyone's agendas this year and beyond. We also collaborated with some remarkable Mimaki partners and friends, such as Neenah Coldenhove, FESPA, and Dutch artist, Martie Dekkers. With these speakers and others, we aimed to offer attendees a number of highly engaging panel discussions."

The full Innovation Days programme can be viewed here: [innovationdays.mimaki.com](http://innovationdays.mimaki.com)  
For more information about Mimaki's products and services, please visit: [www.mimakieurope.com](http://www.mimakieurope.com)



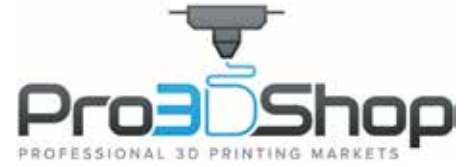
## Pro 3D Shop

Pro 3D Shop has been helping people since 2018 with all of their 3D printing needs, starting as a specialist in Jewellery 3D printing and manufacturing, expanding into industrial use in 2020. With over 20 years of experience between the team with all 3D printing technologies covered, we can truly say there is no better place to put your trust. We stand behind the ethos of being honest and upfront if a product does not suit your needs we will not use it or try to sell it to you.

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# Barrier Networks: Prioritising cyber security resilience

**Industrial Process News would like to award Barrier Networks with our Cyber Security Company of the Month Award, as an unrivalled cyber managed service provider (MSP) and value-added reseller.**

Cyber security has become a top priority for many small and large businesses. In 2021, there were an average of 97 global data breaches every hour. In 2022, 39% of UK businesses suffered a cyber security breach and with average online security repairs ranging from £4,200 annually for medium companies to a whopping £19,400 for larger companies, it is imperative that businesses use robust preventative security measures.

Barrier Networks has been an award-winning, leading pioneer in industrial cybersecurity for over a decade, based in Glasgow and London offering global, expert solutions. Established in 2006 by Managing Director, Ian McGowan, this company offers award-winning incident response, patch management, OT and IT segmentation. These solution packages help companies execute robust cybersecurity in critical environments. Through partnership with prominent, cyber security vendors, Barrier are the experts for resolving cyber risks on OT & ICS systems across the online business spectrum.

Barrier exclusively became the third global Maritime Cyber Baseline Certification body recently. This bespoke accreditation offers affordable cyber security assurance to shipping operators and vessel owners, reducing the risk of harmful cyber-attacks.

Quality-assured cyber risk assessments helps businesses thwart the risk of data breaches and health & safety incidents, through opportunistic cyber security crimes. With an expertly engineered network modelling service, Barrier enables companies to have a deeper understanding of all programmes in the system life-cycle.

With perfectly orchestrated security services augmenting industrial system operations; health and safety incidents caused by unidentified cyber breaches are dramatically reduced.

During the COVID-19 pandemic, many businesses operated more services online; leading to unprecedented global cyber security challenges. The shift to hybrid and remote/home working post COVID, has presented businesses with fresh conundrums on how to keep networks safe from cyber-attacks, across multiple platforms. It has become indispensable that companies incorporate cyber-security into existing & future security plans. Barrier can provide expert, professional consultation and solutions, to futureproof companies from cyber-attacks, while allowing them to continue trading on multiple platforms.

We caught up with esteemed Managing Director, Ian McGowan, to find out more about the expertise that Barrier Networks offers, "I have over 20 years' experience designing, delivering and auditing complex infrastructure across most industry sectors. My expertise includes security operations, incident response and secure system architecture.

"Over the last 17 years, we have grown to become a nationally recognised organisation within the industry, where our customers, both public and private, trust Barrier as a strategic part of their cyber



security team. The financial services and sectors which rely on industrial control systems are specialist delivery areas for us, with our expertise in DevSecOps, OT, and Cloud Security."



Barrier is always looking to offer the latest gold-standard security solutions and has recently partnered with Zurich Resilience Solutions, part of Zurich UK to offer expert cybersecurity services, as Ian explains further, "Zurich Resilience Solutions (ZRS) provides underwriting assurance to underwriters to help them better understand cyber risk and exposures of client environments, as well as cyber risk and resilience advisory services to clients to improve cyber resilience. Barrier complements ZRS' internal cyber risk advisory services, offering technical expertise and services, including penetration testing, managed cybersecurity services, assessments, and consulting.

"Cybersecurity is an enormous task for most businesses, and very few have the resources to manage it alone. Our partnership will help organisations overcome this challenge as we help them improve their security and tackle key issues to meet critical cyber insurance requirements. We are delighted to work with such an established cyber insurance player as Zurich. No organisation can gamble with their cyber defences today, and through our partnership, we will be arming more businesses with the skills and expertise they need to stay secure.

"The partnership will not only focus on enterprise security but also caters to organisations running Operational Technology in critical industrial environments. These organisations have come under increased threat from cybercrime recently, and Barrier and Zurich will help meet these needs by helping them reduce the risk of data breaches that could be caused by unidentified cybersecurity issues."

As the Barrier growth trajectory continues, the marketing and technical departments have also expanded in line with customer demand for barrier's professional services.

The UK and USA are disproportionately targeted for daily cyber-attacks daily and the National Cyber Security Index (NCSI) has rated the UK second on the Global Cyber Security Index. In these worrying times, it is essential that companies focus on security measures not as a knee-jerk afterthought, but as a preventative hypothetical.

The future however, looks bright for Barrier, with expert cyber security systems, designed to protect companies from cyber-attacks: ultimately mitigating the risk of cyber threats, "Our customers, both public and private, trust Barrier as a strategic part of their cyber security team. Our knowledge of the vast array of cyber security products, combined with



L-R: Iain Slater, Sales Director & Ian McGowan, Managing Director

our experience, our services, and our people, allowed Barrier to expand as one of the UK's fastest growing cyber security managed service providers."

This multi award-winning company is set to trailblaze, expertly supporting companies navigate the often unpredictable realms of cyber security. Barrier is always one step ahead, providing trusted, state-of-the-art digital solutions, established from ingenious, consolidated IT engineering.

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www.barriernetworks.com





## Stay ahead of the curve



Engineering Design Show, held at Coventry Building Society Arena from 12-13 October 2022, is the UK's biggest event dedicated entirely to engineering, electronics and embedded design. Design engineers benefit from direct access to the latest products, services and innovations available to the sector.

For over a decade, EDS has been delivering engineering buyers, not browsers, and is a must attend event for anyone wanting to access this difficult to reach audience. Exhibiting at EDS is the most effective way of maximising your organisation's exposure to the UK's design engineering community.

Find the solution to your design dilemma at an exhibition of over 200 solution providers, boost your professional development at free-to-attend conference sessions, get expert advice at practical workshops, and discover the latest engineering applications and technologies at EDS.

The Engineering Design Show (EDS) will be back at The Coventry Building Society Arena from 11-12 October 2023. This is our pick of the best exhibitors from last year's event, listed here in alphabetical order: European Circuits Limited, European Springs & Pressings, K. Lacey, Lascar Electronics, Robafoam, Technosoft & Thermal Vision Research. Further details can be found on this page and the next.

[www.engineeringdesignshow.co.uk](http://www.engineeringdesignshow.co.uk)

## Lab cell up and running!



Over the past two years, Robafoam have been working on an exciting new venture. In 2020, we opened our first Battery Electric Vehicle lab cell, with the support of both the Coventry & Warwickshire Green Business Programme and Coventry City Council.

The robotic cell is part of our R&D Technical Centre, its main purpose is to provide support and testing for automotive customers. This includes designers and those who work in R&D who have been tasked with helping Britain achieve the government set goal of only producing fully electric vehicles by 2030.

One of the most demanding challenges for the production of BEVs is the sealing of the large battery packs. Water ingress can obviously result in a significant fire hazard. A current option includes bonding the packs together with an adhesive which, although ensures a very effective seal, makes the separation of the pack for necessary servicing very difficult.

That's where Robafoam's sealing solution comes into play. Our robotically applied foam can provide high performance water-tight IP rated seals which overcome many of the problems presented by these companies. Battery packs can be opened and closed without needing to remove the seal or causing the effectiveness of the seal to be compromised. Our Technical Centre has been designed to accommodate the size of the battery packs required for electric vehicles, to help with both R&D purposes and for full production requirements too.

