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November 2023

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ENGINEERING CAPACITY

FOR BUYERS OF CONTRACT MANUFACTURING SERVICES

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COMING UP IN OUR JANUARY 2024 ISSUE
Machined Components, Laser & Waterjet Cutting, Casting & Forging, Sustainability, Additive Manufacturing, Electronics, Southern Manufacturing & Electronics Preview

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Editor's View

I know that there is no room for nostalgia in the quest for net zero, but it did seem like the end of an era when I heard the news that both British Steel and Tata plan to close down their blast furnaces and steel converters and focus solely on electric arc steelmaking using scrap metal.

When I was a student (which is longer ago than I like to think about) I spent six months working in a large German integrated steelworks. It had everything from coal mines and coking plants to blast furnaces, open hearth furnaces, basic oxygen converters, a continuous casting line, rolling mills and electro-galvanising lines. It even had its own railway system. Now parts of it are a museum and the rest is mostly an urban wasteland.

The sheer pyrotechnic splendour of the blast furnaces with their incandescent molten iron and snowstorms of sparks made a profound impression on my young mind. As did the vision of hell that was the LD steel convertors. The electric arc furnaces, in contrast, made a very loud and raucous crackle and – particularly when they were melting scrapped cars – smelt of burning rubber.

Never mind, it's the future apparently. According to a new report from the International Energy Agency we need to triple our renewable energy capacity by the end of the decade and increase green investments by $4.5 trillion a year to achieve net zero by 2050. I hope that they factored in enough electricity to make all the steel we will need.

Andy Sandford, Editor

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£1.5m Indian order win

Two West Midlands manufacturers are celebrating 40 years of working together with a major export order.

Pressworker Brandauer joined forces with Coventry's Auric Metal Finishers to design, develop and supply bespoke EloPin push fit-connectors for a tier 1 automotive supplier in India.

The £1.5m order will see the Birmingham-based company produce up to 30 million parts annually in 2025 and will help create new jobs in the region.

"This contract involves a very complex component for use in motive control systems and the customer was struggling to source the technology in India, so they turned to the West Midlands

for inspiration," explained Rowan Crozier, CEO of Brandauer.

"We have significant experience in push-fit connectors and were able to tweak our EloPin product to come up with a solution. Better still we can complete all the tooling at our new Precision Tooling Academy we run with In-Comm Training."

He continued: "The relationship with Auric Metal Finishers was also key to the deal. We understand the way each other works and, its unique ability to deliver reel-to-reel precision plating, ensured we could deliver the finish that was crucial to the end application."

David Harris, Managing Director of Auric Metal Finishers, added his support: "Our advanced reel-to-reel technology applies coats precisely where you need them and there are not many firms that can deliver that type of pinpoint accuracy in the UK."

brandauer.co.uk
auric.co.uk

Production 3D print wins

Warwickshire additive manufacturing company RYSE 3D has won a series of global contracts for automotive components.

The company, which was founded by Mitchell Barnes in 2017, is now involved in 14 hyper-car projects, providing parts ranging from full HVAC (heating, ventilation and air conditioning) systems to brake ducts and wing mirror vision systems for next generation vehicles.

It is now a multi-million pound business, with ambitious expansion plans in place to expand across the globe with the roll-out of its technologies.

"Our mission at RYSE 3D is to lead the world in 'production 3D printing' and the development of production 3D printing technologies that are scalable and cost effective. We are changing perceptions that this form of manufacturing should only be used to prototype or sample parts in the process," explained Mitchell, who initially started the business 3D printing models for himself and colleagues for their final year university course to ensure graduation.

"Over £1m has been invested into our modern facility in Warwickshire, with a plan in place to double capacity using RYSE 3D in-house developed printers in the next few months, becoming a technology hub for the UK – this will give us the capacity to handle millions of parts per year and this figure is growing."

He continued: "Our ability to optimise parts and use 3D printed

Credit: Emma Trimble (Daily Express)

production components to replace costlier alternatives has opened doors with some of the world's biggest automotive names, not to mention innovative projects with motorcycle manufacturers, last mile delivery providers and other emerging sectors.

"These wins have helped us expand rapidly and we now have a team of technical experts in place that support the customer with design for manufacture, material selection and project management. It's a combination that is proving extremely popular overseas too, with 40% of our work exported."

RYSE 3D, which has increased its workforce by over 200% in the last nine months, offers customers next or same day production and prototype solutions, with structured advice and support.

Its additive manufacturing technologies, such as MJF, SLS, SLA and FDM, use materials, such as plant-based engineering grade nylon that is made from 100% castor beans. This offers a long service life and fits perfectly with the company's eco-conscious strategy.

Parts can be as small as 1mm x 1mm and go as large as the customer requires thanks to the firm's 100% same material part fusing process.

With large investment in post-production facilities and the ability to produce textured finishes, RYSE 3D has also been able to create a finished product that is used in a wide variety of vehicle interiors seen around the world.

Mitchell went on to add: "We've had some success so far with injection moulding parts using a 3D printed tool, and this could be a massive opportunity for us and revolutionary for many sectors."

ryse3d.com

£1.8m etching investment

Global chemical etching supplier Precision Micro has expanded its manufacturing capacity and capabilities with the addition of a new etch room at its Fort Dunlop site in Birmingham.

Driven by global demand for next-generation energy technologies such as hydrogen production and storage, carbon capture, green energy buffering, electric and hydrogen electric vehicles, the expansion enables Precision Micro to supply larger, thicker etched sheets in higher volumes.

With an investment totalling £1.8 million, the etch room is home to three new highly efficient etch machines alongside a bespoke semi-automated print frame.

Believed to be an industry first, the business's new print frame boasts a design that minimises human input in printing photoresists onto larger sheet metals up to 1500mm x 600mm in size, increasing throughput and delivering cost savings to its customers. Furthermore, the shift towards a more automated approach enhances component quality by eradicating the issue of foreign object debris which can impact the photochemical etching process, as well as reducing the manual handling of heavier materials.

Supplying enabling components such as printed circuit heat exchanger flow plates for waste energy recovery and hydrogen pre-coolers, busbar battery interconnects for EVs and bipolar plates for fuel cells and electrolysers used for

hydrogen production, the investment will support companies looking to productionise these products and overcome capacity constraints in the existing supply chain.

Karl Hollis, Precision Micro's Director of Engineering, said: "We've worked closely with our suppliers to ensure all new equipment is developed in line with our ESG strategy, automating many parts of our manufacturing process using less power to achieve the same consistent results. Chemical etching is often the only appropriate method for manufacturing the precision components needed for many emerging renewable technologies. This latest £1.8 million investment marks the next stage of our expansion, and we are excited to be able to support our customers' rapid growth."

In 2019, Precision Micro invested £5.1 million in plant and new equipment, a move which increased the business's etching capacity by 30% which in turn opened new opportunities within sustainable energy markets. The latest addition has increased this by a further 40%.

