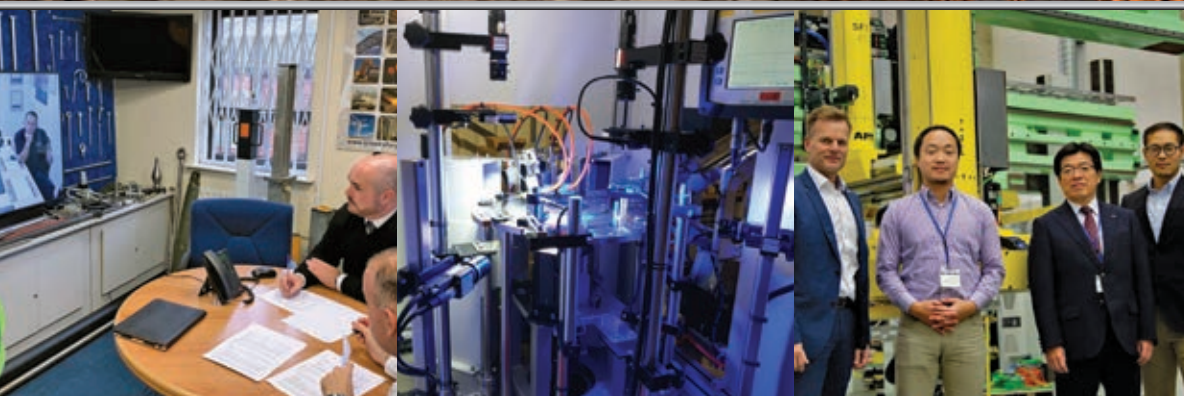


METAL MATTERS

Making sure our voices are heard

CBM lobbies Government
to deliver crucial
Covid-19 support
for our members

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FORGING

Forging Sector
support goes
up a gear

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FASTENERS

Clevedon installs
state-of-art
sorting machine

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SHEET METAL

Unipres has decided to
invest in two complete
press hardening lines
from AP&T

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NEW TECHNOLOGY

Tenfold growth in
robot numbers
forecast by 2030

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BROOKS FORGINGS



FORGING, BENDING AND FABRICATION SERVICES OVER 20 MANUFACTURING PROCESSES



Robot Forging



Upset Forging



Drop Forging



Counterblow Forging



Open Die Forging



Hand Forging



Hot & Cold Bending



Hot & Cold Pressing



Swaging & Pointing



Machining



Fabrication & Assembly



Flash Butt Welding



Forging Simulation



Quality Control



Warehousing



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It's fair to say that the last few months have been a time we will never forget - for all the wrong reasons. Since I last wrote to you, I - like many - know people who have sadly died; been seriously ill in hospital; or with milder symptoms have self-isolated with the worry it could escalate to something more serious. We are not out of this yet, but we hope the Covid-19 cases will continue to decrease as the government relaxes the strict measures it had to put in place

Once again, on behalf of all CBM Members, I want to thank all NHS workers, from the front line through to all the support teams. We are very proud of you, as the nation's applause every Thursday has so clearly signalled. That applause may be ending but your work will not - must not - be forgotten. We should also be grateful to everyone the many in essential roles that have provided vital services and kept the nation ticking over in these very difficult times

As we slowly emerge from lockdown, there is naturally some trepidation in all areas. Whatever actions we take must be done safely. They must take into consideration, not only our own wellbeing but also that of others, whether family, friends, neighbours, work colleagues or simply those we pass in the street or shop.

This safety-first approach has rightly been paramount in thoughts of our members as they have gradually returned to work. CBM has been successful in sharing information between members to assist them all in navigating their returns to work. We have managed to address most companies' questions. When we couldn't immediately, we have found the answers and responded, where necessary taking those questions to BEIS.

While the safe return to work has been at forefront of everyone's thoughts, CBM has also been very active in addressing the ongoing concerns over the economic impact on member companies and their employees. We have ensured members have timely and detailed information on the Job Retention Scheme, on government loan schemes, on VAT and NI holidays, as well as rates relief.

All these Government interventions were welcome but not without issues. The CBM team has been active in ensuring that our members concerns were strongly represented, through direct communication with BEIS during our twice weekly calls, and also adding our weight to the lobbying of the CBI, MakeUK and SMMT. Members' feedback, through the twice weekly calls, our regular sector meetings, as well as emails and phone, have provided case studies to form the foundation for effective lobbying - proving what we can achieve when we work together.

On **CJRS** we have worked hard to understand how it will work and advised members all the way through. Our lobbying has helped bring the extension but, just as importantly, the flexibility for our members to bring workers back to match demand. That is especially important for the smaller SMEs who do not have the diversity of resources of the larger companies. The latest announcement by the government has been welcomed by our members and the tapering of the scheme is more generous than many expected, giving longer support as sales slowly recover. Despite the much-welcomed Government intervention, redundancies will not be averted. What we have to do now, is make every effort to keep them to a minimum, retaining the crucial skills-base the UK will need to prosper again in the future.

The situation with **CBILS** and **CLBILS** has been extremely difficult and we have constantly beaten the drum that these schemes are not working well enough for our members. The main issue was

the viability test on the small CBILS loan, where even today fewer than 50% of company applications have been accepted. The larger CLBILS has also not gone well, and support for the 'squeezed middle companies' was very late. Even now, the scheme has hardly taken hold, despite Government increasing the loan scope. The scheme has been hampered by EU state aid rules relating to 'undertakings in difficulty' - administered to the letter in the UK but seemingly flouted in several other European countries. This, unacceptably, leaves UK companies in an uncompetitive position compared to European competitors.

On **Trade Credit Insurance** the CBM has been tenacious in chasing down a resolution to this critical issue, underestimated by many major lobby groups, and initially ignored by Government. We put immense pressure on all the major lobby groups to bring this to fore, getting them to understand the impact on the supply chain and company cashflow if decisive action was not taken. We provided numerous case studies and additional supporting evidence to underline the devastating effect if this issue was not resolved effectively. We believe the changes now promised by Government can bring TCI and invoice discounting back close to pre Covid-19 levels, and secure as many jobs long term as CJRS has to date.

Our members also asked us to pursue the issue of **Mortgage Holidays** when the latest extension to the CJRS was announced in order to assuage understandable employee concerns. CBM raised these concerns with BEIS, which although initially unaware of the issue, pursued it energetically on our behalf and came back directly with a positive response.

There is still a lot of work to do and the CBM team has never been busier. We are constantly seeking information from the Government and other lobby groups to support and inform our members. Our twice-weekly meetings with BEIS, involving a core group of members, continue, as do the regular sector meetings and webinars to share information with, and gather feedback from, our members.

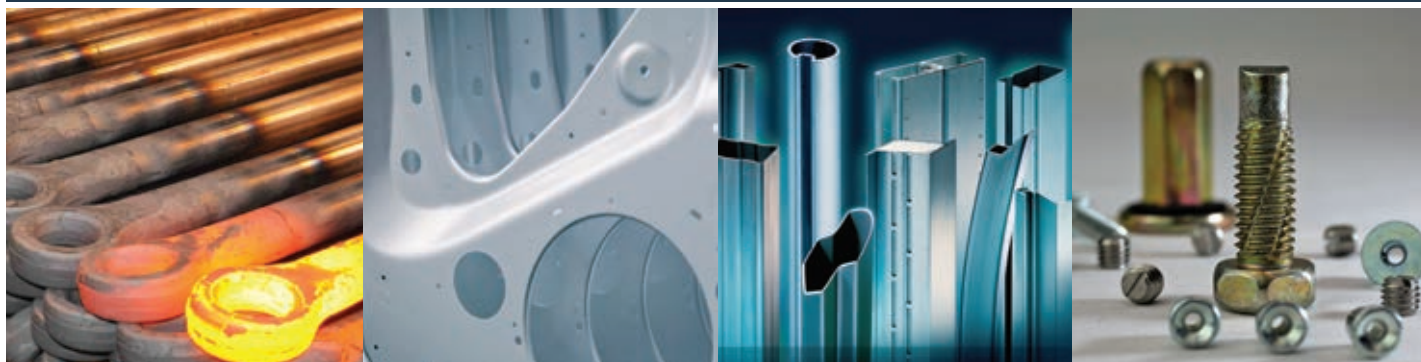
Now our attention has turned to pushing the Government for forms of stimulus to aid all sectors, which will be critical in supporting growth and recovering market activity. With the ongoing trade negotiations with the EU in the background, it is clear manufacturing cannot afford a No Deal on top of the severe disruption caused by Covid19. UK manufacturing needs the smoothest possible Brexit path.

So, we still have plenty of battles ahead, some potentially even bigger than those we have already experienced. The economy has already taken a massive hit with more to come. It may take a long time but we will rebuild our economy. The CBM is behind its members for the long haul, remaining absolutely committed to your support, and to protecting your companies and the jobs of your employees.

I will finish as I did in my last message: Look after yourself and your families' health - nothing is more important. We will get through this. Life may not ever be the same but, whatever the 'new normal' proves to be, there will be a way forward.

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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THE VOICE OF BRITISH METALFORMING

The Confederation of British Metalforming (CBM) represents the interests of manufacturers of forgings and pressings, fasteners, as well as cold rolled and sheet metal products – the building blocks for the UK's industrial base.

As the coronavirus pandemic (Covid-19) has swept across the British industrial landscape, the CBM has never been so active in supporting its members and, in particular, feeding back their concerns to the UK Government.

Core to CBM's effectiveness in these deeply challenging times has been the solid links its president, Stephen Morley, and CEO, Geraldine Bolton, have forged with the UK Department of Business, Energy and Industrial Strategy with which the CBM currently holds twice weekly conference calls. "These calls, which include a cross section of our members to provide first-hand feedback and comment, have been vitally important," says Steve Morley. "They mean we have the earliest and clearest understanding of Government intentions in relation to the Covid-19 crisis generally and support for business specifically, as well as providing a clear insight into the practical implications in the manufacturing industry of Government strategy."

The CBM also works closely with major UK industry bodies, including the CBI, Make UK and SMMT, which through their representation of a huge number of British manufacturers have direct and regular access at the highest levels of UK Government strategy making.

CBM members are regularly informed on all developments relevant to their businesses through email bulletins, the CBM website news and events pages, and brief weekly video conference meetings organised by CBM's sector specialists. "The weekly video meetings are invaluable," explains Geraldine Bolton. "Not just in providing members with immediate updates in this rapidly changing business environment, but also in hearing concerns that can be fed back to the government. The meetings also provide an excellent forum for sharing best practice, particularly for safe working as members either maintain output or plan to return from temporary furlough."

CBM has also intensified its seminar programme and successfully translated them to online delivery. Recent informative webinars have included providing guidance on employee wellbeing, particularly those working from home, and other health and safety and HR issues. The forging sector is about to present its second online workshop, focusing this time on putting lean manufacturing into action and aligning business strategy to KPI metrics. Other webinars will focus on cyber security, recognising it as an increased risk in current conditions, and continued support on HR and health and safety issues.

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MANUFACTURING OUTLOOK SURVEY – A SNEAK PEEK AT THE HEADLINES

By Johnathan Dudley, Midland & South West Managing Partner and Head of Manufacturing Business Crowe UK LLP

Over late autumn and winter in conjunction with the Confederation of British Metalforming (CBM), we gathered the opinions of the manufacturing industry at a time of significant commercial and political change. The report is shortly to be released but we can now share the main headlines with you.

Many in the sector remain bullish about growth prospects in 2020, and it is clear that businesses are all looking to the same issues that will make-or-break their growth target ambitions for the year ahead. It comes down to three T's: trade, tax and talent.

Manufacturing businesses have complex and wide-ranging supply chains, that are not bound by geography and sector, so the picture is complex. Clearly the cost and supply implications of a major economic event like Brexit will need to be monitored, but it may be that reduced friction with non-EU trade partners could counterbalance any rise in friction in terms of EU trade.

On the policy front, our survey already shows that the government must do more. As well as an industry desire for export incentive reform to make the regime more effective, there is a 'communications job' to be done to fix awareness issues. HMRC stats show only 1% of companies are claiming R&D cash tax credits, it is clear that businesses are not taking full advantage of this valuable relief.

There also need to be effective incentives to encourage investment in modernisation and automation that are no longer linked to 'job creation' which has discouraged productivity improvement based investment, in the past and which is inappropriate in a sector with clear skills and manpower shortages and which could be bridged by embracing 'Industry 4.0' technology.

Whilst skills shortage has impacted the sector over the last few years, it is clear that this has now progressed to become a major threat to growth. Limitations both perceived and real, largely driven by the possibility of more restrictive movement post-Brexit, on the one hand will be countered by wider access to non-EU nationals. This is subject of course to the detailed implementation of proposed 'points based' system included in the Conservative election manifesto.

Key findings



PARTNERING FOR BETTER APPRENTICESHIPS

Fastener manufacturer Howmet Fastening Systems (HFS), based in Telford Shropshire, is working with Carlo Salvi UK, also based in Telford, in an innovative way to offer their apprentices exposure to a wider set of engineering skills and learning experiences.

HFS manufacture and supply LockBolts and structural blind fastening systems from their Telford factory, and employ apprentices every year, giving them the opportunity to experience all aspects of engineering and manufacturing from raw material to product design to and from machine maintenance to quality inspection. Each apprentice spends time in key departments learning the fundamentals of the business, exposing them to a variety of management styles and departmental challenges and successes.

