

METAL MATTERS



ICOSPA

International Council of Sheet Metal Presswork Associations



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BROOKS FORGINGS



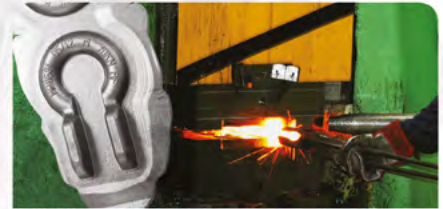
FORGING, BENDING AND FABRICATION SERVICES OVER 20 MANUFACTURING PROCESSES



Robot Forging



Upset Forging



Drop Forging



Counterblow Forging



Open Die Forging



Hand Forging



Hot & Cold Bending



Hot & Cold Pressing



Swaging & Pointing



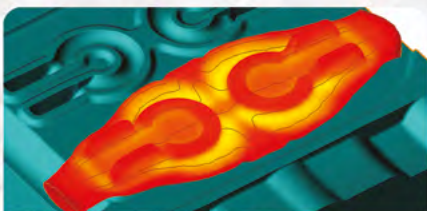
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Fabrication & Assembly



Flash Butt Welding



Forging Simulation



Quality Control



Warehousing



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Front cover image courtesy of ICOSPA Congress

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Southern Manufacturing & Electronics Show:
7th - 9th February 2023 Farnborough.

CBM Annual Dinner and Awards:
30th March 2023, The Grad Hotel Birmingham.

Metallurgy for Non-Metallurgists Course

14 & 15 March 2023, 9.30-1pm each day Online Via Zoom

Manufacturing and Engineering week:

7th - 8th June, NEC Birmingham.

Advanced Engineering:

1st - 2nd November, NEC Birmingham

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Manufacturing lacking support at a critical time

I have just attended my first CBI Conference and it was great to see it being held in my home city of Birmingham, especially as it is a prestigious event attracting national press interest and delegates from all over the country.

The CBI, as part of the B5, are an important partner to the CBM and as well as our membership we also sit on their Trade Association Council, working closely with their London and Midlands team. Through our lobbying, the CBI were pivotal in supporting the CBM in the Government support package on Trade Credit Insurance and we took the opportunity to discuss revisiting this with Flora Hamilton, Director of Financial Services at CBI. We also discussed issues of payment terms and Flora has asked the CBM to support a taskforce to feed into government on some of the poor payment terms our members are facing from their customers, which I know isn't always an easy issue to resolve.

The Conference overall was very good with some good presenters and panel debates as well as the political heavy weights, the Prime Minister, Rishi Sunak and leader of the Labour Party, Keir Starmer, ably supported by CBI Director General Tony Danker. Tony is an excellent speaker and his vision and direction for business is the correct one, we need politicians from all sides to listen and take note of his vision and CBI campaign 'Go for Growth'.

The Prime Minister spoke well but all too top level and doesn't get the main issues impacting our members who are struggling on energy costs and labour shortages. Whilst he reiterated support for Brexit and Immigration to keep the right of his party in line, he still wants to set the bar too high on controlled migration, meaning manufacturing won't get the people it needs to meet orders and be able to grow their business. We have already seen members losing work due to lack of labour and we all know productivity aligned with labour are key components of driving up outputs to support GDP.

On energy he stated again that business support will be targeted after it ends March 2023, if manufacturing isn't supported after this date the supply chain will collapse. They need to remove the cliff edge to enable all of you to plan ahead. How can you prepare budgets or forecasts let alone invest in your future if you don't know what it holds.

Overall, he bought nothing new to the conference and quite frankly it was disappointing, they are supposed to be the party of business but offered nothing new on growth, whilst I recognise the current issues we still need hope for the future. Given that he was in Birmingham he didn't even mention Manufacturing, which won't surprise many of you.

The Leader of the Opposition Keir Starmer, gave a very pro-business speech, was very pro-growth and whilst easier to say things

whilst in opposition, as you don't necessarily have to see them through, he came across well. His understanding of the failings of the Apprenticeship Levy were examples and was encouraging, he recognised the need for flexibility, for companies to spend their levy on different training modules, outside of the current rigid criteria.

He had also had strong views on migration and wants to see controls maintained but avoiding situations such as we saw with the shortage of HGV drivers last year. I'm not sure where that leaves Manufacturing, if you can prove a strong case for skilled workers, it may suffice but for those looking for unskilled labour, it will be more difficult.

If you were judging the reaction to each speech on the level of applause, then Starmer won hands down. In my opinion it was far closer but from what our members want to hear Keir Starmer edged it.

It would be remiss of me not to mention Andy Street, the CBM's local Mayor and by far the best panellist over the two days, he understands the region, so he gets Manufacturing and what it needs. A special mention to Sharon White, Chair of John Lewis Partnership, who really understands some on the migrant issues and shortage of labour and spoke eloquently on the importance of solving the issue.

All in all, an interesting and informative 2 days but we really aren't any wiser on what Government help will be given to resolve the two big issues of energy costs and labour supply, so plenty of work for CBM still to do to get Government to understand that manufacturing need their support if we are to increase the countries growth.

On the topic of business support for energy costs, I recently attended a call with the Department for Business and over 150 attendees. I was one of the very few, if the only one, from manufacturing but it really highlighted, if we needed it, that every single sector and business is impacted by the energy crisis. CBM are working hard to feed into the Government review, currently being undertaken, to assess which businesses will benefit from financial support for energy costs post April 2023. CBM are a member of energy policy committees with the CBI and Make UK, as well as local Government groups. We have been asked to feed into the West Midlands Energy Task Force with our views on energy support, also to look at widening the criteria for energy intensive exemptions, so that help can be applied to a wider number of businesses. All of this is an uphill battle, but as your Trade Association we are doing everything in our power and appreciate any evidence and case studies



• Steve Morley,
CBM President

that you provide to us, these are always kept confidential but help us enormously.

EU Carbon Border Adjustment Mechanism (EU CBAM)

EU CBAM, one that we have on our radar. The UK is a third country so CBAM will apply to UK exports unless the UK Government can negotiate a mitigating agreement with the EU (which is unlikely). Additional costs/complications for EU importers of UK goods therefore likely to create further disincentive to trade with UK. Costs/administration for UK exporters to provide required environmental evidence/traceability to EU customers. CBM are feeding into work on this with HMT and will keep an eye on it.

ICOSPA Congress

As many of you will be aware the CBM have just hosted the 20TH ICOSPA Congress here in Birmingham and it was a huge success, the feedback we had was tremendous, so thank you all.

Special thanks to our Speakers, who came from across Europe. Gestamp and Brandauer for hosting the fantastic factory visits and all the delegates who attended in what I appreciate are difficult times.

It would be remiss of me not to mention the small CBM team who did a lot of the organising in the background and enabled us to carry this off and the International Congress Dinner in Birmingham.

Christmas and New Year

As always, being the final edition before Christmas and the New Year I want to wish you and your families a great Christmas and Happy New Year. We will all come back refreshed to face the challenges that lie ahead and upon return rest assured CBM will be here to support you.

Steve Morley
President of the Confederation of British Metalforming



The UK's only specialist manufacturers' organisation for experts in metalforming

Why Join the CBM

You get valuable influence, business support, technical expertise and market insight as a CBM member.

Lobbying & Promotion

Get your voice heard within Government and the wider manufacturing industry

- Benefit from our active lobbying support, which has played a key role as post-brexite trade negotiations accelerate and the Government makes crucial coronavirus decisions.
- We collaborate with the Department for Business, Energy & Industrial Strategy (BEIS) on a weekly basis, covering issues ranging from Rules of Origin, electricity prices, Steel Safeguarding, to name but a few.
- Our mission is to represent UK in those industry discussions – and help you access opportunities through collaboration with a broad stakeholder group.

Compliance & Cost Management

Save money through your CBM membership

- As a CBM member, you get access to a range of practical services that save money and make operations easier.
- Our accredited energy tax rebate service is a key benefit – it's saved members £4 million+ annually in Climate Change Levy.
- You can boost your savings with our cost-effective Streamlined Energy & Carbon Reporting compliance service and Energy Saving Opportunity Scheme assessments – as well as discounted meeting room hire, our free business support hotline and more.

Marketing & Business Development Support

- Build relationships and develop opportunities
- CBM members come from across the supply chain – and work across automotive, aerospace, rail, defence, energy and Construction. We help you build relationships with potential customers and partners.
- You can also use our platform to promote your business – in Metal Matters magazine, at industry events and among our growing social media audience. Our popular website directory and Buyers' Guide is a popular way to get noticed by supply chain managers.

Technical Support

Leverage expert knowledge of metalforming techniques

- Whether you have a problem or want advice on a new process, our sector specialists are here to help. With your CBM membership, technical support is quick and cost-effective.
- Over 130 years' experience with our Sector Specialists who cover Forging, Fastening, Press work and Sheet Metal

Innovation & Knowledge Sharing

Keep your business on the front foot

- CBM events give you opportunities to share knowledge and best practice. Thanks to member days, sector group meetings, monthly market reports and more, it's easy to learn about developments that will help your business.
- Through your membership, you also benefit from our established links with universities and innovation hubs like Warwick Manufacturing Group, Advanced Forming Research Centre, Imperial College and Advanced Manufacturing Research Centre.

Training & Skills Development

Fill skills gaps and boost retention

- We offer training opportunities for technical and non-technical roles, so you can fill gaps in your business.
- In response to CBM member feedback, level 6 Apprenticeship (degree level) programme was developed by the CBMs Trailblazer group.
- The level 6 Tool Process Design Engineer Apprenticeship was specifically created for the metal forming sector in recognition of increasing skills shortages. It is the only Apprenticeship that recognises the unique and specialist skills for this senior technical role.

Health & Safety

- Our popular Health & Safety Group meetings provide a vital forum for sharing successes and getting advice on overcoming challenges.
- You have access to our HSE helpline, as well as discounted private healthcare and occupational health services.

NEW HR Support

- Exclusive access to a CBM dedicated website
- Designated Client Relationship Manager
- Discounted rates for litigated matters in any Employment tribunal

CBM membership pays for itself thanks to the opportunities, access and cost management benefits you receive. Contact us to discuss your business needs and the best membership

**CONTACT CBM NOW ON
0121 601 6350 or
email Melinda.jean@thebcm.co.uk**

PROUD
MEMBER
OF



Global metalforming event was a great success on its return to Birmingham after eighteen years away

The CBM were proud to be the hosts of this Congress, where more than 120 of the world's leading sheet metal pressworkers attended in Birmingham in October as part of a major global manufacturing event.



The 20th ICOSPA (International Council of Sheet Metal Presswork Associations) Congress returned to the UK for the first time in 18 years, with the emphasis firmly on 'New Tech, New Skills and New Challenges.'

Held over two days (19th-20th October), delegates from China, France, Germany, Japan, Spain, the US and the UK met to discuss some of the biggest topics facing their sector, including innovative technologies transforming metalforming, how to deliver sustainable performance, bridging the skills gap and remaining profitable in the face of economic struggles.



BRANDAUER

The congress, started on Wednesday 19th with two company visits to Brandauer in Birmingham and Gestamp's new factory in Four Ashes, Wolverhampton.

