

INDUSTRY UPDATE

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- Type TA: fitted with a white PTFE lining for extensive chemical resistance, FDA approved
- ERV-GR: for Acids, Alkali and aggressive chemicals
- ERV-W: white Nitrile (NBR) to foodstuff standards
- ERV-GS: ISO 15540 (fire resistant)

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CHEMTREC® partners with chemical response agency

CHEMTREC, the world's leading emergency hazmat response service provider, has partnered with China's National Registration Centre for Chemicals (NRCC) to create a unified global response for chemical emergencies in China.



After several years of collaboration, CHEMTREC will now be able to offer global clients a more unified response to local chemical emergencies as well as providing more support on chemical compliance and risk management in the region.

The new partnership will enable CHEMTREC clients to manage all NRCC registrations and Chinese hazardous chemical compliance directly through their existing CHEMTREC contract, without the need for third party contracts, lawyers or mediators within China. The new process will reduce the risk of having goods impounded, financial penalties, or other sanctions by streamlining compliance and simplifying approval processes through one

party, rather than many.

Along with NRCC registration, CHEMTREC will also manage chemical compliance including individual chemical registration, SDS (safety data sheet) and label production as well as GHS (global harmonised system) classification. Additionally, clients have access to 24/7 in-country NRCC emergency support, as mandated by Chinese law, along with additional back up helplines provided by CHEMTREC.

For more information on CHEMTREC's partnership with NRCC, please visit: www.chemtrec.com/emergency-hazmat-incident-response-services/nrcc-emergency-response-service-china or contact us at: sales@chemtrec.com for further details.

New portable multi-gas analyser from ENVEA

ENVEA presents its new portable multi-gas monitor designed to meet the specific needs of regulatory and periodic stack emission monitoring, and help users save time along their on-site day.



The MIR 9000P is compliant with international directives and standards such as US EPA and EN 15267-4, the latest European standards for Portable Automatic Measurement Systems. It guarantees high accuracy and extended measuring ranges for 8 parameters (NO_x, SO₂, CO, CO₂, CH₄, N₂O, O₂ and residual H₂O). The analyser uses the non-dispersive infrared method with gas filter correlation (NDIR-GFC) while O₂ is measured by a built-in paramagnetic sensor (SRM).

The MIR 9000P features remote access to full operation thanks to the ENVEA Connect™ App and proprietary Wi-Fi. In addition, the user is one click away from key functions via the embedded touchscreen or smartphone. Key operational status is also available at a glance

via the front side indicator.

It is IoT ready, offering latest connectivity technology and providing the user with software updates, key operational alerts and notifications on smartphones.

Finally, its modular design ensures quick access to operational devices along with low and easy maintenance.

All this makes up for a unique portable gas emission analyser offering high productivity and low operational cost.

T +44 (0)1480 468200
www.envea.global

Kleen-Tex announces return of Kleen-Way PVC

Following increasing customer demand, Kleen-Tex, one of the world's leading floor mat manufacturers, has relaunched its popular Kleen-Way PVC mat to provide clients with the highest standards in aesthetics, safety and performance.

Ideal for installation throughout reception areas, corridors and showrooms where achieving a positive first impression is crucial, the Kleen-Way PVC floor mat can be manufactured up to 20 metres in length and printed with custom designs or branding to create effective marketing messages.

The dimensionally stable PVC backing more than ensures the floor mat will not move or present a trip hazard, ensuring the highest standards of safety, especially for busy communal areas.

The stay put nature of the 100% vinyl backing also enables multiple mats to be placed together end to end to create unlimited lengths that meet unique project requirements, without compromising on quality, functionality or aesthetics.



Manufactured up to two metres in width, the Kleen-Way mat delivers the optimum balance between durability and visual appeal, with the 100% Jet-Print Plus nylon pile providing a luxurious feel underfoot for visitors.

Regardless of the level of footfall, the 60% heavier pile will maintain the same high quality standards and vibrancy of design for years to come, providing clients with first class functionality and longevity.

For further information about Kleen-Tex's new and improved Kleen-Way mats, please visit: www.kleen-tex.co.uk/products/all-products/kleen-way/ or call 01204 705070.

Practical aspects of PROFINET, PROFIBUS & IO-Link



Birmingham 17th November 2021; Strathclyde 24th March 2022 & Belfast 18th May 2022

These events will be of great value to Designers, Production/System Engineers, Instrument Technicians/Engineers and C&I Engineers involved in the design, operation and maintenance of modern automated factories and process plant. This is what we've currently got planned, subject to change:

Topics will include:

- ▶ Highlights of new supported technologies, the protocol basics and their benefits to UK industry.
- ▶ PROFINET network design covering fundamental principles that must be considered at the design stage of an automation system.
- ▶ Network gateway technology with demonstrations of PROFINET to Profibus DP, PA, IO-Link and OPC UA
- ▶ Industrial network commissioning and testing: how to simplify the process, prevent failures and resolve cable and network issues faster.
- ▶ PROFIBUS and PROFINET device configuration tools and FDI with a live demonstration of PROFIBUS and PROFINET configuration.
- ▶ Industrial networks safety & security covering the basics of legislation and responsibilities for cybersecurity, safety and functional safety for Industrial Automation.
- ▶ Update on Industry 4.0, IIoT, TSN, APL and Big Data, showing how PROFINET is placed as the ideal network for all of these.

More information and online registration

Please note that these dates are totally provisional, registering for these events does not commit you but ensures that you will be on our list to be kept up to date with developments and able to change arrangements if needed. There is no charge for registering nor for attending.

Birmingham: <https://tinyurl.com/htpz4a9y>
 Scotland: <https://tinyurl.com/82akpwbp>
 Belfast: <https://tinyurl.com/bdmyzbp>

T +49 721 9658 590
www.profinet.com

On-line training for die-casting technology

A suite of on-line training courses in die-casting technology is now available through a programme from the Cast Metals Federation, CMF.

There are courses suitable for production engineers, technicians and designers of cast parts, as well as machine operators and technicians, and while the focus is around high pressure die-casting, there are courses that will be relevant to gravity and low pressure companies. The courses

range from the fundamentals of the process to more in depth topics such as die and process design, defects and how to avoid them, setting process parameters for optimum quality and die layout.

"The flexibility of this programme will be attractive since the subjects can be accessed at any time," explained Pam Murrell, CMF CEO. "We can also offer workshops to bring the programme to life, and access to a tutor who

has relevant industrial experience, with mentoring aimed at supporting the learner. Learning in isolation is not easy, so we recognise that these additional support mechanisms will be very important to ensure that learners are able to stay engaged."

For more information about the programme, please contact the Cast Metals Federation on +44 (0)121 809 3500 or email: admin@cmfed.co.uk



Kautex to unveil new Skyreef series

Next step: an autonomous extrusion blow moulding line – the new Skyreef packaging machines open the door to flexible machinery solutions based on a common platform.



Kautex Maschinenbau is one of the world's leading producers of extrusion technology. Its blow moulding machines are synonymous with maximum productivity, sustainability, and product quality. Kautex is currently realigning its whole product portfolio for the future as part of its product promotion campaign: Instead of highly specialised individual solutions, the company is now focusing more on standardisation, modular concepts, and platform-based strategies.

The innovative idea behind the machines combines technologies and components from different Kautex series and is designed for a future of smart production. The ultimate aim? The autonomous machine. Customers can choose whether their Skyreef is powered by a hydraulic, all-electric or hybrid drive, making it both flexible

and adaptable. The company will also be showcasing more of its latest ideas under the strapline #madebykautex, including 'Perfect product quality thanks to a perfect melt', 'Using Kautex RapidXchange and K-Foam technology to guarantee sustainable production', and 'Digital services – from virtual training and simulations through to virtual commissioning'.

Kautex Maschinenbau develops intelligent production solutions for the production of plastic containers. It works together with customers and partners to create added value for sustainable, economical production of extrusion blow moulding articles of the highest quality.

www.kautex-group.com

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Waterblade: Exceptional low flow handwashing

We have developed and soft released our Waterblade Compact; this has a narrower flow at 100m, just 2.4 Litres/minute, and is designed for smaller basins and sensor taps. We are delighted to have secured our first order from RS components premises in France (we have already 'Waterbladed' two UK sites) where they are rolling it out to over one hundred basins. **For the technical spec on our full range, contact: nigel@thewaterblade.com**



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Lead Carbon Deep-Cycle batteries are a very interesting alternative for AGM and GEL Deep-Cycle batteries.

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At a depth of discharge of 80%, Lead Carbon batteries will offer 1,000 cycles. This is almost double that of GEL Deep-Cycle batteries and almost three times the lifespan of a regular AGM battery.

In addition, the added carbon in the negative plates is a very good conductor of energy, both in the uptake, the throughput and the release. The advantage of this added conductor is that Lead Carbon batteries withstand much better to intermediate charging or other 'less than optimal' charging conditions.



There is also a better performance in colder temperatures compared with other maintenance-free battery solutions.

Our Lead Carbon range has all models that are most suitable for cleaning machine applications.

Advantages:

- ▼ Maintenance free alternative for AGM and GEL
- ▼ Better cycle life: >1,300 cycles (70% DoD) & up to 1,000 cycles with 80% DoD
- ▼ Excellent performance in (extreme) low temperatures
- ▼ Charging time: Charging time is shorter than normal AGM
- ▼ Lead Carbon batteries can be used with good performance without being charged 100%

info@batterysupplies.be
www.batterysupplies.be

High precision EXL Chain hits UK



EXL Chain, a new high precision Roller Chain with superior quality and durability, has been launched in the UK by Donghua Limited.

EXL Chain forms part of the Donghua Chain Group's Solution programme and is aimed specifically at the after-market as the chain's precision delivers higher wear resistance and greater fatigue resistance.

EXL Chain is designed with a new hardened, shot-peened wide-waist plate for increased fatigue strength and a seamless cold forged solid bush and roller to give full contact between the pin, bushing and roller for higher durability.

Optimised cylindrical parts improve sliding contacts which help increase service life and the Chain is pre-loaded with 40-50% of the breaking load and pre-lubricated with high performance synthetic lubricant to meet high workload requirements.

Bob Wellsbury, managing director of Donghua Limited, explains, "The new EXL Chain has been specifically developed by our R&D team to incorporate Donghua's unique Easy Break Technology. This unique feature enables the EXL Chain can be cut in the field with Donghua's Plate Extractor tools."

He added, "I'm thrilled by the introduction of this new Solution chain to the UK market and hope our network of distributors are keen to see a new design of chain which offers significant benefits over standard Roller Chain including bespoke lengths."

Donghua's EXL Chain is available in British standard 06B to 32B, American standard ANSI 35 to ANSI 160 in simplex and duplex ex-stock from their West Midlands warehouse and distribution centre.

For more information about EXL Chain, email: sales@donghua.co.uk or call 01902 866200. To find your nearest stockist of EXL Chain, visit: www.donghua.co.uk/locate-a-supplier

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How can we tackle carbon footprint in automotive?

The automotive industry has been under scrutiny in recent years, increasingly being put under pressure to reduce emissions and reduce vehicle weight. Hence there has been a shift, which now sees brands placing environmental action as a high priority. However, reducing vehicle weight is no easy feat and brands are searching for a practical way to meet the needs of eco-conscious consumers.



This solution could be UK-based technology firm, Floreon. Floreon's Technical Director, Dr Andrew Gill, commented, "We're pleased to be able to offer a renewable, recyclable material with a low carbon footprint that is suitable for a wide range of applications within the automotive industry due to its excellent performance in terms of toughness and heat stability."

Floreon offers brands a carbon footprint up to six times lower than common oil-based plastic, ABS. This bioplastic is lightweight, meaning it can replace heavier vehicle parts and even those made from aluminium. By making the vehicle less heavy, commercial vehicles can carry more and make less trips which is overall kinder on the environment.

The performance and environmental benefits of Floreon appealed to recognised vehicle body builder, JC Payne, with whom Floreon are conducting late-stage trials. Now, Floreon are looking to help other brands in automotive reach their sustainability goals by incorporating this lightweight and durable bioplastic into their vehicle bodies. Brands in automotive now have the chance to switch to a renewable bioplastic without compromising on performance.

www.floreon.com

CURTISS-WRIGHT

Surface Technologies

CWST have developed a Post Additive Manufacturing process to:

- Improve surface finish and surface characterisation
- Improve component cleanliness
- Remove support structures
- Remove sintered surface
- Surface compression and densification
- Management of residual stresses
- Improve fatigue life

www.cwst.co.uk | eurosales@cwst.com | 01635 279621

'Smart Jigs' for the rail industry

Staffordshire-based KM Tools is contributing to a new generation of modern trains with its SmartLine jig technology. Leading rail OEMs such as Hitachi Rail are utilising KM Tools SmartLine to carry out welding, assembly and preparation of rolling stock as part of a lean production flow.



smart jigs, with minimal movement of personnel and parts for each activity. This improves efficiency and space utilisation while also expediting manufacturing. As a result, rail OEMs can take a leaner approach to the manufacture of rolling stock and maximise productivity."

Contact
T 01538 758946
sales@kmt.tools
www.kmt.tools

A leading manufacturer of specialist production machinery – KM Tools designs, fabricates, builds, installs and maintains a wide range of equipment. Recently, the business has supported Hitachi Rail's Newton Aycliffe production facility, supplying smart jigs for the construction of a new line of high-speed trains destined for the UK rail network.

"SmartLine jigs are customised to meet specific customer requirements," Adrian Degg, Group Engineering Director at KM Tools, explains. "We design the jigs to allow multiple manufacturing steps to be incorporated into a single production line. Welding, assembly and preparation of carriages can be conducted using the

Smart and safe: 5 benefits of remote CHP monitoring

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



The ability to remotely monitor and control your CHP will increase engine uptime

Increased engine uptime

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

Optimised fuel ratio

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

Safer engine restarts

By linking a smart monitoring system to a camera, operators can verify that no personnel are nearby before remotely restarting their CHP. Cameras also make it easier for companies such

as Gen-C to remotely support customers, saving on monthly service fees.

Extended equipment lifespan

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

Improved diagnostics

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

Contact: James Thompson,
Managing Director
T +44 (0)1709 718002
james.thompson@gen-c.co.uk
www.gen-c.co.uk

Environmental Science Group Limited (ESG) introduces Palm Tree Ethanol

For four decades, ethanol has been the fastest growing renewable fuel on the planet. It is an essential energy product. Particularly since 2020, among its multiple uses, many ethanol production plants provide high grade ethanol for hand sanitisers and disinfectants.

As part of its growth strategy, and as a result of extensive R&D, ESG has added to its products portfolio a high-grade ethanol containing more than 95% alcohol content. Ethanol is an essential ingredient used in consumer products including alcoholic beverages, personal care products, hand sanitisers, cleaners and pharmaceuticals.