For more information about Robafoam, please contact us on 01926 336231 or email: [uk@robafoam.com](mailto:uk@robafoam.com) or visit our website at: [www.robafoam.com](http://www.robafoam.com)

## Game changing installation of Mycronic equipment

European Circuits Limited is a privately owned company based in Glasgow. Established in 1999, ECL is one of the few companies in the UK that genuinely offers PCB fabrication and assembly from a single location as well as services such as cable assembly, product build and test.

In November 2022, European Circuits installed a Mycronic YPro Series MY700 Jet Printer and Dispenser and Mycronic MY300LX Pick-and-Place.

Mycronic jet printing technology makes it possible to dispense solder paste for the most challenging circuit boards and components, with micrometer accuracy, maximum speed and perfect quality solder joints.



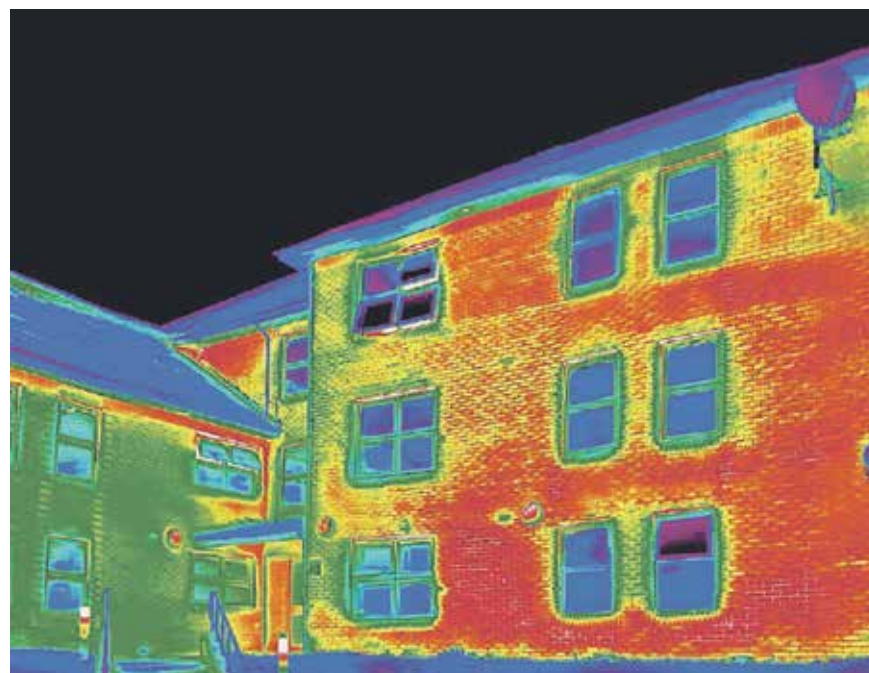
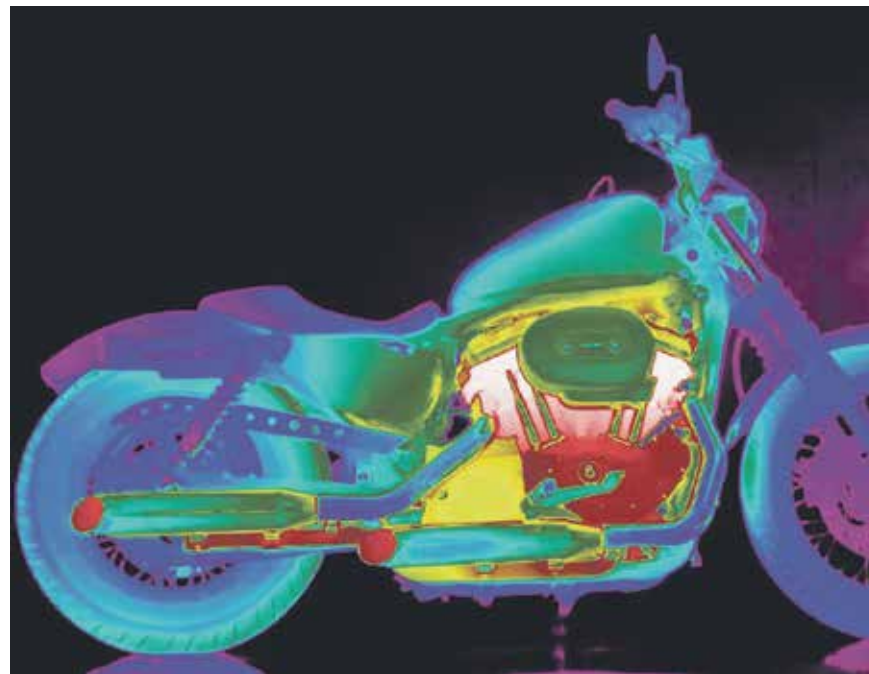
In addition to the Solder Paste Printer, European Circuits has also invested in a Mycronic MY300LX Pick-and-Place. The MY300 delivers SMT pick-and-place at next level

precision and flexibility in a fast, small and smart format.

Philip Briscoe, Sales Director of European Circuits Limited, commented, "The investment in the Mycronic equipment was described by one customer as a game changer for ECL. It absolutely is and demonstrates our commitment to supplying high quality Printed Circuit Board assemblies produced right here in the UK for a whole range of industries throughout the UK, Europe and beyond."

Contact  
T +44 (0)141 941 1388  
[info@european-circuits.co.uk](mailto:info@european-circuits.co.uk)  
[www.european-circuits.co.uk](http://www.european-circuits.co.uk)

## Thermal Vision Research



Thermal Vision Research have over 10 years' experience in the thermal imaging market. Founded by Matthew Clavey, we supply FLIR's range of specialist IR thermography cameras for the research and development (R&D) sector.



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## European Springs & Pressings

European Springs & Pressings are leading experts in spring manufacturing and high speed press technology, providing a full design and manufacturing service for bespoke and standard pressings, wireforms, coil and gas springs.

Established in 1948, with a standard product range of 12,000+ items and a dynamic balance of cutting-edge facilities, experienced engineers and thoughtful customer service, we are one of Europe's foremost spring and stamped component suppliers.

European Springs and Pressings understand that no two jobs are the same; similar products often require the use of different materials, treatments, variable tolerances or specific heat resistance. This is why we invest in the latest technology and qualified toolmakers to ensure that we design and produce the very best bespoke stampings, springs and wire forms.

A custom-tailored manufacturing process and in-house design service – with CAD/CAM software and systems – means we can help you realise a range

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of prototype ideas, individually cut using precision lasers for R&D testing or put into full production. Our fully-equipped tool room can design and build any production tooling needed, assuring you of competitive pricing, consistent quality and dependable supply.

Our products are used in major industrial environments all over the world, so whether you need a conventional compression, tension, die, disc or torsion spring, or want the most obscure spring clip or wire form imaginable, we are able to produce exactly what you're looking for.

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## One source for all your electronic design and development

With over 45 years of experience in delivering cutting-edge technology, Lascar Electronics has forged their way to becoming a leading designer and manufacturer of data capture, touch screen and wireless products.

Lascar's in-house capabilities include mechanical and electronic design, user interface and App design, firmware and software development and Cloud/IoT systems. With low and high-volume manufacturing options in the UK and the Far East, Lascar offer unbeatable cost-effectiveness, lead time reductions and supply chain and obsolescence management.

Clients benefit from an extensive selection of data loggers from the EasyLog range, providing a cost-effective, easy-to-use method of recording temperature, humidity, voltage, 4-20mA and carbon monoxide.

Lascar's range of panel instruments and voltmeters provide display solutions for a wide range of applications. Offering smart, graphic, touch screen displays, customisable to your specific product or project.



Coupled with the data logger and panel meter ranges, Lascar offer a comprehensive custom design and manufacturing service. Bringing together a widespread industrial design and electronic design experience.

T 01794 884567  
sales@lascar.co.uk  
www.lascarelectronics.co.uk

## High performance wire & cable

K. Lacey, a distributor of specialist and high performance wire & cable, is one of an increasing number of companies to benefit from reshoring and a surge in demand for UK based manufacturers.

Ros Andrews, Managing Director, explains. "While our wire and cable distribution business continues to grow, several years ago we took the decision to invest in our own production department, specialising in wire assembly and cable preparation to AS9100 standards. We're now seeing a huge growth in this area as a result of this."

Whether it's working to a one-off project or larger regular orders with forward scheduling, Ros believes this flexibility and focus on quality is paying off for K. Lacey along with consistency of supply, traceable products, and approval to standards such as AS9100 and AS9120 which are key to maintaining growth.

