Garran Lockers: Offering the complete storage solution

Garran Lockers were among the Top 20 exhibitors at The Emergency Services Show from the 19-20 September last year.

As an established UK Manufacturer, Garran continues to develop and supply specifically designed, secure storage solutions to suit the wide range of requirements within the emergency services.

In this ever evolving and demanding sector, emergency service providers are constantly pushed to improve and introduce new, high value technology and equipment. In doing so, the requirement for top quality, robust and highly secure storage has evolved too.

Haing worked closely with the emergency services for many years, Garran is at the forefront of storage development. Utilising the experience of collaborating with several police and fire authorities including the Met Police, Leicester Police and London Fire Brigade, to name just a few, on contracts nationwide to produce a wide range of products suitable for the sector.

Specialising in both standard and bespoke manufacturing, including a fully collaborative in-house design service, Garran can tailor the products for each project to the end user’s individual requirements, as well as employing their own transport and installation teams to ensure projects are completed to our usual high standard. In addition, Garran also strives to maintain excellence in customer service and after-sales support.

For more information on the products and services that Garran can supply, contact the office today on: +44 (0)2920 859600 or email: info@garran-lockers.co.uk

Quick charging connector system for autonomous AGVs developed by Stäubli

Electrically driven Automated Guided Vehicles (AGVs) have become an integral part of advanced logistics facilities, navigating themselves through factories, warehouses and container terminals.

For automated logistics systems running without operator intervention, a key component of Industry 4.0 and indeed logistics 4.0, recharging the AGVs needs to be carried out autonomously. For this purpose, an automated quick charging system called QCC (Quick Charging Connections) has been developed by Stäubli Electrical Connectors.

The QCC uses the company’s propriety MULTILAM technology, which ensures the connection between the contact surfaces remains constant over the whole of the connector’s lifetime, producing constant, high-efficiency power transfer.

An integrated self-cleaning mechanism allows high currents to flow continuously without requiring additional cleaning or maintenance. The connector is rated at over 100,000 mating cycles – enough for many years of continuous operation.

With a high tolerance to angular and positional misalignment, the compact system is versatile and easy to integrate. As well as charging, it can carry data communications for the higher level software that controls and monitors the charging process.

A high level of safety is provided, as all live parts are protected against direct contact, whether connected or disconnected. The power and signal contacts are not exposed until the connection is fully mated and the electronic release occurs to start the charging process.

Its watertight IP55 design prevents significant contamination and water ingress. An optional automatic self-cleaning system using compressed air will remove any foreign matter to ensure reliable, low maintenance operation, both indoors and outdoors.

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100 Years in Business
See them on page ..........................12-13

Diversey’s ClearKlens® brand ensures the right selection for Optimum Disinfection

For over 30 years, Diversey – the leading global hygiene and cleaning company have been developing innovative hygiene solutions for sterile and non-sterile production in the life science industries. Diversey’s ClearKlens® range of products is testament to this expertise and provides a holistic total solutions approach to hygiene for the pharmaceutical industry. Hygiene is of paramount importance for pharmaceutical manufacturing facilities, and Diversey’s ClearKlens® range incorporates solutions for the widest choice of environments, surfaces and applications.

From sterile disinfectants to clean-in-place (CIP) wash down systems, Diversey’s ClearKlens® range has products for optimum use in all conditions. The advanced ClearKlens® range has been developed to serve the specific needs of the sterile processing industry. Manufactured in a controlled environment, the range is presented in packaging validated to maintain the sterility of the product until point of use in the clean room. The range employs standard formulations, aided standardised international operating procedures, such as those implemented under European Biocidal Products Regulation (BPR). In addition, ClearKlens® Sterile is also manufactured to GDP standards with full batch traceability and has undergone testing against relevant microbiological standards. All products are supported by full technical documentation, which includes certificates of analysis, irradiation and sterility where appropriate.

Diversey has perfected the art of detergent selection through its ClearKlens® Detertgent Selection Program (DSP) which provides for efficient protocol and chemical selection. The Program is designed to select the best detergent for each task under specified conditions. It removes complexity from the detergent selection process and allows customers to access Diversey’s extensive knowledge, experience and expertise to develop tailored hygiene procedures specific to the product and facility. This ensures the most efficient solution to clean a specific soil, accelerating pharmaceutical standard operating procedures and efficiency, while reducing waste volume and cost as well as contributing to building.

For more information about ClearKlens®, visit: www.diversy.com/clearklens

100 Years in Business
See them on page ..........................12-13

CP Electronics wins coveted RAC Cooling Industry Award for its HVAC Detector

Energy and lighting controls specialist CP Electronics has been crowed an RAC Cooling Award winner thanks to its innovative air conditioning controller, the GESM-AC.

A battery-powered passive infrared (PIR) sensor, the GESM-AC limits use of air conditioning to times when it’s necessary and switches it off when it’s not, based on occupancy. CP Electronics are winners in the ‘3rd Conditioning Product of the Year – Accessories & Peripherals’ category, and its detector is designed to help bring energy consumption from air conditioning units down.

The results of the RAC Cooling Industry Awards were revealed on 26th September last year at the esteemed London Hilton, Park Lane, London, attended by over 600 of the refrigeration and air conditioning industry elite.

On CP Electronics’ win and the detector, the RAC Cooling Awards Judging Panel 2018 said, “A simple and practical device to install in rooms with infrared remote-controlled single AC units. The environmental benefits were obvious in saving on energy in cooling unoccupied space.

“It is not unreasonable to believe that a payback within 12 months can be achieved. It could benefit both new built and retrofit markets through the rapid installation and the subsequent low maintenance costs.

As well as being environmentally friendly, one of GESM-AC’s biggest benefits is its versatility. The GESM-AC can be hardened via USB, meaning reprogramming. An optional automatic self-cleaning system using compressed air will remove any foreign matter to ensure reliable, low maintenance operation, both indoors and outdoors.

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OMNIE ScreedPlate

A development of six five-bedroom detached properties, close to Cirencester town centre, whose construction features the area’s distinctive natural Cotswold Limestone is making full use of the benefits to the ScreedPlate system and other products from the range of OMNIE ltd.

Despite their vernacular styling, the properties make full use of contemporary construction technology to meet (and in some respects exceed) current building regulations. Their high insulation standards make them ideal to benefit from the characteristics of underfloor heating, which offers excellent occupant comfort and energy efficiency when run at lower temperatures than conventional radiators.

The installation of the OMNIE ScreedPlate panels, pipework and manifolds was undertaken by Lee McClurg of L. McClurg Plumbing & Heating Ltd. For the upper storey to each house, TorFloor panels and pipe have been fitted. This has then been connected to an eight-port manifold fitted upstairs. ScreedPlate is amongst the most popular options to OMNIE’s LayFast brands: being compact and suitable for in-screed applications. Pipe runs are simply pressed into the profiles without the need for joints and resist being disturbed as the screed is laid.

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New Master Ultra Ceramic discs

Following the launch of its own Master® branded quick-change discs Master Abrasives have introduced a new range of premium Ceramic roloc discs.

Unlike conventional discs, the grain in Master Ultra Ceramic discs fractures to form new points which are sharp and precise for exceptional performance. This maintains a cooler cutting action and extra-long product life ideal for aggressive grinding and blending applications. The discs also require less pressure, resulting in reduced operator fatigue.

Master Ultra Ceramic discs are initially available from stock in 36 and 60 grit for 50 and 75mm diameter discs with additional options to follow. The discs from stock have the MRD threaded screw-type mounting system which provides an excellent solution for high volume, high production operations. Discs are packaged in the trademark Master branded blue boxes and will also be available from distributors of the Master brand.

National Sales Manager, Andy Wright comments, “The right tool with the right abrasive results in very high stock removal rates and longer product life. We’ve already experienced exceptional results in various customer applications when using the 29P high power tools with Master Ultra Ceramic discs and are now finding new opportunities to improve productivity in aerospace, fabrication and foundry markets.”

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Micro Channel Heat Exchanger (MCHC) Coils

The MCHE coil development originates from the automotive industry and has recently been introduced to the HVAC&R Industry. The big advantages are that they are lighter, more efficient and lower the required refrigerant volume. They are made entirely of aluminium which makes them less vulnerable to galvanic corrosion but both the fins and the tubes are at risk in corrosive environments.

Blygold have brought out a coating to specifically protect MCHE coils from the atmosphere. Blygold PoluAl MC completely seals off the vulnerable fins and tubes preventing possible jetting and refrigerant leaks. With high UV protection, abrasion resistance, chemical resistance and improved water drainage, the performance and lifespan of the coils is significantly improved.

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Industry Update is sponsored by Grip Hero – see them on page 5
The 3rd edition of the Industry 4.0 Summit & Expo takes place once more in Manchester, on the 10-11 April.

Billed as the UK’s largest event for the 4th industrial revolution, the event is as a one stop show to see the latest technologies & solutions to make manufacturing smarter.

A combined conference (Summit) and trade exhibition, the event attracts manufacturers eager to gain knowledge on how to adopt new management strategies to help improve their operations, as well as see the latest technologies to make this happen.

The event also acts an opportunity to seek advice and finance from government, meet industry associations, and to network with over 2,000 attendees from 40 countries.

Speaker confirmed include Stephen Phipson, CEO of EEF, the manufacturer’s association, Brian Holliday, Managing Director, Siemens Digital Factory; Donna Edwards, Programme Director for the government’s Made Smarter North West pilot, Andy Schofield, Manufacturing & Materials Strategy and Technology, BAE Systems – AIR, plus speakers from ADDO UK, Gulfstream, Mondelēz, Trak-Rap, EDF Energy, Dassault Systèmes, Dell and others at the sharp end of digital transformation.

