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# BM stat



## As you read this, it will be a year since we first started to see the impact of the Covid-19 pandemic, little did we know that it would still be with us today.

Thankfully the success of the Vaccine roll-out to date, with well over 20 million administered, has allowed the government to issue a slow road map to easing the latest lockdown, which we all hope will be our last. This, combined with the Budget announcement on March 3rd by Rishi Sunak, gives business an outline which we can plan around, more of this later.

Whilst I have covered the road map out of lockdown and the positive roll-out of the vaccine, its now critical that all companies ensure they keep in place the Health and Safety protocols until the Government release these measures.

We have also discussed in our members calls with the Department for Business, Energy and Industrial Strategy (BEIS) the need for in-house testing, the indication we are hearing is that this will still be pursued in order to control the variants. Let's hope the positive results we are seeing from the vaccine effectiveness will negate the need for this.

Whilst most of manufacturing has remained open during the last few lockdowns, it has still been a struggle for many of our members. I would say overall that our members have reached a plateau within the last 3 months, their sales output is between 75% to 85% of pre-covid sales. We have a few exceptions where companies have recovered to pre-covid sales. In terms of the near-term outlook they don't see a lot of change until all markets open up, I do believe they are optimistic for the later part of the year.

The extension of the furlough scheme will also move one of the major cliff edges that business and its employees were facing, let's hope it's enough to protect peoples jobs going forward. However, we still face other cliff edges, it's critical we see a smooth transition from our current position back to the 'new normal'. The CBIL's repayment terms need to be extended for those that need it as we have seen with BBILs. Time to pay has been extended but we need a fair approach from HMRC to allow business to trade out of their current predicament.

We have already started lobbying for the Government support of Trade Credit Insurance to be extended past its June deadline until at least the end of the year. This will allow sales to recover and supply chains to be functioning smoothly. We've already seen how unscrupulous some insurance companies behaved prior to the government scheme coming in place and more recently of the avoidance of paying out Business Interruption Insurance despite the Supreme Court Verdict in January. We are being informed that around only 4% of policies will be paid out and we have already seen some rejections and we are supporting members with independent advice and building a case to take to the ombudsman, if this is something you need help on please get in touch.

Government Subsidy Control is a new policy currently out for consultation and by the time you read this our response would have been collated and ready for submission back to the government.

The government states within the draft that it has outlined plans to shake off EU shackles, seizing the moment to define own subsidy and strategy rules. Some of their objectives are to give value for money and clear rational for subsidies with an increase of UK investment in R&D to 2.4% of GDP by 2027. This will be linked to government policy at levelling up, working towards net zero carbon whilst supporting high risk, high pay off emerging areas of research. This will include a light touch to low-risk or low value subsidies given their limited risk of distorting the market.

We hope this scheme will be introduced and support businesses in future investments but also support a road map to re-shoring. This is critical, we want our members to thrive and not just to survive, laden with debt. If we are to compete with our European neighbours on an even playing field, we need clear investment in manufacturing to support increased automation and the move to digitisation.

Since our last edition with reached a belated 'Free Trade Deal' with the EU, although as I predicated in our last edition it certainly wasn't 'free.'

"I can foresee costs being passed onto companies from customers who have not received goods on time or from transport companies, whose lorries are stuck in customs, due to wrong paperwork."

Unfortunately, this proved correct with disruption to transporting goods into and out of Europe, delays and bureaucracy at borders throughout Europe all which have proved costly. Whilst the delays have improved slightly the costs for administration are here forever, despite what the government had indicated at the outset. We are also now seeing issues with tariffs and quotas affecting supply for members who are now forced to work outside the EU quotas, they had previously worked within. This is becoming a real issue and with the full impact of the Rules of Origin still to be seen we still have a long way to go to see the true impact on our economy.

#### The Budget

It's welcoming news that the most successful government intervention, the Furlough Scheme has been extended until September, with the government still paying 80% of salary, though employers will need to support 10% from July and 20% from August.

This scheme cannot be underestimated, not only has it protected jobs and retained skills but given millions of people hope that they can get through this pandemic, even more so now, as there could be an end in sight. The furlough scheme has also given businesses the flexibility to bring staff in as workload requires and given them an ability to plan cashflow along with production requirements and to some extent plan forward as well. The Chancellor has



 Steve Morley, CBM President

announced the incentives for hiring apprentices will be doubled to £3000 with further investment in new trainees, all of which is welcome. Although with the huge drop in apprenticeships and so many young people adversely affected by the pandemic and better use of the apprenticeship levy would be a good place to focus.

We believe that most of our members would have anticipated a rise in Corporation Tax but the increase being delayed until April 2023 will be seen as a positive, the increase to 25% will not impact companies with profits of  $\pounds$ 50,000 or less with a tapering up to those who have profits under  $\pounds$ 250,000, which is also beneficial. Those over the threshold will have to pay the full 25%.

It is still a bit early to assess the impact of the 8 Freeports mentioned around the UK, especially as there was no timing for their introduction and there will be some debate on how effective they will actually be but I'm sure they will be welcome in those regions.

The Super Deduction was a massive boost to investment in the UK, meaning businesses can claim 130% of their investment against VAT. We needed a boost and I believe this will give a huge incentive for companies to do so, it's exactly what we need coming out of the pandemic but also in growing the UK Economy after leaving the EU.

Another positive was to all companies to carry over their losses into the next financial year, for the next 3 years, so they can be offset hopefully for better times ahead.

Throughout the last year the CBM have stepped up to the plate to support its membership with weekly calls with BEIS and informative and timely summaries on the latest developments. I would like to thank the team at BEIS in particular Ryan Diggory and David Wilkinson for their ongoing support but also all the members who have supported the calls, they have created a real bond by sharing each other's problems and positive actions they were taking. As we come out of this, we will endeavour to take this collaboration forward striving to get our members to surpass levels of productivity and profitability.

Steve Morley, President of the Confederation of British Metalforming

## THE CBM – HELPING THE UK'S METALFORMING INDUSTRIES TO PROSPER AND GROW

## **CBM MEMBERSHIP...** WHAT'S IN IT FOR YOU?

CBM is the leading trade association for UK manufacturers of fasteners, forgings, pressings and cold rolled products; the very building blocks of UK manufacturing. CBM members provide high quality components to key industry sectors; indeed virtually every manufacturing sector buys components from a CBM member company, most of which hold a range of third party quality accreditations.

In addition to CBM's manufacturing companies, its associate members include suppliers of materials, equipment, consumables and services, universities and research bodies – a true reflection of CBM's support of a totally integrated metalforming community.

#### **GOVERNMENT LOBBYING**

- Lobbying on sector issues and challenges
- Industrial strategy
- Submissions to government consultations

#### ENERGY

- Climate Change Levy rebates
- Energy services: measurement, Energy Saving Opportunity Scheme (ESOS) audits, energy efficiency workshops
- Streamlined Energy & Carbon Reporting (SECR) Reporting Service

## MEMBER PROMOTION

- Enquiries
- Buyers' guide
- CBM website
- Exhibitions
- Metal Matters magazine

#### **TECHNICAL SUPPORT**

• Expert knowledge about fastener, sheet metal/presswork, cold rolling and forging techniques

#### **HEALTH & SAFETY**

- Regular health, safety & environment group meetings
- Accident statistics to reduce accidents
- Helpline for all your health & safety questions
- Occupational health services

#### TRAINING/SKILLS /ENGAGEMENT WITH SCHOOLS

- Tackling the skills agenda
- Industry specific courses
- Raise awareness of career potential within our industry
- Metalforming Training Centre

#### **KNOWLEDGE TRANSFER**

- Monthly Market reports
- Project opportunities
- Regular networking opportunities
- Briefings and Seminars
- Metal Matters magazine
- CBM website

### **INSURANCE SERVICES**

 Cost effective insurance solutions for its members

## **OTHER BENEFITS**

- Members' buying group
- R&D tax claims
- Business support helpline for all your employment and HR questions
- International links
- National Metalforming Centre Conference Venue – Discounted rates for CBM members
- British Standards Institution

#### **CBM MEMBERSHIP**

- Full Membership is available to companies who manufacture in the UK, by metalforming processes, particularly those who are engaged in hot and cold forging, and the shaping, cutting and forming of sheet metal.
- Associate membership is available to companies and organisations who supply services to the manufacturers.

## CONTACT CBM NOW ON 0121 601 6350











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# UK manufacturers call for urgent support to get sector back on track

55% of UK manufacturing businesses say that the government's COVID-19 support measures are inadequate with further funding for the sector urgently needed, according to Crowe's Manufacturing Outlook Report 2021, produced in collaboration with the Confederation of British Metalforming and sponsored by Hornby.

Johnathan Dudley, Partner and Head of Manufacturing at Crowe said: "The past year has been dominated by the effects of the coronavirus pandemic and in keeping with the campaign which we have been running throughout the year, 'getting back on to a new and safe track' is the theme of this year's survey.

"We very quickly realised that after the initial shock to the manufacturing supply chains back in March 2020, there was a need to firstly stabilise businesses, then 'heath check' them to prepare for a return to what would be a new way of working.

"These latest results paint a clear picture and message from the industry - existing support levels are not enough. If supply chains are to be safeguarded, which is essential for removing uncertainty in the short-term, and for providing support for growth in the longer-term, manufacturing businesses which have been the backbone of the British economy for so long, must not be left behind.

"The Retention Bonus U-turn has been particularly harmful. In conducting this survey, we heard from businesses who were expecting support reaching up to £400,000. Funds which would have been directed towards growth and investment are now being urgently diverted to keep staff in jobs and the wheels just about turning.

"The nature of manufacturing supply chains heightens the urgency of government action. You are only as strong as your weakest link and it only takes one company to slip for the whole supply chain to come crashing down.

"In terms of exporting assistance, in an economic environment where most commentators and government agencies see the future prosperity of the UK manufacturing sector as being 'export led', government assistance to increase exporting and to encourage businesses to even make a start is key.

"We urge the government to provide more support the manufacturing industry."

Stephen Morley, President of the Confederation of British Metalforming added: "These results very much mirror the views of CBM members, which shows the effects have been widespread across all manufacturing sectors.

"There was still some indication of positivity for the future of the sector, which we hope will become reality as the year progresses, with 83% of companies expecting turnover to grow. However, we have to be realistic and say they are working from a very low starting point, mainly down to the effects of the pandemic."

Lack of effective government support is not the only issue keeping UK manufacturers up at night. Additional results from Crowe's Manufacturing Outlook report saw 31% of respondents reporting either an attempted or successful cybercrime attack in the last 12 months and 12% of respondents confirming that they had experienced incidents of suspected fraud in the last year.

It is worth noting that these results record just what respondents know to be the case and there may be further instances of fraudulent activity that remains undetected.

Jim Gee, Partner and Head of Forensic Services at Crowe comments: "Fraudulent activity historically always increases in times of economic hardship and an increased reliance on digital systems will further extend this trait as there is no longer a physical need for a perpetrator to 'put their hands in the till'.