"K. Lacey has over 50 years of trading, and while our workforce has naturally changed over this time, many of our staff have 15 plus years of experience with us. This accumulated knowledge of customers, markets and products continues to give us a competitive advantage



at home and abroad."

For further information on K. Lacey's products and services, email: sales@klaceyables.co.uk or visit our website at: www.klaceyables.co.uk

## Best In class motion controllers from Technosoft

iPOS-Z drives with EtherCAT communication

Technosoft presents the new family of iPOS-Z drives. With a dedicated CPU designed for motion control applications using EtherCAT communication, the iPOS-Z drives support as well CAN, USB and RS232. Having nominal currents of 10A and 15A rms at 48V and 80V, these drives will control motors up to 750w for the plug-in/connectorized versions and 1.2 kw in case of the closed frame unit.

High control bandwidths – up to 10 kHz EtherCAT and position loop – make the iPOS-Z series suitable for applications where movements with extreme dynamic are required (robotic, semiconductor). The compact size and high current capabilities (40A peak current) will apply to machine builders where space and power are critical elements. Reduced cabling due to support of a variety of absolute encoders and dual loop architectures for backlash compensation as well as STO (SIL3/Cat3/PLe) complete the benefits offered by the implementation of Technosoft drives in motion control applications.

Technosoft drives are known for their unique versatility



expressed by the two famous phrasings that have resonance in the French culture:

- All for one – motion controller and drive in one single unit
- One for all – one drive for all motor technologies (brushed, brushless, step or linear)

The iPOS-Z drives developed by Technosoft situated on the shores of the Lake of Neuchâtel continue and enforce the strengths and advantages offered by the above capabilities of the intelligent drives – concept that the company has pioneered over 25 years ago.

For further details, please contact Technosoft Team:  
T +41 (0)32 732 55 00  
sales@technosoftmotion.com  
www.technosoftmotion.com

## Pumps & Valves

### Flow Control Group

Covering a wide range of sectors including oil, gas, industrial, water, wastewater, sewage, chemical and power generation, the business provides consultancy services including product design, specification, selection, valve sizing, actuation, flow and pressure management, installation and the supply and retrofit of a full range of spares and replacement products.



The Group's Site Services division specialises in 'On-Site' product support. We can undertake both new installations and carry out retrofit of valves and actuators to existing works. Where necessary we can act in a support capacity on client led installations.

The Flow Control Group incorporates fabrication and machining capabilities and can, in addition to the production of valves and penstocks design and manufacture mounting kits, pedestals, drive bushes, spindles and other ancillary equipment.

Our manufacturing facilities supply bespoke products in accordance with ISO 9001:2015 quality management systems. The business also operates to ISO 14001:2015 and ISO 45000:2018 standards operating to the highest Health & Safety and Environmental standards. Utilising our in-house actuation facility, we can assist with actuator selection, and can fit, set and test actuators prior to delivery. We can also fit actuators on site where necessary.

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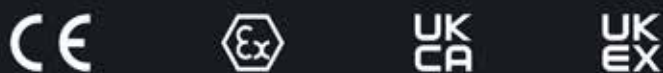
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### Lab Innovations celebrates its ten year anniversary in style

The UK's largest trade show for the entire laboratory industry, Lab Innovations, returned to the NEC, Birmingham, earlier this month to drive sustainability and innovation in laboratories and celebrate its tenth anniversary. The show's numbers were at an all-time high, with 4,213 attendees flocking to network with 192 exhibitors, listen to keynote speakers and celebrate the latest innovations in the lab industry. Following the success of this year's show, 98% of exhibitors have already signed up again for next year's show and ensured Lab Innovations 2023 will be another unmissable event for the entire lab community.



192 exhibitors attended Lab Innovations 2022 on 2 and 3 November, 2022, with a record breaking 98 per cent rebooking for next year's show. Exhibitors at this year's event included Analytix, Avantor, Beckman Coulter, Cole-Palmer, IKA, Randox, SciMed, Shimadzu and Scientific Laboratory Supplies, to name a few. Once again, the show was co-located with the UK's largest annual gathering of engineering and manufacturing professionals, Advanced Engineering, which also had its highest ever rebook percentage with 85% of exhibitors having already secured their stand for next year.

Exhibitor bookings for next year's show, taking place on 1 and 2 November, 2023, are now open, so book now to ensure you secure your stand at the UK lab industry's biggest gathering of the year. This is our pick of the best exhibitors from last year's event, listed here in alphabetical order: Charles Ischi AG, Envair Technology, Haier Biomedical, Interactive Software, Klick, LAUDA Technology & Zenopa. Further details can be found on this page and the next.

Contact  
[www.lab-innovations.com](http://www.lab-innovations.com)  
[www.lab-innovations.com/register-your-interest/](http://www.lab-innovations.com/register-your-interest/)

### Energy efficient drying ovens and test chambers

Haier Biomedical, a leading biotechnology equipment manufacturer, has added energy-efficient drying ovens and climate test chambers to its portfolio. In keeping with Haier Biomedical's commitment to enabling sustainable labs, the ovens and chambers integrate intelligent design and environmental protection with precise and stable temperature control.



The drying ovens have a smart 7" interface for convenient and intelligent management at a glance, plus optional IoT technology for real-time monitoring via an app. High-performance 3-sided heating and professional air duct design, high-quality fan components and insulation materials ensure precise temperature control while keeping power consumption to a minimum. The temperature inside the unit quickly recovers after opening the door without an overshoot.

Haier Biomedical's climate chamber is suitable for drug stability, cosmetic stability, food shelf life, electronic components ageing, and packaging material stability tests. With innovative features and designed to conserve resources and reduce the cost of operation. Compliant with FDR 21 CFR Part 11 and ICH temperature and humidity, the 10" smart touchscreen is easy to operate with unlimited programs with infinite humidity and temperature settings and includes data and multi-user management permissions.

Haier Biomedical holds stock in the UK for fast delivery. For more information, visit: [www.haierbiomedical.co.uk](http://www.haierbiomedical.co.uk), call 01932 780070 or email: [sales@haierbiomedical.co.uk](mailto:sales@haierbiomedical.co.uk)

### New HC7 tablet hardness tester from Charles Ischi

Charles Ischi AG participated in the Lab Innovations exhibition in Birmingham in 2022, showcasing their new HC7 tablet hardness tester. The device received positive feedback from attendees and was praised for its ease of use and accurate results.

The compact size and portability of the tester were also highlighted as a major advantage, as it can be easily transported to different locations for testing.

The HC7 also features a user-friendly interface and a wide range of measurement options, making it suitable for use in a variety of industries. Overall, Charles Ischi AG's participation in the exhibition was



a success and the HC7 tablet hardness tester was well received by attendees.

The company's efforts to innovate and improve their products were evident in the HC7, and it is sure to be a valuable addition to any pharmaceutical QC laboratory or tableting area.



Contact  
[www.ischi.com](http://www.ischi.com)

## Haier Biomedical Intelligent Protection of Life Science

# Climate chambers for laboratory and industrial applications

Smart design integrates seamlessly with precise and stable temperature control, Haier Biomedical's new climate chambers feature a large touchscreen interface for convenient and intelligent management at a glance.



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## Laboratory recruitment solutions

Looking for talent aligned to your culture for prolonged retention? Zenopa is a recruitment consultancy that helps Scientific organisations find talent across the UK, Ireland and Europe, and covers all commercial & laboratory roles from entry level to senior level appointments. Zenopa provides industry leading services to ensure you receive the latest industry insights and trends, including:

**Full market mapping services**  
As a result of our heritage, we have a 20k+ talent pool. This provides you with a far greater understanding of the candidate market, including regional nuances and market insights, ensuring that you will have the best talent for your requirements.

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We can also provide salary



surveys, enabling you to track up-to-date industry trends, including salaries, benefits and bonus plans, so that you have the data to stay competitive and obtain leading talent.

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Working with Zenopa as an exclusive

recruitment partner enables you to control your recruitment budget, while also adding value through our bespoke services, which will enhance the recruitment process from brief to placement.

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## Laboratory furniture & fit out

In the fast-paced arena of scientific innovation, state-of-the-art laboratories are critical to initial success and subsequent business growth.

