

INDUSTRY UPDATE

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Vision Engineering launches VE Cam compact digital microscope

Vision Engineering Limited (Woking, UK) has announced the launch of VE Cam, a new, simple to use compact digital microscope for a wide range of applications.

Launching at Productronica 2021 in Munich, VE Cam is available in two variants with differing fields of view (FOV). VE Cam 50 (50mm FOV) & VE Cam 80 (80mm FOV) offer the power, speed and efficiency of digital imaging in a compact package.

Packed with new and established features, VE Cam enables users to do more with maximum space efficiency and is ideal for many routine inspection tasks.

Enhanced productivity features include 10 User programmable presets, 6 hotkeys for instant one touch access to most commonly used presets and a configurable interface which allows most commonly used user settings to be shown direct on the screen.

Suitable applications include: electronics, mechanical engineering, plastics, additive manufacturing, and ceramics.

Paul Newbatt, Vision Engineering Group Sales and Marketing Director, said, "The launch of VE Cam extends the Vision Engineering product to include a compact, simple to use and competitively priced microscope which focuses on delivering an efficient and accurate inspection capability, combined with a mix of designed in productivity features, superb image quality and user control.

"In addition both VE Cam 50 and VE Cam 80 utilise digital technology which supports immediate information capture and share across teams, for example WiFi image mirroring which means colleagues and supervisors can view live images without interrupting workflow, thus improving efficiency."

Contact
www.visioneng.com



Adding value to valve actuation

AUMA Actuators Limited clearly recognise the importance of predictive maintenance and asset management to maximise availability, as well as the importance of sophisticated sensor systems in clearly identifying when an actuator requires attention, well before its process-critical operation is compromised. The three styles of maintenance

Classically, there are three styles, or levels, of maintenance: 'Reactive' maintenance, or the 'fix it when it breaks' approach, is in fact a legitimate way of dealing with equipment where the cost is relatively low, the likelihood of the equipment failing is low and the consequences of its failure are relatively insignificant.

The next level up, 'preventative' maintenance, gives us a rigid process, where equipment is 'serviced' on a regular basis, with oils, greases, filters and seals replaced and everything given a clean. The advent of small, reliable sensors and the means to communicate with a central system gives us what is currently the best possible way to maintain critical components – Predictive Maintenance, where there are no defined service intervals, but the equipment itself tells us when it needs attention, and it does so in a way that makes sure that it continues reliably and efficiently doing its job.

Preventative maintenance in Actuators There are a number of points of attention in an electric actuator – the seals, the grease, reversing contactors and the mechanical components, and the preventative maintenance required within the system is determined by a combination of data logging and sensor measurement.

Clearly, each actuator will operate with a slightly different duty, and we can record



the number of starts, the number of turns of the shaft, the time the unit has been operating and the output speed, all of which can predict when the reversing contactors and the mechanics of the actuator will require attention. We can't directly measure the condition of the grease, but we can measure vibration, temperature and torque at various points in the actuator, and derive the machine conditions from that. With a sophisticated set of algorithms, the AUMA actuator then continually updates its maintenance log, ready to signal an alarm if any parameter reaches a defined trigger point.

These sophisticated functions are not restricted to top end actuators such as the AUMA SAV, SA and SQ actuators are already fitted with the AUMA Asset Management Function as standard, the only condition being that the actuator is fitted with AUMA's electronic control unit.

This article has shown how the valve actuator is a vital tool within the wider topic of asset management, and how predictive maintenance and the successful delivery of that maintenance can add value for both actuator and valve manufacturer while delivering higher standards within the process for the end user.

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New suurGLASS unit



Suurmond UK Limited recently attended CHEMUK 2021 at Birmingham's NEC. A main feature of our booth was our NEW suurGLASS unit. suurGLASS is a standardised, universal reactor system for process development, chemical synthesis, stirring, dissolving, mixing & extraction.

The custom design of the support frame means that the vessel can be changed easily while the top cover remains secure mounted to the support. The quick action clamp can be operated with one hand allowing the user to support the vessel for easy and safe vessel changes. With our system the top cover and all the accessories connected to it can remain in place. Because our system is designed specifically for basic chemistry, we are able to offer a highly engineered solution at a lower price point than might be expected.

Basic specification:

- ▶ Volume reactor vessel: 1-5 litres, using the same cover plate
- ▶ Vessel materials: Type I, Class A borosilicate glass
- ▶ Drip tray material: Standard in 316L
- ▶ Stirrers: Anchor, propeller, impeller, turbine
- ▶ Temperature: Up to 200°C
- ▶ Pressure: -1 to +1 bar
- ▶ Options: A wide range of glass accessories like burette, cooler, dropping funnel, various sensors

Contact us at 01386 423756 or at: www.suurmond.com/products/suurglass

Optimise your pipework with swivels



Rotaflow have 35+ years' experience in designing and manufacturing Swivel Joints. We solve and resolve engineering problems where fluids need to be transferred across rotating interfaces, without leakage. Our units are in most engineering sectors: From Brewery, Dairy, Food & Drink, Process & Plant, Drilling & Mining, Oil, Gas and Subsea, Nuclear and Chemical.

Through design and in-house manufacture our swivel joints can allow one or more different flows through a single unit, enabling the pipework to rotate 360 degrees whilst carrying fluids (including hydraulic and pneumatic) of different pressures without cross-contamination or leakage.

There are many different forms of Swivel Joint... from very straight forward designs of our F and FS series, Compact swivels or Heavy Duty to Articulated Pipework configurations, Floating Suction Arms, Jacketed, High pressure. A Swivel Joint reduces costs by reducing the risk of leakage with its associated downtime. And by fitting a quality designed swivel you are improving your production capacity.

We are specialists in taking your bespoke requirements and being able to design a solution that can fit your budget, dimensions, materials, FAT/witness testing; hygienic and pressurised environments. We regularly test to Hyperbaric, Seal Life and conduct Temperature/Pressure/ Load Cycle Testing. We are ISO 9001:2015 certified.

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Rotaflow have built up a reputation for providing reliable and quality designed products that resolve your engineering needs and we are proud to say many customers request our services over and over again.

To find out more please visit our website and/or give us a call.
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www.rotaflow.com

Lakeland ChemMax 'Super-B': The Ultimate in Chemical Hazmat Clothing

How comfortable is your chemical suit? The critical factor influencing comfort is fabric breathability. Unfortunately, a quality suit that gives you effective protection against nasty chemicals uses a barrier fabric that keeps out dangerous substances but also keeps out air!

The good news? Design of a suit also has an important effect on comfort. And the even better news is Lakeland's Super-B style chemical suits are designed with comfort – as well as protection – in mind.

Lakeland's ChemMax chemical protective clothing uses our "Super-B" style coverall. A unique combination of design elements and additional features that result in a better fitting, more durable and more comfortable garment: -

- ▶ 3-piece hood, crotch gusset and inset sleeves means a better fitting suit that creates less stress in critical areas
- ▶ Double zip and storm flap means a secure protection to the important front of the garment
- ▶ Cushioned knee-pads as standard mean a safer, tougher and more secure suit for more strenuous applications where kneeling, crawling or climbing is required.

ChemMax Super-B style is the ultimate in chemical protective workwear. To discover more read our blog at the address below (or use the QR code in the image) and request a free ChemMax sample.

Read the blog at <https://blog.lakeland.com/europe/super-b-the-ultimate-in-hazmat-protective-clothing>.



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Rolling and forming
We can roll, bend and form perforated sheets to match your design.

Aesthetic finishes and protective coating
We can offer powder coating and hot dip galvanizing solutions to meet your specifications.

How to get PROFIBUS or PROFINET Certified training remotely

PI UK is pleased to announce that Control Specialists Ltd, a PI-accredited Training Center (PITC), will be offering the full range of PI-certified training courses in an online format.

This is fully supported by the PNO and PI UK and now offers an alternative to the conventional face-to-face / site based certified training that Control Specialists have been delivering for several years.

From January 2022, CSL will start to offer the following training courses, and their associated examinations, online:

- ▼ Certified PROFIBUS Installer
- ▼ Certified PROFIBUS Engineer

- ▼ Certified PROFIBUS System Designer
- ▼ Certified PROFINET Installer
- ▼ Certified PROFINET Engineer

The first day of the PROFINET and PROFIBUS Engineer courses are also offered as non-certified Commissioning and Maintenance courses for those who want a basic understanding of auditing and fault-finding on these networks.

About the trainer

In his role as the Chairman of the PI Training Center working group, Peter Thomas of Control Specialists Ltd has been heading up an online certification working group to ensure that the quality of the PI-certification



process is maintained globally when delivering the certified training in this new format.

www.controlspecialists.co.uk

Environmental Science Hygiene Limited (ESH) goes into the production of premium hygiene products in Nigeria

Over six months ago, Environmental Science Group (ESG) announced that they were opening a new 30,000 square ft. facility in Lagos, Nigeria. The new facility trading as Environmental Science Hygiene Limited (ESH, Nigeria) went into full production in November 2021 with a number of high-quality alcohol-based Liquid and Foaming hand sanitisers that are safe and effective. ESG has over 25 years of technical and scientific knowledge in developing chemical product formulations and writing GHS Safety Data Sheets and Hazard Sheets for COSHH.



A new website at www.palmtreehygiene.com has been created specifically for product sales and distribution. The foaming hand sanitiser is also available from Amazon at: <https://www.amazon.co.uk/dp/B092BWR8Y4> The Palm Tree Foaming Hand Sanitiser is unique and different from other current products for the following reasons:

- ▼ Some species of palm tree sequester carbon more than ten times the level of other common tree species
- ▼ Commercialising sap from palm trees enables investment in palm tree afforestation, encouraging carbon capture and biodiversity
- ▼ Ethanol derived from the various species of palm tree has health benefits including maintaining healthy skin
- ▼ Neither oil palm nor any of its derivatives are used in the manufacture of the products.

"We are very pleased to announce the production of high premium alcohol-based foaming and liquid and surface sanitisers at our new location in Lagos, Nigeria. This is not only an opportunity to bring more jobs to the area, but it allows us to further expand our business and meet the growing needs of the African market" says Mrs. Olushola Adebowale, Managing Director of ESH Nigeria.

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Compact and versatile: PS216-Q200/-Q210 pull-wire switch



The Schmersal Group launches a new pull-wire switch that can be used as a signal generator to start machines, open electrically operated guard doors and gates and as a light switch in lift shafts. Key benefits of the new PS216 switch are its compact dimensions and extreme versatility, enabled thanks to high degrees of protection under EN 60529 and suitable for use in a wide range of temperatures.

Thanks to IP66 degree of protection, the PS216 pull-wire switch is protected against dust and strong water jets and thanks to IP67 degree of protection, is also protected against temporary submersion in water. The switch can be used in ambient temperatures ranging from -30°C to +80°C.

Another practical benefit is that the PS216 operates according to the 'start/stop principle' in that it remains switched on after initial actuation and subsequent release. Only when the switch is actuated and released a second time is the latch released and the switch switched off.

The PS216 pull-wire switch comes in two versions – the Q200 has a holding force of 45 N and is suitable for wire lengths of up to 50 m, while the Q210 has a holding force of 70 N and can be used with wires stretching up to 100 m. Pulling on the pull wire actuates the switch function in the pull-wire switch.

Other distinctive features of the PS216 include cable entry via M20 or M12 connector and six different NC/NO contact variants.

www.schmersal.co.uk

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MACH is back!



Attracting an impressive 25,000 visitors and in excess of 600 exhibitors, MACH has established itself firmly at the forefront of the manufacturing technologies industry. The show is the perfect platform to connect UK manufacturing engineers, decision makers, buyers and specifiers with suppliers of new technology, equipment, services and processes.

MACH is owned and organised by The Manufacturing Technologies Association, which is the voice for the manufacturing technologies industry. The association is fully committed to driving innovation, creating value and helping to facilitate and support UK manufacturing to thrive. MACH is a hub of innovation and must-attend event for both exhibitors and visitors. Showcasing

live, digital production systems all housed under one roof. The event provides hundreds of millions of pounds worth of business being discussed, secured and completed.

This year MACH 2022 is returning and will be at the NEC Birmingham, taking place on the 04-08 April 2022.

This is our pick of the best exhibitors that will be featured in the show. More details can be found on this page and the next.

If you would like any further information, please see the details featured below.

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We understand that no two jobs are the same; similar products often require the use

Impact Air Systems

Impact Air Systems continues to experience phenomenal growth and interest in its production trim and matrix removal solutions and will therefore be showcasing recent examples of the installations at manufacturing sites around the UK, and the rest of the world, in a bid to improve productivity and reduce downtime in even more manufacturing operations.

An Impact customer commented on its installation: "Our production lines are up and running for much longer periods of time since the Impact installation, which is therefore a worthwhile investment.

In this industry, efficient productivity is key, and if you're dealing with production shutdown due to inefficient off-cut removal, for example, it can be extremely costly for the operator and have a detrimental effect on the entire operation.

Impact's innovative solutions

ensure that we no longer find ourselves facing that problem.

Another huge plus point for us, is the reduced transport required to collect the recovered material, as the Impact system includes compactors that store more than twice the amount of trim material, so we are reducing our carbon emissions too."

Dust and fume control is also an area where Impact has always seen impressive interest, so will also showcase its mobile and centralised dust, fume, vapour, and oil mist control systems which are in demand for their ability to fit seamlessly within the facility while effectively protecting workers from airborne hazardous substances.

You can find Impact Air Systems on stand no. 570 in Hall 6.

www.linkedin.com/company/impact-air-systems

SIC Marking

SIC Marking is an international company that has developed innovative, permanent marking solutions and automated identification for the complete traceability of industrial components. With an annual turnover of over €50 Million and an annual growth of 15%, we are second to none when it comes to industrial marking equipment.

For over 30 years, SIC Marking has engineered a wide range of the most robust and state of the art Dotpeen, Scribe and Laser Marking machines available on the market today. Whether Column Mounted, Integrated or completely Portable like our eMark for example, we can provide a machine that is suitable for both your application and budget.

Our experienced and dedicated teams service over 15,000 happy customers in 100's of different industries around the World. Our installed base of over 55,000 machines in the field is thanks to our 10 subsidiaries and over 45 exclusive distributors.

Our Team in the UK is based in Warwick, where we have dedicated



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Cadline

As an Autodesk Platinum reseller, we can support all your Manufacturing requirements from initial enquiry through to production.

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Our in-house team can help manufacturers become more efficient, reduce production times and develop innovative new products and improved manufacturing strategies. From enquiry through to production we have the products and technical ability to assist you with your workflow and your MAKE journey.

We are experts in design, additive, subtractive and robotic manufacturing, simulation, on machine verification and final inspection.

