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volume 27 number 3
October 2026



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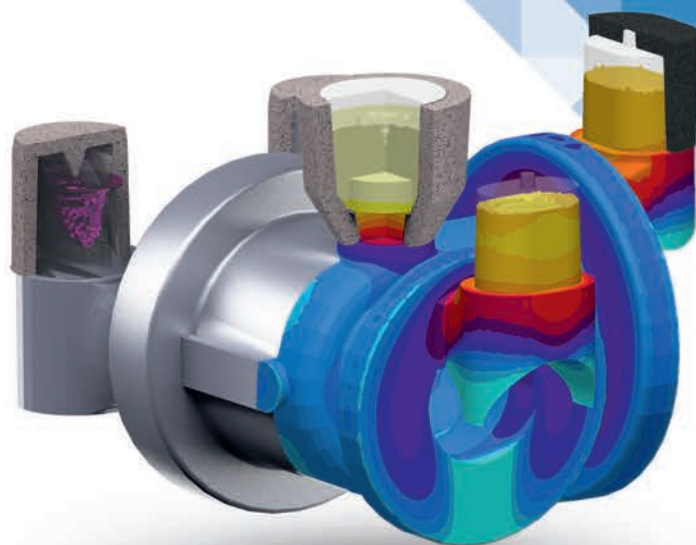


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castings sa

A specialised journal covering the technology, processors and materials field for castings

volume 27 number 3
October 2026



Castings SA

vol 27 no 3

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castings sa is published by
BA Crawford Specialised
Publications (Pty) Ltd.

Cell: +27 83 628 7654

E-mail: online@engnews.co.za

ISSN 1605-7589

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castings sa, published every second month, is the official journal of the South African Institute of Foundrymen (SAIF). The information and ideas presented in castings sa do not necessarily reflect the position of the SAIF staff, executive, advisors, sponsors or members.

6 industry news

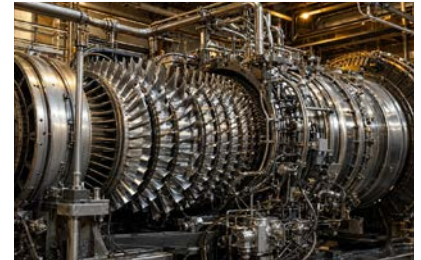
Foundries back in fashion?; The future of melting; Inductotherm; ISO launches; Proposed new steel tariffs and rebates; Ford South Africa; Transnet; SPS; Investment holds the key; Scaw's hot strip mill; ArcelorMittal South Africa; IDC responds to Sunday Times; SAIF 60th Annual Awards Dinner 2026; Cashless copper scrap transactions; Metal recycling matters; South African green sand foundries

32 international news

The Bright World of Metals; GE Aerospace; Progressive Foundry/Simpson Multi-Cooler®; Gemco; Volvo EX60; Renishaw; The 'German badge tax'; Fabri digital foundry; SpaceX plans

40 product review

SPECTROSCOUT kt portable ED-XRF analyser; Pferd: Why transparency makes all the difference when grinding workpieces



Foundries back in fashion?



The SpaceX age: Has the foundry industry just advanced towards its most exciting technology leap in 6 000 years? Maybe not, but anything is possible where Elon Musk is involved.

SpaceX's Elon Musk recently confirmed that the company will start making the blades and vanes that go into natural-gas-fired power turbines used to power AI data centres. "By doing in-house casting at SpaceX, we can accelerate nat

gas turbines coming online by up to 18 months, which is a profound game-changer," he wrote on X, formerly Twitter.

Only a relatively small number of companies currently have the capability to manufacture some of these critical turbine components. And with AI data centres consuming vast amounts of electricity and their operators looking for ways to bring generating capacity online faster, the ability to produce these components has suddenly become strategically important.

The product itself is not necessarily going to change much. What matters is knowing how to make it, and how to make it consistently. The manufacturing processes involved in producing turbine blades and vanes are complex, and the knowledge behind this is closely guarded. Ceramic cores and wax patterns used in the investment casting process are destroyed after manufacturing by these handful of companies, making it difficult to simply examine and reproduce the manufacturing method.