'With the spotlight increasingly coming on supply chain accreditation, it is highly likely that companies will have to prove that they have carried out fraud and cybercrime assessments of their businesses, much in the same way as they have previously sought BS and ISO accreditations'

"Fraud and cybercrime now represent over 40% of all crime in the UK and the financial and reputational risk from falling victim to such crime can be devastating."







## Somers Forge granted fit for nuclear status

Somers Forge has been granted Fit For Nuclear (F4N) status by the Nuclear Advanced Manufacturing Research Centre. The Fit For Nuclear award is granted to companies that have benchmarked their performance against the standards demanded by the nuclear industry's top tiers. Over the course of the last 24 months, Somers has undergone in-depth assessment and driven improvement action plans across the business.

Phil Postans Technical Manger: It is continuing change, inevitable change that is the dominant factor in manufacturing industries today in order to remain successful. The Fit for Nuclear programme gave Somers a road map and standard for continuous change to continue our journey as a world-class forging supplier.

Somers produce a wide range of forgings for both civil nuclear and defence applications worldwide. As the leading UK forge, they hold expertise in the forging of materials which include stainless, duplex and nickel alloys.

This programme assures clients that Somers operations meet the standards required by UK's nuclear power stations as the company continues to outline growth plans across multiple engineering sectors.





# Supplying lubricant<br/>technologies to the<br/>technologies to the<br/>toging industry for<br/>ous and a supervised to the<br/>togen and a supervised to the supervised to the

Billet coating

Aluminium, titanium, cobalt, copper & brass

Complex pieces

Aerospace, medical & automotive industries



- Improve metal flow
- Provide optimal surface finish
- Extend die life
- Provide excellent cooling effects
- Benefit from our 150+ years experience in graphite processing
- Are bespoke to suit your forging needs



Oil & Water UK Agents for James Durrans & Sons Ltd Management Ltd enq@oilandwatermanagement.com

# Special fabrication keeps expansion of waste management facility on track

Brooks Forgings specialise in a diverse range of manufacturing processes and products. This has enabled us to offer bespoke project solutions and meet the specific requirements required by our expanding customer base.

Over the last decade, we have grown to be one of the leading suppliers in the waste and recycling sector, expanding our range of components to meet current market demands.

A waste management company approached us with a novel idea for a roller track system. The design would allow large containers to be moved in and out of confined space applications where conventional moving and lifting equipment could not be utilised safely. A dual-track, 10 metres in length, was designed and fabricated using a total of 56 rollers (168mm outer diameter) and special shafts that allow lubrication via grease nipples at each end.

The track was fabricated in 8 individual sections to aid with transportation and installation and designed to be bolted down in situ. It is fully serviceable and allows for Individual components to be removed and replaced when required.

It was our extensive in-house manufacturing processes that enabled us to supply the project on-time and from one source. A combination of sawing, robot welding, manual welding, and machining processes was used.

Please visit our website www.brooksforgings.co.uk to learn more about our manufacturing processes and components. If we can assist with any bespoke requirements please do not hesitate to contact us by email sales@brooksforgings.co.uk or telephone +44(0)1384 563356.



FASTENER

## Business need for prompt delivery Custom Stockholding / Consignment Agreements

If your business relies on the prompt delivery of essential raw materials for fabrication and manufacturing, you'll understand the importance of receiving orders on-time. At Broder Metals Group, we have seen a rise in requests for custom stockholding and consigning arrangements in recent years, as these three mini case studies demonstrate:

## Pre-cut bar shipped in manageable batches

A supplier of F1 motor racing components has enjoyed a consignment stock agreement with us for a decade. We purchase two products specifically for them and cut these to set lengths so that the customer can manufacture components without unnecessary waste. Each section is labelled with a unique identification number and then shipped to the customer in batches for them to store on their site. This eliminates the need for the customer to wait for a bar to be cut and shipped, which would dramatically impact lead times. They then simply notify us once a month of how many pieces they have used.

As stock runs low, the customer requests the next batch, enabling their production line to continue uninterrupted.

## Part-coded products for easy ordering

By identifying the products that are used most often by a particular manufacturer of valves and pumps, we hold custom stocks so that their orders can be shipped for next day or even same-day delivery. We even stock the materials under the customer's own part-codes for fast and accurate ordering. Our customer also benefits from a pre-agreed pricing structure and the reassurance that we manage stock levels to ensure timely consignment in response to their needs.

## Agreed stock levels of tested material

As an approved supplier to a major valve manufacturer, we test our stock material to ensure that it meets their specifications before bidding on tenders for six-monthly periods. Once the material has been approved by our customer, we maintain stock levels and ship directly to their subcontractors as required.

The supplied

track installed

at the waste

# TR VIC continues to invest in the latest high precision fastenings machinery

International fastener specialist TR VIC spa, part of the Trifast plc group of companies, has made a substantial investment in the very latest fastening machinery in response to increasing and evolving requirements from European customers. The high precision Carlo Salvi cold former is the newest addition to its growing portfolio of machinery, which further increases manufacturing capacity for high level applications within automotive, household appliances and electrical sectors in Europe.

## High-tech cold forming capability

The advanced Carlo Salvi 1 Die 2 Blow Header provides the highest productivity in cold forming and has been specially developed and designed for the production of screw blanks as well as solid parts at high speed up to 190 parts per minute. Complementing TR's application engineering expertise, this high-tech header machine enables the technical precision and versatility required in manufacturing fasteners for evolving applications across several different industries into which TR supplies.

## Investment and responding to changing markets

Since its acquisition in 2014, TR VIC has invested significantly in manufacturing equipment, including an automated packaging and labelling machine, a heat treatment line, a high quality pointing machine and laboratory equipment including a high class Keyence microscope. All of these upgrades have resulted in a sharp rise in productivity, in some cases doubling output in half the time.

The company has grown considerably by expanding its workforce, customer base, improving processes and technologies whilst also achieving quality accreditations, most recently the IATF 16949 during the Covid-19 pandemic. It has been business as usual these last few months and TR VIC is responding to the evolving market by continuing to invest in the company and in newer, faster equipment to the benefit of customers.

Karol Gregorczyk, Director of Sales and Operations at TR VIC in Italy, said: "Machine capability is an area we are continually reviewing as part of our on-going improvement of operational efficiencies. With our on-site manufacturing we can add real value to our customers by developing bespoke products – our new machine is a boost to our already impressive manufacturing credentials.

"We understand that investment is critical to thrive and that is why we are committed to the continued growth and development of our production capabilities and competitive position. The sectors we work in are extremely demanding requiring a combination of precision, speed and quality that only the most advanced machining techniques can deliver."

Marco Pizzi, Chief Operating Officer at Carlo Salvi commented: "We are pleased to support TR VIC in their continued investment in cold forging machinery, supplying modern/plug-in machines. Great collaboration between Carlo Salvi and TR VIC allowed fast commissioning and the machinery being up and running within 48 hours from delivery."

## Installation of the latest Carlo Salvi machinery

The delivery and installation of this new machine - in just one day, was captured in a fascinating time lapse video which can be viewed on TR Fastening's YouTube channel and website. https://www.youtube.com/watch?v=1ZYgysgB9YM

#### www.trfastenings.com

CBM are proud and please to see two of thier members working together

![](_page_8_Picture_16.jpeg)

![](_page_8_Picture_17.jpeg)

Above: New Carlo Salvi 1 Die 2 Blow Header

• Left: TR Vic team with new Carlo Salvi machine

## New stainless steel fastener standards

Last year, two substantially revised ISO standards for stainless steel fasteners were published, and an important new associated standard was introduced. Here BSI explores the significance of these developments.

## What's new about the main corrosion resistant bolts, screws and studs standard?

BS EN ISO 3506-1:2020 "Fasteners - Mechanical properties of corrosionresistant stainless steel fasteners --Part 1: Bolts, screws and studs with specified grades and property classes" is the newly revised international standard on the mechanical and physical properties of bolts, screws and studs.

It specifies property classes in relation to austenitic, martensitic, ferritic and duplex (austenitic-ferritic) stainless steel grades for bolts, screws and studs when tested at the ambient temperature range of 10°C to 35°C.

## What the standard covers

BS EN ISO 3506-1 applies to bolts, screws and studs of any shape with ISO metric thread in accordance with ISO 68-1; with diameter/pitch combinations in accordance with ISO 261 and ISO 262; with coarse pitch thread M1,6 to M39, and fine pitch thread M8×1 to M39×3; with thread tolerances in accordance with ISO 965-1 and ISO 965-2; and with specified property classes.

This part doesn't apply to set screws and similar threaded fasteners not under tensile stress (that's covered in Part 3.) Nor does it specify requirements for functional properties such as torque/clamp force properties, shear strength, fatigue resistance or weldability.

Also, the properties of stainless steel fasteners are derived from the chemical composition of the material (especially corrosion resistance) and from the mechanical properties imbued by the manufacturing processes. Ferritic, austenitic and duplex (austenitic-ferritic) stainless steel fasteners are generally manufactured by cold working. As a result, they don't have homogeneous local material properties when compared to quenched and tempered fasteners.

Austenitic-ferritic stainless steels referred to as "duplex stainless steels" were originally invented in the 1930s. Standard duplex grades used today have been developed since the 1980s. Fasteners made of duplex stainless steels have been long established in a range of applications. This document was revised to reflect their standardization.

## How the standard has changed

The standard has undergone a complete revision. A lot of new content has been added. This includes:

- specifications for duplex (austeniticferritic) stainless steels for property classes 70, 80 and 100;
- property class 100 for austenitic stainless steel grades as well as grade A8;
- and specifications on finish.

The revision also adds in the matching of stainless steel bolt and nut grades; calculated minimum ultimate tensile loads and minimum loads at 0,2 % nonproportional elongation and rounding rules; reduced loadability for fasteners due to head or shank design; requirements and guidance for inspection procedures; and content on the applicability of test methods, also in relation to full or reduced loadability and application to fasteners with reduced loadability.

In addition, the tensile test procedure has been entirely amended; the wedge tensile test and hardness test have been improved; operational temperature ranges have been clarified; content on marking and labelling has been improved; and fasteners with reduced loadability have been included.

The text on mechanical properties at elevated temperatures and application at low temperatures has been improved; and the structure and content of the document have been brought in line with ISO 898-1.

Finally, ISO has added another standard to the series – ISO 3506-6. This provides general rules and additional technical information on suitable stainless steels for fasteners and their properties. To that end, annexes that are common to several parts of the ISO 3506 series have been withdrawn from Part 1 and are now included in the new Part 6. Users of the revised Part 1 will generally need to also refer to Part 6.

## Why changes were made to the international standard on nuts

Part 2 of BS EN ISO 3506 specifies the mechanical and physical properties of certain types of nut. This article looks at where Part 2 sits in the series and who should be using this standard.

First published in 1998, the BS EN ISO 3506 series deals with the mechanical properties of corrosion-resistant stainless steel fasteners.