Stephen Morley explains the positives of company visits: "Our visits are always a highlight of proceedings as delegates love getting out on the shopfloor and seeing how different companies operate."

"In Brandauer, we have one of the region's most progressive and exciting SMEs and a firm that is leading the way in the manufacture of thin gauge laminations for electrification."

"Gestamp is a major tier 1 automotive supplier, and it will be great to see how its landmark new factory has come together to create a truly world class manufacturing environment."

The next day saw the National Metalforming Centre in West Bromwich host the main Congress, followed by the evening dinner at The Grand Hotel in Birmingham.



The Keynote address from Francisco J. Riberas (Executive Chairman of Gestamp), discussed Major challenges and opportunities in the automotive sector.

Francisco J. Riberas Mera holds a degree in Law (1987) and in Economics and Business Administration (1988) from the University Pontificia de Comillas (ICADE E-3), Madrid. In 1989 he began his professional career working in Business Management at Gonvarri Group. He then became Director of Corporate Development, and was subsequently named CEO. In 1997 he promoted the creation of Gestamp, assuming his role of Executive Chairman and shaping along these years what Gestamp is today.

Ian Harnett (Chairman of Tevva Electrical Trucks), discussed Moving the world towards a better way of transporting everything for everybody.

Tevva is a new Electric Truck Manufacturer based in Tilbury. Tevva has launched 2 trucks to date, a 7.5 tonne Battery Electric Vehicle and a 7.5 tonne BEV with a Hydrogen Fuel Cell Range Extender.

Prior to that Ian worked in the Automotive Industry for 38 years. He started at British Leyland in 1982 at Longbridge as a Presswork Buyer. Over the years Ian worked in a variety of Commodity areas and under a number of different owners.....British Aerospace, Honda, BMW. Ian brought the Purchasing team out of Longbridge and into Gaydon when

Ford acquired Land Rover during the Ford days Ian was based in Cologne for 3 years where he was responsible for all Chassis and Raw Material Purchasing for Ford of Europe, JLR and Volvo.

Antonio Costa, CEO of Congress Diamond Sponsor Kaizen Institute, discussed The Kaizen Institute - Industry 4 innovation and building a digital transformation strategy. António started his career at Kaizen Institute in 1999. Since January 2022, he is serving as Kaizen Institute's global CEO. Recently, he focused on the coordination and development of new opportunities such as the management of full-scale global projects in the service, retail, and healthcare sectors. He has extensive experience in cultural change processes and KAIZEN™ transformation initiatives.



Insights were also delivered by Dan Hurd (Ernst & Young) on Strategy & Transactions Partner of Ernst & Young – Global supply chain issues for the future.

Dan is a Partner and leads the Turnaround and Restructuring Strategy team in the Midlands and is national Automotive and Advanced Manufacturing & Mobility lead for the TRS business. Dan's experiences and skills include stakeholder management and turnaround, leading independent business reviews and pre lend reviews, distressed corporate advisory work, working capital management projects, accelerated acquisition and disposal mandates, options reviews and taking insolvency appointments across a diverse client base.



And from Jianguo Lin (Imperial College London) Future challenges on forming technologies for vehicle light-weighting.

Professor Jianguo Lin, FREng, is a Fellow of Royal Academy of Engineering (FREng). Professor Lin's research expertise is in Metals processing technologies, Materials and process Modelling. He has published over 300 research papers in refereed international journals.



Stephen Morley, Chairman of the Confederation of British Metalforming and President of ICOSPA said "Our congress has been headlined by some of the world's leading voices in the sector, including the man who shaped the creation of Gestamp and the CEO of one of the UK's pioneering manufacturers of electric trucks."

"The ICOSPA Congress brought over 100 senior executives and business leaders from around the world to Birmingham, which has a proud heritage as the heart of the Industrial Revolution and continues to be a sheet-metal and presswork hub – from manufacturing to future mobility, automation and electrification."

The International Council of Sheet Metal Presswork Associations is the main platform for the cross-national exchange of the sheet metal engineering industry.

Over the past 50 years, the six member associations have represented the voices of over 12,300 companies and 600,000 employees throughout the world.

The presidency of ICOSPA will now be passed to the Japan Metal Stamping Association.

Other organisations present include the Precision Metalforming Association, The Confederation of Chinese Metalforming Industry, FIM Metaux en Feuilles and Industrieverband Blechumformung.

For further information please email ICOSPACongress@thebcm.co.uk

ICOSPA

International Council of Sheet Metal Presswork Association:



Tool and Die Apprenticeship – We need your help to retain this important level 3 standard.

The Institute for Apprenticeships and Technical Education (IfATE) have undertaken a “route review” of the level 3 Engineering Technician standard which includes the Tool and Die apprenticeship.

The Institute wish to retain a stand-alone modernised Tool and Die standard provided there is sufficient demand from employers, and this is where we need your help.

It is essential that we demonstrate strong employer interest and create a modern apprenticeship that meets your future needs. Without sufficient support from employers this apprenticeship will disappear and the Tool and Die specialism will no longer be recognised

Three trade associations (Confederation of British Metalforming (CBM), Cast Metals Federation (CMF) and the Gauge and Tools Makers Association (GTMA) have come together to ensure their Tool and Die members are involved. However, the content of the apprenticeship standard must be employer led and a Trail

Blazer group needs to be formed to inform the content of the standard and the end point assessment process.

There is a cost in developing the apprenticeship and we have received support from contributing organisations such as the “Worshipful company of sheet metal workers” to cover the work needed to start an application to be submitted.

Brendan Casey, Senior Product Manager – Engineering and Manufacturing, outlined the following IFA& TE process:

- an employer led trailblazer group needs to be formed.
- a proposal outlining the need for the standard needs to be submitted to IFA&TE for approval to proceed.
- a new modernised standard and end

point assessment plan is then created by the employers.

- IFA&TE will apply a funding formula to obtain a value for the new level 3 apprenticeship standard.

There has been two meetings where a wide-ranging discussion on what a new standard should include, including problem solving skills, and the relationship between tool making and tool & die maintenance and repair.

Next steps... please contact Melinda Jean, Membership Secretary, **Melinda.jean@thecbm.co.uk** and register your interest and willingness to support the Trailblazer group and to ensure that you have an opportunity to feed into the content of the standard. Please do this now as this process is already underway.

Exclusive CBM members' Service offering a helping hand with your HR

Metal forming companies, like many businesses, face numerous challenges in 2022. Post-pandemic and post-Brexit, supply chain issues are on the up. Rising wage costs and hikes in energy bills are also causing headaches.

That's why FBC Manby Bowdler has developed an exclusive service for CBM members - giving you some certainty over legal costs and guaranteeing the quality of service the awardwinning law firm is renowned for.

FBC Manby Bowdler provides a range of legal services to businesses including HR and Employment, Commercial Property and Litigation advice. The exclusive deal offers a tiered service deal to CBM members, with different entry level points to cover different needs and budgets.

If you are a CBM member who would benefit from further HR support and would like to find out more about this exclusive offer from FBC Manby Bowdler please contact Julia.fitzsimmons@fbcmb.co.uk or call 01952 208420.

 CONFEDERATION OF BRITISH METALFORMING	Standard	Standard+	Enhanced
No. hours legal advice (of up to an hour)	6 Hours	10 Hours	Unlimited
Exclusive access to a CBM dedicated website	✓	✓	✓
Designated Client Relationship Manager	✓	✓	✓
Employment documentation, including Settlement Agreements and all Policies	5% Discount	10% Discount	Unlimited
Discounted rates for litigated matters in any Employment tribunal	5%	10%	15%
Training events	5% Discount	10% Discount	Unlimited
No. free places per year on an FBCMB training event	X	1	Unlimited
Insurance backed options available	✓	✓	✓
On-site / Online advice meetings	X	X	1 Per Annum (up to 2 Hours)
		MOST POPULAR	

Innovative extrusion solution for super-light automotive structural part

CurvEx Technology Ltd

Introduction

The project 'Scale-up and commercialization of an innovative forming technology for low-cost production of super-light automotive structural parts (SECA)' is funded by the Innovate UK SMART Grant, which is a highly competitive funding for game-changing and commercially viable R&D innovation that can significantly impact the UK economy. Our vision is to disrupt status quo in the UK transportation high value manufacture sector to create new demands for lightweight streamlined extruded aluminium profiles in the transportation supply chain.

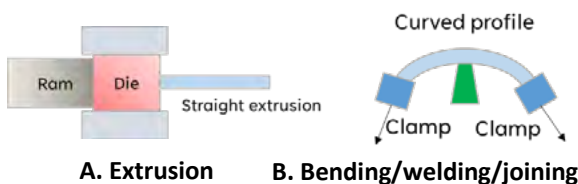
Challenge

The impetus to save vehicle weight is now a key focus of the UK carmakers to meet the country's net zero target by 2050. Integrating streamlined aluminium extrusion profiles in vehicle body structures make it possible to reduce part numbers and assembly costs while improving profile dimensional precision and aerodynamic performance. Streamlined aluminium extrusion profiles are still difficult to be produced cheaply by conventional extrusion processes.



Typical streamlined extrusion – car bumper

Conventional Extrusion Multi-step process



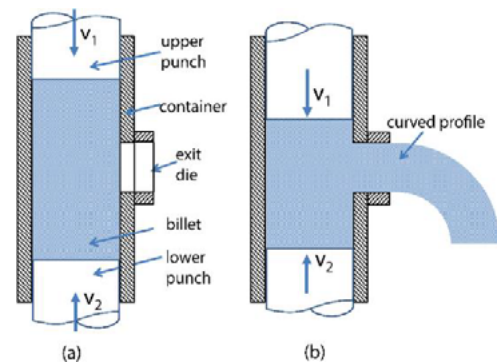
Pain points:

- Various defects
- Long lead time
- Low productivity
- High production cost
- Low car design flexibility
- Bottleneck of lightweighting

Our solution: Flextrude®

This project consortium is exploiting a UK-invented novel extrusion technology (Flextrude®) to enable affordable manufacture of lightweight streamlined aluminium extrusion profiles in one single operation.

Flextrude® Single-step process No additional bending/welding



High strength: Less defects & improved grain refinement

Design flexibility:

- Avoids multiple process steps to achieve a curved extruded shape/beam/component.
- Customers can use a mix of alloys / different metals during the extrusion process.
- Gives designers the ability to design profiles which may have been unfeasible before.

Low cost:

- Less process steps
- Less tooling
- Reduced forming time
- Less energy

Lightweight: Thinner walled cross sections, lower gauge

Reduced waste/scrap: More efficient forming process

Wide applications for transportation

Automotive

Front/rear
bumpers
Engine mount
Battery box
Longitudinal beam
Roof rail
Cross rail
.....

Railway

Door frame
Body structure
Floor structure
Window frame
Luggage rail
.....

Aviation

Body frame
Wing structure
Floor
Seat backrest
Longitudinal
frame
.....

The SECA project consortium is now offering new testing for streamlined extrusion components. If you are interested in using Flextrude® for your products, please contact Xiaoyu Xi, xiaoyu.xi@curvextech.com for more information.