The Summit provides manufacturers with a comprehensive overview of Industry 4.0, with insights on why to invest in industry 4.0, how to do so step-by-step, the real skills & training needed in this 4th industrial revolution, digital twins, understanding the new energy landscape as well as plenty of case studies of industry 4.0 in action.

Registered attendees so far include senior level management from PepsiCo, Merck, Ford, Siemens, Boeing, Ashai Breweries, RS Components, Rolls Royce & National Grid.

A key focus of the summit is engagement with SMEs and involving them in discussions and providing them with the ideas & tools to help them start their own digital transformation. The organisers will have a special SME clinic onsite to answer questions on Industry 4.0 and to connect them with experts to guide them on the right path. Expert advice will be provided by KTN, Innovate and Made Smarter.

Event Director Gary Gilmour comments, “Our event attracts visitors across the manufacturing spectrum eager to get a better understanding of how to adopt Industry 4.0 and then put this into practice. Our event provides knowledge and solutions, and plenty of case studies from companies who have already started their digital transformation. We’ve made a real effort to attract more SMEs to the show Over 15% of attendees have purchasing authority of more than GBP£500k, which we believe reflects that senior management will only attend a couple of important events a year, this being one.”

Within the free-to-attend EXPO halls, visitors will be able to see not just the latest technologies & solutions, but also interact in with many of the features taking place. One such thing feature is the Siemens Sponsored Open Technology Forum where visitors can sit in and get short, previse expert advise from industry practioners in topics ranging from 3D printing, predictive maintenance to cyber security.

Other interesting features include an Interactive RobotZone to see the latest robotic technologies; an Innovation Showcase showing some of the start-up companies creating future ideas; and an SME Forum where companies are encouraged to attend and get some insights on digitalising their business for little investment, as well as hearing from companies like themselves who have started their own 4.0 journey.

The exhibition shows a range of 4.0 technologies including automation, robotics, sensors, VR/AR, software, big data, predictive maintenance with companies such as Bosch Rexroth, Festo, Grundfos, Omron, ABB, Cisco, Siemens, Daqi, Carl Zeiss, Holovis, SMK, Panasonic, Werma, Dell & Beckhoff all exhibiting.

For more details, please contact Gary Gilmour on: +44 (0)1642 438 225 or at: info@industry40summit.com.

The EXPO is free for registered visitors. There is an early bird booking for SUMMIT tickets bought before 26th February, visit: www.industry40summit.com thereafter use Promo Code PE30 to receive special Process Engineering discount.

**Join the fourth industrial revolution & make your manufacturing smarter**

Industry Update is sponsored by Kingston Engineering – see them on page 12-13
Removing Graffiti gently and without harming the environment

TC Facilities Management (TCFM) have secured the contract to deliver window and external signage cleaning across the country. The contract being delivered by a team from TC Specialist Services, part of TC Facilities Management (TCFM), started last month.

It provides window cleaning services to every Poundland store, 4 DCs and their admin offices in the UK along with each Dealz store in the Republic of Ireland. The team from TC Specialist Services are ensuring that the standards of appearance to the windows and external signage of each site will help to create a welcoming, fresh and engaging environment for Poundland’s customers and suppliers.

The contract utilises innovative software which will help to deliver robust scheduling, monitoring and management reporting to Poundland. Eric Dawson, Business Manager, TC Specialist Services said, “Having previously provided services to about half of Poundland sites, we are delighted to now be providing our services to their complete portfolio. This award of contract has been as a result of us building relationships over a 5 year period that demonstrates our efficient and proactive response to Poundland’s needs, particularly by our helpdesk, led by Abby Tordoff.”

Steve Wengrow, Divisional Director, TCFM added, “Our team have worked incredibly hard to secure this win and are looking forward to demonstrating to Poundland our innovative approach to delivering a great service.”

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Donations are in the bag for British Heart Foundation

TC Facilities Management (TCFM) have created a national charity partnership to help the British Heart Foundation achieve its aim of halting heartbreak forever. The partnership commenced 6 weeks ago and has set its sights on raising £1.6m of funds for the charity that conducts groundbreaking research in to heart and circulatory diseases and their causes.

Heart and circulatory disease kills 1 in 4 people in the UK, causing heart break in every street. Fiona Ellingham, Marketing Manager, TCFM has had a number of family members affected by heart conditions including a niece who required a heart transplant aged just 5 and a brother who thanks to a special pacemaker, his heart is able to maintain a stable rhythm to keep him alive.

“Speaking with other colleagues at TCFM, it became very apparent that I was not alone in having family members affected and so the partnership was formed.”

“At the moment, our colleagues are busy having clear outs in their homes and filling bags with unwanted items that can be sold in the BHF stores across the country. In the last 6 weeks, colleagues from all over the country have collected more than 50 of the 300 (minimum) bags of items we’re aiming for.

“We have a number of other activities planned through the year that will not only raise funds for BHF but will also bring people in to do CPR, something which saved my brother’s life over 2 years ago.”

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Industry Update is sponsored by Grip Hero – see them on page 5
Industry Update is pleased to announce GripHero as our chosen Hygiene Product Company of the Month. Revolutionising the way we operate forecourt fuel pumps for the good, GripHero are shaking things up for the better.

Here's an interesting, and rather worrying, statistic: fuel pumps are 11,000 times dirtier than toilet seats, and I'd be willing to bet that the majority of people didn't know that. Here's another: 82% of drivers struggle to find forecourt hand protection. These statistics are indeed worrying, and they expose a problem desperate for a solution.

The solution has in fact arrived, and it's come in the form of GripHero, the Devon based company set to revolutionise hygiene procedures at fuel forecourts for good. I spoke to the GripHero team and this is what Managing Director, Oli Yeo, said GripHero is all about. "At GripHero, we have invented and patented a fuel nozzle mounted hand protection dispenser, dispensing the world's first ever ATEX-Certified, Anti-Static hand-protection. It is also eco-friendly with a recyclable version currently on the market and an Oxo-Biodegradable and a Compostable variant to be released shortly. Our role is the design, manufacture, sale and distribution of the dispensers themselves as well as the refill rolls of hand protection that they use. We also offer highly visible GripHero recycling bins, at a reduced cost to the rest of the market, to help encourage closure of the loop on recycling plastics."

There are numerous factors which render GripHero such an innovative and exciting product: firstly, there's the fact that GripHero dispenses hand-protection bags on the actual fuel pump itself, reducing the need to wander around the forecourt looking for hand protection solutions. Secondly, the actual hand-protection itself is extremely innovative, incorporating many impressive safety features. Currently, GripHero's hand-protection is 100% recyclable and ATEX-Certified, Anti-Static. Couple this with the easily visible and accessible recycling bins offered at a cut-price, GripHero's commitment to being an ethically driven, socially and environmentally responsible company becomes even clearer. This vision continues with the imminent release of the Oxo-Biodegradable and Compostable variants in the coming months. Moreover, as Oli Yeo explains, whilst the hand-protection itself is environmentally friendly, the solution also dramatically reduces waste. "The dispensers only discharge one unit at a time which reduces unnecessary waste from conventional dispensers that often give multiple gloves at a time which are subsequently discarded in waste bins or worse, blown around by wind and cause litter which damages the environment." Innovation is the specialisation of this company, with the brains behind GripHero having sought to redefine many features of the fuel pump, "The dispensers contain marketing space and are made from reinforced materials making them impact resistant and almost impossible to break as we have demonstrated with our 15ft drop test."

What truly sets GripHero apart from the competition is simple. No one is doing what GripHero is doing. There are of course hygiene solutions offered at forecourts, but from forecourt to forecourt hygiene solutions are desperately inconsistent and are few and far between. Sales and Marketing Manager, Luke Jenkins, explains, "GripHero is unique in the market place for the benefits we offer: Whilst other disposable hand protection exists for forecourts, ours is the only ATEX-Certified Anti-Static variant (a world 1st), they are fully recyclable with Oxo-Biodegradable and Compostable alternatives soon to be released to the market. Our patented dispensers set out to standardise the provision of forecourt hand protection by positioning it on each and every fuel nozzle meaning the hand protection is exactly where you need it and always in the same place, whichever forecourt you visit. With dispensers on each nozzle, forecourt hand-protection capacity is dramatically increased, reducing the risk of empty dispensers and the public not finding the hand-protection they need."

Whilst the benefits to the user of GripHero are numerous, there are, too, a great many benefits extended to the forecourt owner. Margins on the sale of fuel are slight with the success of the adjoining shop or cafe often being pivotal in the success of the business. Now think about this: would a customer be more willing to use your facilities, purchase products from your shop, and use your forecourt if they had the peace of mind coming from having completely clean hands? Research commissioned by GripHero reveals the answer to this question as an astounding yes. In fact, 76% of those questioned would prefer a forecourt with hand-protection, whilst 41% would travel a further two miles to use a forecourt with hand-protection. Interestingly, 25% would be willing to pay up to 1 penny extra per litre of fuel if the forecourt provided hand protection. The statistics speak for themselves. It is highly unlikely that customers use a forecourt solely based on the price factor; there are a great many factors involved in this decision. Employing the use of GripHero could well be the difference between a customer choosing one forecourt over the other.

Whilst the benefits to the forecourt owner are numerous and could easily increase profit margins and customer satisfaction, the true and most important benefit gained from using GripHero is to the user and the safety and hygiene offered by using GripHero. Whilst improving business is of course an ideal benefit, the safety of customers is paramount importance. Research shows that 70% of handlers carry germs which could pose a significant health risk to the customer. 50% of those germs are known as Gram-positive Cocci which are known to threaten skin conditions, toxic shock and even cause illnesses such as pneumonia and other infections resistant to anti-biotics.