To date BS EN ISO 3506-2 has undergone two rounds of revisions: in 2009 and 2020. In 2020, we've published the third editions of Parts 1 and 2 of the series. These cover respectively: bolts, screws and studs; and nuts.

Part 3 specifies set screws and similar fasteners not under tensile stress and Part 4 is on tapping screws. Part 5 is currently under preparation and has yet to be published although the standard is based on special fasteners for hightemperature applications and also includes fasteners from nickel alloys. Part 6 is new for 2020. It was published at the same time as the revised Parts 1 and 2 and provides general rules and additional technical information on suitable stainless steels and their properties. Users of the revised Part 2 will generally need to also refer to Part 6.

## About Part 2

BS EN ISO 3506-2:2020 Fasteners — Mechanical properties of corrosionresistant stainless steel fasteners — Part 2: Nuts with specified grades and property classes is the newly revised international standard on the mechanical and physical properties of nuts. It specifies nuts with coarse pitch thread and fine pitch thread, made of corrosion-resistant stainless steels, when tested at the ambient temperature range of 10°C to 35°C.

The standard covers designation systems for nuts, the design of bolt and nut assemblies, materials, mechanical and physical properties of nuts, inspections, test methods, and nut marking and labelling. The test methods section covers proof load testing and hardness testing. BS EN ISO 3506-2 applies to nuts of any shape with ISO metric thread in accordance with ISO 68-1; diameter/ pitch combinations in accordance with ISO 261 and ISO 262; coarse pitch thread M5 to M39, and fine pitch thread M8×1 to M39×3: thread tolerances in accordance with ISO 965-1 and ISO 965-2, specified property classes, including proof load; different nut styles: thin nuts, regular nuts and high nuts; a minimum nut height  $m \ge 0,45D$ ; a minimum outside diameter or width across flats  $s \ge 1,45D$ ; and able to mate with bolts, screws and studs with property classes in accordance with ISO 3506-1.

This standard is written for use by manufacturers and distributors of stainless steel fasteners as well as structural and consulting engineers. It will also be used by construction and civil engineering contractors and larger sub-contractors as well as test houses and laboratories. It will be of particular interest to industries associated with oil and gas production and distribution.

#### How the standard has changed

BS EN ISO 3506-2 has undergone a complete revision to reflect the fact that nuts made of duplex stainless steels (austenitic-ferritic) are now well established in a range of applications. As a result, the revised standard now includes duplex stainless steels for property classes 70, 80 and 100. Several other additions have been made to the standard, including information on nut styles; information on the design of stainless steel bolt and nut assemblies; and design principles of stainless steel nuts. Calculated proof load values and rounding rules have been added, as have requirements and guidance for inspection procedures; thread dimensions of the test mandrel for proof load; and finally, nut marking and labelling especially for thin nuts with reduced loadability.

The sections on finish and on test methods for proof load and hardness have also

been improved while the section on operational temperature ranges has been clarified. The structure and content of the document have been brought into line with ISO 898-2. Finally, annexes that are common to several parts of the ISO 3506 series have been withdrawn from Part 2 and are now included in the new Part 6.

British Standards are available from the BSI Shop https://shop.bsigroup.com

![](_page_10_Picture_9.jpeg)

## **Optimas completes refinancing for growth**

Optimas Solutions LLC, a leading global provider of integrated supply chain solutions, including fasteners and MRO consumables, completed a comprehensive refinancing of its debt structure at the end of 2020, positioning the company well for long-term growth.

According to Chief Financial Officer, Jim Japczyk, the refinancing will enable Optimas to support its operational growth objectives and to deliver against the Manufacturing Solutions business strategy it announced last August. "This event is quite transformational for Optimas. We showed strong execution against our strategy at the close of last year and this allows us to build on that."

Mr Japczyk added: "This refinancing will improve overall cash flow, providing more resources to expand and grow the business. We fully expect this transaction will result in existing and potential customers entrusting their business with Optimas with greater confidence, as well as helping new and potential suppliers to engage more fully as we work to deliver mutually beneficial relationships."

"In August of last year, we implemented our Manufacturing Solutions strategy which really changed the trajectory of the company, particularly with strong performance in Q4," said Marc Strandquist, CEO of Optimas. "Now, with this refinancing we can transform the business over the next few years, as we follow our strategy to deliver more to our customers and strengthen our relationship with suppliers."

The UK Optimas fastener manufacturing facility, Barton Cold Form, is a longstanding member of the CBM. It operates from a

12,900 square metre modern production facility in Droitwich, home to some 75 dedicated machines and a highly skilled workforce. Optimas is an IATF 16949 as well as ISO14001/9001 certified fastener manufacturer, and the UK facility produces parts ranging from 2mm pins to 18mm male threaded fasteners. Optimas holds licences for a number of well-known thread forming and drive solutions, including Taptite<sup>®</sup>, Mathread<sup>®</sup>, and MORTORQ<sup>®</sup> Super and External.

![](_page_10_Picture_18.jpeg)

## CE certification for manKIND Visor as manufacturing collective targets 100,000 sales

A group of nine manufacturers, who developed a new recyclable visor to be used in the fight against Covid-19, is celebrating a major milestone in style by securing CE certification for the product.

The Manufacturing Assembly Network (MAN), which comprises eight sub-contract specialists and an engineering design agency, has recently supplied its 50,000th manKIND visor and is now looking to double this figure over the next three months.

NHS hospitals, healthcare facilities, charities and a host of commercial organisations have chosen to adopt this form of protection against the virus, benefiting from the easy-to-assemble approach, comfortable fit and the ability to clean and re-use them time and time again.

The CE certification means the visor has been independently clinically tested and approved and is now eligible to be part of the Medilink Midlands 'Big Ask' campaign to use West Midlands firms to meet national PPE shortages.

Rowan Crozier, CEO of Brandauer and lead on the MAN project, commented: "Like a lot of companies we wanted to do something to help our frontline staff, so MAN pooled our design, engineering and assembly expertise into creating the manKIND visor.

"Over £30,000 was spent on the tooling, prototyping and manufacture and the first 20,000 were donated to local hospitals, care homes, voluntary organisations and to key workers. After that we've been selling them in bulk, business to business on trade account or direct to the consumer via the Brandauer eBay shop and we have seen interest from all over the world."

He continued: "The CE certification is a big moment for us. We had already got the visors clinically tested, but this stamp of approval is crucial when working directly with some of the biggest companies in the world, not to mention Government's across the globe.

"We can supply 1 to 5000 off a time, which means it is very flexible for smaller companies and charities. One of our largest purchases was from Make UK, who used the visors to protect their apprentices studying at its dedicated academy in Birmingham." All nine MAN companies were involved in the project, with Grove Design coming up with the working prototype and Barkley Plastics using its toolmaking and moulding expertise to create the headband that is critical to the success of the product.

There was no point coming up with a variant of what was already out there, so the collective came up with a visor that is lightweight, easy to assemble with a push clip feature, suitable for repeated use, can be easily cleaned (the headband can even be put in a dishwasher) and includes a full peak for better protection.

Comfort was also a priority and this is reflected in the inclusion of a 'stretch' headband that removes the need for a foam band and elasticated straps. Importantly, the user also has space to wear a face mask underneath it and the visor fits a variety of head sizes, making it suitable for adults and children.

This, coupled with it fitting neatly into a standard envelope size, means it is optimised for delivery to both large organisations in bulk or directly to the consumer via Ebay.

Rowan went on to add: "The manKIND visor is part of a wider Brandauer approach to supplying crucial PPE, including manufacturing 70 million nose clips per annum for medical face masks across the globe.

"We've even successfully secured Innovate UK funding to come up with our own nose clip design and flexible tooling that will support increasing PPE demand and reshoring activities that will generate revenue for UK manufacturing."

For further information, please visit www.mankindvisor.co.uk or follow Manufacturing Assembly Network on LinkedIn.

![](_page_11_Picture_17.jpeg)

## LIBERTY starts high-tech new Teesside metals facility, supporting North East industrial rejuvenation

LIBERTY Powder Metals, part of sustainable industry leader GFG Alliance, has started commercial production at its high-tech new Teesside powder metals facility, targeting fast-growing demand from the advanced manufacturing and 3D printing industries.

LIBERTY Powder Metals will produce a range of stainless steel and nickel superalloy powders for precision components in demanding sectors such as automotive, aerospace and engineering, the premium end of the global powder metals market already worth more than £2bn a year.

The cutting-edge powder production process cuts carbon emissions by 85% compared with the traditional steel route\*, part of LIBERTY Steel's CN30 strategy that will make the company carbon neutral by 2030.

Minute spherical powder particles are processed to the highest specifications in a vacuum induction argon gas atomiser, the only one of this kind in the UK, with a unique anti-satellite facility to increase productivity.

The landmark is the culmination of a two-year collaboration with the Tees Valley Mayor Ben Houchen and the Combined Authority, which provided £4.6mn of funding, and the Materials Processing Institute, which housed the atomiser beside its own research facilities. Atomising Systems Ltd and Consarc Engineering have worked closely on equipment design.

LIBERTY Powder Metals' General Manager, Simon Pike, said: "This has been a great achievement amid unprecedented challenges from the Covid pandemic. The resolve and resilience of our team and our contractors to overcome supply chain constraints has been invaluable.

"Teesside is leading the UK drive towards advanced manufacturing, creating a new generation of skilled jobs in an industry that has deep local roots. The region's manufacturing sector has a bright future, bringing a high-tech approach to metal manufacture and supporting the UK supply chain."

Mayor Houchen said: "LIBERTY's new powder metals facility is a great example of how advanced manufacturing is reinvigorating industry in Teesside and bringing with it the good-quality well-paid jobs we all want to see come to Teesside, Darlington and Hartlepool.

"This is a major step forward for the project and the fact a global company as big as LIBERTY chose to bring this development to Teesside shows that we are a real magnet for R&D and foreign direct investment, because here on Teesside we have the skills and expertise companies like LIBERTY require."

Installation and commissioning have successfully overcome significant challenges caused by the coronavirus pandemic, which has restricted the number of contractors able to work on site and impacted on the delivery of equipment.

Commissioning of the powder metals facility, known as an atomiser, includes a series of 'acceptance mets' which LIBERTY must perform before the plant is handed over for full operation. The atomiser allows LIBERTY to melt a range of defined chemistries and pour the liquid stream through an aperture, using inert gas to break this into fine droplets, which then solidify to create powder, secure and confined to avoid contamination from outside sources.

The powders undergo further processing including optimisation and characterisation before final tests and despatch to customers. The same post-atomisation processing activities are deployed for all metal powders in an extensive portfolio which includes aluminium, titanium and cobalt alloys.

\*Carbon emissions through the full process of powder production and end use are reduced by 85% compared to primary steel production through blast furnaces.