ESG based in March, Cambridgeshire is pleased to launch a new product



line under its brand name 'Palm Tree.' This is a premium-quality alcohol which is naturally sourced

primarily for the pharmaceutical and medical/healthcare industries. This places Palm Tree ethanol among the most environmentally-friendly premium grade alcohol products on the market.

Palm Tree ethanol is available in container sizes ranging from 100ml to 250L. Delivery of the ethanol can be completed within 72 hours of receiving an order and full payment. For further details, please visit their website at: Palm Tree Ethanol (Ethyl Alcohol) – Environmental Science Group or ESG (www.envsciencegroup.com)

Contact
T +44 (0)1354 653222
sales@envsciencegroup.com
www.envsciencegroup.com

Super stretch workwear from Engel

A new range of high visibility, flexible workwear which stretches to follow the movements of the body giving maximum comfort in any work situation has been introduced by Danish workwear specialists Engel.

Called 'Safety – Super-Stretch' the collection consists of a wide variety of garments with elastic fibres woven into a polyester and cotton mix; the strong yet extreme flexibility of the material allows each garment to return to its original shape thereby retaining all the inherent advantages of their design and style.

Comfort as much as durable practicality is important to any wearer as not only does the high visibility workwear provide protection throughout the day or night, it helps reduce tiredness, further minimising the risk of accidents.

The 'Super-Stretch' collection, which includes high-vis 'Safety' work jackets, trousers, shorts and bib-overalls is also being offered during 2021 in an environmentally friendly, 'Sustainable-Safety' version which incorporates 50% regenerated polyester fibres made from recycled plastic bottles.



This method of yarn production with the brand name of 'REPVEVE' has been developed by Unifi, one of the world's most advanced recycling centres; waterproofs, T shirts, sweatshirts and a zipped hoodie using the same material are also due to be added by Engel.

For more details, contact Gareth Bladen at:
gbl@f-engel.com or telephone +44 (0)7759 520034
or visit: www.engel.eu/en & ENGEL Workwear –
Catalogue at: www.f-engel.com
<https://youtu.be/nc2se7xKkLE>

Vision Engineering achieves ISO 13485:2016

- Medical devices – Quality management systems
- Requirements for regulatory purposes

Vision Engineering, a 63 year old British leading designer and manufacturer of high-quality visual measurement and inspection technologies, has attained ISO 13485:2016 and EN ISO 13485:2016 accreditation from the British Standards Institution (BSI) and is now a BSI accredited contract manufacturer of mechanical, electronic, electrical, and optical medical assemblies and components.

International recognition

The ISO 13485:2016 standard is an internationally recognised standard of quality and safety for the medical device industry and provides stringent guidelines for medical device manufacture. The certification process recognises that Vision Engineering meets all the requirements to manufacture medical devices and components and builds on the ISO9001:2015 quality systems already in place at Vision Engineering.

Modern manufacturing facilities

Vision Engineering's full service modern manufacturing facility includes design, machine shops, paint shop, clean room and assembly. It is replicated in the USA, with a wholly owned full service manufacturing facility in Connecticut.

In addition to its manufacturing services capability, Vision Engineering supplies non-contact and contact optical and digital microscopy and measuring systems to a wide range of global manufacturers, including



medical device, aerospace, automotive, defence and their multi-tier supply chains.

Mark Curtis, Managing Director, Vision Engineering, comments, "We are delighted to be awarded the ISO standard ISO 13485:2016 for our manufacturing facility. This ISO standards confirmation is a key statement of our ability to address the requirements of our manufacturing customers across the world and provide certainty of the quality of mechanical, electronic, electrical, and optical medical assemblies and components.



"It will help enormously in our worldwide business with medical device companies and also with Vision Engineering's Manufacturing Services business line for wider sub contract manufacturing opportunities."

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Two new BWMS in DESMI – now a full range covering all needs for ballast water treatment at sea!

In order to meet market and customer demand, DESMI has developed two new Ballast Water Management Systems (BWMS) covering bulker solutions and ships sailing in IMO waters only or primarily: CompactClean Bulker and CompactClean OptIMO. These new systems join the DESMI portfolio of BWMS alongside the well-known CompactClean BWMS.

With the CompactClean OptIMO BWMS, DESMI provides customers with an opportunity to select a BWMS which is carefully optimised to the needs of the vessel and its operation. If max flowrate treatment is required globally, including US waters, then the market leading CompactClean BWMS, the only UV system available that does not employ special flow reduction when operated in

US compliance mode, is the right choice. On the other side, if there is no need to operate the BWMS at max flowrate in US compliance mode, either because US waters are never entered or because the vessel's operation profile allows the discharge of ballast water at a reduced flowrate when in US waters, then OptIMO is the right choice as it provides both CAPEX and OPEX savings.

The CompactClean Bulker is a BWMS optimised for the operation of Bulk Carriers or other vessel types, where discharge of ballast water is performed at increased flowrate. With the Bulker solution we can tailor-make a BWMS for our customers which will allow one flowrate during ballast, and another and higher flowrate during de-ballast. As the filter is only applied during ballast



operation it can be downsized to match the lower flow during ballast, and therefore CompactClean Bulker grants the customer a CAPEX reduction, as well as OPEX reduction in case the filter internals need replacement during the life of the BWMS.

A quick view on all 3 system types are available at: www.desmioceanguard.com

Preventative maintenance: Why use a cleaner hydraulic oil?

As modern machines have evolved, so have lubrication systems and, as the oil film between system components is only a few microns thick – invisible to the human eye – it is essential to control and monitor contamination effectively, explains CP Lubricants.

Today, increasing demand is put upon lubricants in terms of operating temperatures, loads, efficiencies and performance. Studies have shown that up to 80% of oil related machine failures are caused by contaminated oil, so it is a fact that cleaner oil leads to longer component life and increased operational reliability. To maximise reliability, CP

Lubricants suggests companies consider condition monitoring by scheduled fluid analysis.

CP Lubricants' HydroMaster Ultra range are certified to ISO Clean code 16/14/11 # at the point of production and the company can continue that code to the sump of your machines by the use of its dedicated decant system, where specialist transfer equipment is used.

The industry standard for the blending of hydraulic oil is 19/17/14, but the cleaner your oil, the lower your operating costs.

For more information on CP Lubricants'

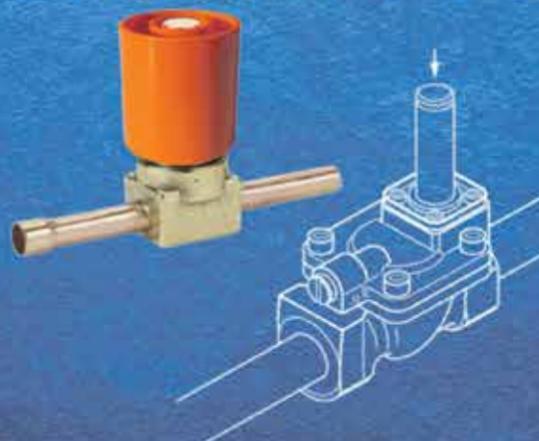


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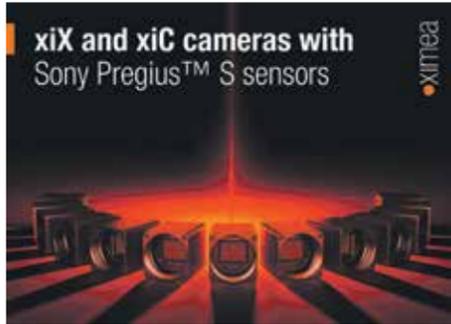
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XIMEA announces new camera models with Sony CMOS Pregius™ S sensors



Camera models based on IMX53x and IMX 54x will be introduced first and further sensors from the Sony Pregius S family will follow soon.

To the outstanding features of the next evolution of Sony CMOS sensors belong the small pixel size in combination with BSI – backside illumination technology.

All the sensors offer global shutter readout making them ideal not only for scientific applications, but also for systems where objects move at a higher speed.

The 4th generation continues with high quantum efficiency, lower noise, and noteworthy dynamic range of 71dB.

Earlier mentioned small pixels are 2.74µm helping with the choice of C-mount lenses thus improving the attractive cost and allowing a smaller footprint for mobility.

To leverage the miniature size of Sony sensors, XIMEA has integrated them into the smallest form factor measuring only 26 x 26 x 33mm and weighing 38g.

This is to date the most compact size for cameras with Sony Pregius S 4th generation supplied with 10Gbit/s bandwidth.

High resolution, unbeatable form factor, attractive price, compatibility, and customisability make these cameras stand out and they are worth checking out.

www.ximea.com

G-Series



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

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

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

Each sensor is supplied with individual calibration certificates. So, even with their highly competitive price, you can be sure that like all Interface products, the G-Series are built to the exacting standards that Interface are world-renowned for.

<https://interfaceforce.co.uk>

New features and improvements to popular cone and plate viscometer

After much research and listening to valuable feedback from a host of customers worldwide and ATAC have incorporated many enhancements to their Nµline viscometer. The Nµline is a self-calibrating, highly adaptable 'at-Line' instrument designed to give you a cost effective and robust option between delicate laboratory instruments and the lower end 'Go-No-Go' type viscosity measurement devices currently on the market.

These improvements and enhancements include extra modes to enhance the instrument's level of flexibility. Legacy mode and low speed modes permits and maintains the speed settings featured on the previous generation REL instrument. The low

speed mode (5-90rpm) can be adjusted to 0.1 .rpm if desired. Further improvements means both the temperature and display is flexible to 0.1°C increments. There has also been further enhancement to the cone accuracy via the calibration by cone size, as well as a security code feature enabling protection of the instrument settings and configurations. The PC interface software now includes an enhanced functionality with the added benefits of graph zoom in and storage, with minimum and maximum viscosity displayed.

Nµline is a highly ubiquitous and well regarded in the petrochemical sector.



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NµLine

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Leaders in off-mains drainage solutions



In our latest issue of Industry Update, we are proud to announce that we have chosen to feature Allerton Bradley Limited for the company's clear and dedicated commitment to providing innovative solutions through its various services in off-mains drainage.

Allerton is a premier off-mains drainage company which provides sales, servicing, commissioning and repairs of all types of septic tanks, sewage treatment plants, sewage pump stations and drainage fields. Displaying a wealth of experience demonstrated through its over 40 years of experience, Allerton is renowned as a specialist in sewage treatment systems, pump stations and septic tank conversions.

"Allerton Bradley has been trading for over 45 years and deals with all things 'off-mains drainage'. Everything from installations of new treatment plants for domestic or commercial properties, down to servicing of all types of sewage treatment systems," said Nathan Chambers, Sales & Marketing.

First established in 1974 by Jon Allerton, the company has seen exponential growth and success throughout its years of production while still maintaining its original focus. "We are still a small company with our main focus being our clients," Nathan explained, "We ensure that as much as possible is organised by our office so that you, the customer, need not worry about the paperwork or contacting councils, etc. We would deal with the Environment Agency or local council for permissions so you don't have to."

One of the most noteworthy features within its range of solutions, is the Allerton ConSept; the ideal solution for converting an existing septic tank. The Allerton ConSept



will convert any existing septic tank or cesspool into a fully functional sewage treatment system which then produces a final effluent that can be discharged into a watercourse or drainage field.

"The Allerton ConSept septic tank conversion unit is a bespoke product that is designed and manufactured in our site in Sleaford. These, alongside a permit from the EA, can be used to discharge treated effluent to a watercourse or into the ground via a drainage field, making systems now compliant with the General Binding Rules. These offer a lower cost alternative to a new installation and also can be used in situations with limited access," Nathan said.

The Environment Agency (the EA) is looking to tighten up restrictions on septic tanks and discharges to surface water or ground. The General Binding Rules have come into force for many properties with septic tanks and the systems must be updated or replaced to meet

the regulations. Nathan expanded, "There are several options available and if you had any queries Allerton would be happy to help you, feel free to get in touch. We are regularly inspecting sites to check if they meet regulations and quoting for ways to make them suitable. There is also further information available on our website."

In terms of the company's latest developments, we spoke with Nathan about how the last 12 months have been for the company and he outlined some notable additions.

He told us that, "The last 12 months have been a success for Allerton despite the unprecedented year we have had. While at times we have had to work long days, especially through the wet few months we have had recently, the Allerton team have pulled through as always, leaving our customers happy. We look forward to what the next 12 months have to bring."



Maintaining its high levels of customer satisfaction during the on-going COVID-19 pandemic, Allerton is pleased to be persistently working and providing solutions for its customers and has even seen expansion within its team.

Nathan continued, "2021 has seen the expansion of the Allerton workforce, welcoming Rob in the office, Stu in the servicing team and Katrina in the installation team. We are very excited to have them on board."

In terms of the company's future plans, Allerton is focused on maintaining its outstanding levels of customer service while also expanding upon its services. "We are continuously looking to expand and broaden our catchment area for servicing and installations of treatment systems. We hope to develop our new members of staff and invest in training to make the team the best in the business while not losing focus on our longstanding loyal customers," Nathan said.

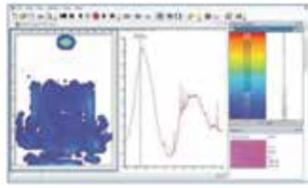
Indeed, Allerton's clear dedication to consistently expanding upon its services and solutions for its customers is of the utmost importance for the company who strive to provide outstanding services and products. We spoke once more with Nathan and asked how the company felt upon receiving our award; he told us that they feel, "Honoured, it is great to be recognised for the hard work our team have put in over the past year and to stand out in a very competitive industry."

For any further information, please see the details featured below.

T 01529 305757
www.allertonuk.com



Advanced force measurement



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."

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www.interfaceforce.co.uk

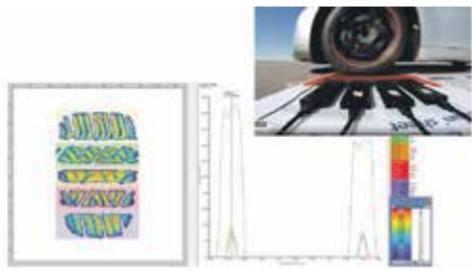


We are pleased to announce that Interface Force Measurement Solutions has been selected as the recipient of our Commitment to Excellence Award.

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



Engineering Update

Continued investment plans for Kingston Engineering

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

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

Kingston Engineering work very closely with both suppliers and end users, with a focus on providing technical expertise and an efficient turnaround service. Their products are used extensively in a range of applications across multiple industries including the aerospace, oil and gas, nuclear energy, chemical and medical sectors and many others. All customised and purpose-built screws are manufactured and produced to the exacting quality standards of ISO 9001-2015 accreditation.