Further to that, petrol is known to contain up to 1% benzene, an extremely dangerous carcinogenic chemical known to cause cancer. The International Agency for Research on Cancer has classified benzene as a group one carcinogen, the highest group. Benzene can be ingested into the body through the skin and through ingestion as well as inhalation, posing serious health risks to the user of forecourts. The importance of providing a safe and hygienic solution to this problem cannot be overstated.

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GripHero: Revolutionising Forecourt Safety

Revolutionising the way we operate forecourt fuel pumps for the good, GripHero are shaking things up for the better.

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The Emergency Services Show 2018 saw its 10% increase in visitors

The UK’s largest event for the emergency services, The Emergency Services Show (ESS18), has reported record growth in attendance for 2018. The free-to-visit event took place at the NEC, Birmingham on 19 and 20 September and attracted a total of 4,545 visitors and buyers, representing a record 10% increase on its previous highest attendance in 2017.

Over 2,500 of the show’s visitors attended the programme of 90 CPD seminars running in four theatres. Among the most popular sessions for police visitors in the lecture Isaret seminar theatre were The Manchester Arena Bombing Incident and National Resilience in the Police: Examples from the British Transport Police.

The indoor and outdoor exhibition featured over 450 exhibiting companies including leading names in communications, IT, protective clothing and uniforms, body-worn video, UAVs, medical supplies, drug testing, vehicles, vehicle equipment, outsourcing, training, community safety and station facilities. New launches from Ecoware Technology, Primetech, PCE and many others demonstrated the exciting future role for connected vehicles among the emergency services. Over 90 companies and organisations were exhibiting at the Show for the first time, ensuring there was plenty new to discover for regular visitors.

The Emergency Services Show will return to Hall 5 at the NEC, Birmingham on 18-19 September 2019. This is our pick of the best exhibitors from last year’s show, listed here in alphabetical order: Barquins, Crofton Engineering, Heathcoat Fabrics & Northern Diver. Further details can be found below.

www.eossyork.com

Northern Diver: Specialist Rescue Equipment

Following a record year of growth and sales at Northern Diver, they invested in two large stands at the Emergency Services Show 2018. As Rescue is their fastest growing sector, they wanted to ensure that their vast range of products could be highlighted.

Northern Diver design and manufacture an incredibly diverse portfolio of drysuits, diving and other equipment for use in, on and around water. Established for over 40 years, Northern Diver are proud to support over 95% of the UK’s fire services with their Specialist Rescue Equipment (SRE).

One of their stands was dedicated entirely to their range of inflatables. From boats to airtracks, rafts to rescue sleds they displayed not only the diversity but also their ability to customise their products, so they better fit their customers’ needs.

Following ESS, Northern Diver then ran a demo day in December for 40 customers they met at the show. The SRE team provided first hand advice and gave attendees the ability to try out Northern Diver inflatables, PFDs, boots, gloves, reach poles and innovative new drysuit samples; all in the water, simulating rescue scenarios to SRE products in action.

Northern Diver received fantastic feedback from the show and their demo-day. They have already received orders and tender requests based on what they can achieve. The SRE team at Northern Diver can wait for ESS 2019 to show ever more organisations what they can do.

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Innovative performance Textile Technology

The Heathcoat Pure System of firefighting outer shell fabrics incorporates the heat and flame protective properties of PBI combined with strength and durability of KEVLAR®. Heathcoat has combined the fibres in their most effective combination to create higher levels of performance and ensure the best available protection for those on the front line.

Mark Drysdale, Commercial Manager, said, “This new range is a significant development in our high-performance range. All our fabrics are designed to increase breathability and comfort for the wearer, and we have results highlighting an increased percentage of strength retention after exposure to fire.”

Heathcoat Fabrics will be announcing further exciting new developments in firefighter protection at the 2019 Emergency Services Show.

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Barquins’ 25 Stone Training Mannequin enjoys third consecutive year

Barquins, the UK Company that produces the quality 25-Stone Mannequin that one person can carry, is now one of the most popular mannequins in the UK. The 25-Stone is the perfect training mannequin for everyday use, as it is not assembled, ensuring its presence in the training and fire service curriculum.

This year, Barquins launched Weekly Rental Packages for their Barquins’ 25-Stone mannequins, ideal when carrying out a training exercise or a concentrated programme of staff training courses. The Rental Package supplements their finance options and outright purchase of their mannequins.

The Barquins mannequins, composed of 25 vida-links connecting weighted sections, plus jacket, head, hands and feet has the size, weight and look of a plus-size person. A Barquins really is ‘the best training mannequin’ and training with one provides staff with barstic skills, experience and knowledge, reducing the risks when handling a plus-size person. It offers real-world expectations of dealing with plus-size people, not make-do pretences that underestimate the care required which inevitably leads to inefficiency and even injury.

Bariquins, the UK Company that produces the quality 25-Stone Training Mannequin, ideal when carrying out a training exercise or a concentrated programme of staff training courses. The Rental Package supplements their finance options and outright purchase of their mannequins.

Methods means the Smoke Houses can be supplied as a separate facility or we could create a new combination. All our products conform to the current guidance on safety, including the applicable parts of the Fire Service Manual, and are employed in over 450 fire stations, fire and police training centres throughout the UK and overseas.

Contact T +44 (0)1223 892138 info@crofton-eng.co.uk www.crofton-engineering.co.uk

Crofton Engineering delivers modern training buildings

Crofton Engineering Ltd has been evolving in all aspects of structural steelwork and metalwork for over 60 years. The Company provides standard and bespoke designs for all aspects of Emergency Services’ training including: traditional ladder drills, rope rescue, Safe Working At Height, BA and USAR. Our objective is to provide buildings and structures for realistic training scenarios that are both flexible and robust but also durable and adaptable as training across all the Emergency Services continues to develop.

From our own facilities Crofton design, fabricate and deliver a choice of Smoke Houses, Confined Space Training, Pitched Roofs, USAR and bespoke Training Towers for multiple Rope Rescue scenarios in addition to our range of standard buildings and towers.

The flexibility of our designs and construction

The Emergency Services Show Review Top 20

Technology textiles specialists, Heathcoat Fabrics showcased several of its latest product developments from across the company’s Personal Protective Equipment (PPE) range, at the Emergency Services Show last September. Visitors were shown the breakthrough 2D and 3D Safe-T-Tec® Fire resistant knitted fabric, Pure System firefighting outer shell range and the expanded Gardtex industrial protection range which includes the new lightweight PBI TGP option.

The British manufacturer is globally recognised for its innovative, creative attitude and its latest addition, Safe-T-Tec, range of 2D and 3D fire resistant knitted fabrics has been carefully engineered to offer increased airflow for breathability, reduced thermal burden and aid moisture management.

The Heathcoat Pure System of firefighting outer shell fabrics incorporates the heat and flame protective properties of PBI combined with strength and durability of KEVLAR®. Heathcoat has combined the fibres in their most effective combination to create higher levels of performance and ensure the best available protection for those on the front line.

Mark Drysdale, Commercial Manager, said, “This new range is a significant development in our high-performance range. All our fabrics are designed to increase breathability and comfort for the wearer, and we have results highlighting an increased percentage of strength retention after exposure to fire.”

Heathcoat Fabrics will be announcing further exciting new developments in firefighter protection at the 2019 Emergency Services Show.

Contact T +44 (0)1844 254949 ppe@heathcoat.co.uk www.heathcoat.co.uk

Tecnicial performance Textile Technology

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Paragon Rapid Technologies: Specialists in Rapid Prototyping

Industry Update is delighted to announce that Paragon Rapid Technologies has been selected as our CAD Company of the Month. Paragon Rapid Technologies, experts in the rapid production of prototypes and low volume manufacturing for a wide variety of industries, utilise cutting-edge technologies in offering solutions to the customer.

Established in 2003 by Managing Director Phil Adamson and Technical Director Peter Humphrey, based in Darlington in the North East of England, Paragon Rapid Technologies offer a wide range of technical services. Whilst the services and solutions offered are varied and intricate, the aim of Paragon Rapid Technologies remains clear: to offer designers and engineers the opportunity to develop prototypes from the concept stage to prototyping and, in some instances, to low volume production.

Additive Manufacturing Manager, Roy Crombie explains exactly what services Paragon Rapid Technologies provide and what benefits these services bring to the customer: “We offer prototyping and low volume production services through three distinct brands, Paragon AM Technologies, Paragon Rapid Technologies, and Paragon CNC Technologies. Paragon AM Technologies is the sole UK company to be partners with Carbon Inc. “When a technology comes along that promises to print 100 times faster than traditional 3D printing methods, and to deliver stronger, smoother products to boot, opportunities for product design, development and manufacturing open up. Its continual production process enables multiple iterations of a design in one print, and, of course, it means prototyping can turn into production without having to create tools. Because it has been developed with production in mind, the more efficient we are with platform utilisation, the more economical it becomes for the end user.”

There are two further brands within the company: the Paragon CNC Technologies and the Paragon Rapid Technologies brand.

“Paragon AM Technologies offers Additive Manufacturing (3D printing). The benefits of using Additive Manufacturing over traditional methods of 3D printing in the prototype manufacturing process are numerous. Mass customisation, for example, is available at no extra cost, parts are stronger and lighter, and what’s more the carbon footprint is reduced as material is selectively added. Further, free form designs can be especially complex. “We have small and large bed, state-of-the-art SLA printers, including 3 NED800s which carry an open materials platform, enabling us to print larger functional models, prototype patterns and even production parts with superior surface quality, reduced finishing times, accuracy and high levels of detail. For tough, durable, heat resistant functional parts we also offer SLS printing.”