#### Further information from:

Andrew Mitchell, Head of Communications - UK, GFG Alliance Tel: +44 7516 029522 andrew.mitchell@gfgalliance.com Henry Evans, Media Relations, GFG Alliance tel: +44 7540 249364 Henry.evans@gfgalliance.com

![](_page_12_Picture_19.jpeg)

# Altair Inspire<sup>™</sup> Form A comprehensive simulation platform for sheet metal product and process development.

By Jaideep Bangal and Hariharasudhan Palaniswamy

Altair Inspire is a streamlined stamping simulation software which helps engineers to design better products with early check for forming feasibility, reduce scraps and improve material utilization. It also predicts and fix stamping defects by optimizing designs and the process through single or multi stage virtual tryout.

"Altair Inspire platform offers unique and industry leading simulation driven design and manufacturing solutions. Here the simulation provides insight into the physics and drives design and decision-making process resulting in optimal designs for the selected manufacturing processes."

Sheet metal product development life cycle spans wide range from concept design to serial production of sheet metal components and assembly. During the development cycle there are instances when product and process engineers and designers are faced with several choices/options. These decisions play a critical role on the overall product robustness, costs and quality.

## Design

An oil pan design and manufacturing feasibility check is a perfect example of ideal product development process. The Initial design is an existing design based on user experience. The design problem was setup with fluid load, assembly constraints and manufacturing constraints. Most efficient design is generated using topography optimization (shapes and form) that maximizes stiffness and also recommends best bead pattern for achieve design criteria. Inspire Form's feasibility analysis allows designers to quickly evaluate formability of the part.

![](_page_13_Picture_8.jpeg)

![](_page_13_Picture_9.jpeg)

Oil pan with beads established based on experience

Oil pan model for topography optimization

![](_page_13_Picture_12.jpeg)

![](_page_13_Picture_13.jpeg)

843

![](_page_13_Picture_15.jpeg)

Inspire structures suggested shapes for different topography configurations

![](_page_13_Picture_17.jpeg)

Design interpretation of the topography optimized structure

![](_page_13_Figure_19.jpeg)

Percentage thinning prediction by feasibility study

### Manufacturing

Sheetmetal manufacturing process typically involve several steps in deforming the flat sheet metal into finished part. It starts with process layout planning where the steps to manufacture them are laid out based on best practice and experience. Physics based stamping simulation tools are primarily used in the design iterations to validate the process against any potential defects during forming. Inspire Platform with its Inspire Studio and Inspire form addresses the process designer's needs for die design module complementing its extensive surface design capabilities to guickly realize these process design ideas to tooling surface models (Figure 8). Inspire Form's Tryout module acts as a virtual press and simulates the physical stamping process to study the material deformation between the designed die faces from Inspire studio to validate the design against any failures. Figure 9 shows percentage thinning and formability results on the finished part from Inspire form tryout validating the die face design to proceed for complete die design.

![](_page_13_Figure_23.jpeg)

Tool face design for forming stage based on process plan

Formability and tool forces predicted by tryout analysis

The die structures for large autobody panels are typically casted. Porosity is common defect in these castings that significantly reduces its stiffness and die life. Altiar Inspire Cast, a comprehensive casting simulation allows designers to quickly setup casting simulation to predict porosity in the die structure. Also, quick design iteration varying process parameters like cores and chillers size and location can be performed to improve the casting process.

![](_page_13_Picture_27.jpeg)

Oil pan bottom die setup for topology optimization of die structures

![](_page_13_Picture_29.jpeg)

Topology optimized die structure

![](_page_14_Picture_1.jpeg)

![](_page_14_Picture_2.jpeg)

Summary

Topology optimized die structure and interpreted design

Porosity predicted using casting simulation with raisers and chillers added

![](_page_14_Picture_5.jpeg)

with raisers and chillers added

![](_page_14_Picture_7.jpeg)

Sheet metal parts design life cycle involves several key decisionmaking tasks in each of the steps from concept design to tool/ die manufacturing. The designers and engineers need several engineering tools to assist throughout the product development process. Altair Inspire platform, with it's simplified and common user interface and excellent interoperability across all its

applications, makes it easy for designers and leverage benefits of

simulation driven design and manufacturing process.

Tool stress results as a percentage of yield predicted for optimized oil pan bottom under forming loads

# 100% of KMF's latest cohort of apprentices graduate

## Manufacturing Firm KMF has celebrated the graduation of all seven of its advanced year apprentices.

This is a significant achievement for the group and the apprentices as not only did all seven start together in August 2016 but they have all completed a four year advanced apprenticeship together and have been given permanent positions at the KMF Group.

Rafay Ali, (22), Oliver Whittaker, (21), Jessica Mitchell, (20), Callum Hughes, (20), Daniel Ellams, (22), Harry Meyrick, (20) and Liam Stubbs, (23), have all graduated and are settling into their careers at KMF.

Both Rafay Ali and Liam Stubbs are furthering their studies and have enrolled onto a Degree Apprenticeship in Mechanical Manufacturing at Staffordshire University. There they will be studying one day per week whilst continuing to work for KMF and completion of their five year studies will give them a BEng in Mechanical Engineering.

Callum and Daniel are the latest Welders at KMF while Oliver, Jessica and Harry are full time Bending Operatives.

Training and Development Manager at KMF, Jenny Johnston said: "We are so proud of the seven graduates, they've been brilliant additions to the KMF family. In normal circumstances we would have had an awards ceremony to celebrate our fantastic apprentices but the pandemic has forced us to cancel for this year. As all seven are staying with us they will be invited to join us at the graduation ceremony for next year's cohort so they will still get their moment.

"We have an excellent apprenticeship programme which I'm pleased to say hasn't been affected too much by Covid-19. We were able to give the apprentices a full month of training throughout July to complete their final assessments and exams."

KMF is renowned locally for its apprenticeship programme and has just surpassed its first milestone. 2020 marked the company's 13th year (since starting in 2007) guiding people into their careers and has seen over 100 young men and women come through its doors.

Jenny added: "We have 30 apprentices at KMF at any one time as we truly believe in supporting young people and developing them into future industry leaders."

The graduation falls perfectly with the latest announcement from the group as 12 new apprenticeship placements have been released for its 2021 cohort.

![](_page_14_Picture_21.jpeg)

The application process has officially begun to find eight sheet metal fabrication and four machining apprentices for the 2021 cohort.

The group supports young people in developing their careers from their on-site, purpose built training centre and dedicated training workshop. The students complete both their theory and practical work at the Newcastle-under-Lyme facility. The programme has grown rapidly over the last 13 years with the Group having four full time qualified teachers on-site at the EAL approved training centre.

Providing opportunities is at the forefront of the manufacturer's culture and additionally more people are supported as they go on to higher education at degree level.

To find out more about the KMF Group visit: www.kmf.co.uk/

![](_page_14_Picture_26.jpeg)

## CBM would like to welcome new members CONDAT.

Since 1854, CONDAT formulates and produces a wide range of lubricants for the industrial world. Based on 165 years' expertise, CONDAT has focused on designing products with high added technical value for numerous applications and earned worldwide recognition in leading high-tech markets: tunneling, wire drawing, machining, cold heading, forging...

When looking for the most efficient lubrication solution, Condat's ambition is not only to guarantee a high level of performance, it's also to provide you support towards a responsible performance. In this context, CONDAT offers solutions that allow to increase your productivity and reduce your oil consumption, while respecting people and the environment.

## For Machining

- MECAGREEN vegetable based oils guarantee less wear and tear on tools with about 30% savings vs. mineral oil technology.
- NEAT GREEN neat oils reduce consumption by 30% vs. traditional petroleum formulations while offering superior lubrication.

- CONDACOOL & POLYBIO ranges offer amine-, boron- or biocide-free formulas to provide a healthier working environment for operators.

## For Cold Heading

- EXTRUGLISS dual purpose oils eliminate the cross-contamination problems and can double the life of the baths | in service.
- EXTRUDEX Stand alone lubricant designed for demanding materials as aerospace grade alloys

## For Forging

High-performance solutions CONDAFORGE offer low friction coefficients and excellent adhesion at high temperatures, offering 20 % consumption gain.

- CONDAERO, ORAFOR and CONDAFORGE ranges are formulated without ammonia

These are just a few examples, if you want to know more, contact CONDAT team at condat@condat.fr or www.condat-lubricants.com

![](_page_15_Picture_15.jpeg)

Out-of-hours availability –

early in the morning, into the evening and

• Catering from renowned

COVID safe video tour

information on website

providers, with a range of

options to meet your needs

at weekends

so you can hold meetings

## NMC OFFER • NMC OFFER

![](_page_15_Picture_17.jpeg)

## One of the benefits you get as a CBM member is access to discounts on helpful products and services.

The latest member offer is a 10% discount on meeting and conference space at NMC Venue in West Bromwich, which is also home to the CBM headquarters. The venue meets all the COVID safe guidelines

NMC Venue offers you an easy, flexible and affordable way to hold productive meetings:

- Convenient West Midlands location just 200 yards from Junction 1 of the M5
- Free and secure parking
- Spaces that work well for hosting essential meetings for up to **30** people. **COVID** restrictions premitting
- Free Wi-Fi for all attendees
- Free unlimited tea & coffee
- NMCvenue.com The NMC is **COVID-19 compliant** so the next time you're planning a meeting, training session or seminar, take the pressure off your own office space and give attendees something special with our discount room hire.

To learn more and enquire about dates, call Marie Williams on 0121 601 6350 or email reception@nmcvenue.com.

Just mention you're a member of the CBM to claim your discount.

WORKSHOPS

TUTORIALS

## 3 reasons to implement CSR in choosing your cold heading lubricant

Also in the cold heading industry, there is the concern to reduce environmental impact and use products responsibly while maintaining high productivity.

When looking for the most efficient lubricating solution, CONDAT's ambition is not only to guarantee a high level of performance, it is also to provide support towards responsible performance that takes into account social and environmental issues. To achieve this, CONDAT provides solutions that allow you to increase your productivity and reduce your oil consumption all whilst respecting personnel and the environment.

## 1. Increase productivity

A way to boost the productivity, reduce maintenance downtimes and get the most out of facilities is using **EXTRUGLISS Dual purpose oils by Condat.** Applied for the lubrication of slides and cold heading operations, EXTRUGLISS products can double the life of baths in service, thus reducing drain intervals by 50% thanks to their high-class properties.

EXTRUGLISS<sup>®</sup> Dual-Purpose oils are formulated to provide both superior lubrication characteristics to your machinery and outstanding lubrication for your cold heading process. They eliminate the cross-contamination problems generally encountered during cold heading operations.

In typical cold heading operations, approx. 80% of oil consumption occurs when oil is dragged out of the machine on the surfaces of formed parts, and EXTRUGLISS® oils are specially formulated to run at lower viscosity to limit oil drag

![](_page_16_Picture_8.jpeg)

out. Compared to standard technologies, EXTRUGLISS have proven to reduce lubricant consumption of more than 30% under identical manufacturing parameters. They are also formulated to limit soap

swelling.