In our 40 years of delivering successful projects, Klick have acquired an unrivalled expertise in laboratory furniture and fitout services. This allows us to offer highly technical solutions to create modern and streamlined labs which maximise efficiency.

This year's stand at Lab Innovations featured our Mobile Laboratory Workstation which is designed to offer flexibility for changes in staff levels or expansion. With worktops fabricated in NEW Trespa TopLab PLUS ALIGN, this offers improved sustainability credentials.

Our laboratory fit out service includes:

- Established consultation process with end user
- Analysis of current workflows & future requirements
- Expert advice on laboratory furniture & worktops
- Specialist heating, ventilation and air conditioning (HVAC) services
- Optional refurbishment service
- Nationwide solutions for pharmaceutical, healthcare, university, research & industrial laboratory environments

Klick supply a cross-section of clients from small start-up labs to large multi-national laboratories and our team strive for the very highest standards across the board. All our furniture is manufactured in the UK.



If you are planning to upgrade your laboratory facility we would be happy to help with any queries.

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## Make Every Sample Matter with Achiever Medical LIMS



Achiever LIMS is a modern, configurable web-based Laboratory Information Management System (LIMS) that centralises lab data and supports pre-clinical, clinical research, academic research and biorepository processes and compliance needs. Managing all sample life-cycle events, the LIMS gives complete traceability of all sample activities providing evidence for compliance and quality assurance.

With the Achiever Laboratory Information Management System (LIMS), our aim is to support labs to get the most out of every valuable sample. This means giving users simple tools to record, search and analyse data so researchers can easily find samples within their inventory and use them for their intended purpose.

Interactive Software are the authors of Achiever LIMS a web-based Laboratory Information Management Systems (LIMS), Biobanking software and Sample Management Systems that improve quality and compliance and instil good practice through effective processes. We have been helping life science organisations for over 20 years. Our experience centres on implementing successful software solutions that transform the way labs work and deliver greater insight into their data.

Transform and modernise your lab by digitising your lab to connect your data, processes, and teams improving accuracy, quality, efficiency, and cybersecurity. Make Every Sample Matter.

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## Demand grows for energy efficient fume cupboards

As laboratories rise to the net zero challenge, huge increases in energy costs have seen them double down on efforts to find energy efficient lab equipment.

Lancashire based fume cupboard manufacturer Total Containment Solutions (TCS) has seen a large increase in enquiries for VAV (Variable Air Volume) fume cupboards. VAV and auto sash fume cupboards can achieve energy savings of up to 75% or greater compared to a CAV system.

VAV fume cupboards feature energy-saving technology to reduce the volume of air taken from the cabinet. With VAV control, the amount of airflow through the space is varied to suit flow demand or to maintain environmental conditions. As the fume cupboard sash is moved, the controls will adjust and vary the position of a damper to control the face velocity. To encourage further efficiency, an auto sash controller can maximise the benefits of VAV technology by monitoring the position of the sash and automatically closing it when not in use.



Business Development Manager, Todd Payne, comments, "These two controls in combination can have a significant impact on energy bills. One client recently reported saving half of their energy costs, with a relatively small increase in capital expenditure for the VAV system when compared with traditional CAV methods."

**Find out more at:**  
<https://envairtechnology.com/tcs>



Transform and modernise your lab by digitising and connecting your data, processes, and teams to improve accuracy, quality, efficiency, and cybersecurity

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## LAUDA Technology

With over 65 years of experience, LAUDA Technology are experts in temperature control, providing innovative solutions for applications that require precise heating and cooling, from -150 to +550 °C.



Located in Stamford UK, and ISO-9001-certified, LAUDA have a long history of working with market-leading businesses from around the world who have come to rely on the precision, reliability, and longevity of LAUDA equipment.

LAUDA refrigeration and temperature control technology is particularly suitable for use in laboratories, from small bench scale facilities to the full production stage of the development process; LAUDA process circulators and chillers can often be found coupled to a range of different analytical instruments, whilst the new 'VersaFreeze' guarantees safe storage of vaccines in a temperature range of up to -85°.

Standard temperature control solutions may not give you exactly what you need for your application, but at LAUDA the technical knowledge borne of decades of experience across multiple industries means the team understand customer applications in detail, offering a bespoke solution that meets their requirements as a result. And with a UK based sales, service and support team, LAUDA can be relied upon to provide a world-class standard of pre- and post-sale customer care and product support.

**For temperature control, say it LAUDA.**  
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## IMHX 2022 Review – Top Exhibitors

### The logistics event with the 'wow' factor

After a three year hiatus, IMHX – the UK's premier logistics solutions and intralogistics technology event – returned to Birmingham's NEC over three action-packed days from 6-8 September 2022 to showcase the developments that are shaping the global logistics industry.



With many of the world's most innovative & influential manufacturers and suppliers presenting intralogistics solutions ranging from the humblest hand pallet truck to the latest 'all singing and dancing' fully automated warehouse system, a visit to IMHX is an absolute must for logistics professionals who want to remain ahead of the curve in the rapidly changing supply chain world.

A brand new feature of IMHX 2022 was the Sustainability Zone. Combining physical displays, augmented reality, and virtual reality demonstrations, this dedicated area of the show ground gave visitors a 'deep dive' into the many steps that companies operating in the supply chain space could take to make sure that they perform as sustainably as possible.

IMHX returns in three years' time to Birmingham's NEC from 9-11 September 2025. This is our second pick of the best exhibitors from this year's event, listed here in alphabetical order: ICS Robotics & Automation. Further details can be found on this page.

[www.imhx.net](http://www.imhx.net)

### Accelerate your business with robot automation

For over 30 years ICS Robotics & Automation have been delivering robotic welding and handling solutions at the top of their game. As an independent systems integrator, ICS boast a wealth of knowledge covering all makes of robots including some of the world's most well-known brands such as Panasonic, KUBA, ABB, Fanuc, Kawasaki and Yaskawa.



Using smart, flexible automated solutions can boost productivity and potential, streamline processes, and transform the capabilities of your business. ICS provide a complete turnkey service from design and simulation through to manufacturing and installation, training and lifetime support, as well as access to its extensive industry experience and high-quality resources.

Whether you're in need of Robotic handling solutions, Robotic welding systems, System re-engineering, Component fixturing, or training in Robots, system maintenance or technical support, ICS is ready to help solve your production challenges.

ICS boast some of the highest quality, innovative technology in the industry. Laser Welding, for example, is a great way to increase speed, precision, productivity levels and to create new construction possibilities, and not to mention the cost benefits. ICS have an unrivalled level of experience in the field of Laser Welding, and as part of the worldwide AWL Group, ICS is the preferred partner for the Panasonic LAPRISS laser welding and cutting systems that guarantee a fast-welding speed, reliable process, and the highest-quality product design, jig design, integrated airflow, and other preconditions.

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## Handling, Storage & Logistics

### ZARGES Skymaster Plus X: Probably the only ladder you'll ever need!

Strength, safety and unrivalled versatility: Skymaster Plus X is the newly enhanced combination ladder from ZARGES which offers users multiple configurations and is expertly designed to be the ultimate ladder solution for construction, maintenance and engineering professionals.

The new Skymaster Plus X, part of the best-selling Skymaster™ range, provides a versatile and safe solution to working at height and is the only product in the UK to provide safer step treads on the top sections of the ladder – providing ultimate user comfort.

Available in a range of four sizes, from 3 x 8 rungs, up to 3 x

14 rungs, it offers a truly multi-functional solution as it can be used as a single, double or triple extension ladder, as well as an A-Frame or freestanding ladder – maximising the product's usability.


Certified to the latest EN131 professional safety standard, the Skymaster Plus X has been designed and manufactured with users in mind, utilising safer step treads on the top section of the ladder to provide a comfortable and safe solution.

Its unique design also eliminates the need to invest in separate pieces of access equipment, guaranteeing optimum functionality to users across a variety of trade sectors, no







matter the job.

To find out more about the Skymaster Plus X, please visit: [www.zarges.co.uk](http://www.zarges.co.uk)



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# Choosing an “Industrial Vacuum Cleaner”

**T**he vacuum cleaner market is vast and the number of different machines available is immense giving a potential customer a dilemma when trying to choose a machine to solve a particular problem. The machines available range from the cheapest units manufactured from the thinnest and flimsiest materials and churned out on production lines in various parts of the world, to small production, specialist machines manufactured to satisfy the most demanding requirements.