Come and visit us on Stand 17/120 at MACH 2022 to discuss your manufacturing requirements and meet the team.

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Production & manufacturing trim handling solutions...

...improves productivity and reduces downtime

Coventry Engineering Group

Coventry Engineering Group (CEG) are an industry leading manufacturer of static and driven spindle tooling solutions and prismatic parts from solid blocks, castings or forgings. Alongside the more usual materials such as Steel and Aluminium machining expertise includes hard and exotic metals such as Titanium, Inconel and Molybdenum

With significant investment in new full 5-axis capability such as the Mazak Integrex i400S, additional capacity has been created to offer high precision, medium to large complex parts bringing customers dramatic reductions in lead-time, eliminating multiple setups improves part accuracy and with increasing production demand CEG's philosophy of embracing fully automated solutions enables cost effective lights-out manufacturing.

CEG's manufacturing and process capabilities open up multiple industries such as Aerospace, Marine, Nuclear, Defence, Medical, Machine Tools and Industrial Gas Turbines

Core capabilities including Horizontal machining up to Ø658x1519mm, Full 5-axis Milling up to 1500x660x610mm, CNC Grinding 1000mm between centres, 175mm centre height and Design for Manufacture

Coventry Engineering Group prioritise a number of areas to achieve its targets, apprenticeships to secure the engineering



skills needed for the future, innovation to increase productivity, adopt fast and resilient digital technologies, continuously improve infrastructure and deliver on climate change goals

Visit us at MACH 2022 NEC Birmingham 4-8 April Stand 20-32

Contact
Paul Atkinson, Business Development Director
T 07384 969397
patkinson@coveng.co.uk

The Meddings Group



The engineering and fabrication divisions were founded in the 1930's, with Meddings Machine Tools being established in the 1940's. Later came Thermolect in 1999 and 60% of Merlin Industrial Products being bought in 1996. Meddings Group offers a wider choice from a single source, now that all five divisions are working individually but under the same premises.

The Meddings Group are dedicated to growing a dynamic and profitable manufacturing /supplier business through innovation, hard work and ethical business practices.

We provide an engaging and challenging work environment for our employees, producing the highest quality products, delivering "Value for Money" customer expectations and first-class service to our customers.

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www.meddingsgroup.co.uk

The Meddings Group is a well-established family firm that has adapted and expanded over the last eight decades in the manufacturing trade. The Meddings Group is made up of five divisions that were established and founded over various years.

WANTED: UK Distribution or Sales Partner

heimatec belongs to the international technology and quality leaders for precision tools and specializes in the development and production of high-precision static and live tools for all CNC lathes, CNC turn-/mill machines and CNC machining centers.

At MACH 2022, heimatec will be presenting a small selection of its "Made in Germany" product line. This will range from static BMT and VDI tool holders to live tools up to highly complex customer-specific individual solutions.

For the extension of the international distribution network heimatec is looking for partners who are able to competently consult our customers and clients in all matters

of application including technical issues.

Therefore, self-employed persons with technical competence, customer-oriented thinking, high service orientation and the option to provide e.g. ample storage facilities for our products are wanted.

Interested persons being one of heimatec's future distribution or sales partners in a global and family owned company for the region UK incl. Scotland and Ireland, with an established customer base in the UK visit heimatec at MACH in hall 20 stand 20-243 or contact the company via e-mail.

Contact
www.heimatec.de



Welcome to Abrasive Powertools Ltd



Welcome and thank you for taking your time and visiting our website

We are Abrasive Powertools Ltd and we are a procurement company based in Nuneaton, mainly distributing abrasives and power tools in the UK.

We were formally known as Suhner UK and have been a part of the abrasives and power tool market for the last 20 years in the UK.

Suhner have now moved back to Switzerland and the company is now owned by Mr Andrew Mumford, with so many years of being a Suhner agent Andrew thought it would be best to start Abrasive Powertools Ltd to carry on and supply our ever-growing customer network and to also help new customers with his 20 years of experience with in the abrasive and power tool market, alongside Andrew you will find Mr Timothy Wesley, adding his knowledge of Suhner products and using his welding and foundry background to solve most common abrasive problems.

Please feel free to look around our website and see the products we have and hopefully we can offer a solution to solve your abrasive problem.

We also offer a repair centre for all types of power tools not just our Suhner range, you will find a form to fill out in our repair section, send this to us with a pictures of the machine and we will be in contact to arrange the repair.

www.abrasivepowertools.com

Production Engineering Update

Tooling Intelligence expands on inventory solutions success

Tooling Intelligence. (TI), a leading inventory solutions provider in Europe, has announced it will expand its long-term reseller relationship becoming a SupplyPro authorised European industrial vending manufacturer.

As an exclusive SupplyPro reseller since 2005, Tooling Intelligence has developed an excellent reputation for not only working with industrial distributors and manufacturing customers to determine the most efficient solution, but also for developing a world-class training, installation and support organisation.

Supporting thousands of devices across 47 countries, manufacturing systems in Europe will significantly lower costs and dramatically improve time to market. TI is committed to a significant parts inventory to facilitate expedited service from its experienced technicians.

"The journey doesn't end once the system is installed," said Richard Swaffield, TI's managing director, "we make sure it delivers measurable benefits to your bottom line. We pride ourselves on the highest level of customer service and support throughout the process. Whether new to inventory management, during set up or integrating internal systems, or delivering advanced technical assistance, the Tooling Intelligence team are on hand to deliver exceptional support every step of the way."

Tooling Intelligence is exclusively focused on SupplyPro inventory solutions versus using a



hodgepodge of mixed range vending hardware and software suppliers to leverage the sale of industrial products.

It delivers seamless, integrated solutions that it believes are the easiest to set-up and operate in the industry. Its dedicated support staff and service engineers respond to service calls within two hours and complete 95% of support requests the same day.

TI will be expanding its facilities beyond state-of-the-art manufacturing to include a demonstration, education and conference centre, to facilitate onsite/remote learning, video-based training and troubleshooting, and hands-on demonstrations of both hardware and software.

Come and visit us at MACH 2022 on Stand 6-44 where we will be showcasing our latest product innovations including scale-based vending solutions and digital services for inventory management.

www.toolingintelligence.co.uk

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3D Printing & Additive Manufacturing Intelligence

TCT 3Sixty is designed to give attendees innovative and interactive 360-degree insights of how to get the best from their existing additive technology and give the opportunity to discover new technology.

TCT 3Sixty is the NEC's flagship event re-imagined with a new mission. As one of the UK's largest events for 3D Printing & Additive Manufacturing Intelligence, its main focus is on developing a real understanding of the potential of additive manufacturing and 3D printing across industries. This deeper 360-degree understanding of industry increased visitor's readiness to purchase and ultimately, improve the quality of their leads.

The event took place on 28th – 30th September 2021 at the NEC in Birmingham. Everything at this year's TCT 3Sixty event was designed to create excitement, engagement and encourage attendees to stay longer for more chances to engage with exhibitors and industry professionals. The event saw many visitors from three distinct groups of evaluators, adopters, and optimisers, who relished in the chance to network with exhibitors, take away practical advice and solutions, and receive highly focused content on the industry.

Whether you are looking for an upgrade on your current



platform or investing for the first time, TCT 3Sixty is the base for all of this and more. TCT 3Sixty 2022 will take place between the 8th – 9th of June 2022 at the NEC Birmingham.

This is our pick of the best exhibitors from the show, listed here in alphabetical order: 3DGBIRE, EVO 3D, Manchester Metrology, Moleroda Finishing Systems, Origin Engineering Solutions, Scott Bader and Techcraft 3D. Further details can be found on this page and the next page.

www.tct3sixty.com

Scott Bader

Scott Bader, a UK headquartered resin manufacturer established in 1921, has recently launched Crestaform, a new range of high-performance 3D printing resins available to both individual consumers and businesses.

This is Scott Bader's first ever product range for 3D printing and therefore it has created much excitement and anticipation. 3D printing is a rapidly growing market that Scott Bader identified as an area for new product development using their vast experience and expertise in resin manufacture, dating back over 70 years. That expertise led to the development of Crestaform high performing 3D printing resins that exhibit superior mechanical performance and excellent reactivity.

Scott Bader's Crestaform 3D printing resins can be used in most stereolithography 3D printers and are cured by laser or light. The level and quality of detail that can be achieved is staggering when using Crestaform resins to produce a 3D print. The opportunities truly are endless.

Crestaform is available via Amazon or direct from Scott Bader.



Contact
T 01933 663100
enquiries@scottbader.com

Origin Engineering Solutions

Origin Engineering Solutions is a provider of Design and Analysis solutions tailored towards the manufacturing industry. Our flagship tools are Ansys SpaceClaim and Ansys Discovery well known for their ease of use and low initial cost. SpaceClaim has specific tools for 3D printing and Reverse Engineering often at a fraction of the cost compared to other products on the market.

Discovery is a new tool from Ansys which is a simulation and analysis tool aimed at designers and engineers who want to better understand their products. Upfront simulation early in

the product lifecycle can improve product performance, decrease production costs and get the product to market quicker.

We also provide solutions for specific manufacturing industries such as Altair Inspire Cast metal casting which simulates the flow and solidification of metal. Altair Inspire Form for the pressing and stamping of sheet metal. Altair Inspire Mold for the simulation of injection molded parts. Each of these products allows users to identify potential costly defects before manufacture and optimise their designs and tooling based on the software's predictions.

For information on any of these products please go to our website or get in touch on the details provided.

Contact
T 03333 440 880
hello@origin-eng.co.uk
www.origin-eng.co.uk



Bespoke design for additive manufacture and prototyping

Techcraft 3D prides itself on its unique three-dimensional model design process where the client and project needs come first. Techcraft 3D offers a range of different 3D printing services such as prototyping, CAD design, 3D scanning, engineering drawings, manufacture, as well as broader services including packaging development, website design and mould making.

Techcraft 3D consists of a forward-thinking team of industrial designers, engineers, architects, branding specialists and experience experts that work within a range of design sectors. Offering a complete solution, the company works with the client through a six-step concept of design development all the way through to market ready production. Using a large range of high-quality printers and materials available to suit all project needs including carbon fibre, resin, ABS, PLA and rubber, Techcraft 3D ensure every individual need is catered for.

On the 28th – 30th of September 2021, Techcraft 3D hit the global stage when it attended the TCT 3Sixty Show at the NEC in Birmingham.

Showcasing its skills and capabilities over the three days, Techcraft 3D's team worked hard to provide the best show experience for all visitors. Techcraft 3D came away from the show with invaluable industry insight and many new contacts for future business.

For more information, see below.

T 01789 459395
mail@techcraft3d.com
www.techcraft3d.com



Evolution as pioneering 3D printing firm joins £5 million group

EVO 3D is joining Evolution Sales and Marketing to provide a full technology solution for the additive manufacturing industry.



EVO 3D is expanding with £250,000 of capital investment. Locations in Exeter and Huddersfield launch in January, creating new jobs and opportunities for innovation. Warehousing and logistics operations will move to a 4,000 sq ft unit in Exeter's sustainability-focused SkyPark technology centre in January, 2022. Four new jobs are being created.

EVO 3D's new special projects team will also set up in Exeter. Martin Jewell, who founded J-Supplied 3D in 2018 will lead the team, continuing to pioneer innovations in additive manufacturing. Martin said: "The evolution of J-Supplied 3D into EVO 3D means we can focus on innovative additive manufacturing projects like our partnership with Plymouth University and OREC, as well as expanding further into high-value industries like aerospace and automotive."

EVO 3D sales and marketing has moved to Huddersfield, where it shares space, resource, and experience with Evolution Sales and Marketing. Evolution Sales and Marketing provides a complete package of sales and marketing services in the UK and EMEA for global brands like Cougar Gaming (owned by HEC Group) and Patriot Memory (top 10 company for PC memory worldwide).

EVO 3D, formerly J-Supplied 3D, provides end-to-end additive manufacturing solutions for industry, research, marketing, and hobby applications. Clients include the University of Cambridge and Adidas UK.

T 0333 939 8184
Sales@evo3d.co.uk
www.evo3d.co.uk

Manchester Metrology

Manchester Metrology offers a portfolio of services from scanning and CMM, to reverse engineering and laser inspection to a full spectrum of industries across the UK and abroad.

Investment in new technology and fast response to customer needs have positioned the company as a leader in its field. From the latest 3D scanning to 3D printing solutions we have something for everyone! Manchester metrology are official UK stockists of the Snapmaker 3D 3 in 1 printer, the Reflecon laser

scanning spray and the PMT®Arm.

We don't just stop in the UK, we have sent our engineers all over the world to allow our customer base to expand and the overall business to thrive. Some of the places includes La Palma, Kazakhstan, Korea, Kentucky, Minnesota, Qatar, Serbia and many more places.

Not only do our engineers carry out international work but even our hire department are always

sending equipment overseas to be used on various jobs from automation to gas & oil. One of our drivers recently travelled to Germany at short notice to deliver equipment to a customer with urgent requirements. We aim to deliver a top service and take pride in our speedy turnaround time.

Contact
T 0161 637 8744
info@manchester-metrology.co.uk
www.manchester-metrology.co.uk



Ultimaker Desktop Metal 3D Printing Capabilities

3DGBIRE showcased Ultimakers most recent developments in desktop metal 3D printing at the 2021 TCT3Sixty show. Ultimaker has an extensive choice of materials within the Ultimaker Material Alliance, including metal filaments. The two main metal filaments that we offer for industrial applications are BASF Ultrafuse 316L and 17-4PH. The 316L filament is a metal-polymer composite suitable for making tools, fixtures, jigs, small-batch parts, and functional components. The 17-4PH filament comprises metal powder with a polymer binder and has been developed for applications requiring high hardness and mechanical strength.

Ultimaker has a new CC print core with a hardened stainless steel nozzle to facilitate high accuracy printing with abrasive materials such as 316L and 17-4PH. There are two nozzle sizes - 0.4 mm, which enables greater detail and enhanced surface finish, while the wider 0.6mm results in a faster print.

In September 2021 3DGBIRE partnered with CMG Technologies to offer a UK post-processing service



for additively manufactured metal parts using BASF Ultrafuse filaments. Customers can now receive a quick and efficient service in the UK to 3D print their parts and send them to CMG to get a 96% dense metal part. Metal printed parts are useful for a range of engineering applications to replace or repair existing parts.

Contact
T 01257 228411
enquiries@3dgbire.com
www.3dgbire.com



Moleroda Finishing Systems – The RODA Range

Moleroda Finishing Systems is the UK's leading surface solutions provider. Moleroda has been helping customers to get the surface finish they require for over 40 years.

Moleroda work closely with aerospace, medical, dental, oil and gas, 3d and automotive industries to ensure their customers get the finish they require on all their parts.