Carlo Salvi UK are a supplier of fastener machinery and equipment, including Brankamp process monitoring equipment, and offer a similar apprenticeship program.

In order to widen the range of skills being taught at each company, HFS and Carlo Salvi have formed a partnership to bridge skill gaps together. It is a reciprocal agreement whereby apprentices for each company, who all attend the MCMT (Marches Centre of Manufacturing & Technology) training facility in Bridgnorth, spend time in each other's companies in order to share and advance knowledge and training.

'The idea is to enable our apprentices to learn skills through the training sessions that each company alone would not be in a position to teach them' says Jonathan Craven, Operations Director for HFS. 'The partnership really helps widen the apprentice's skill set and encourages awareness of the way different businesses work.'



The idea is to enable our apprentices to learn skills through the training sessions that each company alone would not be in a position to teach them.

Jonathan Craven, Operations Director for HFS



SAMMET CONSULTING

At SAMMET Consulting we have a strong purpose to provide positive, powerful solutions to engineering problems, designed to drive processes and organisations towards true global leadership. Intelligent innovative solutions, developed through inspired cooperation with the best minds in the industry. SAMMET's independence and commitment to absolute confidentiality provides real trust that the knowledge and its associated value is safeguarded for its clients.

SAMMET started trading in November 2019, looking to solve your forging and heat treatment problems, in or around the following areas:

- Throughput and quality improvement through automation of: process data collection and analysis, hot inspection, non-contact inspection or die overlay
- Up-time improvement through effective risk-based inspection
- Improving die life through definition of die failure mechanisms
- Seamless new equipment integration (purchase- installation- client or third party approvals)
- Strengthening customer relations through independent process or component failure investigation and reporting

- Efficient and effective new part introduction management, including client validation/approvals
- Quality and Process Improvement through competent auditing to the relevant standard/s
- Improved recruitment and technical personnel retention through intelligent one to one mentoring and SMART training plans.

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HELPING TRADITIONAL FACTORIES BECOME FACTORIES OF THE FUTURE, ONE QUICK WIN AT A TIME...

FORGING SECTOR SUPPORT GOES UP A GEAR – START TAKING ADVANTAGE TODAY

As part of the ongoing work the CBM is doing to support forging businesses, we have a tailored programme of activity coming up. Our aim is to help members be in the strongest possible position when it comes to capitalising on market trends, innovation and best practice (as well as managing costs and margins). Here are various events in the pipeline – don't miss out on these valuable opportunities.

Site visit from the CBM forging consultant

Derek Bond has joined us as the CBM Forging Consultant. He's meeting with forging members to understand their specific challenges and identify new ways the CBM can support them.

Derek has visited 70% of forging members so far, and is aiming to complete these one-to-one meetings in the coming months. Please contact him on Derek.bond@thecbm.co.uk to arrange a convenient time, if you haven't yet had a visit.

Innovation support and university links

The UK forging market is diverse, with CBM members filling niche markets. However, there are common issues, and margins across the sector remain very tight. This means that capital programmes and technology investment need to be intelligent – underpinned by a clear understanding of the expected benefits and the timescales for achieving tangible performance improvements.

We analysed productivity levels across CBM forging members. When you look at turnover per employee (and members range from 14 to 500+ staff), the leading companies are the ones introducing advanced technology and collaborating with academia on innovation.

Company ref	Sales/employee (£'000)	Growing	Stable	Declining	+ve investment	Technology	Academia
4	200	Yes			Yes	Yes	Yes
6	187		Yes		Yes	No	Yes
9	166			Yes	Yes	Yes	Yes
10	163	Yes			Yes	Yes	Yes
12	171		Yes		Yes	Yes	No
7	118			Yes	Yes	Yes	Yes
8	100	Yes			Yes	Yes	Yes
1	92	Yes			Yes	No	Yes
5	91		Yes		Yes	No	No
2	85		Yes		No	No	No
11	71	Yes			Yes	Yes	No
3	69		Yes		No	No	No

Table 1: Sample overview of sales/employee performance levels for a selection of CBM members

Through CBM membership, you have access to innovation support and university links that will help you make informed investment decisions and maximise impact on productivity.

Contact derek.bond@thecbm.co.uk to learn more about how to access this in more depth.

AFRC Open Day at Factory 2050

AFRC open days were very popular last year, giving members a unique opportunity to look at the AFRC's Factory 2050. We're planning other forging sector visits in the coming months, so keep an eye out in e-newsletters and Metal Matters for the confirmed date.

Specialist advisory and contract support database

Several members have asked for trusted contacts who can provide support for specific requirements.

We're building a dedicated database of service contacts, which you'll be able to access via the Member Log-in on the CBM website. This will be live for use in 2020, so watch for updates.

Forging workshops for knowledge sharing and best practice

As market conditions tighten and securing new business growth becomes more competitive, forging companies are understandably protective of their market share. However, there are common areas of interest across the sector, and networking and knowledge sharing benefit you and your peers.

We're running a series of forging workshops throughout 2020. They're a valuable opportunity to learn about innovation, academic research, technology advancement and good business practice methodologies – helping everyone collaborate to improve business performance and competitiveness.

Based on member feedback, workshops will be held in a variety of locations (including South Yorkshire and the Midlands) to simplify logistics. The initial workshop programme will focus on

- Automation and Technology
- Business performance metrics and lean manufacturing
- Forging-specific topics, e.g. dies and tools, consumables, simulation and training
- Future leaders networking

Keep an eye out for the upcoming dates. Please contact Louise at louise.campbell@thecbm.co.uk if you have any questions or workshop topic requests.

We look forward to see you at these upcoming events – and helping forging members get even more value from the CBM.

VIDEO CONFERENCING SUITE REDUCES CARBON FOOTPRINT & INCREASES PRODUCTIVITY

The Brooks Engineering Group is now based at several locations throughout the Midlands and deals with an ever-growing global customer base.

As part of our Green & Clean Initiative to reduce carbon footprint and goal to improve communication across our group we have invested in a video conferencing suite at each of our 3 sites in the Midlands. With this system in place, we can communicate simultaneously using video and audio, screen share, display or share documents or simply conduct a company presentation.

Customers can also benefit from the system and its features. Upon receipt of an email invitation, they will be able to join a conference to discuss new or current projects and any aspects of quality and production from the comfort of their desks. We can see this benefiting our international clients by reducing unnecessary travel time and expenses that would include multiple flights and several days of accommodation for a visit to the UK.

The system can also be accessed via tablet or laptop by our representatives or management team when they are on the road, at home or on holiday abroad, meaning an impromptu meeting can be conducted as and when required.

We have already seen many positive benefits from using video conferencing and these include a substantial reduction in travel

requirements between our sites, meeting our aim to reduce the carbon footprint caused by unnecessary travel. It has also increased overall efficiency and productivity with our internal production, quality, and sales team.



GOVERNMENT PLANS FOR UK BORDER

Michael Gove confirmed that all goods entering Great Britain from the EU will be subject to the same checks and controls as goods coming from any other country in the world.

Mr Gove reiterated the Prime Minister's previous assertion that the UK will leave the customs union and single market at the end of 2020. The Government will not seek alignment with the EU on trade, which means there will be new processes with which exporters and importers of EU goods will need to comply, whether or not a new trade agreement is reached.

Businesses will need to prepare for life outside the EU. The Department for BEIS says it recognises that putting in the same controls as the UK already has for the rest of the world will present significant challenge for businesses and government, and it wants to work with CBM and its members to ensure our views are represented in this development.

Government will continue to design customs and border arrangements that ensure legitimate goods flow into the country and delays are minimised. This will include examining how Freeports may offer the opportunity to trial innovative customs technologies in controlled environments. A public consultation on Freeports has been launched.

www.gov.uk/government/consultations/freeports-consultation

BEIS says up to ten Freeports will be introduced across the UK; national hubs for trade, innovation and commerce, helping the UK form partnerships with old allies and new friends around the world. Freeports can unleash the potential of proud historic ports, regenerating communities across the UK - attracting new businesses, spreading jobs, investment and opportunity.

Customs intermediaries will be crucial in ensuring businesses are ready to make customs declarations. HMRC has extended the deadline for businesses to apply for customs support funding to 31 January 2021.



Further details on the speech delivered by the Chancellor of the Duchy of Lancaster to the UK Border Conference on 10th February can be read here:
www.gov.uk/government/news/government-confirms-plans-to-introduce-import-controls

FATIGUE FAILURE OF AN M16

Bolting Technology News from Bolt Science

Investigating fastener failure can provide invaluable insight into the correct application and assembly of fasteners.

In the image below we can see the failure of an M16 flanged fastener of strength grade 12.9. This fastener failed as a result of fatigue failure.

Following a detailed investigation of the assembly, the torque specification was too low. The torque specified was 180 Nm that resulted in a preload of 71000 N. This preload was insufficient to prevent the forces applied to the bolt opening the joint causing high alternating stresses to be sustained by the bolt.

The problem was resolved by increasing the tightening torque applied to the bolt so that a higher proportion of its yield strength was used.

The strength of the fastener was not being utilised, reducing the preload that the fastener was capable of providing. A tightening torque of 300 Nm was subsequently specified that resulted in a preload of 119000 N that was sufficient to sustain the forces applied to the joint.



- UNTIGHTENING OF NUTS & BOLTS

If a nut is untightened immediately after being tightened, the torque needed to untighten it will be less than that needed to tighten it.

This is due to the portion of the torque which actually stretches the bolt always acting in the untightening direction. Hence when a nut is immediately untightened, usually about 20% less torque is needed than was needed to tighten it in the first place.

As the time passes from when the nut was tightened, the torque needed to untighten it tends to increase. After half a day or so, the release torque can be typically up 10% greater than the tightening torque. This is due to a number of effects including embedding of the contact surfaces and changes in temperature affecting the friction conditions. Such effects typically increase the friction and hence a greater release torque is required. Because of such friction changes, the use of torque auditing methods (measuring the backoff - or crack-off torque or the tightening or crack-on torque) to assess if the bolt being tightened correctly is only accurate if it is completed shortly after the assembly was tightened.

The greater the changes in the temperature and environment experienced by a bolted joint, the more rapid are the changes in the friction and subsequent change to the release torque. In sub-sea applications, sustaining elevated or low temperatures, significant changes in the friction conditions can rapidly occur. The properties of any lubricant will change over time, which in some applications, can lead to galling of the surfaces resulting in a dramatic increase in the release torque i.e. by as much as 50% to 100% of the tightening torque.

Over a prolonged time period, oxidation and corrosion of the thread interfaces and nut face can occur making removal of the nuts problematic without destroying the bolt. In such circumstances nut splitters and similar measures are needed for nut removal.

When hydraulic torque tightening tools are used, problems can occur in that the tool used to tighten the nut cannot remove it. Hence it is normal practice for the tool to be selected based upon 80% of its rated torque value to allow some margin for subsequent nut removal. Even with such an allowance, a larger rated tool may be needed to remove the nut under certain circumstances.

To assist in preventing problems, avoid having too much thread protrusion past the top of the nut (more than two thread pitches unless hydraulic tensioners are used). Also consider the use of protective caps that pass over the thread/nut to protect the surfaces from the effects of corrosion and incidental damage.

Bolting Technology News is published with the kind permission of Bolt Science Limited.

Bill Eccles formed Bolt Science in 1992. The company is a provider of independent technical expertise in bolted joint technology. Bill has extensive experience in the design, analysis and installation of bolted joints and has published several technical papers on the subject. He has a Doctorate in Engineering on The Self-Loosening of Threaded Fasteners and has delivered training courses around the world on the analysis of bolted joints and bolting technology.

To find out more please visit www.boltscience.com.



CLEVEDON INSTALLS STATE-OF-ART SORTING MACHINE

CBM member, Clevedon Fasteners Ltd, has taken delivery of a latest, state-of-the-art optical sorting machine.

This is Clevedon's most advanced optical sorter having four cameras and an Eddy current checking station which can be used for comparative testing; ensuring parts are to the correct heat treatment specification (property class).

This is Clevedon's most advanced optical sorter – having four cameras and an Eddy current checking station which can be used for comparative testing; ensuring parts are to the correct heat treatment specification (property class).

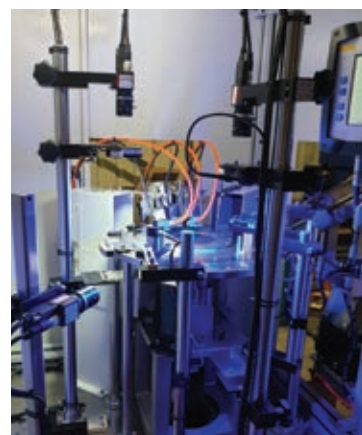
As Clevedon's sales of threaded parts in general continue to increase, with clinch studs in particular, the Sutton Coldfield company wanted to provide customers with a greater level of security regarding the product's property class – rather than simply supplying a second-party heat treatment certificate.

The cameras not only check for contamination and dimensional inaccuracies, but also incorrect aesthetic elements such as misshapen heads, clinch ring defects, and colour – as well as lettering and other non-dimensional problems.

The parts which pass the camera and Eddy current scrutiny are fed directly into the dispatch boxes ready for shipment to the customer. This ensures no post-sort contamination. The combination of these technologies ensure Clevedon moves nearer to its goal of defect-free products, and to build upon its already impressive quality record.