Brooks Forgings Completes Challenging Production of Hot Formed Ladle Lid Lifting Bridles

Brooks Forgings are always thinking outside of the box when it comes to the production of highly specialised components, utilising our years of expertise and comprehensive range of in-house manufacturing processes.

Our client approached us regarding the production of a newly designed Ladle Lid Lifting Bridle requiring aligned directional grain flow. This required a combination of hot forming and fabrication processes that Brooks Forgings can offer.

The profiled blank for the ladle was produced from S355J2 steel measuring 2500mm long X 510mm wide X 60mm thick, with grain flow running along its length. The weight of the blank, 540kg, was just one of the challenging factors involved. Our production team meticulously planned and ensured the required handling equipment was in place.

Specialised force dissipating tooling had to be produced to minimise distortion of the 60mm thick section when bending to an inner radius of 100mm. Heating furnace apertures were modified to accommodate the hot-forming process. Rather than heating the entire plate, the heat was localised on the area requiring bending.

The bridles were shot-blast and suitably packed for delivery to our customer.

If you have any requirements for similar components or forming processes, please contact the Brooks Forgings sales team today. We are more than happy to assist you.



Custom Sheaves for Offshore Drilling Vessels

The Crosby Group continues to lead the way to meet the offshore industry's biggest challenges

The Crosby Group, a leading manufacturer of rigging, lifting, and material handling hardware and equipment, has received a significant order for custom 115-tonne safe working load (SWL) sheaves to overhaul the drilling towers on a fleet of vessels.

These hulking drilling towers reach 65m above the deck of vessels that have been modified to drill oil and gas wells. Such drill ships are equipped with a drilling derrick; the sheaves handle the guiding of the wire to lift the drilling equipment up and down the tower (or derrick).

Roger Øvstetun, Manager, Engineered Solutions at The Crosby Group, said: "The Crosby Group offers a variety of sheaves that possess several benefits, meeting the requirements for this application and many more. This allows The Crosby Group to provide competitive solutions for a multitude of applications. We evaluate each incoming inquiry to make sure we supply the best type of solution. In this case, the ductile cast solution was the right choice for the application.

For this latest project, the sheaves each weigh 1.5 tons and meet EN 1563, DNV, and other relevant standards. With an outer diameter of 2,273mm, the sheaves will be used with 70mm-diameter wire rope to raise and lower drilling equipment.

The in-service vessels each have a

drilling depth of nearly 12,200m (approx. 40,000 ft.) and typically work in 3,650m (approx. 12,000 ft.) water depth. They required a strategic overhaul, due to shortcomings with a previous solution, that had to be completed over a period. The scale of the order represents The Crosby Group's continued ability to meet the offshore industry's biggest challenges—from drilling to heavy lifting.

Øvstetun said: "Our broad knowhow on various sheave designs, makes, and types set us apart. Given the scale of these operations, we had to commit to delivery of sheaves that are geometrically optimized to handle stress and capacity. They are made from a proven material that has been optimized over time."

Special service

Øvstetun belongs to the Engineered Solutions department at The Crosby Group and is based in Bergen, Norway, but serves the global operation. The company boasts an extensive catalog of Crosby-branded and other rigging, lifting, and material handling hardware, but it is also a specialist manufacturer of heavy-duty, high-capacity custom solutions, which goes through Øvstetun's team. He pointed to recent standout projects, including a 1,000-tonne capacity quad hook, which leveraged Crosby Feubo equipment; an 800-tonne capacity hook block; and sheaves that were over 16 ft. in outer diameter.



About The Crosby Group

The Crosby Group is a global leader in the innovation, manufacturing and distribution of products and services used to make lifting and load securing safer and more efficient, with premier brands such as Crosby, Gunnebo Industries, Crosby Straightpoint, Crosby BlokCam, Acco, McKissick, Crosby Feubo, Crosby Airpes, Trawlex, Lebus, Speedbinders and CrosbyIP.

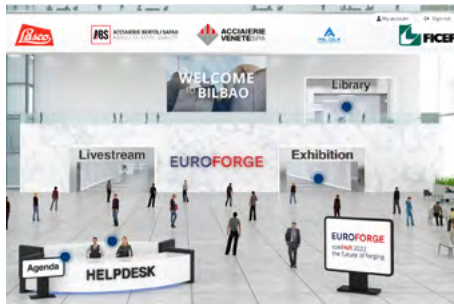
With global engineering, manufacturing, distribution and operations, the company provides a broad range of products and solutions for the most demanding applications with uncompromising quality that exceed industry standards.

www.thecrosbygroup.com

Euroforge ConFair 2022 reviewed by Derek Bond, Forging Specialist

Following a very successful inaugural ConFair in Berlin 2018, the pandemic delayed second ConFair was much anticipated and took place on 27th and 28th September in the impressive Euskalduna Conference Centre in Bilbao, Spain.

This year's combined two day conference and exhibition was the first hybrid event to accommodate on-line guests via a highly interactive virtual platform.



The conference was opened by the Euroforge President, Alpur Kanca, and the full programme was hosted by the Euroforge General Secretary, Tobias Hain. In the exhibition area there was a hive of activity between seminar presentations and numerous networking opportunities with 43 exhibitors covering a full range of forging related activities.

The two-day conference provided a well-balanced, highly topical blend of scientific, technical and industry related presentations, ranging from digital

transformation, green steels and forging industry 4.0 to in depth topics for example reviewing the wear mechanisms of hot forging tools. Day one concluded with a round up of regional reports from China, India, Japan, North America and Europe. Day two started with a presentation on net zero and sustainable forging, NOCARB Forging 2050, and concluded with a group of presentations based on industrial forging opportunities presented by industry 4.0. Each of the twenty two 30 minute presentations were made by influential guest speakers, selected and reviewed by the Euroforge technical sub-committee, and grouped by key industry themes, all followed by Q&A sessions and opportunities to follow up individually with the guest speakers.

The return of face-to-face networking was welcomed by everyone and this provided a perfect opportunity to renew acquaintances whilst developing new contacts in an informal open and relaxed environment. I personally picked up a number of interesting contacts that have been followed up, which I will share with my CBM and UK network of contacts.



Preparations are already underway for the third ConFair, which will take place in September 2024 and held in Milan, Italy. I strongly recommend this event to potential delegates from the UK.

Anyone who would like further information on the topics covered during this year's event, or in general regarding Euroforge and sharing of industrial links, please contact me directly via the CBM – **Derek. Bond@thecbm.co.uk** I look forward to joining you at the next ConFair!

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EIFI News and Numbers by Francesca Crisi EID Secretary

Task Force

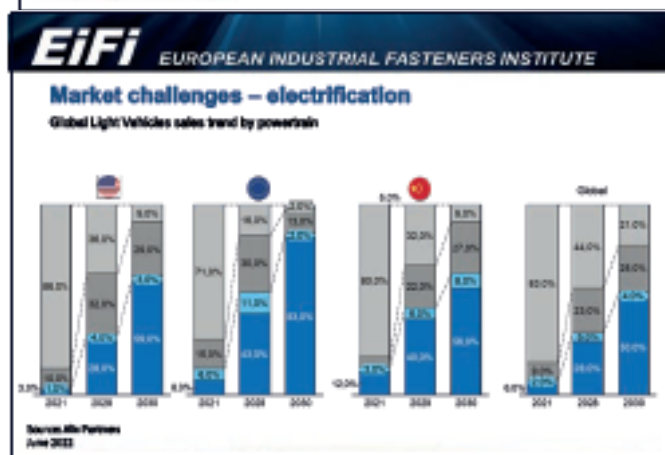
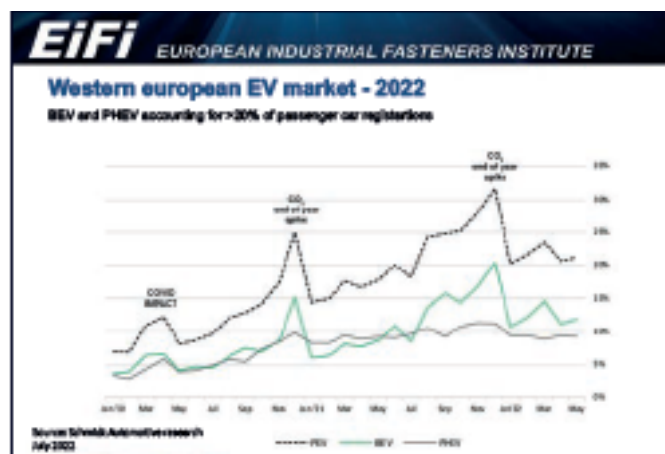
At its meeting on 22 October 2021, the EIFI Board set up a Task Force (appointing Representatives of ARTEMA, ASEFI, DSV and UPIVEB as Members) tasked with drafting a proposal to restructure the European Association and expand its membership services. The Task Force is in the process of completing the final details of the project, which will be officially presented to the competent governing bodies in December 2022. The UPIVEB President and Member of the EIFI Board and Task Force, Giorgio Donati, shares some more information in his editorial in this issue of Italian Fasteners.

Thank you, Gianni

Gianni Pezzoli's collaboration with UPIVEB ended on 1 July 2022 and this is also reflected in the EIFI, whose General Secretariat was entrusted to Gianni Pezzoli and Francesca Crisi from the Italian Association at the end of 2015. During the Board and General Meeting held remotely in June 2022, Anders Karlsson and EIFI Members thanked him for his valuable work over the past seven years and for his technical support to various projects. Francesca Crisi remains the Secretariat of the European Association.

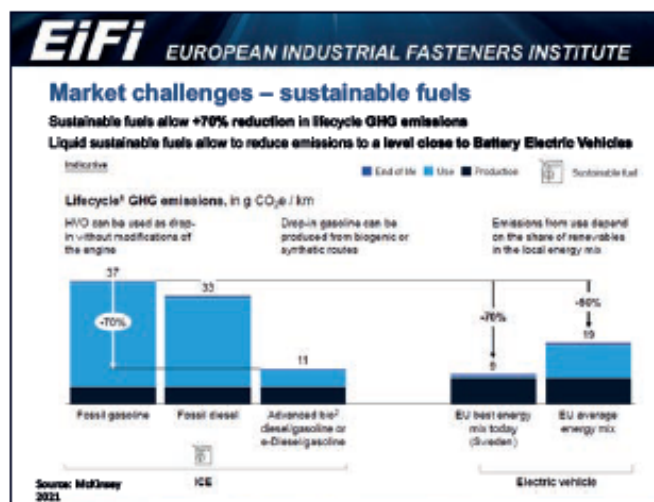
Automotive Group

The last meeting of the EIFI Automotive Group, chaired by Paolo Pozzi (CEO of Agrati Group), was held remotely via videoconference on 7 July, and was attended by about 40 European companies from the fasteners sector. After an overview of the global economic situation updated on June 2022 (inflation at 8.6% in Europe and the USA and at 2.1% in China – source: tradingeconomics.com) and GDP growth forecasts revised downwards compared to those of January, Pozzi took stock of the agreements reached by the European Leaders during the Council Meeting of 29 June on the topic "Fit for 55" and provided updates and forecasts

