
METALWORKING NEWS
VOLUME 24.4
September 2025
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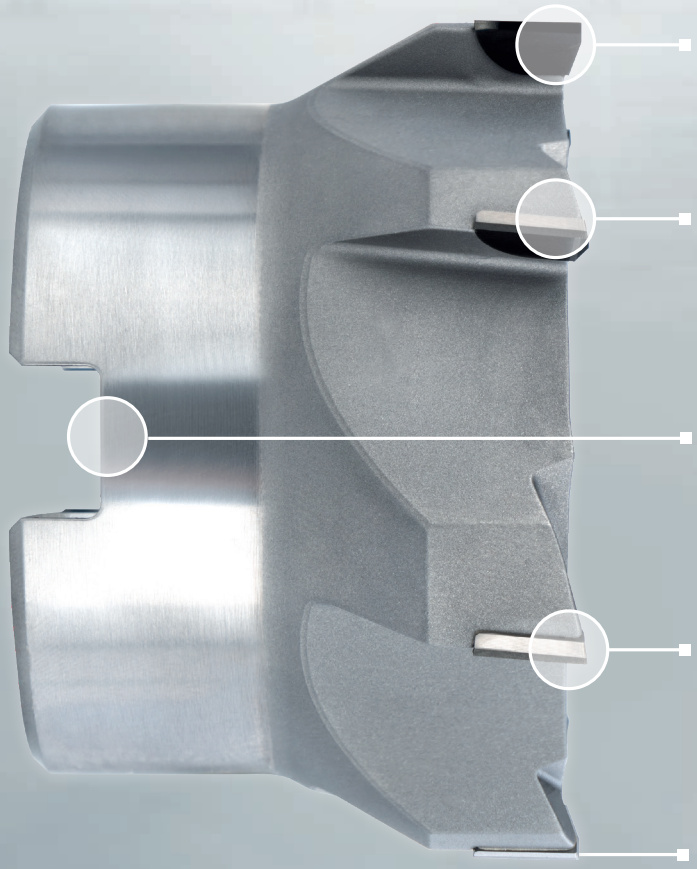

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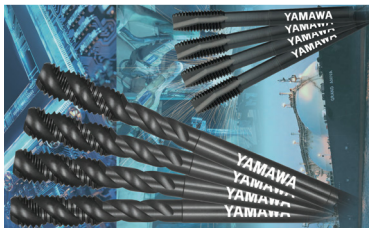
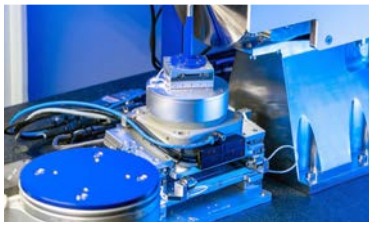
METALWORKING NEWS

September 2025





See you at EMO?

We are now just a few short weeks away from the EMO 2025 exhibition taking place in Hannover, Germany, from 22 – 26 September 2025. EMO got its name from Exposition Mondiale de la Machine-Outil (Machine Tool World Exposition), and the variety of content on show at the exhibition still reflects EMO's machine tool heritage, although it now also extends far beyond lathes and mills.

This year is a significant milestone for EMO in that it's celebrating its 50th anniversary and that this year will also mark the first time that EMO will feature a partner country – Canada.

Canada has had enough of its unruly neighbour to the south and it wants to take the opportunity to show its manufacturing capabilities off.

Jayson Myers, CEO of NGen, the organiser of the Canadian participation in the EMO, says: "Because of the trouble with our noisy neighbour to the south, Canadian industrial companies are very enthusiastically looking for new customers, new suppliers and reliable innovation partners. In the metalworking sector, we can find them at the EMO. We are therefore delighted to be the first Alliance Partner of the EMO."

NGen, short for Next Generation Manufacturing Canada, is a non-profit organisation based in Hamilton, Ontario, and it leads Canada's Global Innovation Cluster for Advanced Manufacturing. It's backed by a network of 11 000 members representing manufacturers, technology providers, academic and research institutions, business service providers and financial backers from across Canada.

Myers' goal is to raise global awareness of the manufacturing expertise of Canadian companies: "NGen is proud to be the EMO Alliance Country at the EMO 2025. We will be representing a wide variety of companies with advanced technologies that can be utilised in the machine tool and metalworking sectors, as well as Canadian machine tool manufacturers seeking new customers, suppliers and innovation partners outside of North America," explains the Canadian CEO.

"Now is the right time to showcase Canada's advanced manufacturing capabilities to the world. The EMO represents a great opportunity to do this, with Canadian companies looking to diversify their markets and supply chains in the face of difficult business challenges."

"We are delighted to welcome Canada as an EMO Alliance Country", says Dr Markus Heering, Executive Director of EMO organizer VDW. "In the current turbulent times on the global market, there is huge interest in working with stable partners in the machine tool business. The fact that we can offer the Canadians an attractive platform for their metalworking industry here at the trade fair will strengthen our bilateral relations," states Dr Heering.

International exhibitions remain the best way to see the latest technology trends for our industry in one place. They also provide priceless opportunities for networking. Get in touch if you'd like to join me at the South African networking event on the Wednesday evening.

Opportunities do not create themselves – you have to go out there and create them yourself. The point I am trying to make here is that South African manufacturing also has the ability to do what Canada is doing.

Aside from EMO, this month, as usual, and something we have been doing here at Metalworking News for 25 years, is to showcase yet more South African success stories in the local manufacturing industry. We too have the potential to grow our manufacturing sector and seek new trade partners around the world. If only our government would realise this.

I encourage you to read about Pabar, JP Engineering, the Production Technologies Association of South Africa (PtSA) and the other companies we have written about in this issue.

They are just a handful of companies trying to make a difference in the South African manufacturing landscape, not just through their products and components, but through their willingness to want success.

See you at EMO.

METALWORKING NEWS

Volume 24 Number 4
September 2025

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METALWORKING NEWS
is published by:
BA Crawford Specialised Publications (Pty) Ltd

Cell: + 27 83 628 7654
E-mail: online@engnews.co.za
Website: www.crawfordpublications.com

ISSN 1682-8909

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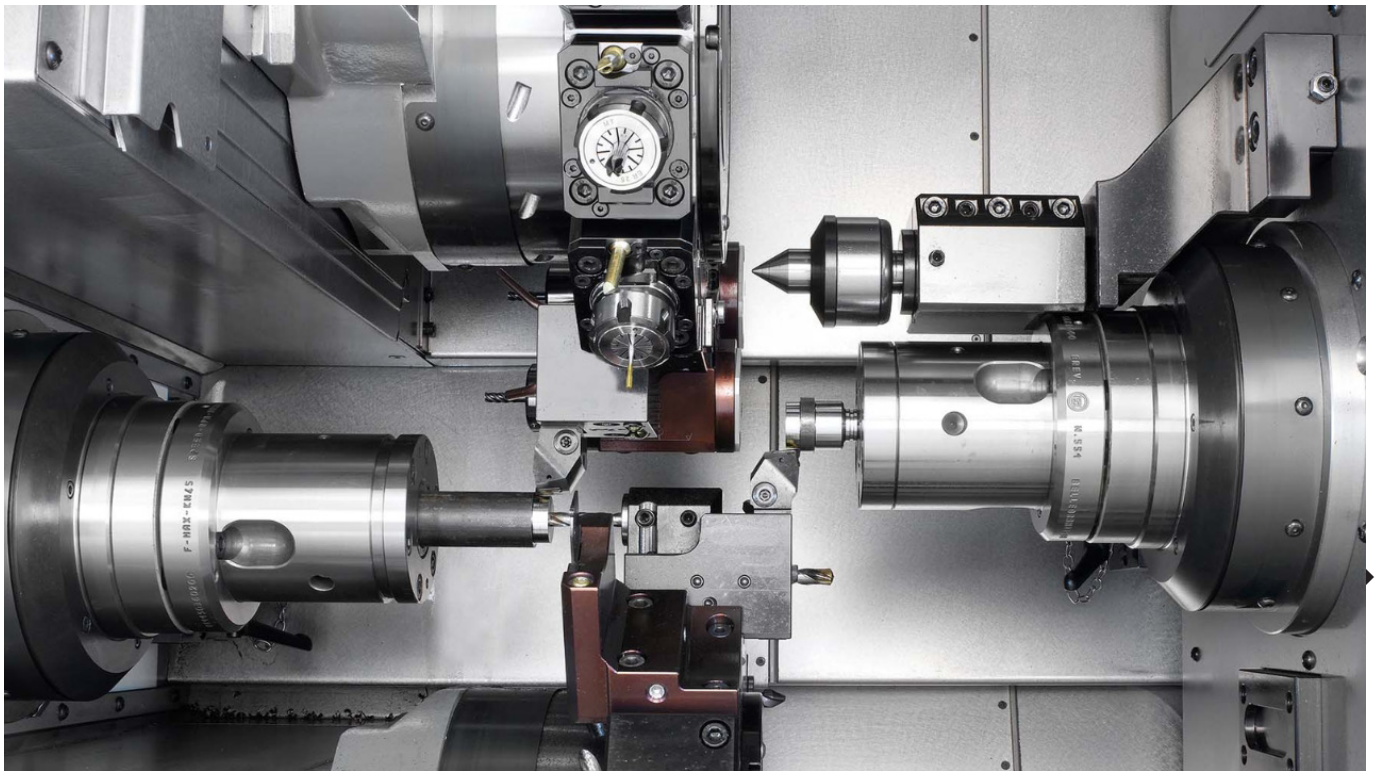
Preventative maintenance is key to profitability



If your spindles aren't turning, you aren't making money

If your spindles aren't turning, you aren't making money. The best way to keep those spindles in motion is to employ a few simple and proven preventive maintenance strategies. Here are five suggestions to help ensure success.

1. Perform baseline tests

This includes running a basic part and keeping the data on that part handy for future comparison. Another test is a basic geometry check to get good reference numbers so you can detect squareness, straightness and other positioning errors down the line. Always check spindle vibration. If something is out of whack there, things go downhill fast.

Lastly, a ball bar test is always very helpful. Doing this helps track and correct positioning variance over time.

Baseline tests are important. If you have a collision, or you need to replace a part on the machine (like a spindle or ball screw), you know where things were when the machine was making good parts. You can make more informed adjustments before you get back up and running.

2. Calibrate, calibrate, calibrate

There is no hard and fast rule as to how often you should calibrate your machines, except that you should do it as often as necessary. If you're running standard parts using standard materials, once a week or so will work.

If you're machining high-precision parts using exotic materials, you may want to calibrate every shift. Every company calibrates differently, but if you're only calibrating every six months or so, you need to up your game.

3. Take advantage of your OEM/reseller

Most machine tool builders and resellers have preventive maintenance and repair programmes like Mitsui Seiki's. No one knows the machines like they do, and having them come in and professionally inspect, calibrate and clean your machine is invaluable. Purchasing a maintenance programme is a small cost compared to that of a breakdown.

Another approach is to have a dedicated preventive maintenance person on your maintenance team. Generally, what happens, however, is that the preventive person gets pulled in to help put out fires (machine down, building issue, etc.) and those proactive maintenance tasks fall by the wayside. If you see this happening, it might be more effective to rely on the OEM or reseller to take on those services for you.

4. Put tune-ups on your calendar

Whether you purchased the maintenance package from your supplier or not, you need to put regular tune-ups on your

calendar. An inspection and tune-up service takes three to five days, so scheduling ahead of time will keep your production timetable on track.

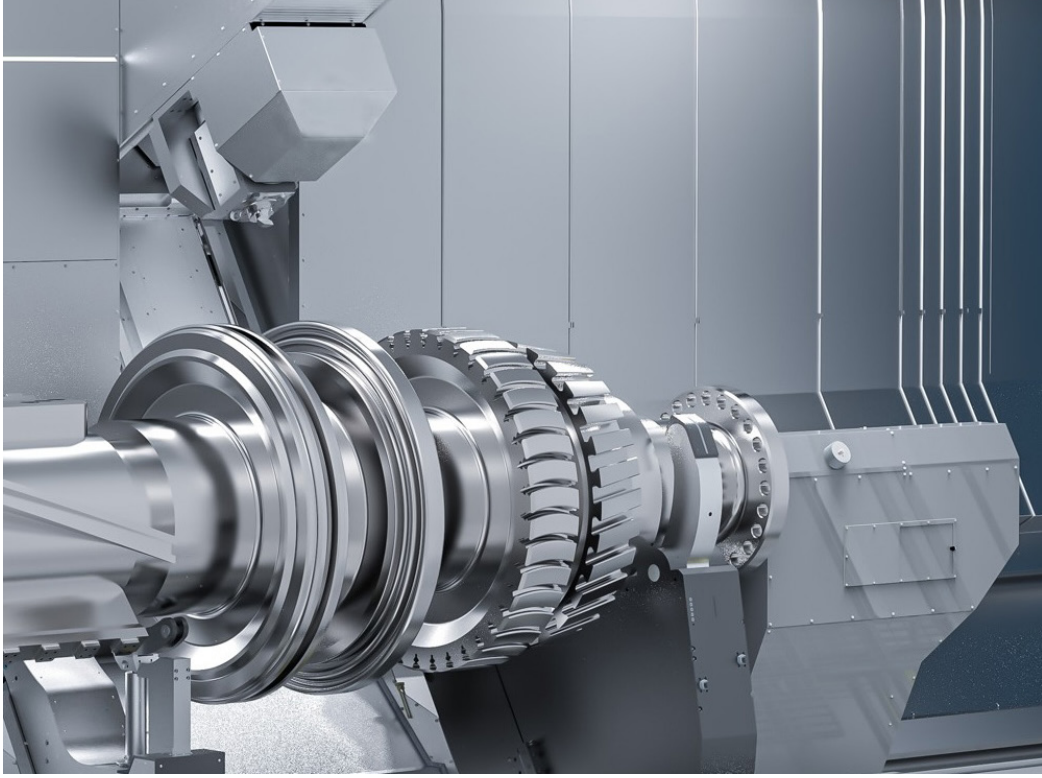
A thorough tune-up will include laser calibration, lubrication, spindle vibration analysis, thermal analysis, a deep cleaning and any other maintenance specific to that machine.

5. Use quality inspection tools

To ensure you have the best inspection equipment for your machines, you should ask your OEM or reseller what they recommend. They'll help you choose the best tools for your machine.

In general, the inspection tools you should include in your arsenal are a performance diagnostic system on your machine, a high-precision ball-bar system, a laser calibrator that can calibrate on all axes of motion, an accelerometer and a thermal-inspection device such as a Flir camera.

Preventive maintenance affects downtime and your bottom line. Following these simple strategies will help make sure that "PM" stands for "preventive maintenance," rather than "postmortem." ■



The best way to keep those spindles in motion is to employ a few simple and proven preventive maintenance strategies

This is the viewpoint of Terry Ritterbush, Regional Sales Manager, Mitsui Seiki USA and it first appeared in Advanced Manufacturing

cover story

Bystronic South Africa restructures to allow new South African owners to position themselves closer to customers and let them respond with more agility to market needs

Previous Managing Director of Bystronic's distributor in South Africa Andrew Poole teams up with former Bystronic South Africa Sales Director Gareth Jackson to take the brand forward.

Bystronic Laser AG is listed on the Swiss Exchange and the company is headquartered in Niederönz (Switzerland) and has development and production sites located in Sulgen (Switzerland), Gotha (Germany), Cazzago San Martino and San Giuliano Milanese (Italy), Tianjin, Shanghai and Shenzhen (China), and Hoffman Estates (USA)

In 2019 Bystronic Laser AG demonstrated the company's confidence in South Africa by making a significant investment with the opening of a local subsidiary. Listed on the Swiss Exchange the company is headquartered in Niederönz (Switzerland) and has development and production sites located in Sulgen (Switzerland), Gotha (Germany), Cazzago San Martino and San Giuliano Milanese (Italy), Tianjin, Shanghai and Shenzhen (China), and Hoffman Estates (USA).

At the time of the opening of the South African subsidiary Bystronic was implementing a regional plan and opening up subsidiaries worldwide. Now the company has announced a restructuring plan to address market challenges with the introduction of cost reduction measures and implementing

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SCAN ME

Andrew Poole – Director. With over 30 years of industry experience, Andrew Poole began his career as a founding member of First Cut, a leading supplier of cutting solutions across various industries, including the steel sector. He went on to co-run the Bystronic agency in South Africa with Gareth Jackson until 2020, when Bystronic acquired the agency and opened a subsidiary in the country. Today, Andrew serves as Managing Director at Alexander & Poole and also drives innovation through Tekenso, a cloud-based platform designed to give manufacturing companies complete control and visibility of their processes. An entrepreneur at heart, Andrew's passion lies in creating environments that foster innovation, growth, and cutting-edge solutions

Gareth Jackson – Director. With more than 29 years of expertise in the cut-to-size and steel fabrication industry, Gareth Jackson has built his career around a deep passion for the steel sector. Starting at Laser Sprint, he gained valuable experience as a service provider and centre operator, later expanding his knowledge across the mining, military, water, and structural sectors. Gareth co-led the Bystronic agency alongside Andrew Poole until 2020, after which he continued with Bystronic's South African subsidiary until 2022. As a leader and mentor at Jewll Industries, market leaders in custom-designed flameproof equipment, Gareth has combined family-business values with the strategic expertise developed in the corporate world

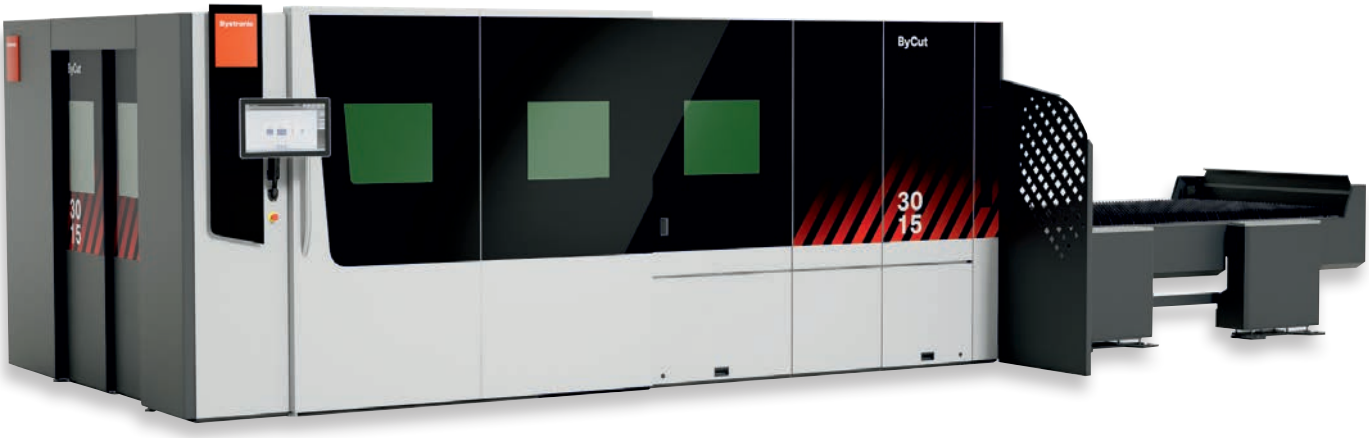
Richard Davidson – Director. Richard Davidson is a Chartered Accountant (SA) with over three decades of business leadership experience. His career began at Deloitte & Touche, where he spent six years, including three as an Audit Manager. He went on to spend 14 years in the logistics sector, ultimately serving as Group Financial Director of a R2 billion fuel logistics group. In 2011, he joined South Africa's exclusive Nespresso agent, driving growth from a single store to 15 retail outlets alongside a strong e-commerce presence, before successfully selling the business back to Nestlé in 2023. Richard is now active in the sheet metal industry, with additional interests in software and the Bystronic Agency in RSA. He specialises in building financially stable businesses, implementing growth strategies, and leading IT and operational transformations

plans to maximise its organisational structure. As such, Bystronic is eliminating its regional structure and has introduced a divisional structure. This includes shutting down its former production site for automation solutions in Italy and relocating production to China and Switzerland. Additionally, Bystronic is reducing its executive board and has launched further comprehensive restructuring measures to optimise synergies. Group functions have been merged and the global footprint consolidated.

In addition to the already established service division, Bystronic will bundle its competencies in the machinery business, automation and software to serve customers even better from a single source and to strengthen its positioning as a full solutions provider.

"We were offered the opportunity to represent Bystronic and become the distributor in South Africa while attending EuroBlech 2024 in Hannover, Germany. We did not hesitate to accept the offer," said Andrew Poole, who is the MD and a partner of the new company formed with Gareth Jackson, who has many years of experience with the Bystronic brand on the user and sales side, and investor Richard Davidson who will oversee finance and administration responsibilities of the company.

"Seven years ago, Bystronic took the strategic decision



The Bystronic Bycut 3015 fiber laser cutting machine is available in various models like the high-performance ByCut (with up to 30kW power) or the more economical ByCut Eco (with 6kW power) and the newer ByCut Smart

The ByStar Fiber from Bystronic is available in various models and sizes up to 30kW and bed sizes up to 8 000mm by 2 500mm

to have direct representation in a number of countries where they had traditionally had a distributorship arrangement. The strategy was to open fully fledged subsidiaries and South Africa was one of those countries. Not only did this show confidence in the local market from a global leading technology company in the area of sheet and tube metal processing, at the same time it conveyed the importance with which Bystronic Laser AG regards the local market and the customers, which it still does."

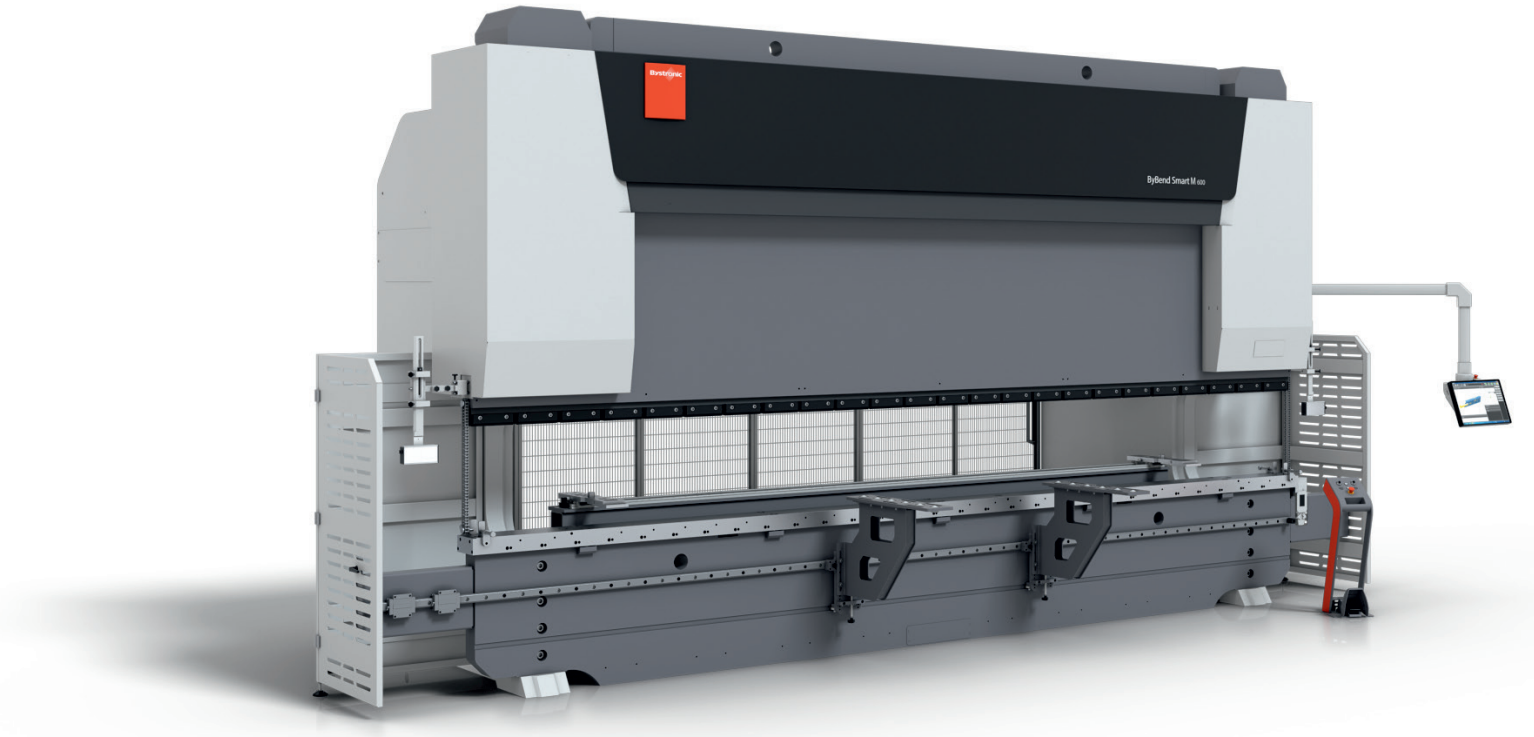
"At the time of the investment Bystronic was represented by First Cut, a company where I was a shareholder for many years before selling my shares in 2022. Gareth also worked for First Cut and was our Sales Manager in charge of selling sheetmetal equipment with an emphasis on the Bystronic brand."

"He has an intimate knowledge of the Bystronic machines having previously worked on 'the other side' prior to joining us. Gareth worked for his father Percy as his Production Manager before the company was sold in 2015. Laser Sprint were one of the first companies in South Africa to deploy a Bystronic machine on their production floor. Back in the early 2000s Laser Sprint had the proud record of investing in the largest Bystronic machine in the Southern Hemisphere – a Bystar L 4030/12 laser cutting machine with a cutting area of 12 x 3 metres. At the time it was only the fifth machine that Bystronic had sold and the first outside of Europe."

"Gareth would subsequently become the Sales Director and later Managing Director of Bystronic South Africa."

"With the direct investment by Bystronic there have been numerous advantages that have been directly beneficial for customers as compared to the agent and OEM relationship that has existed in the past. These will continue going forward as the company representing them will continue to operate under the name of Bystronic South Africa," explained Poole.

"Noticeable changes have been in the area of communication, whereby an agent has to follow a certain protocol in terms of problem identification and problem solving. This can be frustrating and time consuming. In the



The Bystronic ByBend Smart press brakes range between 100 and 300 ton press force and a bending length between 3 100mm and 4 100mm

The Bystronic ByTube Smart flexible tube laser cutting machines comes in two models – 130 and 330

environment of a direct subsidiary this protocol fell away and allowed access to information a whole lot quicker," said Poole.

"The second win for customers was the access to spare parts, particularly when it comes to big ticket items. There will always be accessibility, logistical and warranty problems for agents, which ultimately leads to extra costs, downtime and frustrations for customers. Again, the direct subsidiary situation eliminated all these problems and allowed customers to have access to a wider range of spares in a much shorter period," continued Poole.

"Bystronic has been active in the South African market since the early 1990s and was one of the first international companies to instal a CO2 laser in South Africa. It has subsequently supplied many more machines to loyal South Africa customers, many of them having multiple Bystronic machines on their floors."

"First Cut acquired the distributorship of the Bystronic range in South Africa in 2011. First Cut has been one of South Africa's leading manufacturers and distributors of capital equipment, cutting consumables and precision measuring tools for the metal, timber, textile, meat, DIY, paper and plastic industries. Its energies are spread over many industries and products. Despite this the company grew the brand substantially in South Africa. And to do this First Cut invested heavily in marketing, branding and promotion and in the all-important back up services such as spares, training and service."

"Bystronic Laser AG has developed from a machine manufacturer into a supplier of end-to-end solutions, which includes laser and waterjet cutting systems, press brakes and system software."