Last year Clevedon celebrated its 80th anniversary, founded by Bert Godwin and Fred Wood as Clevedon Rivet and Tools in 1939. The company developed carbide steel cold-forming tooling and ventured into aluminium alloy rivets, which were installed on, amongst other wartime aircraft, the iconic Supermarine Spitfire. The company has a fascinating history, well worth a read on its website www.clevedon-fasteners.co.uk.

Today, Clevedon Fasteners Ltd specialises in the manufacture of cold-formed components for use in the commercial and automotive markets world-wide. From its roots in the aircraft industry it has always maintained the disciplines of technical competence, combined with outstanding customer service to forge a reputation for quality, reliability and rapid response to customer needs.



CLEVEDON



Smart decisions. Lasting value.

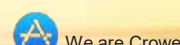
Covid-19 Funding Support

Support measures and how we can help:

- CBILS and CLBILS - advice, applications and backup information including forecasts.
- Coronavirus Job Retention Scheme (CJRS) - advice on furlough and on claiming the grant
- Calculations of furlough grant and managing the process
- Advice and assistance on cash flow management including securing tax deferrals

Crowe are able to offer a direct route to most lenders and are therefore able to reach key decision makers more often than not.

To discuss the measures available for you and your business based on what we know at present please speak to your usual Crowe Contact or email covidfundingsupport@crowe.co.uk



Audit / Tax / Advisory / Risk

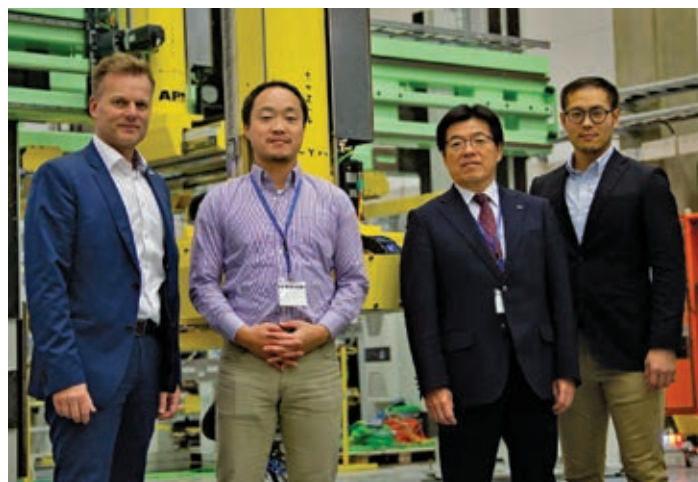
Japanese Unipres supplies many of the world's major car manufacturers with car body parts made out of pressed sheet metal. The global group has now decided to invest in two complete press hardening lines from AP&T. The first of the two lines will begin operating at Unipres's British manufacturing center in Sunderland at the beginning of 2020. The second line will be delivered to the group's French plant in Biache Saint Vaast in March 2020.

"AP&T's reliable technology, extensive experience of press hardening and ability to provide quick service are some of the most important reasons underlying our decision to collaborate with AP&T," says Senior Vice President Ryoji Maeda, Advanced Engineering Development Center, UNIPRES R&D CO., LTD.

"We are naturally delighted to be entrusted with producing complete solutions that meet Unipres's high demands for short cycle times and extensive automation. Both of the lines have advanced technology. For example, all of the tooling and gripper changes are fully automated. The lines are also equipped with sophisticated press monitoring, which ensures a consistently high level of quality for the manufactured parts," says AP&T Technical Sales Manager Peter Robisch.

AP&T's business model - One Responsible Partner® - which entails AP&T taking full responsibility for all of the production equipment and having all of the required expertise in-house also played an important role in the procurement. Another important aspect was AP&T's global operations, which allow the company to offer service and spare parts supply where customers operate.

To date, AP&T has delivered and installed over 120 press hardening lines all over the world.



• Unipres visits AP&T in Ulricehamn, Sweden. Tsutomu Serizawa and Ryoji Maeda from Unipres in the middle, with Peter Robisch and Yuki Yoshikawa from AP&T on either side.

www.aptgroupp.com



WIRE AND TUBE DUSSELDORF POSTPONED TO DECEMBER

On 29th February Messe Dusseldorf announced it had postponed wire and Tube Dusseldorf, originally scheduled for the end of March, due to the covid-19 outbreak. The fairs have now been rescheduled for 7-11 December 2020.

Messe Dusseldorf said that in postponing the events is "was following the recommendation of the crisis management team of the German government to take into account the principles of the Robert Koch Institute when making a risk assessment of major events." Added to this, the organisers said, "was the uncertainty of numerous exhibitors and visitors at the events in March and the complicated travel situation, especially for international customers".

"This decision was not an easy one for all concerned," says Thomas Geisel, Lord Mayor of the City of Düsseldorf and

Chairman of the Supervisory Board of Messe Düsseldorf GmbH. "But the postponements at the present time are necessary for Messe Düsseldorf and its customers in view of the increasingly dynamic developments."

The world's leading international trade fairs for the wire, cable, tube and pipe industry, wire and Tube, will now take place from 7 to 11 December 2020 at Düsseldorf Fairgrounds. 2,600 exhibitors in 15 halls are expected to present their latest machinery and equipment for wire and tube production, processing and finishing, end products, products and services.

www.wire-tradefair.com



images: ©Dusseldorf

'EUROPEAN FIRST' FOR SDE TECHNOLOGY AS IT TARGETS £ MULTI-MILLION OF NEW LIGHTWEIGHT OPPORTUNITIES

One of the UK's leading manufacturers of pressings and assemblies has signalled its intentions to be a world leader in lightweight components by investing in a new process.

SDE Technology, which prior to the recent rebrand was known as Salop Design and Engineering, is the first company in Europe to hold a production licence for Hot Form Quench (HFQ®), a revolutionary hot forming process for producing high strength aluminium parts for use in the automotive, aerospace and renewable sectors

This new technology gives designers the freedom to create parts that offer significant weight savings, yet still deliver higher structural strength, with improved formability in six and seven thousand series alloys, that cannot be formed cold. In some instances, it can also reduce the part counts from multiple components to just one.

Because HFQ lends itself to higher strength aluminium, it is ideally suited for the vehicle safety cell in the automotive sector and has also been used to develop a prototype aircraft armrest.

The initial investment of £1 million in 2019 enables the laser profiling of HFQ blanks, with a £multi-million investment scheduled to be in place at its Shrewsbury facility over the next eighteen months.

"This is a real gamechanger for our business and industry as a whole - thanks to HFQ® we can now offer new and existing customers a lightweight solution for making complex parts



• Richard Homden CEO
of SDE

in one pressing, reducing weight, time to manufacture and cost in the process," explained Richard Homden, CEO of SDE Technology.

"HFQ® was developed by Impression Technologies (ITL), who industrialised research by Birmingham University and Imperial College London. This is a great example of British research being utilised by British manufacturing."

He continued: "You simply cannot form this high-strength aluminium in any other way, unless you use a Super Plastic Forming process. Even then, SPF makes one part every 15 to 20 minutes, where the cycle time for our technology is one part every 15 to 20 seconds. That is a design and manufacturing dream.

"This is the start of an ambitious growth and investment strategy that positions us as the first production intent company for this process in Europe."

SDE Technology is currently in talks with a number of OEMs about the Hot Form Quench offer.

Initial feedback from clients point to the fact you can exchange steel parts for aluminium and achieve part integration and less weight as the key drivers for adoption. The fact you can also remove reinforcements and replace extrusions and castings with HFQ® pressings are other big wins.

Christopher Greenough, Chief Commercial Officer, said: "As a company, we are focused firmly on how we can deliver lightweight manufacturing solutions that can help solve a lot of industry's current and future requirements.

"The Government is obviously pushing hard for electrification and this is something that our technology can assist with and we believe this will be a big driver in helping quadruple our turnover over the next 5 years."

Mark White, a leading technical specialist in lightweight vehicle structures, added his support: "I have been actively involved in the trend for lightweighting and, now that the Government's push to EV is accelerating, it is more important than ever to find innovative ways to enable it to become the design norm.

"SDE Technology is leading the way with its HFQ licence and will provide the production route for OEMs to access this exciting process."

Christopher concluded: "We are looking to be at the forefront of the emerging EV and lightweighting markets, whether it is through HFQ or other innovative processes for joining different materials, battery technology and surface coating."

Two of CBM members have come together to create a better future for manufacturing.

For further information, please visit www.sde.technology or follow @sde_technology on twitter.

CBM ENERGY SERVICES

STREAMLINED ENERGY AND CARBON REPORTING - SECR MANDATORY REPORTING SERVICE

- 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 is a mandatory requirement for those companies that meet the criteria and is required 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 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 Kirkby.

e: kevin.kirk@thecbm.co.uk
t: 0121 601 6350.
m: 07789 502850

CLIMATE CHANGE LEVY RATES

In line with the government's intent to bring the CCL rate charged on gas and electricity closer together, the CCL rates are due to change again this April. The levy on electricity will fall slightly to 0.811 pence per kWh however the maximum percentage will also fall from 93% to 92%. This means for a company using 1,000,000 kWh and claiming maximum rebates will pay an additional £55.90.

The CCL on gas is increasing but to off-set this the maximum percentage is also increasing by 3%. This means for a company using 1,000,000 kWh and claiming maximum rebates will pay an additional £25.60.

	1st April 2019		1st April 2020		1st April 2021	
Commodity	Charge per kWh	Max rebate	Charge per kWh	Max rebate	Charge per kWh	Max rebate
Electricity	£0.00847	93%	£0.00811	92%	£0.00775	92%
Natural Gas	£0.00339	78%	£0.00406	81%	£0.00465	83%
Other	£0.02653	78%	£0.03174	81%	£0.03640	83%

The CCL on gas is increasing but to off-set this the maximum percentage is also increasing by 3%. This means for a company using 1,000,000 kWh and claiming maximum rebates will pay an additional £25.60.

On a practical side this means that every April, members who reclaim the CCL through a CCA or a combination of both Metallurgical exemption and CCA will need to complete and submit new PP10 and new PP11 forms to prevent over or underpayment of CCL.

If you want to take advantage of either of these services or require more information please contact Kevin Kirk at the CBM.

e: kevin.kirk@thecbm.co.uk
t: 0121 601 6350.
m: 07789 502850



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As a worldwide company PETROFER runs 15 international manufacturing facilities, with representation in over 50 countries, employs over 1,000 people and is one of the leading companies in the fields of industrial technical specialty chemistry.

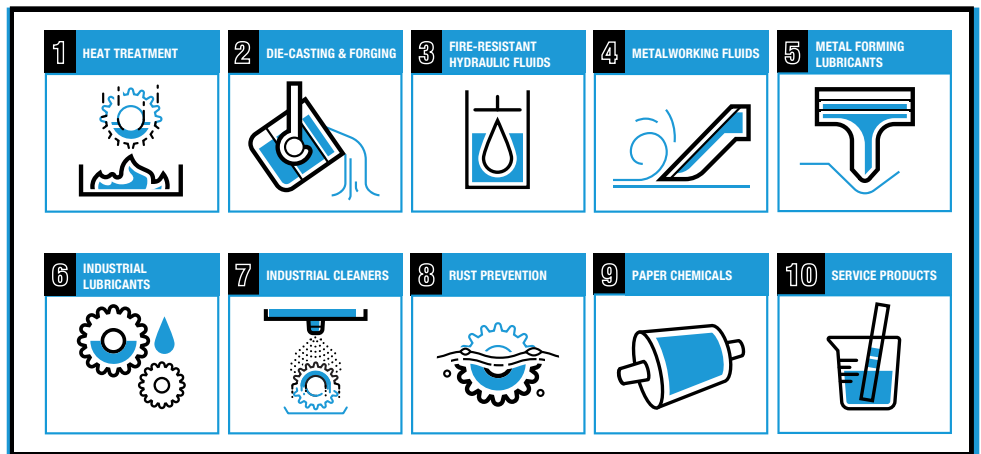
Customers from all over the world trust and appreciate PETROFER's extensive experience and knowledge. We are recognised for our holistic approach. We provide support along the entire process chain, supplying all the chemicals, lubricants, specialty fluids including metal forming lubricants and heat treatment products along with all consultancy required.

Our customers benefit from our high flexibility and rapid response

to enquiries of all kinds. We accompany you reliably from the very beginning, be it a new operation, new project, process development, contact enquiry through to optimisation and constant improvement in the future.

Our customer relationships are always of a long-term nature and go far beyond mere product recommendation and delivery. Whether for technical questions, services such as on-site consulting or customised chemical technology – we are the partner customers trust in.

PETROFER PRODUCTS



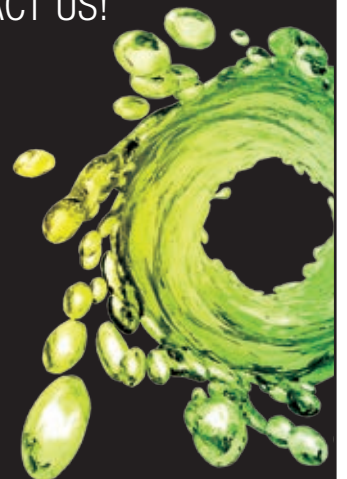
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EFFICIENT AND EFFECTIVE TRIMMING

For over fifty five years, SANKYO OILLESS has been a leading company in manufacture and sales of oilless bush, bearing and cam technology. Our constant product development has result in many improvements with standard products. More recently, we have developed the SUFC, the so-called floating cutter to greatly improve and reduce burrs and chips during the stamping cutting of sheet metal panels.