BVC (the original British Vacuum Cleaners) is a brand manufactured by Quirepace Ltd very much in the latter category; just as there is always a market for traditional, specialist cars, discerning customers for Industrial Vacuum Cleaners will undoubtedly find a solution within the BVC range.

With the exception of a small range of budget units (the BVC Greenline range) targeted at light duty applications, BVC Industrial Vacuum Cleaners are manufactured in the UK from predominantly UK sourced components. Quirepace operate their own press shop for many of the metal pressings used in production, and components such as fabrications and castings are sourced from local specialist suppliers.

UK manufacture means that Quirepace are not only able to keep very close control of the whole process from design to delivery, it also means that every machine in the BVC Industrial Vacuum Cleaner range can be manufactured to the customers specification.

In the world of industrial processing, materials to be cleaned are inevitably incredibly diverse; some products are hazardous to health if breathed in in significant quantities, some are potentially explosive and require ATEX rated equipment. Other materials might be heavy (eg. aggregates) or abrasive, or sticky, or wet. Whatever the application there will most likely be an appropriate BVC machine available.

It is difficult to pick an Industrial Vacuum Cleaner at random & hope that it is suitable. Sometimes people

compare machines by their maximum flow rate, or perhaps maximum vacuum, without realising that these are a very poor guide to real-world performance. Maximum vacuum is measured with zero flow, and maximum flow with zero (or little) vacuum, and hence these figures do not give a reliable indication of actual performance. Quirepace's specialist sales team offer on-site demonstrations at the customer's premises so that performance can be evaluated.

Selecting an Industrial Vacuum Cleaner isn't just about the machine itself. There will be choices to be made in the type of filter to be used and the tools and hoses required to attach to the vacuum unit. BVC Industrial Vacuum Cleaners are all available with several choices of filter material. Apart from standard microfibre bag filters, Quirepace offer 'Clearflow' filters; a special design with a huge surface area which helps to maintain flow without blinding, PTFE coated materials for sticky products, fire-resistant materials, anti-static materials for ATEX applications and of course various standards of HEPA filters for hazardous dusts.

Industrial Vacuum Cleaners require Industrial Tools. Many tools in the BVC range are heavy duty metal castings and fabrications designed for long life in an aggressive industrial environment. High quality tooling ensures that the performance of the Industrial Vacuum Cleaner gets to where it is needed reliably time after time for many years. For those tools that have wear parts – like the rubber strips on the heavy duty height adjustable floor tools, of course Quirepace have local stocks of spare parts.

The BVC range from Quirepace offers heavy duty, durable and reliable Industrial Vacuum Cleaners for all applications, backed up by a knowledgeable and experienced sales team and an extensive service and parts department.

**Contact Quirepace to discuss your requirements:**  
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A leading provider of Optical Components for over three decades



Knight Optical, a leading and reliable provider of Optical Components for over three decades, has been serving the robotics and automation industry for just as long. Our range of available optics, either from our stock catalogue or as custom optics, is expansive:

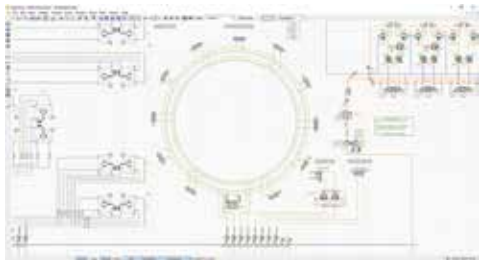
- Infrared components in materials such as Germanium, Silicon, and Zinc Selenide.
- Lenses including aspheric, Fresnel, and ball lenses.
- Windows including optical domes and diffusers.
- Mirrors including front surface and elliptical mirrors.
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- Optical flats in materials such as Zerodur and Quartz.
- Gas cells.
- Gratings and graticules.
- Laser optics including ultrafast laser mirrors and CO<sub>2</sub> laser optics.

We excel at providing custom optics manufactured to our customers specifications as we know that typically optical components are application specific. We use a multitude of different materials including standard glass, acrylic and more specialist materials such as sapphire, calcium fluoride, quartz. Coatings can be applied to optics to optimise performance, such as an antireflective (AR), diamond-like carbon (DLC), and mirror coatings which can be designed for UV through to IR applications. Please contact us with your enquiry.



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## UK manufacturing sector production volumes returning to pre-Pandemic levels

Almost three quarters (70%) of engineers working in UK manufacturing report that business has returned or even exceeded pre-pandemic production volumes as the darkest days of COVID-19 appear to be fast disappearing into the rear-view mirror.

Businesses in the aerospace, electronics and energy sectors all point to a substantial recovery with 72%, 59% and 71% of respondents respectively flagging a return to pre-COVID-19 levels of production.

But not every sector is in such rude health: 60% of respondents in the automotive industry say output in their firms has been reduced, and access to skills, supply chain issues and the move to hybrid/remote working were all cited as particular challenges across all areas of manufacturing.

The State of Manufacturing 2023 Report, conducted for Essentra Components by The Engineer Magazine, sought to uncover the biggest concerns facing engineers

working in UK manufacturing. One of the most important studies of its kind ever to be commissioned, the report focuses on respondents' attitudes to future talent, technology, sustainability, and a heavily impacted supply chain in a post-COVID world.

The issue of skills was a particular concern, with almost three quarters (74%) saying new recruits frequently lack the skills and qualifications needed to succeed in a modern manufacturing environment.



To download the full report, visit: [www.essentracomponents.com/en-gb/state-of-manufacturing-2023](http://www.essentracomponents.com/en-gb/state-of-manufacturing-2023)

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# Innovative solutions for machine safety – advantages for productivity



Schmersal at Hannover Messe 2023: new developments for safety and automation

The Schmersal Group will be attending the Hannover Messe trade fair to present its latest innovations. In Hall 09, Stand D09, the company has put the focus this year on automation and safety solutions for intralogistics as well as for packaging and food processing machines.

The growing volume of online trade is a key driver for developments in intralogistics, which requires increasing process automation and efficient and safe plant technology. Using a model that depicts different process steps and technologies, including filling, conveyor and palletising technology as well as robotics, Schmersal will be demonstrating components and systems that not only contribute to occupational safety, but that meet the stringent requirements of intralogistics and packaging industry in terms of fail-safe operation and plant productivity.

### Intelligent solenoid interlocks

A robot carrying out palletisation operations is safeguarded on the Schmersal stand with solenoid interlocks that keep guard doors locked until hazardous movements have come to a halt. Intelligent safety components, such as the AZM201 solenoid interlock, help to minimise downtime thanks to comprehensive diagnosis functions.

### New Time-of-Flight procedure

Schmersal will be demonstrating a new technology at Hannover Messe for the first time – a technology in which the position and stacking height of boxes/crates palletised by robots is monitored by a ToF camera. The Time-of-Flight (ToF) procedure can be used to create a 3D image of the scene that is available as a point cloud. The scene can then be used to determine the positions and dimensions of objects. Software that can be used to define and monitor three-dimensional zones in space opens up a wide range of automation solutions in logistics and production-line production.

ToF cameras enable efficient, real-time data evaluation, such as when carrying out measurement tasks in fill level monitoring or volume determination of piece goods.

### New magnet track sensor box

Electric monorail conveyors are used to transport workpieces, tools and other purchased parts in almost every industry. Schmersal will be showcasing a solution for precisely this application at Hannover Messe: the SSB-R sensor box is used to define route sections for speed regulation for electric monorail conveyors in a manner that is cost efficient and maintenance free. It also allows park positions to be approached with careful accuracy.

### New command and signalling devices in hygienic design

Also new: The H series from Schmersal will be showcased at Hannover Messe as a full range of command and signalling devices for hygiene-sensitive applications, particularly in food processing.

Visit Schmersal at Hannover Messe between 17 and 21 April 2023: Stand D09, Hall 09.