Many wire drawing soaps swell in suspension in the oil, negatively affecting oil performance, and requiring more frequent oil replacements. EXTRUGLISS® by Condat is specially formulated to allow drawing soaps and other contaminants to settle out of the oil, carrying with them abrasive metallic particles. So the lubricant remains clean and provides optimum performance.

## 2. Reduce oil consumption

The best waste is no waste. The **EXTRUGLISS** and **EXTRUDEX** ranges can help you on this theme. Using the right quantity of lubricant while maintaining high performance is a major issue at CONDAT.

The EXTRUDEX range includes extreme pressure neat cold heading oils that are formulated to supply heavy duty lubrication. Thanks to their chlorine free complete additives package active from low to high temperature, they offer outstanding lubrication for a broad range of operations. Thus, using a minimum and accurate quantity of EXTRUDEX in your process allows you to reach similar performances compared to standard cold heading oils, at lower cost. EXTRUDEX oils are standalone lubricants that can be used only for the die side of the process. This product

range is designed to improve tool life and usage on special deformation such as aerospace alloys and exotic alloys. They also allow homogeneous coating on the parts which contribute to an optimum surface finish and no deposit on dies and punches. With very high flash points, they are safe lubricants as they reduce risk of fire thus improving security in your workshops.

![](_page_16_Picture_16.jpeg)

## **3.** A better working environment and less environmental impact CONDAT presented in June 2019

**EXTRUGLISS HT 268 VP,** a premium cold heading oil specially formulated for extreme operations that generate

excessive heat (e.g. stainless steel, alloy steel with high elastic limit). This product is able to solve BaP emissions problems, even if no regulation was emitted yet for BaP generation in cold heading operations - Condat is ahead of times! EXTRUGLISS HT 268 VP contains fewer residual compounds that may degrade to PAH.

Less volatile, EXTRUGLISS HT 268 VP limits also oil evaporation and mist generation, thus improving the atmosphere in workshops.

CONDAT has also developed a lubricant product based on renewable raw materials. **EXTRUGLISS GREEN** allows to reduce by 70% the amount of fossil carbon in cold heading oils. It has extraordinary performances (such as in section reductions >70% or operations generating enormous pressure on punches and dies) and enables to manufacture very difficult parts.

EXTRUGLISS GREEN's vegetable-based cold-heading oils can be used for heavy duty forming operations (screw, bolt, nuts and extrusion parts) guaranteeing lower mist and smokes, for an operatorfriendly working environment.

For more information, you can visit www.condat.fr or contact info@condat.fr.

![](_page_16_Picture_24.jpeg)

# First ever metalforming apprenticeship – now open for members

## Do you need a qualified Tool Process Design Engineer? Our new apprenticeship standard is ready for you

As you know from our ongoing Metal Matters updates, the CBM has been spearheading development of a new Tool Process Design Engineer apprenticeship. We kickstarted the process in response to member feedback on skills shortages in this area, and the CBM has collaborated with a wide range of stakeholders to create a programme that meets metalforming specific needs.

It's been a 3-year process, and we're delighted to announce that the new Tool Process Design Engineer level 6 (degree) apprenticeship is now ready.

## Who's eligible to enrol?

You can use your apprenticeship levy to fund both new starters and existing employees wishing to formalise their qualifications.

A useful starting point is to conduct a demographic and skills analysis of your organisation's tool process design capability. This will help determine whether it's best to recruit new talent or upskill your existing workforce.

## Who provides the training?

You can choose your preferred training provider, including universities.

For example, In-Comm is offering 2 apprenticeship options you can I ook into.

## What does the apprenticeship involve and what are the qualifications?

The training is designed to be flexible, so it's easy to provide training in a way that meets your business needs in these difficult times. To give you an idea of what's involved, In-Comm offers 2 options:

• **Option 1:** Apprentices have practical and theoretical training on a block release basis at Aldridge (typically 88 days over 2 years) covering an EAL Level 6 qualification in Tool Design delivering both knowledge and competence skills. Then, an In-Comm assessor visits the apprentice's workplace every 2 months. Once training is finished, the apprentice must complete an independent end point assessment.

The funding for Option 1 covers the full cost of the training and end point assessment.

• **Option 2:** This expands on Option 1, giving apprentices the additional opportunity to complete a Higher National Certificate (HNC) in Engineering. There's an additional cost associated with completing the full HNC.

There's also the possibility for suitable candidates to achieve a B Eng degree via collaboration between a university and your chosen training provider. The apprenticeship can also lead to Incorporated Engineer status with the Institute of Mechanical Engineers.

## What skills do apprentices learn?

The apprenticeship is designed to meet our sector's unique technical requirements. As part of the development process, we put together a Trailblazer Group of 10 member companies representing Tier 1 and 2, SMEs and those with 200+ employees. Therefore, the skills, knowledge and behaviours are specific to the needs we identified across the metalforming industry.

The apprenticeship develops the ability to take component CAD drawings through the tool process design steps to mass production, meeting customer criteria. The syllabus includes:

- Manufacturing process development
- Cost estimating
- CAD tool design & forming simulation CAE
- Capacity planning
- Pre-production component manufacture
- Related H&S
- Metrology
- Metallurgy
- Related maths

A key component is the opportunity for apprentices to work on industry-standard training equipment. The CBM obtained this equipment on behalf of members, and it's sited at In-Comm's Aldridge training workshop.

## Who assesses the apprentices?

The CBM is the independent end point assessment organisation. This means industry specialists will make up the assessment panel, ensuring apprentices have achieved the appropriate competency level.

## How can we enrol people on to the apprenticeship?

Please encourage new and existing staff to become professionally qualified via this apprenticeship.

To learn more and book, contact Geraldine Bolton at geraldine.bolton@thecbm.co.uk.

![](_page_17_Picture_36.jpeg)

# Free advertising - Tool process design engineer apprenticeships level 6

Promoting your apprenticeship opportunities is key to making sure you get the right skills your business needs. The National Apprenticeship Service can help build awareness of your current and future vacancies though their schools programme and across digital channels at no cost.

The national Apprenticeship service are currently working on the next 'Higher and Degree Listing' and would like employers to be involved. This publication enables you to advertise your future Higher and Degree (Level 4 and above) apprenticeships that are due to start in summer 2021. The listing is distributed to current year 13 students in schools and promoted at virtual careers events.

If you would like to list your summer 2021 Higher and Degree Apprenticeships in the publication, please contact Apprentice.Engagement@education.gov.uk as soon as possible.

## Other promotional opportunities

Addition, there is a suite of free promotional opportunities available for all employers:

- Through 'Recruit an apprentice' you, or your training provider, can create, post and manage apprenticeship and Traineeships vacancies. Potential apprentices can then find and apply for your vacancies through 'Find an apprenticeship'.
- You have the opportunity to promote your organisation through the National Apprenticeship Service online company fact file -Vacancy Snapshot https://vacancies. amazingapprenticeships.com/ which links through to 'Find an apprenticeship' for live apprenticeship vacancies.

If you are interested in getting your apprenticeship opportunities, of any kind, on 'Find an apprenticeship' then please also mention this in your email and the Apprenticeship Engagement team will then organise someone to get in contact with you.

If you have any questions regarding this free opportunity then please contact Apprentice.Engagement@education.gov.uk For queries regarding the Level 6 Tool Process Design Engineer Standard developed by the CBM Trail blazer group please contact Geraldine Bolton at the CBM.

![](_page_18_Picture_11.jpeg)

NEWS

# Harvesting waste process heat – a step change

## Innovative solutions are required for the metal-forming industry to meet net zero carbon

High energy intensive industries (EII) will need to find innovative solutions to make the step change necessary to meet Government carbon reduction targets of 70% by 2030. Forging members consume large volumes of energy for both simple open-die and more complex closed-die profiles throughout the forging and subsequent heat-treatment processes.

Improving energy efficiency has been a high priority for the past two decades with increasing energy costs. Where capital expenditure has been available, traditional furnaces have been replaced with modern well insulated designs, induction heating is used where possible and gas furnaces have been fitted with recuperative burners to capture and recirculate waste flue gases. The result of this has been reduced year on year energy costs/ tonne and improved operational efficiency.

However, with a clear direction that the future needs to be green and all industries must migrate towards net zero carbon, a strategic step change for high Ell's is required. To address this, the CBM have teamed up with the University of Birmingham to investigate the feasibility of capturing waste process heat using PCM's (phase changing materials), either for redirecting within the production process or for storage and movement to other areas of the business. With large volumes of heat from furnaces, cooling parts and cooling dies there is a large potential to tap into, and waste heat can be captured several times over during a typical production process. Harvesting and storing heat to re-use it can offer the potential for huge energy savings and could be the game changer that traditional high Ell's strategically need to support net zero carbon.

Initial findings from the feasibility study will be reported in the next edition of Metal Matters and communicated to members via webinars. This project is funded by GBSLEP and supported by ATETA.

For further information please contact derek.bond@thecbm.co.uk

## Working collaboratively is good for business

What do you do when you are stuck on a problem? You would ask your family, friends, maybe turn to instructional videos on YouTube. But as a business owner, who do you turn to when you have a problem? Colleagues, industry trade press, consultants?

A complex issue may need additional expertise and resources. Expertise that can be found in academics at the University of Birmingham. Our academics are experts in their fields, dedicated to their subject, providing scientific rigour to complex problems. Partnering with academics at the University of Birmingham will enable to make best use of available resources but also enable applications to funding bodies like Innovate UK.

There are many different routes in which research projects with the University of Birmingham can take. Knowledge Transfer Partnerships (KTPs) aim to help businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills within the UK knowledge base.

KTPs are funded by UKRI through Innovate UK with the support of co-founders, including the Scottish Funding Council, Welsh Government, Invest Northern Ireland, Defra and BEIS. Innovate UK manages the KTP programme and facilitates its delivery through a range of partners including <u>KTN</u>, Universities and Businesses. Each partner plays a specific role in the support and delivery of the programme.

One of our most recent KTP projects is with a company called Westley Plastics, which came about through one of our SME Support Programme AMCASH which is the acronym of our materials characterisation project and is partially funded by the European Research Development Fund (ERDF). Since it can be difficult and potentially cost prohibitive for SMEs to access equipment and testing on their own, the UoB's AMCASH team were able to conduct a range of tests to characterise certain properties in a range of materials and the idea behind the KTP project was to continue and strengthen the research link between the organisations.

The project has allowed for the characterisation of the chemical system utilised on-site via the production of a laboratory-scale system. Through this, the effects of small compositional variations on the overall properties of the materials were determined. Transferring this to an industrial scale has provided a greater understanding of the effects of the individual chemicals, and how the quantities of these chemicals can be altered to tailor products for specific requirements. This has meant that over time certain processes have been modified saving Westley Plastics time and production costs.

Throughout the process, AMCASH have provided support through technical talks at the University attended by a range of local companies. A report was also provided on the potential for other onsite modifications at Westley Plastics.