The current environmental issues are having an increasing impact on all areas of manufacturing, none more so than that of automobile production.

Many new, innovative methods and materials have been introduced to reduce a vehicles weight, such as the use of aluminium and composite materials. This can be seen especially in the recent developments of electric vehicles.

In terms of production productivity, the introduction of servo presses has realized increases in the productivity of sheet metal stamping and processing.

Parallel to this, SANKYO have been developing and producing products to aid in these increases in efficiency.

During the process of stamping and trimming sheet metal. Often burrs and chips occur, which is especially Important to avoid for parts that require a critical trim line. When this happens, it may mean that the part has to be re-worked. Burring may also cause problems during assembly, for example marrying of parts. In order to overcome these problems, SANKYO have developed the SUFC floating cutter.

Using the SUFC will greatly reduce, if not eliminate burred and chips parts.

Since its introduction in 2019, the SUFC has been used extensively in the Japanese market.

The SUFC is assembled as an integral part of a tools upper trim cutter. This ensures a clean trim line ensuring that burrs and chips are kept to a minimum and in doing so, increases efficiencies and reduces the need for reworking.

In the case of the upper die blade being of a nonstandard shape or size. The SUFC can be adapted to suit. The cutters

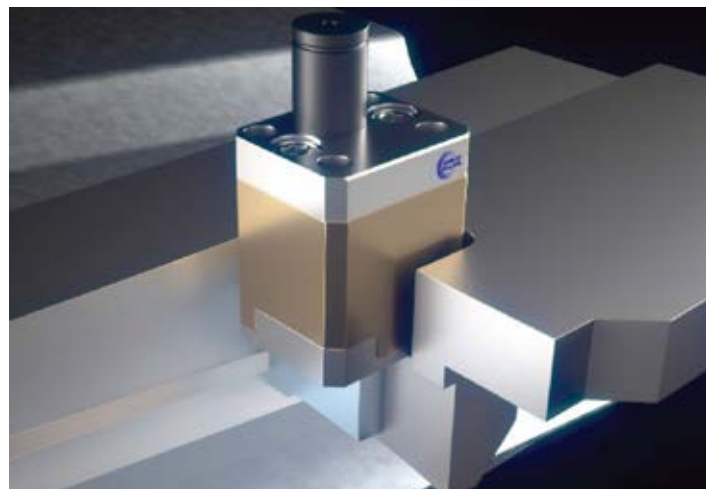
installation is made easy due to the 0.5mm horizontal tolerance and can be adjusted accordingly when assembling the upper blade of the tool.

In addition the SUFC provides an improvement in the ease in which scrap falls out.

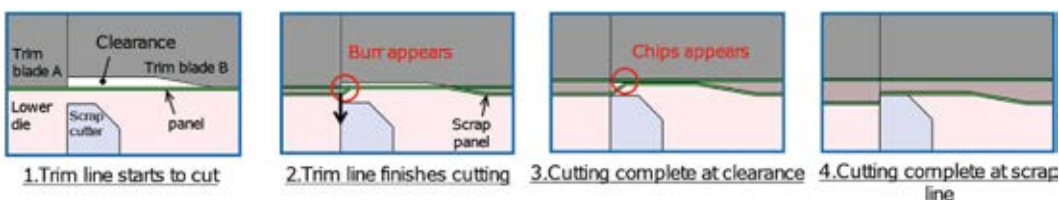
- FEATURES OF SUFC

- Life time: 500,000 cycles durable without maintenance
- Max. stroke: 6mm
- Suitable especially aluminium and steel sheet metal panels
- Open space around the cutter
- Off-set structure: non-interference on pad side

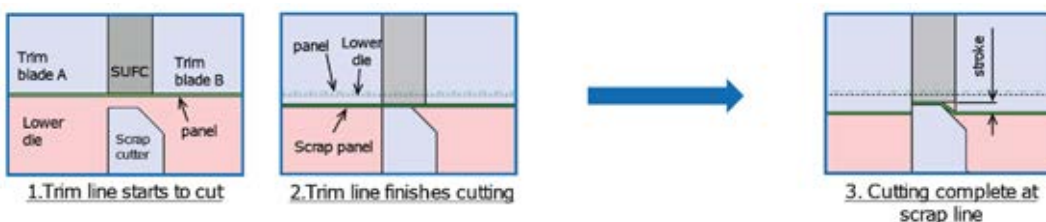
For further information, please visit www.sankyo-oilless.de



• Typical trim line installation



• Trimline assembly with SUFC



REDUNDANCY RULES STILL APPLY DESPITE UNPRECEDENTED TIMES

With more than 7.5m workers on furlough, fears are mounting the autumn could see mass redundancies across the UK despite an extension to the wage protection scheme.

Employment law solicitor Julia Fitzsimmons, a Partner with Midlands law firm FBC Manby Bowdler which has a specialist team supporting manufacturing and industry sector clients, says employers are facing a tough time.

"Most businesses are now either returning to work safely or are putting plans in place to do so after completing risk assessments and complying with Government guidelines. Where they are bringing staff back, we're recommending return to work inductions.

"Of course, it is important to stress that where an employee can work from home, they should still do so. But this is not always possible and in sectors such as manufacturing, it is likely that most employees will need to be in the workplace to carry out their duties. Many of our clients never closed, and those are the companies which have already adapted to new guidance.

"But disrupted supply chains and in some cases devastating falls in order numbers means that even if some employees do return to work, it is likely that there will be redundancies. We'd advise against issuing notice of termination of employment for reason of redundancy whilst support for salaries under the Coronavirus Job Retention Scheme is available."

Julia said that employers need to be aware that all of the usual employment law requirements still apply, despite the unprecedented circumstances.

"An employer will need to consult employees both individually and collectively if there are large scale redundancies.

Consultation begins with the provision of the statutory information to the worker representatives. If standing worker representatives are not in place then elections will need to be held to select these representatives.

"While the current situation is unprecedented and may, even on the employment tribunals' narrow interpretation, amount to "special circumstances", an employment tribunal will still interrogate closely how much consultation has taken place.

"Therefore, whilst it is possible to issue notice to employees during the consultation process, this cannot simply be done on day one. Even in a special circumstances scenario, as much consultation as is possible must take place. Otherwise an employer risks having a protective award made against it. This is up to 90 days' gross pay for each dismissed employee, with no cap on a week's pay."

The award is not based on the employee's loss of earnings, but on the seriousness of the employer's failure to consult.

"This means employers will need to demonstrate as much effective consultation as possible during this time, even if staff are on furlough, they can still take part in both a collective and individual consultation process by all the available communication means such as video conferencing calls, telephone calls, emails and other correspondence," added Julia.

For expert help contact Julia on julia.fitzsimmons@fbcmb.co.uk or call 01952 208420.



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Free Annual Legal Review for CBM Members

LATEST REPORT FROM CBM HEALTH, SAFETY AND ENVIRONMENT GROUP

The CBM HS&E Group met on 18th February. Here is a summary of some of the key outcomes from the meeting.

- ISSUES FOR DISCUSSION AT CBM HS&E GROUP MEETINGS

Group members were asked to identify key issues for discussion at future meetings via a feedback form. Multiple requests (number in brackets) were made for:

- FLT/Pedestrian Segregation (4);
- SHIMS – further interrogation into incidents. Sharing of best practice in successful CAPA's (4);
- Manual Handling management & best practices (3);
- Presentations from Mist/Fume Extraction specialists in line with HSE requirements (2);
- Best EHS Practices in Warehouses (2);
- Environmental Legislation update, look forward to what may be coming (2);
- ISO45001. Sharing of implementation methods by members who have migrated or recently achieved (2);
- Packaging (Timber). Disposal, substitution, recycling, reusing (2);
- Permitting requirements, i.e. Medium Combustion Plant, Emissions Directive (2);
- Advice/Guidance on CCTV use (2);
- Environmental 'big wins.' Best practice sharing (2).
- Longer meetings, i.e. include an afternoon session finishing at 2pm (2);

The full list may be viewed, along with the Chairman's full report, in the Health, Safety & Environment section in the members' area of thecbm.co.uk

- POWER PRESS GUIDANCES

Working with the Health & Safety Executive, CBM members have been asked to review the following Power Press Guidances:

- HSG 236 - Power Presses; maintenance and thorough examination
- Indg 316 - Procedures for daily inspection & testing of mechanical power presses & press brakes
- EIS 30 - Safety in the use of hand presses.

In addition to CBM members the review also involved: SAFED, press maintenance contractors, an insurance company and power press manufacturers. The review took place last September at the NMC with twenty-five in attendance. From the review the following changes were identified as being required.

- HSG 236:

The major issue related to the definition of a Power Press in PUWER as: "a press or press brake for the working of METAL by means of tools or for die proving, which is power driven and which embodies a flywheel & clutch."

The use of and types of power presses have changed dramatically since the second issue of HSG 236 was published in 2003. From

the 3rd September meeting it was recommended to change this statement to: "Power presses & press brakes not only work sheet metal, they also process a variety of other materials such as: carbon fibre, castings, forgings, plastic, composites & fibreboard, etc.

Presses are also used for making hot formed metal pressings.

Presses to which this guidance should apply will include mechanical presses that use a flywheel & clutch, hydraulic & pneumatic presses, press brakes, servo driven presses, and hybrid presses."

Throughout the meeting the HSE position was that the law relating to power presses is set out in the Provision and Use of Work Equipment Regulations 1998 (PUWER) explaining that:

- 1) The definition of a power press is set out in Regulation 2. "Power press" means a press or press brake for the working of metal by means of tools, or for die proving, which is power driven and which embodies a flywheel and clutch. This excludes presses which do not have a clutch mechanism, for example pneumatic and hydraulic presses and presses used for working other materials.
- 2) Regulations 32 to 35 set out the requirement for power presses to be thoroughly examined and inspected within the first four hours of a shift. Schedule 2 of PUWER lists power presses to which these regulations do not apply, this includes 'A power press for the working of hot metal'.
- 3) The guidance documents under review need to be aligned to the law as set out in PUWER and to L112 Safe Use of Power Presses: Provision and Use of Work Equipment Regulations 1998 (as applied to power presses) Approved code of practice and guidance.

HSE said it would find out the process for changing the law. However, it did not confirm support for any change. HSE would need to look at the work done for the 2014 ACOP review and speak to policy lead on PUWER and to our Legal Advisors' Office, which would take some time and was not available for the February meeting.

- OTHER DISCUSSIONS ON POWER PRESS GUIDANCE

The other main discussion was regarding the 'Competent Person' and the specific question whether the following personnel were defined as a competent or appointed person:

- Press Shop Manager
- Supervisor/Team Leader
- Tool Setter
- Tool Setter/Operator
- Maintenance fitter/Electrician
- Operator

All were in agreement that all of these personnel needed training, but the questions were: who carried out the training? Was it recorded? Are staff aware of the person?

Alternatively, do these personnel need to have some form of accredited training and assessment by an outside body? This raised the question whether the CBM needed to pursue a source for qualified competent training. The other thought that was raised was: If you use Contract Maintenance Engineers for M&TE do you check their qualifications?

The review is ongoing and updates would be provided on progress when appropriate.

- WELDING & METAL WORKING FLUIDS

In relation to about what to know on welding and metal working fluids, the meeting was presented with the following from Fiona McGarry, HM Inspector of Health and Safety - Metals, Minerals and Engineering Sector:

"I am writing to you to bring to your attention the current inspections and new developments in the Health and Safety Executive's (HSE) guidance.

HSE is reminding employers that they must protect their workers' health by controlling the risks from welding fume.

HSE's current programme of inspections will review health and safety standards across the country and businesses are encouraged to visit HSE's revised guidance to remind themselves of the changes to enforcement expectations.

The inspections follow a safety alert that was issued after new evidence shows exposure to mild steel welding fume can cause cancer. HSE has updated guidance to reflect this.

The Control of Substances Hazardous to Health direct advice sheets¹ for welding, and the updated metalworking fluid sheets², will help to make sure exposure to any welding fume³ or metalworking fluid, is adequately controlled.

You can also receive information on HSE's latest inspections and campaigns by signing up to our newsletter⁴"

These links and publications were also noted by the meeting as relevant to review:

Welding:

Welding COSHH essentials sheets⁵

Welding webpages ⁶

Metalworking fluids:

Metalworking fluids COSHH essentials sheets⁷

UKLA Good practice guide for safe handling and disposal of MWF⁸

- CBM GUIDANCE ON SAFETY REQUIREMENTS FOR HOT FORGINGS

The document is currently in draft form. It has been reviewed by Fiona McGarry and an HSE colleague and she is, in principle, happy with the content but may wish CBM to change the layout, and possibly the order of some of the chapters. Fiona also requested an invitation to a forging plant to view the forging operations to enhance her familiarity with the processes.

Subsequent to the meeting, Chairman of the CBM HS&E Group, John Darlington, reported that he had invited Fiona to visit the Blaenavon Forgings facility, at which she would be able to view all the processes detailed in the document. A date for the visit is to be agreed, hopefully prior to the next CBM HS&E Group meeting currently scheduled for 20th May 2020.