**Contact: Steve Watkins, Marketing & Business Development**  
**T 01684 571980**  
**[swatkins@schmersal.com](mailto:swatkins@schmersal.com)**  
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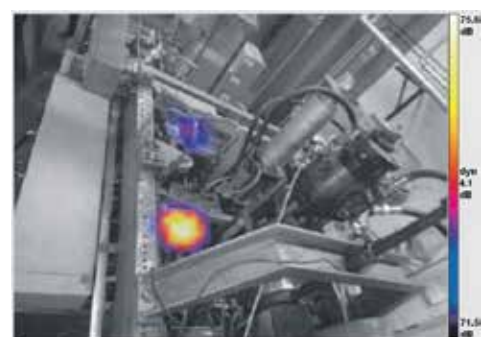
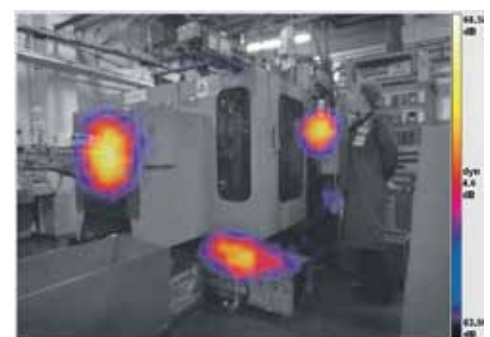
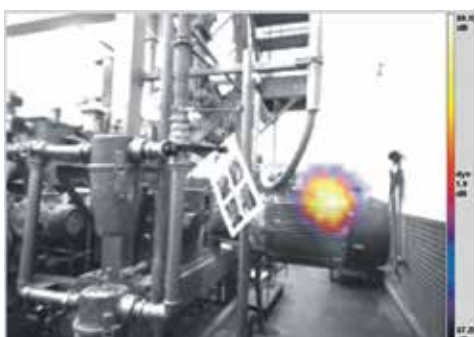
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Visit Schmersal at Hannover Messe between 17 and 21 April 2023: Stand D09, Hall 09.



## Chemicals

# Suurmond UK and Dynisco join forces



Suurmond UK Limited are delighted to announce that we have signed a partnership agreement with world leading manufacturer of melt temperature and pressure transducers and polymer analysis equipment Dynisco. With their European headquarters in Heilbronn, Germany, Dynisco have been, for many years, at the cutting edge of melt pressure and temperature measurement and Melt Flow Indexing machines.

Our agreement will mean that Suurmond are able to support new and existing users of Dynisco sensors with UK based stock of common units and customer specific sensors.

We will also be supporting Dynisco with expanding their influence in the polymer analyser market. Polymer analysers allow operators of compounding and recycling lines to get 'real time' viscosity values during production.

Founded in 1953, Dynisco is committed to helping customers and providing the tools and services for the polymer industry that give customers a "window into the process".

Today's customers require accurate information that will allow them to validate and if necessary, adjust their process ensuring the products they make meet or exceed their specifications. The information Dynisco provides allows our customers to keep their process consistent regardless of their global locations.

Post-BREXIT Suurmond are delighted to be able to support Dynisco with efficiently accessing the UK market.

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# UNISIG's approach to automating surgical instrument manufacturing

**A**s 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 program is available at: [www.unisig.com](http://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 18-23 September.

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# New sustainable packaging from Bell for 2023

Following the successful introduction of presentation packaging made using polymers recovered from beaches and riverbanks, Bell is delighted to announce a new grade of PET presentation packaging which contains 100% post-consumer waste.



The standard recycled content for our Retran® product is 70%. The move to 100% has been a challenge and by being more selective about the consumer waste and using good grade discarded bottles, sandwich and food containers we have achieved an excellent clarity solution.

The new polymer can be used to produce formings, presentation folding boxes as well as the world famous Retran® tubing which is widely used to present hardware, DIY and sporting products.

Commenting on the development, Managing Director, Peter Lennie, stated, "Our design team have worked tirelessly through recent months to achieve a 100% recycled product. Rigorous testing has been carried out to ensure the product performs well in the market and we are delighted with the results. To differentiate the 100% from our standard product we have introduced a slight grey tint to the film which adds an attractive feature to the final presentation."

Samples of Retran® 100 are available and Bell welcome any enquiries for this exciting product.

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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.

The "NV" stands for "needle valve," an exclusive AdCo design feature which allows the user to lay down precise, uniform glue lines, with perfect cut-offs and no more dripping and stringing!

This exceptional quality tool sports cushion-padded grips, an easy-squeeze trigger, and a removable wire base stand which makes it easy to use in any work environment.

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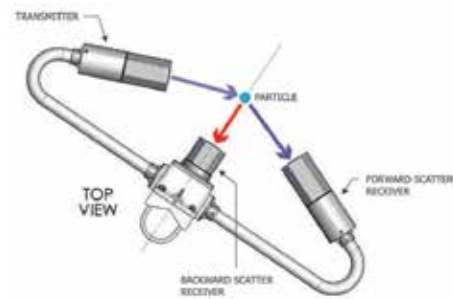


### The home of the original back scatter head since the 1990s

*Two heads are better than one – the advantages of the Biral back scatter head for precipitation classification*

Automatic visibility and present weather sensors normally use the forward scattering of infrared light to estimate visibility and classify precipitation. Sensors produced by Biral emit a cone of modulated near infrared (850nm) from the transmitter head, which is scattered by particles in the air. The intensity of scattering is not the same in all directions, since this is strongly dependent on the shape, size and composition of the particle.

**How it works** – Infrared light emitted by the transmitter that is scattered by 39-51° is detected by the forward scatter receiver. This is sufficient to estimate the visibility and aid the classification of precipitation type. The infrared light which is scattered by 107-119° is detected by Biral's unique back scatter receiver, which is used in addition to the forward scatter measurement to help discriminate between different types of precipitation, such as rain and snow. A diagram of the scattering angles in relation to a Biral visibility and present weather sensor is shown below.



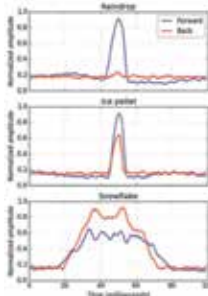
Present weather sensors which do not have a back scatter receiver usually discriminate between rain and snow using only the forward scatter signal from an individual hydrometeor (raindrop or snowflake), often combined with air temperature. Biral's back scatter receiver provides more detailed independent data on the precipitation type compared with using forward scatter alone. Specifically, the sensor measures the ratio between the back and the forward scattered infrared. Snow has a much higher proportion of back scattered infrared compared to rain (see below), so the back scatter head is able to reliably differentiate between rain and snow.



The crystalline structure of a snowflake provides multiple facets for scattering of optical and infrared light in

all directions irrespective of wavelength, especially back towards the transmitter. This accounts for the main reason a human observer can differentiate between rain and snow – because snowflakes are white! The same applies to other frozen hydrometeors such as ice pellets and hail, where back scatter from trapped air bubbles make the particle appear opaque, with increased backscatter.

An example of the relative difference between forward and back scattered infrared for different individual hydrometeors is presented on the right. These measurements were taken as rain turned to ice pellets then snow as a thunderstorm passed over a Bristol-based sensor on 2 March 2016. Classifications were based on human observation, with approximately three minutes between the different hydrometeor types. Air temperature remained above freezing throughout, at 6°C during the rainfall and ice pellets, and 5°C during the snowfall.



The back scatter receiver is unique to the Biral present weather sensors and provides reliable discrimination between rain and snow. This is demonstrated by reports of excellent snow detection and discrimination capability from our customers and field trials with trained meteorological observers. Back scatter receivers form part of our SWS 200 and 250 series and VPF 730 and 750 series. The Biral VPF-750 represents our most advanced visibility and present weather sensor, with the addition of external temperature and relative humidity sensors to aid discrimination between fog and non-liquid particles which lower the visibility, such as smoke, wind-blown sand, and dust. An integrated freezing rain detector allows reporting of all forms of freezing precipitation, providing a comprehensive and reliable account of present weather for all environments.

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### Supporting the dream of green energy, with the help of Industry 4.0

The 2015 Paris Agreement has forced many countries to present long-term strategies and nationally determined contributions (NDCs) to reduce emissions. One strategy is to transform waste into usable fuels and Raven SR is a clean fuels company dedicated to achieving this. However, the company uses a process that requires high temperatures and precise control to maintain efficiency and cost-effectiveness. To streamline Raven SR's energy transformation process, industrial heating technology company Watlow provided extensive expertise in thermal system design, as well as Industry 4.0 control.