"In order to not just satisfy but to exceed the customers' high expectations, Bystronic is consistently expanding its customer services."

"Like other European name brands Bystronic has continued to develop its quality high-end products but have also acquired interests in manufacturers of cheaper equipment. This will continue going forward."

"As their ambassador in South Africa we have to take up the challenge and meet their expectations. And it is not just about selling and servicing the equipment we sell. It involves a whole basket of factors, which are frequently not tangible."

"Progressive industrial companies realised a long time ago that in the future, customer service cannot be limited to solving problems. Customer services have to become more proactive. Companies have to act before the customer even faces a problem. At the same time, the focus must shift to the customer experience: When using the machines in their factory, customers must feel as carefree as when staying in a five-star hotel."

Bystronic and SSAB have announced a nonexclusive partnership

"This statement is enhanced by Bystronic's recent announcement that they have signed a nonexclusive partnership with leading global steel manufacturing company SSAB to advance laser cutting and bending technologies using new materials for the sheet metal industry including alloying concepts, recycled steel, and fossil-free steel."

"The agreement facilitates comprehensive data exchange on the impact of various materials on Bystronic's production processes. Bystronic will work with newly developed steels and specially designed sheet metal for testing and will provide feedback on process quality."

"This cooperation aims to improve both companies' products and strengthen their leadership in sustainable practices."

Loyal customers

"Over the years we have built up many loyal Bystronic customers and friends, a list that keeps on growing. Many of them are repeat customers in that they keep up with the latest technology by purchasing recently launched models and adding more capacity with additional machines. Both Gareth and myself have never left the industry but are now back in it full time and all our attention and focus is going to be on Bystronic."

"This is a real business opportunity. Richard has recognised this opportunity and come on board with a vast amount of experience in the retail and consumer sphere. He was instrumental in putting Nespresso on the map in South Africa so his input from a different perspective is going to be invaluable."

"Customers and service have been key to the success of Bystronic and we intend to enhance this."

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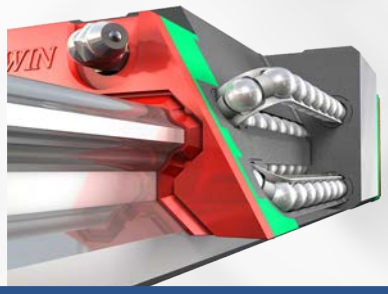

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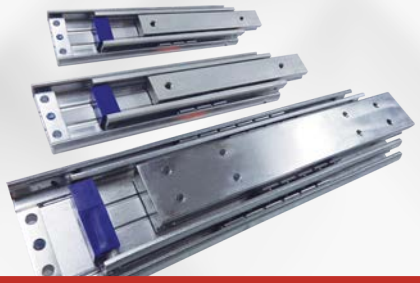

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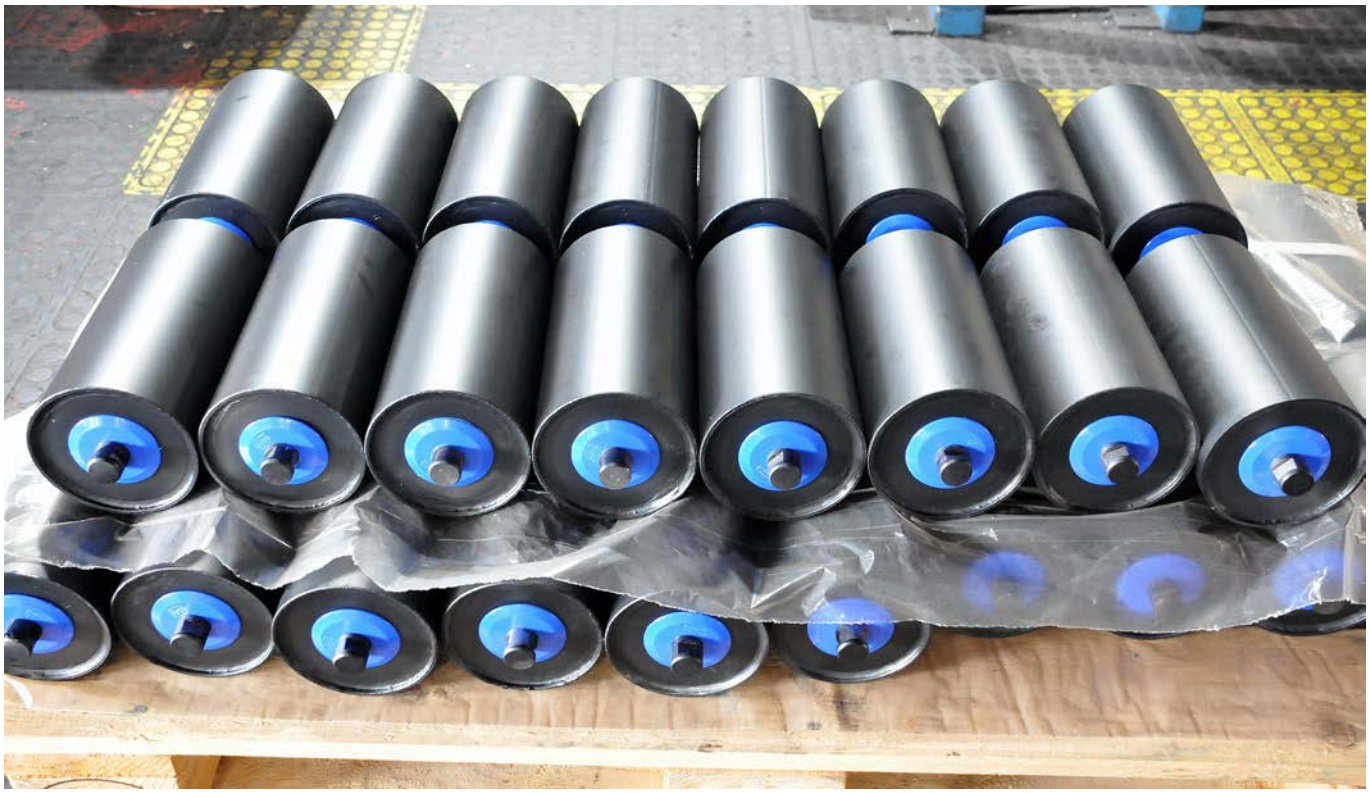
NC Idlers adds further automation to its production line with Bodor 6kW Fiber Tube Laser Cutter



NC Idlers specialise in manufacturing and assembling conveyor idler rollers and their associated components

Originally from Zimbabwe, Norman Chesworth immigrated to South Africa in 1984 with his wife Teresa. After working at Eskom for some time, he joined Kealoc Engineering in 1990. A few years later, in 1992, he was offered the opportunity to take over Kealoc Engineering and its premises and machinery from its then-owner Hilton Kerns, where Chesworth had been working as Works Manager.

After a market shift, Chesworth then acquired Idlers Manufacturing Industries (IMI) and directed his focus back to the original business that had concentrated on fabricating a comprehensive range of conveyor idler rollers and components.

"This was when I joined Dad in about 2009, and this is when we established NC Idlers," says one of Norman's two sons who works at NC Idlers, also named Norman after his father. Norman junior had just completed his Mechatronic Engineering degree and together the father and son duo had the vision of automating as far as possible what had up until then been a very labour intensive and manually focussed assembly business of manufacturing and assembling conveyor idler rollers and their associated components.

NC Idlers' range of conveyor idlers include steel idlers, impact idlers, HDPE idlers and steel sleeved HDPE idlers – all of which are available in a range of different industry-standard diameters and lengths

"We built our first automated cut off machine and as many other automated machines as we could so as to speed up what we were doing here. That enabled us to gain a bit of an advantage over the rest of the market and our competition at the time,

NC Idlers aims to automate their manufacturing as far as possible and the most recent machine shop upgrade was the purchase and commissioning of a Bodor 6kW K Series Tube Laser Cutter supplied by Spectrum Machine Tools Africa

NC Idlers manufacture a range of idler components including steel and polyprop end caps, labyrinth seals, dust caps and covers, circlips, bearing housings, impact rubber discs, nylon discs and top hats. Pictured: steel end caps ready for assembly

Norman Chesworth junior has a Mechatronic Engineering degree and together with his father Norman, the duo has always had the vision of automating as far as possible on their shop floor building many of their own machines

and of course it allowed us to do what we do here on a much larger scale," explained the younger Chesworth.

"It was not easy in the beginning but we have really started to realise some growth over the last three to four years. The growth had already started, but like I say, over the last few years things have really started taking off and the idea now is that we are looking to buy more advanced machinery as we get into a position where we are able to afford it, increasing our productivity even more."

Colin Chesworth, Norman senior's other son, first began working for the family business in 2010 but came on board full time in 2013. His role within the business is multifaceted but his main responsibilities include dealing with customers and business development. Colin has an architectural draughting and hospitality management background. Ashley Bellini, Norman senior's daughter, is also involved in the business and joined her brothers and father in 2023. Ashley has a master's degree in speech therapy but looks after the financial side of the business. Norman junior is NC Idlers' factory and operations manager.

"They complement one another in their various roles and responsibilities here," says Norman senior. "And that's what I had always wanted for a family-run business," he continued.

Machine shop and operations

"We have a range of lathes, milling machines, a plasma cutter, a lot of customised self-built machinery that Dad and I would set up for one job specifically, as well as various presses, both eccentric and hydraulic, and other pieces of equipment that supplement our operations," says Norman junior.

NC Idlers have also purchased a FANUC ARC Mate 120iC/10L robotic arc welding arm and on order is a Dongbu dual spindle CNC machining center that has live tooling and is due to arrive soon.

Bodor 6kW K Series Tube Laser Cutter

The most recent machine shop upgrade was the purchase and commissioning of a Bodor 6kW K Series Tube Laser Cutter. Previously, NC Idlers had been (and still do where necessary) cutting their tube on their semi-automated self-designed and built tube cutter. Having now gone the full CNC fiber route, the company is realising significant benefits from incorporating the latest technology into their business.

Th Bodor is designed for precision cutting of a wide range of metal tubes and profiles, including angle steel and I-beams. It incorporates high-speed pneumatic chucks, an auto-focus laser head with Bodor Genius T technology for automatic focal adjustment, and a layout aimed at improving material yield ▶

by minimising tail lengths.

Future CNC machine upgrades are also planned as the company looks to further improve the operational side of the business and replace conventional manual processes.

The company is able to manufacture and assemble an entire idler in about 35 seconds now – a vast improvement from before they began streamlining their manufacturing processes.

NC Idlers can be described as a high-volume mass production business that specialise in manufacturing conveyor belt idler rollers and frames as well as the components and consumables that make up their idler range of products.

NC Idlers' range of conveyor idlers include steel idlers, impact idlers, HDPE idlers and steel sleeved HDPE idlers – all of which are available in a range of different industry-standard diameters and lengths. The company also manufacture troughing and return frames that include bent angle iron troughing, straight angle iron troughing, tubular belt friendly troughing, self-aligning troughing and returns, angle Iron V and flat returns and tubular belt friendly V and flat returns, as well as a range of standardised drop brackets. Their drop brackets can be custom-manufactured, depending on customer requirements.

The range of idler components include steel and polyprop end caps, labyrinth seals, dust caps and covers, circlips, bearing housings, impact rubber discs, nylon discs and top hats.

A real family business. Norman Chesworth junior, Teresa Chesworth, Norman Chesworth senior, Ashley Bellini and Colin Chesworth. Father and mother and their three children

NC Idlers make use of a FANUC ARC Mate 120iC/10L robotic arc welding arm

NC Idlers make use of a range of presses, both eccentric and hydraulic, to manufacture components for their idler range of products

NC Idlers operates from a 3 000m² factory, employ around 50 staff and their products are SABS-certified. The company uses Autodesk Fusion to design customised products and have a 3D printer that they will make use of for producing prototypes. NC Idlers mainly supply their range of products into the mining distribution industry to some of the biggest mining operators across the Southern African and African continent.

Contact NC Idlers on TEL: +27 11 762 2551 or visit www.ncidlers.co.za for further details. ■

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Scientific Engineering develops and manufactures stainless steel weld cleaning system

Develops Pro Inox Electrolytic Weld Cleaner and Passivator to achieve clean, corrosion-resistant welds. A smarter, safer approach to stainless steel weld cleaning.

Scientific Engineering is a leading manufacturer and design company of commercial appliances and laboratory and scientific equipment. Established in 1966 the company manufactures its own range of products which are marketed through a worldwide dealer network. In 1993, a South African catering distribution company approached the Scientific Engineering team with a proposal to develop a range of equipment for the food service industry. The company branded its new range of equipment Anvil, and the name and products have now become synonymous with the industrial food service equipment in South Africa and worldwide.

"The way we manufacture our type of laboratory and scientific equipment is very similar to the way you would manufacture food service equipment. Simply put, the shell or body is made up of sheet metal components that have been either cut to size, pressed or bent, based on the shape of the component and then assembled with the various electrical, gas and other accessories being incorporated," explained Brett Egerton, Sales Manager of Scientific Engineering.

"Because of the industries we supply most of our product is manufactured in stainless steel. Stainless steel continues to gain popularity in applications across the fabrication industry, mainly thanks to its corrosion resistance, strength, and toughness. Compared to mild steel, however, the material poses some welding challenges, especially for less experienced welders. Stainless steel can be three to five times more expensive than mild steel. Any welding mistake can compound the overall costs for rework."

"Choosing the right welding process is key. There is a give-and-take with every option, and no single process provides a perfect solution. To determine the best option, fabricators need to consider the upfront cost and characteristics of the filler metal, required productivity, equipment complexity, and operator skill set."

"In stainless steel fabrication, achieving clean, corrosion-resistant welds is essential, especially in industries like food processing and pharmaceuticals. Traditionally, this meant using harsh pickling pastes or time-intensive mechanical methods."

"We have been able to import equipment to help us achieve the results that we require but as you know importing is expensive these days. This led us to develop and manufacture our own product. We launched the Pro Inox Electrolytic Weld Cleaner and Passivator to achieve these clean, corrosion-resistant welds a few months ago."

The Pro Inox Electrolytic Weld Cleaner (EWC) offers an alternative that's both safer and more efficient. Instead of relying on corrosive chemicals, the EWC uses electrochemical cleaning. A low-voltage current runs through a carbon brush dipped in a special fluid, removing weld discoloration and oxidation in seconds. The process is fast, precise, and leaves the metal with a bright, natural finish."

"What makes this system stand out is its dual-user design and adjustable power settings. This allows two operators to work simultaneously, improving throughput in busy workshops or production lines. Its consistent performance also means less rework and more predictable results – key benefits when working with demanding clients or tight deadlines."

Safety

"One of the most significant advantages of the EWC is safety. By eliminating pickling paste, the process removes exposure to toxic fumes and skin contact with hazardous substances. It also reduces the need for waste disposal associated with traditional chemical methods, making it a cleaner choice both environmentally and operationally."

"For businesses focused on productivity, worker safety, and long-term durability of stainless steel components, electrochemical weld cleaning represents a meaningful upgrade. The Pro Inox EWC is part of a shift toward smarter tools that streamline fabrication while aligning with modern health and environmental standards."

The benefits and process of electrochemical weld cleaning

"Electrochemical weld cleaning is a process of cleaning away surface contamination and oxidisation caused by the welding process. The Pro Inox electrolytic weld cleaning machine cleans steel welds safely with maximum speed and efficiency. It eliminates toxic pickling paste and less efficient weld cleaning methods. Our cleaning fluids are safe and low-risk, containing mild electrolytes. A conductive carbon fibre brush and mild cleaning fluid achieve weld cleaning

and passivating, leaving the surface with good corrosion resistance."

"Always neutralise the metal surface after weld cleaning. Use a 3DI001 neutralising fluid to remove acidic residues and prevent white frosting. The process boosts corrosion resistance. Physically wiping with a cloth is important to remove the residue."

"The unit has provision for two brush connections. The carbon brushes are consumable items and are easily replaceable. The small footprint makes the unit easily portable."

"Another big benefit is the price of the local product. You can virtually purchase three of our machines for the price of one imported machine. Plus, servicing and spares are readily available."

"Besides the corrosion resistance and durability of stainless steel, it is also aesthetically pleasing to the eye with its bright look. All the more reason that companies should strive to achieve welds that match the rest of the product. And it does not have to be because you are producing medical or food service products. All industrial products manufactured should have the same care taken during fabricating and assembly."

"It's like the old adage: The first impression is the lasting impression."

Contact Scientific Engineering on TEL: 010 448 8087 Mob 073 290 8911 or visit www.scientific.co.za for further details. ■

Skok Machine Tools
appointed agents for Yamawa taps

Japanese threading tool manufacturer Yamawa has appointed Skok Machine Tools as its agent in South Africa. Founded in Tokyo in 1923 by Jokichi Watanabe, the company focuses exclusively on the design and manufacture of high-quality threading solutions.

Yamawa is among the world leaders in threading tools manufacturing. Its monthly production of 1 200 000 taps is entirely carried out in four high-specialised plants located in Japan and each tool undergoes three strict quality control processes. Yamawa pursues quality in every detail and continuous investment in R&D provide the marketplace with state-of-the-art tools that perform excellently during the whole life cycle of the product.

Thanks to continuous investment in research and the application of strict production and control protocols, Yamawa has introduced numerous tapping innovations over the years that are renowned for their excellent performance and quality.

To address its production needs, Yamawa's R&D department is always working to add new types to the range and broaden its offering. These include the VUSP CH with central coolant hole or the VUSP 1.5P type for blind holes, with short chamfer. A wide range of oversized tolerance ISO3X(6GX), 7GX, and ISO2X(6HX)+100 are also available in its catalogue.

The Yamawa MH series is popular in the automotive sector. These taps are available in blind and through-hole versions, also with short chamfer and with central coolant hole. They feature specific geometries, substrates, and coatings to offer optimum performance on alloy steels and medium-hard carbon steels.

Part of the MH series are MHSP taps for blind holes, MHSL taps for through holes, and the MHRZ roll taps. Completing the current range are the recently introduced MHSL Mini small taps specifically designed to address tool manufacturers' needs.

The high-performance 'red ring' PM tap series can meet the operational needs of the mould industry for a wide range of ISO P materials, from high carbon steels to high tensile strength steels up to 45 HRC. Yamawa says the range represents the most efficient threading solution in the entire 25-45 HRC hardness range.

To maintain the focus on high reliability, Yamawa has recently introduced its innovative MHSL Mini taps, a series specifically designed to produce reliable screw threads on milling bodies or indexable holders.

Skok Machine Tools has been distributing metalworking equipment, tooling and accessories for many years. Some of the brands they represent includes Kyocera Cutting Tools, Kyocera SGS Precision Tools, SmiCut Threading Solutions, Allied Machine & Engineering, SYIC Machine Tool Accessories, Vertex Machine Tool Accessories, Goodway CNC Turning Centers, Johnford CNC Machining Centers, Mega Sawing & Threading, GSA+ CNC Rotary, WFL MillTurn Multitasking CNC, Höcker Polytechnik Metal Briquetting, Paragon Cylindrical Grinding, Equiptop Surface Grinding, CribMaster Inventory Management Solutions and Ocean Structural Steel Solutions.

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Coastal Engineering Supplies
Johannesburg celebrates 5-year milestone

Doubles under roof shop floor space with alterations and purchase of building next door.

Coastal Engineering Supplies Johannesburg celebrates its fifth year since it opened in 2020 in the middle of the Covid pandemic lockdown. "It was very unfortunate timing but the resilience of the business is evidenced in the fact that we are now reaching the five-year milestone," said newly appointed branch manager Bill Mallett.

"Coastal Engineering Supplies have been in the machine tool business since 1969 when Austrian born George Hintenaus established his family-owned concern in Cape Town. The initial emphasis of the company was to import conventional equipment used for machining and shaping metal from Europe and sell it locally."

"The company has subsequently evolved into importing CNC equipment, sheet metal equipment and tooling accessories and today the company is one that stocks and sells one of the most comprehensive ranges of product that are suitable for the engineering and metalworking industry to cut, turn, bend, twist, mill, grind, drill, roll, punch and any other process to shape and form metal."

"Our product range for CNC machines includes flat bed and slant bed lathes, single and double column machining centers, horizontal and vertical boring mills, grinding machines, whether they are double column, bridge type, flat bed, vertical and horizontal, twin spindle and knee and ram type."

"Additional equipment sold by us includes the full range of conventional equipment, turret mills, universal milling machines, lathes, drilling machines, grinders, spark erosion and EDM machines, circular saws and bandsaws."

"For companies requiring sheet metal processing and plate working we stock box and pan folders, guillotines, iron workers, presses, section rollers, plate rollers and plasma cutting machines. We also import fiber lasers, press brakes and hand-held fiber welding lasers."

"On the tooling accessories side, we sell lathe chucks, chuck mounting backplates, drill chucks, toolholders, bandsaw blades, press brake tooling and guillotine blades, DROs, and an extensive range of machine vices, lathe tooling and revolving centres."

Large stock in Johannesburg

"I have been involved in the machine tool industry for most of my working life and I have recently been appointed to manage the Johannesburg operation. We operate from a large facility in Jet Park, which is an industrial area just near OR Tambo airport and is very centrally situated."

"Having an office in Johannesburg has been a strategic move for Coastal Engineering Supplies due to its status as South Africa's financial hub and a gateway to the rest of Africa. Over the years we have built up a client base which we intend to increase substantially."

"Whether it's general engineering or mass production Coastal Engineering Supplies Johannesburg will have the right machine to suit your needs. Our prices are competitive and machines are normally available ex stock. Our facility here is full of machines and clients will generally be able to find what they need immediately. If we don't have or sell what they want we are able to source the product."

"We also offer a range of machines for the plastic industry and today we finance equipment purchases so as to make it easier for clients to acquire their machine."

"The company is now run by George's son Albert. He is the CEO and is based in Cape Town."

For further details contact Coastal Engineering Supplies Johannesburg on TEL: 010 800 15044 or Cape Town on TEL 021 552 6063 or visit www.coastalengineering.co.za ■

ITAC published a notice
regarding the proposed implementation of additional duties in the steel chain

On 19 March 2025, ITAC published a review of the tariff structure and investigation into the possible introduction of an import surveillance system for steel products classifiable under chapters 72, 73, 82, and 83 of the customs and excise act in the Government Gazette No. 52347, under Notice 3061 of 2025.

During the publication period, in excess of a hundred and fifty (150) comments were received from interested parties, ranging from requests for duty increases, the creation of rebate provisions, inclusion of specific products under import control and other general comments on the potential impact of the review on the steel value chain.

Based on these submissions and the analysis of the evidence before the Commission, on 20 August 2025, ITAC published a notice regarding the proposed preliminary import surveillance systems and additional duties considered for implementation. Many different steel products are to be subjected to import duties, from all countries, up to their respective World Trade Organisation (WTO) bound rates. The respective bound rates range from 10% to 30%, depending on the product.

These hikes would affect all imports arising from countries that do not have a trade agreement with South Africa. In other words, imports from the EU and the Southern African Development Community would not be affected. ▶

From roof sheeting, flat steel, rebar, structural steel, wire rod and wire products, pipes and tubes, tanks, containers, cutting tools, bandsaws, screws, bolts, fasteners, hand-operated spanners, wrenches, fasteners, multi-tools and other specialised hand tools, locks, padlocks, and security fittings safes, strongboxes, and security containers, metal fittings, bells, gongs and alarm systems to pig iron, ferro alloys, ferrous products and scrap are likely to be affected and see hikes implemented.

You can view the list of products at https://mcusercontent.com/7af202f977bc5dbad675398d7/files/7b4b5968-8ea4-249f-13aa-78092d9d5800/95382_itac_notice_3438_of_2025_steel_review.pdf

However, by the time you read this the closing date for comments would have closed so hopefully you would have seen the notice and acted.

According to an ITAC document outlining the steel tariff review, the main objective is to address multiple challenges facing the sector.

ITAC said the review had been necessitated due to worldwide steel production overcapacity, increased trade protectionist measures implemented by some countries, and associated trade diversions occurring globally.

"As a result of this, South Africa's steel value chains are facing serious sustainability challenges, which are impacting negatively on socio-economic objectives," ITAC said in the document.

ITAC added that local conditions including "slow economic growth, depressed demand, energy and freight logistics challenges" had exacerbated the situation.

The review found that the country showed greater competitiveness potential to produce several value-added steel products, including mounting structures, high-pressure containers, stranded wire, tanks, anchors, rock drilling tools, transmission equipment, tools, springs, pipes and fittings.

However, downstream industries to manufacture certain steel products faced an influx of low-priced imports.

The initial findings of the review published in the Government Gazette notice include several key determinations, including the following preliminary determinations: that the rate of customs duty on a number of identified products be increased to their respective bound rates, that additional rebate provisions be created for certain grades of steel products not manufactured domestically, and that certain identified products be subjected to import control in line with section 6 of the International Trade Administration Act of 2002.

Other recommendations covered standards integration and duty-free inputs as well as the geopolitical context facing the sector, including:

- A preliminary determination that when standards are developed for steel products identified for import control these should be incorporated into the import permit control system as additional conditions for the issuing of permits.
- A preliminary determination that certain input products used in steel-making, particularly stainless steel, be free of duty.
- A preliminary determination that the ongoing geopolitical landscape does constitute an unprecedented emergency, necessitating urgent action.
- The formation of a committee comprising industry stakeholders and part-time commissioners to advise on steel-related matters.

ITAC said the measures were part of broader interventions under the Steel and Metal Fabrication Masterplan. However, its review outline document noted that additional efforts were needed to stimulate domestic demand, provide affordable energy and improve logistics.

It said the review had drawn mixed reactions, observing that the industry generally supported the reform given the geopolitical climate, but some stakeholders cautioned against duty increases where domestic capacity was lacking.

"Industry has, however, cautioned ITAC not to increase duties where domestic capacity does not exist. Some of the role players cited that the wide scope of the review has far-reaching implications, going beyond ordinary tariff amendments as envisaged in the Amended Tariff Investigations Regulations," said ITAC.

However, current steel duties are deemed inadequate in some cases.

"South Africa has some of the lowest WTO bound rates on steel-related products relative to its developing peers. This means that even when the duties are imposed to the bound rates, such protection is not adequate in certain instances," said ITAC.

It said this was evidenced by rising applications for safeguards and anti-dumping duties.

ITAC said historical import control measures used for health, environmental, security, and standards compliance would be extended to certain steel products.

Meanwhile, ITAC said it was reviewing the Price Preference System on scrap metal, but confirmed there was no conflict with the tariff review. Reports on potential discount amendments will be published upon determination.

The deadline for public comments on the proposed amendments is stipulated as being two weeks from the date of publication of 20 August 2025. Comments can be sent to Rethabile Molala/Pfarelo Phaswana/Nonqubeko Sikhakhana/Princess Matsepane. Telephone: 012 394 5162/3628/3835/3699 or email rmolala@itac.org.za / pphaswana@itac.org.za / nsikhakhana@itac.org.za / pmatsepane@itac.org.za ■

TruSeal – South African specialist in security seals and bags – adds fiber laser cutting, injection moulding and digital CNC material cutting to its in-house capabilities

Mission-critical security component manufacturer TruSeal, based in Krugersdorp, Gauteng has been active in the security products sector since 1974. The company manufactures and distributes a wide range of security seals and tamper-evident bags used across the transport, logistics, retail and cash-handling industries.

With a focus on supplying the local market, TruSeal is a South African manufacturer with international standards capable of meeting the demands of chain-of-custody operations, where verification of integrity is paramount.

Grant and Brent Cramer became owners of the business in 2009 and have run the business hands on since, running all aspects from operations to sales.