In working collaboratively with customers across these industries, Moleroda developed the RODA Range, which is manufactured in their factory in the UK. They saw a gap in the market for a superior range of polishing and deburring products for precision finishing. The RODA Range includes nylon, felt and unitized consumables that give a huge range of surface finishes for every customers needs.

Colin Irving, Buyer at Walker Precision said, "We have been buying RODA NyWheels for over 15 years. These mounted products give a great finish, they smooth the metal while taking the burrs off. We supply a range of industries, including Aerospace and Satellite and



the RODA NyWheels are the ideal tool for finishing our parts."

The RODA Range are for use by hand, in a hand held tool, in a bench polisher or during your machining cycle. They will help to guarantee a 100% quality pass rate on your metal finishing due to the consistent, high standard they achieve.

Go to www.moleroda.com or call 01722711988.

Logistics Update



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The all new state of the art PT2500

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



Overview

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

Enhanced visibility & manoeuvrability

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

Space-saving

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

Remote control

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



Braking systems

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

Fully electric

The robust and powerful high-performance trailer mover features an 80-volt AC controller, and the high-capacity 80v 210Ah lead-acid batteries provide high initial torque and smooth acceleration. Fully electric, the PT2500 is a sustainable, environment-friendly, and cost-effective alternative to diesel shunters. Producing zero emissions and no exhaust fumes, the articulated trailer mover can be used indoors for a healthier working environment. In addition, the PT2500 lorry tug is silent to operate, making

night and early morning operations possible, especially close to residential areas. In the absence of a combustion engine and fewer moving mechanical parts, the PT2500 is straightforward and cost-effective to maintain.

Cost efficiencies

Developed for logistics and distribution, the PT2500 trailer mover has been designed to aid 24 hour operations. Negating the need for an HGV driver to be on-site, the remote-controlled technology means articulated

trailer movement can be a one-person function. Anyone with operator training can operate the vehicle without an HGV licence.

T 01780 782621

enquiries@bradshawev.com

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TOW 25-TONNE LOADS AT THE TOUCH OF YOUR FINGER TIPS

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

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

WWW.BRADSHAWEV.COM/PT2500
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The UK's plastic injection moulding experts

In this issue of Industry Update, we are pleased to announce Rutland Plastics as our Plastic Processor Company of the Month.



"Not only did we celebrate our 65th birthday in 2021 but we also celebrated being named Processor of the Year at the Plastic Industry awards. Processor of the Year is awarded to a UK plastic processor who can demonstrate their overall excellence across a number of areas, business enterprise and growth, technical innovation, people development, manufacturing efficiency, customer relations and environmental

concerns. In other words, an all-round world-class processor," stated Stuart Johnston, Director, Rutland Plastics.

Based in Oakham, Rutland, and serving customers from all sectors across the UK and globally, Rutland Plastics' core business is the manufacturing of plastic parts through the injection moulding process. Established in January 1956 by Ron Smart and Don Ansell, the family run company started out with just two moulding machines and now operates with 31 machines on site. This growth comes from years of steadfast dedication to re-investment, education and the community.

Rutland Plastics offer a full range of plastic injection moulding services including design, mouldflow analysis, prototyping, mould tool making and a wide range of additional services such as machining, gluing, assembly and warehousing. "We can meet all customer requirements and needs. We offer advice with design for the manufacturing process, mould tool design and production, and of course the manufacture of plastic parts. We can also help customers who just need extra moulding machine capacity. We have the flexibility and expertise to work with customers at any stage of the manufacturing process," said Stuart.

Offering an extensive range of services, Rutland Plastics have moulding machines on site from 50tonnes to 1700tonnes with product manufacturing capabilities from 1g to over 45kg in weight and 1.5m in size. "We have decades of experience of working across all sectors and this experience means we have worked with almost every type of thermoplastic, product and tool design around," stated Stuart.

All services are marked



with an assurance of quality through their ISO9001, ISO13485, and ISO14001 accreditations. Furthermore, Rutland Plastics is a proud member of the BPF, GTMA and Made in Britain.

Last year, due to increasing customer demand, Rutland Plastics moved to a 24/7 production to ensure that customer demand was met. In 2016 Rutland Plastics invested in 900 solar photovoltaic panel and has since generated over 900,000kWh. These panels contribute up to 15% of demand and the remaining electricity required is purchased through a renewable energy certificated supply. In continuation to its environmental contributions, Stuart mentioned, "we plan to increase the number of solar panels as well as purchase more energy efficient moulding machines so that we can continue to reduce our carbon footprint."

Throughout COVID-19, Rutland Plastics reacted to the demands of the medical industry. Productions were busy supplying compressed gas system components, parts for the Nightingale hospitals and ventilators. "We



also teamed up with Oakham School in making 40,000 face visors for local frontline healthcare workers which we donated free of charge," mentioned Stuart.

The mark of a truly resilient and flexible business is to overcome adversity. Thriving throughout COVID-19, Rutland Plastics has positively adapted its business operations to enable continuous growth.

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enquiries@rutlandplastics.co.uk
www.rutlandplastics.co.uk

Contract Manufacturer Company of the Month

Endless manufacturing possibilities with Global Precision Ltd

In this issue of Industry Update, we have selected Global Precision Ltd as our Contract Manufacturer Company of the Month.

Global Precision Ltd is an industry leading, West Yorkshire based contract manufacturer that provides unrivalled manufacturing capabilities, through a combination of UK and China based manufacturing.

Global Precision Ltd was established in 2009 by Andrew Sale. "Andrew set up the company after having a history working in tooling and manufacturing. He previously worked for an agency which facilitated UK companies with sourcing manufacturing in the Far East. Andrew saw an opportunity to create a link between the UK and China and launched Global Precision Ltd to serve the UK market and provide manufacturing in the UK and China," added Darren Webb, Sales Manager.

The company's UK facility is based in Haworth, West Yorkshire. Haworth is a quaint, beautiful village with a rich heritage and history. Renowned for its association with the Brontë sisters, Haworth's charm, beautiful, cobbled streets and stone buildings, provides Global Precision Ltd with a picturesque, hub of culture, history and opportunity.



Global Precision Ltd excels in its flexibility and can provide everything from initial concept and design, to bringing your project into fruition. Global Precision Ltd has the skills, resources and tools to fulfil a multitude of manufacturing needs.

"We are a UK company that our customers can trust and feel protected, and we have the advantage of extensive manufacturing and assembly capabilities in China through our own factory where we employ an experienced team of project managers, engineers, quality control and production staff. This synergy between the UK and China positions us with the ability to make anything. From company's which require small elements to support them in their manufacturing, or entrepreneurs and start-ups where

they want us to make the entire product; we can do both and everything in between. We can offer a full turnkey solution. A lot of companies will start off with one element and then build and build, and will end up doing more, but it's having that agility and that flexibility, which is one of our key strengths. Our bespoke management system which is mirrored across both sides of the business allows us to successfully draw on both UK and China resources, offering our customers a combined and tailored, multi-discipline solution while maintaining full protection of their IP" said Darren.



Global Precision Ltd, provide manufacturing solutions for a broad range of market sectors including automotive, medical, PPE, industrial products, commercial products and much more. Tooling and injection moulding is the main core business for the company's UK manufacturing but Global Precision Ltd is not limited to injection moulding and can support most other plastic and metal manufacturing processes.

In regards to the COVID-19 pandemic, initially Global Precision Ltd felt the repercussions of certain sectors, such as automotive, virtually stopping overnight. Fortunately, other market sectors which the company

has always worked in such as PPE, increased during this time. Darren stated, "Where we had a downturn in one market sector, we had an enormous upturn in the other, so one was able to offset the other."

Recently, Global Precision Ltd has noticed an industry shift in sourcing UK based manufacturing instead of overseas. Darren explained, "We've seen a consistent transition, with focus shifting from China to UK manufacturing. The pandemic created a significant change and increase in growth in the UK. We are advancing on this growth and expanded to a new manufacturing facility in 2020 and adding three new injection moulding machines just in January has taken our range of 40T-220T machines to a total of 18.

Our growth is expected to continue with plans approved to build an additional new factory, commitment to buy a 350T machine, installing a new 18 station assembly line and we have just launched a bar-code based production management system to improve efficiency as we are seeking further specific accreditations. We have so much happening and plan to continue building on this success."

For more information, please see below.

T 0845 003 0672
www.globalmanufacturing.co.uk



There is no substitute for steel

Throughout the 20th century, selecting a material of construction for your cooling towers was relatively simple as the market only offered varying grades of galvanised or stainless steel. The choice would be based on the required lifespan of the equipment, and the corrosiveness of the circulating water and surrounding environment.

In packaged cooling towers, three grades of steel are typically used: galvanised steel, 304L and 316L stainless steel.

EVAPCO offers **Z725 galvanised steel** as a rugged entry-level material for cooling towers. It is perfect for non-aggressive circulating water and for installations in temperate climates.

Stainless steel is considered for projects where a longer service-life or increased corrosion resistance is required. Especially SS316L can handle higher chloride levels and should be considered for coastal installations. Higher corrosion resistance also means less material maintenance over the lifetime. Other advantages of steel include material strength, resistance to UV and non-

flammability. Steel is the only cooling tower material that can achieve Factory Mutual approval – a certification which tests an equipment’s fire resistance. Importantly there are standards in place for grades of steel, defining the required material composition.

More recently other materials were introduced and marketed as cost-effective ways to achieve the same benefits as stainless steel. The focus for these materials is on corrosion resistance, making them appear attractive in harsh environments. However they are not comparable materials.

FRP (fibre-reinforced polyester) gained a strong reputation with its application in large field-erected cooling towers for which high-end FRP types are used. However, “FRP” is a wide-spanning term, covering many different manufacturing techniques. Unfortunately this is not defined by any standard, so manufacturers can make to whatever quality level they choose. The FRP used in packaged cooling towers is a reduced thickness offering far lower strength and corrosion resistance.

FRP also weakens at higher temperatures, resulting in structural deformation, and it degrades due to UV exposure, becoming brittle and easily damaged. It’s also flammable and therefore excludes FM approval. Finally, it’s non-recyclable and would need to be disposed of in a landfill.

The **polymer-coated steels** available in the market have the same structural benefits of galvanised steel, as steel is the base material, although usually a lower grade of galvanising is hidden underneath the coating. It is marketed as equal in corrosion resistance to SS304L.

However, this is only true if the coating is never breached, at which point the galvanised steel is exposed. The coating stops the zinc from providing its usual sacrificial protection and so corrosion spreads rapidly.

Polymer-coated steels cannot be FM approved, due to the flammability of the coating. They are not recyclable due to the coating, and so do not represent a sustainable material choice.

It is important to understand all properties of the materials when comparing them against one another. Marketing campaigns will often focus on one specific attribute of that material, true only in unrealistic laboratory conditions. Only the three major steel grades have a proven history of success and remain the optimal choice for packaged cooling tower construction.

Contact
www.evapco.eu



Structural deformation of FRP panels



Corrosion of polymer-coated steel

Seeley International industrial cooler wins two coveted awards

Seeley International – world leading Evaporative Cooler Manufacturer are celebrating winning, not one but two highly prestigious awards in the UK. Both accolades have been given for our latest addition & innovation to the Climate Wizard range of Indirect evaporative coolers, the CW3 which is a compact adiabatic air conditioner, ideal for industrial plants involving food production, packaging or storage facilities.

The winners of The Energy Awards 2021 were revealed on the 22nd September at Grosvenor

House Hotel, London. Seeley won in the category Innovation of the year: Buildings technology (HVAC, systems and lighting) and were praised by the expert judging panel, who are drawn from across the energy sector.

The Energy Awards Judging Panel 2021 said “The new approach demonstrated in the development and engineering of their system impressed the judges, resulting in significant savings of energy over traditional cooling systems and refrigerant-free running”. Meanwhile the winners of the H&V News Awards 2021 were revealed on the 11th



November. On this occasion, Seeley International won in the category of Commercial HVAC Product of the Year – Cooling Technology, sponsored by Smith Brothers Stores.

The Judges said “Seeley have perfected a very efficient design through years of research and dedication which suits the sustainable needs of today and of future installations”.

In fact, Climate Wizard CW3 industrial cooler can reduce carbon emissions by 87%. Because of the reduced running costs (-88%) it is particularly suitable in industrial plants where air conditioning is not an option.

Most industries with high heat loads, such as production, packaging facilities or premises where heat producing machineries are involved, have no cooling system installed, and this impacts on the workers’ morale and productivity, as well as on their health. Climate Wizard CW3 uses 100% fresh outside air, significantly improving Indoor Air Quality in

the building, which these days is not a minor factor.

Crucially, premises such as warehouses or big storage rooms, especially when dealing with perishables, have specific temperature requirements. In all these scenarios CW3 could be the right solution and using only a small amount of electricity and water it doesn’t need use any sort of chemical refrigerants to cool the air.

This makes for a highly efficient and environmentally friendly product as well as a long life sustainable cooling solution.

If you’d like to learn more about environmentally friendly cooling solutions for commercial and industrial spaces, please contact uksales@seeleyinternational.com or call 0115 963 5630.



Vision Engineering launches its first 4K resolution digital microscope

Vision Engineering Limited (Woking, UK) has announced the launch of its first 4K resolution digital microscope, Makrolite 4K.

Makrolite 4K's superb image quality, 4K resolution and wide dynamic range is suitable for a wide range of complex and high contrast applications.

It provides more fine detail with greater detail shadow and highlight areas, ideal for challenging inspection routines, including reflective subjects, for example solder joints, subjects in shadow, or subjects with low contrast, such as rubber and plastic.

Makrolite 4K is flexible, easy to use, and provides high definition video images with a wide dynamic range and up to 330x magnification. It delivers both versatility and high performance in applications such as production, lab research, R&D, micro assembly, quality control, inbound/outbound product checking, dissection and re-work.

Available in two versions, the console configuration provides direct HDMI connection to the monitor for live display with full control of zoom and all camera settings. Connecting Makrolite 4K

to a PC with our dimensioning software, ViPlus, extends its capabilities to include image capture, annotation, on-screen measurement, live overlays, data/image report generation and a range of image processing tools.

Additionally, the Makrolite 4K solution includes a wide range of stands and objectives, making it a flexible solution equipped to deal with a wide range of demanding inspection tasks.