Whilst the ‘traditional 3D printing technologies employed for use by Paragon AM Technologies are cutting edge and impressive on their own, the industry leaders are also able to offer customers access to the revolutionary Digital Light Synthesis™ technology. Roy explained the importance of the situation. “The jewel in our crown is that we are currently the only UK production partner for Californian 3D tech giant, Carbon Inc. Digital Light Synthesis™ is geared up to enable production rather than just prototyping.”

Roy expands on just how revolutionary this technology is, and how significant it is that Paragon Rapid Technologies are the sole UK company to be partners with Carbon Inc. “When a technology comes along that promises to print 100 times faster than traditional 3D printing methods, and to deliver stronger, smoother products to boot, opportunities for product design, development and manufacturing open up. Its continual production process enables multiple iterations of a design in one print, and, of course, it means prototyping can turn into production without having to create tools. Because it has been developed with production in mind, the more efficient we are with platform utilisation, the more economical it becomes for the end user.”

The benefits of prototyping are not limited to a select number of industries, with Paragon Rapid Technologies proving that by serving numerous industry sectors, including architecture, aerospace, automotive, consumer goods, defence and security, energy, oil and gas, industrial goods, marine, and medical.

Finally, Roy explains about the company’s plans for the future. “In 15 years, we have established excellent relationships with some big names such as Jaguar Land Rover, JCB and Unilever. Over the last 18 months, we’ve invested £3 million in technology to ensure that we stay at the cutting edge of our industry. Last year our turnover was above £5.5million. Over the next five years, we want to achieve again what we have achieved in the last 15.”

The future for Paragon Rapid Technologies is extremely promising, so see how their services can benefit your business; you never know where it may take you.

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www.paragon-rt.com

Industry Update is sponsored by Kingston Engineering – see them on page 12-13
T CARDs DIRECT: Work Process Solutions

Managing a workload is an essential requirement for any business or department and many companies may be familiar with the manual T Card Board developed by T CARDs DIRECT over 60 years ago. The visual, tangible nature of a T Card display can be ideal for managing workflows such as Health & Safety tasks. T Cards say in recent years a natural progression has been the development of T CARDs ONLINE, a version which mirrors the simplicity of the manual board system. This can be shown on large screens and desktops simultaneously giving users the most up to date information at the click of a mouse.

Now to take full advantage of the latest communications technology, T Cards has announced the launch of the mobile app for T Cards Online, making it easier for users not necessarily office based to keep track and update workflow.

T +44 (0)1727 871417
philip@cardsdirect.com
www.cardsonline.com

ISO 45001:2018 Achievement

Lanes Utilities, part of drainage specialist Lanes Group plc, has joined the first cohort of organisations to achieve ISO 45001:2018 accreditation.

ISO 45001:2018 is designed to be a significant upgrade of the current OHSAS 18001 standard, setting a global benchmark for continuous improvement in health and safety.

Now elements in the standard include a clear link between health and safety and business strategy, a stronger focus on the role of business leadership and management teams, and greater emphasis on worker engagement and participation.

Lanes Utilities is the sole wastewater network services maintenance partner for Thames Water. Its 1,400 people are responsible for unblocking, cleaning and repairing drains and sewers for 15 million wastewater customers.

Lanes Group Director, Andy Brierley, who leads the operation, said, “As soon as the new standard came out, we knew we wanted to challenge ourselves by seeking to achieve it as early as possible. We want to be the best in the business, so much more effective methods to improve air quality.

Fuel Efficiency Update

Opti-Diesel

Opti-Diesel was first established in 2012. Based in Halifax, West Yorkshire, the company specialises in producing a fuel additive known as Opti-Diesel. Opti-Diesel reduces combustion energy losses and reduces greenhouse gas emissions in both diesel and petrol.

The technology was initially invented and developed by a scientist in the United States but has been further developed and brought to market in the United Kingdom.

Opti-Diesel has been tested around the world; it reduces harmful emissions and helps to improve specific fuel consumption, which is a measure of the amount of fuel required to generate a specific amount of work output.

Opti-Diesel is easy to use; it does not require fuel tanks to be changed, organic no extract is to be installed on a vehicle and has no adverse impact on existing emissions control systems and does no harm to an engine. The product is simply added to fuel and thoroughly mixed in; it can be poured directly into a vehicle’s fuel tank prior to fill up, or using a proprietary dosing system, it can be dosed into bulk fuel storage tanks during refilling, and vehicles can then refuel from that treated tank.

The product has been undergoing rigorous tests to provide the very best results for all customers. Opti-Innovations believe their product has the potential to have a large impact on the global consumption of fossil fuels and their environmental impact.

Opti-Diesel is a blend of catalytic metal oxide and organometallic catalysts that have been diluted in an organic carrier. Opti-Diesel contains both oxidation and reduction catalysts. Opti-Diesel was originally created to work with petrol but can also be used with many other carbon-based fuels. The components that form Opti-Diesel are all fully REACH compliant.

The product works initially by the oxidation catalyst reducing the amount of energy the system requires to initiate and propagate combustion, thus increasing the amount of system energy available as output. The reduction catalysts in Opti-Diesel function by using existing hydrocarbon fuels radicals that are formed whilst the combustion process is taking place to create chemical reactions that reduces the levels of unwanted gaseous emissions such as NOx and CO.

We spoke to Ted Dickin of Opti-Diesel who said, “Every vehicle was running on Opti-Diesel, we could clean up London in a matter of six weeks! Opti-Diesel is not just about saving fuel and reducing emissions but saving lives too.”

When better fuel efficiency comes fewer emissions and less pollution and we are currently working closely with the influential FairFuel UK Campaign. They are working extremely hard to convince the Government to take a different way to lower vehicle emissions, such as Opti-Diesel.

Our Westminster politicians seem to be favouring vehicle bans and hitting drivers deeper in the pocket with regressive toxic taxes, instead of implementing practical proven and so much more effective methods to improve air quality. The PowerCap Infinity has been designed by JSP’s research and development team who were inspired by feedback received from people about the compatibility issue of having to wear respiratory, head, eye and hearing protection but also the

Disposable foldflat mask

JSP has launched the SpringFit fold flat disposable mask which features a spring endoskeleton in the mask which ensures the most effective respirator fit. When you wear the mask it snugs onto your face and gives a perfect face fit, according to the company.

The endoskeleton guarantees that the mask keeps its shape, increasing performance and maintaining rigidity. The integrated spring feature allows facial movement ensuring the mask offers a secure face fit and seal during speech or movement of the jaw.

The new SpringFit is extremely comfortable with the familiar area around the nose of the mask ensuring the mask is comfortable to wear and the welded nose piece gives the mask a good face fit. The lysen valve has been designed to reduce breathing resistance, heat and moisture build-up. The valve is unaffected by any moisture, and therefore maintains high performance levels even at very low temperatures (-40°C tested).

The low profile design of the SpringFit is said to provide exceptional compatibility with other above the neck PPE. The SpringFit range fits up easily and can be stored in your pocket when not in use. It conforms to EN149 and is available in FF3 and FF22 valued and unvalved, with a nuisance noise carbon layer available on the FF3 valued model.

+44 (0)1993 826050
sales@jsp.co.uk
www.jsp.co.uk

Fuel efficiency and emissions reduction specialists

Opti-Diesel with MP’s are soon to publish an All-Party Parliamentary Group report inquiry into these alternative solutions, including Opti-Diesel.”

Customer service is at the forefront of the business. They believe in loyalty, honesty and treating all customers with utmost respect, which is why all of their knowledgeable staff are fully trained to help give you the best customer experience possible.

For further information of general enquiries, please visit the Opti-Innovations website. Alternatively, you can contact the company via telephone or email.

+44 (0)1442 349118
sales@opti-diesel.com
www.opti-diesel.com

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+44 (0)1442 349118
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www.opti-diesel.com
JSP: Providing exceptional protective gear across Europe

JSP was first established back in 1964 by the current Chairman Clive Johnstone, and his son Mark Johnstone is current CEO. The long running family business was set up to provide industrial head protection and ‘above the neck’ protective equipment, such as helmets, hard hats, safety goggles, and ear protection, plus height safety equipment and traffic and site management products.

JSP have grown to become one of Europe’s leading PPE manufacturers, with a client base and distributor network that stretches over 100 countries, and offices in France, Spain, Poland, the UAE, China and East Africa.

For this issue, we spoke to Sarah Baker, Marketing Director at JSP, about how the company have managed to elevate themselves above the competition. She candidly explained, “Our products are manufactured on ultramodern production lines and offer the highest levels of protection, comfort and ease for workers. Whether in construction and civil engineering, automotive, steel, chemical, oil and gas, mining, manufacturing, energy and utilities, rail transport and infrastructure, or even the agricultural market, users can rest assured that their safety and wellbeing will be maximised with our safety solutions. In fact, there is an estimated 40 million people worldwide using JSP PPE on a daily basis to protect themselves both at home and at work.”

“We’re committed to improving and innovating, and we’re always keen to hear customer feedback. By listening to end users, we can adapt products in line with the environment they face. Our PPE can also be made to measure; the safety helmets, hearing products and eyewear can be customised accordingly and they can even bear corporate logos, colour schemes, safety messages, personal names and identity systems.”

