

Best Practice



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UNISIG's makes significant investment in plant technology and equipment

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Editors Notes

Gina Burton
Editor



Across the range of industries covered in Best Practice, this issue, we bring you the latest and most up-to-date automation and process improvements to help keep your business one step ahead of the curve.

From best practices to operating procedures, processes that involve certain steps and mission-critical tasks that are governed by industry change, we look into the latest companies that are helping to streamline operations and input positive changes into industry.

I strongly advise reading our Best Practice Recommends feature where we highlight Lanes Group for its exemplary drainage solution services and emerging EV installation charging points. As the UK's largest independent drainage and wastewater specialist, Lanes Group continues to evolve, challenging external factors and bringing accessible facilities and services to a broader customer base across the UK.

We also explored further the process of Deep Hole Drilling and was able to showcase UNISIG, a global manufacturer of deep hole drilling machines, with a feature expanding on their recent investment of \$1.5 million in state-of-the-art technology and equipment for the company's newly constructed 500 sqm fabrication department. This ground-breaking investment is said to 'fundamentally change how we think about the design of fabricated components.' You can read more on this story on page 14.

Innovation in Automation Machinery and Conveyors. On page 23 we feature MattressTek, a leader in the provision of solutions to issues that manufacturers and processors face including those involved in industrial, material handling and packaging sectors. AutomateTek was launched by MattressTek as a sub-brand as a response to feedback from customers to help differentiate the design and build of machines and production lines for use in the manufacturing, management and material handling in other industries. This will in turn help other companies to improve their business processes, speed up cycle time, improve product quality, reduce costs, and overall create better business practices. Harked as 'a logical shift from a company that can make a machine to solve almost every manufacturing problem.' This is a must-read.

Other topics explored in this issue include storage & handling, valves, industry, warehouse, innovative solutions, air pollution, air quality, manufacturing, HVAC, drives, powder coating, drinking solutions, pumps and machinery.

Don't forget to send us your latest Industrial news and updates and email us at sales@bestpracticeuk.co.uk

Cover Story

MENOMONEE FALLS, Wis., June 28, 2023 - UNISIG, a global manufacturer of deep hole drilling machines, has invested \$1.5 million in state-of-the-art technology and equipment for the company's newly constructed 500 sqm fabrication department.



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Total drainage solutions to EV charging-point installations nationwide

In this issue of Best Practice, BP Recommends Lanes Group for its exemplary drainage solution services and emerging EV installation charging points.

As the UK's largest independent drainage and wastewater specialist, the company has been providing expert planned and reactive services for thousands of businesses for over thirty years. With over 2,300 employees and an annual turnover of £220 million, has continued to offer an unparalleled service portfolio.

These services include: drainage surveys, sewer unblocking, sewer cleaning, excavation and repair, and advanced sewer rehabilitation, including no-dig pipe lining. Lanes provides a wide range of support services for many of the major UK water companies, including Thames Water, Severn Trent, Yorkshire Water, Scottish Water and Northumbrian Water and the recently acquired Irish drainage contractor: AQS Environmental.

However, Lanes is more than a drainage and wastewater services company, demonstrated through its rail division providing reactive and planned station maintenance and rail projects and award-winning Reline Division's expertise in sewer rehabilitation.

The latest diversification is facilities management services across the London Underground and the recently launched industrial cleaning division. A further growing major new addition is Lanes Infrastructure (Lanes-i), one of the UK's fastest growing broadband infrastructure installers. With a turnover of £100million, the company is now turning its attention to installing fast-charging points for electric vehicles (EV.)

We spoke to Jacob Larkin: Marketing Coordinator to find out more about where Lanes Group is heading.

"We are always keen to emphasise the advantages of the way Lanes services are delivered through a national network of 21 depots, from the north of Scotland to Plymouth in Devon. This gives our customers a friendly and efficient local team to deliver the drainage services they need. But also access to additional expertise and capabilities, which can be mobilised flexibly both regionally and nationally, for programmes of work of any scope and size. It is, in my view, a unique service offer.

We will be continuing to grow our presence in all main commercial sectors, with a continued focus on utilities and transport. For utilities, that translates to water, energy, and broadband infrastructure.