Precision Micro also plans to add a fourth etch machine to its new etch room in early 2024.

precisionmicro.com

Sheet metal winners crowned

The joint winners of national Engineering Skills Competitions awards for sheet metal work were Kyle Marshall of KMF Precision Sheet Metal and Coleg Cambria's competitor Joel Eccles of Lester Cladding, Flintshire.

The competition, which spanned nine months, culminated in an award ceremony hosted by KMF on 3 November.

Kyle and Joel, both 19, took home the gold award for their design and manufacture of a pizza oven.

They were handed their highly coveted awards by MD of KMF, Gareth Higgins MBE, who commended the competitors for the skill and precision they showed throughout the competition.

Dave Vaughan of Engineering Skills Competitions set the task which had a rigorous marking system. He said: "The competitors were excellent this year, with all finalists creating excellent pizza ovens in a very tight time frame of 18 hours."

Since February, businesses have been putting their apprentices through various stages of the competition. National Qualifiers were held regionally over the summer with the top scorers making it to the final.

Joining Kyle and Joel in the final were fellow KMF fourth year Fabricator Standard Level Three apprentices Aidan Sneyd, (19), and James Holdcroft, (21).

James placed second, and Aidan was awarded a medallion of excellence.

L-R KMF MD with Competitors, Kyle, James and Joel

Dave added: "This competition is a great opportunity for young sheet metalwork engineers to develop a wider range of skills. I chose a pizza oven design because it pushes them to learn more intricate metalwork skills alongside manufacturing and welding sheet metals. They had to work with CAD and precision metalwork equipment too which gives them advanced skills and experience."

Winner Kyle said: "I've enjoyed taking part in the competition. It's enabled me to put my training in to practice. A challenge like this gives apprentices like myself, the opportunity to step outside of our comfort zones. I've worked hard towards this throughout the year and I'm really happy to have won, alongside Joel."

Matt Page, Apprentice Trainer at KMF said: "Our competitors didn't let us down. They worked incredibly hard and produced excellent products. It was a very close final, and James should be equally as proud of his work.

"It's been great working with Dave to showcase our apprentice's skills and to develop them further. It was an excellent competition, rounded off perfectly with the awards ceremony."

Thanks are also due to tutors Alun Bagshaw, Coleg Cambria and Josh Brookes, KMF who helped with the competition and judging.

kmf.co.uk
engineeringskillscomp.org

Going the distance

Humber Galvanizing has put the finishing touches to an impressive life-sized steel sculpture of a horse – ensuring it will be corrosion-free for decades to come.

The piece was commissioned from Driffield-based SA Fabrications by a local farmer, Paul Temple.

Stephen Albinger, Founder and Owner at SA Fabrications, said: "Originally inspired by a performance of War Horse, Paul Temple and his wife, Liz, commissioned a bespoke horse sculpture to take pride of place in their garden. Spurred on by Liz's passion for the animals, she provided four horse shoes to be included in the final framework.

"After much deliberation and creative consideration, we decided the equine beast would be in a majestic mid-jump pose. The sculpture, which took around four weeks to create, stands at an impressive 2.3m high and 2.5m long, and weighs around 450kg. After fabrication, I enlisted the support of Humber Galvanizing, who I've worked with for over twenty years, to ensure it could withstand the elements when located outside."

At Humber Galvanizing, the horse was entirely immersed and hot-dipped into a large molten zinc bath. Coating the steel completely, the process allows it to be protected from corrosion for up to 70 years.

"When the piece returned from the galvanizers, safe in the knowledge that it would be rust-free, I used an antique copper and black powder coating to add more depth and detail to the framework," Steve added.

Tony Linsley, Sales Manager at Humber Galvanizing Ltd concluded: "We're proud to have been able to assist Steve in ensuring the longevity of this striking horse sculpture using the galvanizing process. We thoroughly enjoy working with SA Fabrications, and look forward to the exciting projects they bring to us. We can't wait to see what's next!"

Humber Galvanizing is part of Wedge Group Galvanizing Ltd.

■ **wedge-galv.co.uk**

Subcontracting orders stall

The latest Contract Manufacturing Index (CMI) shows that new subcontracting orders have stalled as companies push projects back month on month in the face of continuing market uncertainty.

The number of companies looking to place new subcontract manufacturing business is at the lowest level since the index began in 2015. The market was 51% lower in the third quarter of 2023 than in the second quarter.

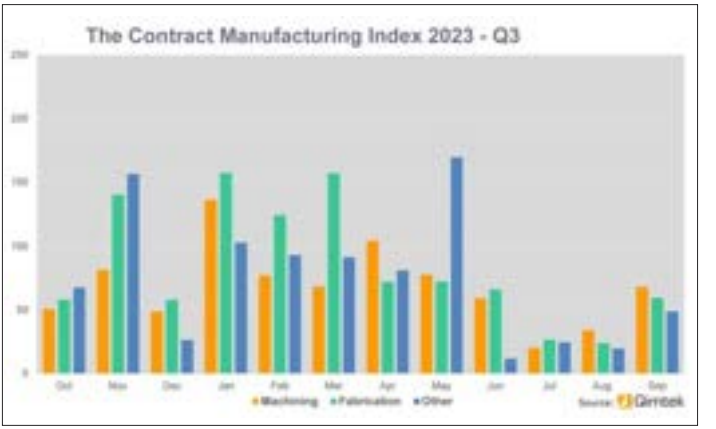
The outlook improved slightly in September after two very poor months in July and August. The value of the contracts that are being awarded has gone up as has the percentage of contracts being awarded.

Overall, the market was 63% down on the equivalent period in 2022.

The CMI is produced by sourcing specialist Qimtek and reflects the total purchasing budget for outsourced manufacturing of companies looking to place business in any given month. This represents a sample of over 4,000 companies who could be placing business that together have a purchasing budget of more than £3.4bn and a supplier base of over 7,000 companies with a verified turnover in excess of £25bn.

The baseline for the index is 100, which represents the average size of the subcontract manufacturing market between 2014 and 2018.

On a process-by-process basis, the split of work remained fairly steady – although the volume of work fell dramatically. Machining accounted for 50% of new business as compared to 49% in the previous quarter, with fabrication up from 40% to 42%. Oher processes, including moulding and electronic assembly fell back from 10% of the market to 7%.



We need to be cautious about being too optimistic, but we can only hope that the anticipated projects will start coming through in the remainder of the year

The largest single sector for the third successive quarter was Industrial Machinery, which only dropped by comparatively modest 8%. The second largest market was Communication Equipment, which more than doubled from the previous quarter, albeit from a fairly low base. The third largest market was Defence, which had not been a significant sector in the previous quarter. The biggest fallers were Construction and Marine.

Commenting on the figures, Qimtek owner Karl Wigart said: "These are disappointing figures – in line with other indices but lower than I had expected. Business was very slow in July and August, but showed signs of picking up in September.