## Choosing a funding scheme

So why choose KTP?

Knowledge Transfer Partnerships (KTPs) aim to help businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills within the UK knowledge base. They do this by connecting businesses who have an innovation idea with the expertise to help deliver it. Right now around 800 organisations, 100 university departments and over 800 KTP Associates, (talented graduates/post grads who act as the KTP project manager) are involved in KTPs creating positive change and driving innovation. Approximately 300 new roles for KTP Associates become available every year as new KTPs are funded.

Innovation is the lifeblood of any business. But how do you access the kind of expertise needed to make it happen. Budget includes funding for training, T&S and Consumables. However, the most important part is the academic time attributed to the project. An associate is more than just an employee, they will be the dedicated project lead for the duration of the project and the Knowledge transfer from the university means you are embedding world leading expertise into the company.

Ultimately, all our projects aim to deliver:

**Impact:** The project should result in a demonstrable change and quantifiable growth for the company. Wealth should be generated. Employees should be upskilled.

**Innovation:** The project should result in a novel solution to a real problem. This might involve the use of an existing technology in a new field, or the development of a completely new technology.

**Challenge:** Each of the partners should be challenged by the project. This means the company should grow, the KTP Associate should develop as a business leader and the Knowledge Base Partner should generate research that links back to teaching.

## UNIVERSITY<sup>OF</sup> BIRMINGHAM

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European Union European Regional

European Regional Development Fund

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# Made in Scotland: the new wind turbine blade set to make green energy even greener

The Lightweight Manufacturing Centre (LMC), part of the National Manufacturing Institute Scotland (NMIS), operated by the University of Strathclyde, is working with a consortium on an Innovate UK funded project to develop an ultralight and sustainable wind turbine blade that will produce up to 9% more energy than conventional blades.

Developed by Edinburgh based ACT Blade, the new technology involves replacing the heavier glass fibre design traditionally used for wind turbine blades with a lighter composite structure, wrapped i n a sail-like textile.

The LMC, together with the University of Sheffield's Advanced Manufacturing Research Centre (AMRC) and the Offshore Renewable Energy (ORE) Catapult, is supporting ACT Blade to develop the blade and bring it to market.

A lighter blade allows for 10% more length, which, in turn, generates up to 9% more energy from the same wind turbine. The technology could be a disruptor for the offshore wind industry, helping to make offshore wind – already one of the cheapest forms of large-scale energy generation in the UK – even cheaper and easier to harness.

Professor lain Bomphray, Director of the Lightweight Manufacturing Centre, said: "This is the first of its kind in the world. ACT Blade has developed an entirely new type of blade made of composite materials and a textile shell that offers significant cost and sustainability benefits. Manufacturing costs are also 30% lower than for conventional blades and they don't require finishing and painting, which is a time consuming and polluting process. The blade is also partly recyclable.

"We were keen to apply the lightweighting expertise and experience we have here at the LMC to the ACT Blade concept, also helping the team to design, test and ultimately manufacture this innovative technology."

The prototype was completed in February this year and in April, ACT

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Blade announced that it had successfully completed static tests at ORE Catapult's National Renewable Energy Centre in Blyth. The blade is now undergoing testing of one million cycles in each direction, with ORE Catapult engineers monitoring its performance.

Dr Sabrina Malpede, ACT Blade CEO, said: "This ultralight blade has the potential to be completely disruptive to the renewables sector, allowing for substantial cost savings and increased production of wind energy. Working with the LMC has allowed us to tap into its composite capabilities and take our ACT Blade concept from design through to manufacture. Now, we need to see how it performs in a real environment."

Lightweighting refers to the process of making products or parts lighter to reduce costs, energy expenditure and carbon emissions. The principles are of interest across multiple sectors from aerospace and automotive to defence and renewables.

Technical Lead at the AMRC Composite Centre and part of the team that worked on the development prototype blade alongside High Value Manufacturing (HVM) Catapult colleagues at the LMC, John Halfpenny said:

"Through cross-Catapult collaboration we have applied our leading expertise in lightweighting, advanced technologies, composites design and manufacture allowing us to take ACT Blade's innovative idea and develop and improve the design to increase strength, stiffness and stability of the blade, and assist with the novel manufacturing process."

lain Bomphray added: "Wind energy is a natural energy source but even this clean energy source can be made even more sustainable still, by reducing the carbon footprint associated with the manufacture and transport of parts and by making the harnessing of the energy more efficient.

"The LMC was established as a centre of excellence for innovative lightweight solutions, with the aim of helping manufacturing businesses large and small to overcome the challenges of the modern world. Our cross Catapult collaboration working with ACT Blade on this exciting technology has allowed us to do exactly that."

# What is the difference between Net Zero and carbon neutral?

The Greenhouse Gas Protocol establishes a comprehensive framework for measuring and managing greenhouse gas emissions from private and public sector operations, value chains and mitigation actions.

They have produced the world's most widely used greenhouse gas accounting standard. This includes three scopes of emissions.

## Scope 1

Scope 1 greenhouse gas emissions are the emissions released into the atmosphere as a direct result of an activity, or series of activities, carried out by a business. These are often referred to as direct emissions such as heating an office or transporting goods by vehicle to a customer.

## Scope 2

Scope 2 is the energy your business purchases, in other words, the emissions created in the production of energy that is eventually used by the company. This can be zero if you are purchasing 100% renewable energy.

## Scope 3

Scope 3 covers a much wider remit and includes transportation and distribution, waste generated, leased assets, business travel, employee commuting and purchased goods and services through the supply chain, water consumption, and IT equipment and services. It covers all your indirect emissions.

If you'd like to find out more about the methodology and principles behind The Greenhouse Gas Protocol, you can download the Corporate Accounting and Reporting Standards here ghg-protocolrevised.pdf

## **Carbon neutral**

Achieving carbon neutral status only covers scopes 1 and 2. To be carbon neutral, a business needs to offset the carbon they directly emit into the atmosphere and look at the energy they are using, and the emissions associated with this power generation.

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# Never pay more than you should for your energy

We help CBM members take control of their energy costs. Why not get in touch to find out how we can help save your business money?

![](_page_21_Picture_18.jpeg)

07501 221728 liam.conway@cec.uk.com

cec.uk.com

## Streamlined Energy and Carbon Reporting (SECR) – mandatory reporting requirements for eligible companies – don't miss the deadline, contact CBM today for help and support in this

Does your company or any other company in your group meet any 2 of the SECR criteria?

- Turnover of £36 Million or more
- Balance sheet of £18 Million or more
- 250 employees or more

SECR requires that as part of the company's annual accounts (filed at company's house) you must disclose:

- UK energy Use including transport
- Greenhouse gas emissions
- At least 1 intensity ratio (e.g. co2 per ton output)
- Information about energy efficiency action taken in the organisation's financial year
- Methodologies of calculations
- Previous year's figures for comparison

The CBM is offering a SECR service to all its members that fall under SECR umbrella. The expected members rate will be £2,500.00 per year which is far cheaper than the main external consultants. The items included within the service are:

- Data collection
- Assistance in putting systems in place to collect the relevant data e.g. transport.
- Setting a base year and calculating the relevant Co2 figures
- At least 2 meetings to discuss and finalise the energy efficiency narrative that forms part of the report
- Compiling a SECR report that can be added to the company's annual report.

## For more information, please contact our CBM energy specialist Kevin Kirk

- e: Kevin.kirk@thecbm.co.uk
- **t:** 0121 601 6388 **m:** 07789502850

# ISME celebrates 75th anniversary - and looks into the future

The Institute of Sheet Metal Engineering (ISME) has a long and glorious history as a standard-bearer for British industry, and in these volatile and uncertain times, it's reassuring to see it celebrate its 75th year.

ISME's Honorary Secretary Bill Pinfold looks first to the past to note the landmark anniversary, pointing out that its origins lay in the immediate aftermath of World War Two.

"ISME started in 1946 as the Sheet and Strip Metal Users Trade Association when members were firms rather than individuals. It provided a unifying element in a fragmented industry, quickly became active and was very well received," he says.

"The immediate success of SASMUTA saw it convert into an Institute and also introduce individual membership. Anyone could join who worked in the sheet metal industry at any level without the need for formal qualifications.

"Its council then set up regional branches with committees of volunteers who would arrange their own programmes of activities, lectures, works visits and other events. The organisation flourished because it was based on friendship and a willingness to share know-how with other members.

"The years up to the mid-60s saw British industry transformed, and ISME expanded to a record size with something like 1,200 individual and 300 corporate members," says Bill.

"Inevitably, the decline of industrial manufacturing during the 70s and 80s was tough for all organisations, although the institute continued its activities throughout those years, and strengthened its

focus on promoting both the science and the working of sheet metal."

ISME also widened its social agenda by launching an annual dinner dance (known tongue-in-cheek as the Metal Bashers' Ball) and introduced a craft award which

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continues to this day as the annual ISME Skills Competition.

In 1997, as the need to give industry a new national voice became evident, the institute was a driving force behind the creation of the British Metal Forming Trade Association, which later evolved into the CBM.

Today, ISME has the same membership structure and ethic which have been its strengths since its formation, which is a source of great pride to Bill.

"We've always been what I call a 'learned body', providing opportunities for members to exchange ideas and information, encouraging the development of skills in the next generation, and driving innovation across the sector," he says. "Our journal (Oracle) is still published twice a year, featuring technical articles of interest to those in the sheet metal sector, academics and other observers.

"At the same time, we recognise that change is just as vital for ourselves as for industry. We have to remain relevant in the digital age, so we recently widened our presence by setting up feeds on LinkedIn and Twitter, which rapidly gained traction and raised ISME's profile within new audiences.

"Celebrating our anniversary during a pandemic is unfortunately impossible, but as the pace and scale of vaccination increases, we hope to hold our annual Skills Competition in June, and expect to publish a special edition of Oracle and hold

our Metal Bashers' Ball in October."

Details of the events will appear on the ISME website www.isme.org.uk

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## Fastener Fair Stuttgart 2021 postponed: 9th International Exhibition for the Fastener and Fixing Industry will take place from 9 – 11 November 2021 in Stuttgart, Germany

Mack-Brooks Exhibitions has today announced the postponement of Fastener Fair Stuttgart, which was scheduled to take place at the Stuttgart Exhibition Grounds in Germany from 18 to 20 May 2021. The next Fastener Fair Stuttgart, 9th International Exhibition for the Fastener and Fixing Industry, will run from 9 – 11 November 2021. This decision was taken in light of the ongoing Covid-19 pandemic and following conversations with all exhibitors and visitors that have taken place over the past weeks and months. Uncertainties around continued travel restrictions were also a contributing factor to this decision due to the truly international character of the Fastener Fair Stuttgart show.

Fastener Fair Stuttgart is the global flagship exhibition of the Fastener Fair brand. The exhibition is the world's leading meeting place for the fastener and fixing industry. It is part of a series of targeted trade events for the fastener and fixing industry.