For transport, we will further our focus on highways, rail, and rapid charger installation. For example, for the highways sector, in the last 12 months, we've opened a national data processing centre in Manchester to guarantee the fastest, most accurate and detailed highways drainage survey reporting service in the UK."

The Manchester-based National Highways Surveying Centre gives cutting-edge cloud-based drainage survey and data processing results in real-time, protecting assets across major road networks.

No stranger to industrial recognition,



Lanes was a 2019 finalist in the Specialist CN Awards and 2022 Partner of the Year finalist in the Utility Week awards for its gamechanger drainage vehicle: Van Pack 2.0.

Furthermore, in addition to the Irish drainage contractor: AQS Environmental, Lanes has also acquired Sapphire Utility Solutions, which is opening up new ventures for Lanes in gas network and clean water systems maintenance.

Looking ahead to the next year, Lanes is poised to maintain its best-in-class position.

"We work diligently to recruit the right people across a competitive labour market. But, as a market leader, with strong values, we continue to attract the motivated and skilled people we need. We also have strong in-house training programmes, so people with talent and drive can expect excellent career opportunities at Lanes."

Lanes Group will be at Highways UK: 19819 October 2023, NEC, Birmingham.

For further information, see the website below:

T 0800 526488
sales@lanesgroup.co.uk
www.lanesfordrains.co.uk



Lanes Rail passes ISO 9001 and ISO 14001 audits with flying colours

Lanes Rail has passed its latest ISO quality and environmental audits with no non-conformities - the third year in the row it has achieved perfect audit outcomes.

The achievement confirms Lanes Rail, a division of Lanes Group plc, holds certification for both ISO 9001 for quality and ISO 14001 for environmental management.

Daniel Ward, Health, Safety, Quality and Environment Manager for Lanes Rail said: "Achieving certification for both standards with no non-conformities for three years is a great achievement.

"It reflects the standards set by all our colleagues and the willingness of Lanes Group to invest in equipment and working practices that allow us to continuously improve.

"The auditors from BSI do not just look at our management systems, they go out on site and see how they're put into practice. So everything must be in place and working as it should to not get any non-conformities."

Sustainable operations

The achievements also means Lanes Rail clients, including Transport for London and Network

Rail, can be confident the ISO 9001 and ISO 14001 are not just met but fully underpin work carried out, Dan Ward added.

ISO 9001 defines good and effective quality standards, supported by a quality management system, across a range of parameters, including customer focus, risk management, and leadership.

ISO 14001 considers all aspects of an organisation's work related to environment protection, waste management and sustainable operations, including efforts to reduce carbon emissions.

Lanes Rail is a leading provider of services to the rail industry. It manages major contracts for Transport for London, delivering drainage, structure maintenance and repair, vegetation control and lock management services.

Electric vans

It could point to significant investment in new vehicles which means all 66 vehicles in its fleet, with the exception of three vans, are Euro 6 compliant, the highest standard for reduced emissions and fuel efficiency.

The division has also invested in two electric



vans which are used by plumbers to travel between London Underground stations to carry out repairs.

Lanes Rail also uses a highly-effective digital work management tool, called Teamleaf, which it has adapted to its own needs, to streamline workflows, improve customer service and make sustainable operational decisions.

www.lanesgroup.com

Drainage engineers use "exemplar" safety systems to clean deep railway sump

Rail for London (RfL) commissioned leading rail specialists: Lanes Rail: division of Lanes Group plc, to clean a sump along the 73-mile length of the Elizabeth Line.

The sump in Silvertown, East London, next to London City Airport was 25 metres deep and is the deepest wastewater asset along the length of the new line.

In-house safety experts: Lanes Rail Health, Safety, Quality and Environment Manager: Dan Ward and Project Manager: Aaron Turner designed a work to protect the four Drainage Engineers.

The Lanes Rail engineers had to descend a shaft equivalent to the height of an eight-storey building to clean the sump.

The clean-up mission required detailed planning, as Dan Ward outlines: "This was one of the deepest shafts Lanes Rail operatives have ever worked in. Our safety systems had to reflect a range of serious hazards our team faced during the three day operation.