Paul Newbatt, Vision Engineering Group Sales and Marketing Director, said, "Makrolite 4K represents a step forward for Vision Engineering in terms of inspection microscope image resolution. It retains the core Vision Engineering values of superb image quality combined with ease of use, and also adds 4K resolution, a choice of console or PC versions, and range of five stands, to deliver a really flexible inspection solution."

www.visioneng.com



Energy-Efficient Cooling For Industrial Systems And Machines



Energy consumption during continuous operation

Industrial process circulation chillers are usually used to dissipate process heat from different systems during continuous operation. If these chillers are capable of partial load operation, in the best case scenario, they can save half the energy required and make considerable cost savings. Typical application areas for process circulation chillers include the printing industry, metal processing, laser technology and UV exposure. The energy consumed during continuous operation can sometimes incur astronomical electricity costs for the user. It therefore makes sense to examine the operating conditions closely and determine any scope for potential energy savings before purchasing a chiller.

Quantifying energy efficiency

Energy efficiency is quantified using EER and SEPR values, which are defined in the Ecodesign Directive of the European Union. Ecodesign Directive 2009/125/EC was created as a framework for defining requirements relating to the environmentally compatible design of energy-related products (ErP). High-temperature (HT 7 °C) process circulation chillers are also affected by this Directive. However, the Directive only applies to products that are sold on the EU market. This Directive is not valid outside the EU and so standard devices with a higher energy consumption are often used in non-EU countries.

Cooling requirement, partial load operation and energy consumption

In order to estimate the energy savings for an application, the first important step is to closely examine the type of cooling requirement. A distinction must be drawn between basic consumption and energy consumption based on the specific use case. Basic consumption is needed to operate the system, while use-based energy consumption depends on the specific application situation. Factors such as cooling capacity requirements, environmental conditions, and the type and number of connected consumers play an important role here. The consumption share is also the decisive lever for greater energy efficiency.

Cooling requirements using the example of digital printing

One example application is the cooling of digital printing machines, where the ink tanks are cooled and the process heat generated in the machine must be dissipated. The outflow temperature is 7 °C. This is a typical application example of a machine that experiences load changes and frequently operates at partial load. Load changes occur due to the changes in operating temperature inside the machine. Since the set point is a constant 7 °C, the refrigerating machine does not have to continuously run at maximum capacity once the temperature has been reached, but instead operates in the partial load range over a longer period. In this type of operating scenario, an energy-efficient chiller would help save energy. A modern chiller that conforms with the EU Directive has clear advantages over older devices or products still in use and available outside the EU, which are not subject to the Directive. Some chillers exceed the required SEPR values for energy efficiency by some distance, such as the new generation of LAUDA Ultracool circulation chillers, which meet ecodesign requirements and incorporate a speed-controlled compressor, ventilator fan and electronic expansion valve.

Energy and cost savings

Any investment in a system with demanding cooling requirements and high temperature fluctuations pays off more quickly. If load changes occur and the chiller frequently operates in the partial load range, significant energy and cost savings are possible. It is therefore important for the user to know the performance requirements of the chilling application as accurately as possible because it will allow him to select a chiller that is not excessively large but still capable of handling the performance peaks of the system. Costs can be saved throughout the service life of the device as a result.

Conclusion

If the cooling requirements of the application are constantly changing, energy-efficient chillers operating at partial load can reduce energy consumption by up to 50 percent, which leads to a significant reduction in operating costs and short amortization periods. The new LAUDA Ultracool process circulation chillers were developed with a focus on energy efficiency. The chillers conform with the Ecodesign Directive, which came into force across the EU on January 1/2018.

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Vision Engineering launches a new combination of DRV together with Nikon's SMZ25 & SMZ18 stereo microscopes

Vision Engineering, British leading designer and manufacturer of high quality non-contact measurement, digital 3D visualisation, and ergonomic inspection technologies, is pleased to announce an innovative product combination together with Nikon's stereo microscopes from Nikon Metrology Europe NV, adding a new, higher magnification digital 3D inspection solution to its range of innovative and ergonomic inspection microscopy systems.

Launching at Productronica Munich, Vision Engineering's breakthrough 3D HD Deep Reality Viewer (DRV) together with Nikon's SMZ25 & SMZ18 stereo microscopes create a new, innovative, hybrid high zoom and high magnification digital 3D high definition stereo imaging system, with the largest optical zoom ratio of 25:1 available today in stereo microscopy.

Users are now able to view their subject in stereo digitally via Vision Engineering's Deep Reality Viewer (DRV), and then capture and share the digital stereo image to colleagues, supply chain partners, or customers anywhere, in real time.

This solution represents a significant product combination between two of the



world's leading microscopy innovators in their respective markets and extends coverage into the global inspection market.

Paul Newbatt, Vision Engineering's Group Sales and Marketing Director, said, "We are delighted to be working with Nikon Metrology Europe NV products to create a ground breaking new DRV inspection solution.

Adding Nikon's SMZ25 & SMZ18 compatibility to our DRV and already wide ranging inspection microscopy product range further confirms our position as a leading provider of innovative, ergonomic inspection microscopy solutions in the electronics and precision engineering sectors."

Contact
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Aico announce their charity of the year!



Aico are proud to announce that they will be supporting Shrewsbury-based charity, Little Stars Baby Bank for 2022 through their Charity of the Year initiative.

Little Stars Baby Bank is a new charity, founded in July 2020; their mission is to help parents in need of essential baby items through generous donations from the community, helping to give children the best possible start in life. Since its inception, the charity has supported over 150 families and distributed over 5,500 preloved essentials to those in need.

Recognising the importance of the support that Little Stars Baby Bank provides for families across Shropshire, Aico began their support to the charity in 2021. Initially, Aico colleagues assisted with the creation of marketing material, including designing a roller banner and offering their video recording equipment to film a promotional video. After working alongside Little Stars Baby Bank, and seeing first-hand how much this service was needed within the county, Aico have committed their continued support throughout 2022.

In order to help the charity to achieve its wider, long-term goals, Aico colleagues will continue to support through fundraising, volunteering and offering space within their headquarters for Little Stars Baby Bank to store its donations. Extra storage space will allow the charity to extend its service to young children who are in need of school uniforms, winter clothing and footwear.

www.aico.co.uk

HOUSING SAFETY AND WELLBEING TASKFORCE LAUNCHED



We are pleased to announce the official launch of the Housing Safety & Wellbeing Taskforce, which due to Covid-19 precautions, took place online on the 13th January 2022. We were delighted to be joined by Sir Peter Bottomley MP, who introduced the initiative and paid tribute to the late Sir David Amess MP, who had lent us valued support during our original planning phase.

The Housing Safety & Wellbeing Taskforce will bring together partners from the public, private, and charitable sector across all nations of the UK to discuss the key issues involved in creating safer homes and making recommendations for action.

There will be six strands to the work of the Taskforce, each with their own 'Ambassador' to lead the discussions and co-ordinate activity: Health & Wellbeing, Net Zero & Decarbonisation, Resident Engagement, Housing Quality, Fire & Carbon Monoxide Safety, and Fuel Poverty. These ambassadors were announced at our launch event and are drawn from the housing, fire service, and academic sectors. They will be actively encouraging participation from any interested parties. Please check our website to find out more and get in touch with us directly if you would like to be involved: www.hswtaskforce.org.uk

At our launch event, the Housing Safety & Wellbeing Taskforce has unveiled a study from CEBR (Centre for Economics & Business Research) which is a seminal piece of research, combining a statistical analysis of fire incidence across the UK, a summary of the relevant legislation, and a holistic examination of the human and economic impact of fire, based on official data and a specially commissioned YouGov survey.

The study delves into recent dwelling fires and demonstrates that the rate of reduction in fire incidents, running in tandem with new regulations, has slowed in recent years. With estimated annual costs of residential fires now exceeding £1 billion, the research then goes on to examine in detail the potential impact and cost savings associated with tighter restrictions.

www.aico.co.uk

Tio Delivers UK First with Revolutionary Digital Fire Logbook

The paper fire logbook has been updated and made fit for modern safety, facilities and compliance professionals with the launch of the revolutionary digital fire logbook from Tio Fire Systems.

Tio's true digital fire logbook is priced and designed to replace a range of paper logbooks, and is pre-configured to bring together a huge number of fire, safety and security topics in one place. It is quick to set up and as easy to use as paper, solves a multitude of issues and radically improves safety, relationships and compliance for everyone.

Tio's logbook includes a complete digital audit history; a compliance task manager that automatically schedules and tracks tasks for service providers and building occupiers; a customisable guidance

module that helps staff complete jobs, linked asset registers and asset maintenance histories; variances; false alarm and activations tracker; fire visitor logbook; and digital documents storage. All users get performance and compliance dashboards, permitting oversight and management from a single site to vast portfolios of properties.

Tio can be accessed via a QR code sticker, giving either open access to the public logbook or only to permitted individuals. For info/demos contact www.tiofiresafety.com.

Contact
T 0117 435 0130
Sales@tiofiresafety.com
www.tiofiresafety.com



bANg guardz®

ANOTHER BUCKBOOTZ DESIGN BREAKTHROUGH!

THEY SAID IT COULDN'T BE DONE!

The dealer (elastic sided, pull on) boot style was the signature product when the Buckbootz safety footwear range was launched in 1998. Since that time we have introduced many additional features to the dealer boot concept but up until now and for obvious reasons, the one dealer boot design feature which eluded safety footwear designers had been the provision of ankle support and protection.

After two years of constant design development and wear testing Buckbootz announces a major breakthrough in dealer boot design with the pre spring launch of a sensational new dealer boot : **bANg guardz®**.

Like many good ideas the solution to providing ankle protection on a dealer style is a simple one: build the stretch area into the top part of the front of the boot to enable the ankle protection to be built into the sides. However, that is only the beginning of the story. The real test is in perfecting the boot upper design and components combination so that all the wearer convenience of a normal dealer boot design is not compromised. Getting that right has brought an impressive bonus: you would not believe how comfortable the **bANg guardz®** dealer boot style is, nor its lace style stable mate. The EN/UKCA standard ankle protection (standard code: AN) built into these styles provides the extra benefit of unsurpassed snug fit, comfort and support.

Both styles also come with Buckbootz Achilles Clasp heel support and S3 HRO AN SRC certification and both are WATERPROOF - even the elastic on the dealer style is waterproof!

bANg guardz® joins a long list of Buckbootz protected designs which have broken with convention and brought completely new dimensions to safety footwear performance, function and comfort.

Your Buckbootz Regional Sales Manager has **bANg guardz®** samples for you to preview and forward order. Don't miss the opportunity to be amongst the first merchants to offer this safety boot revolution to your customers.

SAFETY SPEC

- S3 HRO AN SRC
- Supertough anti-scuff toe
- Composite toecap
- Non-metallic anti-penetration midsole
- Antistatic
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WE ARE THE WORK WE DO

Environmental Science Group Limited – Keeping up with the changes to GHS Safety Data Sheets

At a recent seminar, it was announced that there would be new requirements to Safety Data Sheets (SDS) in compliance with GHS Regulation. SDS are legal documents required for UK

REACH Regulation and they contain important information necessary to allow employers to do a risk assessment as required by the Control of Substances Hazardous to Health (COSHH) Regulations.

The major changes for GHS SDS are summarised as follows:

- ▼ Unique Formular Identifier (UFI)
- ▼ Information on nanoforms
- ▼ Information on endocrine disrupting properties
- ▼ Information on Specific Concentration Limits (SCL), M-factor, ATE in Section 3

- ▼ Sensitisers, Carcinogens, Reproductive and Endocrine Disruptive Components have to be reported at lower levels
- ▼ Section 9 is aligned with the GHS
- ▼ Section 14

The Regulation came into force from 1 January 2021 which means that all new Safety Data Sheets will need to be produced taking into account the new requirements. All existing Safety Data Sheets will need to be updated by 31 December 2022.

As part of the annual maintenance service, ESG has responded to the needs of its clients by reviewing their SDS and updating them accordingly. In all cases, the SDS templates needed to be modified and data gathering to include in relevant sections of the SDS. In addition, where relevant, the corresponding COSHH



Risk Assessments and WASP Hazard Sheets have been updated for their clients.

For further information, please contact:

T +44 (0)1354 653 222
enquiries@envsciencgroup.com
www.envsciencgroup.com

Presona introduces fire protection system



A fire protection system developed by Presona UK uses a series of fire sensitive tubes and nozzles to promptly extinguish fires, in seconds.

The new SupPressa system aims to mitigate fire risk at recycling facilities, particularly where foreign objects such as distorted lithium-ion batteries are present.

The system works by allowing the flame to burn through the hose, causing a pressure drop across the system that in turn sees the respective suppressant 'flood' the area.

Additionally, the system has a manual activation mode to complement the automated suppression system where early signs of fire may be identified sooner by an operative.

The SupPressa TM offers 4 primary areas of protection; conveyor pits, conveyor apex, needle pits and electrical cabinet, and depending on the type of operation; baler and conveyor.

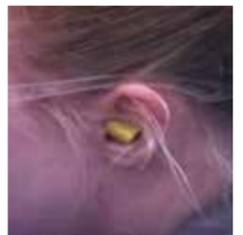
Presona said that the system can be tailored to suit individual customers requirements, and that training can be provided to operators to ensure that the systems are primed and ready for any likelihood of fire.

The system has now been installed at eleven retail recycling centres for one of its clients.

www.presona.co.uk

Fit testing hearing protection

Making sure employees have appropriate hearing protection is a legal obligation placed on employers because exposure to too much noise at work is far more damaging to long term health than most people realise.



Just providing the protection may not be enough. If it doesn't fit well or isn't inserted properly sound will leak in and even though the wearer thinks they are protected – they're not – see image.

Fit testing (ie) testing performance in-situ is the best way to ensure hearing protection works.

Scientifically validated by a leading acoustics specialist this revolutionary ten minute online test is quick, easy, and requires no special equipment. It enables independent verification of earplug effectiveness and provides evidence to have defective earplugs rectified. Most importantly end users are given accurate information to help them to get the best from their hearing protection.

The Earplugtest team believe employees deserve the chance to protect their hearing health and employers deserve a product that enables them to demonstrate they care about the health, safety and wellbeing of their staff while positioning themselves as forward thinking responsible employers taking proactive steps to improve their Company's safety compliance standards.

Visit our website for more information.
www.earplugtest.co.uk

Fireco

Compliance Made Easy

Stay one step ahead of an emergency with DMS

Digital Messaging Service (DMS) is the mass notification system that can send emergency text, email, WhatsApp or voice messages. The perfect building management tool, it notifies you about changes within your premises, even when you aren't there.



Pre-alarm notifications

Be aware of the fire alarm before it activates. Check whether it's a genuine or false alarm and take necessary action.

System trigger warnings

Get notified about changes to your building's systems, from fire or burglar alarms to temperature changes with equipment.

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Ideal for high-risk scenarios like terrorist activity. Everyone will be alerted to leave the building and go in separate directions. When safe, DMS notifies people that they can return.