"Companies seem to keep pushing promised projects into the future month after month. We saw fewer projects this quarter than in the earlier part of the year and fewer than in the equivalent period last year.

"We need to be cautious about being too optimistic, but we can only hope that the anticipated projects will start coming through in the remainder of the year. On the plus side, the value of the projects that have been awarded, and the percentage of projects being awarded, has gone up."

■ **qimtek.co.uk**

Operations appointment

Injection moulding and chrome-plating specialist Borough Ltd, has appointed Aamir Chaudhry Director of Operations.

In the 11 years since he joined, he has been Quality Manager and most recently General Manager of the Essex-based manufacturer.

The company says that this promotion not only reflects Aamir's dedication to Borough and his role in the success it has enjoyed in recent years, but recognises the importance of retaining his expertise and experience as the company looks to progress in a range of markets.

He commented: "While I will retain aspects of my previous role, my responsibilities will now include budgeting, purchasing and helping design efficient workflows to maximise the company's productivity.

"Borough has always delivered a high-quality service to its clients, providing injection moulding and our renowned chrome plating for plastic components, but we are ambitious to grow and I will help drive our performance through the development of long-term operational strategies.

"On a personal level, it is gratifying to receive this vote of confidence from the senior management team that I have worked so closely with in recent years. Together we make a great team, full of the drive and ambition needed to ensure we exceed the targets defined in our growth strategy.

Aamir Chaudhry

"I'm grateful for this opportunity, which would not have been possible without the support, guidance and dedication of my team and wider group of colleagues, which have helped propel the business to new heights. But there is more to come and this is the start of the journey, not the end.

Joint Managing Director, David Brereton, said of the appointment: "Given Aamir's dedication to improving the service we deliver, this was a natural step in his career. It is important to retain talent like Aamir and we're pleased this promotion will keep him in the business for years to come.

"Given the race overseas for cheap components, post-Brexit challenges and weakness of the UK economy, it has not been a great period for British manufacturing, but there appears a renewed appetite by industries to seek the moulding and plating services we provide, much closer to home.

"Aamir's appointment to the board recognises our need to take advantage of the commercial opportunities starting to appear in the UK, in sectors as diverse as automotive and packaging, as we look to grow the Borough business."

borough.co.uk

Gold run continues for moulders

Carrickfergus based injection moulding company, IPC Mouldings, has received its fifth consecutive gold performance award as part of the 21st Century Supply Chain (SC21) Operational Excellence programme, highlighting the company's abilities in delivery, quality, sustainable improvement and the associated improvement frameworks, within the aerospace sector.

SC21 is a continuous improvement programme coordinated and governed by ADS, the trade organisation for Aerospace, Defence, Security and Space, which is designed to accelerate the competitiveness of the aerospace and defence sector by raising the performance of its supply chains.

IPC Mouldings is one of only seven companies across the UK to hold the prestigious gold award standard and has been sponsored through the SC21 programme by Collins Aerospace. The Gold award was presented to the company at an ADS Aircraft Interiors Group Meeting, hosted by Collins Aerospace, in the Kilmorey Arms Hotel in Kilkeel.

Joanne Liddle, Managing Director of IPC Mouldings said: "I am delighted that IPC Mouldings has again been recognised with the SC21 Gold performance standard award for our achievement of 99.8% delivery and 99.96% quality across all our customers' orders during the 12-month period up to 1 June 2023.

"We take an integrated approach to supply chain optimisation, focusing on process to reduce waste and redundant effort and collaborating in forecasting, planning and capacity management to improve service levels and mitigate risk. We are a partner providing solutions to our customers, and we understand that through that partnership, we often find ways to unlock new sources of value to benefit both. It is this close communication that validates our performance metrics and ensures our shared success.

"I would like to thank Alan Henning, managing director of Collins Aerospace in Kilkeel and all the team, for continuing to sponsor IPC Mouldings through the SC21 Programme. To have their support is a great honour.

"Looking forward, IPC Mouldings will continue to grow and diversify our business through innovation and expertise, and we will work to retain Gold Award level and identify further improvements that we can make. This programme not only helps us retain competitiveness but is a key driver of continuous improvement."

Alan Henning, Managing Director, Collins Aerospace in Kilkeel commented: "I would like to take this opportunity to congratulate Joanne and all the team at IPC Mouldings on the reaccreditation of the SC21 Gold Award. This is a significant achievement which is nationally recognised and further cements IPC Mouldings' place as a key supply chain operator.

"We work closely with the company and have been impressed by how it supports its customers and ensures outstanding quality and delivery performance through the whole product life cycle. It is testament to all the team's hard work that they have been recognised with SC21 Gold for five years in a row."

■ **ipcmouldings.com**

Aerospace anodising commitment

ASG King & Fowler, a manufacturing business which can trace its roots back to 1887, has made a £1.35m investment in an advanced metal treatment line for the aerospace industry.

The state-of-the-art Tartaric Sulphuric Anodising (TSA) line anticipates REACH regulatory changes that aim to ban the use of hexavalent chrome in aerospace applications.

The new TSA line, which is currently being manufactured and commissioned by Jacquet Weston Engineering, is set to revolutionise ASG King & Fowler's production processes. This fully automated line promises increased productivity and throughput advantages, all while adhering to stringent environmental standards.

Managing Director Gareth Richards said: "At ASG King & Fowler, we are dedicated to not only meeting but exceeding industry expectations. This substantial investment in our new TSA line underscores our commitment to environmental responsibility, as well as our focus on enhancing productivity and efficiency. We are proud to embrace this change and remain a leading force in the aerospace manufacturing industry."

The new TSA line is expected to be installed in approximately 14 weeks, significantly enhancing ASG King & Fowler's manufacturing capabilities. With this addition, the company will have greater capacity, improved efficiency, and the ability to allocate skilled labour to other critical tasks. It will enhance its competitive edge, secure existing roles and is likely to create new jobs in the future.

The new TSA Line being manufactured for ASG King & Fowler, an environmental leap in aerospace finishing

ASG King & Fowler was acquired by ASG Group in 2020 and has also invested £140,000 in a new passivation line, driven by customer requirements at Airbus. This Group says this investment demonstrates its proactive approach to staying ahead of regulatory changes and customer demands. The new trivalent passivation process will enhance the company's offerings and its ability to meet the evolving needs of the aerospace industry.

The company believes that with these strategic investments it is poised to not only maintain its historical legacy but also to compete effectively with larger organisations in the aerospace manufacturing sector.

asg-group.co/king-fowler

Automated aerospace productivity

An automated mill-turn cell is allowing JWA Tooling to maximise output with its existing shift pattern.

A shortage of skilled engineers and a desire to continue with single day shift operation over an existing pattern of a four-day working week have all played a part over the past five years in prompting JWA to research the best way to automate its production. It led in early March 2023 to the purchase of a Brother 30-taper M200X3 mill-turn centre with integrated BV7 component stocker and robotic handling.