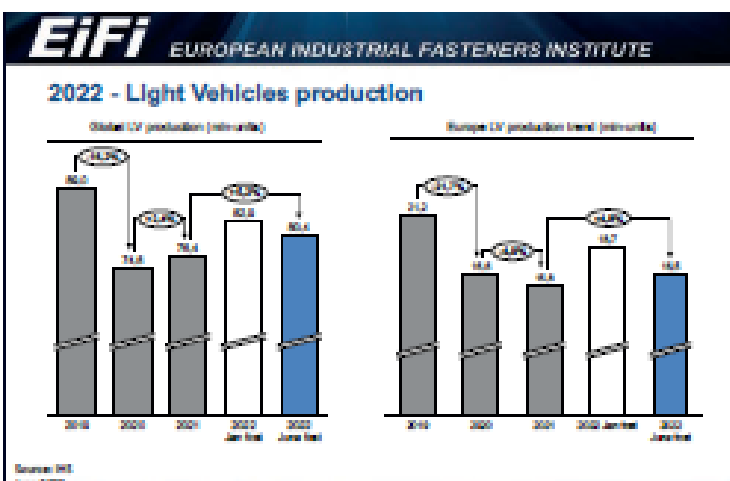
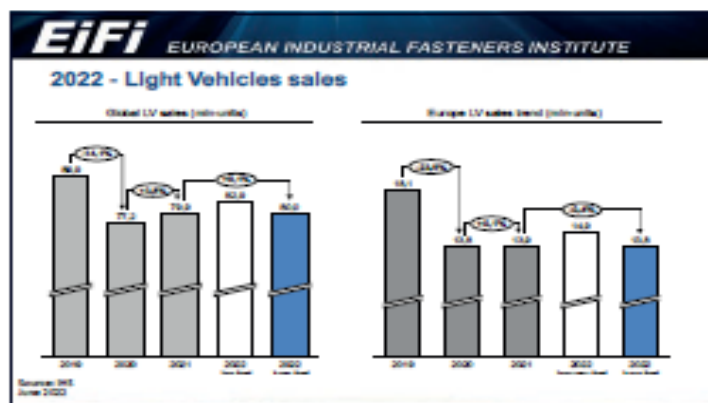


of the automotive market with particular reference to the electrification trend.

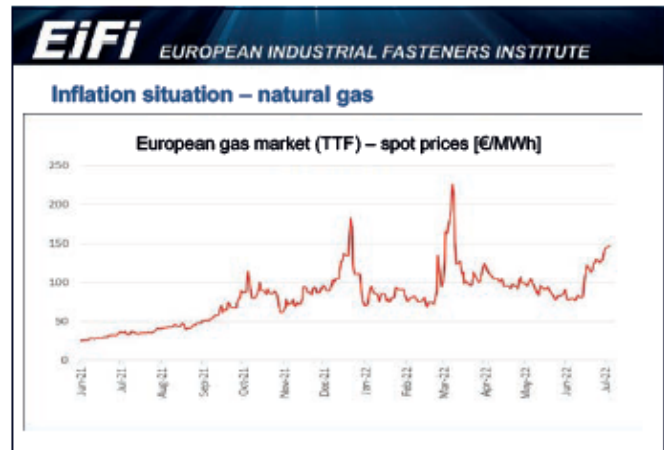
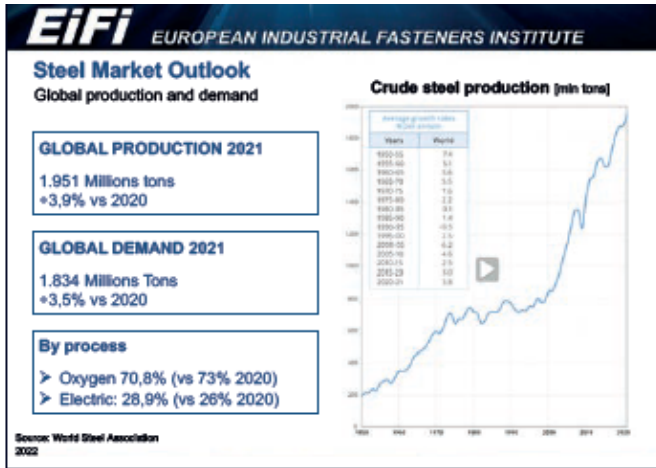
The variants analysed in the meeting that have an impact on the automotive market were the known shortage of semiconductors and sustainable fuels, as well as the trend in the business indices of the major OEMs and their suppliers.



Moving on to the analysis of the fasteners sector, the focus then shifted to the market trends of steel and energy (electricity and gas).



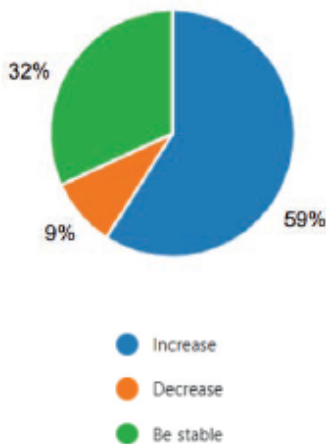
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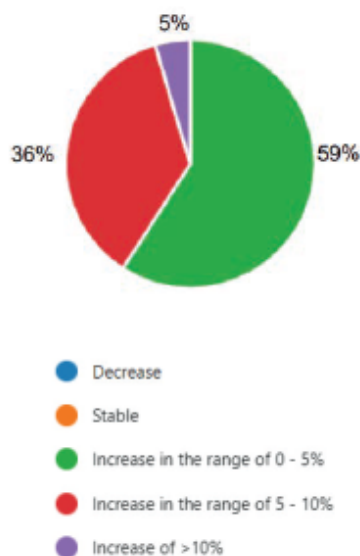
The various National Associations associated with EiFi, Artema, ASEFI, CBM, DSV and UPIVEB then presented their situation in the automotive and fasteners market and participants were asked to express, as is always the case at the end of Automotive meetings, their opinions on the future trend of some significant indicators. The results are shown below:

The next meeting of the Group will be held remotely on 28 October 2022.

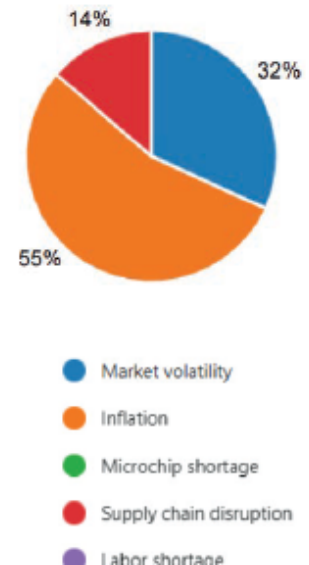
Inflazione secondo semestre 2022
Inflation second half of 2022



Costo del Lavoro 2023
Labour Costs 2023



Maggiore sfida attuale sul mercato
Current major challenge in the market



Continue on Page 12

CBAM WG

On 15 March 2022, the European Council reached an agreement (general approach) on the Carbon Board Adjustment Mechanism (CBAM) regulation, which is one of the key elements of the European Union's "Ready for 55 %" package.

"The main objective of this environmental measure is to avoid carbon leakage. It will also encourage partner countries to establish carbon pricing policies to fight climate change. For that purpose, CBAM targets imports of carbon-intensive products, in full compliance with international trade rules, to prevent offsetting the EU's greenhouse gas emissions reduction efforts through imports of products manufactured in non-EU countries, where climate change policies are less ambitious than in the European Union. It will also help prevent the relocation of the production or the import of carbon-intensive products. The products of the following sectors will be covered by CBAM: cement, aluminium, fertilisers, electric energy production, iron and steel." In August 2022, the EIFI set up a Working Group dedicated to drafting a Position Paper on the CBAM which will shortly be delivered to the European Institutions to formally request that the 31 headings of Combined Nomenclature 7318 (Fasteners) be included in the scope of the Regulation. President Anders Karlsson and the Board would like to extend a special thank you to the experts of ARTEMA (France), ASEFI (Spain), DIV (Croatia), DSV (Germany) and UPIVEB (Italy), who provided their expertise in preparing the document.

EIFI supports UPIVEB as Sponsor of the ISO TC2 Plenary Meeting to be held in October in Milan

The next plenary meeting of the ISO/TC2 "Fasteners" Technical Committee will take place in Italy from 24 to 28 October 2022. The event will be held in Milan, where

the UPIVEB offices have been based for more than 60 years and, for seven years, also those of the EIFI secretariat.

EIFI will join the Italian Association as Sponsor of the five days of work, thus formally conveying their support and promotion of the fundamental technical/regulatory activities in the European and global fasteners industry. The full programme of meetings, which will be attended – either in person or remotely – by technical delegates from more than 15 Countries (Australia, Canada, China, France, Germany, Japan, Italy, UK, USA,), includes working sessions of four Sub-Committees (SC 7 - Reference Standards, SC 11 - External Threads, SC 12 - Internal Threads and SC 14 - Surface Coatings) and two Working Groups (WG 13 – Non-threaded fasteners and WG18 – Preapplied adhesive systems). The plenary meeting of the Fasteners Technical Committee will conclude the event on 28 October, summarising the progress of the work of each Group as well as taking into account the systematic (periodic) revisions of certain reference standards (tolerances, general purposes, etc.).

President Anders Karlsson, the Board, the Secretariat and all EIFI Members, would like to extend a heartfelt thank you to the President of the ISO/TC2 Stefan Beyer and all the Technical Experts who will participate in the meetings, making their great expertise available to regulating the technical standards of products that play a critical role in the safety of people, machinery and the environment.

Programma Riunione plenaria ISO TC2, ottobre 2021 Programme of the ISO TC2 Plenary Meeting, October 2021