Most recently, JSP launched the highly lauded PowerCap® Infinity®, a highly advanced powered air respirator. With complete above the neck protection, the respirator protects the head, eyes, ears and face, and is perfect for dusty environments where there is risk to both respiration and health. With 4 in 1 integrated protection, the PowerCap® Infinity® features an inbuilt filter, high efficiency filters which deliver 160 litres per minute of clean breathable air, a panoramic impact visor that can provide impact protection at speeds of 270km/h, and even integrated Sonis® helmet mounted ear defenders.

Sarah added, “The PowerCap® Infinity® was designed using customer feedback on the weight, heat and restriction of movement of waist mounted respiratory PPE. Through extensive user trials, we engineered out waist mounted units and hoses, resulting in an easy to operate, lightweight head mounted unit. The wearer even receives feedback on the battery and filter condition via a display, plus audible notifications, whilst indicator lights can alert co-workers of any issues”.

Among JSP’s other releases is the JSP Springfit™, a disposable mask featuring a sprung endoskeleton, the JSP Force™ 8 half mask featuring PressToCheck™ filters, plus a new range of Industrial Safety Helmets which can be viewed at the JSP Hub, a brand new showroom in Oxfordshire.

If you are interested in getting your hands on some of JSP’s exceptional safety products then be sure to get in touch using the contact details below. Alternatively, you can also find more information on their vast product range by checking out the website below.

Contact
T +44 (0)1993 826050
www.jspsafety.com
**Test, Measurement & Monitoring Update**

**One Sensor, Two Signals: Rotational Speed Sensor with an Integrated Temperature Sensor**

**M8 Rotational Speed Sensors from Rheintacho**

New M8 rotational speed sensors from Rheintacho now include two important features including not only the monitoring and measuring of rotational speed but also detect temperature additionally. This is a trend setting move of Rheintacho to integrate temperature recording alongside of rotational speed measurement.

The sensor offers features such as temperature detection, standstill detection (0Hz) and of course speed measurement. It is easy to set up with no alignment required. It can be used in wide temperature ranges as well as a wide range of frequencies.

And all of this in just one small sensor!

For recording temperature, an NTC temperature element with the following specifications is used: ± 1.5°C above the total operating range, NTC 4.7 kOhm, 1% @ 25°C; B25/85-value: 3,830K.

Rheintacho has announced that further sensor series are now being developed in addition to the M8.

Depending on the application, the evaluation of the temperature signal has to be adapted to the differing installation conditions. In hydraulic applications, the homogenizing effect is supported by hydraulic fluid. In electro-motors, the use of a temperature signal side in a speed sensor requires significantly more adaptation as the installation position has very different ambient conditions from the common installation position of the temperature sensor.

The indisputable advantage of being able to call up several parameters at the same time is more present than ever. The cost advantages are complex and are not only limited to the installation costs, but also do not include requiring further sensor access gates, a very obvious advantage.

The other benefits:
- **Material Costs:** One complete sensor with its own electronics, own housing and connection interface are saved
- **Installation Effort:** Complete elimination of one installation process
- **Design Simplification:** Saving an additional sensor access including all possible side effects such as improving design freedom and reducing leakage opportunity.

Rheintacho explains, “At first glance, the idea is captivating and logical, as is every good idea. However, as usual, we can certainly say that the problem was in the detail. Especially when considering the realisation of the series product, many challenges had to be overcome. But now, the products are available, and sales are developing above our expectations. We are sure further sensor series will follow.”

**Gas Meter Test Rig Solutions for everyone**

When a client approached Chell Instruments with a specific challenge, our engineering team got straight to work. Using our industry-leading expertise and experience, the ideal solution was developed to satisfy their gas meter calibration requirements.

Now, a version of the Gas Meter Test Rig (GMTR) we created is available from Chell for everyone wishing to test and calibrate domestic gas meters, including manufacturers and calibration houses.

The GMTR is a multi-channel benchtop system that allows testing of the functionality, accuracy, stability and leak integrity of up to four domestic gas meters simultaneously. It is compatible with older ‘diaphragm’ type positive displacement meters, as well as the newer ‘smart’ ultrasonic meters.

As you’d expect, the device contains high accuracy flow, pressure and temperature instrumentation and can generate any flow set-point up to 12,000 litres per hour while maintaining a safely low outlet pressure to prevent damage to the gas meters under test. For valid error comparisons, the combined mass flow, pressure and temperature measurements can be used to calculate the true volumetric flow rate at each flowrate.

**HIPP Borescope Repairs**

We repair endoscopes of the following manufacturers:
- Everest/GE Inspection
- Henke Sass Wolf
- Storz
- Richard Wolf
- Heine
- Streppel
- Scholly
- Olympus & Comeg (others on request).

Range of performance:
- An average repair time of 14 working days
- Manufacturer independent service for rigid endoscopes
- Individual HIPP service concepts with fixed price guarantee for your actual stock of endoscopes
- Repurchase program for your old scope in case of a constructive total loss (HIPP Payback Program)
- 1 year warranty on all accomplished services and installed parts.

The HIPP service pledge: Repair time of 14 working days.

**Bespoke Test Systems Don’t Have To Look Prototypical**

Chell’s experienced engineers cover every discipline. They create solutions to customer’s test & measurement dilemmas that look just like standard products. For many systems, that’s just what they become.

**Test & Calibration Systems**
- Pressure, Vacuum & Gas Flow
- Includes Robust, Tested, Firmware
- All Calibrations are to ISO 17025
- All Design & Build is to ISO 9001:2015

**Chell Instruments**
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The HHAQ-107 from Omega is said to be ideal for making general measurements of mixed gas volatile organic compound (VOC) levels as part of an indoor air quality (IAQ) maintenance program.

It is apparently cheaper than photo-ionisation meters designed to make precise measurements of VOC levels from a single gas. Small and lightweight with a tripod mount fitting, the HHAQ-107 is a versatile tool for HVAC and IAQ technicians.

The meters' storage capacity can be entirely devoted to VOC readings or split 3 ways for VOC, ambient temperature and relative humidity. The HHAQ-107 includes powerful data logging software for downloading readings to a PC and printing in table or graph form.


PhoenixTM Ltd: Phoenix Temperature Measurement

PhoenixTM Ltd designs and manufactures ‘through-process’ temperature monitoring systems for use in the heat treatment industry. Providing solutions for various industrial sectors including the heat treatment of metals and finished products, industrial paint and powder coating and food processing.

Protected by a thermal barrier, the data logger travels through the process with thermocouples measuring the product and or oven environmental temperature. A historic temperature record (Profile graph or TUS) is collected which then can be analysed using Industry specific software.

Measuring the product temperature, throughout the heating process is invaluable to confidently discover whether the product is heat treated correctly to give it the critical physical and cosmetic properties expected from the specific process and to optimise the process conditions.

Employ the PhoenixTM system to Understand, Control, Optimise and Certify your Furnace/Oven process to ensure product quality, process operation efficiency and regulatory compliance.

To maximise the potential of your Industrial Thermal Process, contact PhoenixTM today.

Contact
T +44 (0)1353 223100
sales@phoenixtm.com
www.phoenixtm.com

Cynergy3 Components Ltd has further expanded their range of industrial pressure sensors by developing the IWPT series of wireless pressure transmitters and receivers. The easy to set-up, DIL switch paired devices can save significant installation costs in remote or difficult to access locations and plants. With an active range of up to 750m (line-of-sight) and a battery life in excess of 5 years, each pressure transmitter sends data at a user-selectable update rate to either a single or 5-channel receiver. The receiver then produces either 4-20mA or 1-5Vdc analogue outputs of the measured pressure ranges. The transmitters are available in a wide variety of ranges from 0-50mbar to 0-400barG.

Each transducer is manufactured in the UK from stainless steel and utilise piezo-resistive sensors and are accurate to ±0.25%/FS. Each device is individually calibrated, temperature compensated and supplied with a traceable serial number.

Detailed information can be found here: http://www.cynergy3.com/products/search/Wireless along with free-to-download 3D models and all the technical specifications.

Contact
T +44 (0)1202 897969
sales@cynergy3.com
www.cynergy3.com

Wireless pressure sensor transmitters and receivers from Cynergy3
Here at Industry Update, we are proud to feature Kingston Engineering for their 100 year anniversary!

Kingston Engineering is one of the UK’s leading manufacturers of bespoke power screws and engineering services. Based in Hull, the company showcases their vast selection of materials and specifications designed to suit the needs of their clients’ precise requirements, which has led to them building an outstanding reputation and enabling them to provide for an expansive range of industrial sectors.

Through their vast successful history, dating back to 1919, Kingston Engineering has developed a rich heritage built on providing precision engineering. Kingston Engineering specialise in manufacturing Right Hand/Left Hand, single/multi-start, cut thread Power Transmission Screws and Nuts for over 60 years. Adaptable for mechanical power transmission, their products conform to the standards of British, European and American requirements.

We recently spoke to Managing Director, Paul Bielby about how their screws have become so popular. He explained, “Kingston Engineering’s screws can be used in a range of applications and across multiple industries. This includes in Aerospace, Oil and Gas, Nuclear energy, the chemical and medical fields, and much more. We work closely with both suppliers and end users in order to provide the very best, customised and purpose built screws possible. We also have an ever growing base, with customers all across the UK and even further afield in the US.”

All of Kingston’s products meet ISO 9001-2015 accreditation and are examined thoroughly during the manufacturing process. Kingston engineering has benefited significantly from their renowned success, enabling Kingston Engineering to flourish within their industry and enabling the company to further their development and manufacturing processes. In regards to the achievement of their 100 year milestone, Kingston Engineering has established themselves as an experienced manufacturer with a continuous devotion to advancing through constant investments in their products, throughout their 100 years of trade. Exciting in engineering excellence, Kingston Engineering has maintained its presence in the market and engineering Co, manufacturing pistons and providing cylinder grinding. Starting small, the company provided car and commercial vehicle repair within the local motor track.