"All our drainage engineers had undergone confined space training and we very carefully assessed all eventualities in creating a bespoke risk assessment and method statement for this project."

The Connaught Road Pump House: a seven-metre-diameter concrete ring shaft, has two

sets of pumps that manage surface water from several locations along a portion of the Elizabeth Line.

The work was carried out when no rainfall was predicted, as the shaft was essentially designed to hold maximum surface water up to half its height during heavy rain periods.

The highly-skilled engineers needed to descend shaft ladders linked by seven landings, to reach the sump waste pit beneath the pumps.

Each engineer wore a harness and was clipped to fall arrest lines, strategically set up between each landing. They were issued gas monitors and confined space emergency escape sets, with small tanks holding 30 minutes of air.

The engineers were supported at all time by a three-person space rescue team, with breathing apparatus from Health & Safety specialist: ESS.

For the duration of the operation, one member of the rescue team was with the Drainage Engineers and two stayed on the surface.

The shift had an encompassed electric winch for planned preventative maintenance, helping remove sump material and in case of emergency personnel rescue.



Before the clean-up, all the ladders, guardrails and floor assets in the shaft had been inspected and recorded, landing-by-landing and deemed safe and fit-for-purpose.

The team removed silt and other debris from the two-metre-deep pit, with all sludge loaded into one-tonne bags and winched above ground for safe disposal. Aaron Turner explains further,

"In the event, we removed no more than two tonnes of silt. This will give RfL good guidance for planned maintenance needs going forward."

www.lanesgroup.com

The dangers of not checking driving licences...

Some alarming statistics for fleet operators. Only 1 in 10 motorists (13 per cent) would tell their employer if they received penalty points whilst driving. Meanwhile, a whopping 25 per cent of motorists with penalty points on their licence did not inform any organisation when they received them.

These figures should be deeply unsettling for any business managing a fleet of drivers. Regularly verifying driver's licences is a crucial yet often overlooked component of health and safety policies for any company with routine driving activities.

It's easy to assume this is just a box-ticking exercise - but the truth is quite different.

Employers who fail to routinely and thoroughly check their employees' licences may be held accountable for the actions of their staff if they allow them to drive on business without a valid licence.

The most severe consequence? Up to £20 million of pounds in fines for corporate manslaughter convictions. Scary stuff!

In 2023, the need for organisations to prove their commitment to a robust and rigorous



health and safety approach has never been more critical. And when it comes to fleet management, ensuring licenses are up to date is essential.

How often should you be checking licences?

Recommendations from the DVSA suggest complete licence checks should be carried out every three months at a minimum, although this should be more frequent for

drivers with points on their licence. If you've got a large fleet of commercial vehicles, this isn't always an easy task.

At CheckedSafe we provide a sleek, innovative and cost-effective way to conduct regular and remote licence checks on your fleet. As the UK's leading provider of vehicle compliance and fleet management, we're here to help you. [Call us on 01282 908429](tel:01282908429) or visit www.checkedsafe.com to get started.

Oakway Storage introduces a new flexible warehouse protection solution to the UK

Oakway Storage, a leading provider of warehouse design solutions, is proud to announce the launch of its latest product: flexible warehouse protection.

This innovative solution prevents accidents and damage to people, racks, property and machinery. Above and beyond traditional steel-fabricated protection, the Oakway Storage solution returns to its original shape after impact, reducing shock and damage, whilst also increasing floor space through a cleverly designed minimal footprint.

According to the Health and Safety Executive (HSE), over 5,000 reported accidents involve workplace transport every year in the UK. This alarming statistic underscores the importance of implementing safety measures to prevent workplace accidents and injuries.

Alvin Clarke, Director at Oakway Storage, explains, "The team at Oakway Storage understand the challenges warehouse managers and owners face when protecting their people and infrastructure. Our flexible warehouse protection solution is designed with these challenges in mind. We are confident it will help our customers maintain a safe and productive work environment while minimising the risk of costly downtime due to damage."

The new product features a flexible design that can absorb the impact of a forklift or other heavy equipment without causing damage to vehicles, floors or the protection itself. This popular feature offers cost-effective protection over a longer period than traditional steel protection.