In addition to producing bespoke precision-machined screws and components, Kingston Engineering provides component reclamation and enhancement, component repair and a corrosion prevention service.



An enviable reputation
 Kingston Engineering's specialist precision engineering services are built on a wealth of experience and a heritage spanning over 100 years.

Founded in 1919, the aftermath of the First World War marks the time frame for the origins of the business. Starting out as Hull Motor Transport and Engineering Co, the business originally manufactured pistons, cylinder grinding and provided general engineering services. With further expansion in the early years, the company evolved to provide the repair of saw milling and printing machinery. In 1924 the Kingston Engineering Co. Ltd name was adopted, with the manufacturing of screws beginning as early as 1930. Kingston Engineering started manufacturing components for aircraft undercarriages



during World War Two. The ability of the company to adapt and evolve has been a strong characteristic of the Kingston Engineering business. In the decades to follow, continued expansion and a focus on skill and engineering expertise enabled Kingston Engineering to obtain an enviable reputation as a leading precision engineering company.

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



Kingston Engineering continues to build on a strong foundation of engineering excellence and is committed to continuous investment to build a resilient future. As the company embraces the future, the focus is to continually invest in state-of-the-art equipment, in-house facilities and advanced technologies. This will enable Kingston Engineering to continue to deliver leading precision engineering solutions to both the UK and global market.

As a leading precision engineering company, Kingston Engineering is dedicated to producing cutting edge power screws and components, cut to quality materials and manufactured to exacting and highest quality standards.

Kingston Engineering offer great flexibility and rapid response to provide unique solutions to customer's specific engineering requirements.

Contact
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Custom made, high power density micromotors

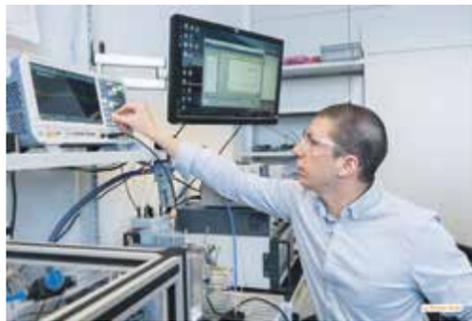
In this issue of Industry Update we are proud to announce that we have selected Mirmex Motor, as our Micromotor Company of the Month.

Mirmex Motor is a micromotor manufacturer, providing innovative miniature DC motors and motor windings, based on a patented winding technology.

The company originally started out in 2013 from a university laboratory and was officially established in 2017. Since then, Mirmex Motor has been designing, producing, and selling industry leading, patented and bespoke solutions for electric DC motors and windings, for a wide range of applications.

"It has been a long journey, starting from a research project to now an independent company. We developed a high-power density micromotor which produces a more efficient performance in a smaller compact size," stated Cedric Van Rossum, CEO.

Demonstrating its industry leading expertise, Mirmex Motor has transformed the way motor windings are designed and produced. Instead of using traditional wire windings, Mirmex Motor uses copper windings made of



flexible PCB. This flexibility provides an abundance of benefits and design capabilities, removing restrictions and limitations on shape or constant diameter of windings wires. Mirmex Motor prints winding patterns and utilises AI software to create unique, innovative winding geometries. Through this technology, Mirmex Motor's micromotors are positioned firmly at the forefront of the industry, providing the highest power density, top precision, small form-factor, and unmatched performance.

In terms of its applications, Mirmex Motor's DC micromotors can be used for a broad scope of industries



and uses. Its size, high power density and flexibility has made it an ideal solution for industries such as aerospace, surgical, medical, industrial and much more.

"Our most important applications include medical power tools, robotics, bionics and surgical. Another important segment for us is industrial applications, such as machines, precision drilling and aerospace for drones, aeroplanes, and space applications, which can all benefit from our technology," said Cedric.

With such a broad range of applications, the micromotor provides limitless potential and flexibility. This agility has allowed Mirmex Motor to excel in custom-made windings and micromotors that are unique and optimises performance for their customers' specific applications. Whereas before, its customers would have had to look to a catalogue or off-the-shelf solution, Mirmex Motor has now produced a custom-made solution to ensure that each individual customers' needs are fully met, without compromise.

"The vast majority of our micromotors are custom made,



for customers who don't want to compromise from a catalogue." Cedric expanded, "We can ensure that the product is aligned with their needs. Whatever their criteria, they can come to us for a special solution, and we can design it for them without the huge upfront costs traditionally associated with customised wire-based windings. It's truly custom made for them."

In regard to the company's future plans, Mirmex Motor plans to continue to innovate the industry and maintain its organic growth. Cedric explained, "We plan to keep growing, we have seen an increase in activity, and we believe that we can gain significant growth and increase our industrial applications. Eventually we would like to open and maintain a local SBLDC winding manufacturing presence in the US, which we will be looking into, over the next 2 years."

For any further information, please see the details below.

www.mirmexmotor.com



Test, Measurement & Monitoring Update

Accretech: The RDS Precision decision

Given the intense competition between engineering subcontractors it is often the businesses with unique selling points that stand out from the crowd. One such successful company is Washington, Tyne and Wear based RDS Precision Engineering. In addition to establishing a reputation for delivering on time and on budget, the busy company's main differentiator is its highly developed quality ethos. To help ensure the premium quality of the company's output, regular investments are made in high-precision inspection equipment.

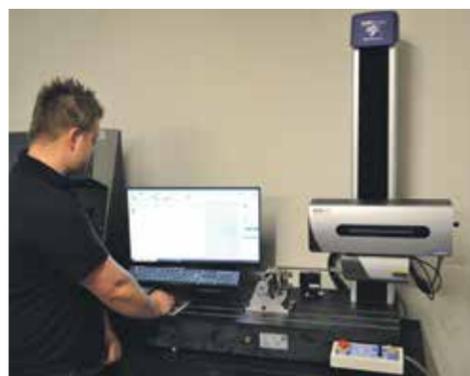
The latest addition to RDS Precision Engineering's impressive quality control department is an Accretech SURFCOM NEX 041 CNC measuring station that provides the company with high-precision, two-dimensional contour and surface roughness measurement capabilities.

RDS Precision Engineering was established in 1991 by brothers Robert and David Bone with the aim of becoming a successful independent supplier of precision engineered components. Due to the quality of the company's output and the efficiency of its services, the business soon achieved its founders' ambitions. To enable RDS to increase its capacity and expand its range of precision manufacturing services, over the past three decades regular investments have been made in a range of CNC machine tools and advanced inspection equipment.

Explaining the recent Accretech purchase, RDS Precision Engineering Director, Rob Bone, said, "A policy of regular investments has resulted in our skilled staff now having access to a wide range of first-class inspection equipment. As a BS EN ISO 9001 certified business that counts many companies involved in technically demanding industries as customers, quality has always been, and will continue to be, our number one priority.

"We use a selection of standard inspection equipment, such as CMMs and vision measuring systems. Also, given the demanding specifications and challenging dimensional tolerances of many of our components, we also use highly-precise specialised metrology equipment, such as our recently purchased advanced Accretech CNC contour and roughness measuring system.

"The decision to purchase the Accretech system was a simple



one. Some time ago, a major customer of ours searched the market for an easy to use CNC measuring station that could deliver high-precision, two-dimensional contour measurements, although several alternative systems failed to match the business' exacting standards, a SURFCOM NEX 041 proved to be the ideal solution.

"As we were recently looking to upgrade our inspection capabilities in this area, given our customer's exceptionally high precision standards, the in-depth research they had undertaken before their Accretech purchase, and as a result of their recommendation, we also recently invested in a SURFCOM NEX 041."

The SURFCOM NEX 041 is an advanced, CNC measuring station that delivers high-precision, two-dimensional, physical contour measurement. Ideal for the manual or CNC, high-precision measurement of contour geometries on demanding applications, such as ball screws and large bearings, the advanced Accretech system has an impressive contour measuring accuracy of $\pm(0.8+2H/100)$.

In accordance with Accretech's philosophy of providing the highest standards of precision with trouble-free operation, thanks to the use of kinematic magnetic holders, the SURFCOM NEX 041's contour styli can be swapped out effortlessly and with high positioning accuracy. Also, to enable even the most difficult to reach workpiece positions to be inspected a wide range of contour measuring styli are available.

Ideal for use by both novices and experienced quality control personnel, user-friendly SURFCOM NEX 041's ACCTe operating software is extremely intuitive. In addition to measurements being fully automated, the system's calibration and adjustment procedures are also simple procedures.

Rob Bone continued, "Following a trouble free installation and operator training, as the SURFCOM NEX 041's operation is so straightforward our staff soon mastered its operation. Now in regular use, our new Accretech machine is proving invaluable. For instance, we were previously using a shadowgraph to measure a regularly manufactured family of parts with demanding angular contour specifications and struggling to achieve the required levels of precision. Now, we are able to load each of these parts onto the SURFCOM NEX 041, recall the relevant program and instigate a precise, fully automatic CNC measuring routine. Not only has the Accretech machine improved our precision standards related to these challenging components, it has also slashed the time taken to inspect them. In fact, as our contour inspection routines have been automated, now, after the operator has loaded each part onto the machine, he is able to perform other duties whilst waiting for inspection cycles to be completed.

"So successful has our use of our SURFCOM NEX 041 been, soon after its installation, we returned to Accretech UK to purchase an additional T-stylus set that now allows us to make very accurate contour measurements inside small bores in both downwards and upwards directions. This allows us to measure complex geometries and diameters deep inside bores that were previously very difficult or impossible to measure."

Accretech designs and manufactures a wide range of high-precision, cost-effective instruments for the accurate and efficient measurement of workpiece surfaces, forms and contours. Used throughout the world by quality conscious businesses involved in some of the most demanding industries, such as the automotive, aerospace and medical sectors, Accretech products are found in both quality departments and in serial production situations on assembly lines.

Accretech's extensive range of contour measuring devices allow workpieces features, such as angles, radii, distances and coordinates to be quickly inspected with high levels



of precision. Rather than using the ball screw and nut arrangement, employed in less capable systems, Accretech's products benefit from the use of advanced linear technology. This superior arrangement results in significant reductions in mechanical wear and ensures that all products retain their accuracy specification and remain maintenance free. These advantages provide users with considerable cost savings over the life of each system.

As all users' contour measuring needs differ, SURFCOM NEX machines can be specified with the addition of a wide range of modular accessories and sensors, guaranteeing the delivery of systems that exactly matches their intended use. The availability of these accessories and sensors means that Accretech systems remain 'future-proof' as they can be modified as users' inspection needs change.

Contact: Tim Wood
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woodt@accretech.eu

Prepare your workplace for the great return



Improve safety, optimise space utilisation and reduce real estate costs

As employees return to the workplace, it is essential that their safety remains a top priority. Many will naturally be cautious, only returning if they are comfortable with the safety measures implemented. With social distancing and workplace capacity limits here for the foreseeable future, how can you ensure compliance and keep employees happy?

And this isn't the only problem for Facility Managers and Property Teams. The shift to flexible and hybrid working means that demands on physical workplaces are changing. Do you have the opportunity to downsize and make significant cost savings? Do you know if your spaces are being used efficiently? Do you need more flexible space? And importantly, to make these decisions, do you know how your space is actually being utilised?

The solution to both these problems? An Irisys occupancy monitoring system.

Irisys are occupancy measuring experts. Using industry leading occupancy sensors, an Irisys solution can:

- ▼ Enable social distancing through automatic capacity control
- ▼ Help understand actual space requirements and optimise space utilisation
- ▼ Identify opportunities for downsizing and cost savings

Learn more about our occupancy monitoring solutions at www.irisys.net/safecount and www.irisys.net/trueoccupancy

Retail security dilemmas solved with ShopShield

This summer, countless retail, hospitality and entertainment properties across the whole country are



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

Commercial security specialists, Clearway, have stepped into the breach with exactly what's needed to stop both criminals and mindless vandals: ShopShield One, a fixed-price, retail security solution that is simple, affordable and ticks all the necessary boxes to keep the premises safe and secure until new tenants can move in.

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

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

New AZM40 solenoid interlock with UL certification

The new compact AZM40 solenoid interlock now has UL certification, which means that it can be used in machinery and systems intended for the North American market. In addition, Schmersal has optimised the interlock as well as developed additional versions that incorporate specific customer requirements.



AZM40 is the smallest electronic solenoid interlock in the world. The AZM40 is the ideal safety solution for all machine builders looking for optimisation through miniaturisation, simplification and minimisation of materials.

New enclosure versions

The AZM40 solenoid interlock and actuator are available in two enclosure versions. For typical use in mechanical engineering, there are enclosures with a flat, screw-on surface for cylinder-head bolts. For visually improved installation and where space

saving is a priority, there is a version with countersunk tapers for countersunk bolts.

Low-energy safety solution

The AZM40 operates to a bistable holding principle. This means that it maintains its locking position and securely holds the guard door in the event of power failure, thereby preventing hazardous run-on movements.

Contact: Steve Watkins, Marketing & Business Development

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swatkins@schmersal.com
www.schmersal.co.uk



AZM40: THE SMALLEST ELECTRONIC SOLENOID INTERLOCK IN THE WORLD



Strong Interlocking force in a compact design

With dimensions of just 119.5 x 40 x 20 mm, the AZM40 is the smallest electronic solenoid interlock in the world. This makes it especially suitable for small safety doors and flaps. Despite its compact size, the AZM40 has an amazing 2000 Newton interlocking force and 25 Newton latching force.

Thanks to the 180° angle flexibility of the actuator, it can approach the AZM40 on a stepless basis, making the interlock also suitable for flaps which do not close at 90° or those that open upwards to a 45° angle. This means the angle flexibility helps the interlock easily fit into compact spaces and difficult to access areas.

The AZM40 works on the bistable principle: In the event of a power cut, it retains the current position. This ensures safe operation, whatever the status of the machine. Even if there are hazardous run-on movements, the safety door remains safely locked in the event of a power failure. Another advantage of the bistable principle is the consistently low energy consumption, as the interlock only requires power when the door is to be locked or unlocked.

Scan the QR code to see the AZM40 in action or visit our website for more information.

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Testing room integrity for airtightness



Today, and in fighting this awful virus, it has never been more pertinent to test room integrity, for airtightness. A building that is not airtight cannot be properly mechanically ventilated. Now is the time to build tight, ventilate right.

Existing methods for achieving pressurisation are intrusive, costly, and ineffective, and require third party contractors. The user cannot identify specific areas of leakage, leaving remedial action to inaccurate speculation. While 2020 hit the pause button, innovation thrived. There is now a unique solution from Coltraco Ultrasonics who have brought testing for airtightness, and air permeability into the 21st Century. Coltraco Ultrasonics applied 30 years of expertise to design a solution both to help protect the NHS against the spread of airborne diseases, and improve our buildings' air quality delivering contaminant and dirt free air. Air leaks with a diameter as small as 0.5mm can now be detected and quickly located with the Portascanner® AIRTIGHT 520.