Says Brent Cramer: "During this time we have developed patented security technologies for the top cash-in-transit, security, retail and banking companies to protect their assets against theft, pilferage and contamination."

"We also realised that we need to be in a position where if a customer requests a specialised type of lock or pin that we are then able to go to our workshop and cut, bend or weld it ourselves."

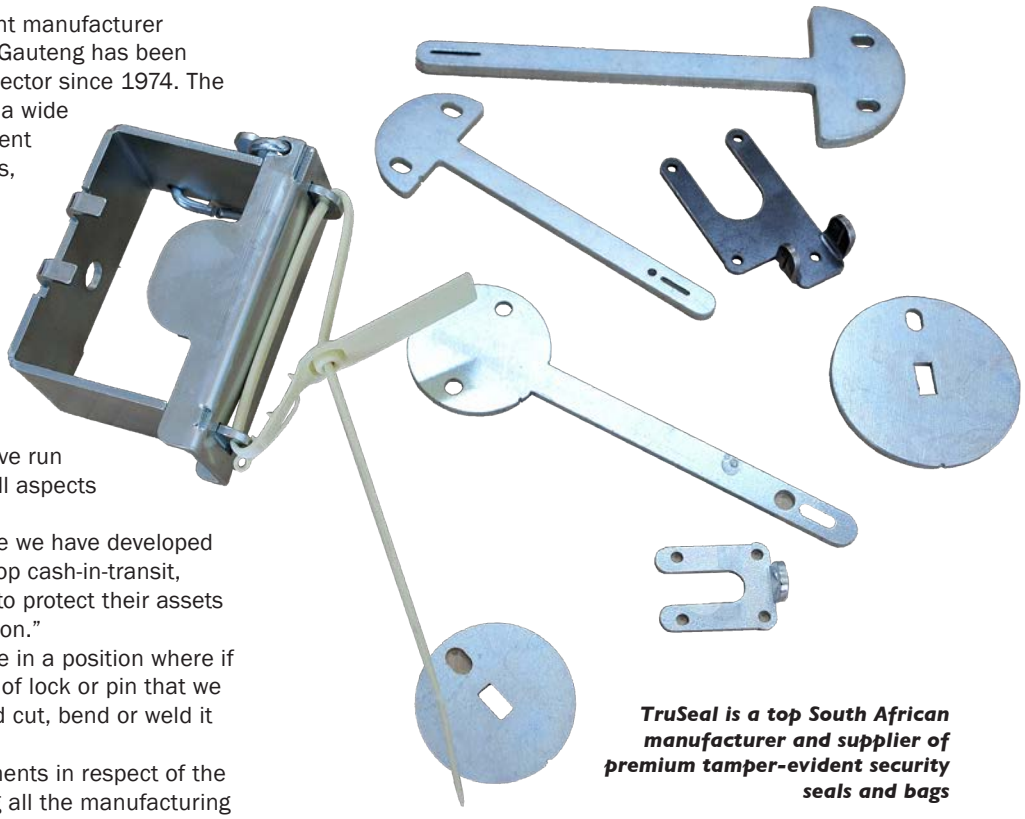
"Our aim with these latest developments in respect of the various machining purchases is to bring all the manufacturing of the different metal security components we use to make our PVC tamper-evident bags in-house into our Johannesburg factory, so that we can control the quality, reduce costs and rapidly prototype and develop new security products so we don't keep our clients waiting."

"We used to import many of our bag components but when Covid came along and the associated shipping issues arose, we realised that we needed to start doing a lot of our own component manufacturing in house."

"We work with around 20 to 30 different base products that then get further customised as per customer requirements – and this can be anything from colour to size and breaking strength variations – so the number of different combinations can run into the 100s."

"We will always keep a large quantity of stock on hand in our warehouse which puts us in a position so that if a client requires a product urgently, they can place the order in the morning and we can have the product out for delivery that afternoon. Custom-made bags and personalized laser-printed seal orders are quoted based on lead time," explains Grant Cramer.

"As these are mission critical products, we need to closely control quality and stock holding to make sure our clients are getting consistently good quality when they need it. Bad quality products or products out of stock can lead to large financial losses and even death in some cases for our clients," continues Brent Cramer.



TruSeal is a top South African manufacturer and supplier of premium tamper-evident security seals and bags

"For imported products we plan very far in advance so if there are any disruptions in the supply chain, our clients don't feel it. Things like delays, harbour issues, wars, closed shipping lanes and so on shouldn't be the client's problem, so we work hard to alleviate this."

In-house machine shop growth

"The reason for now opening the sheet metal section with the 6kW Bodor fiber CNC laser cutter with a 2.5m x 1.5m bed and the Durma AD-S 30135 4-AXIS bending brake with 3m bending width and 135 ton bending force, is to be able to control all the components we make from beginning to end and to also be able to speed up the time it takes to prototype and test new products when our clients pick up a problem and need a new security solution fast. Both of these machines were supplied by Spectrum Machine Tools Africa. We know our components and the software you get with these machines these days makes adopting the technology and putting it to use much easier."

"We will also use these new machines to manufacture our latest patented security solution launching this year to deal with the massive problem of coal and raw material theft from ▸

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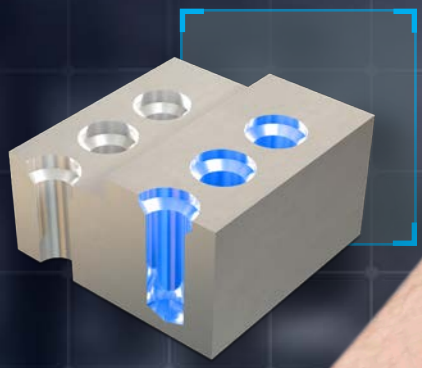

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TruSeal recently installed a 6kW Bodor fiber CNC laser cutter with a 2.5m x 1.5m bed, supplied by Spectrum Machine Tools Africa

TruSeal have also invested in a Chen Hsong JM200-MK6e moulding machine to manufacture a variety of its plastic seals

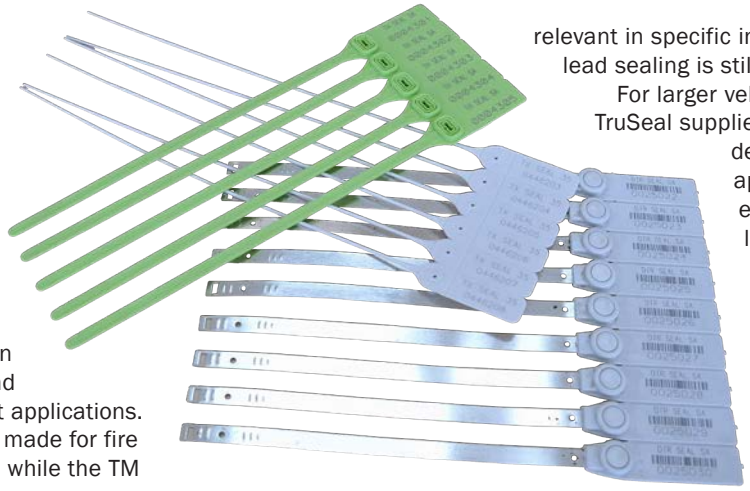
Another substantial division of the business is dedicated to security bags. TruSeal manufactures and sells a large range of different re-usable security bag types

tipper trucks during transit. Clients lose millions each day due to theft and pilferage when transporting coal and precious raw materials and we are looking to put a halt to that."

"Our aim is to grow and develop our offering throughout South Africa and Africa as we are committed to our clients and to the country and to fighting back against the theft and disruptions that are terrorising businesses on a day-to-day basis in South Africa."

TruSeal's catalogue of products is extensive and plastic seals form a large part of its production output. Within this segment, TruSeal manufactures the FX seal and the TL seal as standard models. The THL seal is supplied in both a regular form and in a tear-away version. The TH series extends this range further, supported by the TX variant. Its LR line is offered in three lengths – short, long and extra-long – covering different applications. The Pitbull seal is specifically made for fire doors and cargo applications, while the TM seal is part of the general-purpose line. Collectively, the plastic seal category covers more than 40 product configurations in varying sizes and locking strengths.

Components cut on TruSeal's new 6kW Bodor fiber CNC laser cutter – the purchase was made to control components they make from beginning to end and to also be able to speed up the time it takes to prototype and test new products. Soon to arrive is a Durma AD-S 30135 4-AXIS bending brake with 3m bending width and 135 ton bending force



TruSeal's catalogue of products is extensive and plastic seals form a large part of its production output

Alongside plastic seals, TruSeal also supplies barrier seals. This range includes bolt seals and cable seals that are used to secure shipping containers, trucks and other transport equipment, each designed to meet international cargo-security requirements.

The metal seal product range contains the Dominator seal, the ACME Metal T seal and the TruGuard seal. These are suited for industries requiring a metallic closure with higher resilience than plastic alternatives. Each type is supplied with variations in length and design depending on use case.

Padlock seals form another important product category. These seals incorporate locking mechanisms designed for single-use applications where padlock functionality must be combined with tamper evidence.

Meter seals form another line item and these seals are widely applied in utilities where electricity, gas or water meters need to be secured against interference.

The company also continues to supply lead seals, a long-standing technology. The lead seal product line includes the seals themselves, the associated sealing wire, and the sealing pliers required to apply them. These products remain relevant in specific industries where traditional lead sealing is still used.

For larger vehicles and freight protection, TruSeal supplies a tautliner seal. This is designed for truck curtainsider applications, providing evidence of access to the load area. TruSeal has a Bambu Lab 3D printer and are currently carrying out research and development into patented designs specifically for these types of products.

Another substantial division of the business is dedicated to security bags. TruSeal manufactures and sells a large range of different re-usable security bag types. These include clear casino bags, barcode-sealed bags, padlocked bags, custom-made bags, rifle and handgun bags, bulk bags, tamper-evident bags and security labels. Padlock bags and gun bags are produced in sizes that support cash-in-transit and security service needs. Tamper-evident bags are available in numerous different variants, covering both cash handling and document protection. Clip seal and wire can also be used to seal bags adding further choice within this segment.

In addition to its bag and seal portfolio, TruSeal supplies security pouches, key bags, cash bags and envelopes. Heavy-duty bulk cash bags form part of the company's supply to ▶

the cash-in-transit sector, while other bags serve retail and banking requirements.

High-volume injection moulding

TruSeal has invested in Borche and Chen Hsong JM200-MK6e moulding machines to manufacture a variety of its plastic seals. The machines feature a high-speed servo-hydraulic toggle-range injection moulding line known for efficiency, precision and energy savings with a clamping force of 200 tons. They have a relatively small shop floor footprint and are designed for rapid clamp movements, injection, and ejection. The machines are ideal for high-throughput production and also feature user-friendly PLCs.

Large rolls of PVC bag material are cut with TruSeal's state-of-the-art Zünd G3 L-2500 digital CNC cutter. The Swiss-made machine features a table length of 2 500mm and a width of 1 800mm, accommodating a variety of material thicknesses. Its modular design enables easy switching between blades and its PLC and integrated software provide a material database and job queue management. It also features interchangeable tooling options for working with a range of different materials.

TruSeal's model allows it to provide standardised, high-volume items while also meeting requests for customised solutions. All its products are designed for a defined sealing requirement rather than as a general-purpose solution.

TruSeal's longstanding presence in the South African market has made it a central supplier in its niche and the company's focus remains on reliability in supply and breadth in offering, rather than limiting itself to one category of product.

For further details contact TruSeal on TEL: +27 11 762 1040 or visit www.truseal.co.za ■

Large rolls of PVC bag material are cut with TruSeal's state-of-the-art Zünd G3 L-2500 digital CNC cutter. The Swiss-made machine features a table length of 2 500mm and a width of 1 800mm, accommodating a variety of material thicknesses

Topring Rollers commissions new Roundo Model 4R3S four roll section rolling machine

Modern metal fabrication is often defined by the advanced technology that dominates high-performance shops. Skills that were once locked inside the heads of craftsmen now have been programmed into control systems. An operator can hit a button and watch as parts are cut or formed on a CNC machine. The only other activity the operator might be involved with is removing parts from and then trashing the skeleton.

That type of CNC is commonplace in many shops, but not all. Some sectors of metal fabricating are still reliant on the wisdom of experienced machine operators. Advanced control technology still has trouble accounting for all the variabilities that come with these jobs. These areas include section, angle and plate rolling. Without the skilled input of someone who has done this type of work, the chances of reworking, or even worse, scrapping, are greatly increased.

Topring Rollers has provided curved metal components and products to customers since 1989. With that history, the company has developed the skills necessary to deliver the most challenging of shapes on time and within specifications. Topring Rollers was established in 1989 by Pieter and Dot du Toit after Pieter, a tradesman, was retrenched. The first piece of equipment the company purchased was a single Roundo Model R8 section rolling machine that was acquired at an auction and was in a serious state of disrepair. Since then the company has expanded to have over 30 section, plate and bending machines and is still operating from the same premises where it started and is now managed by Sean du Toit, the son of the founders.

The newest addition to Topring Rollers' shop floor is a Roundo Model 4R3S four roll section rolling machine, which has been supplied by Talmac Machine Tools. Roundo is originally a Swedish company but now is within the Faccin Group. The Roundo Model 4R3S series delivers exceptional performance and outstanding results for small and medium profiles. The four roll machine is a fully CNC programmable section roller

The Roundo Model 4R3S four roll section rolling machine offers a superior bending solution for crafting body shell components, vehicle chassis components, exterior lighting components, open profile bending (Omega, Channel, etc.), aerospace profile sections, and high-strength material profiles. Although the machine can roll all the standard sections available, this machine will be utilised to curve the various aluminium door, window and curtain wall sections required by architectural detailers and installers

Curved metal products can be found in homes, buildings, transport vehicles, stadiums and infrastructure developments. Whether you are looking for balustrading, staircases, roof trusses, flanges, drain pans, pipelines, heat exchangers or artwork you are more than likely going to approach a company that has section, angle or plate rolling capabilities. But like many engineering disciplines they are defined by light, medium and heavy-duty. Most processors will cover most of these areas but a company manufacturing for example tankers and trailers will concentrate on their own requirements.

Topring Rollers offers a variety

"We can bend most sections, in mild steel, stainless steel, aluminium as well as speciality steels. These include angle iron, flat bar, channels, beams, pipes, columns and rails," said Sean du Toit.

"We can roll plates from 0.5mm down to small sizes, right up to 20mm over 3m lengths in mild steel and up to 16mm thick in stainless steel."

"Our press brake is used mainly for in-house applications, however, we are able to bend 3mm mild steel plate over 2.5m." ▸

Topring Rollers can bend most sections, in mild steel, stainless steel, aluminium as well as speciality steels. These include angle iron, flat bar, channels, beams, pipes, columns and rails

Topring Rollers' capacity is up to 219mm round tube, 300mm by 100mm channel and 305mm by 102mm beam. They are also capable of rolling up to 250mm by 30mm thick flat bars as spirals

"We have more experience than anyone else in the country when it comes to rolling spiral sections. Our capacity is up to 219mm round tube, 300mm by 100mm channel and 305mm by 102mm beam. We are also capable of rolling up to 250mm by 30mm thick flat bars as spirals."

"We now have 30 different rolling and bending machines producing all sorts of components. These include section rolls, plate rolls, mandrel benders and pressing equipment. We will do one-offs or reasonable size production runs but limit ourselves to the capabilities of our equipment."

"Roll forming still remains a viable method of continuously forming cross sections of metal, even if the jobs of today are measured in hundreds of instead of thousands."

"Today, roll forming, also referred to as cold rolling or roll profiling, is producing shapes that industry veterans might find hard to believe. The process delivers much more than simple C and U-shaped profiles. In fact, some of these cross sections look like extrusions or even like two pieces of metal that have been welded together. Roll forming is delivering plenty of unexpected possibilities for the metal fabricating community."

"Each client has their unique profiles. They will supply the material to us to process. We can get the die made for them and where necessary we can design it for them. The manufacture of the dies is costly so great care is taken. Going forward maybe 3D printing will play a role and reduce costs, as you say."

New Roundo Model 4R3S four roll section rolling machine

"We have recently broadened our scope of capabilities. The newest addition to our shop floor is a Roundo Model 4R3S four roll section rolling machine, which has been supplied by Talmac Machine Tools. Roundo is originally a Swedish company but now is within the Faccin Group, a well-known Italian manufacturer of plate rolls and special rolling machines for larger diameters, thicker plates and challenging shapes."

"The four roll machine is a fully CNC programmable section roller. The advantages of a CNC controlled four roll design over the more traditional three roll section rollers are that it is safer as the material is securely clamped in the pinch rolls from the start of the rolling process, there is less distortion as the material reforms in the pinch rolls on each pass, and it is also more efficient because the single operator and accurate repeatability due to the machine learning and the CNC programming capability."

"It is also more versatile because of the simultaneous adjustment of bending rolls, guide rolls and material supports for continuous bending without stops or pauses between the different radii to avoid kinking or distortion on the finished part."

Topring Rollers can roll plates from 0.5mm down to small sizes, right up to 20mm over 3m lengths in mild steel and up to 16mm thick in stainless steel. The company's press brake is used mainly for in-house applications, however, they are able to bend 3mm mild steel plate over 2.5m

"The Roundo Model 4R3S series delivers exceptional performance and outstanding results for small and medium profiles. It offers a superior bending solution for crafting body shell components, vehicle chassis components, exterior lighting components, open profile bending (Omega, Channel, etc.), aerospace profile sections, and high-strength material profiles."

"Although the machine can roll all the standard sections available, this machine will be utilised to curve the various aluminium door, window and curtain wall sections required by architectural detailers and installers."

"We have specifically purchased the machine to accommodate this growing area of the market."

For further details Contact Topring Rollers on TEL: 918 2490 or visit www.topring.co.za ■

Macsteel navigates restructuring process

Macsteel, one of South Africa's leading steel distributors, has concluded a retrenchment process that began on 23 May 2025, demonstrating a commitment to both legal compliance and compassionate engagement with its workforce.

The process was initiated with a formal notice outlining the potential retrenchment of 360 employees. This difficult decision was driven by the sustained contraction of the South African manufacturing and engineering sectors, an industry-wide challenge that has placed immense pressure on operational sustainability said Macsteel's statement.

In accordance with Section 189 of the Labour Relations Act, Macsteel embarked on a facilitation and consultation process that extended over 87 days, well beyond the legally prescribed 60-day period. This extended timeline reflects the company's dedication to meaningful engagement and exhaustive efforts to explore alternatives to retrenchment.

Macsteel approached the retrenchment process with transparency and empathy. Voluntary Severance Packages (VSPs) were accepted by 253 employees, and several vacant positions were filled internally, substantially reducing the number of employees affected. While the company initially contemplated retrenching 13% of its workforce, this figure was drastically reduced through a rigorous and compassionate consultation process. Ultimately, only 39 employees, representing just 1.4% of the total workforce, received formal notice of retrenchment on 18 August 2025.

Macsteel has expressed deep regret over the necessity of any retrenchments, emphasising that every possible measure was taken to minimise impact. The severance packages provided were fully compliant with the Labour Relations Act and aligned with the Main Agreement of the Metal and Engineering Industries Bargaining Council (MEIBC) for scheduled workers.

In response to a recent media statement issued by the National Union of Metalworkers of South Africa (NUMSA), Macsteel has chosen not to engage with the inflammatory language and factual inaccuracies contained therein.

Macsteel currently has Peter Smith as its acting Chief Executive Officer. Smith was appointed after Mike Benfield left Macsteel four months ago, having been the CEO for nearly 10 years. ■

Mercedes-Benz's East London plant restarts after planned nonproduction period

The Mercedes Benz factory in East London

Mercedes-Benz South Africa (MBSA) has restarted the assembly line at its East London plant following what it called a "planned nonproduction period" that ran from June 25 to the end of July.

The company told IOL that the planned non-production period, effective from June 24 to 31 July 2025, is a normal occurrence.

"An annual non-production period at the East London ▸

production plant is standard procedure and it is common cause for production plants to suspend production based on volume adjustments in the production programme," an MBSA spokesperson said.

"Mercedes-Benz South Africa (MBSA) continually assesses and adjusts its production planning in alignment with global demand, market dynamics, and the company's strategic objectives."

According to reports a spokesperson for the local arm says production restarted, as planned, on 31 July on a two-shift system. The company produces the C-Class sedan for the local and export markets.

There were many reports that East London faces serious challenges as Mercedes-Benz is reportedly concerned about the future of its production plant in the city due to the impending US tariffs. The Mercedes-Benz plant contributes significantly to the city's jobs and broader economy, and a potential shutdown or exit could spell disaster for the region. South Africa boasts a strong automotive legacy, having celebrated 100 years of the industry in 2024.

The industry, accounting for 5.1% of the country's GDP, supports 116 000 jobs on the manufacturing side alone, and close to 400 000 on the retail and repair side.

Like many other countries Donald Trump imposed a 25% blanket tariff on all automotive imports into the country. The US is a major export destination for MBSA, which currently produces the C-Class sedan in both left-hand-drive and right-hand-drive models for numerous world markets.

The facility in East London currently employs 2 400 people, and produced a volume of 70 000 vehicles in 2024, making it one of the country's top automotive exporters.

According to the National Association of Automobile Manufacturers of South Africa (Naamsa), vehicle exports to the US dropped by a staggering 82% in the first half of 2025.

Only 2 875 vehicles were shipped to the US between January and June, compared to over 16 000 in the same period last year. Nearly all of these were C-Class models built at the Mercedes-Benz facility in East London.

The East London plant, located along the Buffalo River, has been operational since 1962 and was for many years Mercedes-Benz's flagship quality-control site outside of Germany. ■

Coil storage at Usiminas, Brazil. Courtesy World Steel Association

ITAC imposes 52.34% duty on corrosion-resistant steel coil

The International Trade Administration Commission of South Africa (ITAC) has requested the South African Revenue Service (Sars) to impose a provisional safeguard duty of 52.34% of the value of imports of thin-gauge corrosion-resistant steel coil for 200 days.

ArcelorMittal South Africa Limited (AMSA), the major producer of the subject product within the Southern African Customs Union (SACU), applied for a remedial action against increased imports of corrosion resistant steel coil. The application was supported by SAFAL Steel, the other SACU-based producer.

Steel coils are widely used in key downstream industries such as construction, roofing and cladding, appliance manufacturing, and the automotive and engineering sectors. Their quality and corrosion-resistant properties make them a critical input for structural and fabricated steel applications.

The Commission made a preliminary decision to impose a provisional safeguard duty on imports of corrosion resistant steel coil. The provisional safeguard duty is a short-term emergency measure imposed before a final determination is made, in order to prevent further injury while the investigation is concluded.

The Commission made the following preliminary findings:

- The surge in imports is the result of unforeseen developments and is recent, sudden, sharp, and significant.
- The SACU industry is experiencing serious injury due to this surge.
- While other factors such as market contraction, rising input, electricity, and transport costs were considered, they did not sufficiently detract the causal link between the serious injury and the import surge.
- Critical circumstances exist that warrant immediate action to prevent irreparable harm.

As a result, the Commission requested the South African Revenue Service (SARS) to impose a provisional ad valorem safeguard duty of 52.34% on imports of the subject product for a period of 200 days, effective from the date of publication in the Government Gazette on 27 June 2025.

These provisional measures apply to all countries except those developing countries whose individual import volumes do not exceed 3% of total imports or collectively account for less than 9% of total imports. ■

Ford Motor Company of Southern Africa announces layoffs

Ford South Africa has given official notice of its intention to retrench employees as part of a "realignment" to match market demand.

The group has given notice that 470 positions will be impacted, affecting workers at the Silverton plant in Pretoria and the Struandale engine plant in Gqeberha.

According to the notice, as reported by trade union Solidarity, Ford says the job losses follow a "realignment" of its production capacity to match current and expected market demands. This means terminating 391 operator positions in Silverton, 73 at Struandale and 10 administrative positions.

While the retrenchment notice comes as the wider automotive sector is being hit export tariffs to the United States, Ford SA told BusinessTech that its local operation does not export to the US. Instead, the group said that it is "making necessary adjustments" to its manufacturing operations as part of ongoing efforts to optimise production.

"We regret that these essential plant adjustments will result in a reduction of positions across both facilities. We understand the impact this has on our valued employees, and we are committed to supporting those affected. As part of this process, we will be offering voluntary separation options," the notice said.

Ford said it is committed to transparent and respectful engagement with its employees and is currently consulting with representative unions through the required consultative processes regarding these proposed changes.

"We see this announcement as the beginning of possible greater job losses facing the entire automotive industry in South Africa," says Willie Venter, deputy general secretary of Solidarity.

According to Venter, economic pressure, international political uncertainties, and the government's unfavourable policies are causing this industry to become increasingly uncompetitive.

"When an automotive giant like Ford takes such drastic steps, it is a warning to the entire sector. We fear that further retrenchments in this industry may be inevitable if the circumstances do not improve quickly," he warns.

"We will explore every possible alternative to limit job losses, and we will ensure that Ford not only fulfils its duty, but that employees are treated fairly," says Venter.

Solidarity also pointed out that these retrenchments will have a serious impact on the communities in Pretoria and Gqeberha and that it once again shows how vulnerable South African industries are under the current economic climate.

"Without effective intervention and economic reform on the part of our government, our country will have to endure even more job losses," says Venter. ■

Hulamin decides to exit extrusions business

JSE-listed Hulamin has issued a cautionary announcement to shareholders, indicating that it has entered into negotiations regarding the potential disposal of Hulamin Extrusions. The announcement said: "Shareholders are advised that the Company has entered into negotiations regarding the disposal of Hulamin Extrusions Proprietary Limited, which, if successfully concluded, may have a material effect on the price of the Company's securities. Accordingly, Shareholders are advised to exercise caution when dealing in the Company's securities until a detailed announcement is made or the cautionary announcement is withdrawn."

Hulamin Extrusions was founded 40 years ago by Alcan. Today Hulett Extrusions have production plants in Olifantsfontein, Gauteng and Pietermaritzburg, KwaZulu-Natal.

Hydro Aluminium Extrusions – one of the world's leading extruders became a shareholder in the extrusion division during the period 1997 to 2008. In June 2007 Hulamin listed on the Johannesburg Stock Exchange and subsequently Hulett Hydro Extrusions changed its name to Hulamin

Extrusions. In 2008 Hulamin acquired the Hydro Aluminium shareholding to become the sole shareholder of Hulamin.

Canbody expansion

In the same announcement which was reporting on Hulamin's six-month results the company said: "Our key objective for the first half of the year was to build sufficient finished goods to supply the market during the integrated shutdown, while maintaining profitability and cash flow. Positive momentum from higher volumes and a stronger sales mix was more than offset by the impact of a stronger exchange rate, elevated inflationary energy costs and increased pricing pressure in the local can-end market."

"We continued to advance our market-driven strategic capital plan, reaching a major milestone with the successful completion and commissioning of the final phase of our wide canbody expansion project aimed at displacing imports. Our next focus is the qualification and commercial readiness of our wide-width products, targeted for the first quarter of 2026. Concurrently, we are working to optimise plant performance to secure strong second-half volumes across our core product streams."

Hulamin completed the most critical phase of its R500-million capital investment to enhance its canbody stream capacity and capability in July. This final phase, which was the widening of the cold rolling mill, was undertaken during a 25-day integrated plant shutdown.

The investment, which Hulamin initiated in 2022 as part of a strategic reset, aims to capitalise on the growing demand for locally produced cans by reducing reliance on imports and enabling local can makers to improve production efficiencies.

The core of the strategy was to upgrade the plant's capacity and capability to produce wide-width canbody coils, which are currently imported. ■

Government opens key rail transport routes to be run by private companies

Marks a major step in rail reform and could present opportunities to companies involved in supplying the rail transport industry with product, components and wear parts, either directly or indirectly.