Musk's personal cherry-red Tesla Roadster, carrying a mannequin named Starman, is currently orbiting the Sun in an elliptical path that crosses the orbits of Earth and Mars. So, in typical Musk fashion, perhaps we should not be surprised if he simply decides that SpaceX is going to start making its own complex, cast components.

It's also interesting to see the continuing rate at which technology is beginning to infiltrate the foundry industry. Just over a decade ago, this publication was fortunate to witness some of this change beginning to happen at Atlantis Foundries in Cape Town, South Africa.

Small process implementations, combined with clever engineering, began bringing about operational efficiencies

that challenged some of the traditional perceptions of what a foundry could be. And the foundry industry took note.

There has also been a geographical shift. While there has certainly been a decline in production numbers in some of the countries that were traditionally associated with the manufacture of cast components, there has been growth in countries that recognised the need to develop their foundry technologies. Türkiye, India and, of course, China, have all invested heavily in manufacturing capability and foundry technology.

Now foundries are coming back into fashion for another reason. Some of the traditional manufacturing nations are beginning to recognise that losing domestic casting capability can create a vulnerability in the wider manufacturing supply chain across a broad range of industries. If a complex casting is required for a new product and there are only a handful of companies anywhere in the world capable of producing it, capacity suddenly becomes a strategic issue.

The growth of aerospace, defence, energy, power generation, electric vehicles, data centres and other technology-driven industries is reinforcing this point.

There are also some components that simply make no economic sense to machine from billet. Removing large volumes of material to arrive at a complex near-net-shape component can consume considerable amounts of machine time, tooling and material. Casting, when the process is properly developed, can put much of that material close to where it is needed before machining even begins.

This does not mean the foundry is suddenly going to become the centre of every manufacturing operation. Casting still has its challenges, and producing consistent, high-quality castings requires knowledge, equipment, process control and skilled people.

But perhaps the more important point is that casting is no longer simply an old manufacturing process that has to be endured because there is no alternative. Advanced casting is becoming part of the technology solution.

And if SpaceX really does bring more of this technology in-house to overcome a bottleneck in the global supply of turbine components, it will be a rather spectacular reminder of something the foundry industry has known for thousands of years: Sometimes, the best way to make something is still to cast it.

South African Institute of Foundrymen

The aim of the SAIF is to promote and develop within Southern Africa the science, technology and application of founding for individuals and involved industries.

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Upcoming SAIF Events for 2026

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Innovation beyond the furnace

Modern foundries need more than reliable melting equipment. They need greater visibility and control over energy use, productivity, equipment performance, and process data. Inductotherm continues to advance induction power systems, automation, digital controls and connected technologies that bring equipment, people and processes together. Solutions such as Inductotherm's MiPlant® IIoT Platform help turn equipment and production data into useful information, supporting equipment utilisation, operator training and continuous process improvement.

Global innovation, local support

Today, the Inductotherm Group comprises 40 companies operating across 21 countries, combining global engineering expertise with local manufacturing, sales and service capabilities. In Southern Africa, that expertise is supported by Inductotherm Group South Africa and Cerefc (Pty) Ltd., Inductotherm's official representative in the region for more than 25 years. Cerefc provides customers throughout Southern Africa with local access to equipment, spare parts, technical support and field service.

From the first Inductotherm furnace system installed in South Africa in 1960 to today's increasingly connected melt shops, this combination of global engineering expertise and local support continues to help metal producers improve equipment performance, reliability and long-term operational efficiency.