- USEFUL LINKS

1. campaigns.hse.gov.uk/subscribe/1.
www.hse.gov.uk/welding/guidance/index.htm
2. www.hse.gov.uk/coshh/essentials/direct-advice/metalworking-fluids.htm
3. www.hse.gov.uk/welding/index.htm
4. campaigns.hse.gov.uk/subscribe/
5. www.hse.gov.uk/coshh/essentials/direct-advice/welding.htm
6. www.hse.gov.uk/welding/
7. www.hse.gov.uk/coshh/essentials/direct-advice/metalworking-fluids.htm
8. www.ukla.org.uk/wp-content/uploads/UKLA-HSE-Good-Practice-Guide-for-Safe-Handling-and-Disposal-of-Metalworking-Fluids.pdf



TOOL PROCESS DESIGN ENGINEER APPRENTICESHIP RECEIVES FORMAL APPROVAL

By Howard Boswell

The Institute for Apprenticeships and Technical Education formally approves the end point assessment plan for our Tool Process Design Engineer Apprenticeship.

The Institute for Apprenticeships and Technical Education formally accepted our end point assessment plan for the new Level 6 Tool Process Design Engineer Apprenticeship on the 20 February 2020.

This encouraging news is the culmination of over 20 months detailed work by our trailblazer group who have created both the apprenticeship standard and the means of validating the ability of the apprentice with an industry specific end point assessment plan.

With this good news came an improved funding band for this apprenticeship and although greatly improved, the CBM will continue to try and further improve the amount employers can access from their levy pot towards the total cost of the apprenticeship.

Fine tuning of the end point assessment is taking place together with consideration of improving the funding band even further to allow members to access the maximum value from their companies training levy pot.

This degree level programme has been specifically created by the CBMs Trailblazer group and ensures the apprenticeship meets our sectors specialist technical requirements. The skills knowledge and behaviours are specific to our members needs and the employing organisation can choose which university they work with to achieve the standard. A key component of this programme is the opportunity for the apprentice to work on industry standard training equipment. This equipment was obtained by the CBM on behalf of members and is sited at the In Comm training workshop in Aldridge.

We are now entering the next phase and are asking members to become actively involved to ensure this apprenticeship standard adds real value to our sector.

There are three areas which members can support this initiative and in doing so will ensure both the sector and employers are gaining from this investment.

We ask that you undertake both a demographic and skills analysis of the Tool Process Design capability in your organisation. Using the analysis consider whether to recruit new talent who can undertake this apprenticeship, or whether to up skill your existing workforce as a means of staff retention and to ensure business continuity.

The Covid 19 crisis has highlighted manufacturing's vulnerability when exposed to global supply chains. It is vital that we maintain United Kingdom's skills and build our internal capability in order to face these global challenges. Therefore, consider how this apprenticeship can reduce dependency on overseas skills in these uncertain times.

Throughout the creation of both the standard and the end point assessment plan it has been evident that the sectors contribution to UK manufacturing is misunderstood. We ask that member companies continue to raise the profile of sheet metal process sector at every opportunity. This will ensure funding for our apprenticeships and any future government support for skills will achieve the highest monetary values available.

For further information please contact either Geraldine Bolton, Steve Morley or Adrian Nicklin.



FILLING SKILLS GAPS: THE STORY OF A NEW, MUCH-NEEDED APPRENTICESHIP

The CBM have been spearheading development of an apprenticeship to meet requirements specific to the metalforming industry. This has been a 3-year process culminating in approval of the Tool Process Design Engineer level 6 (degree) apprenticeship, which is preparing to recruit its first intake for September 2020.

Here, Adrian Nicklin, CBM's Sheet Metal Specialist, tells the story of how this initiative evolved – and how it will help our industry fill strategic skills gaps.

Q: HOW DID THE IDEA FOR THE TOOL PROCESS DESIGN ENGINEER APPRENTICESHIP COME ABOUT?

A 2016 CBM member survey identified a major shortage of qualified toolmakers in the UK. This was a trend across domestic toolrooms and contract toolmaking companies. The long-term solution was to cultivate UK talent in this key area, so we could reshore the skills rather than continue depending on (mostly) Asian tooling suppliers.

We put together a Trailblazer Group of 10 member companies to drive the process of creating an apprenticeship. These 10 companies were a mix of Tier 1 and 2, SMEs and those with 200+ employees. That way, we could create an accurate picture of the specific training needed to meet business needs.

Q: WHAT'S THE PROCESS FOR ESTABLISHING A NEW APPRENTICESHIP?

A It's a rigorous, time-consuming process through the Institute for Apprenticeships & Technical Education. It started with a formal Expression of Interest and proposed apprenticeship standard from the Trailblazer Group, which was prepared with the help of an industry specialist and an expert commissioned writer.

Once the Trailblazer Group approved the proposal, it went to our designated relationship manager at the Institute for Apprenticeships & Technical Education. This kick-started a 3-month process of review and revision with the relationship manager before the proposal could be formally submitted. Part of this was educating them about what tooling is and how sheet metal press tooling differs from, for example, plastic mould making. The CBM's backing played a vital role in championing the unique requirements of the metalforming industry, supporting the Trailblazer Group to get the clear need for this specific qualification recognised.

Q: HOW WERE UNIVERSITIES AND TRAINING PROVIDERS INVOLVED IN THE PROCESS?

A The Institute for Apprenticeships & Technical Education required 3 universities, as well as a training provider, to be on board.

Wolverhampton University, Sheffield University's AMRC and Warwick University agreed to put cost packs together. In-Comm was immensely helpful in this process, collaborating with the Trailblazer Group and the CBM to ensure we had the specific facilities required.

Q: WHAT'S ON THE SYLLABUS?

A 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

Q: WHEN DID THE APPRENTICESHIP RECEIVE APPROVAL AND WHEN CAN PEOPLE START WITH IT?

A We received final approval on 20th February 2020, which means the first intake of the Tool Process Design Engineer Trailblazer Degree Course can begin in September 2020. It's open to people of all ages – existing staff and new starters.

Gaining approval was an arduous process that could benefit from streamlining to make it easier for employers and industries to build up vital skills. Our success reflects the commitment of the employers in the Trailblazer Group, In-Comm, universities, commissioned writer Howard Boswell from Inspired Leadership Support Ltd, and – crucially – CBM staff. It's a testament to CBM's organisation and drive in this that they won the Skills Development Award at the 2019 Trade Association Federation Awards.

The industry now has a new, much-needed way to future-proof its tooling workforce and use their Apprenticeship Levy effectively.

Q: HOW CAN WE BOOK STAFF ON TO THE APPRENTICESHIP?

A Go to <https://www.instituteforapprenticeships.org/apprenticeship-standards/tool-process-design-engineer/> For more information, contact Adrian Nicklin, CBM Sheet Metal Specialist, at adrian.nicklin@thecbm.co.uk.

COVID-19: RE-STARTING YOUR BUSINESS

Guidance for businesses

Many businesses are looking to re-open after temporarily shutting down or reducing their operations due to Covid-19. However, re-opening can present specific hazards, which if not planned or managed properly, can result in damage, injury, legal action and further disruption to your business.

- HERE'S WHAT TO LOOK OUT FOR:

Where production is either scaled up or scaled down (compared to the pre-shutdown period), there can be increased risk of fire, explosion, injury, machinery and plant damage or breakdown. This might be caused by a number of reasons like production overload, delayed maintenance cycles or frequent start up/shut down periods.

Also your business operations and activities may have changed over the last few months, for example, you might be using different raw materials due to supply chain challenges or perhaps you are producing different products, keeping an increased level of stock, introducing different processes or procedures or changing shift patterns and staffing. These changes might introduce new hazards or exposures into your workplace. So you should look at reassessing and adapting your safe systems of work and working procedures, training, fire and security protection systems.

The planning and initial actions you take in getting your business back to 'fit for purpose' are often critical and provide a safe working structure within which you can successfully recommence operations.

Remember if you have furloughed staff, you will need to consider the timeframe agreed for bringing them back into the workplace, so allow for this in your planning arrangements.

If you can't create a safe working environment, whether that's because of inadequate fire protection, security, unsafe machinery/plant, employee competency or implementing COVID 19 precautions, then those operations should be postponed until corrective measures can be put in place.

- HERE ARE OUR TOP 10 INITIAL CONSIDERATIONS

- **Review existing risk assessments and actions** to ensure these are still relevant to the operation of your business. Make sure you're doing everything you can to ensure a safe working environment for your employees onsite, offsite and working at third party premises. This includes safe systems of work/working procedures.

Where your business operations and activities have changed, then new risk assessments should be completed and the results and actions shared with your employees and any visitors or contractors. Remember to include fire and security precautions in your review, implementing changes and enhancements where necessary to maintain an appropriate level of protection. For example, you may need to increase the scope of fire or intruder alarm detection, change opening or closing procedures or revisit sprinkler protection to ensure this remains adequate with changes in storage, layout, processes, stock materials.



- **Undertake a thorough inspection of your site.** This includes all buildings (interior and exterior), utility services, machinery/plant, stock, any hazardous operations, emergency back-up systems and safety equipment. It's important to find and fix any unsafe or abnormal conditions such as damage, maintenance issues, leaks, faulty safety and emergency systems, improper housekeeping or storage, signs of vandalism or theft.
 - **Review emergency response procedures** to make sure they are up-to-date and there is adequate coverage for assigned positions on all shifts, such as fire wardens, first aiders.
 - **Allow enough time in your planning to recommission previously shut down machinery** or plant and processes in line with all standard operating procedures (SOPs) and manufacturers' guidelines.
 - **Complete and reinstate any inspection, testing and maintenance procedures** (including those of a statutory nature) that may have lapsed since the shutdown. This might include utility services, machinery/plant, emergency systems, vehicles, fire and security protection/detection systems etc.
 - **Ensure your employees have the competence and capability for the work activities to be carried out,** through the necessary skills, training and licensing requirements. Additional employee training programmes or certification and supervision may be required. Remember, where there is an insufficient number of competent employees, or new processes, machinery and plant require new skill sets they may need more instruction and information. Refer to your Return to Work policy (where you have one) as this will provide structure to make sure your employees are 'fit for work'. Mental health and wellbeing should be considered as well as physical fitness.
 - **Make sure you have competent persons to verify all protection/detection systems are in service and functioning correctly.** This will include fire sprinkler/suppression systems, fire pumps, water supplies, fire alarm systems, intruder alarm systems, CCTV and access control.
 - **Carry out enhanced cleaning of the workplace,** pre and post re-opening. It's important to pay particular attention to communal areas and touchpoints, such as washing facilities, toilet flush and seats, door handles and push plates, hand rails, office equipment, machinery controls, food preparation areas. Don't forget to include company vehicles in your cleaning regime.
If you're introducing alcohol-based hand sanitizers into your workplace, it's important to remember these are flammable. As well as updating your fire risk assessments, make sure there are no ignition sources near where you are storing them. This includes electrical equipment, hot surfaces, smoking areas. You should ideally store them within purpose designed flammable liquid cabinets or steel cabinets.
 - **Observe and enforce Covid 19 workplace restrictions in line with government regulations and guidance** for example social distancing, floor markings, protective equipment, staggered working hours and breaks and digital rather than paper use. Where these restrictions cannot be met, then work activities should either be revised to achieve them or stopped altogether. Guidance is available from [UK Government, Public Health England, Health Protection Scotland, Public Health Wales](#) and the [HSE](#), or may also be available from trade / industry associations. Remember to include those employees working offsite and at 3rd party premises.
 - **Review your business continuity plan** including supply chain resilience and implement mitigation measures as appropriate, to reflect any changes to your business operation and lessons learned from the temporary shutdown.
- Further information and support please contact Richard Gibson at Gravity Risk Services on 0116 478 2999 or CBM@gravityriskservices.co.uk.**
- We would also like to thank Allianz Insurance PLC for providing this information for us.**



CBM WEB BASED WORKSHOPS A RESOUNDING SUCCESS

Due to the success of the Forging sector web-based workshop in April, future workshops have now been opened-up to all sectors.

The CBM are delighted to announce that from this extension, the second workshop held on 6th May saw twenty-four members learn how to implement lean manufacturing techniques.

The first presentation, by CBM Forging Consultant Derek Bond, covered a holistic approach to implementing robust business management controls. Starting with top level led vision and mission statements, the presentation provided a 'how-to' guide to planning and implementing a vertically integrated process to roll out a series of key performance metrics consistently across all areas of the business, with embedded daily/weekly/monthly reviews and corrective actions, fully aligned to the overall business strategy.

This was followed with a presentation, by CBM Lean Specialist Steven Croft, who expertly steered the audience through a range of lean manufacturing tools and techniques. The aim of this presentation was to show members how to 'put lean into action' and covered some of the main techniques, identifying how and where to use them to maximum effectiveness. The presenter gave his experiential learning and guidance of implementation in metal forming environments with good tips to achieve success and avoid pitfalls.



A video of the workshop can be viewed by logging onto the members area of the CBM website, where members will also be able to download free templates. The CBM are offering members further consultation support in business management and lean practices to help them achieve manufacturing excellence. For further information on this service please contact Geraldine Bolton to discuss available options.

For details of the next workshops, planned for **Tuesday 9th June**, and to register for login details please contact louise.campbell@thecbm.co.uk

ENERGY

WHOLESALE ENERGY PRICES FALLING

Over the past six months the wholesale price of energy has dropped significantly. Gas has fallen approximately 40% over the past year with electricity falling 25%.



If your business is looking at ways to save business running costs, then looking at your energy procurement strategy now should be top of the list.

With the wholesale energy kWh unit price accounting for approximately 40% of a business energy bill, there has never been a more appropriate time to analyse spend, review strategy and look at your appetite for risk. Purchasing energy flexibly means you business can take advantage of the current market fluctuations in wholesale pricing and there has never been a better time to do this.