For the first time, with minimal training, the user can locate a leak, quantify the leak site, calculate the air flow rate through it, and generate an air permeability value for the room. You can then take accurate remedial action, and have full confidence in both the airtightness of your room, and the effectiveness of your ventilation in circulating clean air. The built environment can now go above and beyond standards, with the ability to photograph, record, and export test reports, all in the tap of a finger.

Portascanner® AIRTIGHT 520 is a new solution to ensure that buildings are airtight so that people can be confident that they are returning to 'safe buildings' and 'safe working' by properly ventilating them. This is to ensure that all ventilation systems are operating effectively, and thereby enhance indoor air quality (IAQ) which has now become a poignant issue.

Please contact: maryconnie@coltraco.co.uk or phone 0207 629 8475.



TYDE launches its brand new website

TYDE, a Thomas Dudley Business, is proud to announce the launch of its brand-new website! Designed with the customer in mind; TYDE's new website provides easy access to its vast range of plumbing fittings and spares.

TYDE's new website makes finding a product from one of its extensive product ranges as simple as 1-2-3. One: use the handy search function to search by product code, description, brand or product name. Two: select the product you need from the quick access menu system. And Three: click on any product as you see them featured across the site.

If you need to access technical information such as specification sheets, instructions or install and maintenance videos, then you will find the 'How To' and FAQ sections of new TYDE website a great resource.

Visitors to the TYDE website will be able to create, send or download a quote request with the new Quote Builder function. Website visitors will also be able to download and print off their quote list should they wish to take it to a local stockist.

If a visitor to the website needs help locating a TYDE stockist then they can simply enter their postcode and let the website do the rest. Keeping the customer at the heart of their activities, it's what TYDE does best.

Paul Weddle, the TYDE Business Unit Director, says, "After many months of hard work and dedication from our team, we are pleased to announce the launch of our new website.

"Our primary goal was to create a valuable, user-friendly and responsive resource for our customers. Based on feedback, we've



focused on making it easy to locate product information and simplify the ordering process."

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

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Gold & Wassall have been manufacturing hinges for over two centuries, so it's safe to say we know what we're doing. Our team of experts can design and manufacture almost any hinge, for any application. We have made upwards of 250,000 unique hinge designs, with more designs being drawn up each day.

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The right all-in-one device for prelocation, pinpointing and correlation

The **SeCorrPhon AC 200** combines the characteristics of a correlator with acoustic water leak detection. This makes it an all-in-one device for leak detection, which brings together the three important functions of prelocation, pinpointing and correlation in one single, functional system. Users can react to any location scenario, even in the most challenging of conditions. Switching between the different functions or processes is simple and fast.

The **SeCorrPhon AC 200** makes structure-borne and ground-borne noises caused by leaks from water pipes audible to the human ear. The frequency spectrum is traced and made visible on the device, and the current acoustic intensity is shown as both a graph and numeric readout. The user can also see the pre-calculated volume settings and the current frequency analysis of the device on the display at all times.

To then carry out the pinpointing of the leak, the user uses the **TS 200** carrying rod and **BM 200** (for paved surfaces) or **BM 230** (for unpaved surfaces) ground microphone on the section found during the preliminary detection stage.

The **SeCorrPhon AC 200** transmits the acoustic signals and shows the intensity as a graph on the screen, pinpointing the leak with sufficient accuracy to allow confident excavation.

The acoustic features of the piezo microphone are outstanding: even the faintest of leaks or leaks occurring in noisy environments can be identified and detected. At the touch of a button, the **SeCorrPhon AC 200** will apply tailored filters to the current noises and will automatically select the appropriate frequency ranges. Filter limits can also be adjusted to accentuate the leak noise and to permit improved comparability between recordings (e.g. for use in databases or teaching/presentation purposes).

The **SeCorrPhon AC 200** is ideal for use for leak detection across all sections, materials, diameters and lengths of pipelines. Numerous additional functions are also available for complex location scenarios – whatever your leak detection requirements, this system will fulfil all of them.



Correlator and acoustic water leak detector combined

SeCorrPhon AC 200

professional – flexible – intelligent

- Easy and reliable operator guidance through applications
- Integrated audio player to compare leak noises directly on site
- Unproblematic measurement of various pipe sections, pipe materials, diameters and pipe lengths
- Sophisticated firmware allows the user an almost automated measuring process



Reducing roughness correctly

Even though it's only ever about obtaining the right roughness, working on surfaces is only effective if all the factors are balanced correctly. That's the view of Ralf Heimann, a specialist in fine grinding and polishing.

"If we're talking about surfaces, essentially it's always about getting the right roughness," says Ralf Heimann, product manager for fine grinding and polishing tools at the German tool manufacturer PFERD. "Because that is what defines surfaces."

But in practice what seems so clear and simple often turns out to be an extremely complicated application that regularly fails "if you don't know what the influencing factors are," says Heimann.

Surfaces and their functions

The first question to answer is what a surface actually is. "Technically speaking, surfaces are defined by their properties, for example roughness. But we can also describe surfaces in terms of their function, for example protecting against mechanical damage caused by wear or friction, protecting against corrosion by performing a barrier function, but also a visual function like reflection, absorption or aesthetic design," Heimann explains.

The planned use of the relevant component defines the requirements that then have to be produced. And, as the product manager knows, that is often where there is a lot of uncertainty.

"Production of functional surfaces involves a lot of influencing factors. To achieve the optimum result technically and economically, it's vital to balance these factors effectively when it comes to choosing the method, tools and drives used."

Conditions for the perfect surface

The general conditions are determined by the material to be worked on, the



Reducing roughness correctly – so easy you wouldn't want to stop

initial situation and the desired result. "The choice of tools for cleaning and smoothing a steel weld seam, for example, is totally different from that for brush matting of stainless steel," says Heimann, discussing two typical applications. This is because the materials and the applications have very different requirements in terms of the tools used.

Likewise, the dimensions of the surface to be worked and its accessibility play an important role. "Small, tight locations require different tools from large, easy to reach surfaces," Ralf Heimann explains.

Range with no gaps

Even when each individual factor that makes up the general conditions can be clearly described, the complexity of work on surfaces comes from the combination of all the variables. "The variety of materials alone demands a huge range of different abrasive grain types, as not every abrasive can be used on every material. Depending on the initial situation and the result to be achieved, the tools used generally start with rough working, then fine and very fine grinding and finally polishing." A modern range of grinding tools has to cover the full breadth and depth of these requirements. And within the range the relevant solutions have to be coordinated precisely with one another, "as to systematically reduce the roughness to get the desired surface finish, I need tools that are precisely designed for the individual steps," says the man from PFERD. That is why the PFERD range of grinding, fine and very fine grinding and polishing tools is based on the needs of those carrying out the work and the results they are aiming to achieve. "There cannot be any gaps."

Likewise, the shapes and designs of the tools have to be sufficiently varied for them to be suitable for any application. It is common for users to be faced with a situation in which they have the right tool but cannot reach the location they need to work on, for example because the shank of the tool is too short or the cutting point faces backwards and cannot be reached with a face-down grinding tool. "In this case, we think about different usage scenarios," Heimann told us. "We offer the same tool for use in face-down, belt, peripheral or hand

grinding. And in lots of different dimensions. As a result, we can be sure that work can always be carried out, no matter where the surface to be worked is located and how I can reach it."

From this perspective

- ▼ from rough to mirror polished and
- ▼ from face-down to belt and peripheral grinding to manual applications
- ▼ in different shapes and dimensions

we have a range that covers almost all possible applications for tools and work on surfaces, according to Heimann. "And we know the best working strategy in each situation."

Know-how

As part of its expert advice service, PFERD identifies solutions for the customer's specific application situation. "We look at exactly what the customer is doing, where they want to go with their working and make suggestions for improvements." Primarily, our aim is to ensure that the best possible result is achieved from a technical point of view. We pay particular attention to achieving the maximum possible efficiency and creating lean processes. Ergonomic working also places an important role and has effects in three areas: On the work result, on efficiency and, last but not least, on the person performing the work, who has to be looked after. "If we can literally get together with our customer at the workbench, we always achieve a significant improvement in the work result and the process," Heimann reveals. The work invested here pays off very quickly.

"We have advised lots of users and found solutions for their problems," the PFERD product manager told us. "When we finally have the solution in front of us, customers are frequently surprised by how easily, quickly and effectively we managed to solve their problem. When it comes down to it, it's always just about reducing roughness. But doing it properly."

www.pferd.com



From coarse to mirror-polished – here with the COMBICLICK system from PFERD



Ralf Heimann, Product Manager of Fine Grinding and Polishing Tools at PFERD

Print & Packaging Update

Resino Printing Inks upgrades customer experience through new website

Resino Printing Inks delivers a wide range of high-quality inks for special requirements, in particular reactive water-based, solvent-based and UV curing inks for flexographic printing. The inks are suitable for direct and in-direct food contact. Another important application for Resino is printing on non-woven diapers and other hygiene products. Resino also has a global leading position in inks for meat casings. These inks have great adhesion, low migration risk as well as boiling and sterilization resistance.

Resino Printing Inks has focused on taking its customer experience to new levels of heights. Therefore, the printing ink company has established a digital strategy and launched a new website that is customer centric, intuitive and modern.

For several months, employees in Resino have shown lots of hard work and dedication to develop the website, which is now finally being launched. Resino is on an exciting travel and implements digital initiatives to improve customer experience, which is reflected in the new website. The aim is to make the website customer centric by building the site around the customers and in addition, Resino wants to make it easy for customers to learn about the company's products.

CEO in Resino, Signe Cederstrøm, states, "We have upgraded our entire digital efforts a lot over the last year and would like to offer our customers an easy and accessible way for them to be able to gather all the information they

Meat casing

Direct food contact

Shrink & stretch

Non-woven hygiene

Pharma and medico

need in one place."

Improved buying experience with company profile

Through the new website the customer is able to get a company profile, which provides the customer a number of benefits. The customer is able to buy products directly from a tailored product list and to rebuy previous orders. Furthermore, the customer can at any time download invoices and credit notes, and thus the purchase documents are gathered on the company profile. Moreover, the customer can generate safety data sheets to all products.

"We want to make it easier for our customers to order products through our new e-commerce portal which is tailored to each customer to provide the most value for them," CEO Signe

Cederstrøm says.

User-friendly website

On the new website, there is established new functions, which the users easily can navigate in. Now the user is able to sort the searches by markets and product categories, which gives the user a better overview of, which products that are needed. At the products' respective landing page, the user can order a sample to ensure the customer gets the best fitted products.

Furthermore, the user can easily get access to useful documents, for instance technical data sheets, brochures and certificates. Also, the users can look forward to increased speed and a fresh design on the website.

www.resino.dk



Are you Resino's new distributor?

Resino Printing Inks is looking for distributors of inks for flexographic printers in the segments:

- Food contact materials
- Hygiene non-woven
- Specialty packaging
- In-mould labels
- Lidding films
- Lami-tubes



Scan to visit www.resino.dk

Do you find this partnership exciting?

Contact: nn@resino.dk



WE OFFER

- Strong technical solutions
- Flexible support & offering
- Global experience sharing
- Partnership cooperation
- Stable customer base

Using CO₂ cooling and heating to fight global warming

Here at Industry Update, we are pleased to announce Advansor as our Sustainable Company of the Month.

In 2006, back when CO₂ technology was extremely complex, Advansor birthed an innovative, pioneering growth venture. Today, Advansor is a market-leading OEM manufacturer, who has built more than 10,000 CO₂ systems for supermarkets and industrial customers in over 30 countries around the world. With more than 250 employees, Advansor manufacture over 2,000 systems yearly which are produced from its own factories based in Denmark and Poland.

Advansor produces the world's best sustainable CO₂ cooling and heating systems with 18 of Europe's top 20 retailers using the company's sustainable CO₂ systems. Advansor holds the broadest product portfolio entirely based on CO₂.

It all began with an idea to use CO₂ in refrigeration systems to combat global warming. The vision then



became a reality, and since its establishment, Advansor has paved the way for the commercial distribution of CO₂ refrigeration systems in the most organic and sustainable way. The combination of advanced technology, climate-consciousness and a desire to make an impact drives Advansor to many successful partnerships with its customers and suppliers.

The company's focus has always been exclusively on CO₂, and this will continue far into the future. "The shift to natural refrigerants is one of the changes with the most positive effect on our environment globally, so our products really have a huge impact reducing CO₂ emissions. We aim to fight global warming while educating people that CO₂ is the most climate and environmental friendly refrigerant," stated Kristian Breitenbauch, Managing Director.

Why CO₂?

It's non-toxic, it doesn't affect the ozone layer or our drinking water, it doesn't contribute to global warming and it is very energy efficient. With this in mind, Advansor



use the United Nations' Global Goals as its guiding star. Climate action is in Advansor's DNA and conclusive to that, sees the undergoing work of three of the company's sustainable goals. To provide clean water and sanitation, to provide affordable and clean energy and to deliver a responsible consumption & production service. By taking strong climate action, Advansor has proved that natural refrigerants play a major role in limiting global warming.

According to Project Drawdown, a table of solutions has been created which uses different scenarios to assess what determined, global efforts need to be addressed and how best to tackle them. The results are based on a projected global emission impact, which sees the act of replacing refrigerants alone as the 7th highest element on the list. Implementing natural refrigerant solutions is considered and proved to be one of the most important elements to reduce global warming.



Proven to improve customers economic performance, one of Advansor's best-sellers is the Ultra-Compact MiniBooster. Advansor have simply raised the bar with this innovative upgrade to its MiniBooster. Low investment costs, reliable, highly energy-efficient, fits the size of a Europallet and is the most sustainable and easy solution for smaller food retail stores.

The company's focus on sustainable solutions is of the utmost importance, considerably more post COVID-19, as people are becoming increasingly aware of their actions and how they can turn to an eco-friendlier alternative.

If you would like more information on Advansor's products and services, see below.

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www.advansor.com



Vacuum & Conveying Technology Company of the Month

Spotlight on Quirepace: Innovation in vacuum and conveying technology

In this issue of Industry Update, we have selected Quirepace Ltd as our Vacuum & Conveying Technology Company of the Month.

Quirepace design, manufacture and supply a diverse range of industrial vacuum cleaners, pneumatic tube systems and a range of exhausters and blowers, providing proven products with carefully designed solutions to deliver outstanding benefits to its customers. Utilising its years of experience and expertise, Quirepace is equipped with the skills and knowledge to best interpret its customers' requirements and aspirations, to bring them into fruition offering first-class products, systems and services.