Mainly serving the aerospace and defence industries as well as the emerging hydrogen fuel cell sector, JWA produces a lot of prismatically machined components in non-ferrous materials such as aluminium, stainless steel, copper, brass and plastics, often to single-figure micron tolerances. They are required in relatively limited quantities in the range 30- to 100-off, sometimes fewer if they are for R&D projects, so the company needs automated production systems that are fast to change over to a new batch run.

Pete Wood, Operations Director at JWA said, "Automation of lathes is easy using bar magazines and we have numerous such turning cells on our shop floor. However, autonomous production of milled components is more problematic because of the high diversity of shapes and small batch quantities.

"The typical selling price of prismatic parts going through our factory does not justify the purchase of a machining centre with a pallet storage and retrieval system, as they tend to be expensive and are also space hungry. So robotic handling of the components themselves into and out of the machining area was a necessity."

An early move towards this type of automation to compete with manufacturers in low-wage countries was made three years ago when the company decided to add a 6-axis cobot to a 4-axis BT40 machining centre on the shop floor. Operating with a single tray of parts, it works well unattended but has a couple of drawbacks. First, it is relatively slow to exchange a finish machined component for a new billet, taking around 3.5 minutes; and second, the automation takes up a lot of space.

In contrast, the Brother system avoids both of these negatives by executing component exchange in well under half a minute and by compressing the machining centre complete with its automation into a 3.5 metre x 4.1 metre footprint, only a little larger than that occupied by the cobot alone. With space at a premium at the Leicester facility, the compactness of the new cell is an important plus-point.

The Brother M200X3 has a face-and-taper spindle and a torque table capable of turning components in the same set-up. Several parts produced by JWA CNC require pre-turning before prismatic machining, so there will be a saving by performing both operations on the Brother, especially if the subsequent 5-axis milling and drilling allows parts to exit the machine in fewer set-ups, or perhaps even one.

■ **jwatooling.co.uk**

BMW quality contract

Quality management services provider G&P has won a tender to extend its services to BMW (UK) until December 2028.

G&P has worked as BMW's sole quality management services partner at its Oxford, Hams Hall, Swindon and Goodwood manufacturing facilities since January 2019, supplying vehicle technician, containment, rework and customer protection team services.

We're incredibly proud to be continuing our work with BMW. It's a real testament to the hard work, commitment of our team and represents the strong partnership that we have developed together with BMW Group

"We're incredibly proud to be continuing our work with BMW," said Dino Kyriacou, CEO, G&P. "It's a real testament to the hard work, commitment of our team and represents the strong partnership that we have developed together with BMW Group. Given the recent announcements by BMW about the investment in its plants, it promises to be an exciting few years ahead and one that we are very much looking forward to playing an integral role in."

G&P supplies a range of quality management services to manufacturers, tier 1 suppliers and their supply chains around the world. With particular expertise in the automotive industry, G&P also works with companies in the aerospace, off-highway, marine and household goods sectors helping manufacturers ensure the highest levels of quality are achieved. The company has received awards for its work including The Queens's Award for Enterprise and Greater Birmingham Chamber of Commerce's award for Excellence in Technology & Innovation.

■ **gpqm.co.uk**

Targeting aerospace precision

Cwm Engineering has invested in a dedicated temperature-controlled inspection department in order to target aerospace OEMs and Tier One manufacturers.

Over the past three years it has invested in five new machine tools and moved to a new purpose-built 10,000sq/ft factory.

With a machine shop full of turning centres and 3, 4 and 5-axis machining centres from Mazak, the company aims to put this capacity to work by expanding its aerospace business.

To do this the family-run business has just built a new inspection facility which features a Mitutoyo Crysta-Apex V 7106 CNC Coordinate Measurement Machine (CMM) and a Mitutoyo surface roughness machine.

Founded in 2011, the ISO: 9001 certified company nestled in rural West Wales, started its metrology with precision hand tools. In 2014, the business bought a manual Mitutoyo CMM. This was subsequently followed by two shop floor CMMs to allow operators to conduct inspection at the side of the machines to prevent potential bottlenecks on the Mitutoyo CMM.

Cwm Engineering's Managing Director Malcolm Walters said: "We have invested heavily in high-end machine tools and this has given us the ability to manufacture extremely precise and complex components. However, to set ourselves apart from other subcontract companies, we recognised the importance of investing in a dedicated temperature-controlled quality assurance department. We are fully aware that when potential customers visit a subcontract manufacturer, they want to see a dedicated metrology department to instil confidence in their supply chain choices. Mitutoyo is a brand that everyone knows and respects as an industry leader, and our previous experience with Mitutoyo gave us the confidence that it was the brand for our business."

Commenting on the new Mitutoyo Crysta-Apex V 7106, he added: "We chose this machine as it has a measurement range of 700 by 1000 by 600mm that is packed into a small footprint. The compact footprint is perfect for our inspection department and the work area covers the diverse dimensions of the work we undertake. Furthermore, the level of information that can be obtained from the reporting system far exceeds anything we previously had."

Andrew Ritchie, Systems and Operations Manager at the JOSCAR registered company said: "When we receive drawings from customers, whether it is an STL, IGES, STEP file or any other format, we can either programme parts at the machine or in our SolidCAM CAM system. When we are programming parts offline with our CAM system, we can simultaneously send the files to our CMM for programme creation. This ensures that the CMM programme is prepared and ready to inspect the parts whilst they are in production."

Commenting further on the synergy between the shopfloor and the new CMM, Andrew continues: "We have only just installed the CMM, but our

immediate plan is to create multiple zero-point fixturing systems for the CMM. We use Lang zero-point clamping throughout the workshop and by having fixtures on the Mitutoyo, we'll be able to easily move parts straight from the machine bed to the CMM for rapid checking without excessive set-up times. By creating a multi-point fixturing system on the CMM, we'll be able to set up single or multiple parts for inspection. This will streamline our throughput and enable us to provide anything from first-off to 100% inspection."

Cwm Engineering also purchased a hand held Mitutoyo surface roughness measuring machine.

Andrew said: "Historically, we have used a sample gauge and this has proven reasonably accurate. However, our variation of work can require surface finishes from as high as Ra3.2 in general subcontract work to as low as Ra0.4 for parts in the electronics, communications and ultrasonic industries. In some instances where customers subsequently surface coat or treat parts, they require a surface finish of '"That" and not better' – the new testing machine will certainly support us in such instances. To exceed the requirements of our target audience, the surface roughness machine is a perfect complement to our new CMM."

■ **cwmengineering.co.uk**

Height of quality

Subcontract manufacturing specialist CTPE Limited has invested in a Trimos V3 Height Gauge from the Bowers Group to enhance its inspection capabilities.

Established for over 30 years, CTP manufactures and supplies precision CNC machined components to high technology sectors including medical, scientific equipment electronics, defence and marine.