Maintaining its original prospects, is something that Kingston Engineering prides themselves on, dating back to their leadership of Robert Markham and Thomas Simpkins, who designed the business around the concept of giving a bespoke customised personal service for clients, which is something the company still adheres to today. With only 10 employees, the business was smaller and extremely customer service focussed; in early years, creating growing success. Expansion was clearly on the horizon for Kingston engineering, even within the early years enabling Kingston Engineering to be able to provide general engineering services. This success and reputation, later expanded further for the company, with Kingston Engineering obtaining a renewed reputation for repairing both saw milling machinery and printing machinery.

Kingston Engineering Co. Ltd eventually gained its name in 1924 and the development of manufacturing screws began in 1930, which has proved to be a very significant departure for the business.

Expanding through decades marked by World War One, and World War Two is something that not many businesses could achieve, however 1930-1945 saw expansion for Kingston Engineering, with World War Two bringing in a development of manufacturing components required for aircraft undercarriages.

Leading the company to expand and develop its manufacturing facilities, (Kingston Engineering) was very fortunate to be mostly unaffected by any bomb damage.) Kingston Engineering’s expertise and experience helped them maintain and expand throughout these hard decades. In fact, their workforce also increased within 1930-1945, through the high demand of their services.

The evolution of the company during the next 20 years, took flight at the end of World War Two. Operating from a larger site in Pennington Street, Kingston Engineering began their successful journey of specialising in screw manufacturing. Even within those early years, Kingston Engineering began to engage with their ethos of investing in the company, leading them to increase their skills through the installation of new modern machinery. Their skillful reputation gave Kingston Engineering the perfect platform in growing and exporting globally, as their specialist screw manufacturing brought in a new market, expanding to Australia and South Africa.

The arrival of the sixties saw a shift in terms of counter sales for Kingston Engineering, the company moved from motor sales to industrial sales. Furthermore, the sixties contained many major development factors for the company including, investments in the factory, expansion in exporting, the purchasing of modern machinery, expansion of product range and an ‘Off the Shelf’ service introduced. The company now had extremely well-equipped workshops, enabling them to accommodate facilities for milling, shaping, welding, grinding and turning.

Through accommodating these facilitate, Kingston Engineering further expanded their Factory premises. Their product range advanced notably within this era too, leading to a vast range of Screws, Sprockets, Chains, Pumps and bearings; there was also an expansion for their sprayed coating services where Kingston Engineering now offers the service for worn components. In terms of their exporting, Kingston engineering saw further developments within this span of 20 years and had now began exporting across Europe. In 1979, the company celebrated its milestone of 60 years and was being run by two direct descendants of the two founding families.

The introduction of the digital years throughout the eighties, saw the rise of new advancements within engineering industries. Digital technology further increased Kingston Engineering’s already established skills and gave them the perfect tool to be broadening their production skillset.

Kingston Engineering showcases 100 years of skilled, expert and customer focus based history. Through these advancements and changes in technology, the company has maintained its presence in the market and company, leading them to increase their skills through the installation of new modern machinery. Their skillful reputation gave Kingston Engineering the perfect platform in growing and exporting globally, as their specialist screw manufacturing brought in a new market, expanding to Australia and South Africa.
Moving onto recent years, Kingston Engineering has now established a dominating presence within the engineering sector. With more and more technological advancements being used within manufacturing, Kingston Engineering has developed significantly, in terms of modern machinery and in-house facilities.

Examining their amazing 100 year of production up to today, Kingston Engineering has built an extremely positive reputation which has allowed them to produce top of the range products. Through such a detailed rich history of skillful work behind them, Kingston Engineering has shown great flexibility, showcasing the adaptability of the company, throughout the decades. Supported by their expert team and managed by working directors, their skills and experience, are at the heart of the company’s success.

With a great customer service focus, Kingston Engineering provides a quick, efficient service with help from their 40 plus skilled workforce. It is clear to see how Kingston Engineering has become one of UK’s leading specialist manufacturers and producers of bespoke Power Screws.

Maintaining the company’s successful 100 years, has never been more important to Kingston Engineering.

Inspired to further themselves, they even have recent developments, including investment in a new Mitutoyo Euro M544 Measuring Machine, which has become a significant tool for their inspection department.

The machine allows Kingston Engineering to measure the physical geometrical characteristics of an object. The machine creates printed inspection reports and is controlled by an operator, with measurements designed by a probe attached to the third moving axis of the machine. Proving to be a great example of Kingston Engineering’s commitment to constantly improving through investing, the machine benefits the company and clients significantly, especially through the machine producing an accurate drawing of the part that can be used for the manufacture of bespoke items.

Kingston Engineering’s current directors are Paul Bielby, Mike Hutchinson and Gill Hickson, who are leading the company to achieve and maintain its established, excellence and professionalism within all aspects of their business. Through their unrivalled skills and years of experience, they are clearly setting the way for Kingston Engineering and helping the company deliver its exceptional services to their customers.

A privately owned business, this prestigious 100 year milestone is a testimony to the company’s sheer determination to invest through their skilled team of workers, facilities and technologies. It is clear to see that over the years, the company has significantly invested in their machinery for continued success. The company’s current directors have an unprecedented, more than 100 years of experience between them and are continuously engaging in plans to help the company become global leaders in screw manufacturing.

Congratulations Kingston Engineering, on achieving your 100 year anniversary and clearly setting the way for a further successful future.

T +44 (0)1482 325676
www.kingston-engineering.co.uk

Our Heritage

With a wealth of experience built on the foundations of engineering skill and expertise, Kingston Engineering has shown great flexibility and responsiveness to change across the decades. Through a time frame marked by the end of World War One, through World War Two and the decades that followed, our success has been backed by engineering knowledge and experience.

It is this dedication to advancing our skill level and our ability to constantly evolve and innovate that is characteristic of the our story. This still remains the very cornerstone of Kingston Engineering today and the very measure of our success as precision engineering experts.

Please call +44 (0) 1482 325676 or email sales@kingston-engineering.co.uk
Curtiss-Wright Surface Technologies (CWST) provides high quality surface treatments for improving the life and performance of critical components through its global network of over 70 operating divisions and specialist onsite teams.

Building on the unique heritage of Glenn Curtiss and the Wright brothers, Curtiss-Wright Surface Technologies has a long tradition of providing innovative solutions and building solid and trusted customer relationships.

Our surface treatments have been successfully used by OEM’s in major industries such as aerospace, automotive, oil & gas, subsea, medical and power generation for many years.

We are only too aware of the logistical challenges and costs faced by our customers and so we can offer a ‘One Stop Shop’ solution, providing a wide range of surface treatments including Controlled Shot and Laser Shock Peening, bespoke and trade Coating Applications, Engineered coatings, Thermal Spray Coatings and Parylene Coatings for metal, alloy silicone, plastics and electronic components as well as Analytical Services.

We offer our customers a single source solution and point of contact for all their surface treatment, supporting their requirements through our facilities and on-site field teams, improving and reducing turnaround times and costs.

Problems we solve
Component failure is usually due to a sequence or combination of events which can initiate from the design and choice of materials through to manufacturing processing and assembly including the application of heat, welding and grinding, as well as machining and distortion of the part due to bending, rolling or forging.

In services conditions can also contribute to the failure of a part such as variation in temperature and environmental conditions, uneven, high or low cyclic loads or stress profile, corrosion, tension and bending as well as foreign object damage. Matching the maintenance needs of the component to its operating conditions and environment is also important to reduce the effects of ageing and wear.

Our facilities use state of the art robotic equipment which has been designed and manufactured in-house specifically for our customers’ work. We keep in the forefront of new materials and technology by maintaining strong links with industry associations and being actively involved in research and development projects.

Curtiss-Wright Surface Technologies support every stage of the manufacturing process from design and new manufacture through to in service maintenance, repair and overhaul of components — increasing the strength and performance of parts and reducing costs and downtime.

To find out more, please visit: www.cwst.co.uk or email: eurosales@cwst.com.

Efficient blast cleaning of mass produced components

The trend towards complex and intricate components continues. Due to savings in material and new production methods, the need for gentle processing of such components is constantly increasing.

This is why AGTOS developed a new series of drum blast machines for the treatment of mass produced components. Apart from the professional blasting technology involved the machines focus on gentle treatment.

Great variety of parts
Blasting mass produced components may have different aims. The two most common are cleaning and shot peening. It is always important that all work pieces are treated in the same way and intensity.

Often this has to be proven by technical data. AGTOS is experienced in the reproducibility and identical treatment of mass produced components. The work piece size varies from just a few millimetres up to compact parts.

Operation principle
An automatic batch feeder fills the parts to be cleaned into the drum which is in its loading position. After filling it swings into the blasting position.

AGTOS turbine shoots abrasive into the rotating drum. So all work pieces are evenly cleaned. When the blasting process is finished, the drum gently tilts and the work pieces get back into the initial containers or are conveyed further through a channel. While mass produced components are treated in batches in a drum blast machine, the combination of several machines allows for the organisation of a continuous production.