Quirepace was established in 1983 to continue the pneumatic tube system business of Rediffusion Business Machines, which has deep roots. When it was formed in Gosport, several of the original team were working or had worked for Lamson Engineering, also based in Gosport, which was the direct descendant of Lamson Pneumatic Tube Company incorporated in the UK in 1899.

Pneumatic tube systems for transporting small payloads still remain at the core of the company's business. The largest UK market is in the Hospital and Healthcare sector, but many installations are carried out within a wide range of sectors including: Industry, Manufacturing and Retail, for transporting everything from samples, to jewellery, to paperwork – in fact anything that will fit inside a carrier.

Moving forward, in 2007 Quirepace bought out the Company which was the descendent of Lamson, by then owned by the South African organisation Barloworld. The acquisition brought with it the British Vacuum Cleaner brand, which was directly descended from the British Vacuum Cleaner Company incorporated by Hubert Cecil Booth in 1903 to exploit his patented innovation, the first



mechanically-powered vacuum cleaner.

During the 20th Century HC Booth's company continued to sell industrial vacuum cleaners under the BVC brand, and domestic machines of many different types under the Goblin brand.



Gaining a sterling reputation, today the BVC brand is synonymous with traditional British engineered and manufactured heavy duty Industrial Vacuum Cleaners, with a range of vacuum pumps and blowers supplied as both stand-alone units and as OEM components to other manufacturers to incorporate into their own products.

From its modern offices and attached manufacturing and storage facility located in Fareham, Hampshire, Quirepace is well equipped to provide its customers with a turn key service, ensuring the highest levels of customer support. While some manufacturing processes are subcontracted, Quirepace have their own press and machine shop making the various pressings and components used in the range.

BVC Industrial Vacuum Cleaners span a range from 1kW to 15kW, and are available in various classifications including machines for hazardous dusts and ATEX environments. While there is a core range of standard specifications, the company boasts the ability to configure units to meet customers' particular requirements, not only with choices such as filter material, hose size and length and type of



tool, but also for customisations such as PLC interfaces to integrate equipment into manufacturing production lines and processes.

BVC equipment doesn't just include the ranges of portable vacuum cleaners. Quirepace also supply, under the BVC brand, fixed Central Vacuum Cleaning installations for industry where fixed pipework is connected to a central vacuum and collection unit.

In terms of its latest developments, one of the more recent additions to the Quirepace portfolio is the Electric Track Vehicle monorail systems from Teletlift Logistics for which Quirepace are UK agents. This rail-based intralogistics system can transport payloads up to 45kg both horizontally and vertically throughout a facility, and is designed to integrate with automated processes with automatic load/unload and integration with SCADA, WMS etc.

T 023 9260 3700
www.quirepace.co.uk





UNISIG

UNISIG TAKES MOLDMAKERS FURTHER

Increase your mold manufacturing versatility using the power of gun-drilling with the leaders in deep hole drilling, UNISIG. Offering complete solutions for everything from simple to complex mold components, UNISIG machines help moldmakers improve efficiency, throughput and precision with outstanding part-processing versatility at an exceptional value.

**TAKE YOUR MOLDBAKING OPERATIONS
FURTHER WITH UNISIG TODAY.**

Find out more at www.UNISIG.com



Boost process efficiency and production output with automation

When David Rybacki founded DRG Manufacturing in the Chicago suburb of Lake Zurich in 2015, he started off with nothing except a commitment to manufacture total solutions for his customers. Since he was not basing his production process on existing equipment, he set out to incorporate automated systems and processes that would provide him with the highest levels of productivity.

DRG serves the firearms component industry, and the shop's commitment to quality has yielded dramatic results. In three years, it has grown from six to 40 employees and has increased its business eightfold.

"Business has been very good to us," Rybacki said. His commitment to making parts that exceed expectations has much to do with that success. DRG creates parts to three specific, equally stringent sets of specifications: their own internal specs, MIL-SPEC prints that constitute industry standards, and custom OEM prints supplied by individual customers.

The company approaches every new product and component build as an opportunity to produce it with the most effective process possible. One of the keys to that productivity has been DRG's fully automated gundrilling and reaming cell from UNISIG.

Before Rybacki invested in this cell, he evaluated several other gundrilling machines. "Most were limited to manually operated equipment that would not accomplish Rybacki's objectives. Only UNISIG offered a robotically run cell that could provide the functionality and flexibility DRG required," said a company spokesperson.

"Many companies in our industry put an operator in front of every machine," Rybacki explained. "Instead, our UNISIG automated cell gives us about a 150% production increase over such manual operations."

DRG's automated cell runs barrel blanks with chamfers at each end. A robot picks up a blank from an infeed system and loads it into a dual-spindle UNISIG UNE12-2 gundrill machine with a 12mm maximum part diameter capability. After the drilling process is completed, the robot moves the blank to a dual-spindle UNISIG UNR20 reamer.

Once the automatic reamer completes its part of the process, the robot moves the blank to a blow-off station to clear oil from inside the barrel. From there, the robot transports the blank to the outfeed station, where it exits the cell to be rifled. All aspects of the cell are automated, including the vision system with automatic compensation that allows the shop to quality check every part before human hands ever touch them.

DRG's completed automated gun drilling process simplifies completion of large orders with long delivery schedules. Most



DRG approaches every new product and component build as an opportunity to produce it with the most effective and productive process possible. One of the keys to that productivity has been DRG's fully automated gundrilling and reaming cell from UNISIG



At DRG Manufacturing, a dual-spindle UNISIG UNE12-2 gundrilling machine, with 12mm maximum part diameter, drills barrels for the shop's automated operations

of the shop's workflow involves long-term contracts and multi-month purchase orders for 1,000 or more barrel blanks. That workflow makes production planning easy because the company can establish shipping dates and work backward to create the build schedule. To meet their commitments, DRG normally runs three shifts—two attended by an operator and one unattended at night. Including the UNISIG cell, DRG has a total of five automated cells within the factory that operate a full 24 hours of every day.



"UNISIG offered a robotically run cell that could provide the functionality and flexibility DRG required, and the cell resulted in about a 150% production increase over manual operations," said a company spokesperson

When DRG receives a purchase order, it processes half the part total up front so larger volumes can enable them to amortise set-up costs over longer runs. In addition, DRG's Kanban inventory system enables the shop to maintain a replenishable inventory of high-demand parts for same-day shipping. Because the shop must be highly responsive to changing customer demands, inventory makes it possible to source smaller orders that DRG otherwise would refuse.

Originally, DRG outsourced profiling and barrel manufacturing work. But large orders and stringent specifications called for specialised equipment. For this reason, DRG acquired its UNISIG drilling and reaming cell in 2017 to produce raw rifled blanks.

Although DRG has the option of running the UNISIG R-2A rifling machine as part of its automated drilling and reaming cell, that is one process Rybacki prefers to keep manual. "We run rifling manually so we can QC it and make certain that all aspects are perfect," he said. "DRG's QC department air gauges everything the company makes, although the cost of the QC equipment is steep: about \$12,000 per caliber."

Among the other attributes that set DRG Manufacturing apart from its competitors is its commitment to automated equipment. Rybacki realises that some companies may shy away from implementing automated cells because of the upfront time involved in development and set-up.



DRG relies on its UNISIG equipment to achieve the shop's quality targets with part materials such as 416R pre-hardened chromium stainless steel and 4150 Chrome-Moly Vanadium (CMV)

"It is about being patient to achieve the results you want," Rybacki said. "We can buy machines from UNISIG, put them on our floor and run them manually – or we can wait about six months longer and buy a fully automated turnkey system that runs perfectly." He noted that the extra time investment enables DRG to double its production without adding personnel or shift hours.

When it comes to workpieces, DRG works with some challenging materials and tight part tolerances. It manufactures most of its parts from 416R pre-hardened chromium stainless steel and 4150 Chrome-Moly Vanadium, or CMV. On a 17" rifle blank, for instance, total indicator runout is kept to under 10 thousandths, with diameters at under one thousandth and size within a couple of 10 thousandths.

UNISIG's application support plays a key role in DRG achieving its quality targets with tough part materials. As Rybacki pointed out, "They are experts in deep hole drilling, and they taught us everything we needed to know. The learning curve was just a matter of mastering tool life, which they gave us suggestions on. After receiving guidelines on how to start we just took it from there. It is not trial and error because of UNISIG's expertise. It is only trial and error if you do not listen to them."

For the immediate future, further expansion at DRG will have to wait. Although DRG has not reached volume capacity, its growth and success has led to no available shop floor space. Automation has enabled DRG to increase its process efficiency and boost production output. But Rybacki is quick to point out that robotics only work in a shop with the right people to operate them. "You still need people," he noted. "People can grow into new opportunities. Robots do not take over completely."

UNISIG is exhibiting at the EMO show in Milan, Italy in Hall 2, Stand E38 from 4-9 October 2021. Further information on all machines of the UNI, UNR and R-2A series and the complete UNISIG machine program is available at: www.unisig.com or follow the company on LinkedIn and Twitter (@UNISIG).



The user-friendly UNISIG deep hole drilling system control helped DRG shorten its learning curve

How could Additive Manufacturing help you?



Specialising in Hewlett Packard Multi Jet Fusion (MJF) technology, Incremental Engineering helps to bring the advantages of this system to companies who are not fortunate enough to have it in house.

MJF is one of the first Additive Manufacturing (AM) technologies to be able to produce batch quantity end use components with great isotropic material properties and high finish standards, so many larger companies have the technology in house, giving them a key manufacturing advantage. Incremental Engineering offers MJF technology to SMEs with the feel of in-house production, and is happy to review your designs for printability and to advise on where cost savings and design benefits from AM can be implemented.

Incremental Engineering was established to serve SMEs with quality end use engineering components. Founded by Jerry Sutton, an engineer with over 25 years' experience in product design, machine design and instrumentation within a world-leading SME, the company has engineering at its core. This places it in a prime position to understand the needs and problems of manufacturing SMEs, ensuring customers always get the service they require.

Adoption of Additive Manufacturing (AM) can be daunting for OEMs and in particular for SMEs, something which Jerry has experienced first-hand. "SMEs can be unsure of the benefit AM can bring, and how they can implement it seamlessly into their business and existing operations.



Incremental Engineering's AM services are available on short lead-times and in one off or batch quantities. The company also offers Hybrid Manufacturing, which is a combination of AM and traditional techniques.

"We can address a range of production needs, from full production runs to single prototypes – we might have one job where we're producing a single part, and another one where we're producing 12,000 parts. We're totally flexible in that regard which is great for smaller companies."

In addition, thanks to advances in 3D printing technology in the last few years, products are finished to such a high standard that many won't be able to tell it has been 3D-printed. "We have a lot of equipment in place to finish the products to a high standard – even consumers won't think it's 3D printed. This is the biggest difference with 3D printing in the last few years – it's gone from prototype to full production quality."



"The key driver that AM offers is cost-savings. Though this may not always be in the most obvious sense. On a part for part basis AM parts may not be cheaper but when parts are designed for Additive Manufacturing one of the key benefits can be brought to bare, this is that complexity comes for free. Geometries that cannot be moulded or machined may be printed. Thus, multiple parts can be condensed into a single printed part, reducing assembly time and part costs. Additionally, there are no upfront mould costs or tooling charges.

"By way of a small example, we have a customer who was making 900 small assemblies per year, a simple spigot made from a machined bracket and small tube that were bonded together, these were replaced with a single printed component, saving £8,500 per year on the parts in addition to the labour content to assemble them (around 1 person week). Not a world shattering saving but with near zero cost to change these can mount up pretty quickly."



This high standard of finishing has been improved recently with new hardware from DyeMansion. "Our new hardware makes the processes more automated and repeatable, with a range of different colour options instead of just black nylon."

This new hardware includes the DyeMansion Powershot C, the DyeMansion Powershot S, and the DyeMansion DM60. The Powershot C offers easy and efficient part cleaning, reducing the time and cost associated with depowdering the printed parts.

The Powershot S is the most efficient surfacing technology for end-use parts, achieving the best finish with superior colouring results. Finally, the DM60 is the leading colouring solution for industrial AM, using innovative DeepDye Colouring technology for wide colour choices.

These additions are a positive indication of Incremental Engineering's ongoing growth, an admirable achievement considering the challenges of the pandemic this year. "Initially, in the first lockdown, things did slow down slightly. But since then, a lot of companies have been re-evaluating their supply chain and we're actually busier now than we were before the pandemic.

"Incremental Engineering is growing at a sustainable rate of around 300% per annum with new hardware purchases expanding our capacity and a planned move next year to larger premises.

"I think because of the uncertainty around supply and demand at the moment, a lot of SMEs don't want to commit to large orders, which is something we can accommodate. You don't have to order 20,000 of something if you only need 10, so we can help decrease stock-hold risks for customers which has also contributed to the



increased amount of work we're doing.

"As we grow, we are committed to maintaining the same level of service for our customers. There are a couple of other companies in Europe that do what we do, but they are very big, too big for some SMEs, so you won't get the same results as you get from Incremental Engineering. We're focusing on increasing our offering but with the same level of quality with a personal, individual service."

If you would like to find out more information, or explore where Additive Manufacturing could help in your operations, please head to the website or get in touch using the contact details below.

Contact
T 01256 533838
www.incrementalengineering.com





ges group
PROVIDING THE BEST SOLUTION

Forecyte Online Condition Monitoring Powered by Nidec

Forecyte 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 Forecyte 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.

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.



Wind Turbine generator re-design

The Northern Ireland wind fleet contains 1,236 sites of 5,000kW in capacity or less, with a total capacity of 218MW. A significant number of these are around 250kW (798 with a total installed capacity of 214MW). Deploying larger capacity turbines with a reduced output capability has become extremely viable as the machines can produce the maximum 250kw at lower wind speeds making for a potentially more efficient machine. GES has been working closely with the industry in developing the generator winding design to accommodate this. Recently GES has completed machine winding conversions which have been installed at several sites across Northern Ireland and in Europe. The feedback from customers and service providers has been excellent and the machines' performance has met all expectations. With several more conversions in the pipeline, GES looks forward to further orders and developing our working relationship with others in this industry.

Telephone: 02825 656406
Email: info@ges-group.com

www.ges-group.com

Stäubli expands MPS robotic tool changer range



As a world leading manufacturer of connectors and industrial robots, Stäubli is recognised internationally as a trusted partner across a diverse range of industry sectors. Also credited as one of the pioneers in the development of robotic tool changing systems, Stäubli already offers a comprehensive product range up to 1,530kg robot payload capacity.

Five new sizes have now been launched to expand the existing MPS tool changer range, covering payload capacities from 15kg to 80kg, enabling Stäubli to offer a robotic tool change solution for virtually all robots & payloads. Key characteristics of the new compact range include repeat accuracy of $\pm 1.5\mu\text{m}$ and a wide variety of available transfer technologies.