Additionally, the minimal design of Oakway Storage's flexible warehouse protection takes up less floor space, providing increased levels of capacity for storage and handling.

"We are excited to offer our customers a product that is not only highly effective but also takes up less space," continues Alvin. "We know that space is a valuable resource for our customers, which is why we wanted to create a solution that can create more storage capacity. We believe our flexible warehouse protection will help our customers achieve their safety and productivity goals while saving them time and money."

Oakway Storage's flexible warehouse racking protection solution is now available for purchase and can be ordered by contacting Oakway Storage directly. "Our team are ready to support customers in specifying a warehouse protection solution for new build or existing warehouse layouts," Alvin concludes.



Oakway Storage offers a full range of warehouse fit-out solutions, including pallet racking, mezzanine floors, shelving systems and complete turnkey project management, with a reputation for delivering high-quality consultancy, design and installation solutions.

For more information about Oakway Storage, including the flexible warehouse solutions, please visit the company's website at oakwaystorage.co.uk or call 01604 792255.

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Oliver Valves wins order for Major Green Field Project

Oliver Valves has won a significant order to supply a large number of Metal Seated Double Block and Bleed Ball valves to a Major Green Field onshore project located in the Kingdom of Saudi Arabia. Territory Manager for the Middle East, Haridas Embanath says "winning the order was the result of strong relationships with our distributor network and end users in the region, but it's really down to the efforts of our engineering and support team that provided the perfect valve solution to meet difficult cost restraints."

Value engineering is second-nature to Oliver's. By working closely with customers and engineering consultants, the scope of work can be understood and project objectives fully realised. Cost is a fundamental consideration for customers, and modelling scenarios using various combinations of materials and designs can help



to find the best valve solutions possible. Value engineering on this project has resulted in valves manufactured with Carbon Steel body and trim, and Inconel Weld Overlay. The estimated additional saving for the customer is around 20% - 30%.

For more information on how Oliver Valves can supply your project with the very best valve solutions, contact Oliver Valves on +44 (0)1565 632 636 or email sales@valves.co.uk | www.valves.co.uk

Oliver Valves Custom-design DBBs for Offshore Project

Oliver Valves have manufactured a number of 2" double block and bleed valves for a huge offshore project. The bolted end trunnion DBB valves have been designed using ASTM A350 LF6 carbon steel material and are designed to API 6A, with a maximum pressure rating of 5,000 psi. The order forms part of Oliver's continued supply of DBB valves to the project that include Tie-in and Wellhead platforms.

Valves currently in production at our UK factory in Knutsford, Cheshire, are undergoing a specific manufacturing and assembly process at the request of the customer. This includes custom spray-paint finishing for added protection against the harsh offshore environments of oil, water, and gas injection platforms.



Pictures show valves in production.

For more information on how Oliver Valves can custom-design valves for your energy project, contact us on +44 (0)1565 632 636 or email sales@valves.co.uk | www.valves.co.uk

Oliver Valves supply world's largest offshore wind farm

Oliver Valves are to supply a range of Modular and Monoflange double block and bleed valves to the Hornsea 3 Wind Farm project located in the UK sector of the North Sea. Hornsea 3 has two platforms, link 1 and link 2. These are unmanned and operated from shore with access to carry out maintenance done by vessel or helicopter.

These High Voltage Direct Current (HVDC) offshore converter platforms have a combined capacity to produce 2.852 GW, enough to power the average daily needs of over 3 million UK homes. This makes it the single largest offshore wind project in the world.

Manufactured from 316 Stainless Steel, Super Duplex, and Titanium materials, valves are to be used in cooling systems and firewater applications. Regional Manager for Scotland and Scandinavia, Colin Wood, says, "We're extremely proud as a business to supply valves for operation on large-scale green energy projects, and it's



particularly exciting to be working with a UK-based green project, such as Hornsea 3."

We're committed to supporting a Net Zero Emission future, and have recently launched a range of zero seat leakage valves for hydrogen applications. Our investment in designing new and innovative valve technologies is having an enormous impact and is hugely significant - even a game changer!"