"I've worked with several members and I understand that it's an energy intensive process to form metal, so I have been able to secure significant savings, with the wholesale prices we are currently experiencing. I'm keen to speak with members and talk to them about their energy procurement strategy and how I can help save them money"

Liam Conway

Head of Business Development Control Energy Costs Ltd
e: Liam.conway@cec.uk.com m: 07501 221728





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?

cec.uk.com
01737 556631



SHEAR IMPROVEMENT FOR HADLEY GROUP

Reaffirming its pursuit of innovation and improvement, Hadley Group is pleased to announce a new flying shear at the end of its rolling mill at its Downing Street production site, which will improve UK capabilities.

After many years of service the existing shear was at maximum capacity and struggling to meet demand. The 125t machine was limited on tonnage and tool capacity, as such a team of Hadley Group staff were challenged to design and manufacture an improved model. After much research and development, the team decided that a high-speed 250-ton machine would provide the optimum solution allowing heavy profiles up to 8mm to be accurately pierced and cut-to-length.

The advancement marks the culmination of more than two years of hard work. A team consisting of four design engineers and four build engineers has worked tirelessly to design the shear from scratch, from buying the parts to manufacturing the item. The team is beginning to see the fruits of their labour, with the build now in the late stages of construction with a view to entering the test phase soon.

Weighing nearly 15-tons, the moving carriage on the new shear is driven by two servomotors, which drive through two precision gearboxes and finally through twin high precision rack and pinion. The machine has been created to be far more accessible than its previous incarnation. To achieve this, the team of developers has motorised everything that could be.

What's more, because of the scale of this machine, practically all adjustments are via the HMI display. The HMI display gives the operator numerous programming benefits over the old

machine. All programming, operating and troubleshooting documentation is readily accessible on screen. All job specific settings can be saved either on the machine as special jobs or to the network server.

Speaking on the new model, Ben Towe, Group Deputy Managing Director at Hadley Group commented: *"We put innovation at the forefront of everything we do and constantly try to find efficiencies within our operation. This new shear represents a big step for us in that process and will significantly improve capability and repeatability of heavy gauge profiles. It's testament to our incredible team of design engineers and build engineers who have devoted almost two years of effort to helping us design and manufacture the new model."*

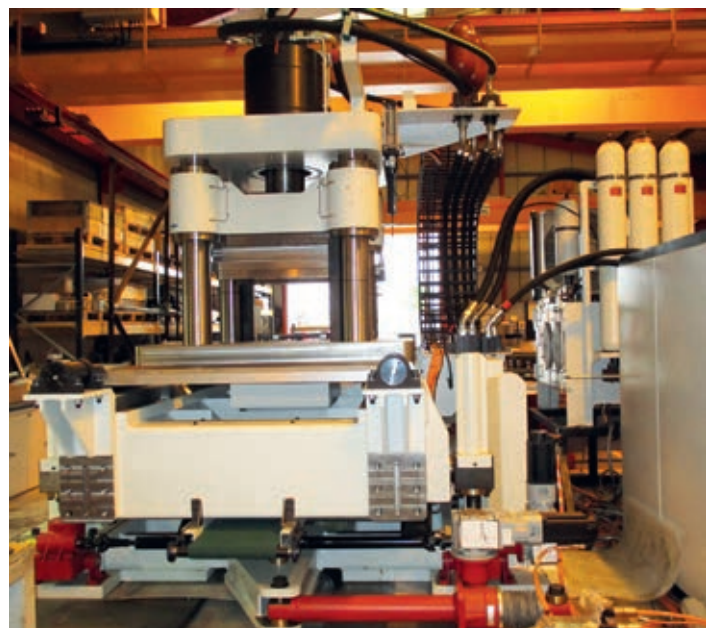
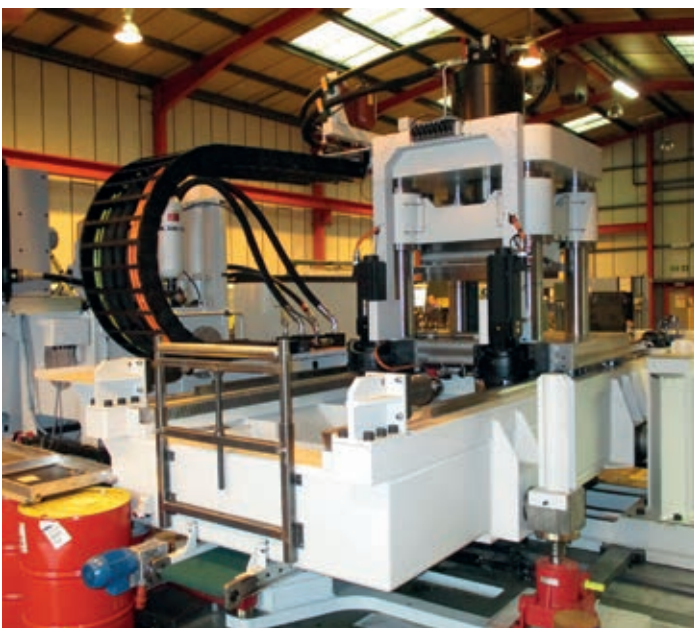
With a range of additional features and benefits, the new shear will deliver new capabilities to UK operations. Unlike the previous machine the new model is equipped with a high-speed actuation with a fully programmable stroke length, which will be used for all existing and future tooling. Also, the new machine has automated height adjustment, front/rear adjustment and the ability to cater for complex features including swept sections.

For more information on the Hadley Group please contact us.

t +44 (0) 121 555 1300

e ask.hadley@hadleygroup.com

www.hadleygroup.com.



TRADE CREDIT INSURANCE INTERVENTION COULD SAVE MORE MANUFACTURING JOBS THAN FURLOUGH SCHEME

The UK's leading trade body for manufacturers fasteners, forgings, pressing, cold-rolled and sheet metal products has resoundingly welcomed the Government's decision to guarantee Trade Credit Insurance, a decision it believes could potentially save more manufacturing jobs than the furlough scheme.

Geraldine Bolton, Chief Executive of the Confederation for British Metalforming (CBM), believes that 75% of its 200 strong members have seen cover being reduced or taken away altogether before this timely intervention, which means companies will be paid if a customer defaults on payment.

This will be music to the ears of manufacturers who rely on invoice discounting to fund day-to-day operations and, in recent weeks, have seen a worrying decrease in the value they can claim with Trade Credit Insurance reduced. In some instances, this has dropped from 100% to as little as 25% of invoice totals. "Over 14,000 businesses use Trade Credit Insurance across the United Kingdom, including a significant number of our members who have raised the importance of finding a solution for this issue," explained Geraldine Bolton, CEO of the CBM.

"Once you've ensured employees have a safe return to work, the next big focus will be on the revival of the business and any owner will tell you 'cash is king' and cashflow is paramount - think of a business as a heart and cashflow is the blood that keeps it going!

She continued: "The Government's decision to offer a guarantee will give much needed confidence and, in our opinion, will allow supply chains to be reignited.

"It will take down barriers where insurance cover had been removed and mitigates the risk for manufacturers trading within the UK and, importantly, overseas where customers are often more stringent on payment terms.

"The furlough scheme extension was very welcome, but this intervention may save even more industrial jobs in the long-term."

The CBM will continue to monitor whether Trade Credit Insurance cover returns to a level that supports our members' cashflow and, any shortfalls, will be immediately communicated to the Department for Business, Energy and Industrial Strategy and the Confederation of British Industry (CBI).

For further information, please visit www.thecbm.co.uk or follow @cbm_uk on twitter



- Geraldine Bolton, Chief Executive of the Confederation for British Metalforming (CBM),



cyberEase
keeping IT safe

13 STEPS TO SECURING YOUR ORGANISATION FOR REMOTE WORKING

In the mad rush to get everyone setup to work from home, have you stopped to consider the security implications for your organisation? We've tried to make it easy for you by producing this handy 13 step checklist to help you ensure you've got all the key points covered.

If you want more detail on what or how for any of the points please just reach out and ask.

☐ 1. Asset List in place & up-to-date

With a distributed IT Infrastructure, it's vital you keep a track of where all your machines and where your company data is being stored and processed.

☐ 2. Security Patches applied and monitored

Cybersecurity is a massive concern at the moment. Attacks have spiked over 800% in some instances. The simplest way to protect yourself is to stay up to date.

☐ 3. Appropriate Virus Protection Installed & Active

Staff may be using temporary machines or their home machines – do they have the same level of virus protection you have in your business?

☐ 4. Enhanced Web Protection against malicious links and sites

Staff will now be operating outside the office firewall, how are you protecting what they visit on the web?

☐ 5. Ransomware Protection installed and monitored

We're expecting ransomware attacks to rise sharply, how are you ensuring your IT estate stays protected?

☐ 6. Deployed MFA on all relevant systems

The most common way of getting hacked is through a leaked password. Multi-Factor-Authentication helps significantly reduce that risk

☐ 7. Verified Security of Remote Access Procedures

With so many people now working remotely, Remote Access tools are a prime target for cyber criminals. Have you reviewed what you have in place and how they are secured properly?

☐ 8. Security Awareness Training deployed to staff

The Human factor is the weakest link in almost every security chain. People are more likely to revert to bad habits at times of stress like we're experiencing right now. What additional Security awareness are you delivering to your staff to stop them being the weakest link in your security?

☐ 9. Educated staff on Best Practice for their home Internet security

Are you staff following best practice with their home internet by changing the default router password and making sure WPA2 encrypted WiFi is in use?

☐ 10. Reviewed Backup Procedures and data risks

How and where is your Data stored now? Do tapes need changing at the office? Do you need to backup data on staff laptops? Have you started storing new data in the cloud that needs to be backed up?

☐ 11. Implemented Hard Drive Encryption for any sensitive data

What data is being stored on your staff's home machines? If you're using something like Dropbox that's still storing data locally and is at risk if the machine gets stolen. You should implement hard drive encryption to protect it.

☐ 12. Provided Video Conferencing Guidelines

Some staff will be using video conferencing for the first time, and may forget they are actually at work. Have you given behaviour guidelines and checking if there is any sensitive material in the background before broadcasting video?

☐ 13. Checked Insurance Cover for Remote Working

Does your insurance cover you if all your computers are at home with your staff? Or is it reliant on them having contents insurance for it?



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your best friend in IT

FURTHER HELP

I've produced a detailed guide on each of the **13 steps**, to get that or to book a free consultation on any of the above point's just visit <https://brokenstones.co.uk/lp/13-steps>

YOUR PASSWORDS JUST BEEN BREACHED

Step 6 – Deploy Multi-Factor Authentication on all relevant systems

How do you protect the access to your essential systems? Things like your email? The remote logins to your office machines? Your finance systems?

The most common way of getting hacked today is through a password breach. The dark web is full of passwords, up for sale for just a few pence.

In reality now, we're seeing people most days who have had their password breached and hackers have tried to gain access to their systems. You need to accept it's highly likely at the moment some of your staff WILL have their passwords compromised. No matter how much training you give them some will end up clicking on a dodgy link or falling for a phishing scam.

Combine this with the fact many of us have opened our systems up so we can get access to them remotely and you'll realise we need to do something to add an extra layer of protection.

That's where Multi-Factor-Authentication comes in. Using at least two of the three types of authentication factors

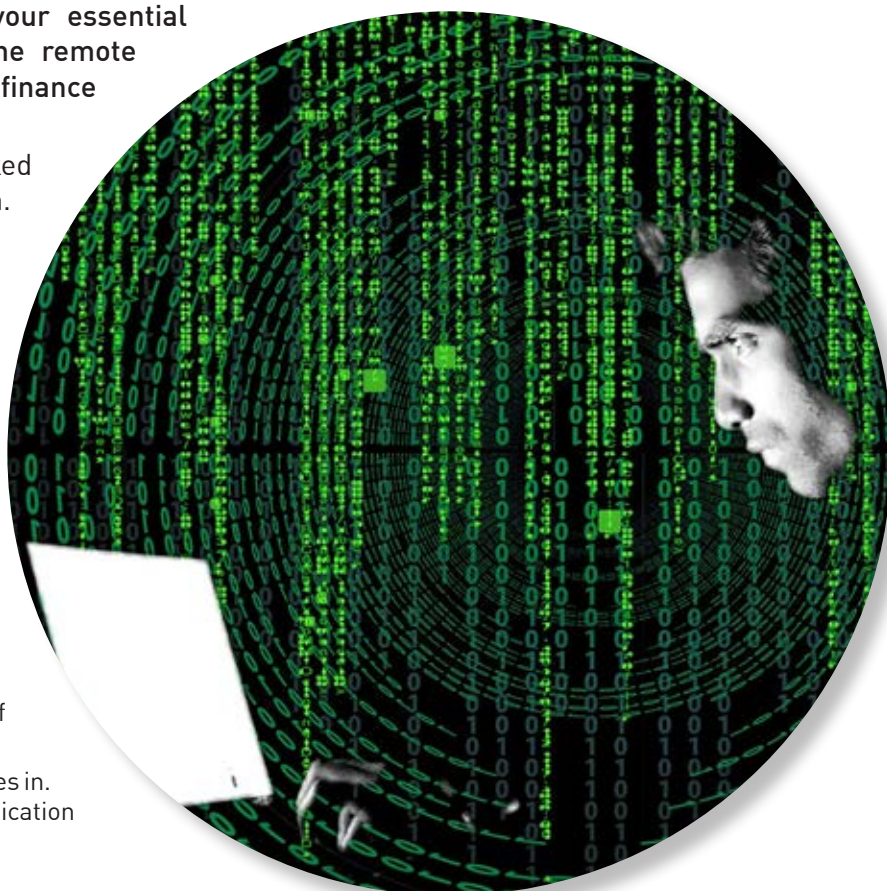
1. Something you know (i.e. a password)
2. Something you have (i.e. a mobile phone)
3. Something you are (i.e. a finger print or facial recognition)

The most common form of MFA today is the Password & Pin Code Combination. You enter your password and then you get a text or pop-up on your mobile phone with a second pin number to enter. You can only login if both these are correct.