Automatic tool changing systems can significantly increase the flexibility and productivity of a robot. Indeed, for many manufacturing processes & applications across a wide range of industry sectors, automatic tool change systems are the only way to address the specific and individual operations required.

All Stäubli robotic tool changing systems are based on a modular product concept, with three different and efficient ways for customers to obtain their ideal tool changing system. The MPS COMPLETE designation offers pre-configured complete systems ready for immediate use and available on short delivery times.

Stäubli's MPS MODULAR option offers readily available and production ready solutions tailored to meet individual customer requirements. The third option is MPS CUSTOMIZED. These systems are designed around the pre-requisites of each unique application.

T +44 (0)1952 671917
www.staubli.com

New series of Integral e-Drive electric motors



British manufacturer Integral e-Drive just released a new series of electric motors from high performance. Among its most notable features is its extremely compact, robust and lightweight structure and that they are offered prepared for their implementation as the main element of the propulsion system of their clients' vehicles.

Based closely on series production units and manufactured to automotive quality standards, the CTSM242 family combines up to 400kW and 520Nm in a compact package with a mass of less than 30kg and a maximum speed of 15,000 rev/min, making it the highest performing off-the-shelf machine by some margin.

Integral e-Drive's performance leadership has seen it acquire a substantial share of premium racing and hypercar markets and, following investment in in-house manufacturing processes, it has now made this technology accessible to higher volume applications.

According to the company, the CTSM242 can be matched with third-party inverters but, when coupled with Integral Powertrain's own silicon carbide high-performance inverter (MCU), it offers unparalleled, efficiency and control dynamics.

Integral Powertrain Limited (IP) is a global engineering and manufacturing business that, for more than 20 years, has been continuously developing next generation electric powertrain technologies.

T +44 (0)1908 278600
info@integralp.com
www.integralp.com

SEKO's Elektra delivers unprecedented pump control for water-treatment operators

Chemical dosing and control expert SEKO has launched Elektra, a digital controller which uses the latest Internet of Things (IoT) technology to connect operators to their dosing pumps no matter where they are in the world using a PC, laptop or smart device.

By accessing their equipment via SEKO's unique online SekoWeb portal, the operator can view live and historical data on demand and make immediate parameter adjustments from any location.

The ability to manage equipment with such flexibility unlocks multiple benefits, including precise digital dosing, process optimisation and cost control. Meanwhile, because faults can be identified and maintenance can be arranged in advance, it's possible to minimise costly unplanned downtime and productivity losses which in turn improves overall operational efficiency.

Along with multiple operating modes including manual, batch, timed and pulse, the system

enables dosing at up to 60,000ppm and manages flow rates as high as 1,000l/h – with parameters accessed and controlled locally via an intuitive programming interface.

Elektra is currently available for use with Spring series of motor-driven dosing pumps, with compatibility planned for devices across the SEKO range going forward.

For more information on Elektra and the entire SEKO range, visit: www.seko.com






Elektra

Connecting you to your chemical dosing pumps, wherever you are





SekoWeb
Data on demand

- Unlock multiple benefits including precise digital dosing, process optimization and cost control
- Make informed decisions swiftly with quick interpretation and comparison of data
- Identify faults early and minimize costly unplanned downtime
- Achieve the delicate balance between performance and sustainability
- Local and remote access to your equipment via smartphone

The smart choice for motor-powered dosing

The Elektra digital dosing pump controller from SEKO allows you to monitor and manage your dosing equipment 24/7 via smartphone for a new standard in operational efficiency and accessibility in water-treatment applications.



www.seko.com

Your Choice,
Our Commitment

Your manufacturing partner

In our latest issue of **Industry Update**, we are proud to announce that we have chosen **Speedboard Assembly Services** part of **NOTE Group** as our **Electronic Manufacturing Services Company of the Month**.

Speedboard provides Electronic Manufacturing Services (EMS) for high reliability and complex technologies tailored to its customers individual business requirements. With over 35 years' experience, they deliver in a flexible and professional manner whilst retaining a friendly 'can do' attitude.

NOTE Group, founded in 1999, is one of the leading EMS partners in Europe, manufacturing complex electronics for diverse markets in state-of-the-art plants across Europe and Asia. They offer localised friendly service and scalability through their network of global sites in Sweden, Finland, Estonia, UK, and China.

In 2018, Speedboard Assembly Services was acquired by NOTE Group and will shortly become NOTE Windsor. Andy Thwaites (pictured below), UK Business Development Director, explains more, "We offer a wide



range of services in electronic manufacturing – this can be anything from small batch builds to high volume electronics assembly across a range of diverse products with varying complexities. The services we provide include Engineering and Design

for Manufacturing (DFM), Component Sourcing, NPI, production, logistics, product lifecycle management and after-sales."

The Windsor site is one of three NOTE production units in the UK, with the others located in Stonehouse and Haddenham.

Specialising in four main industry sectors, we operate in the Medtech, Industrial, Communication and Greentech industries whilst also working with key customers in the high-end consumer, broadcast, and camera market sectors.



"All our service models are uniquely built to the customer needs, meeting their technical and commercial requirements. Our company philosophy is that we operate as an extension to our customers business. Key to achieving this is nurturing long term customer partnerships, many of whom we have worked with for over 10 years and taking a holistic view of the business and market enables us to ensure our customers' inventory and lead-times are kept to an optimal minimum," says Andy.

One key service we provide is a Kanban system which has been designed to bring a variety of benefits for any OEM. The system enables us to deliver to their desired lead time by utilising our effective supply chain model. As customer demand for a product can often be erratic, the Kanban system self regulates by pulling higher level build when demand dictates and slows up when demand falls. The Kanban system is designed to reduce costs, allowing for money to be used elsewhere. Overall, the system helps reduce waste whether that be in costs or time management, it creates a more efficient way of working.

"As we look ahead, NOTE Group will keep growing organically and through acquisition. There has been considerable investment and focus in the Greentech market, where we are looking to expand further," explained Andy.

We strive to be the best manufacturing partner by delivering cutting-edge services at a competitive total cost. We listen and adapt to our customers' needs and take pride in being flexible, attentive and committed.



If you're interested in speaking to NOTE, please get in touch via the information below.

Contact
T +44 (0)1753 746700
info.windsor@note.eu
www.note-uk.co.uk



Secondary glazing, the ultimate way to control your living space



In this issue of **Industry Update**, we have chosen **Granada** as our **Bespoke Secondary Glazing Company of the Month**.

Established in 1983, Granada has been in business for over 35 years and is the leading manufacturer of bespoke secondary glazing products in the UK. Providing an array of bespoke secondary glazing solutions for both residential and commercial use, Granada delivers the ultimate way to control a living or working space.

Its product range is ideally suited for a range of properties, from modern townhouses to traditional cottages. Delivering more than 'just glass', Granada's products demand ventilation, sound and energy efficiency, as well as respect for tradition.

In late 2013, the company underwent significant change when it was purchased by Australian business magnate, Malcolm White. Within six months of Malcolm's acquisition of the business, Granada had moved to a 40,000ft² manufacturing plant in Dinnington, on the

outskirts of Sheffield, featuring its own powder-coating facility, industry-leading technology and a range of automated manufacturing processes. The site includes offices and two separate factories – one for distribution and the other for manufacture. This allows Granada to operate out of the most high-spec manufacturing plant across the entire secondary glazing sector.

Averaging roughly 100 frames a day, and around 25,000 every year, Granada has two specific functions. The first is to provide its products to trade customers that deal directly with homeowners, and the second is to provide products to commercial architects and specifiers that are looking to add secondary glazing to their projects.

The launch of a brand-new product range ensures that Granada's secondary glazing offering is the most discreet on the market. Available in two specific ranges – 'The Classic' and 'The Enhanced' its bespoke products support the sympathetic treatment of most window styles. The Classic is Granada's tried and trusted range. Each product is fully equipped with slimline, durable



frames allowing for exceptional style, functionality and performance. The Enhanced range is built with ultra-strong aluminium frames to support glass for enhanced noise reduction and thermal insulation.

"Our new range ensures that the aesthetics of the product are not negatively impacted when accommodating larger glass expanses or more robust glazing. In the past, larger glass expanses required a more heavy-duty frame that changed the look and feel of the secondary unit but, with the new range, the slimline aesthetics are consistent throughout," said Lewis Hartley, Marketing Manager.

In more recent news, in June 2020, Granada unveiled a new website to improve and simplify the online journey for homeowners, trade customers and commercial partners alike. Featuring an increased emphasis on functionality and navigation, the completely redesigned website allows users to access the information they need as quickly and easily as possible via desktop, laptop, mobile or tablet.



Furthermore, Granada intends to launch a comprehensive online ordering system for its trade customers in the near future. "The new system is set to significantly streamline the ordering process and provides pricing to our customers in real-time," stated Lewis.

Keeping homes quiet, warm and secure, Granada offers the most effective noise insulation which significantly outperforms double glazing. Adding warmth and character, every client will feel the benefit of Granada.

T 01909 499899
info@granadaglazing.com
www.grnadaglazing.com



Industry leading measuring and testing equipment



Metrel UK was established in 1957 as a factory for the production of electrical measuring instruments and components for the domestic market. Over the last 60 years, the company has grown from this to become a leading manufacturer of testing and measurement equipment.

Metrel is one of very few companies that develops and manufactures its products at a single location in Slovenia, starting with design and ending with final assembly, quality control and calibration. From its UK office in Epsom, Surrey, Metrel UK supplies its leading range of measuring and testing equipment to customers across the country, as well as providing repair, adjustment and calibration services.

Metrel's extensive range of instruments offer innovative solutions for testing and measuring, ensuring its equipment is easy to use, intuitive and future proof. Indeed, many of Metrel's products are software based and use touchscreen technology, addressing the real needs and challenges of end users to create a range of products that will enhance the user experience.

One of Metrel's most recent additions is the MI 3155 EurotestXD, the new flagship of the company's most advanced line of multi-functional measuring instruments. This has been designed specifically for testing in industry, and features unique ergonomic design and an intuitive user interface, encompassing a memory organiser and fully programmable AUTOSEQUENCE[®]s, managed through a large colour touchscreen display.

The MI 3155 EurotestXD is fully compliant with functionality standards and other reference standards for testing, as is required for any instrument that performs TRMS current measurements, RCD tests, line and loop impedance tests with 3 (and 4) wires and earth resistance measurements. As well as these, the instrument supports an extensive range of tests and measuring functions, including online voltage monitoring, phase sequence testing, varistor testing, PI/DAR calculation, luminance measurement, discharge time testing, ISFL measurements, IMD tests as well as functional and visual inspections.

Metrel has also released a new series of OmegaPAT XA, which brings four models of the instrument, intended for professional use in the most demanding applications. Each of the models supports user accounts, meaning that one device can be used by several electricians. This series covers portable appliances, welding equipment, medical devices, and professional testing of PRCD devices. What's more, all instruments have an advanced built in user interface that enables the execution of pre-defined and user created AUTOSEQUENCE[®]s.

This leading range of products is underpinned by Metrel's outstanding customer service, and the company offers a dedicated repair service and expert technical support. Indeed, Metrel works with distributors and partners to offer solutions to any problems, ensuring its products are being used correctly and to their full potential.

If you would like to find out more information on Metrel's full range of products and services, head to the website or get in touch using the contact details below.

T 01924 245000
info@metrel.co.uk
www.metrel.co.uk



Quiet fans making noise in the industry

One of the common requirements for fans is low noise, selecting the correct bearing in the fan is key to minimising noise levels. The low cost choice is usually Sleeve bearing, which initially should offer low noise levels. However after some time of operation, due to the nature of the bearing, the fan will become gradually noisier.

At a higher price is Ball bearing, this bearing is preferred for high end applications requiring faster speeds (higher airflow), longer life expectancy and the freedom to mount in all orientations without the risk of

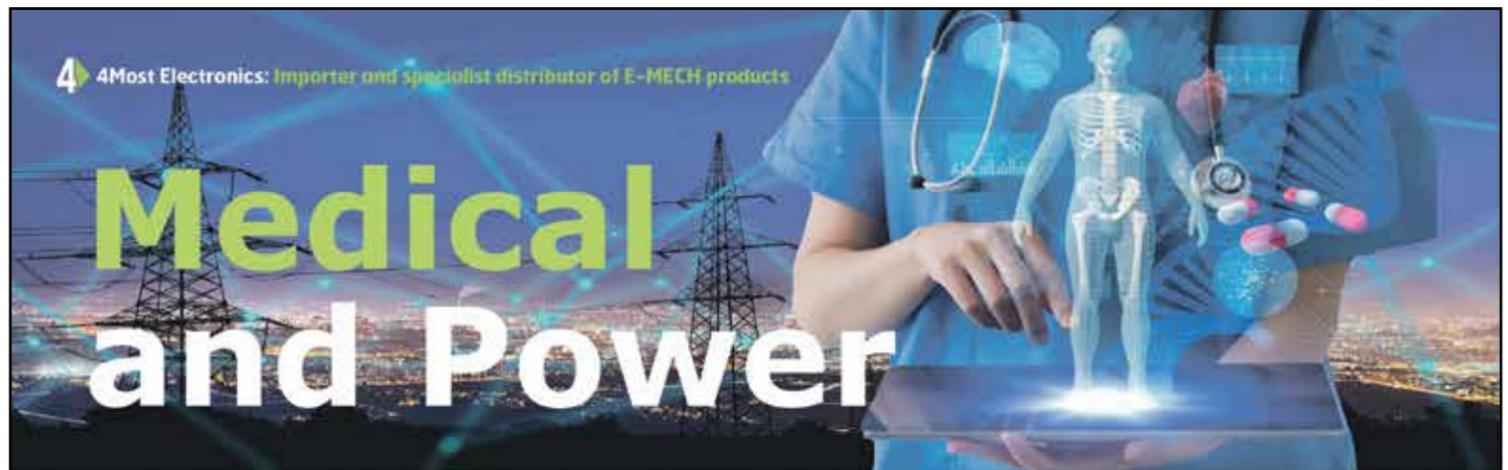
premature failure. Ball bearing is however not renowned as the lowest noise option. If low noise is the target there are alternate bearings available.

One example is Sunon patented MagLev bearing, a near frictionless bearing system. One of the key features of this is the use of a magnetic plate to remove the contact between the impeller and the bearing wall. This versatile bearing offers life expectancy closer to a Ball bearing at a cost closer to Sleeve. If located in a harsh environment, then added levels of protection should be considered for the fans. These can start

from simple IP21 to fully enclosed IP68 rated fans.

Sunon can also offer environment specific protection, such as GR47 Salt Fog for marine applications. If the correct level of protection is not considered, then the life expectancy of the fan will be compromised. If there is concern regarding fan failure, most are now available with additional wires for Tacho Feedback or Locked Rotor Detection which can alert to any issues.