Watlow, which has manufactured electric thermal systems

for 100 years, provides a breadth of expertise that helped Raven SR to solve its challenge, by designing a comprehensive thermal system from start to finish. The full thermal system provides an extraordinary range of temperature control through different components. This includes the high-temperature MULTICELL™ heater, which offers three major advantages over other insertion heaters. These are extreme process temperature capability, independent zone control for precise temperature uniformity and loose fit design for easy insertion and removal. The proprietary design of MULTICELL™ heaters with integrated thermocouple sensors, provides a 'thoughtful' zoning and control approach, delivering precise control within the three dimensions of the reactor.



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# Expert advice on changing and refilling LPG cylinders for FLTs

Calor's Technical Trainer, Brian O'Flynn, answers some of the most frequently asked questions when it comes to the safety precautions that forklift truck (FLT) operators should take when changing or refilling an LPG cylinder.

## How do you refill an FLT gas cylinder?

When refuelling a refillable LPG cylinder, you should park up to three metres away from the bulk storage tanks; then apply the handbrake and turn the engine off.

Once you've checked the content gauge to see if it needs to be refilled, attach the filling hose and gun from the bulk tank installation to the filler valve on the cylinder. You

should check the connection on both the hose and the filler valve to make sure they are in good condition.

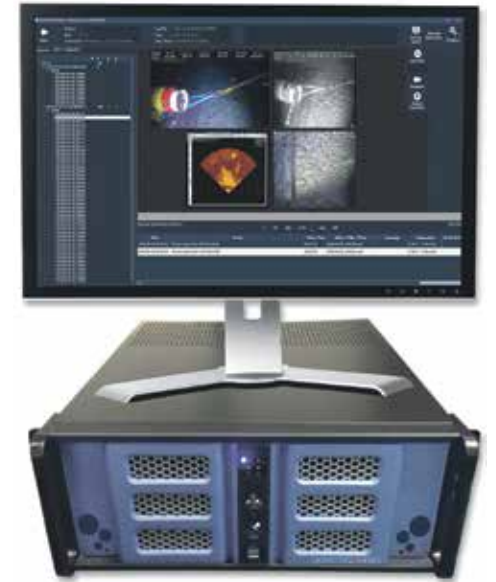
Now the hose and gun are connected, you can open the bleed valve that is on the refillable cylinder; there should be a small release of gas and once that has happened, you can then start conveying liquid by using the dead man switch on the installation. When you start seeing liquid appear, which will be shown with a white jet coming out the bleed valve, stop filling immediately and close the bleed valve. Then depress the gun to release it and make sure the connection is depressurised. Once you've stowed the hose and gun away, return to the cylinder to put the filler valve cap back on.



Please note, this article ([www.calor.co.uk/news-and-views/gas-safety-week-2022](http://www.calor.co.uk/news-and-views/gas-safety-week-2022)) is for raising safety awareness and is not a replacement of taking an FLT safety training. If you're interested in booking Calor FLT safety training for your employees, please email us on: [CETraining@calor.co.uk](mailto:CETraining@calor.co.uk)

# Cutting-edge subsea technology

DIGITAL EDGE SUBSEA



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.

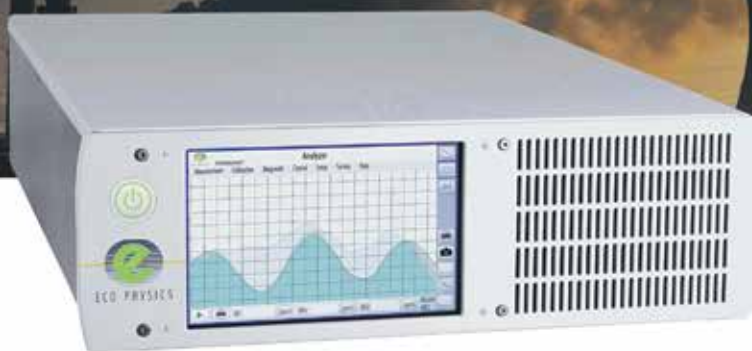
To work alongside this, Digital Edge Subsea has also recently released the Edge DVR Archive application. Edge Archive handles the transfer of data from the internal DVR drives to client storage, either on a NAS, a Raid, or a phased delivery to multiple external hard drives. Archive can act as a simple 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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AL, AL<sup>2</sup>, EL S, EL, EL<sup>2</sup>



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NO · NO<sub>2</sub> · NO<sub>x</sub>

The one- and two-channel chemiluminescence based NOX analyzers of the nCLD "Facelift" box-solution analyzers detect NO, NO<sub>2</sub> and NO<sub>x</sub> 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<sub>x</sub> measurement, with an optional NO<sub>2</sub> add-on, while AL2 and EL2 include, due to the two-channel set-up, a standard NO<sub>2</sub> 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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## Titan Enterprises expands patents

Titan Enterprises has been granted additional patents for its ultrasonic flowmeter technology used within their range of Atrato®, MetraFlow® and Process Atrato® flow meters.



As a specialist liquid flowmeter manufacturer, Titan's patented ultrasonic technology has led to an expanding line of ultrasonic flowmeters & patents ranging from signal processing methodology to novel mechanical design.

Titan's ultrasonic flow sensors use high frequency sound waves to measure flow using the time-of-flight principle within the liquid in a small pipe.

The very high signal to noise ratio from these devices has been widely proven to enable metering of extremely low flows with great precision. The Atrato® ultrasonic inline flowmeter models operate over a flow range of 2ml per minute up to 20 litres per minute with accuracy of better than ±1.0% of reading.

Titan's ultrasonic flow devices are independent of Reynold numbers and can therefore operate from laminar flow through to turbulent flow. This makes them highly commercial, ideal for batching systems and industrial processes, able to accurately measure liquids ranging from water to high viscosity oils. Being through-flow devices, they can also be tolerant to impurities in the system which would cause havoc to meters with moving parts.

**Further information: Titan Enterprises**  
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## 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?

The Interface G-Series was launched around one year ago, becoming a popular product range with students, industrial engineers, OEMs and anyone requiring a small form force sensor offering accuracy, repeatability and Interface quality. All G-Series load buttons and load cells feature:

- Full stainless steel construction
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- Capacities from 4.5newtons to 50kN

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

**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."

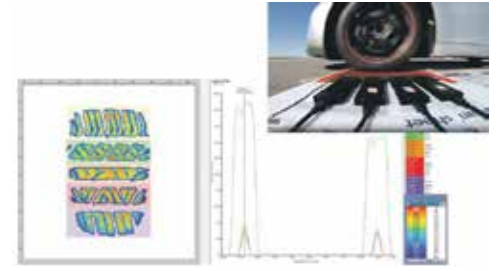
In terms of recent developments, Tony continued, "Being responsive to our customer's needs and being able to offer a high-quality product with strong product knowledge at a

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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.

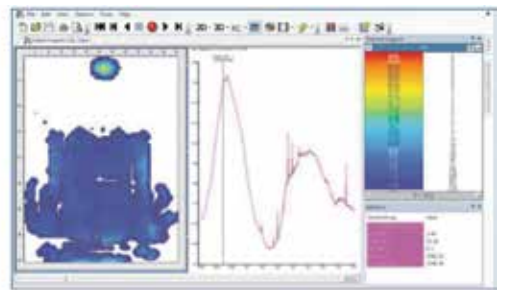
The new e-commerce website offers G-Series load cells on short lead times with next business day delivery for small quantities. Following its successful launch in 2021, it has become an increasingly popular product range for students, industrial engineers, OEMs and anyone requiring a small form force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



In the future, Interface is keen to continue its growth trajectory for 2022. 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 foot-print 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 May 2023 at Silverstone Wing, Silverstone Race Circuit.

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# The presence of mercury in flat panel displays

The electrical waste recycling sector is undergoing something of a revolution in health & safety and automation.

The presence of mercury in flat panel displays (FPDs), such as laptop monitors and LCD TVs, has brought into focus prospective health and safety issues when considering the WRAP (The Waste Resources Action Program) commissioned study into the technical and commercial potential for recycling the items. WRAP anticipates that the



number of FPDs in the WEEE (Waste Electrical and Electronic Equipment) waste stream will

rise dramatically in the next few years bringing pressure to automate suitable commercial recycling processes in the UK and Europe.

In particular, the study looked at the presence of mercury in the cold compact fluorescent light in the 'backlighting' system for LCD TVs, laptop computers and desktop monitors.

The existence of this mercury means that end-of-life FPDs are classed as hazardous waste.

The conclusion of the WRAP study highlighted that employees at an FPD recycling facility would be subjected to levels of mercury "higher than is acceptable". However, it suggested that this could be reduced with personal protective equipment and local extract ventilation.