Understanding the high-stakes nature of the businesses it supplies, CTPE identified issues with its previous setup, particularly in relation to a restricted measurement capability, and recognised the urgency of streamlining its processes.

The solution came in the form of the Trimos V3 Height Gauge. The V3 can measure large components with exceptional precision. Its robust construction, combined with advanced measurement capabilities, aligned perfectly with CTPE's pursuit of excellence.

Alex Taylor, Operations Director at CTPE Limited, said: "We chose to work with Bowers Group for this project as we have previously dealt with the company for other measuring equipment and have always been very happy with the service. The Trimos V3 is a great product form a famous quality Swiss brand and it has been a great addition to Inspection department. It's a quality piece of equipment which has helped speed up our inspection times.

"It's very easy to use, we can train new users very quickly and the accuracy and repeatability are very good. Its enabled us to measure features that we were not able to previously do on larger parts."

We chose to work with Bowers Group for this project as we have previously dealt with the company for other measuring equipment and have always been very happy with the service

The V3 Height Gauge boasts a measuring range spanning from 400mm to 700mm, ensuring versatility in its applications. Bowers says that what sets it apart is the large 2-line 'Black Mask' display, a unique feature in the market that guarantees excellent contrast, regardless of lighting conditions. Its user-friendliness has also proven to be a popular characteristic, with electronically adjustable measuring force and an easy-to-read display unit that provides direct and easy-to-read access to functions, enabling rapid operation.

With the Trimos V3 Height Gauge in place, CTPE's inspection capabilities have taken a significant leap forward. Employed on a daily basis for conducting first article, in-process, and final inspections of milled and turned components, the Quality Manager and machine setters were impressed by the height gauge's accuracy and repeatability.

The equipment excelled at precisely measuring the larger milled and turned parts that had previously posed a challenge, even allowing the team to measure specific features that were beforehand were simply not possible. Its precision and reliability made the inspection process not only more efficient, but also more accurate.

CTPE specialises in the manufacturing of high-quality CNC turned and milled components, catering to a wide production spectrum, with production varying from low volume runs to quantities in the tens of thousands. Its expertise encompasses the fabrication of both straightforward turned parts and intricate mill/turn configurations, as well as prismatic machined components.

ctpe.co.uk
bowersgroup.co.uk

Tool for the job

Producing everything from CNC machining and subcontract wiring of press and mould tools to maintaining and repairing precision tools for its clients, Precision Engineering Services (Buxton) undertakes a significant amount of wire EDM work – this is why it has just invested in a Mitsubishi MV1200S wire EDM machine from the Engineering Technology Group.

The Buxton-based manufacturer has a selection of manual and CNC machine tools as well as a die-sink EDM machine and a wire EDM. However, with the company's 12-year-old Mitsubishi BA8 wire EDM being the busiest machine in the company, its precision levels were sadly diminishing after more than a decade of non-stop operation. It was time for a replacement.

Managing Director Chris Barlow said that features that would take four passes to finish on the BA8 can now be done in three or sometimes two passes.

"This improves our productivity by 25 and even 50% in some cases. For example, on a hole we would previously take away the slug with the first cut and follow this with a skim cut to take the hole or feature to size. The third and fourth cuts will be finishing cuts to obtain the high-quality surface finishes we need. With the MV1200S, the second cut to size is often of high enough quality – but we may sometimes need a third pass."

■ **Tel: 01298 871630**

More capacity at Adnet

Latest investments at Gloucestershire subcontractor Adnet Precision Engineering have included 3- and 4-axis machining centres as well as fixed and sliding head turning centres.

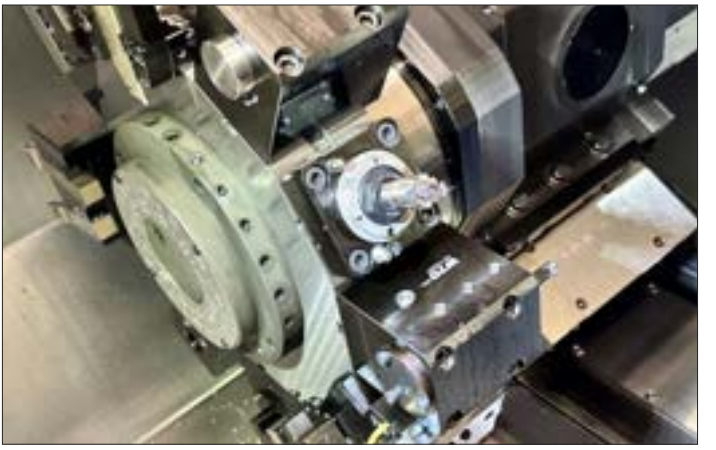
Located in Brockworth on the outskirts of Gloucester, the company operates in the defence, pharmaceutical, aerospace, metrology, medical, telecommunications and semiconductor industries. It has ramped up its investment in machine tools to support ongoing growth.

The South Coast machine tool specialist Dugard supplied the machines.

The first of these was a Dugard 760 XP machining centre, which was soon followed by another two Dugard 760 XP machines which gave the ISO: 9001 certified company 3 and 4-axis machining capability.

Adnet's Caroline Day says: "Dugard has been a very good supplier. The customer service and support has always been amazing. We started with a Dugard 760 XP machining centre and we continued to buy more machines from there. With the three Dugard 760 XP machining centres, we have just one operator running the three machines. If the machines are extremely busy with short cycle time work, we may have two operators running the three machines."

The next machine the company purchased was a Hanwha XD20IIV sliding head turning centre from Dugard.



Caroline said: "We already had one sliding head machine, but we were running out of capacity, so we invested in the Hanwha to add capacity. We reviewed the market and looked at other sliding head machine options, but as we had already built a strong relationship with Dugard from our machining centre purchases, and we were familiar with their excellent level of service and support - we opted for the Dugard Hanwha machine. This new machine is running parts more than 30% faster than our existing sliding head machine."

With a maximum spindle speed of 10,000rpm on the main spindle and 8,000rpm on the sub-spindle, the machine has a spindle motor power of 2.2/3.7kW.

Most recently, the company purchased a SMEC SL2000SY twin spindle single turret mill/turn centre from Dugard. This has an 11/18kW spindle motor that provides remarkable levels of torque for maximum material removal whilst a Meehanite cast and structural design provide exceptional surface finishes, repeatability and precision.

Caroline said: "We have invested in this twin spindle machine with a single turret, as the plan was to replace two existing machines with the SMEC. So, this machine is doing a lot more work than the two machines previously did. With the twin spindles we can achieve a lot more work it is probably 30% more efficient than the two previous machines combined. The machine has far much more capability than the previous machines and it is achieving much faster production times. The purchases from Dugard demonstrate our ongoing commitment to investing in the latest technology thus delivering the best possible results for our customers."