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MEDICAL

KEL QUICK RANGE

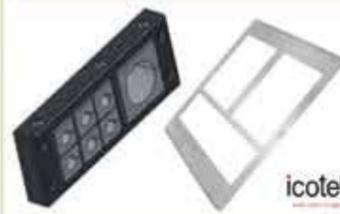
A compact system to route and seal pre-terminated cables as well as conduits or pneumatic hoses utilising split QT grommets.



MEDICAL - CLEAN ROOM

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Soft-touch directional control and menu selection TACT switches

Foremost Electronics, importer and specialist distributor of electromechanical components has

been the primary source for MEC switches in the UK for over 25 years. Offering a flexible solution to HMI control

functionality the MEC Navimec™ switch concept offers product designers a circular soft-touch TACT switch

with joystick functionality.



Navimec™ switches make it possible to navigate up, down, left and right with the provision of a centre function that will typically be used as an 'enter' key. Navimec™ switches are available with or without illumination and the non-illuminated versions may be over-printed with appropriate legends.

The Navimec™ five position navigational switch is ideal for data entry and motion control devices where a joystick function is needed. The switch is available as a complete module or may be supplied as single parts for custom PCB mounting.

Alan Vincent, Sales Director of Foremost, comments, "While there is a continuing trend toward touchscreen HMI control systems there will always be applications for Emec switch solutions. Navimec™ TACT switches are ideal for system control in low or high ambient lighting where a tactile response is essential, in dusty or humid environments where touch screens can be unreliable and especially for directional control where operation of a Navimec™ TACT switch is instinctive, reliable and safe."

For any more information, please see below.

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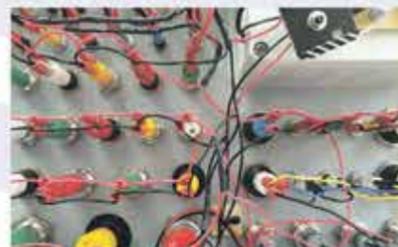
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Addressing real challenges in the electrical testing market



Metrel is one of very few companies that develops and manufactures its products at a single location in Slovenia, starting with design and ending with final assembly, quality control and calibration. From its UK office in Epsom, Surrey, Metrel UK supplies its leading range of measuring and testing equipment to customers across the country, as well as providing repair, adjustment and calibration services.

Metrel's extensive range of instruments offer innovative solutions for testing and measuring, ensuring its equipment is easy to use, intuitive and future proof. Many of Metrel's products are software based and use touchscreen technology, addressing the real needs and challenges of end users to create a range of products that will enhance the user experience.

Without a doubt, Metrel is committed to solving the issues workers face every day. "Right now lots of electricians own, and use daily, testers that are capable of storing their test results but find the feature too complicated and long winded to use, because they need to make notes about which circuit and board each relates to which location in the tester's memory," said Brendan Beaver, the UK Manager of Metrel. "They prefer to fill a copy of a certificate by hand and then make a fair copy either in their best handwriting, or by typing it up in a computerised certificate when they get home. What a waste of their time!"

Metrel understands that engineers need to be able to do their testing and save the results and notes on their tester without needing pencil and paper, so that it is ready to send to the depot or to quickly download. This kind of functionality is not available when a conventional LCD screen is the only thing available, as found on an ordinary multi-function tester.

With the introduction of dot-matrix displays from Metrel, an increasing number of users of multi-function testers like MI3152 and MI3155 are realising the advantages of being able to make notes using the touchscreen's full keyboard, eliminating the need for pencil and paper. What's more, the on-board fuse table and connection help screens allied with the pass and fail indicators to give the operator confidence to pass the results to storage.

Metrel's new memory management system is unique. Also benefiting from the dot-matrix touchscreens, it allows the operator to visualise the installation, highlighting components with a coloured icon, which makes it easier to post the results to the correct circuit without writing anything down. This simplicity is continued when the results are downloaded quickly and easily into an 18th Edition certificate via the USB port.

Metrel also offers a dedicated repair service and expert technical support, working with distributors and partners to offer solutions to any problems, to ensure its products are being used correctly and to their full potential.

T 01924 245000
info@metrel.co.uk
www.metrel.co.uk



Twistlock LED Light 24V (replacement for cockpit bulbs)

As a pioneer of innovative LED solutions, CML strives to keep you updated on all our newest technological developments – we have news from the field of LED Lamps, the TWISTLOCK LED LIGHT 1511H35L-H.

All features at a glance:

- ▼ Twistlock LED-Replacement for your old T5 Light Bulb (usually: cockpit illumination)
- ▼ Plug & Play
- ▼ More luminous efficiency
- ▼ Longer working life
- ▼ More solid design
- ▼ No change in luminescence

- ▼ Light colour warm white
- ▼ 24 V – Version AC/DC

Your advantage:

- ▼ Less maintenance intervals
- ▼ Easy modernisation

The technical properties of this many times proven LED lamp can be also changed to serve your need (light colour, version, voltage) to the extent possible.

Contact

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Discover the M22 LED Panel Mount Indicators with engraving!

As a pioneer of innovative signalisation solutions CML strives to keep you updated on all our newest technological developments – we have news from the field of LED Panel Mount Indicators.

M22 LED Panel Mount Indicators: all features at a glance:

- ▼ Flat lens
- ▼ High abrasion resistant engraving (no print!) – different symbols on demand
- ▼ Excellent readability



- ▼ Metal or plastic bezels
- ▼ Different colours: red, green, yellow, blue or white
- ▼ Different voltages: 12V, 24V, 28V, 130V or 230V other voltages on demand

Look forward to features such as vibration resistance, low energy intake as well as a long life and high luminosity.

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Light for a world in motion!

CML products have, for many years, been an integral component in lighting and signalling solutions for the transportation market.

CML LED products can be found in use everywhere from railway to public transportation. Typical applications include operator compartment



lighting, signalling and cabin lighting.

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- ▼ Climate resistance
- ▼ Vibration resistance
- ▼ Electro magnetic compatibility (EMV)

Products

To ensure this, CML works closely with the development teams of our customers to develop products such as:

- ▼ LED Reading Lamps
- ▼ LED Ambient Lighting
- ▼ LED Modules
- ▼ LED Signal Lamps

Vertically integrated development, production and assembling allow CML to adapt to the specific needs in the transportation market.

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“”

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Q Electrical Industrial Services Ltd emerges from acquisition

Despite uncertainty with Brexit and COVID-19, the continued growth of new VSD Contract Partnerships & Electrical Projects has led to Quantum Controls acquiring Lothian and Borders Electrical in East Lothian, Scotland. Lothian and Borders electrical is one of Scotland's leading electrical contractors and through this acquisition Quantum now have a nationwide network of 6 Service Centres and a growing team of engineers providing a range of Electrical Services and solutions across the UK.

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



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

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

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

Stuart Turner announces Pulse range of High Efficiency circulators



Stuart Turner announces a new range of commercial circulators for HVAC applications. The Pulse range features High Efficiency ErP compliant pumps in a variety of sizes from with both single and twin head options for Rp1½ to DN80. The range also contains secondary hot water circulators of bronze construction.

The product release marks yet another move from the renowned domestic water boosting manufacturers to become a major player in the HVAC market having recently acquired Pressurisation and Hot Water Generation specialists Mikrofill.

Pulse circulators come loaded with energy saving features and provide Installers and Specifiers with versatile options whatever their requirement might be. The pumps are driven by high efficiency permanent magnet motors with EEI ratings as low as <0.20 and are capable of self-modulating in order to only deliver what flow is required based on demand. This operating mode offers the greatest energy savings of up to 90% compared to old style fixed speed pumps. Other operating modes include constant speed, night mode and fully automatic mode.

Dimensionally they compare well with products already in the market and in most cases will act as quick and easy replacements with no pipework modification required. They feature a simple to install electrical connection with no need to remove any terminal box.

The range is set to build on the success of Stuart Turner's existing ST range of domestic circulators, offering solutions for single dwelling premises all the way up to larger commercial properties.

For more information on Pulse and all other Stuart Turner products, visit: www.stuart-turner.co.uk

Traco Power medical power solutions

One of the key safety concerns with respect to medical devices is, that the patient is often electrically connected to the medical device. Since a medical device must be absolutely safe for both, the patient and the operator, all electronics including components must meet strict requirements according to IEC/EN 60601-1.



As an example: AC/DC power supplies and DC/DC converters for medical and healthcare applications, need to fulfill much stricter requirements compared to power supplies for the industrial market. Some of their main technical differences are additional requirements on the isolation system (2xMOPP), the leakage current, the isolation capacitance and EMC limits.

Traco Power offers both AC/DC and DC/DC solutions for medical applications, all of which fulfil the 2xMOPP requirement. Compliant with the EMC requirements of the 4th edition of IEC/EN 60601-1, they are suitable for all patient connected, body floating rated applied parts medical devices.

The AC/DC products range from small 5W PCB-mounting modules, a range of mid-power open frame designs, and enclosed power supplies offering power levels of up to 850W. Traco Power's DC/DC converter range comprises PCB-mounting modules with power levels from 1W to 60W.

For more information, videos, documents, articles and datasheets, go to: www.tracopower.com/medical-campaign

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143 Butt Road, Colchester
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United Kingdom

Tel: +44 (0) 1206 575755
Email: sales@tvri.co.uk www.tvri.co.uk

WP launches first 100% recyclable valve for Dispensing Closures



Sustainability is an integral part of Weener Plastics' (WP) strategy. WP also recognises that convenience and quality are fundamental and should not be compromised. Respecting sustainability as well as functionality, WP's Innovation & Development team has developed an unprecedented solution: the world's first 100% recyclable valve for Dispensing Closures.

100% recyclable

WP's Innovation & Development team has created the perfect solution: a 100% recyclable valve that offers fully controlled, clean dispensing. The valve is made of a specially developed material. This enables full recycling with polyolefin waste streams – regardless of the bottle material.

Uncompromised functionality

This recyclable valve offers a fully controlled and clean dispense of any quantity the consumer may require. The dosing behaviour can also be adjusted, depending on preference. Valve dimensions are exactly the same as those of WP's familiar silicone valve. The valve is suitable for WP's standard closures as well as for customised designs.

Widely applicable

WP's new valve is highly versatile and compatible with a wide range of applications such as food, home care and personal care. When used to dispense oily or fatty formulations, this recyclable valve also performs better than any other solution.

norwich@wppg.com
www.wppg.com

Robatech Gluing Technology on show at PPMA

It's good to be back! The PPMA Show is taking place in Birmingham from 28th to 30th September 2021. At this year's PPMA show the Robatech team will be presenting a new dimension in adhesive application: high-performing, energy-saving and robot-assisted.



This will be the first opportunity for visitors to see Robatech's smart, new Vision Melter (pictured above). In combination with the new Performa Heated Hose and the SpeedStar Compact Application Head, demanding packaging can be glued quickly, efficiently and with high precision.

Based in Basildon, Essex, Robatech Gluing Technology are the exclusive distributors of genuine Robatech equipment, spare parts and service to customers in UK and Ireland.

With high quality hot-melt and cold gluing systems for packaging, graphics, automotive, building, woodworking, pharmaceutical and many other industries, the local Robatech team will be on hand at the show to discuss your gluing requirements and challenges.

We look forward to meeting you on **Stand E60**.

T +44 (0)1268 490035
info@robatechGT.com
www.robatech.com

PhD has launched its brand new recyclable pouch range

The pouches are a high barrier laminate that is 100% recyclable. They have velcro instead of the standard or double press close zip which makes it so much easier to reclose. The designs excellent graphics are enhanced by foil inks and patterned soft touch and tactile lacquers.

PhD was established in 2006 by two serious Yorkshire gym-goers on a mission to change the sports nutrition landscape.

"Building muscle isn't just about using a protein powder, and getting ripped isn't just about using a fat-burning capsule. Building true strength can't be done in a few weeks, it takes years and requires consistency. You won't



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

the way to truly allow you to Perform Smart."

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

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

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Photochemical etching: Three reasons to trust it for your next metal component prototype

Most design engineers trust 'traditional' sheet metal machining processes. However, for many industries such as automotive, aerospace, electronics and healthcare, challenges can arise during the machining of complex precision components.

Laser cutting and stamping are two of the most common ways to shape and cut detailed design features, but while dependable, they can also create problems during the process.

There is a solution: photochemical etching, a metal machining process which uses chemical etchants to create complex and highly accurate precision components. While it's easy to define, it's important to know the main reasons for choosing photochemical etching in the production process.

1. Low barrier to entry

Photochemical etching offers you the chance to prototype from the widest range of materials, including those deemed difficult to work with, with little to no set up costs.

Conventional machining, laser cutting and stamping can face various issues when machining certain metals. With the parameters and limitations of metals like aluminium, titanium and Inconel, it is not always possible to create truly precision-engineered components.

Photochemical etching, by comparison, presents a more economical and efficient way to produce custom parts with complex designs and strict tolerances.

This is possible by combining sheet metal with a CAD printed photoresist mask of the required components, with the chemical etching offering a less intrusive and more delicate process for creating quality, intricate components. The value of photochemical etching is



truly found through the inexpensive and easily reworked photo-tools that ensure high accuracy and repeatability in production, perfect for providing OEMs with the critical components they need in short lead times for a great price.

2. Improved cut quality

Precision etched components are vital elements of many applications and even the slightest blemish can create significant disparities in the quality of the final product. Traditional processing methods such as laser cutting and stamping can cause those issues.



Thermal and cutting edge stresses are familiar factors which affect the quality of the components produced. Thermal stress results from heat generated during the metalworking process, this can not only cause metal to expand and contract but under extreme heat it can also alter the properties of the materials used. This is very important to be aware of in components where even the slightest imperfections can affect their quality and effectiveness.

Cutting edge stress is a result of stamping, it causes a physical stretch on the cutting edge which can have a detrimental effect on the flatness of the blank, especially when high levels of precision are required.

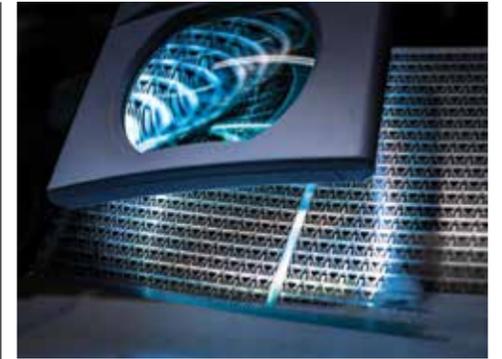
Another common issue is burring, which is caused by heat generation of physical impact that compromises the accuracy and dimensions of the most precise engineered components. Burring is so common and widely accepted that post-machining methods such as finishing and barrelling are part of the production process to minimise the presence of burring.