Government has said it will allow private firms to run trains on its freight rail network, aiming to boost efficiency as state-owned logistics firm Transnet struggles to keep up with demand. Transnet, which runs the country's freight rail and port services, has faced equipment shortages and maintenance backlogs worsened by widespread cable theft and vandalism, prompting the government to seek private sector involvement.

Transport Minister Barbara Creecy said 11 out of 25 train operating companies that applied for access to the freight network had met the requirements and will proceed to the next stage of negotiations and contracting, without naming the companies.

"(The companies) are not cannibalising Transnet freight, they are adding capacity to what Transnet freight is already carrying," Creecy told reporters.

Six key corridors

The new operators will be allocated slots across 41 routes and six key corridors, primarily for bulk commodities such as coal, iron ore, chrome, manganese, sugar, fuel and containers. Contract conditions include obtaining safety permits, ensuring rolling stock readiness, and securing port offloading capacity. Slot durations will range from one to ten years.

This year, the government has extended R149 billion in guarantees to support Transnet's recovery but says it has limited resources to fund infrastructure development and address logistics backlogs. Creecy said Transnet was also seeking R35 billion in infrastructure funding from the government this year.

Transnet's freight rail volumes dropped to 152 million metric tons in the 2023/24 financial year, down from a peak of 226 million metric tons in 2017/18.

The new operators are expected to carry an additional 20 million tons of freight annually starting from the next financial year, advancing the government's goal of transporting 250 million tons by rail annually by 2029, Creecy said.

The operators could add 10 million tons of coal export capacity over the next three years, she added, from current levels of around 50 million tons. Bulk mineral exporters such as Kumba Iron Ore and thermal coal exporter Thungela Resources have been forced to curtail production to align with Transnet's limited capacity.

The identities of the successful TOC applicants, their shareholders and the routes for which they had applied were not immediately disclosed. However South African logistics firm Grindrod said it had been granted access to the Transnet network, as did ARC and Menar. ■

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Cape Gate and Scaw ask Competition Tribunal to interdict ArcelorMittal SA from charging prices below market rates

Bailout under fire: AMSA faces allegations of market abuse and loan misuse.

With millions awaiting confirmation on whether ArcelorMittal South Africa (AMSA) will wind down operations at Newcastle Works and Vanderbijlpark Works by 30 September 2025, the steel producer is under mounting scrutiny, according to a report in the Newcastillian News, a publication from Newcastle, Kwa-Zulu Natal.

At the centre of the storm are allegations that AMSA misused a R3.75 billion government bailout, intended to stabilise its struggling plants, to instead undercut competitors by selling steel at below-market prices.

Industry stakeholders argue that AMSA has weaponised the 2025 Industrial Development Corporation (IDC) loan to influence market dynamics. The funds were originally allocated to support the company's survival during difficult trading conditions at Newcastle and Vanderbijlpark.

However, critics, including Cape Gate and Scaw, say AMSA's pricing strategy is distorting the market and placing pressure on local manufacturers already under strain. Smaller producers and downstream industries warn that being forced to compete against steel sold at reduced rates – sometimes below production costs – jeopardises their sustainability.

Some opponents go further, alleging predatory pricing, where AMSA temporarily drops prices to squeeze out rivals before raising them again.

Moreover, industry leaders insist this contradicts the purpose of the IDC loan, which was meant to stabilise AMSA, protect jobs, and safeguard domestic production capacity, not provide a competitive advantage.

In response, AMSA has rejected the claims. Tami Didiza from AMSA explained, "The pricing reflects market realities, not IDC subsidies." He further clarified that bailout funds have been used to modernise operations, improve efficiency, and safeguard jobs. The company emphasised that the IDC loan came with strict conditions, including maintaining employment and investing in capital upgrades for long-term sustainability.

Nevertheless, critics argue that the government and IDC have failed to enforce sufficient oversight to ensure compliance. Some claim that instead of focusing on operational recovery, AMSA redirected relief funding into aggressive pricing strategies. As a result, calls have been made for the Department of Trade, Industry and Competition (DTIC) and the Competition Tribunal to launch a formal investigation.

SAISI has also raised concerns with the DTIC, warning that unchecked practices could trigger job losses and the closure of smaller steel producers and downstream businesses.

Tariff proposals add pressure

As the loan debate intensifies, the broader steel industry faces another challenge: Proposed tariff increases from the International Trade Administration Commission (ITAC).

The National Employers' Association of South Africa (Neasa), representing 1 800 companies and 65 000 employees, is mobilising against what it calls "devastating" measures that appear to favour AMSA at the expense of downstream manufacturers.

ITAC's proposals include new customs duties of 10 per cent on flat-rolled steel, bars, rods, and wires, and 15 per cent on tubes, pipes, and nails. Justified under World Trade Organisation emergency provisions, the measures aim to reduce imports, which account for roughly 35 per cent of domestic consumption, mainly from China. The review covers more than 600 tariff codes valued at R67 billion, with public submissions still being considered.

Neasa, however, has warned that the proposals, if implemented, could accelerate the decline of South Africa's steel sector. It argues that public hearings appear largely procedural, with decisions seemingly resistant to evidence highlighting potential job losses and closures. According to Neasa, the policies will "drastically accelerate the decimation" of downstream industries.

High stakes for South Africa's steel sector

Meanwhile, sources inside AMSA confirm ongoing discussions with government representatives to prevent the closure of Newcastle and Vanderbijlpark. Still, as the deadline for AMSA's unwinding process approaches, the company told Newcastillian News that, due to the complexity of the matters and prior cautionary announcements, it cannot comment further at this stage. ■

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Isuzu Motors aims to be the manufacturing hub of commercial trucks for the African market

The South African arm of Japanese automaker Isuzu Motors aims to be the manufacturing hub of commercial trucks for the African market, helping it increase volumes and locally sourced parts, its president said.

Billy Tom, President and CEO of Isuzu Motors South Africa told Reuters he has been engaging with Japan on the plan. "We're saying to them, instead of producing vehicles in Japan, you've got a facility in Africa. We can produce the vehicles here. Isuzu has done some successful trials of manufacturing a truck and its body locally. Some of its truck bodies are imported from countries like China and the Middle East."

The company's South African plant manufactures Isuzu D-Max pickup trucks, assembles medium-heavy and extra-heavy commercial trucks and imports the Isuzu Mu-X SUV for distribution to African markets. Its export volumes for trucks into the rest of Africa are very limited but it exports its pickups to more than 30 African countries.

"So we've targeted West Africa as a starting point and then we'll see how it goes. We've been looking for opportunities in the African business. About six years ago 15% of my volumes were in Africa. That number is now 22% to 23%. Our ambition is to get that number to 45%."

Tom is hoping to take advantage of the African Continental Free Trade Area, ratified by 49 countries and launched in 2021, though less than half the member states actively trade under the framework of zero tariffs.

The big seven car companies manufacturing in South Africa including Volkswagen, Toyota and Mercedes-Benz are looking at ways to safeguard their production volumes as the influx of imports, especially from China, threaten the local industry.

South Africa's automotive masterplan has set a target of 60% local content by 2035 but has remained stagnant at 39%, Minister Parks Tau told delegates at an auto parts conference. The plan also targets between 1.3 million and 1.5 million vehicles produced in South Africa by 2035 from a current average of 600 000 units.

"That threat of deindustrialisation is there and probably getting bigger as well, because if you look at the growth of what is imported into the country, that number is growing," Tom said.

Some 64% of vehicles sold in the country are imports, and Tau has said that through the country's international trade administration body, his department will probe the impact of automotive imports on local production. ■

Mozal aluminium smelter on care and maintenance due to electricity supply issues

Africa's second-biggest aluminium smelter may close in March next year after operator South32 Ltd revealed it is yet to secure a new electricity supply agreement before the current one expires.

South32 said its Mozal Aluminium facility, the biggest industrial employer in Mozambique with over 2 500 staff, will be put on care and maintenance when its electricity agreement expires at the end of March 2026.

Over 2 500 employees and contractors were employed at Mozal in 2024, the group's integrated report shows, and an estimated additional 21 000 jobs were created through multiplier impacts on the economy.

South32 said in a notice that it had continued to engage with the Mozambique government, Hidroeléctrica de Cahora Bassa (HCB), and Eskom on securing additional electricity, since an earlier announcement last month. It has been trying to secure an agreement for over six years.

South32 also operates the Hillside smelter in Richards Bay, with both smelters supplied with alumina that is mostly mined and imported from Australia. ▸

The impact on the Mozambique economy stretches beyond the direct workforce at Mozal, as the facility supports not only smelting operations but also downstream industries and infrastructure development.

"These engagements do not provide confidence that Mozal will secure sufficient and affordable electricity beyond March 2026. As a result, we will limit investment in Mozal, stopping pot relining and standing down associated contractors starting this month," the global mining group said. South32 would incur an R6.53 billion impairment as a result.

Historically, most of the electricity for Mozal has been generated in Mozambique by a hydro-electric power generator, Hidroeléctrica de Cahora Bassa (HCB). HCB is owned by the Mozambique government.

Under the agreement, electricity from Eskom is supplied to Mozal when HCB is unable to meet all of Mozal's electricity requirements. HCB recently indicated that drought conditions had the potential to impact its capacity to deliver sufficient hydro-electric power to Mozal, which had increased the uncertainty regarding future electricity supply to Mozal.

"Without access to sufficient and affordable electricity, we expect that Mozal will be placed on care and maintenance at the end of the current agreement," it said.

Mozal's 2026 financial year production was expected to be about 240 kt (South32 share), reflecting fewer pots in operation as pot relining stops and operations continue only to March 2026.

Mozal produced 318 000 tons of aluminium in 2024. Hillside, which is Eskom's biggest industrial customer, produced 718 000 tons of aluminium last year.

A carrying value assessment of Mozal had been completed, and as a result, South32 would recognise an impairment of $372 million for Mozal with its results for the 2025 financial year.

This included $339m of property, plant, and equipment, $7m of intangible assets, and $26m of raw materials and consumables.

"The impairment reflects our assessment that the most likely scenario is for Mozal to operate until the end of the current electricity supply agreement and be placed on care and maintenance in March 2026. The impairment reduces Mozal's carrying value to $68m," the group said.

Hillside's 10-year negotiated electricity price agreement with Eskom is set to run until 2031. ■

Exposing the illicit trade in steel

Local legal and compliant manufacturers cannot compete and some are closing shop, with all the attendant job losses.

"Illicit alcohol, tobacco, pharmaceuticals and gold have hit the headlines in recent years. Illicit steel has not, yet it is a pervasive phenomenon in the market that needs to be addressed urgently," writes Charles Dednam, the secretary general of the South African Iron and Steel Institute.

"Unlike fast-moving consumer goods, steel has little retail visibility. This remarkable metal is generally regarded as a commodity rather than a finished product and little public attention is therefore paid to its price, quality or origins. Yet all three of these factors are critical for the end user and require far closer examination."

"Steel's consumer agnosticism is also derived from its lack of brand identity. Price and reliability of supply are major considerations for many end users, rather than brand assurance and quality. This approach, together with a raft of policy, legislative and enforcement weaknesses, has left the door wide open for the importation of a flood of illicit steel of varying quality, all of which is destroying legal and compliant local producers."

"What is meant by illicit steel, how is it identified, where is its source, what is its impact and what can be done to stop it? While the likelihood of illicit steel being of lower quality than legal and compliant steel exists, this is not always the case. Indeed, a number of steel quality testing facilities operate locally to help ensure quality control. Apart from cost, there is no reason to make use of sub-quality steel. Notably though, lower quality illicit steel carries a raft of durability, endurance, corrosion, reliability, failure and legal liability consequences."

"Far more pervasive is the phenomenon of import abuse and manipulation by the illicit steel industry – and it is on an industrial scale. SA Revenue Service (Sars) customs and excise figures indicate that tonnes of steel product (such as steel wire, roofing and cladding material and steel tube) are landing on our shores from Asia at prices that are below the cost of the raw material in SA (even lower than the preferential price indicated by the International Trade Administration Commission, which is 30% below the world price for scrap)."

"This can be interpreted in two ways. Either the values declared on the import documentation are false and simply too low (in other words, fraudulent) or the declared value is accurate and correct, in which case the product is being dumped in terms of the World Trade Organisation definition. Deliberately misleading descriptions and categorisation of product is another form of circumvention. Thus, duties are undercharged and the fiscus and Treasury lose out."

"Tariff codes are only effective if applied honestly and ethically by all. Evidence suggests this is not the case for tonnes of steel products imported into SA. How does this happen in practice? Research suggests that when local and global demand for steel drops precipitously and a major Asian exporting country continues to manufacture at high volumes at a loss, it is relatively easy for a company to be set up that buys locally produced loss-making steel from the Asian mill, and you are sure to make a healthy profit for yourself by exporting this product at a loss to SA."

"Under this sharp practice, all paperwork is legal as it reflects the actual price paid/payable on a valid import invoice. The immediate consequence is that duties are undercharged or avoided altogether, with a direct loss to the fiscus."

"An even worse example is when an SA company registers a company in China, for instance, buys the required product through this newly registered company at a relatively low price, and then exports it to SA, invoicing only a portion of the purchasing price. These export prices translate to ridiculously low final product prices, in some instances R1 600.00/ton, leaving the bulk of the purchase price untaxed."

"Remarkably, the purchasers of this artificially cheap imported steel are not only local merchants and illicit operators, but could also include the public sector and state-owned enterprises that include stage consignments, where the steel requirements of complete projects are imported. This gives the lie to the much-vaunted re-industrialisation, localisation and designation narratives the government recently committed to."

"The stark truth is that the illicit trade in steel is so pervasive that local legal and compliant manufacturers cannot compete, are struggling to survive and in many cases are closing shop, with all the attendant job losses."

> "Tariff codes are only effective if applied honestly and ethically by all."

"The corrosive phenomenon of illicit steel is further facilitated by a number of broader structural failures highlighted in the recently released Transnational Alliance to Combat Illicit Trade (Tracit) report. The 2025 report notes that whereas efficient trade, customs and border management are crucial for curbing illicit trade, SA faces significant vulnerabilities, including declining efficiency at major container ports and severe understaffing and funding shortages within the Border Management Authority (BMA)."

"Of direct relevance for illicit steel, the report goes on to note that limited resources and overstretched enforcement capacities make it difficult to monitor and secure entry points effectively, allowing counterfeit products to flow into the country unchecked."

"Tracit notes that illicit traders in SA regularly exploit vulnerabilities throughout supply chain networks to facilitate illegal commerce. These supply chains vary significantly – from maritime shipping routes to free trade zones. Rapid shifts in global trade dynamics and technological advancements increasingly challenge government authorities, demanding continuous modernisation of controls and resource allocation to address illicit trade effectively."

"While illicit steel is a wide-ranging phenomenon, one decisive measure that can be adopted with relative ease is for the implementation of a formula tariff for imported steel products. A minimum price must be set for identified steel products under which people cannot import without paying the correct price, ad valorem duty and all applicable taxes. This constitutes today's low hanging fruit."

"The 2025/26 national budget allocated an additional R7.5 billion to Sars over the medium term to strengthen its investigative, enforcement and collection capabilities. Tackling SA's illicit steel sector effectively would yield a meaningful return on this investment." ■

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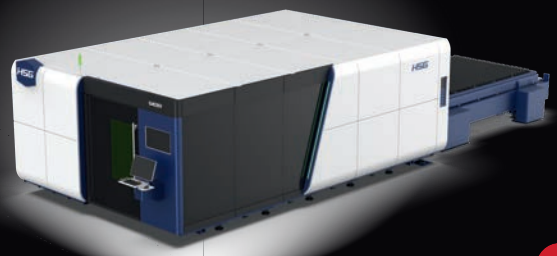

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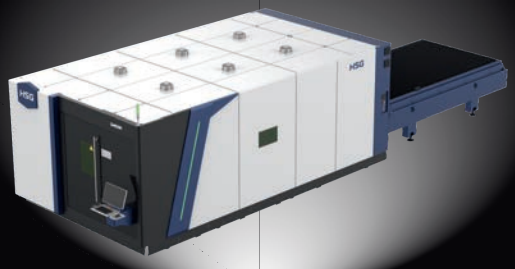

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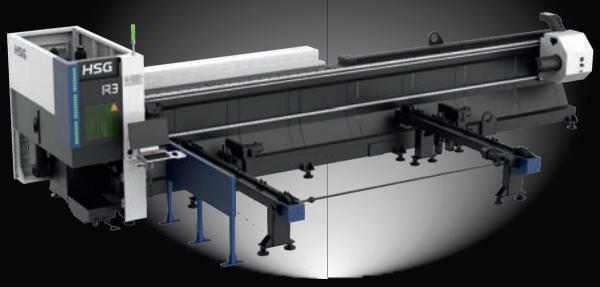

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PtSA holds series of roadshows to provide feedback on a strategic review of the South African tooling industry

The Production Technologies Association of South Africa (PtSA) recently commissioned Professor Justin Barnes and his team from African Industrialisation Services to provide the PtSA with a clear strategic review of the South African tool, fixture, die and mould (TDM) manufacturing sector. The goal of the study was also to give a comprehensive set of recommendations to support the future development of the sector in South Africa.

Members of the panel discussion that was held at the PtSA Western Cape breakfast workshop that took place in August 2025 on the strategic review of the South African tooling industry. From left to right, John Lawson, CEO Cape Chamber of Commerce and Industry, Malte Scherner of AAT Composites (Pty) Ltd and PtSA Regional Chair Western Cape, Professor Justin Barnes of African Industrialisation Studies and Bob Williamson, PtSA National Secretary

Opening the Western Cape event, held at the Durbanville Country Club in late August, and noting the significance of tooling in manufacturing, Bob Williamson, PtSA National Secretary said: "Tooling occupies a key position in the industrial supply chain linking product development and production. 60% of manufacturing efficiency – meaning the cost that a product is sold for – is directly linked to the tooling selected for the manufacturing process."

Williamson continued: "Outsourcing the manufacturing of your tooling, especially to competitor countries, has a direct impact on the efficiencies of your manufacturing capabilities because you disclose the intellectual property you have over your product and your manufacturing processes to them. Toolmakers, therefore, occupy a critical position of trust."

Prof Barnes' report, titled Moulding a Better Future, was commissioned by the PtSA to paint a comparative picture of a similar study undertaken in 2005. The latest report, done by Barnes and his team, didn't render much positive news for the current state of affairs in the local TDM sector.

"There are pockets of excellence and these are to be celebrated, but on aggregate, the overall progression of the sector is in decline," noted Barnes. He explained that this is in direct correlation to the South African manufacturing sector as a whole, an industry that relies heavily on the often-unspoken protagonist of manufacturing – tooling.

"While there is a lot of noise about disruptive digital technologies, the mechanical processes [involved] remain critical to manufacturing," said Barnes.

According to Barnes' study, many major weaknesses were identified in the interviews conducted during the study, suggesting major negative developments since 2005. These included expensive, unreliable energy, very limited large TDM capabilities, aging equipment and capital base erosion, no consistent and stable baseload of work, global competition at extremely low prices, dependence on imported materials that are often expensive, local transport/logistics costs, limited master TDM skills and design and project management skills issues.

The study's findings also highlighted that, "A few of the major threats identified in 2005 appear to have been realised, with their pressure continuing to shape the outlook for the South African TDM sector. New threats relate to South African political and economic stability, insufficient government support for the TDM sector, and the loss of master skills."

Other influencing factors included the growing dominance of China, [the] automotive industry's increasing technical and digital demands, technology shifts/access to technology and the loss of master skills ([due to] retirement and emigration).

"The threats posed by China and India's emergence as new global competitors, as identified in 2005, appear to have been realised (again, also evident in South Africa's trade data), as has the growing complexity of each new generation of automotive technology."

Skilled labour retention will continue to remain a challenge as well as will the ongoing difficulties associated with attracting youth into the manufacturing industry. The transfer of skills is desperately needed for the modularisation of skillsets that will be required as technologies change and companies will need to learn how to develop products as efficiently as possible.

Barnes' report suggested the solutions offered to the problems drew heavily on the experience from the successful Portuguese TDM industry. Professor Jose Ferro Camacho, an ▸


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international TDM expert, provided the following guidance for the development of the South African sector:

- To encourage learning between firms through informal knowledge sharing and benchmarking. To engage with TDM technology centres via demonstration projects, using new technologies, offering shared access to equipment for SMEs. To implement training, workshops and pilots on new technologies and for an intermediary to exist between research institutions, service providers and firms.
- There is a need for collaboration with universities that includes joint research and innovation projects and Masters and PhD research. Further to this, TDM community clusters need to exist and consortium-based innovation projects along with information dissemination events will help, as will the development of technology roadmaps.
- The transfer of technologies from key suppliers via methods like on-site training and demonstrations and encouraging lead-users in clusters and lead-firms to diffuse their knowledge are paramount. Establishing advanced standards, offering technical support and securing support from the public sector will also be needed.
- Further, incentives like offering voucher schemes, digital transition grants and incentives for upgrading as well as deepening vocational training and skills upgrading coupled with offering modular courses – at firms where appropriate – with key focus areas on: CNC programming, CAD/CAM, 3D printing, automation, sustainability and energy efficiency.

Industry also needs to demonstrate its upgrading to the broader community and show success stories as these are powerful change motivators – something Metalworking News magazine has been doing in the manufacturing industry for more than 25 years.

During his presentation, Prof Barnes made no hesitations mirroring his thoughts and dismay at the state of South Africa's automotive manufacturing industry, one that relies heavily on the tool and die industry. He called out the media in general for painting such a rosy picture of the industry when in actual fact, despite the billions of rands that have been ploughed into the industry by the big OEM automotive manufacturers – which is to be applauded – local industry is in decline.

The industry, he says, is under enormous stress and pressure from the wide availability of cheaper imported vehicles and the general state of the local economy and its middle class whose purchasing power has significantly eroded in recent years.

Referring specifically to Mercedes-Benz South Africa and its chances of survival, he said: "The numbers just don't add up for me."

Legislative changes such as the scrapping of the ad valorem tax, essentially a luxury excise tax that exponentially increases with the price of a vehicle, and continued investor encouragement are critical to the local sector's survival if it is to compete against the flood of much cheaper imports.

A statement released recently by naamsa reflecting on recent automotive sales data says: "Vehicle exports to the US – South Africa's second-largest trading partner and historically a key destination for domestically manufactured premium models – have plummeted by 82.2% in the first half of the year compared to the first half 2024, dealing a significant blow to production volumes and supplier networks."

Said naamsa CEO Mikel Mabasa on the implementation of US tariffs: "The reimposition of these tariffs is deeply disappointing and has far-reaching implications. Without urgent trade remedy, the socio-economic fallout could be severe."

Continued the naamsa statement: "The year 2025 marks a critical juncture for South Africa's automotive industry as it prepares for the review of the South African Automotive Masterplan 2035 [SAAM35] and the Automotive Production and Development Programme Phase 2 [APDP2]. These reviews are intended to align the sector's policy framework with shifting global market dynamics and to reset performance goals in light of both domestic and export challenges."

Despite this, recent data is positive: "The South African new vehicle market continued its winning streak, with July [2025] delivering the highest monthly total sales figure reported since October 2019. Aggregate new vehicle sales increased to 51 383 units in July 2025, up 6 931 units, or 15.6%, from the 44 452 units sold in July 2024. This strength has been driven by improving consumer confidence, favourable credit conditions, and a steady recovery in disposable incomes. The July 2025 new passenger car market at 36 248 units, the highest monthly passenger car sales performance since January 2017, had registered an increase of 6 072 cars, or a gain of 20.1%, compared to the 30 176 new cars sold in July 2024."

Naamsa's statement didn't reveal how many of the new vehicle sales were of imported vehicles.

The automotive industry contributes 5.2% to GDP [3.2% manufacturing and 2.01% retail]. In 2024, the export of vehicles and automotive components reached a record amount of R268.8 billion, equating to 14.7% of South Africa's total exports. The industry accounts for 22.6% of the country's manufacturing output and vehicles and components are exported to 155 international markets

A question-and-answer session following Barnes' presentation reflected the undertone of 'many questions, no answers', and speaking anecdotally, one attendee revealed on how some years ago his business was made up of 90% TDM manufacturing and roughly 10% repair work, now that same business spends 90% of its time carrying out repair work and only 10% on TDM manufacturing.

While the regionally held and well attended events themselves carried both positive and negative energy as industry searches for answers, what's clear is that there is a lot of work to be done if the sector is to recover, let alone survive.

Said Agetha Westphal, PtSA Western Cape Industry Development Manager: "The PtSA roadshows have been an important platform to reflect honestly on industry challenges while also highlighting the opportunities ahead."

"The comparison between 2005 and 2025 clearly showed how companies need to adapt, pivot where necessary, and align to remain competitive. A strong focus was placed on the automotive sector, yet there is still significant scope for Tool, Die and Mouldmaking (TDM) across the marine, defence, aerospace, FMCG, medical, and pharmaceutical industries."

"The PtSA itself is taking a proactive step with the establishment of its first Centre of Excellence in Cape Town, near the Sanlam Centre. This facility will include an R&D hub to support industry with product development, skills readiness, and benchmarking – working alongside, not in competition with, the sector," Westphal concluded.

The Production Technologies Association of South Africa (PtSA) is a non-profit membership organisation founded in 2006. Its mission is to promote, protect, and support the Tool, Die, Mould, and Special Machining (TDM) industry in South Africa to grow and develop the national manufacturing sector.

To date, the PtSA has trained over 1 000 toolmakers whose quality is on a par if not better than international standards with the top 10% of those toolmakers being black females, demonstrating real change in the industry.

Contact the PtSA on TEL: +27 12 760 0300 or visit https://www.ptsa.co.za for more information. ■

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JP Engineering: Meeting and exceeding expectations since 1995

JP Engineering has long been manufacturing a variety of components and custom assemblies for the mining, aviation, transportation, military, industrial, robotics and automation, medical and commercial industries as well as cash-in-transit vehicles, using a variety of machines and processors used in the metal forming industry. They have also added value for clients with certain metal shaping processes, all with the intent of being a one-stop shop. Facing a necessary upgrade, the company had to consider adding new modern equipment, additional metal processing processes and expanding their shop floor space to improve production time and capabilities.

As the world navigated its way through Covid and all the uncertainties that went with that period in life that most of us want to forget, in a funny way, the period did have its positive aspects. The impact of the pandemic on morbidity and mortality, as well as on the social, behavioural and economic aspects of life have been well-documented. A brief search shows not much is written on the positive aspects. Positive themes include improved relationships, lifestyle changes, remote job flexibility, working from home and a host of new digital tools.

The positive impact in the industrial production and manufacturing sector has also not had much coverage even though, the resilience shown by many, would fill many books. What the crisis did do though is that it gave time for owners and managers to put some serious thought into company direction, workplace revision and workforce reorganisation.

JP Engineering's family Ricky and Jenny Camacho, Manny Peixoto, Eva and Jorge

Besides investing in new equipment, the focus of JP Engineering's recent expansion was to renovate a 2 000m² building they had purchased in 2012

There is no doubt that manufacturing has evolved toward data and technology-driven networks and digital ecosystems. Data analytics and Industry 4.0 allow for end-to-end visibility based on dynamically reconfigurable material flows and digital information flows. Machine learning, robotics, artificial intelligence and cloud computing all have crucial capabilities for improving manufacturing resilience.

But what about the 'simple' organisational actions of investing in new equipment, work space improvements and people organisation? JP Engineering has done this and are now fully in their stride to increasing their production figures to sometimes, beyond their comprehension.