Mon, 2022-10-24	Tue, 2022-10-25	Wed, 2022-10-26	Thu, 2022-10-27	Fri, 2022-10-28
SC 11 – External Threads	WG 18 Pre-applied adhesive systems	SC 12 – Internal Threads	SC 14 – Surface coatings	TC 2 – Fasteners
11:00 a.m. to 4:30 p.m. (Milan) (UTC: 9:00 a.m. to 2:30 p.m.)	9:00 a.m. to 12:00 p.m. (Milan) (UTC: 7:00 a.m. to 10:00 p.m.)	11:00 a.m. to 4:30 p.m. (Milan) (UTC: 9:00 a.m. to 2:30 p.m.)	11:00 a.m. to 1:30 p.m. (Milan) (UTC: 9:00 a.m. to 11:30 a.m.)	11:00 a.m. to 4:30 p.m. (Milan) (UTC: 9:00 a.m. to 2:30 p.m.)
<ul style="list-style-type: none"> Revision of standards for set screws <ul style="list-style-type: none"> ISO/CD 4766 ISO/CD 7434 ISO/CD 7435 ISO/CD 7436 ISO/NP 13809, Hexabolar socket set screws ISO/PWI 898-11 (large Ø) ISO/PWI 16047 rev. Revision of ISO 898-1 Template for product standards Systematic Reviews (3) <ul style="list-style-type: none"> ISO 898-5 ISO 4162 ISO 15072 	<ul style="list-style-type: none"> ISO/PWI 15161, Pre-applied adhesive systems for threaded fasteners 	<ul style="list-style-type: none"> Revision of nut product standards <ul style="list-style-type: none"> ISO/DIS 4032 ISO/DIS 4033 ISO/DIS 4035 ISO/DIS 8673 ISO/DIS 8674 ISO/DIS 8675 Revision of standards on Prevailing Torque Nuts (8) ISO/PWI 898-12 (large Ø) Report on progress ISO/NP 16224 ISO/PWI 6738, Hexagon high nuts with flange (style 2) – Small series Template for product standards Systematic Reviews (20) 	<ul style="list-style-type: none"> Round Robin Test for Neutral Salt Spray Test – Final results ISO 1891-2 – 2nd Amendment replacing Amd 1:2020 Revision of ISO 15330 Revision of ISO 10684 	<ul style="list-style-type: none"> Report from SCs Report from WG 13 Report from WG 17 Report from WG 18 Systematic Reviews <ul style="list-style-type: none"> ISO 10509 [SC 13] 8 [WG 13] 2 [WG 17] Revision of ISO 965-series, ISO 68-1/2, ISO 264 and ISO 724 in ISO/TC 1 Parallel procedure in CEN/TC 185 for projects under Vienna Agreement
	WG 13 Non threaded fasteners		SC 7 – Reference standards	
	1:00 p.m. to 5:00 p.m. (Milan) (UTC: 11:00 a.m. to 3:00 p.m.)		2:30 p.m. to 4:30 p.m. (Milan) (UTC: 12:30 p.m. to 2:30 p.m.)	
	<ul style="list-style-type: none"> ISO/CD 3506-7 ISO/NP 7090-2 Restructuring of the standards for plain washers 		<ul style="list-style-type: none"> ISO/NP 885 ISO/NP 888 Systematic Reviews (2) <ul style="list-style-type: none"> ISO 4759-1 ISO 16228 	

The Advantages of Cold Forged Fasteners

Cold forging is a metal working process that is carried out at or near room temperature by material in wire form which is then cut off and fed into a die or multiple dies. The result is a component where the net shape is formed without any scrap, unlike parts which are turned.

As they are formed and not cut, the grain flow is simply re-directed resulting in a much higher strength product. Cold forged fasteners are trusted in many industries such as automotive, aerospace and agricultural across the globe.

So, when considering which fasteners to use for any scale of project, here are five substantial reasons why cold forged fasteners are an attractive option:

1. Increased Strength

Due to the product being formed and not cut, the grain flow simply moves in the die or dies to produce the net shape of the finished product, which is inherently stronger than that produced by other processes such as machining. This is a much more ecologically acceptable production method as the finished part is produced without any swarf scrap material.

2. High Speed Production/Lower Cost

Typical production rates run at 100/300 parts per minute ensuring high volume parts can be produced very economically. This highspeed manufacturing process is further enhanced by computer-controlled processors which enable parts to be produced with no human supervision, an example of lights-out manufacturing.

3. Wide Range of Products

As well as basic fasteners such as solid and semi tubular rivets, cold forging enables many specials to be produced, significantly reducing the equivalent costs of products produced by other manufacturing processes. The cost of producing the products below by any other methods are very high



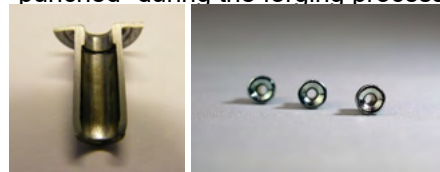
Self-piercing rivets which are rivets not requiring a hole are fast becoming the replacement to spot welding as they are both stronger and much eco-friendlier due to the lack of head and fumes.



Multi die machines enable specials to be made and of course cold forging provides the blanks for threaded products of which there are many variations, from screws and bolts to clinch studs.



It surprises many people new to cold forging that in addition to the various forms shown above, that holes created in the finished part are not drilled but "punched" during the forging process



4. Reduced Carbon Footprint (Green Credentials)

Among forging processes, cold forging is often considered the eco-friendliest option. During cold forging, the desired shape is formed to its net or near net shape which in turn reduces unnecessary waste. Energy consumption is also lower in comparison to other methods such as hot forging or waste such as swarf, which means that businesses using cold forged fasteners are contributing towards sustainable manufacturing.



5. Guaranteed Reproducibility

A consistent part is key for all applications and reproducibility can be a priority for many businesses working on large operations. As metals are formed inside a tool which needs fewer replacements, cold forging is a great way to guarantee a uniform part. The process is also rapid, making it perfect for OEMs looking to source large quantities of consistent parts. Here at Clevedon Fasteners we reinforce this reproducibility with a thorough quality regime. Due to our roots in the manufacture of Aircraft rivets, our ISO9002 quality approval is backed up with traceability back to the original rod stock.

Cold Forging a very well-kept secret

in this age of high tech, computer-based design, modern CAD programmes are brilliant, many now include Finite Element Analysis (FEA), automation (enabling the products to interact) and in the latest iterations, the completed design can even be tested to destruction, all in the "box".

A brave new world.

Having designed the new ultimate widget, the design is passed to Purchasing for quotation. There is then much consternation when the quotes come back much higher than the widget industry can stand, another great idea hits the dust.

Why?

The widget turns out to be over engineered. the product needs to be turned, milled, drilled, ground etc. Each operation results in expensive individual set up and run times and thereby the final product is very costly to manufacture, at which point some very innovative designs are dropped because they do not make economic sense to peruse

Cold forging is not included in the "Box"

Many otherwise perfectly good designs are dropped, when the "design envelope" can be achieved by much cheaper production methods but to paraphrase Donald Rumsfeld, if you don't know, what you don't know, you're missing out

THE FUTURE OF MANUFACTURING

The manufacturing industry is an industry of growth and innovation that has adapted to many unforeseen events.

For example, the pandemic lockdowns should have damaged the UK manufacturing industry, but these challenges have been overcome, and the industry has grown stronger. Now, with these challenges behind us, the manufacturing industry can look forward to setting new targets and achieving more goals in 2023.

INCREASED SUSTAINABILITY



Green manufacturing

Sustainability is a crucial focus of the manufacturing industry and will continue to be so for the foreseeable future. The future of manufacturing is green, but there are many ways to achieve this. This is due to an increased awareness of the industry's effect on the environment and the UK government's plans to create a Net Zero Economy by 2050. Whilst the eventual target is to create a carbon-neutral economy by 2050, manufacturers are aware of the impending milestone in 2030 to reduce total carbon emissions to 45%.

LEAN MANUFACTURING

Many commercial and industrial sectors have dedicated themselves to discovering new ways of maintaining their current operations, but with a reduced environmental impact. In-house waste management and energy usage are the main focuses of many companies as ways of optimising their production. This will improve their environmental impact but also has the side effect of creating a more financially efficient operation that wastes fewer materials. This can be achieved by managers exploring their in-house operations and the elements of their supply chain that proceed with it.

Supply chains are still feeling significant disruptions from the pandemic lockdown. However, as part of the manufacturing industry's attempts to create a more stable supply chain, many are using the opportunity to explore more sustainable ways of acquiring the vital resources they need. Examples of these environmentally positive.

Efforts are manufacturers eliminating unnecessary transportation, only sourcing what they need with no excess and reducing overproduction methods to their efficient minimums. Other efforts include investment in renewables and paying a 'carbon debt' that acts as a counterbalance to their operations and creates a balanced relationship with nature.

AUTOMATED FACTORIES



Automated factory

Smart factories and automation have been the focus of significant investment this year and are predicted to continue into 2023. Automation within manufacturing is an existing method that is already highly embraced. For example, as tension spring manufacturers, we use high-quality CNC machines that have proven the increased efficiency and accuracy of automating complex manufacturing processes. This concept has grown into companies investing in robotics and other ways of automating more complex operations, further connecting to the increased development of smart facilities.

SMART MANUFACTURING FACILITIES

Smart manufacturing facilities result from companies developing their combinations of CNC machines connected via a system

of hyperflexible, self-adapting manufacturing processes. This interconnectivity stretches across the entire facility. Sensors monitoring the progress and results of various operations can be remotely relayed to on-site personnel for review, allowing one person to monitor several activities simultaneously efficiently. The concept is to create a web of connected information sharing that lets a site manager know precisely what is happening during their daily operations.

This level of accessible data is not limited to the physical manufacturing operations either. For example, many manufacturers are increasing the automation of their facilities through the wireless tracking of assets as they travel. This operation covers the entire stream of functions within the facility, from recording the arrival of materials, the various manufacturing processes they undergo and the time and place of their export. Doing so eliminates the need for personnel to log these activities and creates a constant stream of accurate data for the manager to monitor.

DIGITAL MANUFACTURING TECHNIQUES

digital manufacturing

Digital integration is a method that is being embraced by the manufacturing industry. In 1952 when the first CNC milling machine was invented, the industry saw the potential of computer-aided operations, and many innovations were created to build on this. However, the sector's current aspirations are more focused on managing more comprehensive data on your specific company's operations and their associated chains.

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BIG DATA

Big data is an integral part of our work as a spring manufacturer, and it's predicted to be a vital part of other companies' plans thanks to the increases in interconnectivity throughout a manufacturer's entire supply chain. However, supply chain management is still a critical issue as many chains continue to struggle to return to stable normality after the pandemic lockdowns. The response to the erratic behaviour is to optimise your chain, improving its efficiency and predictability. Big data technology involves digital systems with an increased variety, volume and velocity of data. In the context

of manufacturing, big data collects together all the disparate elements from up and downstream on your supply chain, creating a far more efficient means of data management and analysis to find new ways of optimising your processes.

DIGITAL TWINS

Digital twin software is popular amongst many manufacturers and is predicted to become an essential part of future manufacturing methods. The concept of a digital twin is to create a digital simulation of a physical process or product. CAD (computer-aided design) is an example of this widely used idea, but further advancements are being developed for more intricate twins. This is achieved with various software designed to create digital objects within a computer that an engineer can analyse. These can be considered advanced prototypes, produced cost-effectively, so their manufacture or specifications can be assessed before committing to a physical twin. This is particularly useful when creating bespoke products

requiring unique production methods; by testing them in a digital space, you can finalise your concept and prevent your investment from going to waste. It's predicted that 70% of manufacturers will have a system that uses big data during 2023. Additionally, with investment in IoT (Internet of things) growing, the growth of digital twin technology could rise to 89% as soon as 2025.

It's clear that digital integration is a permanent part of manufacturing's future. Moreover, these systems' effectiveness is increasing alongside the demand for new ideas. With digital integration becoming more achievable each year, it's conceivable that all manufacturers will need to adopt these effective digital systems to remain a competitive business within the industry.