For more information on how Oliver Valves can support your green energy project with the very best valve solutions, contact us on +44 (0)1565 632 636 or email sales@valves.co.uk | www.valves.co.uk

Oliver Twinsafe engineers let off steam

Oliver Twinsafe, in partnership with their official distributor HT-PCE, collaborated with an industrial processing plant in solving huge leakage problems experienced on steam applications.

Their existing metal-seated valve design had to be improved and even replaced, and for good reasons. Their valves had only a single isolation design, and exposed the risk of leakage due to the number of potential leak paths they contained. The perfect solution would be for the valve design to have far fewer leak paths, metal-seating with zero-seat leakage, and a compact design that reduces overall space and weight.

Fast forward a few weeks and the engineering team at Oliver Twinsafe custom-designed a 2" / 300lb Double Block and Bleed (DBB) valve supplied complete with actuators and utilisation of all ball valve operation. The team took onboard all of the technical requirements, used existing and proven valve technology and materials to create the perfect solution to this problem. It's



often said, that when engineers creatively let off steam, it usually results in some of the most amazing solutions, and this has been no exception.

On completion of initial trials, the 2" DBB valves are to be installed on other UK and overseas processing plants.

For more information on how Oliver Twinsafe can custom-design valves for your processing plant using the very best in valve design and technology, contact us on +44 (0)1565 632 636 or email sales@valves.co.uk | www.valves.co.uk

Oliver Valves view on why selecting high quality components are critical



Oliver Hydrocovalves was established in 2021, part of the leading Oliver Valve family of companies. The group has considered expertise, dating back over 40 years and is a global Powerhouse across valve technology.

With a focus on understanding the effects of hydrogen on various materials, Oliver Hydrocovalves is conducting research through its state-of-the-art metallurgy department and cutting-edge R&D facility. Due to the high volatility of hydrogen, selecting the appropriate material is vital for optimised valve performance.

Working with the distinguished third-party testing body: TUV, Oliver Hydrocovalves has prioritised type-testing Hydrocovalves with 99.9% hydrogen. Oliver was in fact the first valve manufacturer to successfully qualify a valve at TUV with hydrogen. This cutting-edge research and testing have led to a highly successful collaboration with Dupont, resulting in the development of a patent-sealing technology, considered to be market-leading for fugitive emission control.

One of the pertinent questions that Oliver Hydrocovalves is frequently asked is:

"What is the difference between a 'conventional valve' and a valve suitable for hydrogen?"

The answer lies in the materials of construction, the sealing technology and qualification test. Oliver Hydrocovalves is proud to work with seal manufacturers, ensuring the seals are best suited for the application and then tests

the products through meticulous simulation testing, in service conditions to show optimised product performance.

With a driven priority on safety, alongside optimised performance in hydrogen applications, Oliver Hydrocovalves is committed to a stringent material selection process, fused with cutting-edge sealing technologies to guarantee precision-operation and mitigation against potential risks. The company is dedicated to offering customised valve solutions to meet the demands presented by hydrogen applications, namely hydrogen fuel stations.

Oliver Hydrocovalves boasts considerable expertise across the hydrogen industry, with an impressive portfolio of highly successful collaborative hydrogen projects such as: hydrogen transport and hydrogen gas pipeline. These industry-leading projects are intrinsic proof of an outstanding commitment to world-class valve solutions for diverse hydrogen applications.

From hydrogen transportation and refuelling, purification, storage, blending, fuel cells and electrolysers to heating and cooling systems, Oliver Hydrocovalves has the right valve solution for each application. With meticulous focus on hydrogen and carbon capture technology, these next-generational valves are definitive game-changers.

For more information on these world-class valves, see the website below

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- Forged & Bolted Construction



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For detailed information on the Tog-L-Loc process please see our Tog-L-Loc product page.

In addition to Tog-L-Loc, we also provide aluminium clinching technology "V-Loc", a harder rotation resistant version of Tog-L-Loc called "Lance-N-Loc" and our leak proof version "Oval-Loc". Please see our Products section for more details and product information download sheets.

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Visit: www.clinching.co.uk

A QUICK DIP PCB coating machine uses Matara precision XY linear system

Matara has designed and built an XY linear system for Layton Technologies Ltd. capable of providing speed and precision accuracy for a PCB coating machine, that's also able to endure corrosive atmospheres.