To contact AGTOS: Tel. 0049 2572960260
Email: info@agtos.de
Website: www.agtos.com
Surface Technologies

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- Thermal Spray Coatings
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Please visit www.cwst.co.uk
Contact 01635 279621

Improving component life and performance
**Process & Manufacturing Update**

**Portwell launches palmsize, robust and fanless Box PC – KUBE-2100**

Portwell launches its KUBE-2100, a fanless, palmsized, Intel®-based Industrial Computer. The KUBE-2100 is packaged in a rugged, fanless case and features the latest Intel® Atom ™ processor (codenamed Apollo Lake). Its compact 95 (L) x 97.4 (W) x 36 (H) mm design, low power consumption, and high-performance computing and powerful graphics engine make the KUBE-2100 the perfect solution for harsh industrial automation applications, the factory automation and as a perfect IoT gateway.

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**BG motors with field-oriented control**

The integration of the power electronics in a brushless DC motor (BG motor) not only enables the motor to be controlled in a very simple and elegant manner, but also offers a large number of control algorithms that can be implemented.

The state of the art is field-oriented control (FOC) based on the mathematical description of the motor and the conversion of alternating quantities into direct quantities. The FOC offers advantages for power electronics, improves the dynamic behavior and delivers optimum torque.

From the control engineering point of view, the FOC is comparable to the control of a brushed DC motor. The typical behaviour of a brushed DC motor (SR motor) is achieved by decoupling magnetic flux and torque. The basic concept of the FOC is the consideration of temporal momentary values. Thus, the electrical alternating variables of a three-phase motor are converted into rotor coordinates. Since the reference system is static, the controller can operate with direct current quantities instead of alternating quantities.

The direct quantities are divided into a field-forming (d) and a torque-forming (q) component. Since the magnetic flux in the air gap is generated exclusively by the permanent excitation, the stator currents have virtually no flux-forming components. Due to the surface magnets of the rotor, the setpoint for the field-forming current $i_d$ is set to zero. The output of the current controller represents the reference voltages in the rotor coordinates.

**Contact**

T +44 (0)23 750 760
info@portwell.eu
www.portwell.eu

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**RMIG: We make ideas come to life**

RMIG is the world’s largest manufacturer and supplier of perforated metal and its related products. We know our customers’ requirements for price and quality and meet their demands with uncompromising service. Not only do we offer standard and bespoke perforated metal sheets, we are able to offer you a range of secondary operations as detailed below.

Complete solutions
With a continued investment in the latest equipment and a network of professional partners, we are able to produce prime quality products and solutions—from a simple perforated sheet to the fully formed and coated custom made part.

Cutting
We can cut and shape perforated sheet to meet the needs of your final application.

Lavelling
For some applications a high degree of flatness is required, we have processes in place to ensure our perforated coils and sheets meet with your most demanding requirements.

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

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

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**Perforation Sheets **

Perforated sheets can be used to benefit in many situations, e.g. noise and weight reduction, air control, filtration, as a decorative finish or simply for anti-skid flooring. The varied qualities offered by perforated sheets make them ideal for sorting, facades, ceilings, lamps, shielding, stairs and many other applications, far too many to mention!

**Availability of tooling**

We have thousands of different patterns available and ready for production. However, if we do not have tooling for the exact pattern you require, our modern and well-equipped tooling department is able to produce cost-effective tooling, enabling us to supply perforated products exactly to your request.

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**Dunkermotoren**

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www.dunkermotoren.uk.com
UNISIG modernises high volume receiver production

Rifles barrel receivers go on every rifle that is manufactured and a growing firearms industry has affected the demands of manufacturers. One US based firearms manufacturer saw their production pushed to the limits with their existing equipment, and recognised the opportunity to update their older gundrilling machines to match their modern manufacturing facility. Their goal was to modernise, to handle current and future demand, eliminate a manufacturing bottleneck and maintain the highest efficiency and accuracy standards possible.

UNISIG introduced a solution that would consolidate multiple gundrilling machines into a UNI25HD multi-spindle machine, replacing several decades-old pieces of equipment to free up floor space, and equipping the machine with high power and control technology that allows them to take advantage of newly updated tooling technology.

By combining multiple spindles and high feed rates of these new indexable gundrills, receivers are now produced at a rate of more than 100 parts per hour, in a steady one piece flow, significantly improving their previous production rate.

Indexable gundrills are rigid gundrilling tools that use replaceable carbide inserts and wear pads for holes from 0.53 – 2.00 in (13.5 – 50mm) in diameter, at extremely high feed rates. Typical feed rate increase is from 3-4 times faster with indexable gundrilling.

This deep hole drilling process is supported by UNISIG’s UNI25HD 4-spindle, heavy duty gundrilling machine. This machine provides additional power, torque, and thrust required for these high-feed gundrills, as well as having extra rigid components to handle any vibration produced as a result of extremely high feed rates. Embedded automation is used to match the drastically improved production rate, and to integrate the gundrilling step with the cut-off lathe beforehand, and turning steps that follow.

Infeed automation loads parts from the previous step onto the smart conveyor, where they are indexed to load a four-part cycle and lifted into chucks for the approximate one minute drilling cycle. Robotic unloading on the outfeed side brings parts to the next manufacturing step, turning, at a pace that also matches gundrilling.

UNISIG’s technical team, along with tooling manufacturers, optimised the process and produced an automated system that was a clear solution for this customer. Their team was impressed with the clean, modern system that fit well into their modern manufacturing concept. UNISIG also provided installation and training to ensure they can hit their production and accuracy goals without issue.

The UNISIG UNI25HD machine ultimately eliminated the production bottleneck and floor space issues previously affecting manufacturing and introduced a compact, high-value automated machine that maximises production, allowing them to keep up with any demand they may face.

You can find UNISIG at the Moulding Expo in Stuttgart, Germany from the 21-24 May 2019 at Hall 9, D04.

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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.

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Gen-3: Market leading GEN-3 Glasscoat liquid glass hardened ceramic vehicle protection

Gen-3 specialise in aftercare products, with a primary focus on ceramic paint protection. The company was established in 2006 by Rob Collins and Andy Bradbury, who wanted to create a company that provided ‘next generation’ products that enhanced the consumer and dealer experience.

Rob and Andy wanted to develop a range of own label products that added real value to a client’s car manufacturing, financial and OEM business, providing a world class service that was unrivalled within the industry.

Rob and Andy were aware that consumers were wasting their money on expensive paint protection packages which were easily and rapidly deteriorating. To combat this problem, Rob & Andy researched Liquid Glass Ceramic Technology, to offer clients a product with unmatched durability and a resilience to aggressive chemical cleaners.

With such a revolutionary product, Gen-3 has ensured that clients are now purchasing a real, value-for-money product, allowing clients to keep their vehicles in a new condition.

In a recent interview with Gen-3’s Director of New Business and Operations, Sarah Powell, we asked Sarah what benefits do Gen-3 offer their clients that their competitors do not. “We pride ourselves on our spectacular one on one service, which means our fully employed team of business development managers regularly call into our showrooms to offer training and increase penetration rates. Moreover, our Glasscoat is still the best on the market and has been scientifically tested against our competitors, boasting endorsements from 18 OEMs within the United Kingdom.”

Sarah also told us about the company’s recent success at Automechanika and CDX, where the company showcased its Gen-3 Glasscoat, its synthetic ceramic ‘Fusion’ and its Finance and Insurance Services. At the shows, clients enjoyed meeting Gen-3’s experienced members of staff and revelled in the opportunity to get to grips with the company’s synthetic ceramic and Glasscoat. “We were really well received and used the shows as an opportunity to raise the profile of Gen-3 as well as to meet new and existing contacts.” It is important to note that visitors enjoyed finding out about Gen-3’s new Finance and Insurance Services that have recently been introduced to the company and are offered nationwide.

If you would like to get in touch with Gen-3, call them on the number below. Alternatively, if you would like any more information on Gen-3’s exceptional services, or would like to view an extensive product list, make sure you check out the website at www.gen-3glasscoat.com

You can also contact Sarah by email:
customerservices@gen-3glasscoat.com

Contact
T +44 (0)1753 215311
www.gen-3glasscoat.com

TR launches the EPW, a self-extruding high strength screw for thin sheet metal

TR Fastenings (TR), global specialist in the engineering, manufacture and distribution of industrial fasteners, has designed, developed and patented a new fastening solution, the EPW thread-forming screw for thin sheet metal.

The EPW screw is a self-extruding, high strength thread-form fastener which creates its own female thread in punched sheet metal, thereby dynamically reducing assembly times and costs. The screw works by being aligned to the pilot hole in the sheet metal, where it then forms the extruded collar combining the forming of the thread and the creation of a strong extruded profile, before finally tightening and clamping into the metal.

The key benefits of the EPW screw include:
- Removable and re-usable strong screw joint
- High stripping torque
- High break loose and prevailing torque
- Excellent vibration resistance
- Combined thread forming and creation of strong extruded profile
- Very high radial compression on screw Shank
- Standard machine screws can be used in the thread created by the EPW screw
- Can be used for electrical earth connections
- Suitable for both manual and automated assembly

The screw is designed to function best in thin sheet materials, typically Steel (0.4-1.5mm thick) and Aluminium (6-4.5mm thick). They are available in a variety of surface coatings from standard Zinc plating to Zinc Nickel and organic Zinc flake for higher corrosion resistance. The screw is suitable for use in a variety of applications for home appliances, automotive, electronics, technology, energy, medical, telecoms and general industry sectors.

Depending on size, the minimum economical manufacturing quantity is approx. 20,000 pieces. A fully interactive animation of the EPW and how it works can be viewed on the dedicated product page on the TR website: https://trfastenings.com/products/product-innovation/epw-screw

Contact
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We supply a wide range of domed badges for all industries which can be customised to include your own design, logo and details. We offer a full print and dome service for manufacturers wishing to enhance their products. We can print directly from your supplied vector artwork or hi res PDF’s. All our products are tailor made to your requirements and ideally suited for all control panel and product marketing, even in harsh environments.