It means that even when your password gets breached it's still difficult for the hackers to login to your account because they don't have access to your mobile phone.

Both the major Business E-Mail systems G-Mail & Office 365 have MFA as standard, you just need to enable it.

Right now you should think about the different systems you are logging in to and which ones would benefit from MFA, the absolute musts for me are your E-Mail and your Remote Access Tools, if someone gains access to either one of those they can do a lot of damage – what other systems do you log in to?



[BONUS TIP]

If you're using Office 365, you can customise the login screen, so once you put your email address in the background changes to your specific company background – it's an extra way of visually showing people they are in the right place and alerting them to be highly suspicious if the background does not change!

TOTAL FOLIA'S EXTRAORDINARY HEALTH, SAFETY & PRODUCT PERFORMANCE

TWP Manufacturing confirms TOTAL FOLIA metalworking fluid, which is based on bio-sourced polymer technology and free of mineral oils and solvents, is a revolutionary product that supports with health and safety compliance

- BACKGROUND

TWP Manufacturing, based in the West Midlands, was founded in 1996 and is a high-quality presswork and injection moulding business servicing a wide variety of sectors including automotive, construction, electrical and white goods through to high-profile leisure and retail brands.

Manufacturing around 30,000 parts a month, TWP needs its CNC machines operating in peak condition - central to this is using an appropriate lubricant.

- CHALLENGE

TWP wanted a solution that addressed health & safety requirements while providing greater versatility and efficiency.

TWP had previously used a conventional semi-synthetic coolant, known as suds, but found this gave off an undesirable odour, was not kind to the skin or clothing, and due to its oil content, the pH levels had to be continually monitored.

- SOLUTION

Phil Stanley, director of TWP, already understood health & safety regulations particularly in relation to welding mist, but being relatively new to CNC machining, he turned to Total to see if it could recommend a metalworking solution that would help with this compliance.

Total recommended **TOTAL FOLIA**. Based on renewable raw materials in the form of a biopolymer, and free from mineral oils and solvents, it offers extraordinary performance and versatility coupled with industry-leading health, safety and performance benefits.

- RESULTS

From a health and safety perspective, TOTAL FOLIA emits no odour and has a reduced tendency to mist during operation, and any mist that is produced does not contain any mineral oil or carcinogenic fumes. This is not only safer for machine operators but has also removed the need for TWP to invest in demisting units, representing a capital expenditure saving of some £25,000.

TOTAL FOLIA does not contain any pictograms and is therefore safer for operators to use. It also delivers the ideal working conditions for second operations.

Phil said: "Using a conventional fluid, you would have to degrease prior to welding or plating, but as there is no residue with TOTAL FOLIA, machined parts can go straight to the welding bay because there are no fumes coming off them. TOTAL FOLIA just evaporates and doesn't hold the swarf to the job which is a major advantage."

Being an oil-free solution, TOTAL FOLIA reduces the chance of bacteria forming or growing in the sump and system and oil drain intervals have also been significantly extended. Phil said: "We're finding that our liquid life is much longer - we're now 12 months in and we still haven't had to change the fluid in the

tanks. Furthermore, there is no sludge at the bottom of the tanks like you'd get with a conventional lubricant."

Tooling lifespan has increased by up to 25%, delivering a significant cost saving for the business.

- CONCLUSION

Phil said: "I'm very impressed with the health & safety benefits of TOTAL FOLIA. As well as not giving off any odour, it has addressed all my concerns, giving me peace of mind that my business is compliant, and my employees are not at risk. Furthermore, the cost for adding mist extractors to each machine would have been in the region of £25,000, so I'm delighted that I haven't had to do this, because with TOTAL FOLIA, you do not need them."

"In terms of tool lifetime which we have seen increase by up to 25%, extended drain intervals, versatility and productivity, TOTAL FOLIA has been revolutionary for our business."

"Now that I've discovered the benefits of TOTAL FOLIA, I've got no intention of returning to conventional lubricant."

For further information about TOTAL FOLIA, visit: <https://www.total.co.uk/business-products/industrial-lubricants/metalworking/folia>



FURTHER R&D TAX SAVINGS FOR APS

Birmingham-based APS Metal Pressings has secured its tenth year of tax savings - receiving over £450,000 from the HMRC incentive scheme that encourages investment in R&D.

Innovation is at the heart of the business, which has a turnover of almost £8 million. The business is led by Paul Smith who recognises the importance of designing and developing unique, high-quality and cost-effective solutions to meet client requirements.

Paul Smith said:

'Our successful growth has been founded on our willingness to invest in automation and take on challenging projects, which often require a new approach to achieve tooling life and meet cost benchmarks.

These projects inherently involve R&D; however, it was not until we were approached by R&D Tax Claims that we became aware that we would qualify for tax relief. We have now secured over £450,000 in tax relief, simply by doing what we usually do. I would wholeheartedly encourage other manufacturing businesses to do the same. Working with R&D Tax Claims didn't cost us a penny until we secured our tax refund, making the process risk-free.'

Mark Evans, Chartered Accountant and MD of R&D Tax Claims, has specialised in this area for over 10 years, after realising that many manufacturing and engineering SMEs were unaware they could reclaim through the HMRC scheme.

Mark Evans commented:

'Manufacturing and engineering SMEs all too often perceive R&D as something undertaken by scientists wearing white coats in pristine laboratories, rather than engineers in oily factories. However, successful manufacturing and engineering companies, like APS Metal Pressings, continually strive to deliver perfection at the lowest possible cost, finding innovative ways to achieve this, though many of their counterparts do not recognise this as R&D.

We have a 100% success rate with HMRC because all of my consultancy team boast decades of experience within the engineering sector.'

To discuss a potential tax refund for your business, contact Mark Evans at R&D Tax Claims on 0845 003 0140 or mark@rdtaxclaims.co.uk.



We have secured **£456,004 of R&D tax savings over 10 consecutive years for **APS Metal Pressings****

You probably **don't even realise that you are doing R&D...**

If you employ more than **25 employees, we can help you claim your **R&D tax refund** from HMRC.**

TO START YOUR CLAIM...
call us on **0845 003 0140** or email **refunds@rdtaxclaims.co.uk**

R&D TAX CLAIMS

OUR SMALL MEDICAL COMPONENTS PLAYING A LARGE ROLE IN TODAY'S HEALTHCARE CLIMATE

From springs that go into the mouthpieces for ventilators to catheter clips to syringe drivers, patient beds and trolley systems, instrumentation and numerous electrical components for medical technologies including defibrillators, European Springs & Pressings is proud to play a key part in the supply chain for a number of medical equipment manufacturers.

Stuart McSheehy, Managing Director of the Beckenham factory says: "We have developed tooling and manufactured medical components for the healthcare sector for decades but today's climate and subsequent increase in demand has highlighted the market share with which we and our customers operate in

We manufacture springs, pressings and gas struts for engineering companies and subcontractors across a broad spectrum of the healthcare industry. Requests for rapid turnaround times has made us see the fuller picture and resulted in us operating new production schedules to meet demand."

With 1 million mouthpiece springs taking approximately 125 machine hours to manufacture and other product lines in the tens of thousands, the advanced design, engineering and manufacturing capabilities across European Springs &

Pressings factories, from London to Cornwall, are working together to help combat today's public health emergency.

McSheehy concludes: "We manufacture the largest range of springs and pressings in the UK and have some of the most advanced high-volume machinery available. At peak, our machines can manufacture 5 million springs an hour and we have repurposed and upscaled specific production lines to manage orders.

Normally validation as a new supplier takes months of trials before volume production but in this very abnormal period we've been fast-tracking processes to suit our customers and are beyond proud to be able to play a supportive role in today's climate."

www.europeansprings.com

EUROPEAN
SPRINGS & PRESSINGS

AVT RELIABILITY® INTRODUCES MACHINE SENTRY® GATEWAY

ROUTER ENABLES CONTACTLESS DATA COLLECTION

Plant Reliability specialist AVT Reliability® has enhanced its Machine Sentry® suite of cloud-based condition monitoring tools with the launch of its long range, low energy Bluetooth® router, Gateway.

Easy to install and simple to use, Machine Sentry Gateway removes the need for manual data collection from MSF-1 sensors. This improves workforce safety and frees up valuable time for operatives on the plant floor.

It can connect up to 100 vibration sensors to the internet via the ethernet, Wi-Fi or 3G/4G cellular network, and extends Bluetooth connectivity up to 50m (160 ft). An IP65 rating makes it suitable for both indoor and outdoor use.

Frederic Thomas, Managing Director at AVT Reliability®, said: "Machine Sentry Gateway is the most user-friendly online condition monitoring system on the market today.

"Power over ethernet means set-up is flexible and it can be easily deployed, and scaled up if required, anywhere on a plant.

"The Machine Sentry platform allows data to be stored securely in the cloud, where it can be managed by authorised personnel on one easy-to-use interface, from any location, using a standard web browser. Vibration data collected from Machine Sentry sensors is then analysed by ADA™ the Automated Diagnostic Assistant."

He added: "AVT Reliability strives to stay one step ahead in digital condition monitoring approaches. We believe Machine Sentry Gateway seals our reputation for bringing truly game-changing products to the UK, European and American markets.

"This new addition is the first of many developments AVT Reliability have pending, all designed to improve the transition and experience of users to a truly innovative and sustainable Industry 4.0 solution".

www.avtreliability.com



MENTAL HEALTH MATTERS: STATS AND SUPPORT

Glyn Morris, psychotherapist and mental health trainer, MOHS Workplace Health, explains the impact of mental health problems on the UK workforce and what information and resources are available to help those in need.

Trends come and go, buzzwords do their thing before being consigned to history, replaced by something more current but with each passing phase we learn something new

We have all become accustomed to health and safety and whilst it can sometimes feel frustrating fulfilling the requirements that associated legislation brings, we can at least expect to go home from work after a hard day under our own steam and not in an ambulance (or worse).

- THE CURRENT TREND IS MENTAL HEALTH. BUT WHAT DO WE MEAN BY THOSE TWO WORDS AND ISN'T IT ALL JUST STRESS ANYWAY?

The HSE have long told us to take stress in the workplace seriously and have made it clear that this issue is seen as no different to any physical health and safety issue. However, this message is taking its time to resonate. When I teach managers about mental health in the workplace (via a half- or a full-day course) I rarely encounter a delegate who knows and understands their legal responsibilities, at least until the end of the training - yet the impact on a poorly-informed organisation can be huge.

The National Institute for Health and Care Excellence (NICE) suggests that UK employers are losing £24 billion every year through stress at work alone. That's not taking into account that the HSE now implores us to recognise anxiety and depressive disorders at work (not to treat or diagnose). NICE also suggests that sickness absence through stress is only half of the problem; 'presenteeism', defined as the effects of turning up to work but being too ill to be productive, is in fact far more costly.



- BUT WHAT IS STRESS? AND FOR THAT MATTER, WHAT ARE ANXIETY AND DEPRESSION?

The three need to be seen as different but somewhat overlapping conditions. Stress tends to be a reaction to feeling overwhelmed, caused by a sense of low control in a world of high demands and unrealistic expectations. Anxiety disorders are characterised by fear and worry, with the sufferer frequently engaging in avoidance behaviours and performing actions to provide short-term relief from the angst. Depression has common symptoms, including low mood for two weeks or more, attached to demotivation and negative introspective thoughts about the self, the world and the future.

- SO HOW DOES THIS RELATE TO WORK AND INDUSTRY, OTHER THAN THE AFOREMENTIONED COSTS?

The Chief Medical Officer for the UK explains that 70 million working days are lost each year as a result of mental health issues. A recent survey from BUPA found 50% of respondents would not feel comfortable telling their employer about a mental health problem. Beyond these issues are the costs associated with legal action taken against employers for failing in their duty of care, and the loss of reputation and business to rivals when this occurs.

However, mental health is now a prominent discussion point in mainstream media as well as amongst high-profile public figures and the UK workforce. Attitudes towards those suffering with a mental health condition are starting to change. As a result, there is much more information, support and professional training courses available to help industry, not only to stay legally safe but also to reduce the phenomenal and negative impact of failing to manage mental ill health effectively.

Mental health training can be extremely cost-effective to an organisation; providing invaluable skills for managers and workers alike to spot the signs of mental ill health and signpost those in need to relevant support services. There are also government tools and free-to-use templates readily available to make addressing stress, anxiety and depression amongst staff easier than ever before, with the aim of keeping people healthy and in work.

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

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TENFOLD GROWTH IN ROBOT NUMBERS FORECAST BY 2030

There is now mainstream recognition that Industry 4.0 /4IR benefits were oversold, for example, The Times “What is driving apathy to 4IR” insert. The fourth industrial revolution was always going to be spread over many years, just like the first three !