ABOUT: Layton Technologies Ltd.

Layton Technologies Ltd. is an international leader in the design and manufacture of machines for cleaning, drying, surface treatment and material recovery for precision cleaning applications. Its machines are used in every area of manufacturing for both semi-finished and finished products and their component parts. It designs and builds every type of machine, using both aqueous and solvent cleaning chemistries, with the majority of machines being completely bespoke.

THE REQUIREMENT: Linear motion system for PCB coating machine

Layton Technologies has extensive experience in the electronics sector, providing cleaning and drying solutions for Printed Circuit Boards (PCB), Hybrid Circuits, Surface Mount Technology (SMT) components, switches, resistors and capacitors. For one electronics

customer, rapidly expanding their PCB manufacturing facilities in the UK, Layton was asked to develop a machine for conformal coating of PCBs.

Conformal coating is a special polymeric film forming product that protects circuit boards, components, and other electronic devices from adverse environmental conditions. The coating provides increased dielectric resistance, operational integrity, and protection from corrosive atmospheres, humidity, heat, fungus, and airborne contamination such as dirt and dust. It is applied either by spraying or, in this case, dipping the PCB into the solution.

Whilst the PCBs for this customer's application are of the same type, they come in several sizes, so the machinery needs to adapt to this. Precision is vital due to the design of the PCB and to ensure the coating goes onto very specific parts of the PCB only and does not stray onto other areas. Furthermore, the machine needs to be highly reliable, as it is required to run continuously over an eight hour shift, coating approximately 50 PCBs per hour.

To achieve this, a linear motion system was required giving a smooth, precisely controlled XY motion in and out of the coating tanks.

THE SOLUTION: Matara XY linear system

At Matara, we have designed XY linear motion systems for incorporation into a huge variety of OEM machinery, including applications such as this presented by Layton Technologies where precision needs to be combined with durability.

To achieve smooth and efficient movement, and avoid any spillages during operation, we selected an MTS Guided Belt Driven Actuator for the horizontal axis. Belt driven actuators perform better than ballscrew actuators at higher velocities and also in applications that require a long stroke, making it a suitable choice for this system. The MTS unit was particularly suited for this application due to its construction, which features an internal rail system and, externally, a rail and two carriages either side of the piston, providing a high degree of rigidity and accuracy. A MOD3 Stainless Rack & Pinion Actuator also forms part of the XY configuration, applied vertically. It is also rigid, can lift heavy loads and has a long 810mm stroke.



Contained within the workings of the machine is a second vertical application, consisting of a Matara MTV Ballscrew Driven Actuator size 65 x 620mm. This comes with a motor side drive and worm gear box with a 5:1 ratio.

We also supplied air preparation components as part of a pneumatic circuit on the machine. Products include MAR series pneumatic regulators, MAFR series pneumatic filter regulators, SVR series manifolds, and an MVS4 4 station manifold complete with pneumatic solenoid valves.

The entire linear motion system is enclosed by an aluminium framework, using 40x40 and 40x80 aluminium profile, with 5mm Polycarbonate sheets throughout, cut to size.

To withstand the harsh environment the machinery will be working in, which is subject to corrosive vapours from the coating process, stainless steel components have been chosen wherever possible and linear rails have been Armoloy TDC[®] coated. Armoloy TDC[®] coating is a hard (78Rc), thin, dense chromium coating with a micro-nodular surface texture, which provides corrosion protection equal to 440 series stainless steel.

The Matara XY linear system has been incorporated into Layton's coating machine, where it is performing as expected and is able to meet the complexities of the process.

Commenting on the decision to award this project to Matara, Vikki Breese, Business Development Manager at Layton Technologies puts it down to the excellent working relationship the two companies have enjoyed: "Layton have collaborated successfully with Matara on many projects where precision, reliability and flexibility of handling system has been paramount to the success of the project. Furthermore, we have always found the service excellent."

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UNISIG's makes significant investment in plant technology and equipment

MENOMONEE FALLS, Wis., June 28, 2023 – UNISIG, a global manufacturer of deep hole drilling machines, has invested \$1.5 million in state-of-the-art technology and equipment for the company's newly constructed 500 sqm fabrication department.