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Take the test: earplugtest.co.uk

01458 557775

enquiries@earplugtest.co.uk



The CropTec Show 2021

The must-attend event for farmers, growers and advisors returned in November 2021. The event brought the latest industry news and developments for the arable sector.

Happy to be able to welcome farmers, growers and advisors to a face-to-face event once again, the event was an overwhelming success and a hub of enthusiasm, expertise and encouragement. Encouraging growers to build business resilience and showcasing the latest technology.

The event is the perfect platform for forward-thinking farmers, agronomists and industry professionals to learn and share the very latest techniques, network and create new business. CropTec offers an unrivalled opportunity to gain and trade knowledge and facilitates top-quality networking opportunities,

with 74% of the main decision-makers and influencers in attendance.

Set to make an appearance again this year, CropTec will be exhibiting on the following 2022 dates: Wednesday 23rd and Thursday 24th November at East of England Showground, Peterborough.

This is our pick of the best exhibitors from the show, listed here in alphabetical order: AgroChemex Environmental Ltd, Barkwith Associates and Engage Agro. Further details can be found on this page and the next page.

For more information, please see below. www.croptecshow.com



AgroChemex Environmental Ltd

AgroChemex Environmental Ltd. is an independent Contract Research Organisation established in 2000. Our team is highly experienced, some with >40 years in the industry. Their knowledge across a wide range of studies gives the ability to work with you to answer your questions.

AgroChemex Environmental has a dedicated arable research farm; 36ha of medium light soil, fully irrigated. As we have total control of what is grown as a result these don't just include the standard rotational crops. A wide range of horticultural and amenity crops as well as established orchards, vine, and non-crop can be conducted.

We offer a comprehensive range of efficacy, selectivity, residue and soil dissipation studies which can be conducted on the research farm as well as a geographic spread.

On site we have laboratories and 20 climate controlled glass houses.



Being in total control of the farm enables complex long term rotational studies to be undertaken. These frequently involve a matrix of cultivation types and crop species.

We can support you in all aspects of plant protection product testing, biostimulant and fertiliser market access, from early stage, proof of concept, mode of action determination, through OECD regulatory testing in the lab & green house and into field trials of any scale or size:

- ▶ Physical Chemistry Properties; what are the intrinsic characteristics of the product?
- ▶ Efficacy; is the product doing what it is intended to do?
- ▶ Safety; is the product safe for humans, consumers non target species and the environment?

If you want to know more about how we can help you design a trial to suit your needs, contact Dr John Parkes T +44 (0)7951 141905 j.parkes@agrochemex.com



Barkwith Associates

At Barkwith Associates we understand many companies need accessible, affordable and qualified expertise from a trusted partner they can rely on to provide prompt advice and swift, concise responses to regulatory queries. From clients looking for their first entry into the UK and Europe to Global players, we offer more than just regulatory compliance.

Our experience and knowledge extends to market research & scoping, product development and project planning. Like many consultancies, we can deliver a complete solution through outsourcing and management of studies. However, our true independence ensures we commission external resources that match your requirements not ours!

We specialise in Plant Protection products and

Fertilisers and Biostimulant Regulation. We can help you with the compilation, writing & submission of dossiers at GB, Member States and EU levels. We can also help you design and run trials and laboratory studies for your regulatory needs or marketing claims.

Our team of highly qualified experts are here to help and as this is our 20th anniversary in the business you can be sure we have a long and solid track record of helping companies that keep working with us

If you want to know more about how we can help you and answer the questions you may have, please contact Dr John Parkes

T +44 (0)7951 141905
jp@barkwithassociates.com



Engraving Update

Pioneering engraving specialists

Brunel Engraving leads the way in technical innovation, creativity and expertise. Established in 1989, starting out as a private company by entrepreneurial engineer, Martyn Wright, it has since gone on to be a market leader in its field, developing a unique product portfolio and a reputation for excellence.

As recognised ISO9001 accreditation holders, Brunel Engraving boasts a wide variety of specialist equipment enabling them to offer custom requirements to its clients. In addition to rotary engraving, the company also offers laser engraving, chemical etching, anodic print, dye sublimation print, flatbed UV print, wide format UV print, and its newest addition - laser cutting. Furthermore, simple engraving requests, complex signage and nameplates are also catered for.

Brunel Engraving manufacture nameplates and plaques, industrial labels such as asset tags, valve label and serial plates, office signs, licensed trade signs, slatz signs and more out of its production warehouse of over 5,000 sq. ft in North Somerset. Offering a nationwide service, Brunel Engraving has worked with some of the biggest brands in the industry such as the EDF Energy, Bombardier, GKN Aerospace, BAE Systems and many more. Its high-quality customer care is a key feature of the Brunel experience and allows the company to make all products with efficient, high-quality standards.

With over 30 years' experience, Brunel Engraving continues to expand its processes year on year. As it does not rely on any third-party supplies, the company is able to provide a variety of products that suit all budgets and requirements. Furthermore, this process allows the company to control its own lead times, ensuring each clients tight deadline is met.

Further investment has been made for



a new laser engraving machine, two rotary engraving machines, and an anodic printer for aluminium. It has also streamlined its office operations, bringing in software that holds key information enabling a quicker response to customer requirements.

Using its broad spectrum of machinery possibilities at its fingertips, Brunel Engraving diversified its manufacturing capabilities throughout COVID-19 to create face visors and floor stencils which were produced in large volumes and shipped all round the UK. It also supported the leisure industry with table numbers and QR code signage and this investment has paid dividend as the company is now busier than ever. Looking forward the next focal point is to expand the premises it currently operates from to help streamline its manufacturing areas and further grow the business.

For more information, see below.

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Engage Agro Flex their Regenerative Muscle at CropTec



For over 10 years Engage Agro have been at the forefront of 'Regenerative' nutrition and in the case of many of their technologies, it could be said, ahead of market requirement. They have been developing nutritional technologies to advance the regenerative philosophy long

before the term was even invented and the company has seen their fortunes change dramatically as the market has moved towards a more chemical free, soil and plant health orientated focus.

Crop technologies developed to ameliorate issues in other parts of the world where crop stress has been a serious issue for many years are now seeing their use in the UK. Primarily the use of Engage technologies has been in the higher input crops of horticulture however agriculture is now firmly in their sights as it faces unprecedented

challenges moving forward. For CropTec 2021, Engage Agro took a more prominent position within the show to highlight many of their advanced nutritional and crop enhancing technologies. and how they can aid farmers and growers across the UK in changing their practices to a more regenerative nutritional approach.

Focus on Solutions to Challenges

Focus for Engage at CropTec was on solutions for farmers rather than just products and their focus was on three main areas:



Environmental Update

The first was Nitrogen Use Efficiency. This buzz phrase has been around for a few years now and was the talk of the show, however, farmer and grower adoption to it has been limited due to current rotational practice.

In light of the rapidly rising prices for nitrogen fertilisers, Nitrogen Use Efficiency has never been so important. Not only will it optimise crop growth parameters and increase crop return but as of this year it will actually save farmers and growers huge savings in the cost of fertiliser.

Engage Agro have worked on Nitrogen use efficiency across the world for many years and have proven they can take nitrogen use efficiency from the current 25-40% to as high as 90% which means overall nitrogen applications can be far more efficacious even at lower application rates.

The second area of focus was 'Increasing Soil Health'. Soil health and carbon sequestering is now at the top of the agricultural agenda, especially as the future farm payments will be based on more environmental parameters. Engage Agro have several proven developed technologies to optimise soil health and carbon sequestering to maximise farmers green credentials without having to massively change current farming practice.

The long term benefit to farmers by investing in their soils will not only see them take advantage of higher returns in crops and more effective nutrient use but also increased payments to farm.

The third area of focus was on 'Reducing Reliance on Traditional Chemistry' and agrochemical practice by optimising soil and crop health to limit susceptibility to infection by diseases and predation from harmful pests. Pressure on agrochemical active ingredients has never been higher as supermarkets and consumers demand produce 'free from' pesticides. Engage Agro is a leader in developing strategies and technologies to aid farmers and growers reduce reliance on traditional chemistry and see this area rapidly growing on 2022.

One technology that really shone at CropTec was Engage Agro's stabilised silicon fertiliser, Sion. Sion is a 21% silicon, stabilised silicic acid which is proven to be 100% available to crops via both foliar and root application and is now an accepted essential trace element as natural soil silicon levels have become depleted over the last 30 years.

Silicon is essential for new cell growth and in cell strength in both monocotyledonous and dicotyledonous arable crops as it used to create the cellulose silica framework which reinforces cell walls.

Ensuring this level is optimised, ensures new growth is strong as it provides crops with optimal cell strength and in all crops, silicon is stored in the leaf cuticle which is proven to both reduce damage from environmental stress, such as lodging, and to limit susceptibility to damage from biotic pressure.

For more information on Engage Agro and its products visit www.engageagroeuropa.com or contact them on info@engage-agro.com



Using Water & Resources sustainably

Water Recycling • Re-use • Biogas Production

With customized plant solutions & services

- Saving resources & energy
- Reducing operating cost
- Optimizing CO₂- and water footprint



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Increasing number of (small) parcels? No problem for EuroSort



each item – small or large, flat or round – will be dropped at the right destination. With smart chute design, such as flaps to close the chute when a container is switched so sorting can continue, EuroSort is able to create even greater efficiencies. Furthermore, by making use of our advanced chute technology it is also possible to increase the number of exits on the same footprint.

Our customers are experiencing the Dual Split Tray Sorter as the ultimate solution for post and parcel sortation: High throughput, high accuracy, small footprint. Contact us today to find out more:

T +31888877425
info@eurosort.com
www.eurosort.com



Post and parcel companies all over the world have seen their volumes increase and the mix of products change from letters to parcels. This leads to new challenges when sorting all these parcels. Whether it is the limitations of your current equipment, throughput or of existing floorspace, there is a solution.

Due to increased online shopping globally there are more parcels being shipped than ever before. These range from rectangular boxes to small, light and irregularly shaped parcels. Where in the past postal companies often opted for cross-belt sorters due to their high throughput, this equipment is not capable of handling the full mix of parcels with high accuracy and often parcels would fly out of corners and, worst case, would get damaged or lost. This leads to unsatisfied consumers.



The ultimate solution: a Dual Split Tray Sorter

Some of the world's largest post and parcel companies have already recognized this issue and have switched to a EuroSort Dual Split Tray Sorter (a.k.a. Bombay sorter). Being able to handle anything as small as a business card up to packages measuring 750x450mm, the Dual split tray sorter can easily handle up to 20,000 items per hour.

The big advantage of the system is that due to the tray design there are no items flying out in corners, massively increasing your sorting accuracy. The Dual Split Tray Sorter can be fed automatically by top- or side-loading as well as manually for the smaller items that you don't want to lose on an infeed line. It is often equipped with barcode scanning, weighing or if required integrated with an OCR system, but the possibilities are endless.

Smart design for more destinations
 Because the split trays are opened fast,



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Simbodies achieves 35% weight saving using ARPLANK

The partnership that JSP International (www.JSP.com) and Polyformes (www.polyformes.co.uk); formed earlier this year continues to grow. Polyformes has recently developed a packaging solution for Simbodies Limited, a global leader in medical simulation equipment, using ARPLANK.

ARPLANK was selected for this application due to its stability and absorption behaviour, giving good protection to the product when it is held in its bespoke manufactured bag. The protective qualities of the foam, captured by the products bag, has enabled a massive 35% reduction in the packaging weight with an increase in performance. Ideal for shipping the product abroad



contributing to cost efficiency, space optimisation and reduced transport emissions.

Adrian Green, Polyformes Head of Marketing and Sales,

commented, "We are pleased to work with ARPLANK, it can be used on all our existing machinery and has not required any additional investment. Our customers have been impressed with the better protection it offers and that we have been able to reduce waste by 5-10%."

Jiri Slezak, ARPLANK Sales Manager, commented, "We are delighted to support Polyformes to provide customers with a recycled foam material. ARPLANK has 20% less concavity when compared to other materials which allows much higher precision and less scrap."

For more information about ARPLANK, please visit: www.ARPLANK.eu or email: Jiri.Slezak@jsp.com

Recyclable pouches join the family of McCoos



How can a recyclable pouch possible do justice to the Steven Brown Art's - the McCoos?

When Deans of Huntly wanted to launch their range of Cookies in a recyclable pouch they approached National Flexible for ideas. They had the designs which are incredible, incorporating Steven Brown Art's McCoos but were worried that a recyclable laminated pouch wouldn't do the designs justice as some recyclable materials can have a 'dull' finish similar to polyethylene.

National Flexible had already had extensive experience of recyclable films and pouches and were able to help. The pouches needed to have intensity of colour not only in the main design but also in the photographs of the small packs on the front.

"We needn't have worried. National Flexible understood exactly what we wanted to achieve. We are extremely happy with the pouches they look amazing!" Michael, Deans of Huntly.

T 01274 685 566
sales@nationalflexible.net
www.nationalflexible.co.uk

You are what you eat. So eat 'Proper'.



Proper have moved into the fast growing snack bar category with a healthy alternative. The two flavours, Salted Caramel and Hazelnut Praline, are vegan and gluten free, have no palm oil and use 'Proper' ingredients.

The launch is in response to demand from shoppers for healthier on-the-go snacking options as the nation moves towards more mindful snacking.

The packs are made from matt and metallised film with 30% recycled content, meaning they are exempt from the Plastic Tax.

The Plastic Tax is being introduced in April 2022 to "provide a clear economic incentive for businesses to use recycled material in the production of plastic packaging, which will create greater demand for this material and in turn stimulate increased levels of recycling and collection of plastic waste, diverting it away from landfill or incineration".

A full range of films with recycled content are available now.

Contact
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MTM Products manufacture and supply bespoke plastic printed labels, pre-spaced vinyl cut lettering, aluminium and stainless steel nameplates and graphic overlays.

We use the latest technology in screen and digital printing and have an extensive range of finishing equipment that enables us to cost effectively manufacture labels, overlays and nameplates in all colours, shapes, and sizes.

MTM Products continuously invest in both people and equipment and have world class facilities for the manufacture of custom labels, graphic overlays, and nameplates. This enables us to offer high quality, reliable lead times and great customer service at competitive prices. We have a culture of continuous improvement which ensures we maintain our position as one of the UK's leading industrial graphics manufacturers.

Our plastic and metal digital printing equipment is ideal for **sequential numbering, barcodes, QR Codes and GS1 Data Matrix Codes.**

MTM Products work in partnership with our customers. We can share over 40 years' knowledge and experience to ensure the optimum labelling solution for your application. Our customers range from large multi-national to small start-up original equipment manufacturers in the UK, EU and worldwide, and all of them benefit from our expertise and friendly customer service. **We service many sectors including automotive, electrical, construction equipment and aerial access, life safety and medical.**

MTM Products offer eco-friendly material options, where the application allows, and only purchase materials from approved suppliers who offer consistently high quality and reliability and who are committed to sustainability and ethical sourcing. We have an integrated management system and are certificated to **ISO9001:2015** and **ISO14001:2015** standards. We are a **UL authorised label supplier** and can advise on material combinations that are UL969/CSA compliant.