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www.fastenerfair.com

## FIA announces Forge Fair 2021 will be rescheduled to October 2021

The Forging Industry Association (FIA) has announced that Forge Fair 2021, North America's largest forging industry trade show, originally scheduled for May 18-20, 2021, will be rescheduled to October 26-28, 2021.

"It has become clear that due to the ongoing COVID-19 pandemic, many of our Forge Fair exhibitor's customers and prospective customers would not have permission to travel and attend trade shows through spring and into early summer. We owe it to our exhibitors and membership to put on the best Forge Fair we can, so today FIA's board made the decision to move Forge Fair to October 26-28, 2021 – still at the TCF Center in Detroit. I want to sincerely thank the TCF Center leadership, Marriott Hotel leadership and our exhibitor services provider Fern for their flexibility in moving our show to the fall," said Mike Gill, Chairman of the FIA.

Forge Fair is North America's largest event dedicated exclusively to the forging industry. Approximately 2,000 forging professionals from across the globe come to Forge Fair to learn about new products, make purchasing decisions and network with each other. No other

industry event offers suppliers and forgers the platform to connect with more qualified potential customers.

More information about Forge Fair can be found at :

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www.forgefair.com

## Made futures: WMG use Internship Programme to support graduates during COVID-19

WMG hosts a long running Internship Programme, currently the programmes is helping the graduate industry which has been rocked by the COVID-19 pandemic. WMG are increasing the number of internships available, and aim to find more than 50 graduates meaningful and paid positions in manufacturing companies. Not only will this help companies, but will also equip graduates with employability and knowledge.

WMG already support more than 400 companies a year with bespoke business challenges. Having listened to business's needs, WMG's Internship Programme supplies companies with an extra dedicated resource to help implement changes that improve their business performance. By doing this, they also provide engineering graduates with real-world experience to lead them into long term opportunities in industry.

While supporting the Made Futures campaign, they are encouraging companies to take on an intern for 8-12 weeks to transform an area of their business and get access to the expert support the WMG supervisors can provide.

## The process

Projects are discussed and scoped out between the company and WMG supervisor. Once the project is agreed, WMG advertise the position externally to recruit a dedicated and enthusiastic intern.

The project is led by the hired student or graduate and supervised by a committed member of WMG's experienced innovation

team. Throughout the project, the intern will have access to WMG's world-leading facilities and equipment to help complete the required work for the company.

By the end, the intern will have delivered defined project objectives with clear benefits to all involved.

## **Example projects**

The WMG Internship Programme has recently supported Raleigh Coatings, one of the world-leading wound dressing and silicone gel coating manufacturers. Taking on two interns, they're building on the support they've already received from the WMG prefunded Digital Innovation for Manufacturing (DI4M) Programme. The interns were able to set up cameras and sensors on shop floor machines in order to collect meaningful, accessible, and real-time data on efficiency and productivity.

The 5D Health Protection Group (5DHPG) Ltd is centred on the innovation of new, smart highly effective antimicrobials and surfaces, antibiofilm technologies, and new biomaterials and diagnostics utilising biosensor technology. They participated in the WMG Internship Programme to help them combine their smart next generation patent protected antibiofilm complexes into plastics to create anti-biofilm plastic for the use in the first instance in the automotive industry, to help curb the spread of viruses and other microorganisms such as antimicrobial-resistant (AMR) bacteria and fungi. Following the success of the project, the company are now in the trialling phase prior to the next stage of development.

Dr Steve Law, Research & Innovation Manager at 5DHPG, commented, "[Our intern] Manisha was a pleasure to work with, and it was really great to have the support of WMG. We're looking forward to continuing our trials and getting our product to market."

If you would like to support WMG in helping young engineers gain work experience while also taking WMG support on a project, get in touch with the team on WMGSME@warwick.ac.uk

# Government must support manufacturers in drive towards electric vehicles

The drive to convert the nation to electric cars by the end of the decade is being driven by new legislation from Whitehall. But FBC Manby Bowdler Senior Associate Ifzal Akhtar – an expert in green technologies who recently published a White Paper on the subject and advises local authorities on the issues – says the Government must back up its legal push with other support if the switch is to be successful.

There is clear evidence that the switch to electric vehicles is gathering pace almost by the day.

New figures show that global sales rose 43% in 2020 and as technology advances – and the price of electric vehicles falls below that of petrol and diesel cars – even faster growth is inevitable.

Already this year we have heard of a battery being developed which can give a 200-mile range on just a five-minute charge, and with the Government legislating to ban the sale of all new petrol and diesel cars from 2030 the rush to convert to electric is likely to become a stampede.

That is why it is now vital that the Government supports its legislative drive with action on the ground and an equally ambitious upgrade of the national infrastructure.

It is essential that there is an integrated, strategic approach from the Government to ensure the country can meet the pace of change being demanded and that manufacturers are able to play their part in this transport revolution.

A good starting point would be a massive upgrade of our National Grid.

Manufacturers around the country know that the grid often represents a barrier to their own innovation, often placing limits on how much power can be drawn and when. If we are to respond to the need to innovate to meet the green revolution the Prime Minister has announced, this must change.

The grid also needs upgrading to cope with the demand a huge increase in the use of electric vehicles will bring - and the charging infrastructure on the ground remains patchy at best. A lack of

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cohesion over the different charging technologies and delivery methods already in place does not help. The Government must act in this area to ensure consistency.

We also need a unified approach to the planning

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 Ifzal Akhtar, FBC Manby Bowdler Senior Associate

process surrounding electric vehicles – such as the integration of charging points into new commercial and residential developments. Planning authorities up and down the country need help to ensure that they are all following the same guidance and that infrastructure does not vary from one county or authority to the next.

Particular attention also needs to be paid to how commercial vehicles will fare under the drive for us all to go electric. While private car owners will probably charge their cars from home or at work, the commercial sector will need to be considered carefully.

Lorries, taxis and coaches will be reliant on a network of highspeed chargers along the motorway network – with supply chains likely to be adversely affected if this is not in place.

There are exciting opportunities in this sector – for example a renewable windfarm could generate the electricity and then supply green transport - but it needs carefully thinking through and a strategic approach.

And further grants need to be available for R&D to encourage new entrants to help make the UK the world's leader in green technology. Investment in university programmes and colleges should happen in order to help grow green cottage businesses.

Ifzal Akhtar can be contacted on ifzal.akhtar@fbcmb.co.uk or 01527 588968. His White Paper can be downloaded at https://www.fbcmb.co.uk/what-we-do/business-services/ commercial-property/electrification-the-challenges-facing-the-uk

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## Looking after your lungs: workplace stats and support

Simon Jukes, Deputy Chief Occupational Health Advisor, MOHS Workplace Health, explains the causes of occupational lung disorders, the ways in which employers can reduce or avoid employees' exposure to hazardous substances, and current health assessment restrictions during the pandemic.

A significant proportion of work related ill health is caused by occupational lung disorders. According to the Health & Safety Executive (HSE), they are responsible for up to 12.000 deaths each year. In addition, approximately 14,000 new cases are diagnosed annually, resulting in an estimated 568,000 working days lost each year.

## **Occupational exposure**

Exposure to some vapours, particles or gases at work may make existing breathing disorders worse or contribute to the development of new problems. There are several well-known substances that which can contribute to breathing problems:

- Asbestos
- Fine respirable silica dust
- Solder fume
- Some types of welding fume
- Some types of two-part paint and foams
- Dust or fume containing chromium, nickel or cadmium.

When considering these types of airborne hazards, employers should follow guidance and industry best practice to control the risks that exposure may bring. Reference should be made to the hierarchy of controls, remembering that provision of Personal Protective Equipment (PPE) should be considered a control of last resort, to be used only when all other options have been considered.

Ways of preventing or avoiding exposure to hazardous substances may include:

- Removing toxic materials (or substituting less toxic ones, if possible).
- Eliminating processes which might cause exposure; or enclosing these processes, providing proper filtration and extraction as required.
- Isolating harmful processes, limiting the number of employees that may be exposed.
- Automating harmful processes, if possible. If not, limiting exposure hours by introducing shorter working periods or rotating jobs.
- Maintenance management to ensure machinery and dust control systems are working appropriately and to manufacturers' specifications.
- Appropriate training and management oversite to ensure that employees understand how to use equipment and controls and to ensure that once trained, they adhere to company policy and instruction.
- Provision of appropriate Respiratory Protective equipment (RPE) where the above controls cannot be implemented fully or effectively.

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## Assessing the risk

Control measures should be formulated as part of an overall, robust risk assessment strategy. The assessment process should identify:

- The potential hazard
- Identification of who may be harmed
- Quantify the risk and identify ways to minimise it
- A record of the findings
- A suitable review period to ensure that controls are effective.

As part of the process, employers may choose to employ an occupational hygienist to obtain environmental samples such as air or noise monitoring. This will help them to identify and quantify which potential hazards put their employees at risk.

## **Occupational health**

Employers may also consider appointing an occupational health provider where there is a high risk of harm, or following advice from a third party. Occupational health providers deliver many services but in this instance, the two most appropriate would be:

- 1. Health surveillance to aid in the early identification of work related illness, allowing prompt intervention to minimise the likelihood of further harm.
- 2. A measurement of the effectiveness of control measures by feeding back the outcomes of specific, in this case respiratory, surveillance, in relation to employee demographics, to identify groups or poor results which may indicate a control failure.

During the current COVID-19 pandemic, health assessments which require procedures that produce aerosols such as peak flow testing and spirometry should be avoided where possible.

Under this regime, fitness is judged according to questionnaires only, with spirometry undertaken, where required, at a later date when it is deemed safe to do so. Currently, the HSE allows respiratory measurements to be deferred for up to 12 months.

For more information, support or guidance get in touch with MOHS Workplace Health: mohs.co.uk.

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## Insurance review in a hard market

If you have never heard the term "hard market" before, you may be about to experience the effects of one at the renewal of your commercial insurance programme. We are entering a period where demand for insurance exceeds supply for the first time in a generation and conditions will become challenging for some clients. This means that policy covers could be restricted, or indeed excluded altogether, and insurance premiums will increase.

Gravity Risk Services continue to be busy discussing and reviewing the insurance programmes of CBM members. Our ultimate aim is to provide the best cover for you, at the most competitive premium, by profiling your risk features. Here are some areas we will review with you as part of our review service:

## 1. Sell yourself to your insurer at every opportunity.

Most businesses have positive attributes that are not known to their insurer. Many have policies, procedures, practices, and other features that insurers would look upon favourably if they were aware of them. Do not keep these to yourself, use them to your advantage.

Make sure you tell us about all loss control/prevention measures in place, policies and procedures, physical protection, contractual transfers, etc. Provide us with copies of any policies, inspection forms, accident reports, training programs, etc.

Remember, not only are insurance companies competing for your business, but you are also competing with all other businesses for the insurers capacity and their favourable consideration.