The expansion supports the company's strategy to develop in-house, design-to-finish production of high-quality sheet metal components used in UNISIG's product line. By producing many of its parts in-house, the company can preserve and maintain the quality and quantity of its components while optimizing the mix of parts that are made internally versus those that are outsourced for production.

The investment includes the installation of fiber laser cutting equipment, and a 242-ton capacity press brake with a 7-axis programmable back gage, all of which utilizes 3D programming and simulation software. The software and training for the company's workforce were part of the investment, along with the hiring of additional personnel.

The company's new fabrication capabilities will also serve as an inspiration and catalyst for ongoing development and advances in machine design that will have an immediate impact on the value UNISIG brings to its customers now and in the future, said UNISIG CEO Anthony Fettig.

"The most exciting part of this investment from my view is the opportunity to fundamentally change how we think about the design of fabricated components," Fettig said. "Our engineers will be inspired by the manufacturing innovations generated by the precision fabrication team and what we can do with these state-of-the-art production capabilities," Fettig said.

UNISIG's fabrication enhancements

also include MIG and TIG welding with advanced digital process control and weld boom with power assist. A modular fixture system provides precision component setup from 3D models, while a vertical pallet system stores raw sheet material. To assist department personnel, vacuum sheet lifting equipment and updated bridge crane controls make for easy material handling.

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

You will also meet us at the EMO 2023 show in Hannover, Germany, from 18.-23. September.



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More usage options – fewer Costs

New versions of the Safety Fieldbox from Schmersal for additional fieldbus systems

Schmersal is launching two new versions of its Safety Fieldbox. This means that the box can not only be integrated into systems with PROFINET/PROFIsafe as before, but is now also available for the EtherNet/IP with CIP Safety and EtherCAT with FSoE bus systems.



EMERGENCY STOP function and up to three non-safe command and signalling devices.

Connecting safety devices via the Safety Fieldbox also helps to save costs, as up to eight devices can be connected to a single Fieldbox, which is much more cost-effective than equipping each individual device with a bus interface.

An integrated digital input on each device slot allows the diagnostic signals of all connected safety devices to be evaluated. This means that safety-related and operational signals, such as those required for diagnostic purposes, can be collected and transmitted.

www.schmersal.co.uk

The Safety Fieldbox from Schmersal enables flexible safety solutions, fail-safe and fast installation and maximum process transparency. It also enables easy connection of up to eight safety switchgear devices with plug and play. Universal device interfaces for eight-pin M12 connectors allow a wide range of different safety switchgear devices to be connected, including electronic and electromechanical solenoid interlocks, sensors, control panels, light curtains and switches. Unique features of the Safety Fieldbox from Schmersal include the need for just a single M12 slot for solenoid interlocks and safety light curtains and the connection of control panels with

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Ford Aerospace Acquired by SPIROL

SPIROL are delighted to announce that Ford Aerospace Ltd, will be joining the SPIROL group of companies.

Ford Aerospace Ltd, based in South Shields was established back in 1910 by Robert Ford and ran until recently by Robert's great-grandson: Chris Ford. With an illustrious history, dating back over an impressive 113 years, the company is a leading manufacturer of advanced-precision metal components and sub-assemblies for the aerospace, industrial and high-technology industries.

SPIROL is similarly a highly-successful, family-run business, with an equally illustrious aviation history. Established in 1948 by Herman Koehl, SPIROL has grown exponentially over the years from a single USA manufacturing facility in the USA to a truly global powerhouse. With manufacturing or distribution locations across four continents: North America, South America, Europe and Asia and twelve countries, it is now a global leader in fastening, joining and assembly, with expert in-house Application Engineers.



With grandson of Herman at the helm, CEO: Jeff Koehl, this third-generation family-run business has an impressive legacy dating back 75 years.