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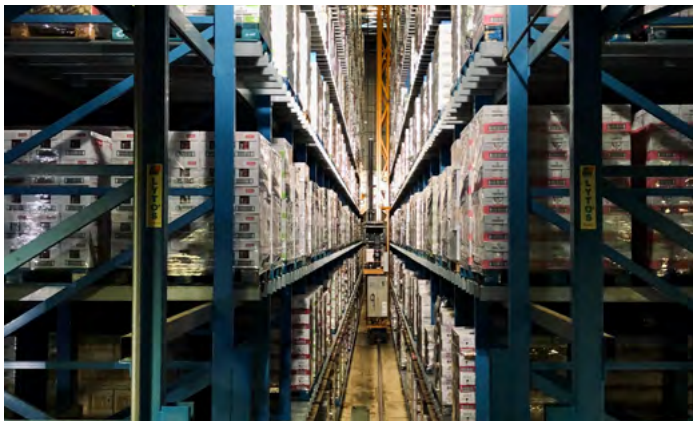
To learn more visit our website www.nmcvenue.com or enquire about dates, call Marie Williams on 0121 601 6350 or email reception@nmcvenue.com. Just mention you're a member of the CBM to claim your discount.



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Website www.nmcvenue.com

Interview with Steve Morley, President of The Confederation of British Metalforming

CBM and ICOSPA (International council of sheet metal press work associations) president. Stephen Morley is an automotive expert with over 40 years' experience including Operational and Engineering Director roles at a major Tier 1 supplier. He has studied manufacturing processes across Europe, Japan and China. Stephen had been a Director of the Confederation of British Metalforming (CBM) for 4 years before being appointed as President in 2018. CBM is the leading trade association for UK manufacturers of fasteners, forgings, pressings and cold rolled products. Stephen is also the President of the International Council of Sheet Metal Presswork Association (ICOSPA) for which the UK currently hold the secretariat and presidency. He is also a member of the UK Metals Council who's aim is to enhance the profile of the UK metals sector and to support the development of policy for the sector as a UK Government recognised Sector Council.



Do you think the UK Government is doing enough to boost resilience in supply chains? Are there any specific disrupted supply chains which you think need more support/attention?

Manufacturers are used to having no assistance from the powers that be and have always found ways around the issues that confront them, but they do need government intervention on certain supply issues. So bluntly the answer is No!

While recent events mean certain things are outside their control and global in nature, there are many which have been down to the failure of successive governments in creating a clear and structured Industrial Strategy that could have given us some much-needed continuity.

This is what the government should have done the minute Brexit was agreed to enable manufacturing to thrive.

Many of us believe this should have been cross-party and should remain in place whatever happens in the corridors of Whitehall, giving everyone connected with our sector the assurance that there is joined-up thinking and strong investment to maximise the UK's strengths and unlock new and emerging sectors.

Unfortunately, Ministers and their colleagues do seem to make things worse by their complete lack of awareness/ understanding of several issues and their reluctance to deal across all industry, not just 'key' vote catching industries. This has consistently meant that downstream manufacturing's concerns are ignored.

A recent example of this is the tariffs enforced on our members around 'steel safeguarding' and the Government neglecting the supply chain's need for the right volumes of steel and steel that is not currently produced in the UK.

We have seen longstanding issues of freight delays and shortages, which not only stopped businesses running but also pushed costs to an all-time high. Some of these delays were clearly linked to Brexit and additional checks and paperwork this bought.

More importantly our lack of long-term strategy has failed to identify key elements of the supply chain, such as semiconductors. Whilst this has been a global issue, there is no clear strategy for the future long-term supply of this vital component, whilst the United States and EU have invested quickly to secure future volumes.

What's your impression of the UK's critical mineral strategy? Do you think it is viable for the UK to develop domestic capacity in extraction and processing of these critical minerals?

The current energy crisis is impacting all CBM members directly, so the need for a clear mineral strategy is critical to ensure we meet demand to be self-sufficient and keep prices down.

As above, the need for a future strategy for new minerals is becoming ever more critical and with big reserves of lithium in Cornwall it continues to amaze that the local extraction company is failing to get the support they deserve.

Having read the recently released Mineral Strategy, it's well-intentioned but flawed by not recognising the sheer lack of labour in the UK market and the required level of investment that would need to be provided by the Government.



How has Brexit impacted the supply chains on which you rely? Do you think the UK government can rectify some of the supply chain challenges created by Brexit?

Supply chain issues are caused by global disruption, which pre-dates the Ukrainian invasion and any effects of Brexit have long been masked by the magnitude of other international events. However, a review of still cumbersome and restrictive custom practices and tariffs would certainly help supply chains work more efficiently and cost effectively.

Could the UK government do more to support reshoring of production? What would be needed for your company to re-shore their production from another country?

Reshoring is happening and lots of CBM members have benefited from this trend, particularly the 'wave' of new business flowing into the UK in 2022.

Government could help by reducing regulations and sorting out UK Steel Supplies, the latter is completely in their control.

The other big issue is they could help on is creating proper engineering apprenticeships to help fill the major skills gaps we have withing domestic industry.

Reshoring is being hampered by a lack of sub-contract capacity (toolmakers, plating, heat treatment for example) and we need to act quickly to avoid missing out on this opportunity.

The Basis of the above questions assumes that the Government understands/cares about the issue of manufacturing.

Regardless of political stripes, they have never understood the importance of down-stream manufacturing, instead focusing on big industry, the service sector and media friendly sectors such as pubs and restaurants in the hospitality sector.

The supply chain takes many forms but, without a clear Industrial Strategy supporting manufacturing and its many of thousands of jobs, pubs and restaurants will not have any customers.



£1m Precision Tooling Academy set to reverse toolmaking skills crisis

The UK's first ever Precision Tooling Academy has been launched thanks to a pioneering partnership between In-Comm Training and Brandauer.



Caption for In-Comm Precision Tooling (Group): (L-R) Marcus Gardner (Hexagon), Geraldine Bolton (CBM), Stuart Berry and Rowan Crozier (both Brandauer), Gareth Jones (In-Comm Training), Adrian Howell (Inventive Engineering & Design) and Bekki Phillips (In-Comm Training).

Over £1m has been invested by the two strategic partners to create a commercial toolroom in the training provider's facility in Aldridge, which will produce complex tooling, as well as acting as a professional training ground for the toolmakers and designers of the future.

This is a vital move for domestic industry, with the sector being held back by a severe lack of toolmakers and the very real possibility of losing these essential skills forever as older workers choose to retire.

The Precision Tooling Academy aims to reverse this trend by offering companies access to professional toolmaking courses, upskilling opportunities for qualified engineers looking to diversify their skills and a Level 6 Tool Process Design Apprenticeship to develop the next generation of talent.

Training will be unlike anything currently on the market, with up to 35 individuals in the first twelve months able to learn on live tooling projects that will be producing hundreds of thousands of parts every week and will give Brandauer and other tooling experts the opportunity to reshore more manufacturing projects from Asia, the EU and the US.

In a massive stamp of approval, a major car manufacturer has agreed to be the first company to put their engineers through the toolmaking course and has contributed to the actual development of the curriculum.

Gareth Jones, Managing Director at In-Comm Training, commented: "We have always placed employers at the heart of our approach to skills and, through our close relationship with Brandauer, identified a real demand to create and upskill engineers into world-class toolmakers.

"Lots of conversations turned into a rough plan to create an advanced training academy that is embedded into a live commercial toolroom. This would serve two purposes... provide the best possible hands-on practical and theoretical training, whilst also giving the precision stamping specialist additional capacity to meet the growing global demand for more UK made tools. A win-win and we've both backed it to the tune of £1m."

He continued: "Brandauer has jointly developed the course syllabus around its own proven tooling development process, whilst we have contributed our years of expertise in vocationally balanced delivery to offer truly unique course content.

"This isn't just a ground-breaking project for our two businesses, but for manufacturing as a whole. We immediately have provision for 35 training places, yet this could easily expand with more companies getting involved...this is open to everyone, whether you are an OEM or part of the supply chain."



The Precision Tooling Academy has also attracted the support of Inventive Engineering & Design and Hexagon,

who will bring product development, jig and fixture design and VISI die making expertise to the fore.

Unique to the toolmaking sector, the latter is an end-to-end CAD/CAM solution that is used in the design, simulation and manufacture of progressive & stamping dies and supports all parts of the process.



“This is a real industry collaboration featuring some of the best names in training, toolmaking and tool design,” added Rowan Crozier, CEO of Birmingham-based Brandauer.

“We are talking about one of the ‘great’ manufacturing disciplines and we’re in a real pinch point now where a lot of the skills could be lost forever with people retiring.

“This Academy – with more than £1m invested in a GF AgieCharmilles and Mitsubishi wire EDM machines, CNC machines, grinders and ZwickRoell material testing equipment and Hexagon scanning arm - will begin to address this issue, as well as giving us additional toolroom capacity to produce commercial tools that will help us grow.

“Return on investment for companies looking to get involved is relatively quick, with an average toolmaker recruitment fee of £6k (if you can find them) and £1k savings from every press tool set right, first time.

“Exchange rates are already boosting a recent reshoring trend that has seen us win new tooling projects back from China and other low-cost countries.”

The toolmaking programme features 12 different units, ranging from manufacturing process, costing and strip layout to understanding the bill of materials, using a wire EDM machine, part validation and problem solving to ensure the tools work when they are built.

Apprenticeships will also be offered in the form of a Level 6 in Tool Process Design, an advanced course that has been shaped in partnership with the Confederation of British Metalforming (CBM).

The latter will be a crucial ambassador and the End Point Assessment Centre for the qualification, which covers CAD training, blanking/form tools, simulation, SMED and lean and APQP/PPAP quality certifications.



Gareth Jones concluded: “Our approach is all about bringing industry and training specialists together to ensure we deliver current and future skills.

“With this in mind, In-Comm and Brandauer are both part of the Level 3 Toolmaker and Tool & Die Maintenance Technician trailblazer group, which is rewriting the way training is delivered. This should be launched in time for the September 2023 cohorts, creating a further 30 spaces for the engineers of the future.”

For further information, please visit <https://in-comm.co.uk/tooling-academy-launch/>.

About In-Comm Training

In-Comm Training, which is rated outstanding by Ofsted, is one of the UK’s leading independent training providers, supporting more than 700 apprentices and 450 companies every year with apprenticeships, upskilling opportunities, and strategic consultancy to improve business performance.

Operating from three world class technical academies in the Black Country and Shropshire, it has pioneered the employer-led approach to skills, engaging with firms to understand their requirements and then collaborating with them on shaping course delivery and the latest development opportunities so you are futureproofing staff for years to come.

The strategic technical partnerships are one of its unique strengths, closely followed by a £7m investment drive that has given learners access to state-of-the-art technology in CNC machining, 3D printing, fluid power and metrology.

About Brandauer

Established in 1862, Brandauer is one of the West Midlands’ best kept manufacturing secrets, producing millions of high tolerance metal pressings and stampings every week for customers in the plumbing, automotive, domestic products, electrical, medical and renewables sectors.

Most of its products are invisible to the user but are fundamental in making many everyday items work effectively. These include electrical connectors that are fitted in 90% of the world’s kettles, edge connectors for the dimming of rear-view mirrors in 50% of modern-day cars and hundreds of millions of nose clips for face masks – so important in recent times.

The Impact of Inflation on the Manufacturing Sector

Today, manufacturers are facing a combination of unprecedented events that strongly impact their operating margins. They are dealing with higher input costs across their business, not only from raw materials but also from energy, components, packaging, and transportation. This is leading to an overall increase in the prices consumers pay for their products and services as manufacturers need to protect their margins.