## 2. Make sure your values and property limits are accurate.

Do not over or under insure! Either way, it could cost you money. Make sure that the values you report to the insurance company are accurate. Accurate values and limits mean you are adequately covered, but you are not paying an excessive amount in premium.

## 3. Periodically check for unnecessary coverages.

Work with your insurance broker to make sure you have all the coverage you need, but also ensure that you are not paying for "bells and whistles" that are not required. As well as unnecessary and potentially expensive extensions to your cover, it is vital that you are also aware of any new policy exclusions and restrictions that have been placed on your cover by the Underwriters.

## 4. Invest time and money in safety and loss prevention.

Insurance companies place the subject of "loss control" very high on their agenda. Many conduct loss control inspections using independent experts. Whether or not your insurer carries out these inspections, you always should. Time and time again, studies show that for every pound spent on prevention, many more are saved in the long run.

Insurers look very favourably upon businesses that take safety and loss prevention seriously. This can often result in yearly premium savings, not to mention the savings achieved if losses are prevented.

We have some insurers who are prepared to provide you with a monetary contribution to risk improvement costs should they recommend an increase in, for example, fire protection or security.

## 5. Loyalty to your insurer is important but speak to another insurance specialist occasionally.

There are pros and cons to staying with the same insurance company. However, it is generally a good idea to reassess your insurance programme every two to three years, or in the event that you have significant premium increases or unsatisfactory service. As satisfied as you may be with your insurer, from time to time you need to make sure they are being competitive. As insurers are increasing premiums, and restricting covers, we would recommend 2021 as a good year to obtain alternatives.

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 Richard Gibson, Director, Gravity Risk Services.

## 6. Speak to Gravity Risk Services

Gravity Risk Services would be delighted to review your insurance programme. We have many years of experience working with the CBM and have developed a range of member benefits exclusive for CBM Members.

To ensure that a review can be done in plenty of time it is recommended that members contact us at least 90 days before the renewal/expiry date of their current policies. This gives us the time to make submissions to the correct markets, for underwriters to consider your account, and for negotiation. This will put your business in a much better position than the businesses that wait until the last minute.

For further information on the benefits of our insurance facility please contact Richard Gibson, Director on 0116 478 2999 or CBM@gravityriskservices.co.uk

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## Manufacturer & Supplier Membership Directory

## Fasteners

A.M.C. UK Fasteners Ltd	t: 01536 271 920
West Midlands NN17 5XZ	www.amcukfasteners.co.uk
Atlas Copco IAS UK Ltd	t: 01244 837 220
Flintshire CH5 2NX	www.henrob.com
Barton Cold-Form (UK) Ltd	t: 01905 772 021
Worcestershire WR9 0LP	www.global.optimas.com

**Brooks Forgings Ltd** West Midlands B64 5QJ

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Established in 1960, one of the UK's leading manufacturers of forged and machined components. With our extensive in house manufacturing capabilities we are able to produce standards and specials to suit customer specific requirements.

> t: 01384 563 356 f: 01384 563 357

e: enquiries@brooksforgings.co.uk

www.brooksforgings.co.uk

**Clevedon Fasteners Ltd** West Midlands B75 7DG

![](_page_29_Picture_10.jpeg)

West Midlands based UK manufacturers of fasteners and customer specific. Specialists cold forgings. ISO9001 and ISO14001 approved, Covid Secure.

	t: 01	21 378 0619
	f: 01	21 378 3186
	e: sales@clevedon-fast	teners.co.uk
	www.clevedon-fa	steners.co.uk
Complex Cold Forming Ltd	t: 01	21 556 5700
West Midlands WS10 7SE	www.complexcole	dforming.com
Cooper & Turner Ltd	t: 01	142 560 057
Yorkshire S9 1RS	www.cooperar	dturner.co.uk
Griff Chains Ltd West Midlands DY2 0ED	t: 01 www.grit	384 569 415
Howmet Fastening Systems Redditch Operations (Linres	and Rings, t: 01 ad Ltd)	527 525 719
Vorcestershire B98 / ID	www	howmet.com
Howmet Fastening Systems Shropshire TF3 3BQ	Telford t: 01	952 290 911 howmet.com
JCS Hi-Torque Ltd	t: 01	787 376 212
Suffolk CO10 2YH	www.jcshi	-torque.co.uk
Leggett & Platt Component	s Europe Ltd t: 01	282 814 054
Lancashire BB18 6JA	www	w.leggett.com
Leggett & Platt Component	s Europe Ltd t: 01	226 707 500
South Yorkshire S72 7GH	www	w.leggett.com
Smith Bullough	t: 01	942 520 250
Lancashire WN2 4HD	www.smith	bullough.com
SPS Technologies (T.J. Brod	oks Div.) t: 01	16 274 4886
Leicestershire LE4 9HX	www	.spstech.com
Stanley Engineered Fasteni	ng (Avdel) t: 01	925 811 243
Cheshire WA1 4RF	www.stanleyengineeredf	astening.com
TR Fastenings	t: 08	845 4811 800
East Sussex TN22 1QW	www.trfa	stenings.com

## Forging

Abbey Forged Products Ltd	t: 0114 231 2271
Yorkshire S6 1ND	www.abbeyforgedproducts.co.uk
AKS Precision Ball Europe Ltd	t: 0191 587 0000
County Durham SR8 2PP	www.aksball.com
Bedford Steels	t: 01246 299 100
Yorkshire S4 7YS	www.bedfordsteels.co.uk
<b>Bifrangi UK Ltd</b>	t: 01522 585 800
Lincolnshire LN2 5DT	www.bifrangi.co.uk
Blaenavon Forgings Ltd	t: 01495 790 345
Gwent NP4 9XG	www.forgedsolutionsgroup.com
Brockhouse Group Ltd	t: 0121 556 1241
West Midlands B70 0SN	www.brockhouse.co.uk
Brookes & Adams Ltd	t: 0121 360 1588
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![](_page_29_Picture_16.jpeg)

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	f: 01384 563 357
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South Yorkshire S75 3TA	www.koyo.eu
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Carlo Salvi UK Ltd - Hatebur	t: 01952 587 730
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Germany	www.doerken.com
FNsteel Ltd	t: 07969 099 041
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Phillips Screw Company	t: 0754 081 1962
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Staffordshire WS11 9PU	www.rlstooling.co.uk
The Bifurcated & Tubular Rivet (	Company t: 01296 314 300
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NEW Condat Ltd	t: 01302 770088
Doncaster, DN 10 6EZ	www.condat-lubricants.com
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Germany D- 72172	www.dreher.de
Hauck Heat Treatment UK Ltd	t: 0121 327 2020
West Midlands B6 7EE	www.hauckht.co.uk
Institute of Sheet Metal Engineering	t: 0789 149 9146
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Ryeland Toolmakers	t: 01908 647 746
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Altair Engineering	t: 01926 468 600
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Control Energy Costs Ltd	t: 07501 221 728
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London SW7 2AZ	www.imperial.ac.uk
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Sammet Consulting	t: 07885 489 176
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## INSURANCE SERVICES FOR CBM MEMBERS

![](_page_34_Picture_1.jpeg)

![](_page_34_Picture_2.jpeg)

## OUR APPROACH

Gravity Risk Services have partnered with The Confederation of British Metalforming to provide cost effective insurance solutions to their members.

Choosing the right broker to review your insurance programme can be difficult. The insurance market is intensely competitive and insurance brokers come in many shapes and sizes. Some exist by competing solely on price, and the quality of their advice and level of understanding can often be limited. It is vital to consider a broker who has the specialist knowledge and understanding of your industry and the issues you face. If an insurance broker cannot understand your business, the processes you undertake, the exposures of your business both internally and externally, how can this information be presented to insurers to obtain competitive pricing and bespoke policy covers? It is very important that insurers know all about your business so they can provide the best cover and the best price.

Gravity Risk Services have had connections with the Confederation of British Metalforming (CBM) for nearly 20 years. We understand their industry with a passion and know how to design the correct Insurance programme for their business.

"We have had extensive discussions with Gravity Risk Services regarding this new member service and are confident this is a service that will benefit members when reviewing and renewing their insurance programme. Not only has it the potential to save money, but it can enhance policy covers too. We recommend all members speak to Gravity Risk Services before renewing their present insurance arrangements."

Geraldine Bolton, Chief Executive of the CBM

![](_page_34_Picture_9.jpeg)

## **EXCLUSIVE MEMBER BENEFITS**

As a member of the CBM you have access to a range of insurance services that include:

- 10% minimum savings on current insurance policies next renewal premium guaranteed\*
- Free independent assessment and 'due diligence' of your current business insurance arrangements (usually charged at £1,000 + VAT)
- Discounted 'Gravity Business Assist' support package including Health and Safety software legal support service and Directors & Officers Liability insurance
- An Agreed Service Level Agreement
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- Discounted HR and H&S services including gap analysis audits, consultancy support and an online self service tool, HR Partner
- Access to all partnership support services (Full details on request)

\* subject to agency agreement in place with the current insurer and no change in risk exposures

![](_page_34_Picture_20.jpeg)

![](_page_35_Picture_0.jpeg)

## METALLURGY FOR NON-METALLURGISTS TUESDAY 23RD AND WEDNESDAY 24TH MARCH 2020

THE METALLURGY FOR NON-METALLURGISTS PROGRAMME IS A TWO DAY COURSE DESIGNED FOR ANYONE WHO NEEDS TO KNOW MORE ABOUT METALS AND PROCESSES USED IN THEIR COMPANY.

## **OUTLINE OF COURSE CONTENTS**

- Metal properties
- Metals structure
- Ore smelting
- Metals making & casting
- Rolling and metal forming
- Mechanical Testing and NDT
- Hot & cold working/shaping/forming
- Heat treatment
- Metal alloy classification
- Corrosion

## **BUSINESS BENEFITS**

The Metallurgy for Non-Metallurgists programme will enable participants to:

- communicate more effectively with technical colleagues
- be better informed and more efficient when dealing with customer enquiries
- avoid mistakes caused by lack of understanding
- understand the production, processing and testing of relevant metals and alloys
- appreciate the properties and applications of relevant industrial alloys

## **PROGRAMME CONTENT**

Courses commence with delivery of core knowledge components and progress onto a series of extended knowledge modules.

## PROGRAMME DELIVERY

Courses take the form of participative workshops, led by an expert metallurgist with extensive metals industry experience.

The content, length and structure of the course can vary according to individual company needs.

A folder of course materials is supplied and all attendees will receive a certificate after completing the two day course.

## **COST**

CBM members £325 + vat per person, Non Members £445 + vat per person

Places are limited, so to avoid disappointment reserve your place(s) now contact: Melinda Jean at the CBM on 0121 601 6350 or email: melinda.jean@thecbm.co.uk

NATIONAL METALFORMING CENTRE, WEST BROMWICH, WEST MIDLANDS B70 6PY

The above course dates are provisional. If you would like to express an interest to attend, please email Melinda Jean, melinda.jean@thecbm.co.uk