For those who need a solution and fast, our **MTM Express** premium service will deliver exactly what you need, when you need it. We apply lean techniques to our entire process, so you get the same great product, on a shorter timescale. Other services include:

- Kitting of parts • Stock management solutions
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- Advise on suitable substrates, inks, and adhesives, for your application

High quality labels, graphic overlays and nameplates will enhance your products
 Let us share our expertise to make your life easier



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Advanced force measurement



For over 25 years Interface Force has been supplying businesses with single axis, multi axis, force, torque and pressure measurement sensors. Commemorated as load cell, torque transducer and pressure sensor specialists, Interface Force has an extensive range of products to meet all customer requirements.

Established in 1996 by Neil J Johnstone, Managing Director, Interface Force is based in Crowthorne, Berkshire and works throughout the UK. There is a wide range of industry sectors and businesses that benefit from the vast amount of expertise and experience Interface Force has at its disposal. Some of these sectors include automotive, aerospace, oil and gas, defence, education, renewable energy research, pharmaceutical, food and drink and many more.

Its extensive product and service solutions helps to guide clients through what can be a difficult decision-making process, ensuring all requirements are met. All sensors and instrumentation products supplied by Interface Force are benchmark industry standard, manufactured by leading brands such as Interface, AMTI, XSENSOR and GP:50.

As an internationally recognised brand, Interface Force has a range of products from multi axis load cells, load buttons, load pins and supporting products that enable them to offer the client a complete solution. These can include single and multi-channel signal amplifiers, a wide range of displays, data loggers and data logging software, Bluetooth and wireless telemetry systems for remote data collection and evaluation, repair and calibration services.



"We supply very high-quality products and have vast expertise in giving advice for load cell proving devices. Our load cells have very high accuracy and come in many different configurations such as our latest series, the 2200 calibration column. It is available in 100K-lb and 200K-lb capacities and each load cell is supplied with an ASTM E74 calibration with ISO-376 available if required," stated Tony Rokins, Business and Development Manager.

Interface Force offers bespoke, flexible services individual to each client's requirements. The company work with the client offering advice on pre-sales, on and off-site and develop bespoke custom solutions or devices to meet necessary needs.

In recent developments, Interface Force now distribute XSENSOR's high speed pressure mapping system. It is the first system to design and allow product designers and safety testing engineers to see, record and evaluate the distribution of force from high-speed impacts on safety equipment such as helmets and body armour. Perfect for the automation sector, the mapping system can be used for collecting crash testing data I away not seen before. It can also record the force or pressure that is distributed during the impact from whiplash, seat belt and airbag testing.

Furthermore, Tony explained, "We are moving into a new direction, working with customers and businesses who need remote monitoring systems. A good example of this would be remote monitoring of airport luggage systems and conveyor belts. Our R&D team have been busy developing a wireless multi axis vibration sensor that has been specifically developed for a single customer, however, this product has multiple applications that can serve any business requiring help monitoring its conveyor systems. Alongside this, we also offer custom designed wireless load cells so the customer can monitor and be alerted of any unexpected loads or changes on the conveyor system. They can then

schedule maintenance for the system when it's not in use, rather than respond to a breakdown."

Interface Force has recently purchased several force calibration machines and is waiting for them to be tested and approved. Interface Force's established expertise in load cell calibrations, means it is an area the company is keen to explore.

Tony described how he felt receiving our award, "We are very excited. We work very hard for our customers, so it's always nice to receive some recognition."

Contact
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Print & Packaging Update

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Guardtech Cleanrooms are an industry-leading provider of bespoke controlled environments and laboratories, delivering custom cleanroom design and construction solutions alongside comprehensive commissioning services. We've supplied the Life Science and High-Tech Engineering industries throughout Europe since 2000.

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DCR is home to the UK's largest fleet of drain inspection cameras for hire. We also have drain cleaning and repair equipment for hire, with every item on our fleet – along with everything else a drainage professional could ever need – available to purchase in our drainage superstore. Our team of experienced engineers can also repair and service all models of drain camera.



We began trading in 2007 – repairing and servicing electrical drainage equipment – and quickly became known for the quality of our work and exceptional service. Identifying a gap in the market, we reinvested profits back into the company: purchasing drain cameras and making them available for hire. This allowed our clients to take advantage of this technology, undertaking more advanced, profitable work without high up-front costs.

Devoted to providing our customers with an exceptional service, we help them access the equipment they need to complete jobs quickly and to the highest standard.

Doing so consistently, we have established ourselves as a leading provider to the drainage industry. We've continued to reinvest in the company, adding new items to our hire fleet and developing products such as the innovative ManUp Key, a seal breaker for releasing seized access covers.

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Waste Management Update

Say goodbye to leaky wastes with the Epson Basin Mate!



Epson, who are part of TYDE, is proud to announce the launch of its all-new Leak-Free basin waste seal kit called the Basin Mate.

Installing basin wastes has never been so easy! All of Epson's basin wastes now come complete with the LEAK-FREE basin mate seal kit. The Basin Mate Seal Kit is manufactured from high quality materials and includes a sealing ring, washer and seating – everything you need for a quick and easy installation. The Basin Mate is also available on its own as a perfect solution for a leaking waste that is already in place.

With the Epson Basin Mate there is no need for paint, putty or mastic!

Epson has been manufacturing high quality sanitaryware spares since 1961 and is committed to supplying market leading products to the plumbing industry. As a UK manufacturer it has complete control from design through to production and is always focused on offering the best customer service to its customers. The Epson range of wastes is comprehensive and offers the best choice when it comes to quality and style.

Paul Weddle, the Business Unit Director for TYDE, says, "The Basin Mate is a perfect solution to avoiding leaking wastes! During our product development process, we thought about ways in which we can make plumbing easier for our customers. Being easy and quick to fit, and supplied with everything you will need to make your wastes leak free, The Basin Mate meets that requirement."

EPSON is part of TYDE. A Thomas Dudley Business.

You can visit the new TYDE website at: www.thomasdudley.co.uk/tyde

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As Quantum Outdoor is accessed remotely, it's well-suited for any organisation that requires constant noise monitoring, and its easy-to-use interface makes it incredibly straightforward to get to grips with.

With other features such as automated alerts, the ability to map locations of the monitor and with cloud access anytime, anywhere on any device, you can truly be in control of your noise impacts.

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ME2R TWIN-RAM BALER MODELS
 Using a robust and versatile design, the ME2R baler models allow our customers to process almost all materials types at a high volume. Available with 80/100/150 tonne press force, these machines are suitable for the baling of kerbside waste, to hard plastics and even car tyres. This flexibility makes this model popular with both councils and private recyclers.

HB60 CHANNEL BALER MODELS
 Our most popular baler model, the HB60 has seen great success in the cardboard and logistics industry. The machines small footprint and low overall height allows for installation in locations that would not normally be suitable for channel balers. Available with 22/30/37/45kw motors, this baler range is capable of processing up to 11 tonnes of cardboard per hour.

ABOUT US
 Despite COVID Middleton Engineering have had a busy year, continuing to supply clients in the Mediterranean and at home. Everything we produce is all made under one roof, from our design engineers, CNC department and large fabrication facilities. We handle a wide variety of projects ranging from simple refurbishment of balers, to large scale turnkey installations. With over 45 years experience in the recycling industry, we have a reputation for quality of work, excellent service and design innovation, which has helped establish us as a major supplying force within the industry, both nationally and worldwide.
 We have an extensive stores department ready to supply our service team with what ever they need to get their job done quickly and efficiently. With our wide variety of machines and reputation over the years we have worked successfully with Tesco, Co-op, Ocado, Marks and Spencer's as well as many councils around the UK. Our team will go above and beyond to make sure we provide the best service we can.

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The National Sewerage Association

The Association is celebrating 40 years since its foundation in 1981 as the Association of CCTV Surveyors by fledgling companies seeking to break what was perceived as a monopoly by the two UK pioneer companies. The name change occurred when flow survey companies joined in 1996; this allowed for companies in associated disciplines to gain admission.

We regard the maintenance of standards to be of paramount concern to safeguard the good name and continuance of an industry for which we have worked hard. Good health and safety practices, sound workmanship and employment practices, ongoing operator training, good customer service and sound common sense are expected of our members.

Our members operate in specialist drain and sewer maintenance areas carrying out works such as CCTV inspections of drains, sewers and culverts, flow monitoring, manhole surveys, cleaning and descaling, blockage clearance, small diameter pipe replacement/refurbishment and minor civil engineering works. Many member companies

have grown over the years and are now considered to be among the larger companies in their respective fields, while some have been acquired by larger companies and have been re-organised to meet the changing market place and others chose to remain small to serve local needs.

Manufacturers and suppliers have also supported us with their membership over the years and we have been able to work in partnership to the benefit of all.

The Association continues to meet its established objectives including meeting customer needs and service standards in performance, financial, quality and safety

terms, giving guidance on request, acting as a forum for closer working relationships between manufacturers, contractors and designers in ensuring that technological development and improved contracting services go hand in hand with common commercial interest.

Audit procedures have been established to ensure that members comply with the

standards set and to deal with any non-compliance. A service is also provided for arbitration, conciliation and expert witness advice.

The development and promotion of appropriate training programmes whether in association with Develop, the Water Companies or EU Skills in order to set operative training standards, to accredit those achieving these requirements and to ensure that these standards are upheld.

The Association lobbies and liaises with those bodies that can influence members' interests, is represented on several Standards committees and seeks to achieve National and International recognition. It also acts as a focus for external enquiry for the industry and the general public.

Visit our website at: www.sewerage.org for further details.

Working to Raise Industry Standards

- N.S.A.**
 Represents the interests of companies associated with the survey, operation, maintenance and renovation of sewers, drains and pipelines.
- N.S.A.**
 Acts as a forum for its members to ensure that technological developments go hand in hand with improved operational efficiency.

Standards
 Pro-active in setting and maintaining training standards within the industry. Representation on standards and parliamentary committees and regular consultees on a broad range of Legislative and Regulatory matters.

Members
 Our members range from sole proprietors to divisions of public companies providing services such as:

- CCTV Inspections
- Sewer Flow Surveys
- Systems survey and Mapping
- Drain and Sewer Cleaning
- Equipment Manufacture
- Training

For more information visit our website: www.sewerage.org or call Val Gibbens on 020 8330 0123

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Industry Update is sponsored by MTM Products – see them on pages 16-17

Turbo Charged Throughput and Carbon Reduction for Tesco with A New Presona Baler

One of Tesco's busiest distributions centres has turned to Presona with increasing efficiencies and reliability, all while reducing their carbon footprint.

With the Avonmouth distribution centre processing over 30k tonnes of recycled material each year and with roughly 7,500 cages of product unloaded per day, reliability, efficiency, and emissions were all at the forefront of the specification to keep up with the increased demand and future proof the site for even more material.

Already equipped with an older and still very dependable and reliable Presona LP100 baler, Tesco selected another Presona baler over other baler models and styles.

Glen Billings – GXO Site Manager shared, “The reliability of Presona balers is why we wanted another Presona baler. Our original Presona is 12 years old and still running strong, even out doing our previous baler which was much newer. This is the proof that Presona balers are manufactured for longevity and the demanding conditions they face within the recycling sector”.

Adding to this, Glen went on “Linked to the longevity of the assets, the cost of maintaining the Presona balers with their pre-press, saves GXO and Tesco vast amounts much money from reduced energy, lower repairs and maintenance plus logistics”

The baler selected for Tesco was a new Presona LP110 CH6S – which gives a massive 110 tonnes of press force within the compaction chamber. It's also capable of producing dense “mill sized” bales at a very rate per hour (17-20). The LP110 range tends to be a popular choice around high throughput sites due to its capability of handling large tonnages.

An additional and very notable benefit from this install has meant that transport of the processed and baled materials has reduced

from 4 to 3 lorry loads a day.

A staggering 364 lorry loads off the road each year - that roughly equates to 200,000 tonnes of carbon emissions saved every year!

The increased density of bales has increased the weight – now 1 tonne bales are being produced – and also reduced the quantity of bales required to hit the maximum “payload” of the HGV shipping board and plastic. This equates to approximately 7% fewer loading movements per truck.



The installation...

Due to this site being one of the busiest Tesco DC's, continuity of operations was critical, and the installations and moves were completed promptly and safely to keep downtime to a minimum. The plan included the install of one new Presona, removing the old baler, relocating their existing Presona baler after a refurbishment; a total of 3 significant moves and lifts to complete across the program of works.

This was a time critical project for Presona and the UK team however and with careful planning and preparation, Presona were able



to execute and complete the install in record time – just 2 days in fact!

The collaboration between Tesco, Presona and their lifting team meant they were able work together seamlessly to get the job done, “It was a good project that just went well” Glen added.

From start to finish, the entire installation was managed by Presona's Project Management team to ensure smooth transitions from one stage to the next – all while adhering to correct regulations throughout the installation process.

What does this mean?

Lower carbon emissions, less bales needed, less transport costs – yet higher density, higher revenue and better for the environment – it's a “win win” situation for all.

Each year – like most businesses – Tesco DC's face their busiest period over Christmas. Last festive season was particularly hard going at this site due to the unreliability of the non

Presona baler and resulting in shutdown and downtime to production.

Going into this year's festive period, Tesco feel that there shouldn't be any issues with the two Presona balers keeping up with demand, especially with the new LP110 – “The operators can't seem to get enough product into it” – Glen added.

This day and age, it's important now more than ever to think about reducing your carbon footprint much like Tesco have. If you would like more information on how Presona can help save you time, create an efficient working team and generate you more revenue – all while contributing towards a greener environment – give one of the team at Presona a call today.

Together, we can all see a world where recycling just works!

Contact
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Vision Engineering and ZEISS collaborate to produce DeepFocus 1: An innovative and competitive Extended Depth of Focus (EDoF) microscope solution

Vision Engineering, British leading designer and manufacturer of high quality non-contact measurement, digital 3D visualisation, and ergonomic inspection technologies, is partnering with ZEISS Industrial Microscopy to add an extended depth of focus inspection system to its range of microscopy systems for the first time.

The new DeepFocus 1 system represents a significant collaboration between two of the world's leading microscope innovators. DeepFocus 1 combines Vision Engineering's technical and design expertise with ZEISS' new Visioner 1 long depth of focus digital microscope head.