Photochemical etching eliminates potential stress as there's no heat or physical impact on the etching process. Similarly, with no impact force or harsh cutting, there are no burred edges. Only by using photochemical etching you can eliminate the uncertainty and guarantee quality and repeatability across all your components.

3. Reduced lead times

Uncertainty can hugely affect supply chains. In manufacturing, that instability is caused by uncertain lead times. As we've already discussed, burring and stresses cause issues with production meaning more processes are required to deliver a quality final product.

Issues on the product line create a domino effect as this leads to increased inventory and tooling costs while



delivering an inconsistent service to customers.

Photochemical etching can simplify this process as it eliminates stress and burring, allowing for products to be delivered to an exceptional standard in just a few days – rather than weeks or months. It also reduces tooling costs, as the need to correct the issues caused by traditional methods is eliminated, providing certainty right down your supply chain.

While chemical etching provides simplicity, the process also allows even the most complex of parts to be created, opening up more avenues for you and your clients.

It's clear that photochemical etching should be the method of choice for metal machining. With reduced lead times, fewer costs and the ability to precisely cut even the most difficult metals in larger quantities, it's time to implement alternative methods to produce components of the highest quality.

To discover more benefits of photochemical etching, download Precision Micro's whitepaper by visiting: www.precisionmicro.com

Electronic Power Converter Company of the Month

We power your products

Industry Update is proud to announce that RECOM Power GmbH has been selected as our Electronic Power Converter Company of the Month.

RECOM was founded in 1975 by Mr. Horst Heinz Bier. In the late 1970's RECOM recognised that the trend for off-the-shelf switching power supplies would be followed by modular isolated DC/DC converters. RECOM actively shaped this trend from the beginning and is currently broadening its presence in the AC/DC power supply segment with a power range up to tens of kW.



The company is a power supply manufacturer headquartered in Austria with four decades of experience in developing and manufacturing the latest standard and custom power converter technology, from sub-1W to tens of kW. RECOM supply customers worldwide with its vast selection of DC/DC converters and AC/DC power supplies, along with a broad range of switching regulators and LED drivers.

RECOM products have proven success within the electronic industry serving customers across a multitude of sectors such as mobility, transportation, medical, machinery, energy and many more. RECOM provide



a thorough logistics, engineering, manufacturing and sales setup, alongside cost-effective solutions to more than 100,000 customers worldwide. "The engineering community is facing various challenges including time to market pressure and geopolitical constraints, which we can solve better than any other player in the market," stated Corina Lauber, Marketing Associate.

There are many outstanding products in the company's portfolio, but the RPX-4.0 and the RACM1200 specifically reflect RECOM's capabilities. "The RPX-4.0 is a buck converter with an integrated inductor in a compact 5mm x 5.5mm x 4.1mm thermally-enhanced QFN package. The input range is from 3.8 to 36VDC,



social and environmental responsibility, RECOM increases the power density of its products in order to save energy and strives for an economical and environmentally friendly supply chain.

With constant improvement running through the company's DNA, RECOM has a new design and manufacturing set up based in Xiamen, China. Furthermore, RECOM is looking to focus more on natural growth through acquisitions such as its latest move to add a Customer Power Supply Specialist PCS from Italy to the RECOM Group.

allowing 5V, 12V, or 24V supply voltages to be used. The output voltage can be set with two resistors in the range from 1 up to 7VDC. The output current is up to 4A and is fully protected against continuous short-circuits, output overcurrent, or over-temperature faults, making the device particularly suitable for industrial automation, test and measurement, portable devices, and high density or weight-sensitive applications. This device is one of the smallest 4A switching regulators on the market and is easy-to-use greatly improving time-to-market for customers looking for an off-the-shelf solution for their PoL applications," explained Corina.

Making the world a better place by innovating and taking



In future plans, RECOM has the vision for all electronic engineers around the world who are in need of a power supply solution to associate themselves with the company. RECOM is excited to hopefully see the return of Electronica, Embedded World, PCIM and Inntrans trade shows in 2022, which they will be attending, COVID-19 permitting.

For more information, see below.

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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.

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

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

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Dango & Dienenthal: New order for two heavy-duty manipulators

Dango & Dienenthal has received an order from Chinese thyssenkrupp rothe erde (Xuzhou) Ring Mill Co. Ltd. (XREM) to supply two manipulators for the new ring rolling facility in Xuzhou. Designed for a payload of 150kN, they will be among the most powerful of their kind in the world.

XREM is going to produce large seamlessly rolled rings on its new mill. The two machines will perform all handling operations for the blanks and the rings – from the acceptance of the cut forging ingots up to and including the delivery of the finished rings to the heat treatment facility.

The heavy-duty robot of the SLR 150 H series will perform the handling of the forging ingots between the transfer tables, the chamber furnaces and the open-die forging press. Thanks to the pre-programmed sequences of motion, very short transfer times will be achieved. During the forging process, the robot will take over the function of a forging manipulator.

After completion of the forging process, the mobile transport manipulator MTM 600 will transfer the pre-punched ring blanks and place them in the ring rolling mill. After the



rolling process, it will take the finish-rolled rings to the cooling beds.

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Secure return for cold chain event

The Temperature Controlled Storage & Distribution (TCS&D) exhibition, conference and awards will return to the East of England Arena in Peterborough on the 7th & 8th September.

Despite the end of restricted attendance numbers for indoor events being scheduled for late June, TCS&D 2021 will still be capping visitor numbers at 1,000 in September.

The bi-annual TCS&D show will incorporate the Cold Chain Hub conference – the programme for which is being devised by the Cold Chain Federation – making the event a fantastic opportunity to learn about the latest technologies and trends in the industry.



Image supplied by ISD Solutions, exhibitor at TCS&D 2021

Exhibition director, Martyn Cogan, says, "After a challenging 12 months for our sector and as we return to a more normal life, we want TCS&D to deliver a host of tangible benefits to give our visitors a great couple of days."

COVID-secure measures will include thermal camera checks on arrival, numerous sanitiser stations and wider aisles.

The Ride & Drive Experience track in the outside display area will make a return, with more electric vehicles than ever before anticipated.

NRG Fleet Services will exclusively showcase the Electra 19t Refrigerated Electric Vehicle at TCS&D 2021. "This is a real coup for the show," says Martyn, "and is certain to attract a great deal of interest."

Companies interested in exhibiting their solutions to a targeted audience of up to 1,000 visitors should contact Martyn Cogan on 07545 378793.



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Across every industry, manufacturers are working to meet growing customer demand in a globally competitive market

Despite a widening skills gap, by organising advanced technology into highly optimised work cells, manufacturers are maximising productivity through automation.

Specialised equipment, like a deep-hole drilling system, often is challenging to integrate, which quickly can create production schedule bottlenecks. To eliminate the risk, shops that perform deep-hole drilling should seek out OEMs that understand the needs of high-production manufacturers and have the capabilities to bring technology into the factories and work cells of the future.

Deep-hole drilling systems, which can produce holes that exceed a 20-1 depth-to-diameter ratio, are a unique class of manufacturing equipment because of the focused tasks they conduct. An increasing number of machining centres boast deep-hole drilling capabilities, but these machines simply cannot operate at needed speeds, particularly for parts that require exceptionally high accuracy. Manufacturers that must perform deep-hole drilling capable of rapid production and high throughput should instead select machines designed for the task.

Automating holemaking

These shops increasingly opt for deep-hole drilling systems that also work with automation. In a typical deep-hole drilling work



cell configuration, such as one for producing rifle receivers or automotive shafts, the equipment can use automation to time its cycle completion to mesh with other production processes. For straightforward automation, conveyors and pick-and-place robots move and position parts for deep-hole drilling with exacting repeatability and accuracy while automatic toolchangers, doors and inspection stations keep parts moving swiftly into, out of and around the cell.

Because deep-hole drilling tends to apply to long, cylindrically shaped parts, workpiece configuration eases or complicates some aspects of automating load-in and load-out cycles tied to drilling operations. Workholding axes, for example, can provide automatic part gripping with pneumatic or hydraulic chucks operated through advanced controls for deep-hole drilling systems. In this configuration, machines can pick up a part, drill it and set it back down on a conveyor or part collection area. In deep-hole drilling systems themselves, specialised designs also offer automatic chucking, while robot-tending systems can add further flexibility with end-of-arm tooling, workholding and measuring systems.

As the automation configuration grows more complicated, however, manufacturers require an OEM that can act as a collaborative partner to find available solutions or engineer

individualised products for unique applications or production lines. Shops that depend on deep-hole drilling as part of a high-production environment should seek a partner that has a demonstrated record of working directly with manufacturers to modernise processes and create robust automated work cells.

Gundrilling application

UNISIG, for instance, worked with a manufacturer of rifle barrel receivers to help it accommodate growing demand and relieve production bottlenecks. The manufacturer's older gundrilling machines were replaced by a multiple-spindle machine, the UNI25HD. It had the power and controls necessary to apply indexable gundrilling tools, significantly improving feed rates.

To enable fast one-piece-flow manufacturing, UNISIG integrated the system via automation for in-feed, pick-and-place, conveyor loading and automatic clamping, which fed two lathes that turned the parts. The result was an effective work cell that produced more than 100 parts an hour, a dramatic financial and process improvement.

The viability of automated deep-hole drilling production can depend on tool life and part length. At extreme depths, for example, some parts require more than one set of inserts to produce a completed hole, and the high level of hardness of some workpiece materials causes rapid tool wear. To overcome



this challenge, UNISIG programs its machines to detect wear and predict when a tool will reach its breaking point, allowing operators to prevent a failure that could stop the line.

For further process efficiency, deep-hole drilling machines should have either a CNC or programmable logic controller. Both can integrate with other control systems and interface with a controller in the work cell. Systems such as a fully automated barrel cell are capable of unmanned, lights-out production with efficient programming.

Deep-hole drilling equipment's application-specific configurations suit the production of parts that necessitate techniques and processes that go beyond the easy capabilities of general-purpose equipment. In years past, many manufacturers thought of this kind of specialized equipment as old-fashioned and a drag on production. But with the right equipment – and a partner with the right engineering and applications expertise – deep-hole drilling in work cells can keep up with the productive factory environment that manufacturers need to succeed.

UNISIG is exhibiting at the EMO show in Milan, Italy in Hall 2, Stand E38 from 4-9 October 2021. Further information on all machines of the B Series and the complete UNISIG machine program is available at: www.unisig.de or follow the company on LinkedIn and Twitter (@UNISIG).

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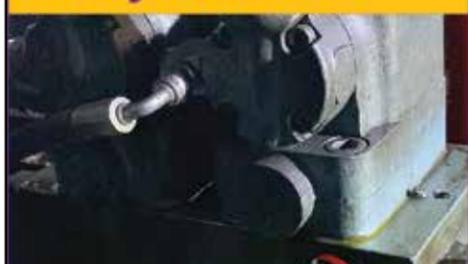


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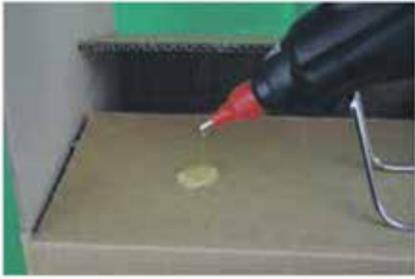
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Fridgenius Solenoid Valve Operating Magnet: A positive solution for the valve industry!

Solenoid valves are electromechanically operated valves used to control the rate of flow in fluid or air powered systems. With automatic operation, solenoid valves are incredibly useful to engineers as they remove the need to manually operate valves. They are incredibly versatile, however, if the system in which the valve is operating loses power, it becomes useless and cannot continue to function. Fridgenius has worked hard in creating an ingenious product to solve this problem.

Established in 1995 by its Managing Director David Slydel, Fridgenius supplies National and International distributors with Solenoid Valve Operating Magnets suitable for the use in refrigeration, air-conditioning, water, oil and gas installations.

As a family-owned company, David's son Chris Slydel runs the company in the beautiful market town of Wimborne, Dorset which lies on the River Stour. Its dedication to provide excellent products and services has proven vital in its success over the years. Building on its already sterling reputation, the past 25 years has proven that Fridgenius consistently delivers a quality and reliable service to its ever-growing client base.

Fridgenius designed the Solenoid Valve Operating Magnet to solve the problem of how to operate solenoid valves when a system is not under power. Essentially the device is designed to convert electrically operated solenoid valves into hand-operated valves in seconds.

This function allows the magnet to operate valves in a plant or system which has yet to be installed or has been decommissioned. In cases of emergency, such as a failure of a solenoid valve coil, it can be used to keep a system operating while a replacement coil is found.

Each Solenoid Valve Operating Magnet is fully customisable. Companies can choose to add their own branded logo onto the magnet, this is useful for companies who are looking to use the magnet within their own workforce and is great for retail sales. The magnet is the same shape and size of a large cotton reel and when placed onto a solenoid valve, it causes the armature to open or close. Available in an array of colours to match corporate branding, there is also three sizes of magnets to choose from. Whether the need for a 10mm, 15mm or 18mm magnet is required, Fridgenius customise your magnet to fit all makes of solenoid valves.

As well as saving service engineers time when on the job, another of its many benefits is the magnet allows service engineers to operate the valves manually negating the need to wire up a system. As well as eliminating the worry around



selecting the correct voltage, the Solenoid Valve Operating Magnet offers vital assistance through the installation, recovery of refrigerants, and the commissioning and decommissioning of plant and machinery stages. In a matter of seconds, the magnet converts an electrically operated solenoid valve to a manual.

The Solenoid Valve Operating Magnet has received an abundance of rave reviews over the years. We caught up with Chris who explained one example where Fridgenius' device has helped a customer deal with an emergency. Chris expanded that, "At a show a few years ago, a refrigeration engineer recounted that while watching a rugby match on TV, he received a call from a milk processing plant customer. His plant was warming up and he needed help. He found that the solenoid coil had burned out and by using the Fridgenius Solenoid Valve Operating Magnet, he was able to run it permanently, setting it to cut out under pressure. The use of this ultimately saved 14,000 litres of milk, which resulted in one very happy customer, and the

engineer returned home in time for the end of the rugby match!"

Imagine, you are in the middle of a job, you're on a tight schedule to finish and the power goes down. The solenoid valve installed has now stopped working due to the fact that it relies on an electrical input to function. Don't get caught out. React now before it's too late. Fridgenius has created this ingenious device to enable your working day to run smoothly, with no room for error. Available today to keep you, your workforce and your customers happy. Don't let your service suffer. If you need to operate a solenoid valve

manually, you need a Fridgenius Solenoid Valve Operating Magnet!

If you would like to find out more information and ask any questions on how the Fridgenius Solenoid Valve Operating Magnet works, please visit the company website or see the information on how to get in touch with Fridgenius directly using the contact details below.

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