■ **adnetprecision.co.uk**

Smart investment

Beverston Engineering has increased productivity by 20% and reduced carbon emissions by 10% thanks to support from Made Smarter.

The Knowsley-based company invested £173,000 in sensor technology and software to connect all 20 machines across its factory to provide real-time visibility of its manufacturing.

As a result, the specialist component manufacturer for safety-critical industries has increased productivity by 20%, increased profitability, won new business, and reduced carbon emissions by 10%.

Made Smarter, the North West adoption programme helping SME manufacturing invest in new technology and digital skills has also supported Beverston's efforts to recruit and train the next generation of digital engineers to accelerate data-led decision-making.

Rod Wah, Managing Director of Beverston, believes his smart factory proves what can be achieved with targeted support.

"Made Smarter has had such a phenomenal impact on the business," Rod said. "I'm recruiting the next generation of engineers, a new technology which enables unmanned machining, plans for £2m investment, and a healthy order book."

Beverston Engineering, celebrating its 50th anniversary next year, works with clients in the aerospace, pharma, oil and gas and power sectors.

It began working with Made Smarter in 2019 to develop a digital adoption roadmap.

A first project in 2020 laid the foundations for the smart factory by enabling connectivity and upgrading IT infrastructure with a dedicated machine data server. The firm also installed sensors to monitor its machines and factory assets.

Beverston Engineering then created a 'productivity control room' - a bank of 18 big screens in the centre of the factory displaying real-time factory analytics, such as machine downtime events, availability, and performance metrics to the workforce.

A second project in 2022 created a platform which integrated all 20 machines and operators with its ERP and third-party systems, giving Beverston Engineering further real-time insight and analytics, enabling the business to react quickly to challenges and opportunities.

The last three years were incredibly challenging, but we remained committed to our long-term vision for digital transformation

"The last three years were incredibly challenging, but we remained committed to our long-term vision for digital transformation," Rod explained. "Our customers like Rolls Royce and Collins Aerospace have been blown away by what we've achieved. While our competition went backwards, we have progressed. Our commitment to the vision has helped us win more business and gives us a great opportunity."

■ **beverston.co.uk**

Stocking up on capacity

HPC Services has added a new Nakamura-Tome WT150II-F turning centre to boost capacity as customer demand has depleted stock levels.

Typically producing batches from 200 to 2000 off on its fixed head machines and larger runs on its sliders, HPC Services holds upwards of £1m of stock components for its multitude of long-term customers to 'call off' at any point. With the majority of its machine tools operating at a 92% spindle uptime, when stock depletes below a certain level, the company recognises it needs to invest in new machines to meet customer demand. So, with stock levels diminishing in line with increased customer demand and the company witnessing a period of significant growth, HPC needed more capacity it decided to invest in the new machine.

Managing Director Mr Paul Cobb said: "The Nakamura is the 'ultimate subcontractor's machine.' It's fast, powerful, and productive but above all else, it's an extremely flexible machine. That is what you need when you don't know what job is coming through the door next."

HPC Services now has a total of 45 CNC machines, including fixed and sliding head turning centres, and is one of the largest sub-contractors in the East Midlands.

Nestled between Derby and Nottingham, the subcontractor manufactures everything from high-end kitchen and bathroom taps and ancillaries to fire suppression systems, camera and scientific devices to hydraulic

components for the rail industry, primarily machining brass, stainless steel and aluminium.

Paul said: "Our sliders produce small components and the Nakamura machines are dedicated to larger parts. However, when it comes to machining small stainless parts, we move these to the Nakamura's. The Nakamura's are more powerful and robust, which results in higher cutting speeds and feeds, better surface finishes and extended tool life. Whilst sliders will be inherently faster than fixed-head machines, the ability to use larger more rigid tools on the Nakamura's along with the flexibility to machine any part with multiple tools cutting simultaneously is fantastic. Furthermore, this stability and versatility means we can get jobs off the machines in one hit and by using the Hydrafeed Rota-Rack system on the WT150II-F machines, we can run the machines unmanned over the weekends.

"We have our Nakamura machines set up with the programs and tools ready to run. All our tools are stored on shelves with the pre-sets, so they are ready to go. This means that any time a repeat job arrives, we have the programme and tools ready to run. This may be more costly from a tooling perspective, but it drastically reduces set-ups and changeovers. We can have some pretty complex jobs set up and running in less than an hour and this system of operating also works when new machines are installed. For example, the latest Nakamura WT150II-F that just arrived was up and running within hours of it being commissioned."

■ **slidinghead.com**

Targeted fabrication help

Laser cutting and fabrication assistance from KMT helped the Staffordshire University racing team reach second place in Formula Student 2023.

The company made a bespoke welding jig to allow the assembly of a custom racing exhaust for the project.

Formula Student participants are tasked with developing, building and running a single seat race car, as well as managing all aspects of the race team. With 130 university teams from 30 countries taking part – competition is fierce. Custom engineering is important to gain an edge in car development, which is why when designing a new exhaust for its latest entry, the Staffordshire Uni Racing team approached KMT to produce a bespoke welding fixture.

Jayson Prince, a member of the race team and Project Engineer at Klarius, the UK's largest manufacturer of aftermarket exhausts, expands: "I designed a custom exhaust system to fit the high-revving 675cc bike engine fitted to our race car. A key process in assembling the exhaust is producing a jig so that the manifold and pipes can be welded together as a complete system. I had already designed a jig but required a laser cutter and press brake to produce it. Thankfully, KMT was happy to help."

Staffordshire-based KMT has recently invested in a new laser cutting system and press brake, which it uses to produce bespoke fabrications in almost any quantity for customer projects. It

proved a perfect fit for the jig, cutting precisely to the dimensions provided by Jayson. Once the jig had been welded, it was ready to support the assembly of the custom exhaust.

Joe Grimer, Team Leader at Staffordshire Uni Racing, adds: "Working with local suppliers is really important for Formula Student. Local manufacturers often provide things we can't do in-house, while their proximity means key assemblies and components can be delivered faster. That's a real advantage for us, as it means we can begin testing earlier, ahead of the event."

Adrian Degg, Group Engineering Director at KMT, commented: "Bespoke engineering is our specialty, and using our laser cutter and press brake to support the young engineers at Staffordshire Uni Racing team has been incredibly rewarding. Congratulations to the team for achieving a podium finish!"

■ **kmt.tools**

Robotic welding investment

West Midlands-based sheet metal fabricators Grenville Engineering Ltd has recently acquired a Migatronic CoWelder, a cutting-edge automated machine that streamlines batch welding processes.

The company says that this investment demonstrates its commitment to maintaining a leading position in precision engineering while freeing up production capacity for its busy welding department.

The CoWelder is easy to program and operate, resulting in optimised welding efficiency, uniformity, and quality. Additionally, the CoWelder has a 'teach' programme and records and repeats the operator's movements for unique templates. The machine welds workpieces faster than manual welding, thanks to its speed.