On top of the existing inflation-related challenges, manufacturers also need to focus on investing in innovation to respond to the rapid changes in consumer trends and to boost their online and e-commerce presence. Yet, the focus must also be on reducing the operational environmental footprint and **improving product sustainability**.

To help understand how manufacturing and inflation are related, the current causes of price increases will be explored in detail along with a set of possible countermeasures.

The factors that are negatively impacting the manufacturing sector

Labor shortages and wage increases

Manufacturers are struggling to acquire and retain talent as wages and alternative job openings increase, consequently increasing labor costs. They struggle to keep operations going at maximum capacity and to remain fully staffed without rising wages.

Also, the fact that prices rise without wages increasing is affecting productivity and increasing employee turnover, resulting in decreased throughput, delayed deliveries, and lower invoicing. In this sense, manufacturers that are more capital-intensive instead of labor-intensive are the least affected by inflation.



Increasing materials costs

The manufacturing sector comprises any industry that makes products from raw materials through manual labor or machinery and is dependent on materials price variations.

Currently, due to political instability and social crises, costs are rising faster than prices, which is affecting every manufacturer, especially the ones with tighter margins where the manufacturer's pricing structure determines how strongly inflation is felt.

In times of disruption, when certain materials are harder to find at reasonable prices, manufacturers may either find ways to produce their products without certain supplies or accept that they will have to pay more for them. This



does not only apply to raw material prices but energy prices too. With the recent increase in oil and gas prices, manufacturers must add another price increase to the pile.

Supply chain struggles and bottlenecks

While the rise of input costs is becoming a major concern of manufacturers, they are also struggling with a crisis of supply availability - from raw materials to parts and components. **Supply chain disruptions** are a result of the current challenging environment. It regards considerable events that make it more difficult, expensive, or time-consuming for manufacturers along the supply chain to obtain the materials they need.

When it came to the pandemic, some manufacturers downsized operations, as not everyone along the supply chain could keep up, resulting in shortages of some items. The conflict in Ukraine led to further disruption, shortening the supply of some products manufactured in the affected area.

What can manufacturers do to reduce the impact of inflation?

Reduce production Lead Time and labor needs

To improve overall productivity and reduce the negative impact of labor shortages and wage increases, manufacturers must reduce their need for manual labor and increase the automation of repetitive tasks.



Some possible solutions include:

- ◆ Implementation of Kobetsu KAIZEN™ to solve equipment failures
- ◆ Improvement of planned maintenance activities by understanding the shutdown critical path
- ◆ Management of spare parts in real-time
- ◆ Adoption of predictive maintenance and standardization of maintenance tasks
- ◆ Implementation of autonomous maintenance and SMED to reduce total loss time due to changeovers
- ◆ Optimization of set-up sequencing



Reduce energy and water costs

To **improve energy and water efficiency**, manufacturers must focus on real-time measurements of energy consumption hotspots and execute a cost/benefit analysis to identify critical equipment whose energy performance should be primarily improved.

Also, to reduce the operational environmental footprint, they must look for ways to cut resource consumption and strive for circularity in energy and water consumption.

Reduce raw material stock

It is key to refine the manufacturer's stock management policy to guarantee the right balance between coverage levels and stockouts. Likewise, the right link between production and logistics will reduce raw material stock. This may occur by implementing a planning algorithm based on historical data, replenishment Lead Times, stock strategy for each reference, and consumption data.

Reduce raw material costs

To reduce the impact of inflation on the pricing structure, raw material yield must be improved. To do so, it is necessary to improve process control by using Lean Six Sigma to reduce consumption variability. Also, the adoption of product re-engineering will remove non-value-added materials or technically improve the process to cut the consumption of certain materials. Another action to be considered is the reintroduction of by-products in the manufacturing process.

Supply Chain optimization to anticipate supply failures

To prevent a supply crisis, it is crucial to continuously optimize the supply chain to be prepared to operate in a disruptive business environment, boosting both agility and resilience. This could mean making longer-term contracts and improving cost transparency with supplier partners or even taking more aggressive measures with suppliers to ensure material availability. Taking such actions involves establishing closer relationships with suppliers to enhance supply chain transparency with the use of real-time data, and better predict supply chain disruptions. Supply chain optimization could also involve improving supply chain productivity through warehouse and production automation and logistics optimization.



Still have some questions about inflation in the manufacturing sector?

What is inflation?

Inflation is a phenomenon characterized by the general rise in prices for both producers and consumers for some time. When the general price level rises, each dollar buys fewer goods and services, hence inflation indicates a reduction in purchasing power per dollar.

What is an agile supply chain?

An agile supply chain is focused on responding to risk and disruption with flexibility and quickness, relying on real-time demand data for decision-making. Agile principles should be adopted in supply chain management to maximize cost and performance efficiency despite adverse circumstances.

What are input costs?

Input costs are the costs incurred to manufacture a product or provide a service that will generate revenue for the company such as material and labor costs. All remaining costs are related to general and administrative activities.

Don't get left in the cold this winter

The energy crisis remains a monumental concern for businesses as winter approaches. Whilst the introduction of the Energy Bill Relief Scheme will grant businesses some protection against the expected 80% increase in energy bills over the next six months, it is only a short-term solution. Many businesses will still be vulnerable to high market prices; switching to a flexible contract could help you mitigate this risk.

How does the Energy Bill Relief Scheme work?

Businesses may expect to see their bills halved; however, the discount will only be applied to the commodity element of their energy bill, not the transportation, distribution and levies that make up the total cost of a delivered energy price.

The discount provided will be calculated by comparing the Government supported price and the relevant wholesale price for the day the contract was agreed, however, will vary for individual bills across different contracts and tariffs. For non-domestic users, the Government supported price has been set at £211 per megawatt hour (MWh) for electricity and £75 per MWh for gas, which is lower than currently expected wholesale prices this winter.

All contracts (excluding fixed contracts) will be subject to a 'maximum discount.' As of 1st October, the maximum discount for electricity is 34.5p/kWh and 9.1 p/kWh

for gas, less than the originally promised 40.5p/kWh and 11.5p/kWh published on 21st September.

A flexible approach to the energy crisis

While those on variable tariffs will be receiving a smaller discount on wholesale energy prices, we would advise businesses to consider a flexible energy contract.

As opposed to fixed contracts, you won't be required to make a decision based on the market position on one day which can help mitigate further risks to your business. It will also enable you to spread risk when the markets are high – a crucial advantage in the current climate.

As you are able to purchase energy for up to four years in advance and build a price made up of multiple purchasing decisions, flexible purchasing allows you to take advantage of wholesale market fluctuations and move quickly when the

market is favourable. The longer the purchasing framework, the greater the prospect of minimising risk and exposure to volatility.

Both small businesses and large corporates can benefit from a flexible contract. If you would like to explore flexible purchasing as an option for your business, you can download our free eBook by visiting cec.uk.com/flex.



Take advantage of wholesale market prices

Flexible contracts can help your business take advantage of wholesale market prices and spread risk when the markets are high. To find out more, you can download our free flexible energy eBook by visiting cec.uk.com/flex



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01737 556631

ENERGY SAVINGS OPPORTUNITY SCHEME (ESOS) PHASE 3 COMPLIANCE HAS STARTED

Confederation of British Metalforming is here to guide your company through the audit process with our expert knowledge of your sector

The legislation means all qualifying organisations have to prepare **mandatory energy audits** and if you know you will qualify for Phase 3 there is no reason why you shouldn't start doing your energy assessments now, if fact, starting early may exclude you from some of the upcoming changes that may include some level of compulsion to complete identified projects.

The audits identify cost-effective measures to cut energy spending, and phase 3 of the audits must be signed off by a registered assessor and submitted to the Environment Agency by December 5th 2023.

All companies with at least one of their UK group members with 250 employees or more, turnover above 50m euros, or a balance sheet value above 43m euros will be affected, which is likely to be more than 9,000 enterprises across the UK, and will affect 40+ CBM members. Please remember this is based on your organisation group structure. The scheme covers all power and fuel used by a company for industrial processes, building and transport.

Phase 1 has taught us that detailing all energy uses throughout a large business, and calculating means of reducing costs can be complex and time consuming, particularly for those already dealing with Climate Change Levy (CCL), the Carbon Reduction Commitment and the Mandatory Carbon Reporting Systems.



We are now taking bookings to carry out ESOS assessments and the following packages are available:-

ESOS AUDIT - CBM MEMBER PACKAGE

- ✓ £2000 plus VAT for ESOS assessment meeting and audit report sign off +
- ✓ £495 plus VAT per day, per site
- ✓ Reasonable travel and accommodation costs will be charged in addition to the costs above if required

ESOS AUDIT - CBM NON MEMBER PACKAGE

- ✓ £3000 plus VAT for ESOS assessment meeting and audit report sign off +
- ✓ £795 plus VAT per day, per site
- ✓ Reasonable travel and accommodation costs will be charged in addition to the costs above if required

The member and non-member packages include the following:

- ☐ An initial kick off meeting with the company, involving CBM and the lead assessor;
- ☐ A mid-term review of the audit report by the lead assessor
- ☐ Energy measuring and audit work
- ☐ Final sign off of the audit by the lead assessor.

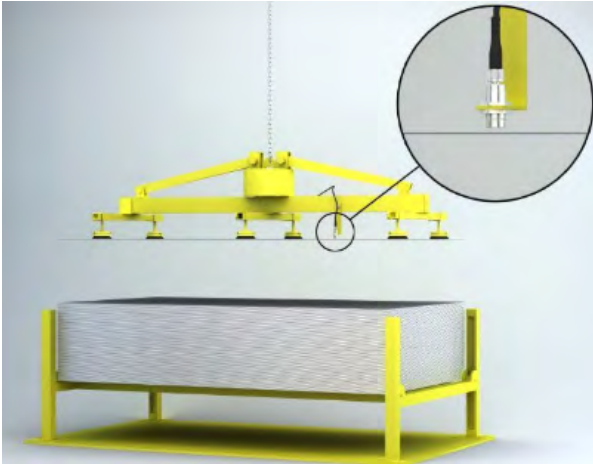
At this meeting the audit process and timetable will be discussed and actions identified and agreed as who will carry the actions out. CBM members who are not required by the legislation to have a formal ESOS audit can also benefit from voluntarily opting to carry out an audit to identify practical energy saving projects for themselves. The cost of this service is £2,500 plus reasonable travel and overnight accommodation costs if this is required and will include energy measuring and audit work plus a final report prepared by our internal energy consultant.

If you would like to book your ESOS package and diary date or require further information please contact

Louise Campbell at CBM - louise.campbell@thecbm.co.uk

Contrinex Double-Sheet Inductive sensors protect Press lines and improve OEE

Contrinex's innovative sensors provide affordable detection of overlapping metal sheets. They can protect a press-line by checking that two metal blanks are not presented to the forming press, or alternatively ensure two pieces of metal are present for example in an automotive welding assembly – Sometimes two's too many, but sometimes you just need two - Read more at www.Double.PLUSAx.co.uk



CUSTOMER APPLICATION

A producer of deep-drawn metal parts for the automotive industry uses Contrinex's double-sheet sensing to prevent costly tool damage and downtime.