DeepFocus 1, featuring MALS™ Technology, delivers live, real-time extended depth of focus imaging with depth of focus up to 100x greater than that of a conventional microscope, which removes the need for time consuming post imaging focus stacking by delivering 'all-in-focus' images instantly to a depth of up to 69mm.

Using a micro-mirror array lens system (MALS™) enables DeepFocus 1 to generate 'virtual' lenses with distinctly different curvatures, thus focus planes. This is achieved by changing the orientation of each individual micro-mirror in an orchestrated way. Re-shaping the curvature



of this 'virtual' lens at speed enables ultra-fast focusing and real-time all-in focus imaging and documentation.

Three viewing options aid understanding of the subject being inspected.

Extended Depth of Focus (EDoF) view shows the top down view of the subject with all details in focus.

Height-map view displays height data from the subject aiding visualisation of monochromatic samples and understanding of height. Topographic view shows a simulated 3D visualisation of the subject which can be rotated and manipulated.

Both Vision Engineering and ZEISS Industrial Microscopy are well known manufacturers in their respective markets and the collaboration will allow both companies to extend their coverage of the global inspection market.

Paul Newbatt, Vision Engineering's Group Sales and



Marketing Director, said, "We are delighted to partner with ZEISS in adding DeepFocus 1 to our growing innovative microscopy product range, which further cements our position as a leading microscopy solutions provider in the electronics, and precision engineering sectors."

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Manufacturing & Machining Update

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Electrical testing, the future



Familiarity saves money

Brendan continued, "Our new tester, be they multi-functional tester, PAT testers, power quality analysers or earth testers are all designed on the same firmware platform, so that when a user move from one machine to another, is familiar with not only the look and feel of the tester but also the way it works.

This familiarity saves time and reduces errors. Additionally, the Metrel electrical safety

management software (MESM) can handle all the testers' results."

"Our multi-function testers do all the tests you would expect; voltage, insulation resistance, continuity, RCD testing, a high current and an enviably repeatable non-trip earth loop impedance tests, in which user have every confidence. These can be accessed through the single test menu or can be initiated through the memory management



system for consistent testing regimen. The test results can be stored on-board, but more of that later."

T 01924 245000
info@metrel.co.uk
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"Cost of ownership, for facility management firms, has always been a prime consideration in the design of our electrical testers," said Brendan Beaver, the Manager of Metrel UK Limited based in Epsom in Surrey. "Our design teams have, for the last sixty years, brought innovative designs to market, not always under our name but as design sub-contractors for better known brands."

"However since we have been selling under our own name, Metrel has been quite disruptive in the market. Rather than using the conventional custom liquid crystal displays we have used dot matrix screens. This has allowed us to adopt a much more flexible approach to testing, whether it be PAT testing or electrical installation testing, permitting us to respond to new and changed regulations without the need for our customers to purchase prated testers."

Always up to date

"Four years ago when we launched our class leading multi-function testers, MI 3152 and MI 3155, which both have full colour touch screens, electric vehicle supply equipment (EVSE) or car chargers were almost unknown, let alone a protocol for testing them both electrically and functionally. However, Metrel's product managers and engineers trawled the standards to understand the requirement for testing and set to work building the first EVSE adaptor.

Because it mimicks an electric vehicle, it gives access to the whole electrical charging system, without opening the box, giving access for electrical testing. Standards required a CD to protect the system and the choice is to use an expensive B type or combine some form of DC protection breaking the circuit at 6 mA with an A type RCD. The vast majority of EVSE manufacturers have opted for the latter, so a special DC RCD trip test had to be devised, as well as a good, repeatable stable loop test.

A test sequence was written of functional test, voltage measurement, a suite of earth loop and fault current measurements and a full auto CD test on both the AC and DC breaker and loaded in the firmware of the new instruments."

"Rather than behaving like other tester manufacturer, we did not say to early purchaser of the testers, 'unlucky get another tester.' Instead Metrel has a policy of making instrument upgrades available FREE. And not when the user takes the tester to be calibrated but immediately it is released using the Metrel website."

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ges group

Forecite Online Condition Monitoring Powered by Nidec

Forecite is the remote vibration/temperature monitoring system manufactured by NIDEC and promoted by GES as part of our machine condition monitoring programme, used by many customers throughout UK & Ireland. The Forecite system allows continuous vibration monitoring of any equipment over an unlimited period of time and at recording intervals determined by the user.

GES Group's 5 Pillars of Expertise

GES Group established in 1972 as Grants Electrical Services (NI) Ltd., the Company has grown and developed into GES Group, a leading Electrical and Mechanical Engineering business, now serving customers throughout Ireland, the UK and Europe. Currently employing over 80 staff, including many professionally trained and accredited Engineers, we respond quickly to Industry's ever-changing demands and needs, while offering geographic coverage to many of our customers. Traditionally AC/DC motor rewind and re-manufacture specialists, we have developed our portfolio as a market leader to now provide an extensive range of technically advanced products and services.

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Nidec (Leroy Somer) Electric Motors stocked in Mallusk and Newbridge (IRL)

As of the 4th January 2021, GES Group became the authorised Distributor for Nidec (Leroy-Somer) Motors Ireland.

This is a very exciting time for both GES Group and Nidec as we have worked together in partnership in Northern Ireland for several years and by expanding the distributorship to Southern Ireland our partnership will create a more comprehensive infrastructure with enhanced experience and expertise and will provide our customers with a first class customer service experience.

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Introducing the GS4400

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

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

Silicon-on-Sapphire sensor technology provides outstanding performance and gives excellent stability over a wide temperature range.

The advanced sensor design consists of a piezoresistive silicon strain gauge circuit, which is epitaxially grown onto the surface of a sapphire diaphragm to form a single crystalline structure.

The sapphire sensor is then molecularly bonded to a titanium alloy sub-diaphragm, enabling the sensor to endure higher over-pressures and providing superb corrosion

resistance, virtually no hysteresis and excellent long-term stability. Applications for the GS4400 include the continuous monitoring of hydraulic systems with oil, gas, water and other process liquids, industrial, medical and aerospace industries. Also ideal for the measurement and control of pressure in refrigeration, pneumatic, compressor, HVAC and engine monitoring systems.

Contact
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www.esi-tec.com



Megaman® launches TEGO 2 integrated downlight



Global lighting manufacturer, Megaman®, has launched its adaptable, fully fire-rated TEGO 2 integrated LED downlight, ideal for commercial and domestic applications. The innovative and unique LED system features the option to easily change both the beam angle of the fixture and the colour temperature, all while in situ.

With Megaman's cutting edge Dual Beam Technology (DBT), the TEGO 2 has two beam angles – 60° and 36° – available in one fitting. By simply pressing the lens, the beam angle can be changed easily by both the installer and end user. Dual CCT 2,800K & 4,000K can also be activated by twisting the lens once installed. This allows customers to toggle the colour temperature between warm white or cool white as well as adapting the beam angle with simple light fingertip control – all while the fitting is in situ.

With a lumen output of 650lm at 7.5W, the TEGO 2 integrated downlight is also dimmable and rated IP65, making it ideal for environments with higher moisture, such as bathrooms and kitchens. The downlights are also tested to provide fire protection for 30, 60 or 90 minute ceiling constructions. The LED system includes up to 50,000 hours usage and a tool-free wiring install with a loop in/loop out function.

For more information about MEGAMAN®, please visit the website at: www.megamanuk.com



ESI Technology Limited



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Our Range



GS4400

The General Purpose transmitter is designed to meet the needs of demanding industrial environments. Measuring pressure ranges up to 1,500 bar at a communication distance of up to 1,200m.



HP1400

The High Pressure transmitter measures pressure ranges up to 5,000 bar and is manufactured from a single piece of Titanium with no seals or welds. It is designed to meet highly demanding operational needs.



PR3930

The subsea pressure transmitter with RS-485 interface is suitable for ROV and deep sea test equipment. Measuring up to 1,500 bar pressure, the unit is submersible to 6,000m depth with a communication up to 1,200m.

About Us

ESI Technology Ltd specialises in the design and manufacture of pressure transducers and transmitters for the aerospace, defence, oil & gas, subsea, medical, automotive, marine, process and general industrial markets.

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The EL-SIE Range



Software-free, next generation data logging from Lascar Electronics

Although Lascar Electronics has been manufacturing data loggers for over 25 years, even for the original inventors of the USB data logger, the launch of the new EL-SIE range was a major event. The EL-SIE is the first in a new generation of EasyLog products that takes data logging to another level.

Capable of measuring ambient temperature, humidity and pressure, each data logger can store over 1 million readings inside the sleek metal housing. The bright and clear display shows readings and device status at a glance, and the coloured LED indicators and sounder mean the EL-SIE can grab your attention when it needs to. Each logger is supplied with batteries (two standard AAAs), a USB cable and a wall bracket so it's ready to use right away, and one set of batteries will typically last over a year.

But the biggest innovation is hidden away, the software needed to configure your logger and view, analyse and download the data is all based inside the EL-SIE itself. There is nothing to install, simply connect the logger to any PC or Mac and use your existing web browser. You don't even need internet access, it couldn't be easier.

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www.lascarelectronics.com

Protect your brand with Cupio Services

In this issue of Industry Update, we have chosen to highlight Cupio's Commitment to Excellence in providing inspection and test solution services.

In 2004 Cupio was established with the intention of bringing test and production systems, sourced in the USA and Far East to the UK market. By drawing on over 40 years of experience in the test and inspection area Cupio was able to attract some of the world's best inspection systems to its marketing strategy and Cupio began selling production inspection systems into the rest of the EMEA area through a chain of local representatives.

Specialising in the inspection and quality control aspects of electronics manufacturing Cupio took on the representation of more tools with X-Ray and acoustic inspection capabilities. These were mostly for representation in the UK, particularly as Brexit restricted the ability to support customers in the EU.

Originally based in Alton, Hampshire, Cupio moved to a larger premises located in Chineham Business Park, Basingstoke in 2019. Its purpose-built demonstration facility is much bigger and is the base for its highly knowledgeable and experienced workforce, who work with some of the worlds best X-Ray, test and AOI systems. The facility is fitted with the necessary antistatic flooring and facilities and houses the company's CSAM system. This facility gives the company the capability to offer a full inspection and failure analysis service to customers who have insufficient throughput to warrant system investment.



Cupio Services is a branch of Cupio and is the place for failure analysis and non-destructive inspection. Its innovative, specialist equipment is of the highest quality and is used to provide specialist equipment for failure analysis, counterfeit detection and other types of testing and analysis work. Its cutting-edge inspection and test equipment includes high resolution X-Ray with multiple CT imaging options, scanning acoustic microscopes for delamination detection within boards or complex devices, high magnification automated optical inspection and testers for counterfeit part detection.

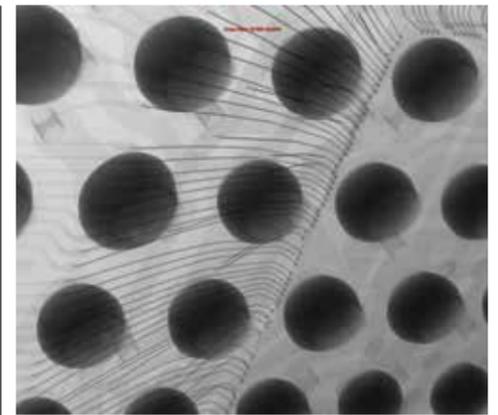
Its capabilities can find the smallest defects within an assembly and image them with sub-micron resolution. Full failure analysis reports can be provided to help understand where and how issues are occurring or to simply assure the customers their equipment will stand the test of time. Its Non-

Destructive Testing uses a multitude of advanced diagnostics on materials such as plastics, metals, ceramics, or electronics. Whether the need to diagnose production or in field failures, validate complex manufacturing procedures or perfect new product introductions, Cupio Services can help.

Furthermore, demonstrations on its X-Ray, AOI and test systems are offered to all customers who are interested in how the systems operate or wish to acquire one of their own.

Through initiating a new style of approach, and various marketing activities, Cupio has been able to target new markets, whilst introducing three extra personnel to its team. Recently, the company has been actively promoting its services into the wider inspection market place where high resolution X-Ray and CSAM imagery is needed for both production and quality control.

In the future, Cupio will continue to monitor market trends and developments within its industry as it



plans to bring more inspection equipment into its lab enabling them to offer additional services.

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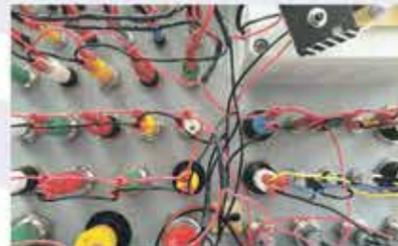
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Achieving greatness in the midst of uncertainty



Industry Update is proud to announce that Watlow® has been selected as the recipient of our Outstanding Achievement Award.

Commemorated as an industry leader, Watlow provide a wealth of knowledge and experience to numerous industries. Alongside designing and manufacturing industrial heaters, temperature sensors, controllers, supporting software and all the components of a thermal system, Watlow also partners with its customers to optimise thermal performance, decrease design time and improve efficiency of their products and applications.

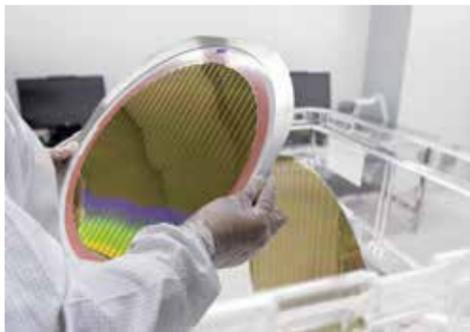
Established in 1922, and originally founded by Louis Desloge Sr., Watlow started out manufacturing electric heating elements for the shoe industry. Based in St. Louis, Missouri, the



company is named after the reference 'low-watt' heaters which is used to replace steam heat, and later that year went on to produce its first heaters.

Today, Watlow is known on a global level, employing over 3,000 people who work within its nine manufacturing facilities and three technology centres based in America, Mexico, Europe and Asia. It has broadened its reach to serve a plethora of industry applications that are added to year on year. Such industries include semiconductor processing, environmental chambers, environmentally friendly energy solutions, lifesaving medical and clinical equipment, diesel emissions and food service equipment.

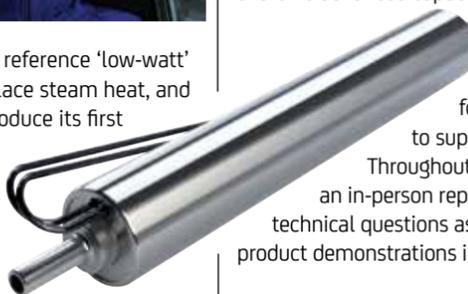
Watlow's outstanding industry experience spans across many applications and allows the company to solve many challenging thermal problems. It leverages its own experience to solve new challenges, and this enables the company to have a broad standard product offering, resulting in rapid prototyping and fast cycles of learning. Instead of trying to optimise just one component, Watlow take a systems view. This way of working requires a strong customer retention as customers come to and stay with Watlow because



they understand the regulatory environment its clients must operate in.