Sales Director Stuart Rawlinson said, "It's an exciting investment and will elevate the quality and speed of our production processes, ensuring we meet and exceed the expectations of our valued clients."

With the integration of the Migatronic CoWelder into its operations, Grenville expects to meet and surpass the ever-evolving demands of its customers and partners. The company says that the investment signifies a pivotal moment for Grenville Engineering's continued growth as a hub for innovative and forward-thinking engineering solutions. Watch this space, it says, for more investments in the pipeline.

■ **grenville-engineering.co.uk**

Nuclear waste contracts

Stainless Metalcraft has won two contracts for the production of containers for the long-term storage of nuclear waste.

The first is for the next production phase of a contract to produce stainless steel waste containers that will be used to store intermediate level legacy waste. It has also won a contract from a new client to prepare concrete waste containers to support decommissioning of the now-retired fleet of UK nuclear power plants.

Nuclear decommissioning is a demanding but developing market that Metalcraft has specifically targeted in recent years. It has invested £7.5 million in new plant and equipment at its production facility to support the contracts, including modern CNC machine tools and robotic welding

Austen Adams, Divisional MD at Avingtrans PLC

machines. Anticipating future demand, Metalcraft has also invested £3.4m in a new training facility to manage the supply of skilled personnel to meet anticipated demands of nuclear decommissioning. It is now ready to increase serial production of nuclear containers that meet rigorous specification criteria and proves the company's ability to deliver highly specialised contracts.

Austen Adams, divisional managing director of Avingtrans PLC - the owners of Stainless Metalcraft - commented: "Winning these additional contracts is a testament to our production capability in Cambridgeshire and the incredible potential of our team members, who are highly skilled and ready to tackle these new challenges in the future decommissioning market."

avingtrans.plc.uk

Grinder gives an edge

C&C Fabrications has invested in a Loewer SwingGrinder 3 Phase deburring and edge rounding machine that will enhance production speed and efficiency, while giving increased versatility and a safer and cleaner workspace.

It will allow C&C Fabrications to enhance its service across a wide array of sectors, including warehousing and logistics, retail, commercial, industrial, and engineering.

Chris Wallage, Owner and Managing Director commented: "This new investment will play a vital role in enhancing our

product quality, workforce efficiency, and enables the future expansion of C&C Fabrications. We've made a series of investments in cutting-edge machinery to ensure the delivery of top-tier products and services to our clients that will see C&C remain at the forefront of our industry for years to come".

C&C Fabrications is a Yorkshire steel fabrication specialist company based in Ferrybridge, West Yorkshire. It fabricates a range of products including mezzanine floors, safety barriers, bollards, machine guards, suspended walkways and platforms to staircases, lifting frames and workstations.

candcfabricationsltd.co.uk

Powering electric hypercar

A new production process developed by Redditch based Samuel Taylor Limited (STL) has driven the production of over 70,000 battery pack busbars for the world's first fully electric British hypercar.

Busbars are an integral part of EV battery packs. Improving the busbar can lead to lighter packs, extended range, and greater power output.

One of STL's success stories involves producing the dual thickness, contacted busbars used in smart meters. Utilising this core competency, STL partnered with a leading developer of EV battery modules to design and build a pilot scale stamping line for its EV battery, working to produce 10,000 initial prototypes.

This was followed by the development of a brand-new dual thickness method of manufacture to enable scalable production of a total of 70,000 busbars in accordance with stringent quality requirements.

An evolution of this technique is now being used on prototype shunt for a different application being developed by STL and a Cambridge based design house.

Aaron Ball, Engineering Manager at STL explained: "The end user specified the design of the product, which was difficult to achieve. This was a unique case, with the application being the world's first fully electric British hypercar and the most powerful car to enter series production.

"In parallel to assisting with a completely new design for a

The end user specified the design of the product, which was difficult to achieve. This was a unique case, with the application being the world's first fully electric British hypercar and the most powerful car to enter series production

busbar, we have also been able to innovate to create a brand-new production process. This process enables us to consistently meet the stringent tolerance requirements. There was no blueprint for this, as it is the first time that a process like this has ever been developed for busbar manufacture."

STL believe the new production process to be significantly more accurate than simply stamping the component out with a traditional press tool, achieving a +/-0.020 on the dual thickness tolerance on the weldable connector tab.

Ball said: "The car is very specialised producing over 1500kW of power (equating to over 2000hp), as such this power requirement from the battery pack meant we could not use what is now becoming the industry standard – a lamination busbar – we instead had to create our own process to deliver the dual thickness busbar the customer needed."

"We made certain adjustments within the stamping process to increase the accuracy of busbar production. For example, we established a customised press line to produce busbars with the ability to switch modules on and off, enabling us to deliver optimised pressure but spread over a row of two or three cells - a pattern that repeats row by row through the part."

■ **samueltaylor.co.uk**

Wire capacity increase

A new wet drawing machine will give a significant boost to capacity at round, flat and profile wire manufacturer Alloy Wire International (AWI).

The AWI team has worked with the manufacturer of the machine to ensure that it will fit seamlessly into its production and it incorporates specific features designed to reduce lead times.

Capabilities on the new £145,000 machine include pre-programming to allow for set spool weights or wire lengths and the flexibility to work with a wider range of both inlet and finish sizes – this in turn increases the range of mechanical properties that can be offered across all its 62 grades.

Tom Mander, Managing Director of AWI, commented: "Our sales have risen by over £6m in the last eighteen months and our pipeline of orders is looking extremely healthy – the time was right to push the button on upgrading our manufacturing capabilities.

"The production team looked at what we required to give us more capacity and greater flexibility and a £500,000 investment package was signed off, starting with the recent install of the wet drawing machine."

He continued: "This has been customised for our operations and will allow us to consider work we have previously turned down."

Alloy Wire International, which has two sites in the West Midlands and Yorkshire, was purchased by Directors Tom Mander, Andrew Du Plessis and

Adam Shaw in January.

The new-look management team has overseen a significant growth in sales, with orders up nearly 40%, placing the company on course for £18m turnover by the closer of 2023 – the best 12 months in its 77-year history.

Investment in its people and increasing stockholding of its 62-strong High Performance Alloys to over 400 tonnes has been crucial in attracting spring makers, fastener manufacturers and critical suppliers to the automotive, aerospace, oil and gas, nuclear and MedTech sectors.

Tom continued: "You can't stand still in our sector. The wet drawing machine will be the first of a total £500,000 investment strategy that will eventually see a four-spindle annealing line spooler, a new multi-head drawing machine and two, single hole drawing machines arrive by the end of the year."

He concluded: "We're continually assessing ways in which we can further boost efficiency and deliver faster turnaround times for clients by already starting to look beyond this initial investment drive."