"Although Covid was not the chief influencing factor for our expansion, to a certain extent, it did have an influencing effect. Our expansion began near the beginning of the pandemic and it certainly heightened all our plans and made us pay attention. Like many we undoubtedly became agile and focussed," said Jorge Peixoto, Managing Director of the family run business.

"The list of clients and companies that we deal with is relatively small but they are loyal clients. We respond with an emphasis on service and quality and through their organic growth we have grown organically. With growth prospects imminent we were approached by our clients to consider our capabilities and capacity. This approach triggered off our expansion and a sizeable investment in equipment and property, which has now been implemented. Our property expansion changes are expected to be finished next year."

JP Engineering's existing facility includes a 2 000m² building that houses two Bystronic lasers, two Bystronic press brakes and a CNC mill and lathe for added value processes

JP Engineering regards themselves as a job shop fabricator and regularly fabricate large fabrications

The new Bystronic Xpert 650/720 is a large machine purchased to accommodate large sheet sizes

History

JP Engineering began operating in 1994 just before the South African elections. While still at school and in his early stages at university Jorge Peixoto had been helping his father in his fabrication business on a part time basis as his passion is working with animals and he wanted to become a veterinarian. Jorge started working at the Animal Anti-Cruelty League at the age of 13 and his passion was not short-lived – he still volunteers his time to help the League today, over 40 years later.

Dad Manny Peixoto, born in O'Porto, Portugal arrived in South Africa in 1962 and found employment at Henred Fruehauf Trailers where he became Production Manager and worked for 30 years.

The fabrication business was a hobby that became a business and was worked on over the weekends but soon grew enough for Manny Peixoto to extend the business into a full-time operation, which he started in 1992. Son Jorge realised that a sizeable amount of plate work was being outsourced to be cut and bent. This led to him establishing his own business and purchasing equipment to perform these processes.

"In those days you did not have the advanced equipment that we have these days. I purchased a guillotine, an oxy fuel torch and a couple of Promecam benders and got going on supplying already processed material to my father's company. At the same time, I was able to source other clients and between the two businesses we were able to purchase the building and property where we are still located 31 years later."

"The metal supply business is dominated by a few large companies who then either supply other companies who do some more processing of metal or they supply directly to service centres and fabrication companies like ours. Although there are some large companies operating in this space the industry is dominated by small businesses all adding value to metal in some form."

"Metal is everywhere. In construction, in all kinds of heavy and industrial equipment, in our cars, trucks, and vehicles used for recreation. It's spread throughout the very infrastructure of modern society. A handful of companies simply can't service it all efficiently."

"Additionally precision sheet metal stands apart from plate fabrication. Tube and pipe fabrication is a separate animal, as is structural fabrication. The extraordinary mix of work in our industry is amazing. This allows for many players but you still have to be aware that you need to keep abreast of technology. We might show a sense of camaraderie that you don't find in other industries. Fabricators share technical challenges in blanking, bending, welding, and assembly, but they don't share the same mix of jobs on the floor. But you can quite easily lose a client to a company down the road if your service is not up to standard."

"We entered the laser cutting arena from an early stage when laser processing was introduced but they were CO2 lasers. We have upgraded the machines periodically and still have CO2 lasers processing our laser cutting requirements on our floor today. We have added more modern press brakes and to add more value to our service we invested in a CNC machining center and a lathe."

"However, we never operated as a service centre. We have ▶

Also new on the floor is a Bystronic Xpert 320

The third press brake recently purchased is a Bystronic Xpert 150

JP Engineering have introduced a new process – plasma and profile cutting – into the processes that they offer with an investment in a Messer Element 400 equipped with a Skew Rotator Delta that is capable of making bevel cuts within an angular range from +45° to -45

always been a job shop fabricator and will continue do so. Customer mix really defines the metal fabricator, and for most operations, that mix continually evolves. That's partly why metal fabrication remains so resilient."

"As I said a couple of clients had encouraged us to upgrade our equipment, add more processing capabilities, which would result in us growing with them. Their approach triggered off our expansion programme and we are very grateful to them. But then Covid shocked the world."

"Nonetheless we had begun implementing our major investment plans. The original factory is still fully operational and caters for its current needs. The office block and factory alongside was constructed in 2002 and there is no need to change this area, except for replacing our CO2 lasers with fiber lasers."

"However, we did have the foresight to purchase the factory behind us in 2012. It stood empty since we purchased it but now this 2 000m² area, which takes us up to 6 000m² under roof, became the focus of the expansion. The building needed to be renovated internally and foundations and a new floor had to be laid to accommodate the new equipment we planned to purchase. As we were not pressed for office and production staff space the renovation of these areas are ongoing until 2026."

"With the positioning of this building it allowed us to connect to the existing structures and made the flow between the three facilities seamless. This third building is however referred to as our heavy bay because of the type of equipment we have installed in it and the fabrications that we produce in it."

New equipment

"We have been loyal to Bystronic equipment since we purchased our first laser in 2008, of which we have two on the floor. We have recently purchased three more Bystronic press brakes – a 650 ton, a 320 ton and a 150 ton."

"The Bystronic Xpert 650/720 is a large machine and we purchased it to accommodate large sheet sizes because of the body panels that we are cutting and bending and then ultimately welding and assembling for a client's cash-in-transit vehicles as well as water bowsers used in the mining industry."

"The Bystronic Xpert 650/720 has a 650 ton press force and a width to allow bending lengths of up to 7 200mm. We can bend steel up to 25mm in thickness and carbon steel and aluminium up to 25mm on this machine, which gives us flexibility and places us in the large arena."

"The other two new press brakes have smaller capabilities but they do add capacity to this department."

New process – plasma and profile cutting with a Messer Element 400 equipped with a Skew Rotator Delta that is capable of making bevel cuts within an angular range from +45° to -45

"JP Engineering has always offered laser cutting, bending, rolling, shearing, welding and CNC milling and turning. We also do our own shot blasting and spray painting."

"A major factor in our decision to expand with our clients' growth was to add a new process to our capabilities – plasma cutting. This is the first time that we have ventured this way although you could say our torch cutting was a form of plasma and profile cutting."

"Both plasma and profile cutting have come a long way since it was first developed in the late 1950s.

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JP Engineering have added a 4-roll Davi MCB-F30 capable of rolling mild steel up to 25mm thick up to 3 040mm wide, equipped with the latest iRoll CNC console, supplied by Spectrum Machine Tools Africa

JP Engineering has long been manufacturing a variety of components and custom assemblies for the mining, aviation, transportation, military, industrial, robotics and automation, medical and commercial industries as well as cash-in-transit vehicles

Components cut on the new Messer Element 400 plasma and profile cutter

Today it is one of the most widely used metal plate cutting processes used for cutting plate in certain thickness segments for a large variety of industries. Fiber laser cutting has encroached with the 40kW and 50kW machines but they still do not give the cut quality of a plasma or profile machine."

"We have invested in a Messer Element 400 equipped with a Skew Rotator Delta that is capable of making bevel cuts within an angular range from +45° to -45°, in other words both sides of the plate while still on the machine. From complex contours, holes or bevels for welding seam preparation, the new Delta has been developed specifically for use with the Messer Element platform and provides a very high degree of flexibility."

"This is the first time Messer have supplied such a machine into South Africa that comes with this bevel cutting option and it could be a first in South Africa in general. More users than ever before are now utilising bevel cutting to create the finished parts they need."

"Before purchasing the machine I visited Messer's factory in Germany and we also sent two operators to Germany for training as this is a new process for us."

"The machine has a bed size of 14m by 3m. With our Promecans that we originally purchased when the company was established – they still perform bending tasks every day that are not cost effective to do on the Bystronics – we can now process material between 0.9mm up to 50mm."

Plate rolling with a 4-roll Davi

"Plate rolling is a fundamental process in the metal fabrication industry. It involves bending and shaping metal plates and sheets to achieve desired geometries. We have always offered this service and with clear thinking we have decided to purchase an additional machine so if we have a break-down we don't disappoint our clients."

"We have added a Davi MCB-F30 capable of rolling mild steel up to 25mm thick up to 3 040mm wide, equipped with the latest iRoll CNC console, supplied by Spectrum Machine Tools."

"The four-roll bending machine features four rollers, usually arranged in two pairs – one pair vertically and the other horizontally. The plate passes between the upper and lower horizontal rollers, while the vertical rollers move to shape the plate into the desired curve."

"We have also added five new overhead cranes – two 20 ton cranes and three 10 ton cranes."

Family business

"Strong families make for strong companies. When owners of a company tell me that their employees are like family, I believe them. These owners feel responsible for the livelihoods of not only their blood relatives, but also their employees because so many families are dependent on those paychecks. It can be a huge burden to carry when business is slow, but the benefits can't be overstated. If employees feel that sense of gratitude, they will show it with outstanding performances and a willingness to go the extra mile."

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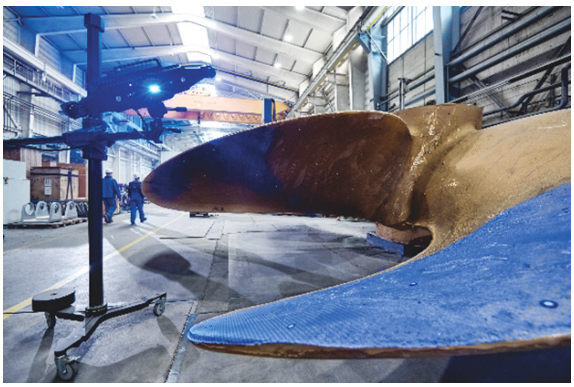

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"Families also think in terms of generations, not quarterly performance. We know that serving our customers to the best of our abilities is the recipe for long-term success."

"We are no different. I started out working for my father doing odd jobs and then supplying him. My sister Jenny also helped during her school days and the same year I started my business she joined me. It was not long after that that Dad's business was incorporated into JP Engineering. He has only just retired and he is in his 80s."

"My wife Eva, who is a qualified advocate and looks after our legal and HR departments, joined the company in 2001 and my brother-in-law Ricky, who is Jenny's husband, joined the company in 2014. He comes from a coffee shop background and had no metal processing knowledge to mention before he joined the company but today, he is the Production Director."

"These family ties give us a real sense of security. We feel comfortable knowing that we are in firm control and don't get distracted by the latest fads or let the bank meddle with our affairs."

A view of the new facility where processing and fabrication takes place

Level 2 BBBEE

"We might be a family run company but we are a level 2 BBBEE company. Keenan Jansen as a director and shareholder. He joined the business in 2015 as our financial and accounting advisor. He adds enormous value to our business and is involved in every aspect of the business and is valued by everyone within the organisation."

Ccontact JP Engineering on TEL: 011 613 1729 or visit www.jpengineering.co.za for further details. ■

Pabar: Bastion of South African automotive manufacturing celebrates 60 years of production

Pabar operates from a site consisting of three properties covering 22 000m², of which just under 13 000m² is under roof. The modern factory itself covers roughly 4 100m², and its production capacity includes an extensive press shop totalling 89 presses spread across a large press shop and a small press shop

Moving through the Pabar manufacturing plant and feeling and hearing the sound of thousands of tons of massive presses coming down pressing out components as they work in unison to drive the production line along, and you realise you're in a special place. A place that means business.

Pabar (Pty) Ltd, based in Chamdor, Krugersdorp, has been operating since 1965 when it was founded by Italian immigrant Enzo Barbaglia, a toolmaker by trade. Today, the company is run by his son, Mike Barbaglia, also a qualified toolmaker, and who serves as Manufacturing Director. The business employs more than 320 people and supplies both the automotive and non-automotive sectors with OEM spec products and components that include automotive chassis components through to industrial lighting.

The non-automotive side of the business was established from the outset in 1965 and the automotive side of the business began manufacturing components in 1974.

Technical Manager and Director Charl Andersen, also a qualified tool and die ▶

maker who completed his trade at Olifantsfontein Training Centre, and who has worked at Pabar since 2001, explains that relying on a single customer or line of components in the metal engineering industry is not a recipe for success. He continues that being able to leverage market penetration across a broad range of products has been key to Pabar's longevity as a heavy weight in the South African manufacturing sector.

"We specialise in manufacturing motor industry metal pressings but we also manufacture street poles, wheelbarrows, kitchen sinks, fridge components, gas bottles, have our own range of SABS approved industrial lighting and we furthermore manufacture custom stadium seating. We are probably the biggest metal chassis component supplier to one of South Africa's largest automotive manufacturers."

The company operates from a site consisting of three properties covering 22 000m², of which just under 13 000m² is under roof. The modern factory itself covers roughly 4 100m², and its production capacity includes an extensive press shop totalling 89 presses spread across a large press shop and a small press shop. Pabar is equipped with large hydraulic presses ranging from 150 tons to 1 000 tons, with the largest bed measuring 3.9m in length, and small presses that range from 30 tons to 150 tons. Pabar also operates automated decoiling and roll-forming lines capable of handling coils up to 5 tons, with thicknesses of between 0.45mm and 6mm and widths up to 1 225mm. The company produces thousands of components each month for its broad industry base that it serves.

The plant is so large that it takes some time to tour the facility and operations managers can be seen using electric scooters to move efficiently and quickly between production lines.

Assembly work is supported by robotic MIG/MAG welding systems and numerous spot welding stations. Spot welding remains one of the most widely applied processes in the global automotive industry. The method, which uses electrical resistance and pressure to fuse sheet metal components, is central to the assembly of vehicle bodies. It is used extensively in joining panels, chassis elements, doors, bonnets and other structural components. Andersen has a comprehensive understanding of the process and has invested himself heavily in orchestrating the precise robotic setups used in Pabar's operations from first-hand visits to some of the largest OEM automotive manufacturers in the world, to spending long hours designing the plant layout and flow.

"The appeal of spot welding lies in its efficiency and repeatability. The process is fast and well suited to high-volume production, making it integral to modern automotive plants where cycle times and output are tightly managed. Automation has further strengthened its role, with robotic welding cells capable of producing consistent joins across thousands of vehicle components."

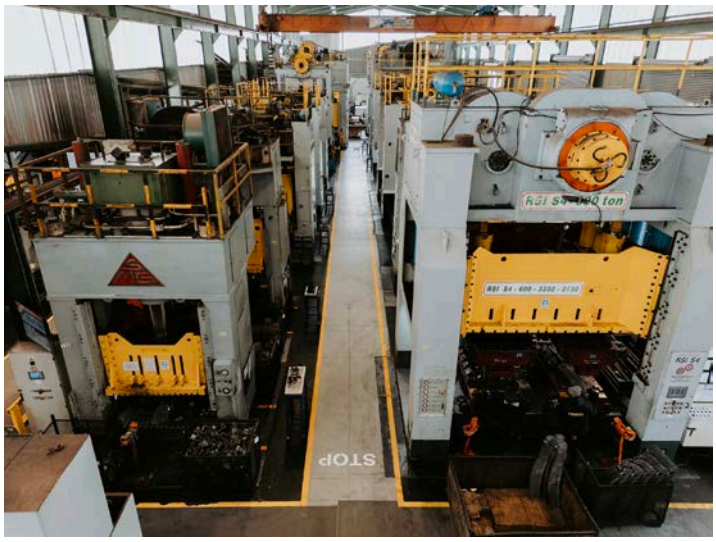
"From a materials perspective, the technique is critical in joining advanced high-strength steels. These steels are now widely used by vehicle manufacturers to achieve a balance of safety and weight reduction. Spot welding allows thinner, lighter components to be integrated without compromising structural strength. This in turn supports efforts to meet fuel efficiency targets and emission regulations, while maintaining occupant protection in the event of a collision."

"A few missing or defective spot welds could render a vehicle defective and lead to it being scrapped from the production line," explains Andersen.

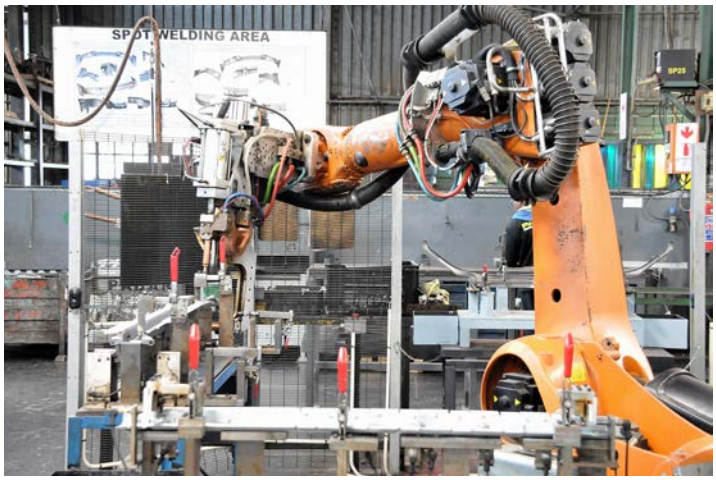
"Weld integrity must be verified at multiple points during production, as any weakness in a joint can have direct consequences for crash performance. Manufacturers employ ▶

Pabar is equipped with large hydraulic presses ranging from 150 tons to 1 000 tons

Pabar's range of presses include legendary names and industry stalwarts like Erfurt, Wilkins and Mitchell, SMG and Galdabini down to the more specialised presses such as Pabar's Omeras



Pabar has a total of 89 presses spread across its large and small press shops



Pabar makes use of Kuka robots for its MIG / MAG robotic welding assembly line for safety critical components

"We are about to commission three freshly refurbished presses that we have rebuilt from the ground up. These presses will include a 1 000 ton, 800 ton and 500 ton range and they will be housed in a new, dedicated building on site in anticipation of a future project."

destructive and non-destructive testing methods to monitor quality, while production systems are increasingly supported by sensors and data analytics that track weld consistency in real time."

"Spot welding machinery has also advanced significantly. Modern systems allow precise control of current, pressure and timing, accommodating the complex mix of coated and uncoated steels, aluminium and composites entering automotive production. Interchangeable tooling and robotic integration further ensure that spot welding remains adaptable to new body designs and mixed-material architectures giving Tier 1 suppliers and manufacturers like Pabar the flexibility to switch between components and OEM brands as production schedules dictate and fluctuate."

Pabar's facility also houses two camel-back powder coating lines with curing ovens, used for a range of products including their industrial lighting equipment, but more importantly, keeping with the focus of offering their clients turnkey production solutions.

Pabar is both a Tier 1 and Tier 2 supplier to the automotive industry and has been for many years. The company maintains certification to IATF 16949:2016 in this regard and employs advanced measuring systems such as 3D CMMs that include its Romer (now Hexagon) and Farro measuring arms, as well as digital microscopes to ensure compliance with these internationally recognised industry standards within its in-house quality and inspection office.

IATF 16949:2016 is the global quality management standard for the automotive sector. Developed by the International Automotive Task Force in conjunction with ISO, it builds on ISO 9001 (to which Pabar is also certified) and introduces requirements specific to the production of vehicles and their components.

The standard covers the full value chain, from design and development to production and installation. It sets out controls for traceability, defect prevention, and continuous improvement. A strong focus is placed on risk management, supplier development, and process efficiency. For manufacturers, certification is often a prerequisite to supply global automotive companies, who rely on the framework to ensure uniformity and quality across international supply chains. Its importance lies in the ability to standardise expectations for safety-critical products and Pabar is one of only a few manufacturers in South Africa to hold this certification.

For South African manufacturers like Pabar, adherence to the standard is not only about maintaining export competitiveness where applicable for the OEMs it supplies, but also about aligning with the requirements of local OEMs for the local vehicle market. It has become a central part of quality systems in the sector and a benchmark for global participation.

On the non-automotive side of the business, Pabar maintains ISO 9001:2015 certification in its manufacturing practices and its industrial lighting is SABS approved, allowing it to cater to some of the largest retail chains, warehouses and office buildings on the African continent. Pabar's range of industrial lighting carries a 5-year warranty.

"We are about to commission three freshly refurbished presses that we have rebuilt from the ground up. These presses will include a 1 000 ton, 800 ton and 500 ton range and they will be housed in a new, dedicated building on site in anticipation of a future project. Although some of these presses have been well used, the structure of the presses themselves is better than most you can purchase new these days," explains Andersen.

"Over the years we have employed the same strategy with our equipment and machines that we utilise at

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5-axis MC
DECKEL-MAHO, DMU 80 T, YOM 2002

Table 1250 x 700 mm with
lintegrated NC circular table 700 mmø (= 4th axis),
SK 40, X/Y/Z = 880/630/630 mm,
HEIDENHAIN TNC 430,
32-pos. tool changer,
Movement of milling head via control (= 5th axis)

Videolink: https://youtu.be/wefNo2G-0GQ

CNC turning and milling center
INDEX, G 400 Ratioline, YOM 2002

Turning-ø max. 420mm, Swing-ø 630mm, Turning length 1250mm,
x1/z1 = 320/1250mm, x2/z2 = 170/1250mm, x3/z3 = 320/1250mm,
Spindle passage main spindle 102mmø,
Spindle passage sub spindle 102mmø,
Number of tool stations:
Tool turret 1 = 12 stations, 2 = 10 stations, 3 = 12 stations
(all stations also for driven tools),
INDEX C 200-4 D (similar to SIEMENS SINUMERIK 840 D),
2 x c-axis

Videolink: https://youtu.be/fd2zEotkrVQ

CNC turning and milling centre
MAZAK, INTEGREX 200 SY YOM 1999

Max. Turning Diameter 540mm,
Max. Turning Length 1018mm,
X/Y/Z = 530/140/1065mm,
Spindle bore main spindle 51mmø,
Spindle bore sub spindle 51mmø,
KMX tool fixtures, 20-pos. tool changer,
MAZATROL control FUSION 640 MT,
coolant through spindle 25 bar

Videolink: https://youtu.be/y1mq4DhSluY

CNC lathe
EMCO, MAXXTURN 45, YOM 2007

Swing-ø over bed 430mm, Over slide rest 300mm,
Max. turning-ø 300mm, Max. part length 480mm, X/Z = 160/510mm,
Spindle bore main spindle 53mmø,
Spindle bore sub spindle 53mmø,
Max. pass through spindle 45mmø,
Distance main spindle – sub spindle 720mm,
1 x 12-pos. tool turret (all 12 positions for live tools)
SIEMENS SINUMERIK 840 D

Videolink: https://youtu.be/L9pmC7I9mHU

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The automotive manufacturing side of Pabar's business began manufacturing components in 1974

Pabar uses both CNC machines and conventional equipment to manufacture and maintain their tooling, moulds and dies

the plant. We have the skills and knowledge to be able to refurbish pretty much anything here and so we retrofit a lot of our machines with new electrical systems, PLC's and whatever else is needed to keep them operating at the highest of industry standards. We used to outsource some of this work but I now have a team of eight staff that do all of this in-house for us."

"We have our own extensive toolroom and of course do as much of our own die maintenance and manufacturing as possible. The toolroom is equipped with a range of CNC machines including CNC milling machines and CNC lathes, wire EDM capabilities, and we have a range of metrology and design tools that are available to us too, including software such as AutoCAD and Fusion 360. This enables the company to carry out tool design, manufacturing, research and development, and maintenance in-house. All of this extensive plant capability and skills allows us to take on large production volume projects and implement them at short notice if need be."

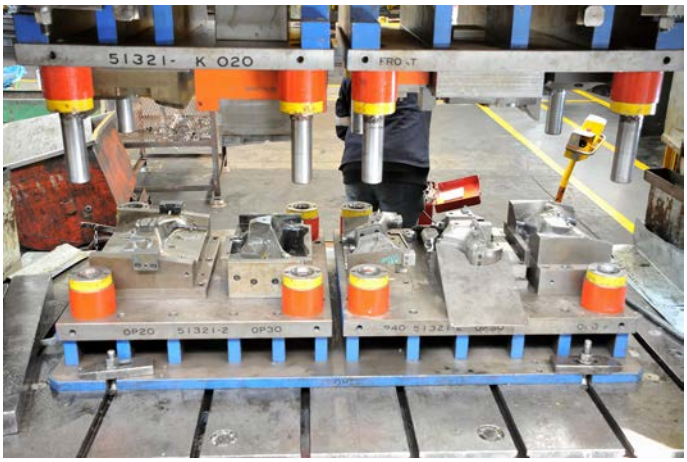
Machinery and plant equipment

Pabar has an extensive mix of plant equipment and CNC machinery that it makes use of for its numerous operations that it performs at the plant. This ranges from the large double column presses with hundreds of tons of pressing force that feature names like industry stalwarts Erfurt, Wilkins and Mitchell, SMG and Galdabini down to the more specialised presses such as Pabar's Omeras.

Pabar has also recently commissioned a Freedom FMC 6026 CNC vertical machining center in its toolroom to go along with its many Amada press brakes and Amada Vipros punching machines.

As part of its other resources in the CNC machine department, Pabar has a HSG 12kW G3015X fiber laser cutter with a bed size of 3m by 1.5m, supplied by Metal Chip Machinery. Pabar makes use of this particular fiber laser

Pabar maintains certification to IATF 16949:2016 and employs advanced measuring systems such as 3D CMMs that include its Romer (now Hexagon) and Farro measuring arms, as well as digital microscopes to ensure compliance with these internationally recognised industry standards within its in-house quality and inspection office



Pabar has its own extensive toolroom and does as much of its own die maintenance and manufacturing as possible

Pabar manufactures approximately 2 000 of its own-brand wheelbarrows a month

Pabar manufactures its own range of SABS approved industrial lighting and caters to some of the largest retail chains, warehouses and office buildings on the African continent. Pabar's range of industrial lighting carries a 5-year warranty

Not only does Pabar manufacture motor industry metal pressings but they also manufacture street poles, wheelbarrows, kitchen sinks, fridge components and gas cylinders. The company is the only accredited LPG gas cylinder manufacturer in South Africa

cutter for cutting thick gauge material for manufacturing its own in-house pressure plates for its dies used on its presses, representing further versatility in its ability to offer turnkey production solutions. On order is another HSG fiber laser that will be used for cutting other thinner gauge material in-house.

Pabar's scope of manufacturing reflects its strategic commitment to flexibility and diversity of production. Its core metal pressing and welding operations serve high-volume automotive needs, while the toolroom and general engineering capacities support diversification across a broad range of products.

Consumer-facing products such as Pabar's gas cylinders – the company is the only accredited LPG gas cylinder manufacturer in South Africa – and Pabar's range of wheelbarrows demonstrate how the company is able to apply organised shop floor disciplines to broader markets. Currently the automotive side of the business represents approximately 60% of Pabar's manufacturing capacity with the remaining 40% spread across its other non-automotive manufacturing capabilities.

While Pabar's roots may be in general engineering and consumer goods with growth into automotive fabrication, the company proves that it has a rare blend of scale and versatility within the South African manufacturing sector. Andersen states confidently that the company is poised to take advantage of any market opportunities that come its way.

Beyond its manufacturing operations, Pabar is involved in motorsport. It sponsors the Pabar VW Challenge, a regional Volkswagen racing series in Gauteng, and runs its own racing team, Pabar Racing.

Contact Pabar on TEL: +27 11 762 1266 or visit www.pabar.co.za for further details. ■

Pabar manufacture a range of kitchen sinks, demonstrating it has a rare blend of scale and manufacturing versatility within South Africa

Pabar's HSG 12kW G3015X fiber laser cutter with a bed size of 3m by 1.5m, supplied by Metal Chip Machinery

Pabar has an extensive CNC machine shop and toolroom that includes a range of CNC machines such as CNC milling machines and CNC lathes and wire EDM capabilities. Pictured are some of Pabar's Amada punching machines

In addition to Pabar's CNC milling and lathe capabilities, it makes use of Amada bending machines and an HSG 12kW G3015X fiber laser cutter with a bed size of 3m by 1.5m. Pabar has a further HSG fiber laser on order

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AMADA

How steel hovers
maglev trains above the right track

Magnetically levitated trains, known as maglev trains, are the fastest trains on Earth. Nevertheless, they took a very long time to arrive. The physics behind maglev trains was first touted at the beginning of the last century and a number of people have been associated with its development.