As an example of its outstanding service, when talking to a new customer, Watlow do not ask what type of heater, sensor or controller they are interested in. Instead, the company first explores their strategy for dealing with challenges at the device level, portraying a level of service combined with its industry expertise that other companies cannot compete with.

An example of an outstanding achievement from Watlow was when the company was on hand to aid a leading medical device company through a global technology summit. When asked to help share its advanced capabilities and jointly discuss technology roadmaps, Watlow proudly promoted how its global footprint allows for them to support customers globally. Throughout the summit, Watlow had an in-person representation to answer technical questions as well as showcase product demonstrations in all five locations.



As the summit happened concurrently across two locations in Europe, two in America and one in Asia, the appreciation for Watlow's sustainable sales channels approach was applauded.

A recent innovative product Watlow has launched is the new 1/32 DIN PM LEGACY™ Controller. The product comes off the back of the introduction of its 1/16 DIN version which is part of the umbrella product line created for ease of use and simplicity for its customers. The LEGACY SERIES controllers feature a SMOOTH-TOUCH™ keypad which eliminates contamination points on the front of the controller, creating a better seal on the front panel as well as a function key for simple, one-touch operating of user-defined, repetitive activities. These are the first in the market to incorporate Bluetooth® wireless technology. Bluetooth® is used to enable EZ-LINK™, which is

business. Its recent partnership with Tincum, also saw Watlow incorporate some organisational changes to adapt to the current times.

As a response to COVID-19, some of Watlow's products have been heavily relied upon to supply the medical industry. The ULTRAMIC advanced ceramic heaters is a product of Watlow that has been used by a medical device manufacturer to help treat COVID-19 patients and has been an industry success. The treatment is proving effective in aiding patients steer clear of mechanical ventilators, this resulting in a faster recovery. This recent achievement echoes the incremental past 12 months which has seen Watlow increase many of its previous existing sales records, a remarkable accomplishment off the back of a global pandemic. Always keen to improve, Watlow will continue to grow and



Watlow's mobile app for setting up, monitoring and adjusting PM PLUS™ and PM LEGACY controllers.

In February, Tincum, L.P. and affiliated funds managed by Tincum Incorporated announced its acquisition of controlled interest in Watlow. The transaction with Tincum will preserve Watlow's legacy while accelerating investments to supporting growth with its global customers. As Watlow has plans to expand internationally, this acquisition runs adjacent to its goals which include the continued development of key technology advancements driven by Industry 4.0, and the addition of strategic products and capabilities through acquisitions and enhancement of operating capabilities and capacity.

COVID-19 has inevitably had somewhat of an effect on every business in the UK and in the world. Watlow has redirected its way of working to suit its employees and the industry. As much of the world has taken to remote working, Watlow has embraced this change. Placing many of its employees in a remote setting, the majority of its work fleet are still working from home. Despite facing uncertain times, the company has maintained the highest safety standards, and was able to obtain CRC, Inc. of Santa Clara, CA, USA, retaining vital support for its semiconductor

create innovative solutions to industry problems. The company will be continuing its strong relationships with both existing and potential customers and will also leverage its capabilities in new areas such as Industry 4.0. A key goal in Watlow's overall growth plan focus for the future is to become an industrial technology company, which will add to its strategic approach to new markets. Targeting certain industry sectors such as the semiconductor, medical/clinical/analytical industries, Watlow is also keen to delve into energy and environmental technologies, including medium voltage and energy storage.

Relative to Watlow's previous years forecast, its dedication to see continuous growth and development is crucial. The next 12 months is paramount for Watlow to continue on its previous year's success, ensuring a precise and perfected approach it will be heavily focusing on an increase in sales for the next quarter. Its presence within Europe, America and Asia, has been outstanding and its journey since its establishment has been commendable on many occasions.

If you would like any further information on Watlow's services and products, please see below.

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www.watlow.com



Medical Shops Achieve Surgical Precision with Deep Hole Drilling Automation



Medically speaking, cutting people open is dangerous. Today, physicians get around this problem by using modern surgical instruments to perform minimally invasive procedures, which make major operations into simple outpatient appointments. But to accomplish these feats of surgical science, manufacturers in the medical industry have to drill small-diameter holes through the entire length of slightly larger instruments. Thin part walls, intricate features, high surface quality and concentricity requirements, and extreme depth-to-diameter (D:d) ratios make these parts a challenge in production.

A typical laparoscopic surgical instrument is designed to direct tools, cameras and other devices into the body through the instrument using a guide wire. And to ensure smooth, reliable and accurate performance during procedures, highly precise hole concentricity is required at D:d depth ratios well above 100:1, a challenge even for dedicated deep hole drilling equipment.



With these challenges, it's no surprise that many manufacturers try to skip the deep hole drilling process altogether by farming out the work, but going to outside suppliers brings its own problems. Pre-drilled blanks might solve the deep hole drilling problem, but they have to be fed into the machine one by one, defeating the whole purpose of using automation-ready Swiss-style machines. Meanwhile, cannulated bar stock allows shops to continue using their bar feeders, but it's very expensive - and the hole quality and O.D./I.D. concentricity rarely meet the needs of medical manufacturers anyway.

To overcome these challenges, medical manufacturers are turning to dedicated deep hole drilling equipment to finish instruments started on the Swiss-style machines. With an experienced gundrill operator, careful setup and a bit of finesse, the hole quality can be excellent, and it allows the Swiss-style machines to remain fully automated. The only remaining problem is part handling and transfer which introduces significant risks when the accuracy requirements are so high, and if the part has to be flipped to drill a stepped bore, that introduces more setup operations and more risk of human error.

What medical manufacturers need is a truly end-to-end automated process that allows for an efficient single-piece workflow for surgical instruments - and some deep hole drilling OEMs, such as UNISIG, have engineered all the technology required to meet this goal. The result is a complete system that offers easily automatable, on-demand deep hole drilling processes for the most demanding surgical instrument applications: the UNE6-2i.

As a twin-spindle machine with two independent drilling axes, the UNE6-2i inherently has the capabilities manufacturers expect from a

high-performance deep hole drilling machine. Counter-rotation, specialised workholding and superior alignment and precision allow shops to confidently hold concentricity tolerances and minimise mismatches, even at the extreme D:d ratios common in the medical industry. In addition, the UNISIG Smart Control Interface simplifies operation, while an innovative flow-based coolant system automatically reacts to pressure changes for effective chip evacuation and high process security.

What allows the UNE6-2i to truly shine as a part

of the surgical instrument production process, however, is the in-machine automation. After the front spindle drills the first hole, a robot takes it out of the spindle, puts the hole onto the second spindle, and loads another fresh blank into the first spindle. The robot's perfect repeatability ensures the highest hole quality - and the only human labour required for the process is loading bar stock into the Swiss-style machines, preparing the blanks for the UNE6-2i's robot and sending the finished parts on for post-processing.

The UNE6-2i's capabilities also give manufacturers

significant production flexibility. Two holes with two different diameters could be simultaneously drilled in a single part, or two parts could be in-process simultaneously to allow operators or robots to load and unload the machine without stopping. Alternately, this twin-spindle configuration can be used to drill halfway through a part from one end with the first spindle and allow the second spindle to finish the hole from the opposite end.

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Sundström- A breath of fresh air throughout the pandemic!

Nobody was prepared for the impact that Covid 19 has had on all our lives. As a global manufacturer of respiratory equipment, Sundström could never have imagined the level of increase in demand for our products. Fortunately, respiratory pandemics are not a regular occurrence, the tsunami of calls, queries and orders that followed the spread of Covid 19 across the globe, has been somewhat of a challenge!

Sundström are a third-generation family company based in Sweden: we care passionately about our customers and ensuring they can breathe safely and comfortably.

Our products have an excellent reputation for comfort and class leading protection levels, and so, when the world needed quality respirators, we were deluged with

questions and subsequent orders. Although we are renowned for our industrial based range, many of our products are as functional in healthcare; we have been integral in protecting people from Covid in all environments over the last two years.

We manufacture world class respiratory equipment which is technologically advanced. Our product is integral to many



organisations large and small, and the optimum protection for their workers lungs against industrial contaminants, is the foundation of our success. With the Coronavirus pandemic the healthcare sector has become aware of the exceptional protection and fit qualities of our range and so our distributors continue to receive many orders from health orientated services around the world.

Sundström have expanded our production to ensure we can manage all supply expectations. Although there have been some challenging times keeping pace with excessive demand, we are now offering excellent delivery to both industry and healthcare sectors.

Sundström have not forgotten that industry is at the foundation of our success, and we are striving to ensure that your workers are not only protected but also comfortable in the harshest of environments. Our R&D team have reacted to requests from many sectors and new products will be launched over the next 18 months which reflect the changing needs of your working environments.

This will include a bespoke healthcare range, being designed in conjunction with health authorities globally, and able to offer a comfortable sustainable RPE product into hospitals, Pharmaceutical and front-line care facilities.

The Sundström team of highly trained sales and support staff are there to help you in all aspects of respiratory expertise. The pandemic has highlighted the need for quality respiratory equipment, but also the ability to maintain it and use it to an optimum level of competency.

In addition to supplying a product, fit for any environment, we can now train you in how to use it correctly, maintain and service it, and certificate you to do so. A newly established training suite gives us the opportunity to ensure that you get the best 'cost in use' reusable and sustainable package of RPE and relevant education available.

In this strange world we live in currently, who knows what 2022 will bring, we are there to help?

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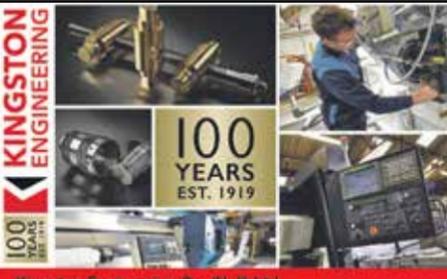
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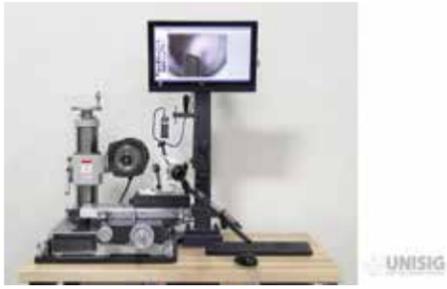
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UNISIG: Time to rethink sharpening your gundrills



Shops become familiar with the wear patterns created by a given application and may find they are replacing gundrills too often.

If a gundrill tip has even wear across its entire cutting edge, it could easily have many hundreds of inches of life left, something that will only become apparent with repeated inspections.

In-house gundrill resharpening also ensures that shops can obtain the best tip geometry for their given applications. Whether it is uneven or unexpected wear, or the sudden appearance of chips in the cutting edge, once a shop identifies

an irregularity, they can then adjust speeds and feeds to optimise the process.

The inspection equipment even makes working with tooling OEMs easier, since shops can send them a measurement set and picture of a tool when asking for advice on how to improve the geometry.

Further information on all machines and the complete UNISIG machine programme is available at: www.unisig.com or follow the company on LinkedIn and Twitter (@UNISIG).



The modern gundrill is an engineering marvel, a well-designed piece of equipment that does one thing exceptionally well. A new gundrill will produce round, straight holes with enhanced cylindricity even at its deepest points. And it does all this while simultaneously providing a fine ID finish and excellent tool life.

Like all tools, gundrills wear out, typically after drilling around 1,000". While a talented operator can still drill a hole with a worn gundrill, it will more often result in a loss of hole tolerance and finish at best. As gundrills wear, they require more thrust and torque while producing more run-out and experiencing greater drift. A dull cutting edge will produce irregular chips, which in turn cause spikes in coolant pressure – sure signs that failure is imminent.

Unlike some tools, gundrills are excellent candidates for resharpening. When performed correctly, the same gundrill can be resharpened to perform as well as a new drill as many as 8 to 10 times. The only significant difference between a resharpened gundrill and a freshly produced tool from the OEM is a slight back taper, an issue only for shops that require tolerances far beyond most manufacturers' needs – all other shops can simply account for the ever-so-slightly reduced tool diameter. Otherwise, the only visible difference will be seen in the length of solid carbide on the gundrill's tip.

Even coated drills can be sharpened. Naturally, this will reveal the raw carbide on the face, but this does not impact performance. The coating will remain on the wear pads and continue to improve the gundrill's size control and ability to leave behind a finished surface. Tool life will be impacted, but the only other option is having it fully resharpened and re-coated by the OEM, which will likely be less cost effective. Manufacturers have several options for resharpening their gundrills.

For specialised gundrills, such as twin-flute tools and those intended for ultra-high-feed applications with chipbreakers below a coating, resharpening is something that only a gundrill's OEM can do. A local sharpening service will likely have the proper equipment, but this requires having redundant tooling & factoring in lead time and transportation costs.

However, both of these methods result in a loss of process intelligence. The grinding process can offer valuable information manufacturers can use to optimise their gundrilling applications. As a result, more manufacturers that use gundrills are choosing to resharpen their tools in-house.

The main risk of performing resharpening operations in-house is poorly sharpened gundrills. Without the correct tip geometry, gundrills do everything worse: size control, roundness, cylindricity, finish, chip control, straightness and depth all negatively impact workpiece quality and result in significantly diminished tool life. This will cause operators to reduce feedrates or change out tools more frequently to achieve the necessary tolerances and out of fear of catastrophic tool failure.

Modern gundrill grinding systems make it easy to avoid these consequences. For the greatest advantage, one needs the full system. That means a grinder, the appropriate gundrill fixture and equipment for calibrating and inspecting the drill tip.

A basic, high-precision manual tool grinder is used as a platform for these systems, though the length of some gundrills necessitates a reinforced table for sufficient accuracy. Choosing a fixture can be more complicated, as gundrills can be ground in two different ways. Sweep grinding leaves behind a gradual transition between elements of the tip's geometry, while facet grinding creates distinct geometry. UNISIG typically recommends facet grinding, because the slight increase in tip strength produced by a sweep grind is outweighed by the repeatability and greater ease of inspection offered by facet grinds.

The final piece of advanced gundrill grinding systems involves a digital inspection camera capable of viewing and storing magnified images. Ideally, this will allow the user to perform measurements and identify flaws without taking the tool out of the fixture. In addition to allowing for highly precise grinding, this inspection is vital for process optimisation. Process optimization capability is the real added value conferred by performing gundrill resharpening in house. Frequent inspection allows for the maximisation of tool life.

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