■ **alloywire.com**

Greener future for London taxis

The world's most instantly recognisable vehicle, the trusted London black cab, has been on an exciting journey, transforming into a zero carbon mobility technology company. TR Fastenings has played a part in the story, helping this icon of London heritage evolve its production for a greener future.

The demand for electric vehicles has been rapidly growing across the world, putting pressures on the traditional automotive supply chain. This has driven providers to find new ways of working and be more committed than ever to the changing needs of their customers – a trend that was brought into sharp focus when TR was approached by the London EV Company (LEVC) with a time-critical problem.

The requirement

LEVC is part of the Geely Holding Group and is on a challenging but ambitious journey with its innovative and market-leading electric TX taxi. Working in a just-in-time environment, it needed a reliable automotive components provider that was able to supply a consistent and seamless service. When that was suddenly no longer possible, LEVC had to find a new provider that could step in and help keep production moving. The company needed to enhance and secure its supply chain, embrace operational changes and focus on technical and engineering support coupled with a robust logistics service.

During this intense transition

period it gave TR and LEVC an opportunity to review each part in tandem. Rationalisation of the number of parts used, the types of fasteners and eliminating bespoke special parts where feasible. TR was selected as the supplier of choice as its years of experience of designing and manufacturing fasteners for automotive applications was a key deciding factor. Additionally, TR also supplies other companies within the Geely Holding Group, including Proton in Malaysia, Lotus cars in the UK and the major Tier1's supplying into Volvo.

The solution

As a global fastener specialist, TR's design and engineering teams were involved from the outset. An internal review was conducted to understand LEVC's exact needs and project teams from both TR and LEVC were immediately assigned to work together. It was critical that there was a constant on site presence at LEVC during this time working across the different disciplines. This was important in instilling confidence and working to a very tight timeline.

TR was quickly able to establish a stable full-service provision for LEVC, especially important for a new product launch. TR now provides some 350 components used in the vehicles, and to the Tier 1's that supply the drive train, brakes, lighting clusters, car seats, IP console and battery pack.

Dan Pereira, Engineering Manager, UK & Ireland, TR Fastenings said: "This was a challenging project where time was a critical factor. We needed to act fast to understand the customer's exact needs and put in place a system that worked. Thankfully, we understand the pressures automotive manufacturers are under and this project was a great example of how TR Fastenings can step up to any situation, working with the client to be that safe pair of hands they need. It showcases our commitment to fulfilling the needs of our customers, no matter the size or complexity of operation."

Project challenges

LEVC needed support quickly to meet demand, and TR was able to step in, providing additional on-site customer support. It set about reviewing stock quantities to understand any gaps in the system, it established working relationships, collaborated with the engineers on the ground to understand their needs and ensure a seamless transition. TR as the supplier shared data sheets with engineers and purchasing, agreeing specifications and this sped up the process of producing product and gaining PPAP approvals. Additionally, TR was asked to manage other bespoke parts on LEVC's behalf and these too were added to the bill of materials.

Supply of critical stock resumed, and production suffered no disruption.

Project conclusion

TR's complete, full-service approach prevented manufacturing disruption and enabled a lasting relationship with a new customer. This could not have been done without the close collaboration with LEVC and its key managed suppliers.

To celebrate a successful transition, TR was delighted to showcase the electric TX taxi on its stand at this year's Automechanika show in Birmingham and there was great interest shown by many of the attendees over the three-day event.

Sven Brehler, Global Director of Engineering at TR Fastenings, said: "The TX was a great talking point which opened up conversations about our capabilities and vast product range. As the EV market continues to expand, TR is well placed to lead on fastening solutions for this sector."

TR is focussed on design engineering and manufacturing with more than 55,000 products across its portfolio. It supplies components to more than 5,000 companies globally across a wide range of industries from its global facilities in 18 countries encompassing 7 manufacturing sites.

trfastenings.com

Low-carbon PCB production

A new solar power array at Offshore Electronics will provide around 11% of the company's annual energy consumption and save 8,600 kg of CO_2.

The 96 high-efficiency PV panels will be added to the roof of the company's manufacturing plant in St Peter Port, Guernsey and generate around 44,460kWh per year.

The green energy will be used to power Offshore's key production equipment, such as select soldering and state-of-the-art pick and place machinery, the latter capable of placing 95,000 parts per hour. It will also be used to power the site's critical building services, such as lighting and IT infrastructure.

Paul van der Tang, Purchasing Director at Offshore Electronics, said: "This solar array is a serious investment in our future as a business, making us more resilient to outside disruption in the energy market. But it's also an investment in the environment, allowing us to minimise the impact of electronics manufacturing as a whole. We're proud of our record success over the past year, though we also recognise the importance of investing in the future. Guernsey is in a fortunate position with low-carbon community power, but that shouldn't be considered a free pass. We want to be good to our word when committing as a sustainable outsourced partner for clients. This installation is just one of the many ways we'll continue to do that."

offshore-electronics.co.uk

Developing sustainable plastics

Essentra has set up a Centre of Excellence at its UK headquarters to test and develop new sustainable materials.

Testing will be conducted on both recycled content and various biodegradable and bio-based materials including bio-woods, nylon and Polylactic Acids (PLA) to see how they perform when replacing or added to existing resins used in the manufacture of plastic components. These innovative new materials can reduce the environmental and carbon impact of the products Essentra manufactures, and helps its customers reduce their own carbon footprint.

The Centre of Excellence includes a significant investment in two different types of machine: an all-electric machine and a Servo Drive machine. While both have energy saving benefits, the principal purpose is to enable Essentra to test not only how the materials will behave in the manufacturing process, but also the impact of different types of tooling. The net result is to achieve a more efficient and sustainable process, reducing scrap rates and accelerating speed of delivery.

essentracomponents.com

The British Turned Parts and Machined Component Manufacturers Association
Find out how our members can benefit your business

Enquire directly with our Members, via btma.org or mail to info@btma.org

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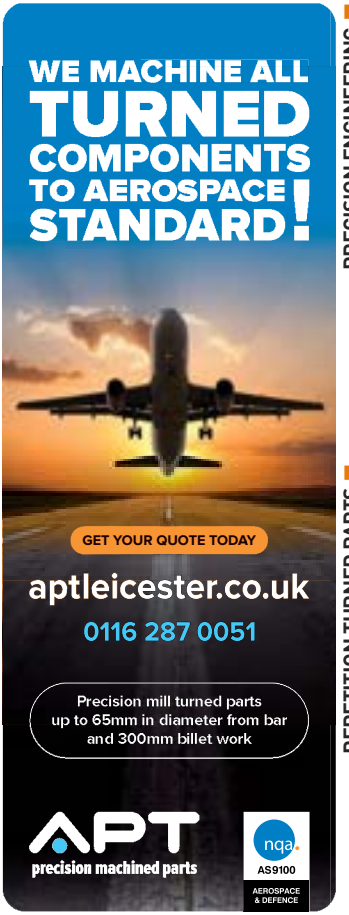

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