The French-born American inventor, Emile Bachelet, obtained a patent for a "levitating transmitting apparatus" in 1912. The Russian physician, Boris Petrovich Weinberg, built an experimental model of a vacuum train in 1913 using magnetic suspension technologies. And, the German engineer, Hermann Kemper, received a patent in 1934 for a "monorail vehicle with no wheels attached." They were all way ahead of their time.

It wasn't until 1984 that the first maglev trains entered commercial use.

Maglev trains operate on a commercial scale in South Korea, China and Japan

How do maglev trains work?

Unlike trains driven by engines and wheel-on-steel electric trains, maglev trains are propelled by superconductive electromagnets, typically made of magnetic steel. Steel is between 98% and 99% iron and its iron atoms give steel its magnetic properties. The other 1% to 2% of steel is made from carbon, which gives it the strength and durability to support the infrastructure required for maglevs.

As with all magnets, when you place matching poles face to face with each other they repel each other. Maglev trains use electromagnetism. A magnetised coil is fixed along the length of the track, which, for maglev trains, is called a guideway. This repels the large magnets fixed underneath the train, which causes the train to levitate about 12cm above the ground. The magnetic current running through the coils also creates a strong magnetic field that moves the train along the guideway.

Japan's Shinkansen trains can travel at hundreds of kilometres per hour. When it enters service, the Maglev Chuo Shinkansen will be the world's fastest bullet train. A test run in 2015 already set a world record by clocking 603km/h. It will link the three megacities of Tokyo, Nagoya and Osaka. Central Japan Railway had planned to partially start the service in 2027, but some significant obstacles mean it's having to rethink that timetable

What are the benefits of maglev trains?

The electro-magnetic propulsion means that maglev trains can go much faster than conventional trains. They can cover hundreds of kilometres an hour. As they experience no friction, they have less wear and tear and ▸

fewer mechanical faults and are less likely to be delayed by incremental weather. Plus, they provide a much smoother and quieter ride for their passengers.

Where do maglev trains operate?

Maglev trains operate on a commercial scale in South Korea, China and Japan. The fastest maglev train is currently being trialled in Qingdao, China, it can reach speeds of up to 600km/h. It's just waiting for its tracks to be built so it can enter commercial service.

As maglev trains cannot currently run on standard train tracks, maglev track construction is often what holds up many maglev launches.

Japan is now testing its latest maglev train; the Chuo Shinkansen hit 603km/h in test runs. It will eventually be guided between Tokyo and Nagoya by steel profiles made of hot-rolled steel and electro-magnetic coils made from aluminium windings. To make its route earthquake-proof, pillars carrying elevated tracks are to be seismically reinforced with steel plates. Its commercial launch has now been delayed because particularly soft soil was found in one of the areas to be tunnelled.

Once completed, now forecast to be in 2034, the Chuo Shinkansen will do its route in just 40 minutes, cutting 45 minutes off the current 90-minute journey.

Adapting existing train tracks could make maglevs go mainstream

Now, Italian company IronLev has created a new technology that allows maglev trains to run on existing train tracks. It has carried out its magnetic levitation test on Italy's Adria-Mestre train route. Using passive ferromagnetic levitation, IronLev's prototype vehicle, weighing one ton, successfully covered the 2km-long test track at a self-limited speed of 70km/h. Magnetic skids suspended the vehicle by interacting directly with the traditional railroad tracks.

"We proved that our prototype can be applied on a large scale, revolutionising the rail transportation sector, thanks to its technical simplicity, versatility of use and lower cost than similar systems," said Adriano Girotto, President of IronLev.

The logistics of running superfast maglev trains on the same tracks as standard trains may be problematic, but once this has been overcome maglev trains could one day crisscross the world and give air travel a run for its money.

Article Courtesy Worldsteel Association ■

Revolutionising machining efficiency with Iscar's Fast Feed tools

In the dynamic world of metal cutting and machining, efficiency and precision are paramount. Most of the machining allowance is removed during rough cuts. Therefore, increasing productivity at this stage is crucial for reducing the machining costs of the entire part's manufacturing process. Even today, with improved capabilities in precise forging, die-casting, injection moulding, and other workpiece production methods that allow for receiving a workpiece very close to the part's final shape and thus considerably diminishing the machining allowance, a high metal removal rate during rough cutting continues to be an important factor in reducing total costs.

Iscar has consistently pushed the boundaries of innovation to provide solutions that meet the ever-evolving demands of manufacturing. One of Iscar's standout innovations is the Fast Feed line of tools, designed to enhance productivity while maintaining exceptional precision.

Fast Feed tools by Iscar are designed to operate at high feed rates, significantly reducing machining time and increasing productivity. The concept hinges on the principle of shallow depth of cut combined with high feed, allowing for rapid material removal without compromising on surface finish or tool life. This approach is particularly beneficial in roughing operations where the primary goal is to remove as much material as possible in the shortest time. Iscar's Fast Feed tools are engineered with advanced geometries that optimise chip evacuation and reduce cutting forces. This results in less wear and tear on both the tool and the machine, extending the lifespan of both. The Fast Feed tools are suitable for a wide range of materials, including steels, stainless steels, cast irons, high temperature superalloys (HTSA), and titanium. This versatility makes the tools an attractive option for industries such as aerospace, automotive, and die and mould, where diverse materials are often encountered.

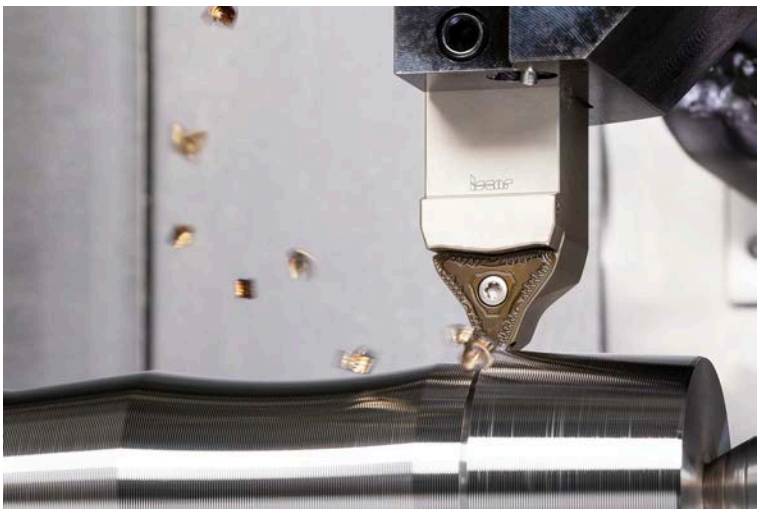

Fig 1 The advanced chipformer, which is specifically designed for high-feed turning, is a key feature of QUICK-T-LOCK indexable tool family

Fig 2 High-stability, vibration-free innovative LOGIQ-F-GRIP parting tools allow for significant increasing of feed even when cutting-off workpieces of big diameters

By allowing for higher feed rates, Fast Feed tools dramatically cut down on machining time. This efficiency translates to cost savings and increased throughput, which are critical in high-volume production environments. Despite their primary focus on roughing, Iscar's Fast Feed tools are designed to produce appropriate surface finishes, minimising the need for secondary operations and further enhancing productivity.

The combination of advanced cutting tool materials, wear-resistant coatings, and optimised geometries ensures that Fast Feed tools maintain a long tool life, even under the demanding conditions of high-speed machining.

Fast Feed tools are making significant impacts across various industries. In aerospace, where difficult-to-cut materials like titanium and HTSA are common, these tools help manage the challenges of machining tough materials. In the automotive sector, they enable manufacturers to keep up with the fast-paced production demands while maintaining high quality. The die and mould industry also benefits from the reduced machining times and improved surface finishes, which are crucial for producing complex ▶

shapes with high precision.

Iscar offers a comprehensive selection of advanced cutting tools, including fast feed turning and grooving tools. These tools are designed to enhance productivity, efficiency, and precision in various machining operations.

Fast Feed turning tools (Fig. 1):

1. High Feed Rates: These tools enable increased feed rates, thereby reducing machining cycle times.
2. Durable Materials: Constructed from high-quality materials to withstand high-speed machining conditions.
3. Precision Cutting: Engineered for accuracy, ensuring precise cuts with minimal tool wear.
4. Versatility: Suitable for a variety of materials and applications, offering great flexibility.

Fast Feed grooving and parting tools (Fig. 2):

1. High-speed performance: Designed to perform at high speeds, improving the overall efficiency of grooving operations.
2. Reduced cycle times: High-feed capabilities allow for quicker material removal, reducing overall cycle times.
3. Enhanced tool life: Made from durable materials that extend the life of the tool, even under demanding conditions.
4. Consistent quality: Ensures consistent performance and high-quality results in various grooving applications.

Fig 3 NEOFEED HFM tools feature the economical double-sided inserts with 8 indexable cutting edges to use on cemented carbide rationally, and a dovetail-shaped insert pocket that ensures reliable mounting to withstand heavy loads. This enables higher cutting data and increased productivity

Iscar also provides an extensive range of fast feed milling tools that are designed to significantly increase machining efficiency and productivity. These tools are specifically engineered to deliver high material removal rates and reduce cycle times in various milling operations. Fast Feed (FF) milling cutters are a key factor in high feed milling (HFM) techniques. The cutter geometry, designed for efficient chip thinning, needs to ensure correct distribution of the cutting force components. There are two principal geometrical approaches. The first design requires the cutting edge of an FF milling cutter to be an arc of a great circle. Another concept is based on using one or two straight edges that are chords of the arc. In both cases, the small cutting edge angle (usually 9-17°) meets the requirements of chip thinning and decreasing the total bending load on a tool.

Ensuring the geometry of solid carbide fast feed endmills and replaceable milling heads demands the specific shape of a cutting edge, while in indexable milling it may be provided by the appropriate location of an insert of even a simple profile.

Although the introduction of innovative carbide grades and advances in the shape of chip forming rake faces has further improved progress in FF milling cutters, the essential element of fast feed milling – geometry – remains constant. If the cutting edge of a FF milling cutter is the arc of a great circle (or the chords that approximate the arc), the cutting edge angle of the cutter is not a constant value but varies depending on the axial depth of cut from 0 to the mentioned 9-17°. In milling, the chip thickness is a function of the tool's cutting edge angle. Under the same conditions, the smaller the cutting edge angle, the thinner the chip. Therefore, the programmed feed should be increased correspondingly to produce chips of the required thickness.

Key features of Iscar Fast Feed milling tools (Fig. 3):

1. High feed rates: These tools are designed to operate at high feed rates, allowing for faster machining processes and reduced cycle times.
2. Durable structure: Made from high-quality materials that ensure durability and long tool life, even under demanding conditions.
3. Precision and stability: Engineered to provide precise and stable cuts, minimising tool wear and improving the quality of the finished product.
4. Versatile applications: Suitable for a wide range of materials and applications, offering great flexibility in use.
5. Innovative design: Incorporates advanced geometries and coatings to enhance performance and chip evacuation, reducing heat generation and increasing tool life.

Popular product families:

- HELI-6-FEED: Known for its double-sided indexable inserts, offering high feed rates and excellent performance in various milling applications.
- NEOFEED: Specifically designed for high feed milling, these tools carrying cost-beneficial double-sided square inserts with 8 indexable cutting edges, providing outstanding material removal rates.
- MULTI-MASTER: A modular system with exchangeable heads that allows for quick and easy tool changes, enhancing productivity and reducing downtime.

Iscar's Fast Feed tools exemplify the company's commitment to providing innovative solutions that address the real-world challenges faced by manufacturers. By continuously investing in research and development, Iscar ensures that their products not only meet but exceed industry standards and customer expectations.

Iscar's Fast Feed tools are a testament to the company's forward-thinking approach and dedication to enhancing machining efficiency. As industries continue to demand faster, more precise, and cost-effective solutions, Iscar's innovations in fast feed technology are set to play a pivotal role in shaping the future of manufacturing.

Contact Iscar South Africa on TEL: 011 997 2700 or visit www.iscar.com for further details. ■

EMO Hannover 2025 Preview: Frankfurt's insights on manufacturing's next phase [VIDEO]

Journalists and EMO Hannover Preview exhibitors came together in Frankfurt am Main on 10 – 11 July to gain insights into manufacturing's next phase. EMO 2025 is set to bring the metalworking community together from September 22 – 26 in Hannover, Germany

In the lead-up to EMO Hannover 2025, the world's largest trade fair for production technology, the VDW (German Machine Tool Builders' Association) hosted its international press preview event on 10 – 11 July in Frankfurt am Main. The event gathered over 150 participants from 24 countries, including some 80 journalists from all over the world, to outline what will shape this year's exhibition and to discuss the state of the global manufacturing sector.

This year marks 50 years of EMO and EMO Hannover's 2025 Preview, held at the VDW (Verein Deutscher Werkzeugmaschinenfabrikenn – German Machine Tool Builders' Association) headquarters provided a comprehensive look at the technologies and themes set to dominate the world's largest metalworking trade fair this September.

Journalists from around the world attended to hear from organisers, exhibitors, researchers, and to visit TU Darmstadt's ETA living lab Factory for an in-depth view of sustainable manufacturing practices ahead of the world's leading exhibition for production technology, scheduled for September 22 – 26 in Hannover, Germany.

Opening the event, Dr Markus Heering, Executive Director of VDW, outlined the fair's four central themes: automation,

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From left to right, EMO Preview 2025's panel discussion moderator Sven Krause, himself having worked in the automotive manufacturing sector for many years, was the perfect fit for helping shape the discussion on manufacturing's next phase. He is pictured with Dr Markus Heering, Executive Director of VDW, Jayson Myers, CEO of Next Generation Manufacturing Canada (NGen) and Martin Göbel, Director of Exhibitions at VDW

digitalisation, artificial intelligence and sustainability. "We are seeing a strong international response to EMO 2025," said Heering. "Companies are preparing to use the event as a platform to drive the next phase of capital investment. The industry is looking for solutions that can deliver immediate value, and EMO is where they intend to find them."

The Frankfurt preview made one point clear: EMO 2025 will present manufacturing technologies as part of complete, integrated solutions designed to "Innovate Manufacturing". Automation will respond to workforce shortages, AI will strengthen productivity and decision-making, working alongside humans, and sustainability will continue to move from a talking point to a measurable operational strategy.

"The technologies on show in Hannover will not just reflect where the industry is, but where it's going," said Dr Heering. "That's why EMO continues to matter."

For visitors, the AI Hub, automation-focused exhibitors, Canada's pavilion as the first official partner country and sustainability showcases will be key areas of focus. With the groundwork now laid in Frankfurt and the message firmly spread across the globe after the EMO Hannover World Tour, EMO Hannover 2025 promises to deliver a comprehensive view of the future of manufacturing – in practice, not just in theory.

Dr. Heering made clear of EMO's global relevance: "Nowhere else can guests encounter so much international expertise as at EMO," he said. There may be bigger exhibitions out there, but none cater quite to the international metalworking community quite like EMO does. He noted that despite economic uncertainty, anticipation remains high. "Positive signals are expected from EMO. Whether technical innovation or round-the-clock automation – both exhibitors and visitors arrive expecting to leave confident."

This spoke to the undertones of current economic uncertainties around the world as well as the geopolitical tensions such as the ongoing wars. However, he emphasised that just as the world had overcome problems previously, so too would it overcome and grow again.

A milestone edition under complex global conditions

This year's EMO marks the 50th anniversary of the biennial exhibition, a fact that Dr. Heering highlighted as both a cause for celebration and reflection. "Over the last 50 years we have seen a lot of changes in metalworking industries, and EMO was always the place where innovation first appeared," said Heering. "This year, artificial intelligence is the highlight."

The emphasis on AI reflects a broader push by the industry to address labour shortages, rising energy costs, and increasing demands for sustainability. Heering emphasised the role of the exhibition in providing direction during a period he repeatedly described as one of uncertainty.

"What we see in the global market, especially in Germany and in Europe, is that we have multiple pressures, not just one reason. Covid is over, there will be a recovery. We had a financial crisis before, but there will be a recovery. Now we have geopolitical challenges – wars in the Middle East, in Europe, the competition between China and the United States, and a resurgence of nationalism and populism that is disrupting markets."

"Skills shortages continue to be a pain point. People no longer want to work on the shop floor. The next generation is more likely to work on computers or 'would like to be an influencer'," he said. "Automation can help address labour shortages as well as improve the use of energy, resources and materials. Digitalisation has matured to where SMEs see the business case for connectivity. Both are critical to sustainability because resources, from raw materials to carbon-based fuels, are not endlessly available."

Despite these challenges, Heering expressed cautious optimism: "I'm convinced that we see that recovery starts now, step by step, very slowly. Incoming orders are improving in some markets. EMO is at the right time and it could offer orientation."

Previewing the themes of EMO Hannover 2025

The Frankfurt preview event offered a compact overview of what visitors can expect at the show in Hannover. Participating journalists attended presentations by 26 exhibitors, each given 90 seconds to pitch their key innovations. These included advances in process automation, machine tools and tooling, AI, robotics, quick-change systems, software, energy efficiencies and additive manufacturing.

The 90-second-long pitches were a refreshing approach for some of the largest industry players to get their in-house developments and points across. Watch their pitches in the video: https://www.youtube.com/watch?v=UoJ-YaQzrlA

International journalists were given a comprehensive tour of Technical University of Darmstadt's (TU Darmstadt) ETA living lab Factory. The tour provided insights into what smarter manufacturing can and should look like. It's debatable if the world will ever achieve such a target, but at least the manufacturing industry is trying

This also allowed plenty of time for journalists to network and discuss innovations with the manufacturers in a more personal manner in a condensed exhibition type format.

The list of exhibitors that took part in this first-of-its-kind and welcomed by all type event included 3nine, Anca, Chiron, Cimsource, Datron, DBinformation, DMG Mori, DN Solutions, Hainbuch, Heller, Hermle, HSD Mechatronics, Huron Graffenstein, Igus, MVK-line, Okuma, Renishaw, Schaeffler, Schunk, Siemens, Tebis, United Machining Solutions, Urma, Vigel, Waldrich Coburg and Zoller.

Journalists and EMO Preview's participating exhibitors enjoyed a boat cruise along the river Main where informal networking and industry reflection took place. Frankfurt's summer evening skyline provided a perfect backdrop to an evening enjoyed by all

Not using AI is not an option

AI's role in production was a focal point throughout the event – both in respect to the official programme as well as during informal discussions amongst international colleagues in attendance.

A panel discussion – "Perspectives on artificial intelligence in production: How will we surprise our customers in the next (five) years?" – hosted by Prof Michael Zäh, Chair of Machine Tools and Manufacturing Technology (TU Munich) with data/AI consultant Sebastian Heinz, founder and CEO of statworxs – made clear AI is no longer something to play around with. The panel framed AI's short-term contribution in accelerating engineering cycles and enabling more robust process automation. Both speakers stressed the need to train organisations to recognise AI failure and to implement guidelines for anticipating and recognising these current shortfalls.

The session also previewed the AI Hub @EMO 2025, intended as a focal point for case studies and implementation guidance at the fair. Prof. Zäh delivered the realist's view. "AI makes mistakes," he said. "Recognising this is a skill we must train." He was similarly categorical: "Not using AI is not an option. Others already are, and those who don't will lose out."

Canada as EMO's first ever partner country

One of the significant features of the EMO Preview 2025 is Canada's role as the event's first ever official partner country. Jayson Myers, CEO of Next Generation Manufacturing Canada (NGen), used the Frankfurt preview to outline why Canadian industry is engaging with the event, and reaching out the rest of the world at the same time.

NGen connects approximately 11 000 members across Canada, including manufacturers, technology providers, universities, and research institutions.

"We do have an unruly neighbour to the south, but I think that is probably providing Canadian companies with not only a lot of enthusiasm about finding new customers, finding new suppliers, finding new innovation partners, but also about transforming their businesses," Myers said. "One surefire way of overcoming any problem around tariffs is to become super-efficient. That drives productivity and positions manufacturers as stronger partners."

Myers noted Canada's growing emphasis on AI-enabled manufacturing as an example of how to remain competitive in global markets. "Machine learning is an AI technology, but it also assumes that there's a machine involved, sensors, data collection, and connectivity to bring it together. Discussions about AI without considering the supporting technologies are only part of the picture. The actual value is in integrating technology to solve real industrial problems. That's what we do at NGen. We've invested about $215 million in projects over the past three years, and the return on that investment so far is 42 times that in terms of sales and IP licensing," he said.

If ever countries were looking at new markets and new opportunities, now is probably a good time to get in touch with Canada.

Technical University of Darmstadt's ETA living lab Factory tour

A tour of the ETA research factory at the Technical University of Darmstadt on the second day of the EMO Preview provided a practical look at developments aimed at achieving climate-neutral production. The facility's projects illustrated how digitalisation, energy-efficient processes, and integrated production systems can contribute to sustainability goals – themes set to feature prominently in Hannover.

The ETA Factory, situated on the Lichtwiese campus of the Technical University of Darmstadt, operates as a "living lab" for energy-efficient manufacturing. Established in 2016 through publicly funded projects, the facility provides infrastructure for ongoing research into production processes and energy technologies. The Institute for Production Management, Technologies and Machine Tools (PTW) coordinates much of the activity, with investigations centred on flexibility in manufacturing, waste heat recovery, and the contribution of industrial plants to grid stability.

The site incorporates a hybrid storage system and an intelligent charging station developed by the Institute of Mechatronic Systems. The hybrid storage not only stabilises the factory's power supply but also enables testing of operating strategies using real-time and forecast energy data with the ability to predict optimal shop floor production capacity based on such elements as weather prediction models.

The factory can temporarily self-supply the plant in island mode when required. The charging station, designed for integrated communication with industrial infrastructure, allows continuous control of charging power. This enables studies on optimising strategies that address grid quality, energy procurement, battery ageing, and cost efficiency. All in real-time.

EMO's international reach

Heering concluded the preview by stressing EMO's global role. "EMO positions itself as the most important platform for dialogue between international players in the industry. EMO has always been about global exchange."

EMO Hannover 2025 will present a forward-looking agenda shaped by the pressures and opportunities of today's manufacturing environment – a combination of technological progress, economic caution, and international collaboration. This will continue to reinforce EMO's position as the meeting point for the world's machine tool industry.

Thank you to the VDW for hosting a memorable and insightful event.

For further information visit: https://emo-hannover.com ■

Trumpf to sell
Additive Manufacturing business to Lenbach Equity Opportunities

It has been announced that Trumpf, headquartered in Ditzingen, Germany, has agreed to sell its Laser Beam Powder Bed Fusion (PBF-LB) metal Additive Manufacturing business to the Lenbach Equity Opportunities (LEO) III Fund. The divestiture is part of Trumpf's strategic focus on its industrial core business.

It was stated that the 'Trumpf' and 'TruPrint' brands will continue to be used during a transitional phase. A new company name and an independent brand identity will be introduced gradually following the completion of the transaction.

The new group will operate from Schio, Italy, the current development and production site of Trumpf's AM business. As part of the deal, all employees at the Schio site, as well as those in Ditzingen (Germany) and Plymouth (USA) who are assigned to the company's AM business, will be transferred.

"We are very proud to have earned the trust of a family-owned high-tech company like Trumpf and to have been selected as a partner in a competitive M&A process," stated Sebastian Stalter, Director at the DUBAG Group. "We look forward to working together with the management and employees in Schio, Ditzingen, and Plymouth. Together, we aim to establish a leading, innovative solution provider in the field of metallic 3D printing."

As part of the carve-out, internal structures and processes will be simplified to better address customer needs globally.

Matthias Himmelsbach, Managing Director Additive Manufacturing at Trumpf, added, "We welcome the LEO III Fund, advised by the DUBAG Group, as the new owner of our Additive Manufacturing business. With the DUBAG Group, we have found a partner with whom we can further develop our product and consulting portfolio in a focused way, leverage growth opportunities, and successfully lead the business into a sustainable future."

Completion of the transaction is subject to approval by the relevant authorities and the fulfilment of all contractually agreed conditions.

Contact Retecon on TEL: 011 976 8600 or visit www.retecon.co.za for more information. ■

DN Solutions acquires Heller

Strong partnership for the future of machine tool manufacturing.

DN Solutions one of the world's leading machine tool manufacturers has acquired Heller. "With the agreement signed both companies are laying the foundation for a strong partnership that brings together expertise, markets, and visions for the future," said the press release.

Heller, who has been in machine tool manufacturing for over 130 years, will continue manufacturing machines with its long-standing brand. The press release says: "The new partnership opens up additional opportunities for customers, employees, and the entire industry. Together, the two companies will form a strong global player with technological depth and comprehensive process expertise in machine tool manufacturing."

DN Solutions

DN Solutions is part of the DN Automotive Group and is one of the fastest-growing companies in the international machine tool industry. With sales of around $2 billion and more than 2 000

Heller's Nuertingen plant in Germany

employees, DN Solutions is now one of the top three manufacturers worldwide.

The merger with Heller strengthens DN Solutions' presence in Europe and expands its portfolio in the field of complex machining centers and 5-axis technologies. “DN Solutions has been competing on the global stage. By combining our strengths with Heller over 130 years of expertise in machining centers, this partnership will deliver ground breaking innovations to the manufacturing industry. Furthermore, the two companies will offer unique value to customers and reinforce their position as a high-end brand in the global machine tool market.” explains Wonjong Kim, CEO of DN Solutions.

DN Solutions has multiple plants in South Korea, including the Namsan Factory and the Seongju Factory, both located in Changwon

Heller remains Heller

Since 1894, Heller has stood for precision, process expertise, and turnkey solutions in machine tool manufacturing. The company employs around 2 100 people worldwide, has production sites on four continents, and is recognised as a technology partner in international machine tool manufacturing.

Heller is particularly valued for its 4-axis and 5-axis machining technologies, its comprehensive service approach, and its ability to develop turnkey production solutions for customers worldwide.

“Heller remains Heller. We are continuing our brand, our DNA, and our culture in the new partnership. At the same time, this opens up enormous opportunities for us to leverage our expertise even more effectively within a global network,” said Dr. Thorsten Schmidt, CEO of Heller.

One shared goal: A full-range supplier in machine tool manufacturing

The merger of DN Solutions and Heller creates one of the world’s most comprehensive providers of machine tool solutions. Customers will now have the advantage of being able to meet all their requirements with a single point of contact – from boring mills to 5-axis or turnkey solutions and automation systems.

“By combining our strengths, we will become a true one-stop shop for machine tool manufacturing. In future, customers will no longer have to commission different partners within a network – we offer all solutions from a single source,” said Dr. Schmidt.

Complementary strengths for the future

The combination of DN Solutions and Heller provides a range of capabilities that complement each other.

“Heller stands for engineering expertise, service excellence, and the ability to implement complex, customised projects. DN Solutions brings momentum, high-volume expertise, the ability to achieve rapid economies of scale, and a strong market presence in Asia and North America.”

“Each side brings something unique to the table. Together, we will become even stronger – and, above all, more relevant to our customers worldwide,” said Wonjong Kim.

Added value for customers

“For customers, the partnership essentially means one thing: greater choice, faster implementation, and access to a unique combination of technologies. Tasks that previously required the collaboration of multiple providers can now be fulfilled entirely by a single partner – efficiently, reliably, and future-oriented.”

The completion of the merger is still subject to the condition precedent of obtaining the approvals from the competent antitrust and other regulatory authorities. DN Solutions and Heller aim to secure regulatory approvals swiftly.