For a cost-effective and professional way to brand and personalise your products for your market or application, contact us by phone or email with your requirements.

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Here at Dash Dynamics, unlike many of our competitors, we specialise in small production runs. So if you just need a series of machine panels for a new prototype or low production run, then simply send us your artwork and we’ll get on with it.

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Turnaround time is fast! In most cases, if you order before 11:00am, the order will be produced the same day and after overnight curing, it will be sent the following day via first class post or carrier depending on size.

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Industry Update is sponsored by Kingston Engineering – see them on page 12-13

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MARKET LEADING GEN-3 GLASSCOAT LIQUID GLASS HARDENED CERAMIC VEHICLE PROTECTION

GEN-3 Glasscoat is a our latest complex formula which is liquid glass that when professionally applied bonds to your car’s paint surface and forms a hardened Ceramic glass finish. It is one of many innovative and technically superior products supplied by Paintseal Europe Limited. The advanced NASA designed technology formulation ensures that dirt and grime are easily removed from painted surfaces. The hydrophobic action is demonstrated by the way it repels liquids and it’s extremely resilient to all kinds of environmental pollutants. GEN-3 Glasscoat has exceptional resistance to the effects of car washes, solvents and animal matter. Keeping you car looking newer for longer without the need of waxes and polishers.

Please visit www.gen-3glasscoat.com
Paintseal Europe Ltd, 93-95 Whitby Road, Slough, Berkshire SL1 3DR
UNISIG presents new manufacturing solutions for mould makers

UNISIG adds five new models to its proven range of deep drilling and milling centres

With the new range of UNISIG’s USC-M deep drilling and milling centres, mould makers now have seven powerful and versatile solutions for workpiece diameters of up to 3,600mm and workpiece weights of up to 30t. All machines combine several processes in one machine: the deep hole drilling and milling on all four sides of a workpiece, while at the same time reducing setup times and increasing accuracy for mould makers. All machines support the high feed rates of modern indexable gundrill tools.

In addition to the use of gundrill deep hole drilling tools, some models can even support the more effective BTA deep hole drilling tools for the high performance drilling of waterline holes. A CARSS quill allows you to perform all deep hole drilling and machining operations within the machine’s working range. The machines are equipped with a 360° rotary work table and a programmable deep drilling and milling spindle. These can be aligned via a pivot axis with 10 degrees down and 15 degrees upwards. The latest Heidenhain TNC 640 CNC controller and Heidenhain motors and drives are used. A full guarding with oil mist extraction completes the equipment.

This machine series has now been extended by 4-6 axis machines, for deep hole drilling with gundrilling tools and milling, with a universal spindle and a short changeover between deep drilling and milling operations for the efficient production of small to medium sized workpieces.

In addition, 5-7axis machines are available for the use of gundrilling and more efficient BTA deep hole drilling tools, each with a dedicated spindle for deep drilling and milling, to dramatically increase performance for mould makers.

High-end solutions include 7-axis machining centres for highly dynamic motion control, powerful milling spindle with gear reduction and optional pallet changer. With the model USC-M38, workpieces with a length of up to 2,000mm can be conventionally machined and deep-drilled in one clamping. The larger USC-M50 can handle up to 3,000mm long workpieces. The machines can be equipped with an automatic tool changer with up to 120 tool positions, a laser tool presetter, workpiece probes, Heidenhain glass scales for increased accuracy, as well as an automatic pallet changer.

You can find UNISIG at the Moulding Expo in Frankfurt, Germany from the 21-24 May 2019 at Hall 9, D04.

Further information on the USC-M series and the complete UNISIG machine program available at: www.unisig.com

Bruce continues, “Our technology is giving machinery manufacturers great scope to deliver higher-performing machines directly to the factory floor. We’re also finding that businesses with production issues can retrofit our products quickly and simply to existing machinery and resolve problems. A gravure customer recently installed Fraser EX1250 bars and was able to double the speed of their printer almost instantly.”

A polar opposite problem for industry quite literally is the creation of static charge. Fraser is also using DC for this, and has a range of static generation equipment that enables temporary adhesion in production processes such as bindery machinery, to hold and control signatures, magazines and inserts in bindery and mailing applications.

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James Jones and Sons (Pallets & Packaging) has today announced the acquisition of one of the UK’s leading pallet collar manufacturers, Billington International, for an undisclosed sum.

The deal will see James Jones and Sons take immediate control of the Billington Group, with business operations continuing from Billington’s current office and warehouse premises in Rotherham, Yorkshire, to ensure a smooth transition for the Group’s long standing and loyal customer base and staff.

The acquisition has been made to further expand the James Jones & Sons (Pallet & Packaging) range of products and services, which includes new pallets, pallet repair, pallet management, recycled pallets and bespoke packaging solutions, and to strengthen its market position in the pallet and packaging sector.

Mobile picking solution

Avery Weigh-Tronix has launched a new mobile picking solution which features barcode scanning, weight verification and varying levels of IMS integration which helps to avoid errors that require re-picking or shipping checks, allowing quality control to be achieved as a single touch.

Stewart Campbell, logistics manager at Avery Weigh-Tronix, comments, “We understand that implementing a verification process that slows down picking operations is absolutely not an option. The new mobile workstation puts quality control right at the forefront of the picking process, by combining everything that a user would need to do it in a compact and powerful forklift.”

The combination of a robust yet compact and powerful forklift, touch screen terminal, picking software, on-board battery power, IMS integration and a highly accurate scale for weight verification, provides the user with a quick and simple way to validate that an order has been picked correctly.

Complete configurability, the workstation has the power to integrate with existing pick management tools such as Pick to Dock/Warehouse (T&D). Features include low levels of integration with IMS stock data and it is available as a manual or powered picking cart in a variety of sizes, to fit the requirements of the operation.

Integrates with existing tools

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Compact and powerful forklifts

Clark has redesigned the robust CGC series LPG forklift, which is said to be particularly well suited for lifting heavy loads in confined spaces. The cushion tyre forklifts range from 4.0 to 7.0 tons and have a very tight turning radius.

The models are designed for distribution, manufacturing, and warehousing of all types including the paper and pulp industries, and are said to be suitable for the tightest applications.

The trucks have hydromatic power steering, and with only four turns, the operator can turn the vehicle using just 273g. Combined with a ring scanner, both hands can remain free during work without interfering with the workflow.

Ergonomic, user friendly and lightweight

The terminal features a lightweight ergonomically designed strap, weighing just 273g. Combined with a ring scanner, both hands can remain free during work without interfering with the workflow.

All-round connectivity and accessories

The terminal features a lightweight design including a 4” touch screen, suitable for jobs where gloves are needed. The WD100 design is suited for both left-handled and right-handed people. The WD100 supports MicroSD up to 32GB, features an 8 MP camera with flash for barcode reading and a 2,950 mAh battery.

Smart, connective hands-free mobility

Wearing a ring scanner requires all hands to be free. Whether a warehouse or in transport and logistics, hands-free work increases productivity. The WD100 offers a cost-effective practical and easy to use solution to these issues. The terminal can be strapped to the user’s arm using an ergonomically designed strap, weighing just 273g. Combined with a ring scanner, both hands can remain free during work without interfering with the workflow.

HenryAR, the European trading arm of US company Henry Molded Products, now offers large stocks of Stacker roll cradles in a range of more than 40 styles within the UK for immediate distribution throughout Europe.

The cradles provide producers, converters and distributors of rolls of fabrics, papers and films with a safe and economical system for horizontal stacking on pallets, saving on production, warehouse and distribution costs.

Custom moulded packaging in paper fibre is increasingly replacing less environmentally acceptable materials. Henry is able to mould large format, heavy duty, deeper sections and its products are recyclable. It has its own design studio, mould making shop, slurry development sections and its products are recyclable. It has its own design studio, mould making shop, slurry development sections and its products are recyclable.

HenryAR has also added new tank covers in a range of sizes from 100 liters to 10,000 liters. It has also enlisted trojanbins as UK distributor.

Wooden pallet collars help prevent spillage and damage, ensuring that irregular items are secured during transit. Collars are collapsible, stackable and space saving with sides that adjust gradually as products are placed inside, eliminating the need to bend over high bin sides. All new pallet collars are heat treated to meet ISPM 15 regulations and collars can be branded with company names and logos.

Global Barcode and Made4Net now installing Unitech’s wearable offering

Smart, connective hands-free mobility

HenryAR has added new tank covers in a range of sizes from 100 liters to 10,000 liters. It has also enlisted trojanbins as UK distributor.

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WOL 20 supports MicroSD up to 32GB, features an 8 MP camera with flash for barcode reading and a 2,950 mAh battery.

Full connectivity is strengthened by the addition of 4G/LTE support, Dual Band Wi-Fi, 1GB DDR RAM, 16GB ROM and Android 7.1.

WOL 20 is suited for pretty much every environment. Physical usability, on the device comes in the form of 5 physical keys, and a 4”, 800x480 Gorilla 3 glass touch screen.

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WOL 20 supports MicroSD up to 32GB, features an 8 MP camera with flash for barcode reading and a 2,950 mAh battery.

Smaller 100% Recyclable Wood Effect Collection

British made hardwood recycled and reprocessed consumer durable packaging.

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Overall connectivity is strengthened with the addition of 4G/LTE capabilities with 4G/LTE support, Dual Band Wi-Fi, 1GB DDR RAM, 16GB ROM and Android 7.1.

Whilst the interior is tough, the exterior can take a bumpy ride, with stop spec of 1.5 metres to concrete and an IP65 sealing specification. The WOL 20 is suited for pretty much every environment.

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