Normally, SMEs in metal forming do not rush out to buy the latest gizmo – they prefer to let someone else be the guinea pig, wait for good results and the prices to drop. Additionally, most have already incorporated automation at the cell level at least, (presses, welders, paint lines) taking the easier wins.

It's been large companies that mainly took up the 4IR challenge as they have the most to gain and can share the cost of support services across several sites. It's seen as a direction and a journey, more about still being in business in five years time than making a financial payback.

The result from this is that robots, predictive maintenance and enterprise resource packages are now all proven, abundant and realistically priced, you can even rent them for a short period.

Robots. There are several examples at CBM members, mainly loading and unloading machines, again with larger companies leading the way. I have not seen a cobot in operation yet but they lend themselves to assembly jobs where they complement operators, one giving the experience and intuition, the other the physical power to keep doing the repetitive tasks.

Robots have really been taken up by the car suppliers so maybe it's not too surprising that the UK is 22nd in the world for robot density in manufacturing, at just under one robot per 100 employees.

That's not so many when you consider Footprint Tools, a CBM Member in Sheffield, with a employ13 has one robot, putting

them seven times over the national average. All the feedback we have on robots is that they are reliable and consistent, tireless and well-behaved once you define the job correctly. Look on CBM Members area for information on some robots in forging.

Predictive/Prognostic/Smart Maintenance is well-proven in several industries and many applications, it's readily available, and can give feedback after two weeks recordings. It has helped reduce maintenance costs and improve service life.

ERP and MES have been around for years. There are a variety of suppliers with reliable solutions, proven results, now with packages specifically made and priced for SMEs.

On the other hand, Machine Learning works by sifting through mountains of production records looking for patterns to optimise process routes. Its insights are forecast to give significant productivity improvements. ML is therefore of more interest to global players with many machines and is some way off for most of us. In the meantime you may notice some organisations trying ways to get hold of your data as ML has a huge hunger for data.

If nothing else, you should be thinking of installing **sensors** on your production machines now. Packaged activity meters will tell you the availability, stoppage times and working speed of any machine directly on your network or phone and are the gateway to live OEE. One step further, condition monitors are the way into predictive maintenance. Make sure you keep all the data too.

David Eales
e: david.eales@thecbm.co.uk



Links: www.bots.co.uk www.raconteur.net/technology/apathy-iot-challenge

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FOR EXPERTS IN METALFORMING

ADVANCED CUTTING TOOL FOR ELECTRIC VEHICLE MARKET

Flex Cam eliminates extra die for EV manufacturing

The market for Electric Vehicles (EVs) has grown exponentially since 2013, and is expected to continue growing at a fast rate.

According to the International Energy Agency (IEA), the number of EVs in use in the world has grown from about 380,000 vehicles in 2013 to nearly ten times as much in 2017, with over three million EVs on the roads¹

The latest developments in the underlying technology, and the attractiveness of government incentives like subsidies and exemptions from parking fees in some countries, adds to the popularity of EVs. Most vehicle manufacturers are by now developing and releasing an offering of EVs and/or hybrids alongside combustion engine vehicle models to answer to market demand.

- ADDING EV CHARGE PORTS TO VEHICLE PRODUCTION WITHOUT AN EXTRA DIE

An EV that is plugged into a power source to charge the batteries frequently requires an addition to the manufacturing process of the vehicle body.

For vehicle manufacturers this means that new requirements, in the form of e.g. fender variants for a vehicle body, need to be handled in the production process and the design of tools and die.

For a new vehicle model, manufacturers can set up the new production process to include an EV charge port for EV models but eliminate the port for other models – all in the same die. Using advanced, cost-effective cutting tools that can be positioned at a 360° angle and perform multiple operations in a die, a vehicle manufacturer can reduce the amount of steps and tools required for producing a fender with, or without, an EV charge port.

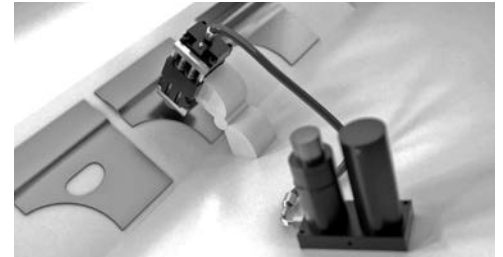
The tool handles fender variants, stamping out a charge port for EVs that require it, and removing the charge port operation for other models. The two fender variants can be produced in the same die, eliminating the need for a specialized die for stamping out a charge port for EV models.

- BENEFITS OF USING ADVANCED, COST-EFFECTIVE CUTTING TOOLS

KALLER Flex Cam simplifies cutting tools by increasing the number of operations in a die on a production line. The KALLER Flex Cam can perform high-precision, controlled piercing and stamping by using highly accurate guiding elements without side deflections and help the customer save money.

Adding KALLER Flex Cam to your vehicle production line has several benefits:

- Simplifies process engineering, die design and tool manufacturing
- Enables positioning of KALLER Flex Cam at any angle, with 360° application area
- Punches even upwards at negative angles



- Adds operations and flexible solutions to new dies
- Uses space efficiently
- Reduces total number of dies and tools with multi-functionality and durability
- Protect tool damage and over-pressure with controlled force and safety features

Using KALLER Flex Cam enables vehicle manufacturers to:

- Reduce production cost per part
- Increase production rate and efficiency
- Reduce tooling costs with less tool and die investments
- Be more environmentally sustainable with less tools



- ABOUT KALLER FLEX CAM

The KALLER Flex Cam has become a standard component for many vehicle manufacturers, and is often included in different vehicle manufacturing tool standards globally.

The KALLER Flex Cam system has, with a proper set-up, performed more than two million cycles without any servicing required.

KALLER Flex Cam Components for this solution:

1. Compact Cam CC 090-049
2. Power Unit HCP 090-060
3. Custom made HCP Actuator, moved by an air cylinder or manually

Read more at:

www.kaller.com/en-us/support/user-tools/

www.kaller.com/en-us/products/tool-and-die/piercing-and-forming-units/flex-cams/

Notes:

1: Technology report — May 2019, www.iea.org/reports/global-ev-outlook-2019

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REVIEW YOUR COMPANY'S DIGITAL FITNESS

Free review of your Digital Fitness

The COVID-19 slowdown offers smaller companies a unique chance to review their current digital fitness and laydown some plans for moving forwards

When making a plan its good to know where you are and where you want to get to. Here's a map to help you start;-

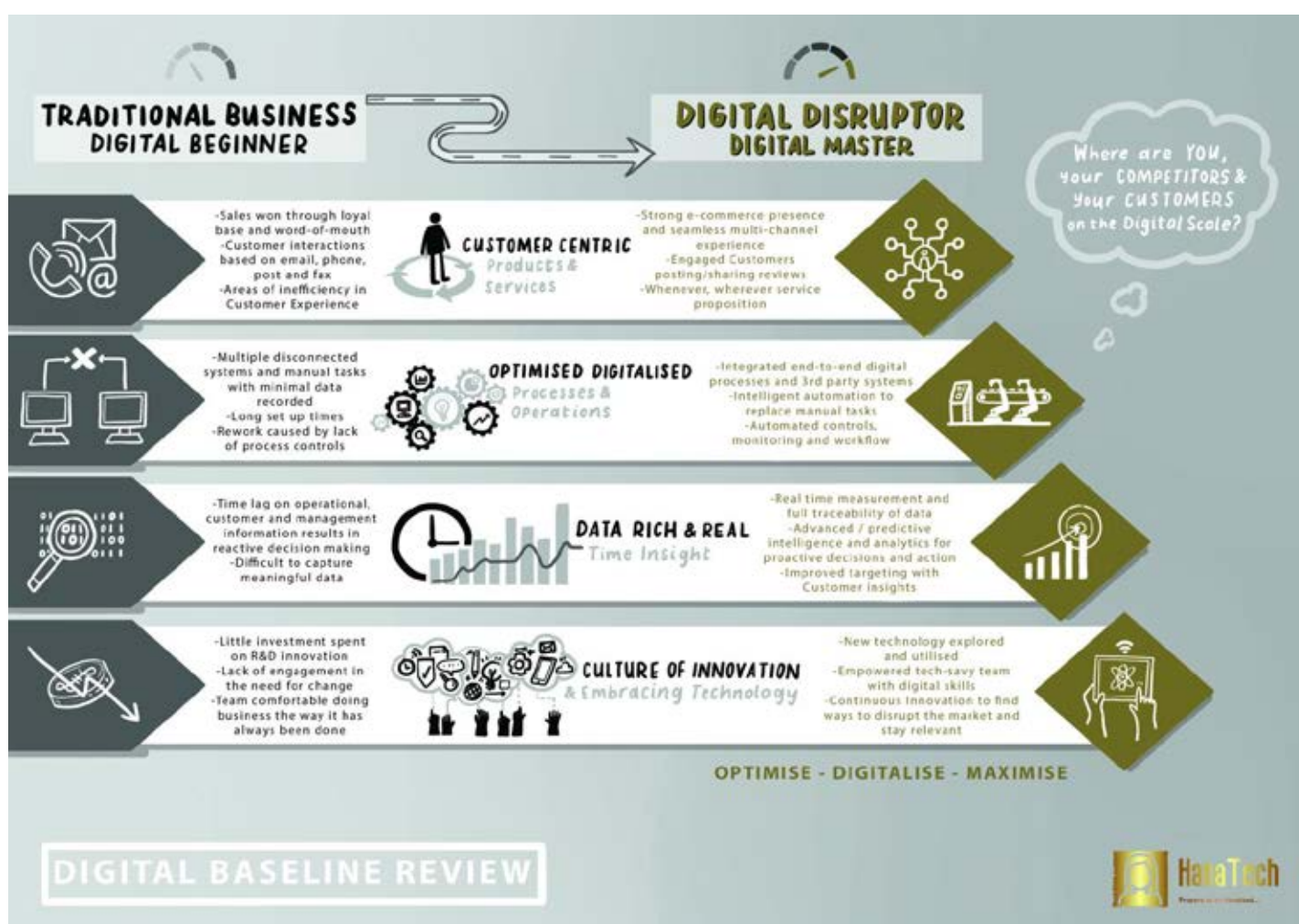
CBM has been in discussion with a small tech company to offer an independent free review for Members to build a picture of how our sectors compare nationally and internationally. Hana-Tech specialises in helping smaller manufactures gain value from existing systems and data through analysis of website traffic, orders, manufacturing records and stock

levels. The review will highlight areas to develop to make customer response faster, capture more data, save time and reduce waste.

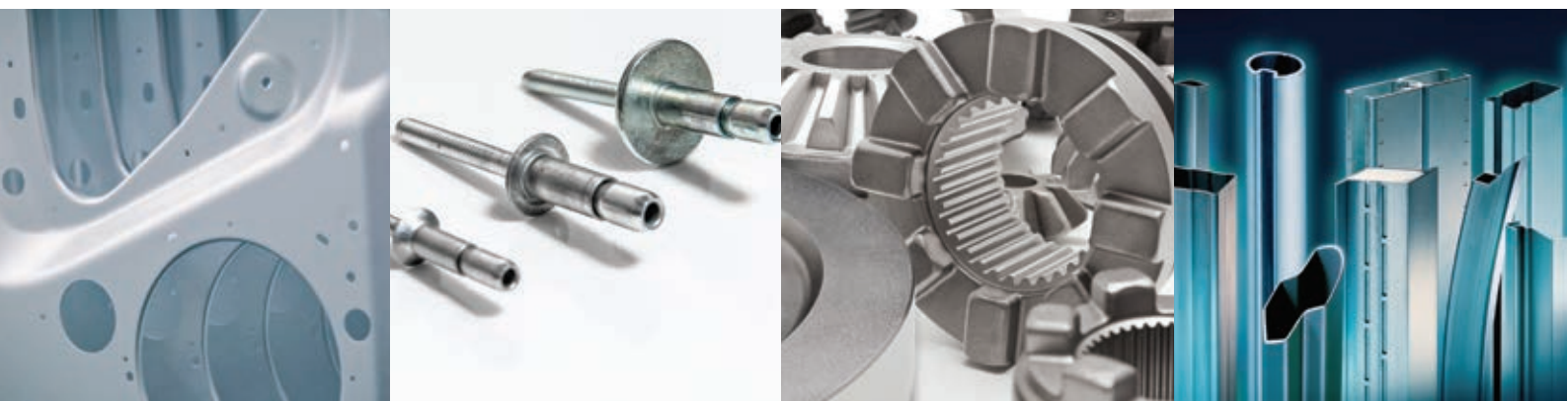
Contact; hana.robertson@hana-tech.co.uk

A remote review will take between 1 and 2 hours.

www.hana-tech.co.uk



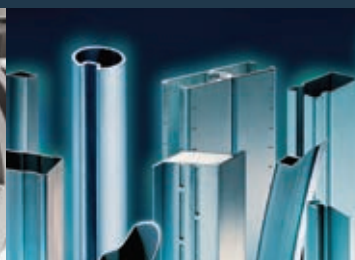
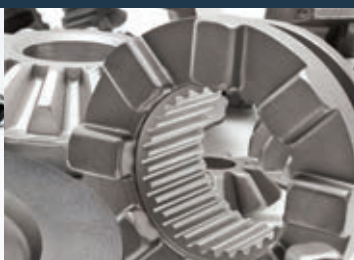
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The above course dates
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