For further details contact Puma Machine Tools on TEL: 011 976 8600 or visit www.pumamachinetools.co.za ■

Dates set for JIMTOF 2026

Organisers add extra weekday with Monday starting date.

The 33rd Japan International Machine Tool Fair will be held at the Tokyo Big Sight (Tokyo International Exhibition Centre) from 26 to 31 October 2026. As is customary the organisers of Japan's machine tool exhibition JIMTOF link the exhibition to an appropriate theme in the engineering field. JIMTOF resembles a "door" to the future. It is a place where you can meet technology that moves the world. Inside the door, it expresses the state of cutting-edge technology and people meeting. JIMTOF is synonymous with being at the forefront of industry related technological advancements.

JIMTOF, one of the world's largest international technology shows, brings together cutting-edge technologies and products. The fair serves as a comprehensive showcase of items from across the manufacturing spectrum, ranging from machine tools to peripherals of all kinds.

Since 2008, JIMTOF has traditionally taken place over a period of six days, including Saturday and Sunday. However, this year, the fair will run from Monday to Saturday, adding an extra weekday to better align with today's business practices.

Reaffirming its role as an embodiment of the tradition of machine tool technology in Japan and as a showcase for state-of-the-art technologies that will reshape the production floors of the future, the tradeshow's organisers are approaching this year's event with renewed vigour to promote the importance of manufacturing. Paraphrasing this the theme for this year's exhibition is 'When technology takes off, the possibilities are limitless'.

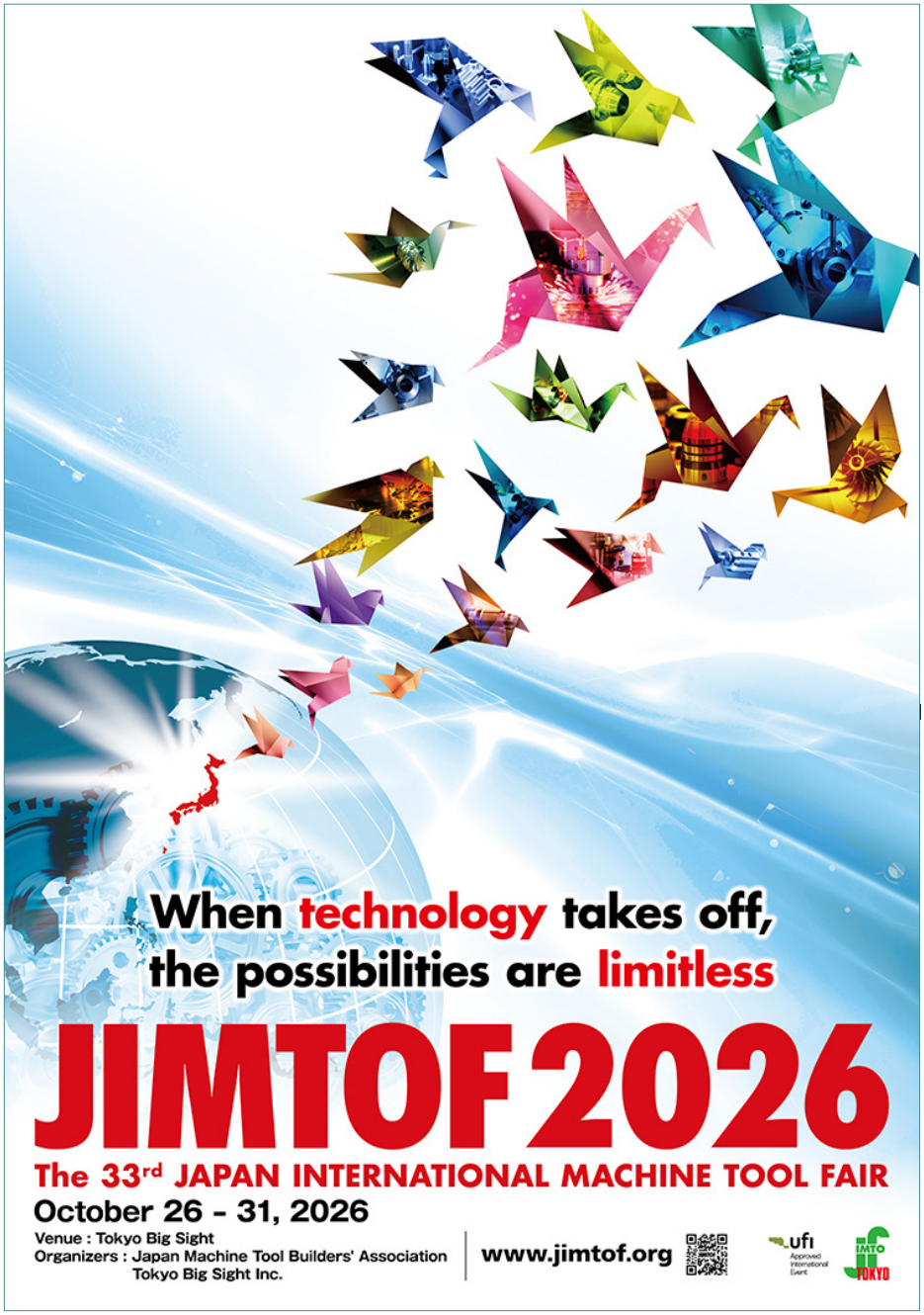
As an exhibition that introduces state-of-the-art machine tools earlier than any other exhibitions in its industry, JIMTOF is recognised on the same level as EMO in Europe, IMTS in America, and CIMT in China.

JIMTOF is one of the largest machine tool exhibitions in Asia and is organised by the Japan Machine Tool Builders' Association and Tokyo Big Sight Inc. This year it will be held at the usual venue – Tokyo Big Sight exhibition grounds.

On display will be the latest technology and equipment from Amada, DMG MORI, Okuma, Fanuc Corporation, Kanzaki Kokyukoki, Nakamura-Tome, Hamai, Mitsui Seiki Kogyo, OKK, Yamazaki Mazak, Yasda Precision TYools, JTekt Corporation, Makino Milling, Citizen, Mitutoyo, Mitsubishi, Kawasaki, Kitagawa, Matsuura, Nikon, Sodick, Kitamura, Brother, Enshu, Fuji Machines, Howa, Ikegai, Murata, Takisawa, Tsugami and Yasda – all machine manufacturers that are Japanese owned.

All the big names in tooling and metrology will have stands including Sandvik Coromant, Iscar, TaeguTec, Mitsubishi Materials, OSG Corporation, Hexagon, Tungaloy, Kennametal, Zeiss and Renishaw.

For further details visit www.jimtof.org/en ■



For the first time ever the exhibition will start on a Monday

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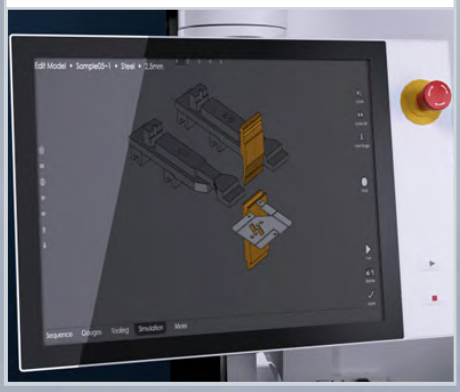

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British cyclists set world records aided by Renishaw's metal Additive Manufacturing

Printed cranks

Renishaw's metal additive manufacturing technology has helped Great Britain's track cyclist Matthew Richardson, to become the first cyclist in history to break the nine-second barrier in the UCI Men's Elite 200m Flying Start. Matthew then broke his own world record 24 hours after setting it, by 0.084 seconds, with a new time of 8.857 seconds.

Riding a custom Hope HB.T track bike, Richardson was equipped with Renishaw's 3D printed metal components, including sprint handlebars, track cranks and a twin seat post – designed for maximum stiffness, aerodynamic efficiency and a rider-specific fit. These components helped to enable Richardson to deliver sustained, peak power while maintaining aerodynamic form at over 50mph (80.5km/h). Taking place at the Konya Velodrome in Turkey, Richardson's fastest time shaved 0.231 seconds off the previous world record held by Harrie Lavreysen of the Netherlands.

Renishaw technology also supported British Cycling's Will Bjergfelt's and Charlie Tanfield's as they attempted to break two further world records. Will Bjergfelt shattered the Men's C5 UCI Hour Record presented by Tissot, covering an impressive 51.471km in just one hour. Charlie Tanfield also attempted a new Hour Record, but with a distance of 53.967km he fell short of Filippo Ganna's 2022 record of 56.791km.

"Elite sport is one of the toughest proving grounds for any technology," said Ben Collins, Lead Applications Engineer at Renishaw. "The demands placed on these bikes, from aerodynamic precision to structural integrity, are extraordinary. To see our additive manufacturing technology contribute to Matt's historic sub-nine-second ride is a proud moment for everyone at Renishaw."

Printed handlebars

By working closely with the British Cycling engineering team, Renishaw's additive manufacturing team developed components with complex geometries and weight-to-strength ratios that traditional manufacturing cannot achieve. This level of customisation allows riders like Richardson to achieve the optimal blend of comfort, efficiency and power transfer, crucial factors at the highest level of competition.

Richardson's record is part of a growing list of world-class achievements powered by Renishaw's additive manufacturing expertise, as it continues to deliver measurable performance gains through precision engineering.

For further details visit www.renishaw.com ■

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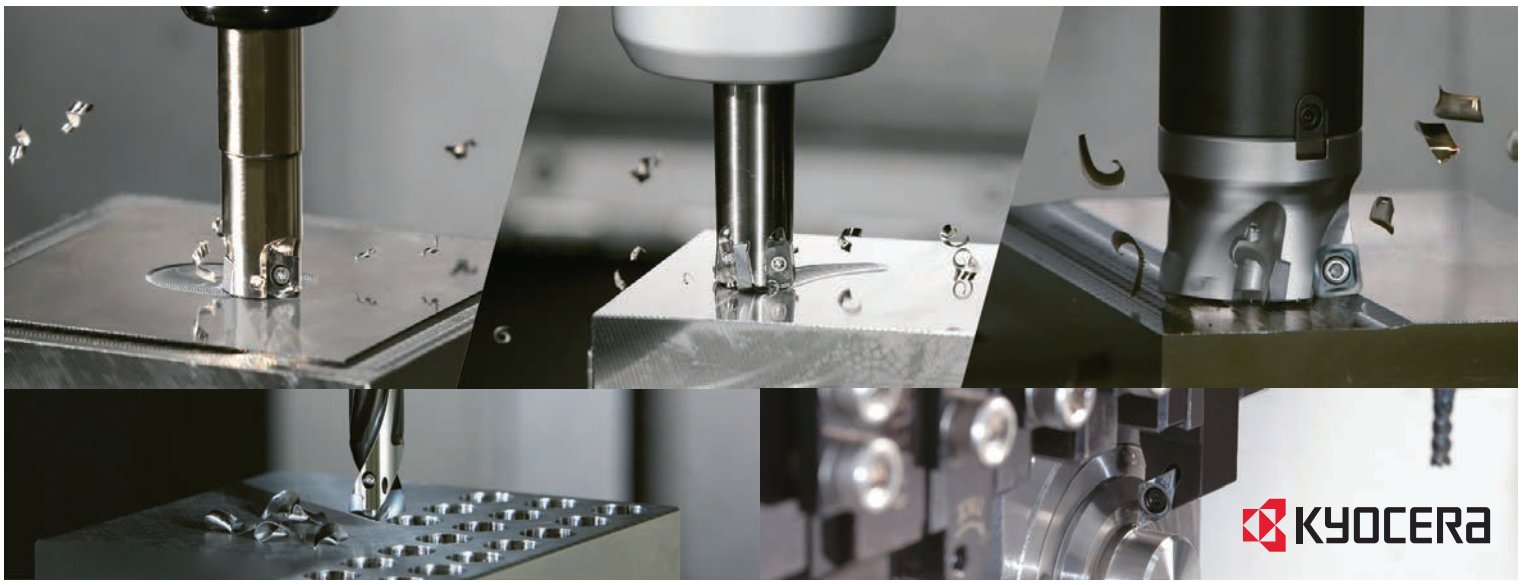

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LK Metrology expands into industrial computed tomography by acquiring Procon X-Ray

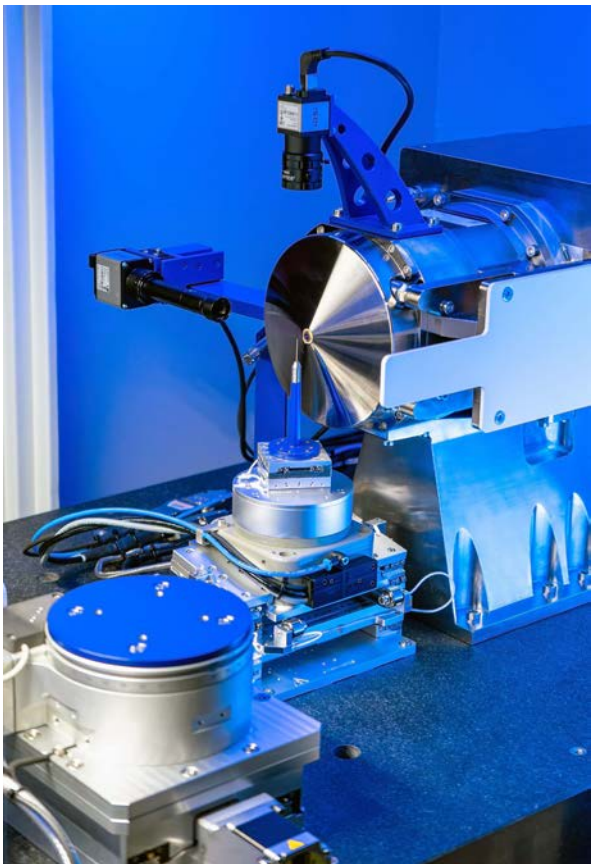
Best known as a manufacturer and global supplier of coordinate measuring machines (CMMs) and more recently laser scanning sensors, LK Metrology Ltd, based in Castle Donington, UK, has announced the acquisition of ProCon X-Ray GmbH, a specialist German manufacturer of computed tomography (CT) systems. With this strategic acquisition, LK Metrology broadens its portfolio of high-precision inspection solutions to include industrial CT imaging, strengthening its position as a long-established provider of metrology systems.

Founded in 2003 and based in Sarstedt, Germany, ProCon X-Ray develops and manufactures modular CT and X-ray inspection equipment for industrial and scientific applications. Its systems are renowned for high-resolution focus X-ray technology, as well as customisable hardware and software. They are used worldwide in the automotive, aerospace, electronics, medical, and materials research sectors.

Through this acquisition, LK Metrology can now offer its customers an even wider range of products for inspection and measurement from a single source, from traditional CMMs, portable measuring arms and laser scanners to high-resolution X-ray equipment and CT analysis. Both companies will work closely together to further develop existing CT systems and deliver new, flexible, integrated metrology solutions of the highest precision to customers worldwide.

Angelo Muscarella, CEO of LK Metrology said, “With the acquisition of ProCon X-Ray, we are strengthening our position as a leading, full-service provider in metrology. Industrial CT imaging perfectly complements our existing CMM and scanning technologies.”

For further details contact WD Hearn Machine Tools on TEL: 021 534 5351 or visit www.wdhearn.co.za ■



The interior of a ProCon X-Ray CT system

Japan’s car industry sees surge in robot installations

The Japanese automotive industry installed around 13 000 industrial robots in 2024, an 11% increase compared to the previous year, and the highest level recorded since 2020, according to preliminary results from the www.ifr.org International Federation of Robotics (IFR).

IFR president Takayuki Ito said: “Japan is the world’s predominant robot manufacturing country representing 38% of global robot production. In terms of factory automation, Japan’s automotive industry ranked fourth worldwide with a robot density of 1 531 robots per 10 000 employees in 2023. This is ahead of the USA and Germany and only behind Slovenia, Korea and Switzerland.”

The Japanese automotive industry is currently undergoing a restructuring process in order to adapt to alternative powertrains. Most car manufacturers are expanding their range of battery and fuel cell electric vehicles (EVs). In addition, Japanese manufacturers are developing hydrogen-fuelled combustion engines, so this diversified portfolio will require the appropriate production technology reconfigurations.

Automotive manufacturers represent approximately 25% of all robot installations on an annual basis in Japan. The electrical and electronics industry is the only sector that installs more robots – about 14 000 industrial robots in 2024 – equivalent to a 5% decrease. ■

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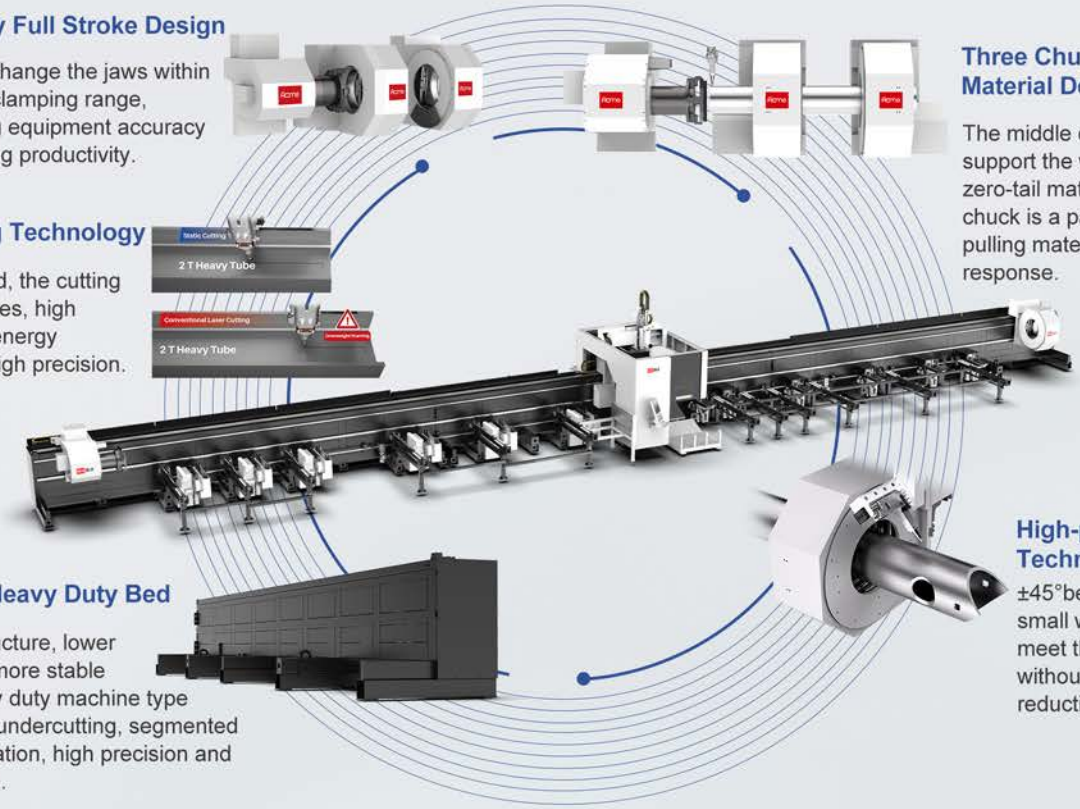

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Tailings	≥0mm
Equipment load-bearing	2100kg
Dimension	30500*4312*3750mm
Tube Types	Square pipe, round pipe, H-beam rectangular pipe, I-beam, ,angle steel, channel steel and special shaped pipe fittings, etc.
Areas of application	New energy, construction machinery, steel structure construction, bridge engineering, shipbuilding, power tower, etc.

Model bed size of 12m for example (bed size: 9, 12, 15,18m), support for customisation, the specific performance parameters can be consulted with the sales manager.

More than 900 exhibitors already booked for Spain's BIEMH 2026

The 33rd edition of BIEMH 2026 – the international machine tool exhibition being held 2-6 March 2026 at the Bilbao Exhibition Centre in Spain, has already attracted over 900 exhibiting companies from more than 15 countries. Included so far in the line-up are Amada, BLM Group, Bystronic, Danobat, Fagor Automation, Fanuc, Ficep, Ibarmia, Kuka, Lantek, Nicolás Correa, Open Mind, Prima Power, Renishaw, Salvagnini, SMW Autoblock, Soraluce, Trumpf, and Zoller.

The organisers say products will be one of the central themes of the event, with machines – including 'large-format solutions' – operating on the stands. The organisers say they are also introducing a support programme designed to 'enhance the presence of machinery at the event', adding that: "As a benchmark event in advanced manufacturing, BIEMH 2026 will feature a specific area devoted to automation, robotics and digitalisation, which are key sectors for driving industrial efficiency, flexibility and competitiveness.

"Following their prominent role in the last edition of the show, they will once again occupy a prominent place in this year's event, within a specific area that will bring together the latest applied solutions. The exhibition will be rounded off with tools, components, accessories, metrology and services for production, thereby providing a comprehensive showcase for the industrial ecosystem.

"International outreach will once again be one of BIEMH's hallmarks. The event is currently being promoted in nearly 150 countries, with a special focus on strategic markets that include the USA, China, Canada, Mexico, Brazil, India, Germany, Italy, Portugal, France, the Maghreb (an area of Northwest Africa), Turkey, and Vietnam. In this context, the VIP programme inviting professional buyers will be key to attracting high-profile visitors and generating valuable business opportunities.

"BIEMH 2026 will also feature areas specially designed to encourage networking among all participants and help ensure the fair will once again become one of action – a fair where technology is experienced in real time, innovation can be touched, and every encounter translates into real business opportunities." ■

Bilbao, the largest city in the Spanish Basque Country, has undergone an extraordinary transformation. Once dominated by industry, since the end of the 20th century it has emerged as a modern, forward-thinking destination – a hub of creativity, culture, and culinary delights

How tariffs are reshaping the global steel market

The latest production data shows an emerging trend: A slow rise in US steel production as China, Japan, South Korea, and EU nations reduce output.

Global steel production fell for the second consecutive month from June to July, down -0.9% to 150.1 million metric tons, as the world's producers adapt to the implementation of 25% US import tariffs on semifinished steel products. The July tonnage represents -1.3% decrease in output from July 2024, and it brings the year-to-date total for global production to 1.09 billion metric tons, or -1.9% less than the January-July total for last year.

Steel production has declined worldwide in each of the past three years due to slow industrial and construction activity. The Russia-Ukraine conflict also slowed output and demand in that part of the world.

Since April, the first full month following the tariffs' implementation, global steel output has fallen three out of four months. Output in the Asia and Europe has dropped, but it is up in North America, as US buyers reassess their sourcing patterns.

Raw-steel production data is reported by the World Steel Association, whose monthly summary covers the output from 70 countries that represent about 98% of global output. The organisation also monitors steel consumption, but it suspended a regular outlook report in April due the uncertainty of the global market.

China is the most important steelmaking nation, typically producing more than 50% of the world's total output. In July raw-steel output fell for the third straight month, down -4.4% from June and -4.0% July 2024, to 79.7 million metric tons. The year-to-date output total of 594.5 million metric tons is a -3.1% drop from last year for the world's largest steelmaking country.

India's steel industry remains an outlier, having steadily increased output during recent years. In July, Indian tonnage rose 14.0 million metric tons, up 2.9% from June and 14.0% from July 2024. January-July output for India is 94.9 million metric tons, a rise of 9.8% versus the first seven months of 2024.

Japanese steelmakers produced 6.9 million metric tons during July, 2.9% more than in June but -2.5% less than in July 2024. The country's YTD production total is now 47.5 million metric tons, a -4.7% decrease compared to January-July 2024.

The emerging trend in global steel production is the steady rise in US output, now at 47.4 million metric tons (52.25 million short tons) for the year – up 1.5% over the 2024 figure, despite the same weak demand from industrial and construction sectors at work in the rest of the world. In July, historically a slow period for steel output, U.S. producers' output totalled 7.1 million metric tons (7.8 million short tons), which is 2.8% higher than their June output and 4.8% more than their July 2024 total.

Steelmakers in Russia produced an estimated 5.7 million metric tons in July, 1.8% more than in June but -2.4% less than in July 2024. YTD output in Russia is at 40.8 million metric tons, a -4.4% decrease from last year.

South Korean steelmakers raised their July output to 5.3 million metric tons, 5.7% above June but -4.7% below last July. At 35.9 million metric tons through July, their year-to-date total is down -3.1% against 2024.

German raw-steel output remained unchanged from June to July, at 2.7 million metric tons, but that represents a -13.7% decrease from the July 2024 result and puts the country's seven-month result a 19.8 million metric tons, or -12.1% lower.

The German situation is reflected across the European Union, where July production totalled 10.2 million metric tons, a -7.0% year-over-year decrease, and raises the region's year-to-date output to 75.6 million metric tons, -3.8% versus January-July 2024.

The monthly report by World Steel Assn. documents carbon steel produced in basic-oxygen or electric arc furnaces and cast into semi-finished forms like billets for bar and rod products; slabs for flat products; or blooms, for beam and pipe products. Specialty and stainless steel volumes are not included. ■

Bodor Laser commits $20 million to strengthen US manufacturing, service, and innovation capabilities

Bodor Laser, a global leader in fiber laser cutting technology, has announced a strategic $20 million investment to significantly expand its U.S. presence and strengthen local manufacturing, service, and customer support operations. This initiative marks an important step in the company's long-term growth plan, building on its strong market momentum and reinforcing its commitment to smart manufacturing in North America.

The new investment follows Bodor's $200 million development of its 250 000-square-metre global headquarters in China, which serves as the company's primary innovation and production hub. By accelerating its localised investments, Bodor aims to integrate more deeply into the North American supply chain, reduce delivery lead times, and provide tailored solutions to the unique needs of US manufacturers.

As part of the $20 million initiative, Bodor will focus heavily on expanding its US workforce, with a particular emphasis on its service and technical support teams. The company already has a strong base of over 40 dedicated professionals in the U.S. and more than 100 employees across North America. This expansion will see the addition of specialised technical experts for on-site machine installation, maintenance, and repairs, as well as customer support staff to provide training and remote troubleshooting.

"Expanding our team is essential to maintaining the high level of service our customers expect," said Su, General Manager of Bodor Laser Inc. "This investment is not just about increasing headcount – it's about hiring the right talent to deliver fast, localised support that customers can rely on."

A key element of Bodor's expansion strategy is the creation of a state-of-the-art Technology and Service Experience Centre in the United States.

For further details contact Spectrum Machine Tools Africa on TEL: 072 397 9956 or 074 373 7503 ■

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Hermle's 5-axis machining centre

C 42 MT GEN2 to feature at EMO 2025 [VIDEO]

The C 42 MT (Mill/Turn) machining center from the high-performance-line makes for an effective entry into MT technology and it becomes a high-performance milling and turning center. This includes various applications in the tool and mould making, medical, aerospace, motorsport, racing machine sectors and other industries. The C 42 U MT machining center is at home in every area.