ABLE's Jerome J405 gold film mercury vapour analyser is used extensively throughout the electrical waste recycling industry. In our experience, companies typically want to implement both a mobile mercury monitoring capability for general plant safety use and a stand-alone fixed-point analyser in an enclosure to police a potential vapour 'hot spot'.

The go-to instrument for both applications is the proven Jerome J405 Gold Film Mercury Vapour Analyser, which is equally effective as a portable instrument or in a fixed monitoring role. For the latter, ABLE design and custom build system enclosures, applying our knowledge of delivering trace level sample concentrations with full integrity. Being able to detect mercury vapour in air at levels as low as  $0.05\mu\text{g}/\text{m}^3$  ( $0.0005\text{mg}/\text{m}^3$ ), the J405's LDL is well below the EU indicative occupational exposure limit value (IOELV) for mercury and its inorganic compounds of  $0.02\text{mg}/\text{m}^3$  (8-hour time-weighted average (TWA)).

For more information on the Jerome J405 Mercury Vapour Analyser, email: [info@able.co.uk](mailto:info@able.co.uk)



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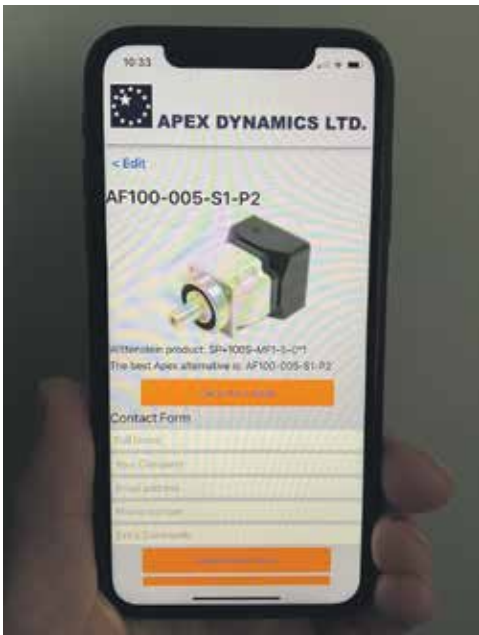
# Set the wheels in motion with Apex Dynamics gearboxes



In this issue of Industrial Process News, we have selected Apex Dynamics UK as our Company of the Year.

Industrial Process News previously awarded Apex Dynamics as our Company of the Month last year for unrivalled performance in precision gearbox distribution. We have been further impressed by the company's continued leading prowess. In light of this, we are delighted to select Apex Dynamics UK for our coveted Company of the Year award: due to an exceptional worldwide leader presence in the industry, with continued commitment to delivering excellence and quality.

Apex Dynamics UK was founded in 2019 by UK Managing Director, Mike Gulliford, and President of Apex Dynamics USA, Steve Buckley. With the headquarters based in Uttoxeter, Staffordshire, the company is the sole distributor of the Apex Dynamics Inc product range across the UK and Ireland. This cutting-edge company is part of a wider group of 35



## APEX DYNAMICS LTD.

global Apex Dynamics, across all five continents.

Industrial Process News awarded Apex Dynamics as our Company of the Month in November last year and this latest prestigious award is due to a world leader presence in the industry, with steadfast commitment to delivering excellence and quality. We caught up with delighted Managing Director, Mike Gulliford, to congratulate him and find out more,

"We have five linchpins embossed into our company's offering: One, we have an unrivalled lead time on our gearboxes. Two, our products are fully patented. Three, we offer a five year warranty for added assurance. Four, our products are fully ATEX-compliant, for use in hazardous atmospheres and Five, if our product does not arrive by the acknowledged delivery date, we will give the product for free to the customer. In the four years I've been here, we've never had to give away a product for free because our delivery service is so watertight!

We are delighted to receive two prestigious awards from Industrial Process News within the last six months! This latest one, will have pride of place in our Gearbus!"

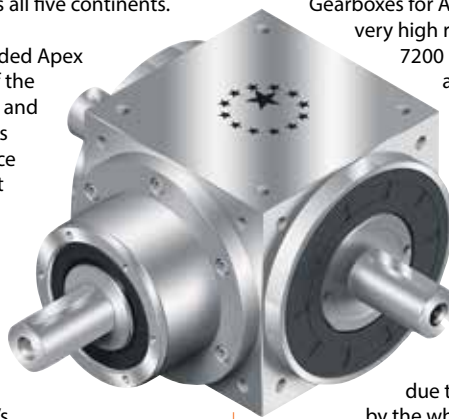
Not only is Apex Dynamics a premium gearbox distributor, with quick leading times: it has come up with some eye-catching marketing strategies. Already singled out as one of our top exhibitors at the Drives & Controls event 2022, at the NEC last April, this dynamic company is continuing to trail blaze across the industry with its Gearbus.

The Gearbus is a 7.5 T box truck which is independently powered and is a mobile state-of-the-art demonstration facility. Following a recent road trip to Ireland, a whole new sector of engineers was introduced to the many marvels of Apex's precision servo gearbox range. With a winning selection of videos and a fascinating live demonstration of precise synchronisation control with a 0.5mm pencil lead and two counter rotating discs, curious engineers were invited to hop on board and network.

With numerous trade shows planned in 2023 such as National Manufacturing & Supply Chain Expo in Dublin in May and AutomationUK in Coventry in June, The Gearbus team can't wait to meet new delegates and discuss their machine motion control challenges.

The Apex Dynamics Inc product range includes a comprehensive gearbox range compatible with servomotors, rack and pinion drive systems for automation, and automatic lubrication systems for machinery structures.

The newest range of products are the GL/GLS range of High Precision Planetary



Gearboxes for AGV/AMR applications, with very high radial load capacity of 2860-7200 N. The GL design incorporates a rotary output housing that has a fixed internal (or ring) gear; the revolving input pin propels the planet gears around the internal gear. These unique planet gears capture the output body, further rotating at a slower speed. The rotary housing is lodged in the drive wheel, allowing for more space in the body of the cart due to the gearbox envelopment by the wheel.

With three sizes available, including a shaft driven version; the GL series planetary servo gearbox is specifically designed as the interface between the servo motor and the drive wheel of warehouse Automated Guided Vehicles (AGVs). The innovative GL/GLS gearboxes are predominately supplied to machine builders and integrators for process engineering, such as pick and place machines.



Apex Dynamics has successfully continued to ride the wave of Brexit and the COVID-19 pandemic challenges, due to the fortuitous location of its manufacturer, as Mike elaborates,

"Our manufacturing base is in Taiwan, East Asia. During Lockdown, we still received regular, reliable shipments and continued trading, while many competitors suffered huge delivery delays. Brexit hasn't had a detrimental effect on our business, in the way business forecasters warned. Our Taiwanese shipments bypass EU customs far more easily now, allowing us the privilege of offering quick lead times on all products."

Apex Dynamics is a worthy recipient of our Company of the Year Award for achieving such a fantastic sales record, within four years. Despite the current cost-of-living crisis, the sales figures have increased exponentially by 50% within the last year. The company is looking forward to further, expanded growth and with Mike at the helm, the company is already diversifying,

"Within the last 12 months, we have received new enquiries and orders for the specialist electric vehicle sector, as the UK and Ireland move more towards greener transportation. Furthermore, the entire robotics industry has seen a full resurgence recently and we are definitely on board with supplying to new, dynamic sectors.

"We are preparing to release a new Helical gearbox range within the next few months, we are always looking to improve the breadth and depth of our product range.

"The icing on the cake would be the employment of a new sales engineer, we are looking for a specialist to cover the South of the UK. We have world-leading servo gearbox products



and would love to welcome a new face to our successful team."

Apex Dynamics has the largest range of drop-in replacements for competitor servo gearbox products available globally, and an app which makes it very easy to change from a competitor model to Apex's equivalent model. With the five Apex linchpins, especially quick lead time, customers are drawn to the competitive, high-tech servo product range.

With a staggering 50,000 precision servo gearboxes units manufactured monthly and an equally impressive 100,000 units in stocks, Apex Dynamics are able to offer guaranteed supply orders to customers.

To enquire about the Sales Engineer position, ask for Mike Gulliford. To contact the sales team below or to view the whole product range, see the website below: T 0121 227 5340 sales@apexdynauk.com www.apexdynauk.com