Deep drawing and other metal-forming techniques are widely used in the automotive industry, which requires expensive press tools to produce complex profiles from sheet metal blanks. During high-volume production, an automated feeder loads sheets of steel or aluminium to the press.

The metal sheets are lightly lubricated to reduce friction during deep drawing, but the thin film of oil can cause two sheets to stick together in the feeder. If the press operates with such double sheets loaded, the forming tool will be damaged, resulting in downtime and large repair costs. Therefore sensing systems are used to check the material before it is loaded.

Previously, the customer had trailed alternative sensor technologies. All were excessively cumbersome and difficult to set up, and most were unable to detect double sheets reliably.

PLUS Automation Ltd is the importer of Contrinex sensors in to the UK and Ireland, and can help businesses #MakeSenseofSensors to improve automation and machine performance using Inductive, Machine Safety, Photoelectric, Pressure, Process, RFID and Ultrasonic sensors from Contrinex, Reer & Satron.

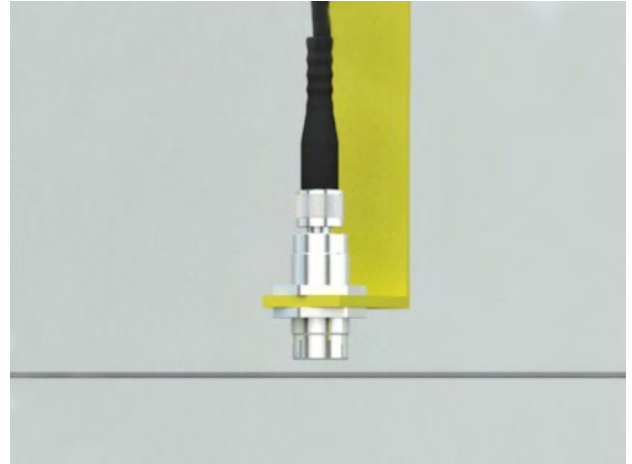
To find out more about Contrinex's Double-Sheet sensors visit www.Double.PLUSAx.co.uk or call PLUS Automation Ltd on 0121 58 222 58.

CUSTOMER SOLUTION

Contrinex offers a rugged, compact stainless-steel -bodied sensor for the loading station, which checks each metal sheet as it is presented by the feeder. If it detects a double sheet, the material is rejected and the operating cycle inhibited, which reduces expensive damage to tooling and improves OEE.

The sensor enables discrimination between single and double metal sheets of a defined thickness of steel or aluminium in the size range of 0.8 – 1.2mm thick.

A specialist version of Contrinex's uniquely robust '700 Series'



family of inductive sensors, they share the benefits of being both impact and abrasion resilient and having a case machined from a single-piece of stainless-steel – These are the sensors whose robustness is demonstrated by using them to hammer in nails.

The reliability of their performance and robustness enable you to minimise downtime and improve the OEE of Press-lines or verify assembly operations.

PRODUCT ADVANTAGES



- ✓ Reliable detection of double sheets
- ✓ 0.8 to 1.2mm thick sheets
- ✓ Steel and aluminium sheets
- ✓ Uniquely strong and reliable
- ✓ IP68 / IP69K rated corrosion-resistant stainless-steel sensor
- ✓ Virtually indestructible - Vibration and shock-resistant
- ✓ Pressure resistant up to 80 bar
- ✓ Detects targets through up to 5mm thick stainless-steel
- ✓ Highly reliable, cost-effective solution

PLUS Automation aims to help you

#MAKESENSEOFSENSORS, helping solve applications, improve machine performance and reliability, and reduce costs using Contrinex's exceptional choice of sensors. Find more information and read other application examples go to www.PLUSAx.co.uk

Click to download a flyer to find out more about the sensors, or Click to download Contrinex's Product Overview brochure

Successful EuroBLECH 2022: Industry gathered in Hanover to shape the future of sheet metal working

The 26th International Sheet Metal Working Technology Exhibition, EuroBLECH 2022, ended last week after four days of flourishing business. A total of 38,076 trade visitors (FKM audited) from around the world came to Hanover to shape the future of sheet metal working and defy current challenges.

This year's show hosted 1,300 companies from 39 countries on a net exhibition space of 86,136 square metres. A euphoric atmosphere and full order books were the results of a successful comeback of the show.

A closer look at this year's visitor numbers reveals that a total of 35,944 unique visitors came to the exhibition grounds in Germany. Practically matching the previous edition's stats, this is an exceptional result, especially given the difficult general conditions. Industry experts from all parts of the world came to the show for shorter but therefore more productive visits.

"It is hard to describe how we're feeling after giving everything we had in the past four years to make this show possible. We are overwhelmed by the fantastic outcome and proud that EuroBLECH continues its critical role in bringing the global sheet metal working industry together," says Evelyn Warwick, Exhibition Director of EuroBLECH, on behalf of the organisers Mack-Brooks Exhibitions. "This year's edition was both special and hugely important for the whole sheet metal working industry. Judged by the exhibition space itself, you can tell as we came pretty close to the record numbers in 2018," continues Evelyn Warwick.

A total of 62% of exhibitors came from outside of Germany to this year's show. This represents a further increase in international attendance by 4%. According to the preliminary results of the exhibition survey, this trend continuous throughout the visitors: more than half of the trade visitors (56%) made their way to the event from outside of Germany, making EuroBLECH a truly international exhibition. Major visitor countries, next to Germany, included the Netherlands, Poland, Italy, Sweden, Turkey, Austria, Belgium, Denmark and France. Furthermore, 37% of all visitors do not attend any other trade show, which is an increase of 10% compared to the show in 2018 and underlines the importance of the event.

As the key marketplace for the industry, EuroBLECH 2022 offered its visitors the opportunity to find solutions for the current challenges in the industry and connects them with businesses from all over the world to help them integrate the latest machinery and software into their manufacturing process. The hot topics this year were digitalisation, sustainability and Industry 4.0. Many of the products and innovations shown at EuroBLECH 2022 have been developed with a focus on cost and resource efficiency.

"The visitors this year meant serious business. Almost every second person entering the gates to EuroBLECH 2022 came with the intention to invest. That's an increase of 4% compared to the previous edition", concludes Evelyn Warwick. Both exhibitors and visitors were highly satisfied with the show and their newly established business relations. The visitors praised the comprehensiveness and international range of the products on display, as well as the quality of the exhibition stands and the many live demonstrations of digital processes. The exhibitors appreciated the highly qualified and international audience with its high percentage of decision-makers (80%).

"EuroBLECH is of great importance to us, as it is the leading international show for the sheet metal working industry. It is a truly global event, hence we were able to meet visitors from all over the world, for example Asia and Australia. Our result of the show is a success for Bystronic in these challenging market conditions." – Johan Elster, Chief Sales Officer, Bystronic Group

"We've had a fantastic week at EuroBLECH recording a record number of leads. The atmosphere was electric and it was clear to see that customers were ready and excited to be back at EuroBLECH" – Matthew Fowles, Group Marketing Director, LVD Company NV



A great majority of the visitors came from the industry (72%), followed by visitors from trade workshops and services. The most important sectors visitors belonged to included engineering, steel and aluminium construction, sheet metal & products, the automotive industry and its suppliers, iron and steel production and electrical engineering.

EuroBLECH 2022 Presentation Area

In addition to the innovations and numerous live demonstrations at the exhibition stands, attendees were able to appreciate the EuroBLECH 2022 Presentation Area. The new show feature delivered 27 sessions throughout the four exhibition days, offering exciting insight into innovative companies and projects, interesting discussions and valuable networking opportunities.

Date of the next show

Many exhibitors at this year's show have already announced that they will exhibit again at the next EuroBLECH in 2024, which will take place from 22 – 25 October 2024 at the Hanover Exhibition Grounds in Germany. More information: www.euroblech.com

Eade becomes the UK Metals Council's new chair

One of manufacturing's leading champions and business support professionals has been appointed as the new Chair of the UK Metals Council (UKMC).



Rachel Eade MBE will become the first woman to take the helm of the organisation, which initially began life 20 years ago as the Metals Forum and today represents more than 11,100 companies and supports more than £200bn of UK GDP.

The supply chain expert replaces Chris McDonald, the Chief Executive of the Materials Processing Institute, and will look to build on his outstanding work in developing UKMC as truly representative of the sector and a valued partner of Government.

Using her 20+years' experience in the automotive, aerospace and rail industries, she will look to support companies to overcome unprecedented economic challenges and energy price rises that could see some bills quadruple overnight.

Rachel's focus will also be on maximising the innovation in the sector and how it can develop technologies and skills that support the move towards Net Zero by 2050.

"This is a very exciting challenge and gives me the chance to work with influential trade associations, member companies and academia to shape how we navigate the issues whilst making the most of the opportunities," explained Rachel, who is also currently Supply Chain Lead at Birmingham City University.

"There is no getting away from the difficulties we are facing, but I've spent most of my career helping industries

diversify through major shocks, such as the MG Rover closure, the impacts of the Japanese tsunami and Covid-19."

She continued: "My predecessor Chris had done a fantastic job of growing the profile and membership of UKMC and this is something I really want to build on, using my contacts with Government and my profile across industry and in the media to achieve that.

"Metals is a foundation industry and critical to the success of UK manufacturing, especially as we look to create a greener economy. There is so much innovation in the sector, but we are crying out for an Industrial Minister and a cross-party Industrial Strategy."

Rachel's appointment comes at an exciting time, with the sector about to host its first ever UK Metals Expo at the NEC in Birmingham.

The two-day event (September 14th-15th) will represent primary metal manufacturers, the supply chain, recycling experts and leading academics as it bids to bring the industry together under one roof for the first time.

In addition to 100s of exhibitors, the Expo will also feature a host of keynote speakers covering supply chains, innovation, skills and the circular economy, with the aim of tackling topical issues and creating debate that runs throughout the year.

"UK Metals Expo was long overdue, and I'm really pleased that the UKMC is throwing its full weight behind it in a bid to create an event that will be around for decades to come," continued Rachel.

"Our aim is that, by 2030, a modern and progressive UK metals industry will be supplying high quality, innovative and competitively priced products to a wide range of customers.

"The sector is already a vital part of the circular economy and a key supplier to the UK's main manufacturers and infrastructure projects, as well a leading global exporter, with an important contribution to make in the UK's transition to Net Zero. This can be reality if we remain in the forefront of Government thinking and receive the backing our sector richly deserves."

Chris McDonald, previous Chair of the UKMC, added his support: "Rachel's appointment strengthens an already strong female presence on our board, and I know, from early discussions, that she is committed to having a resilient and green UK economy, based on high skills in places outside London and the South East.

"The UK Metals sector is well placed to help deliver this if we can get a national Industrial Strategy in place that incentivises and promotes the development of more environmentally sustainable manufacturing."

He concluded: "UK Metals Expo is an important breakthrough in our future strategy and has already attracted the likes of Aalco, Inductotherm, Tata Steel, UK Steel and Wedge Group Galvanizing."

For further information, please visit www.ukmetalscouncil.org or www.ukmetalsexpo.com



Manufacturer & Supplier Membership Directory 2022




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Stanley Engineered Fastening (Avdel) t: 01925 811 243
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