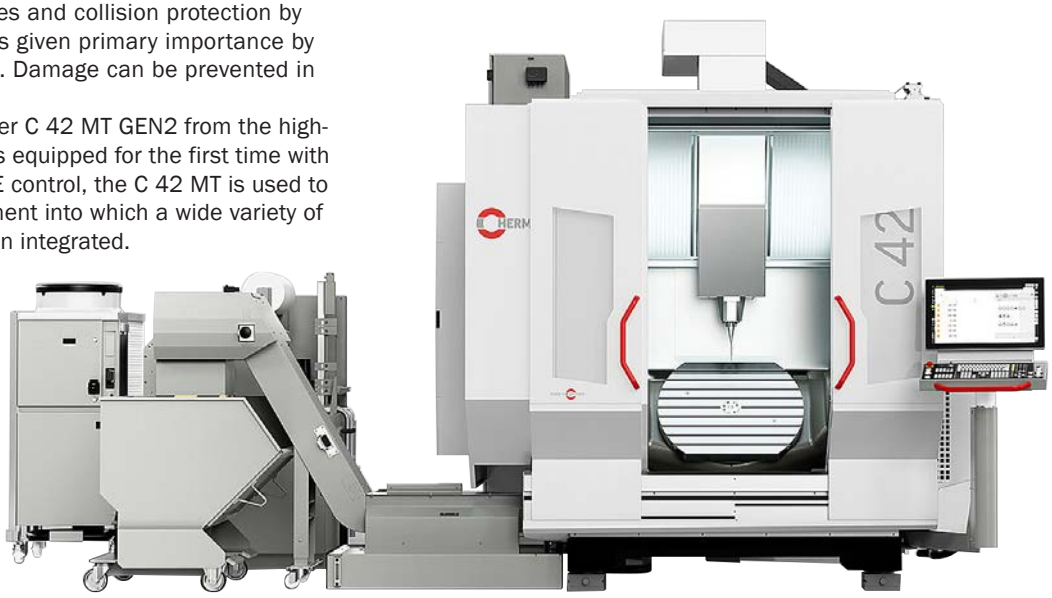
The C 42 U MT responds to demands for highest precision and very small tolerances through its workpiece-dimension-optimised traverse paths and thought-through 5-axis usage. You can discover more details about the C 42 U MT via the i-buttons in the 360-degree view.

Follow the link to see the Hermle C 42 MT GEN2 in action: https://www.youtube.com/watch?v=Kxv7S61VD1U

The slimline tool spindles are constructed in two parts and can be replaced easily and quickly during servicing. Thanks to low interfering edges and collision protection by compression sleeves, safety is given primary importance by maximum collision avoidance. Damage can be prevented in 50% of collisions.

The 5-axis machining center C 42 MT GEN2 from the high-performance mill-turn series is equipped for the first time with the SIEMENS SINUMERIK ONE control, the C 42 MT is used to machine a technology component into which a wide variety of turning technologies have been integrated.

These "turning cycles" in detail: Bright turning, eccentric turning, taper turning, out-of-round turning of a polygon contour, contour broaching of any 2D contour, simultaneous turning of the inner contour, thread turning, recess turning, power skiving, QR code drilling.



Other machines on display at EMO 2025

The 5-axis machining center C 12 GEN2 from the high-performance series with the robot system RS 05-2. The robot system RS 05-2 handles workpieces weighing up to 10kg while at the same time storing a large number of individual parts in a wide variety of storage modules. An aluminium medal is being machined which can also be used as a PIN magnet.

The 5-axis machining center C 32 GEN2 from the high-performance series with the robot system RS 2 GEN2. Hermle AG is now taking automation to a new level with the GEN2 version of the robot system RS 2. Almost all components of the previous RS 2 system have been enhanced and optimised to meet customer requirements. A detailed press release on the robot system RS 2 GEN2: PI13052025.

The 5-axis machining center C 400 GEN2 from the performance series with the handling system HS flex hybrid. With the handling system HS flex hybrid, Hermle is taking the previous handling system HS flex to the next level of performance for the economic production of components weighing up to 450 kg. The system transports both pallets and vises from the setup station to the storage modules or the working area. The following components have all been specially configured for the HS flex hybrid – storage modules, setup station, gripper and adapter pallet. Further, the HS flex hybrid can be adapted to six different machine models and configured with either one or two storage modules.

For further details contact Top-Tool on 076 511 3066 or visit www.top-tool.co.za ■

WHEN PRECISION MATTERS.

Dongbu Shukong

UNRIVALLED PERFORMANCE & ACCURACY

The MSY Series can handle a wide range of components for all kinds of applications thanks to a highly versatile control system that comes with the 100 MSY, 100 MSY with sub spindle and the 200MSY.

The MSY Series machines are designed for high-rigidity, reliability and productivity as demonstrated in both surface finish quality and repeatable precision. The MSY CNC Slant Bed Lathes have a Swing of 500/560mm, Machining Length of 350/560mm, Bar Diameter of 42, 52 and 74mm, a12 Tool Post Live Tool Turret(Y-Axis,BMT55) and as standard FANUC Series 0i-Model F Plus, Renishaw Automatic Tool setter Automation ready (Robot and Bar feeder).

MTMA

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SPECTRUM MACHINE TOOLS

Kennametal expands BTKV
tooling systems lineup

Kennametal, a global leader in tooling and industrial technology, has announced the expansion of its BTKV tooling platform with the introduction of the BTKV30 system. Designed specifically for small-parts machining, the BTKV30 addresses the growing demands of industries such as aerospace, medical, oil and gas, automotive, transportation, and general engineering, where precision, rigidity, and speed are critical to success.

The BTKV30 was developed to meet the challenges of machining small, complex components in industries that require tight tolerances and reliable consistency. Whether it's turbine blades in aerospace, orthopaedic implants in medical manufacturing, or high-performance components in automotive and energy sectors, the BTKV30 provides the rigidity and accuracy needed to achieve world-class results.

At the core of its performance is taper face contact technology, which delivers superior stability compared to conventional tooling connections. This rigid interface enhances precision during demanding operations, ensuring excellent results in both roughing and finishing applications.

The BTKV30 system is optimised for high rotational speeds, making it ideal for modern machining environments where productivity and efficiency are non-negotiable. With better balance, vibration resistance, and stability, shops can achieve faster throughput without compromising surface quality or tool life. For small-part production, where cycle times and machining consistency are paramount, the BTKV30 provides an edge that directly translates into cost savings and higher efficiency.

Kennametal has designed the BTKV30 with flexibility in mind. The system is compatible with a variety of Kennametal frontend adapters, allowing manufacturers to choose the right setup for their applications. Options include:

- Hydraulic chuck adapters for high-precision clamping and damping characteristics.
- Shrink-fit adapters for maximum rigidity in high-speed applications.
- Shell-mill adapters for larger diameter tooling requirements.
- Screw-on adapters for secure and reliable toolholding.
- ER collet adapters for versatility across multiple tool sizes.
- Enhanced ER bearing nuts for improved clamping stability and performance.

This broad compatibility makes the BTKV30 a truly multi-purpose tooling system, capable of addressing a wide spectrum of machining needs across different industries.

With global manufacturing trends pushing toward miniaturisation, lightweighting, and complex geometries, tooling systems like the BTKV30 are essential. By combining rigidity, speed, and versatility, Kennametal ensures that manufacturers can meet today's demanding production standards while maintaining efficiency and precision.

Kennametal's expansion of the BTKV platform underscores its commitment to advancing toolholding technology for industries that depend on accuracy and reliability. The BTKV30 not only improves performance at the spindle but also enables shops to unlock new possibilities in small-part machining, from prototyping to mass production.

For manufacturers in aerospace, medical, oil and gas, automotive, and beyond, the BTKV30 offers a robust solution to achieve effective machining at high speeds with confidence.

For more information contact Kennametal South Africa on TEL: 011 748 9300 or visit www.kennametal.com ■

Open Mind will present the latest
version of the hyperMILL CAD/CAM suite at EMO

Open Mind will present the latest version of the hyperMILL CAD/CAM suite alongside its Hummingbird Manufacturing Execution System (MES) at EMO Hannover 2025 (Stand A41, Hall 6), taking place 22 to 26 September. These key components of connected production environments will be highlighted with practical applications and there will be a combined turning and milling machining demonstration.

Visitors to the stand will be able to see the very latest that its CAD/CAM technologies can offer. Four workstations will be used to demonstrate HyperMILL functions and strategies for mill-turning, turn-milling, and turning. They will also discover the Hummingbird MES solution for CAM/CNC integration which has four key components: synchronised planning and control; machine data acquisition; tool management; and CAM/CNC integration.

Taking centre stage on the Open Mind stand will be a Mazak Integrex i-100H S turn/mill centre which will be working live manufacturing an aerospace workpiece using five-axis technologies and HyperMILL turning solutions.

For further details contact Hi-Tech Machine Tools on TEL: 011 608 0088 or visit www.hitech.co.za ■

Mazak

VARIAXIS C-600

Mazak 5-axis technology in a compact footprint

VARIAXIS C-600 eases transition to multi-tasking

The automation-ready VARIAXIS C-600 simultaneous 5-axis vertical machining center uses rigid C-frame construction, a standard 30-tool changer, dual-supported tilting table and fast rapid traverse rates to reduce cycle times on demanding jobs. It accepts a wide range of spindles, including high-speed and high-torque options, to produce a wide range of parts from steel and non-ferrous metals.

- Its MAZATROL SmoothAi CNC adds efficiency and value, with a wide variety of advanced programming functions for complete ease of use and repeatable high-accuracy performance.
- High-torque and high-speed spindle options for versatile performance in a wide variety of materials, including aluminium, stainless steel, nickel and titanium
- Automation-ready design includes options such as a 2-pallet changer, robotic loaders and hydraulic/pneumatic jigs

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Mazak aims to empower at EMO
with the next level of innovation and integration

Yamazaki Mazak is aiming to empower machine users at EMO 2025 by showcasing a range of new machine and automation technologies – including seven world and five European debuts.

Exhibiting under the theme 'Experience innovation, empower your future,' the Mazak stand (Hall 15, stand B24) will highlight the benefits of a real partnership between machine manufacturer and user, with a stand that places customer success, smart automation, and digital integration at the heart of modern manufacturing, the company said.

Visitors will be able to experience a comprehensive showcase of new machine tools, connected technologies, and expert support services – all designed to empower customers.

The Mazak stand will host a total of 20 machines – five manufactured in Europe – that highlight the breadth of the technologies available, from 3-axis lathes and vertical machining centers offering an affordable introduction to the Mazak brand and the latest additions to the most sophisticated INTEGREX level of Multi-Tasking and Auto Gear technology.

The new machines on show will include the new INTEGREX j-200 NEO – shown for the first time in Europe – which combines outstanding productivity for complex high-mix/low-volume batch work with an attractive price from the pioneers of multi-tasking machining.

A central concept for Mazak at EMO 2025 will be the depth of process integration that customers will benefit from when partnering with the organisation. In practice, this will be displayed via a live process optimisation demonstration, which will use both a machine tool and laser processing machine to increase productivity, while reducing both the carbon and cost-per-part.

This EMO, the Mazak stand will also feature a Solutions Centre providing a deep dive into Mazak technology and the services available beyond the machine. With advice and expertise on advanced machining, hybrid technology, automation solutions, digitalisation and integrated smart manufacturing solutions all available on the Mazak stand, visitors can expect to come away with some key insights on how to boost productivity and efficiency in their manufacturing operations.

With over 40 years of development, MAZATROL will be showcased as a key solution that continues to deliver cutting-edge machine performance with conversational programming for new users. Visitors can watch live demonstrations and try out Quick Mazatrol, digital setup tools, and intelligent programming features that simplify operations and reduce setup times. It's a hands-on space for customers to understand how Mazak control systems make a practical impact on everyday productivity. A major highlight will be a demonstration of the latest digital manufacturing software MAZATROL DX, which can transform cycle times and productivity for machine users.

Visitors will also receive plenty of information on advanced machining applications, such as additive machining, friction stir welding, advanced 5-axis work and gear cutting, which extend Mazak's Done-In-One concept into new technologies and applications. This can result in fewer outsourced processes, shortened lead times and reduced costs for machine users.

Mazak will also present 12 different automation solutions that support flexible, high-mix, low-volume production. From multi-pallet and robotic part loading to smart tool handling and integrated cells, the stand will demonstrate how automation can be seamlessly integrated to increase output, reduce labour pressures, and enhance profitability.

Mazak's approach to automation is clear: integration should be simple, scalable, and fully supported. Every automation solution is engineered to work in harmony with Mazak machines, making adoption easier and results faster to achieve.

For further details contact Hi-Tech Machine Tools on TEL: 011 608 0088 or visit www.hitech.co.za ■

Amada ORSUS-3015AJe
fiber laser cutting machine

The ORSUS-3015AJe is Amada's solution for companies looking to create a solid foundation for their first step into the world of high speed, precision laser cutting. It creates a perfect starting point for any manufacturer, with available power levels from 3 to 8kW alongside a whole range of advanced technology and features, allowing it to fit into many production environments.

The ORSUS-3015AJe comes fully equipped with a large number of features designed to improve cutting quality, reliability and ease-of-use; Amada's Automatic Mode Converter, the Laser Integration System (LIS), the latest generation AMNC 4ie Controller, V-factory and IoT compatibility, Mobile HMI and many more.

The Automatic Mode Converter seamlessly switches the laser beam from a highly focused beam, used for piercing and cutting thin material, to a wide and stable beam for thick plate processing. This changeover is instantaneous and controlled by the laser automatically so can be done between piercing and cutting to take full advantage of both beam types on every material. It also means that a single focusing lens gives the ▶

user the ability to cut the full range of materials.

The ORSUS-3015AJe has a suite of Amada's Laser Integration System (LIS) features including an automatic head collision detection system and the i-Optics Sensor for detecting protection glass contamination. i-Process Monitoring is also included to detect failures in cutting and piercing and attempt to remedy them without stopping production.

Flexibility is key, so the ORSUS-3015AJe is designed to be compatible with the majority of Amada's existing automation solutions, both from the factory and retrofittable. This means it can be configured to perfectly fit production needs from a large variety of different industries and can even adapt to changing production environments over time.

Amada's latest generation of machine controller, the AMNC 4ie, is a state-of-the-art numerical control designed to be user-friendly and fast to operate. The new maintenance 'guidance mode' supports less experienced operators with day-to-day operation and maintenance and an updated machine history utility shows historical data for running efficiency and power consumption.

Another feature is the i-Camera Assisted System (i-CAS). The internally mounted camera will take a snapshot of any material on the cutting bed, then either automatically nest parts in the available space, or allow an operator to intervene and drag, drop and rotate parts to fill in any available space using the touch screen. AMNC 4ie is also compatible with Amada's Mobile HMI feature so you can monitor the machine remotely using its internal cameras and alarm monitoring systems. It can even be used to set up programs and schedules without needing physical access to the machine. An operator then simply needs to load material and press start.

Remote support is also available thanks to the ORSUS-3015AJe being fully compatible with Amada's V-factory and IoT systems. V-factory allows the collection and manipulation of production history data, while the IoT support functions allow the laser to be accessed remotely to help diagnose and fix problems, minimising downtime.

Backed up with Amada's class leading service support, software solutions and spare part availability, the ORSUS-3015AJe is the ideal solution to help customers build a foundation for success.

For further details contact Amada Johannesburg on TEL: 011 453 5459 or visit www.amada.co.jp ■

Sandvik Coromant's CoroMill MS60

True versatility in shoulder and face milling operations.

Dependable and cost-effective concept CoroMill® MS60 is specifically engineered for 90° shoulder milling but excels in a wide range of applications – from face milling to ramping, pocketing, and modern dynamic milling.

Sandvik Coromant presents the latest addition to its family of milling tools: CoroMill MS60. The tool is tailored for 90-degree shoulder milling operations in steel and cast iron, but is versatile enough to extend its competence across areas such as face milling and various ramping applications.

"CoroMill MS60 is a universal shoulder and face milling solution, primarily designed for roughing to semi-finishing operations in steel and cast iron, with two geometries capable of handling both these application areas as well as secondary areas ISO M and ISO S," says Jocelyn Lanaro, Global Product Application Specialist at Sandvik Coromant. "As such, it is possible to handle mixed material batches, including stainless steel and nickel-based alloys, without changing inserts."

As a robust multi-edge concept with positive cutting action, cutting forces are low for vibration-free machining, which translates into a high cost-efficiency per edge. Featuring a true 90-degree entering angle, CoroMill MS60 is mainly a shoulder milling tool – even though it excels in many other areas as well.

"From general milling operations to side milling, slot milling, helical ramping, and face milling – CoroMill MS60 truly is an all-around solution," says Lanaro. "It is usually the first tool chosen during the early stages of universal milling operations, handling the roughing to semi-finishing stages, leaving the finishing to dedicated solutions."

Another standout feature to highlight is the direct pressed, six-edged inserts: "They are manufactured using a highly advanced multi-axis pressing technology, meaning it has been possible to gather both a smooth cut and ramping capability in the same insert, enhancing the versatility of the product."

Providing four different diameters in both metrics (50-100mm) and inches (2-4in.), CoroMill® MS60 offers a compact yet comprehensive range, making both selection and usage easier.

Contact Sandvik Coromant on TEL: 010 500 2295 or visit www.sandvik.coromant.com for further details. ■

Bowers' Baty Venture FV
vision measurement system

Launch of the Altera SF series.

The Baty Venture FV sets a new standard in Bowers Group's precision vision measurement offering, providing advanced features and high-speed inspection. Equipped with auto part recognition and a powerful 20-megapixel camera, coupled with telecentric LED lighting, the vision system delivers precise field of view measurements with exceptional clarity. Its intuitive software streamlines the measurement process, allowing for seamless operation and efficient data analysis.

The Venture FV allows for quick and accurate measurements of hundreds of dimensions on hundreds of parts in seconds, using multiple lighting conditions. With a simple and intuitive user interface, the series has been designed with operator in mind.

With its easy-to-use software, the FV enables the creation of new inspections quickly and easily with minimal experience needed, offering instant on-screen pass/fail classification for the inspector, with detailed reports automatically saved to a preferred location.

It features large diameter telecentric optics with motorised auto-focus range of 75mm combined with a measurement area of up to 300x200mm.

Programmable, segmented, split ring LED surface lighting is standard on all FV models. This allows the edges of features to be accurately defined for automatic detection by the software. The motorised ring light can also be driven in the vertical axis to highlight features with minimal height.

The high-precision, CNC work stage utilises heavy duty cross-roller rail guides for optimum performance and accuracy. The heavy-duty chassis casting provides a stable foundation for the substantial motorised X-Y measuring stage, ensuring correct alignment is maintained to the motorised focus and lighting axes.

Contact Machine Tool & Design Technology on Cell: 076 867 7845 or email Tim@MTDTech.co.za for further details. ■

Mitutoyo's measurement device
provides portable, intuitive operability

Mitutoyo's SJ-220 surface roughness tester enables operators to perform measurements in environments where power is not available. The SJ-220 surface roughness measuring instrument is designed to provide portability and intuitive operability. It is equipped with a built-in battery that can be used approximately 1,000 times on a full charge, enabling operators to perform measurements in environments where power is not available.

The SJ-220 features a larger 2.8" colour touch screen for better visibility while maintaining a compact size to operate with one hand. The instrument's user interface features easier operations such as changing the display screen and adjusting settings with your fingertip.

The SJ-220 also includes functions such as being able to disable the touch screen for better security along with the ability to set shortcuts for most-used functions. The SJ-220 can now display results and set measurement conditions via wireless communication when used with the optional accessory U-WAVE-TIB. The instrument is compatible with the ISO 21920 standard.

Contact RGC Engineering on TEL: 011 887 0800 or alternatively visit www.rgcengineering.co.za for more details. ■

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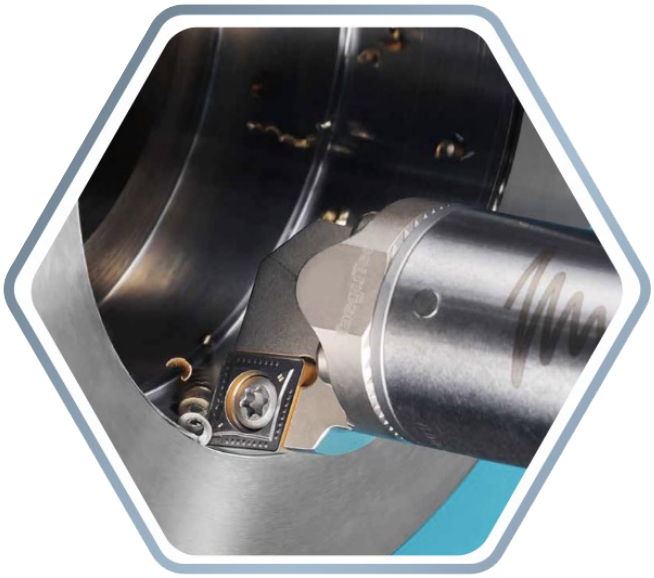
TaeguTec's HUSH-BORE shanks are capable of machining up to 14xD depth

TaeguTec's HUSH-BORE shanks are capable of machining up to 14xD depth

TaeguTec's shanks are capable of machining up to 14xD depth for the anti-vibration HUSH-BORE line. Since its introduction, the anti-vibration HUSH-BORE line, which can do deep internal machining, has received favourable feedback from many customers.

TaeguTec offers even deeper internal machining solutions by incorporating 12xD and 14xD shanks in addition to the already existing 7xD and 10xD shanks. The steel and carbide-based 12xD and 14xD shanks offer outstanding machining performance even during deep internal machining because they have improved rigidity and hardness, which prevent shank breakage caused by bending.



Vibration free boring bar line with exchangeable heads

Advance Machining has reached new levels with the vibration free SFEED-TEC HUSH-BORE, a line that efficiently performs deep internal turning at an incredible 14xD. In order to reach high speeds and feeds without damaging the workpiece, spindle, insert and so on, TaeguTec's Advance Turning team developed a revolutionary damping system located inside the shank which results in a smooth surface finish as well as an internal coolant supply for longer tool life and stable machining due to the rigid clamping system. All these technologically advanced features also increase feeds and cutting speeds, making it highly productive. In order to provide a full range of options, HUSH-BORE is available in many different diameters and in a few tool lengths. The various exchangeable heads can be securely fastened with an unrivalled serrated coupling located in the boring bars.

TaeguTec's HUSH-MODU line of head changeable shanks are for various turning operations

Modular type HUSH-MODU shanks for various turning applications

TaeguTec's HUSH-MODU line of head changeable shanks are for various turning operations. The modular type of head changeable holders compatible with both external and internal turning applications. The line is available in two modular types: a square shank for external turning and a C-adapter for internal, external and Y-axis operations. In addition, the current HUSH-BORE head can be mounted to the HUSH-MODU shanks, thereby widening the range of applications even further.

The HUSH-MODU's Y-axis turning head provides excellent machining stability and a dramatic productivity increase. Further, the new Y-axis head demonstrates high performance machining as it is compatible with TaeguTec's TNMV and ZNMV insert lines.

For more information contact TaeguTec SA on TEL: 011 362 1500 or visit www.taegutec.com on ■

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Marposs noncontact compact tool setter VTS SF-45 Compact

Marposs has introduced VTS SF-45 Compact, the newest member of the noncontact VTS (visual tool setter) family. Featuring a compact design, the VTS SF-45 is suited for optical measurement of small, complex-shaped tools in constrained working spaces, such as micro-machining, semi-conductor or mouldmaking applications. The VTS SF-45 units are installed inside the machine working area and are able to monitor actual tool working conditions while the tool is rotating at full spindle speed (up to 80k RPM) during data acquisition. Since there is no need to slow the spindle, pre-setting time can be reduced, and measurement accuracy is increased to better eliminate collision hazards.

The VTS SF-45 acquires a variety of tool dimensions in a single instant using the principle of shadow projection where an illuminated object projects its shadow onto the camera. These measurements include tool length, static and dynamic tool diameter, tool run-out and cutting edge radius.

"With a resolution of 0.1 ¬µm, the VTS enables measurement of tools with diameters as small as 10 ¬µm with repeatability of 0.2 ¬µm, providing a higher level of accuracy than touch probes or lasers in small applications," said a company spokesperson.

Additionally, the VTS SF-45 uses a frontal light to analyse the tool surface, displaying the illuminated surface on a PC monitor where the integrity of the cutting edges can be evaluated. The GUI software for the VTS simplifies the measuring cycle process and documents the tool history, helping to quickly reveal damage in advance of the machining

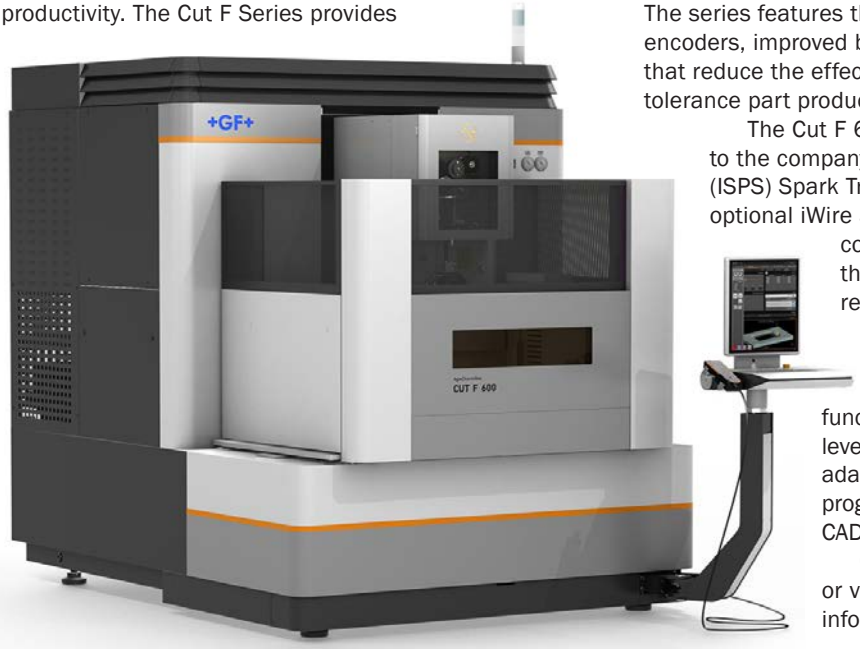
operation. The software can be fully integrated into Marposs touchscreen PCs (NEMO or Merlin+) or in a stand-alone version for PCs with Windows or Linux operating systems.

One of the main features of the VTS is its protection system, which enables better measurement performance even in the presence of coolant or dust. Pneumatic shutters cover and protect the optical lens when VTS is not working, plus a patented air flow solution rejects chips and coolant drops, keeping the shutter side clean and protecting the optical lens when the shutter is open.

Contact RGC Engineering on TEL: 011 887 0800 or alternatively visit www.rgcengineering.co.za for more details. ■

GF Machining Solutions wire EDM enables tight-tolerance part production

GF Machining Solutions' AgieCharmilles Cut F Series Wire EDM is designed to balance high precision with productivity. The Cut F Series provides manufacturers with extreme production control and flexibility for ultraprecise machining and high surface finish capability. The series features thermal stabilisation, enhanced axis encoders, improved ball screw precision and machine designs that reduce the effects of leverage and vibration for tight-tolerance part production.



The Cut F 600 optimizes safe cutting processes due to the company's Intelligent Spark Protection System (ISPS) Spark Track platform. Also available is the optional iWire adaptive software module to reduce wire consumption and RFID Smart wire spools that store wire characteristics traceability-related data.

Users can program the machines with the advanced Uniqua human-machine interface (HMI) that combines optimal functionality and ergonomics for every skill level on a 19" vertical screen. The Uniqua HMI adapts to either sequential or object-oriented programming and is compatible with all major CAD/CAM programmes.

Contact Retecon on TEL: 011 976 8600 or visit www.retecon.co.za for more information. ■

HUSHBORE

ANTI VIBRATION BAR

HUSHBORE line introduces Ø80 head exchangeable anti-vibration boring bars

- Shanks include built-in vibration damping technology - Good surface roughness and improved tool life
- Stainless steel shank prevents corrosion
- Shank diameter: Ø80, length : 7xD, 10xD(available as standard items in 2 types)
- Available in various dedicated head types
- Dedicated Adapter use a 20x20 standard square holder
- Internal coolant type

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METALWORKING NEWS

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