With SPIROL's already impressive global coverage, the acquisition of Ford Aerospace will bring enhanced international market appeal. One of SPIROL's main tenets is to ensure company reinvestment, safeguarding future success and customer satisfaction, a tenet equally shared by Ford Aerospace. Such synergy in business approaches, alongside similar rich company history and expertise will unite the two companies unconditionally.

www.spirol.com

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During the past number of years along with its parent Company Anua Clean Air International limited and Italian Sister company Air Clean SRL we have been very active in the UK, Ireland and in overseas markets including Italy, France, the Middle East, China and the US. International Reference projects include Dual Pass Monashell Installations in

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Anua Clean Air International also specialise in Equipment Health Checks and process optimisation and media replacement services. Over the past number of years we have continued to perform System Health Checks and media replacement services on the many hundreds of Worldwide Monashell Installations.

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MattressTek diversifies to meet demand through new sub-brand



Multi-award-winning machinery brand MattressTek is undoubtedly renowned as a leader in the provision of solutions to issues that manufacturers and processors - industrial, material handling and packaging - face.

Whilst some areas of the sector have slowed, the company has been following up enquiries, including those from their presence at recent trade shows, involving the processing of other materials, whilst sustaining their orders for the mattress and foam production worlds - from the slitting and rolling of flooring and window tinting film to stitching, stacking and packing of solar panels and stuffing of foam into gym mats.

In response to feedback from customers and prospects, MattressTek has launched the AutomateTek sub-brand to differentiate the design and build of machines and production lines for use

in the manufacturing, management and material handling in other industries.

Technical director Shaun Peel says: "Innovation is what we do. Adapting and redeveloping our machines to suit bespoke customer requirements so it made sense to listen to the feedback and act on it. As all of our machines have an element of programmable automation, AutomateTek is a logical shift."

Sales director Michael Birtwistle adds: "We'll proudly continue to service the processing of all manner of other materials but want to get in front of those who can benefit from using our machines and adaptive approach for their own solutions. We have found that we can make a machine to solve almost every manufacturing problem."

MattressTek recently expanded their

site in Lancashire into the neighbouring unit to enable them to continue their lean manufacturing operations with the internal building of pallets, crates and packing for shipments, as well as accommodating space to showcase new and bespoke machines for customers to see when they attend the site from across the UK and further afield.

With a run of awards wins over the past 6 months, the brand is excited to continue its international trade and export success whilst designing, building and testing more innovative machines to meet the needs of manufacturers and processors to help them prevent issues and solve problems.

For more information about their new developments and to view their full range check out: www.automatetek.co.uk

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The problem

Operated by Portsmouth Water, Farlington Water Treatment Works is a major facility supplying thousands of homes and businesses in Portsmouth, Havant and surrounding areas in Hampshire.

As part of a refurbishment at the treatment works, the contractor needed a smart solution to transition from old imperial legacy pipework to new metric pipework while also maintaining the ability to isolate the flow.

When the appointed framework valve holder was inflexible to accommodate the challenge, T-T Flow stepped in to provide a robust and reliable long-term solution that fully meets the brief.

The solution

T-T Flow was chosen to supply eight

600mm metal seated isolating wedge gate valves rated to 16 Bar. The valves have custom flange drillings - one side metric (EN1092 PN16), and the other side imperial (BS10 Table D).

Working through a merchant, we supplied eight DN600 PN16 metal seat wedge gate valves conforming to BS5163 and hydraulically tested to EN12266. The full-bore valves feature precision machined weld-overlay leaded gunmetal seating faces able to withstand higher flow velocities.

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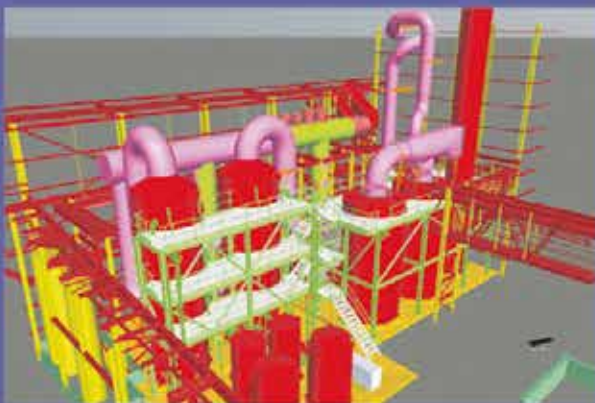
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