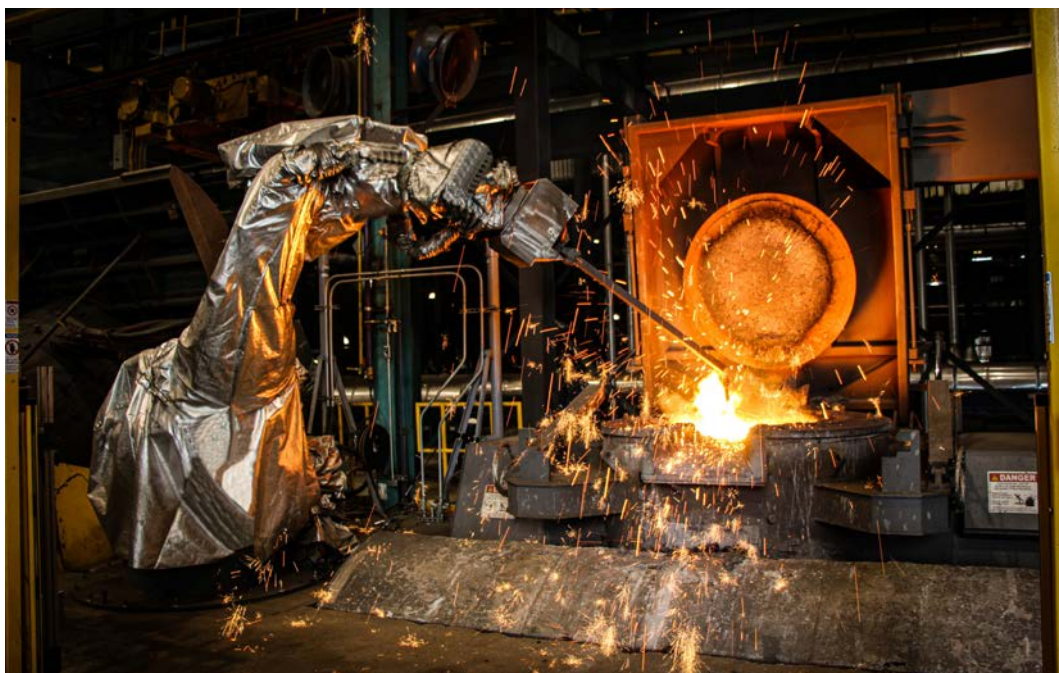
Digitalisation

MiPlant® helps capture and use equipment and production data, giving operators and management greater visibility while supporting equipment utilisation, training and process improvement.

Safety through automation

Safety is fundamental in metal melting. Inductotherm's ARMS® (Automated Robotic Melt Shop) System uses robotics for hazardous operations such as grounding checks, metal sampling, trim additions and slagging.

Remote operation can reduce direct exposure to molten-metal environments while improving consistency and repeatability. Automation is increasingly being used not only to improve productivity, but also to create safer working environments. ▶



Modern foundries need more than reliable melting equipment. They need greater visibility and control over energy use, productivity, equipment performance, and process data. Inductotherm continues to advance induction power systems, automation, digital controls and connected technologies that bring equipment, people and processes together



Solutions such as Inductotherm's MiPlant® IIoT Platform help turn equipment and production data into useful information, supporting equipment utilisation, operator training and continuous process improvement

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connected and more energy efficient.

The future of melting is not simply about generating heat, it is about achieving greater control over heat more efficiently, more safely and more intelligently.

In addition to Inductotherm's melting, heating, holding and automated pouring technologies, customers in the region have access to the broader portfolio of Inductotherm Group companies, including Thermatool's tube and pipe welding and annealing systems, as well as Inductoheat's induction heating and heat treatment solutions.

For more information about Inductotherm technologies and local support contact Cerefco on TEL: 011 845 3253 or visit www.cerefco.co.za or www.inductotherm.com

Efficiency, reliability and lifecycle value

The value of melting equipment extends beyond installation. Energy consumption, uptime, maintenance, consistency and equipment longevity all contribute to lifecycle value. Modern induction technology addresses these requirements through precise power control, digital monitoring, automation and robust system architecture.

Shaping the future of melting

The future will emerge from the convergence of advanced power electronics, induction heating, robotics, IIoT and intelligent process control. The next generation of foundries will need to be safer, smarter, more



The future of melting is not simply about generating heat, it is about achieving greater control over heat more efficiently, more safely and more intelligently. The future will emerge from the convergence of advanced power electronics, induction heating, robotics, IIoT and intelligent process control. The next generation of foundries will need to be safer, smarter, more connected and more energy efficient

ISO launches update to world's most widely used quality management standard for a new era of business

The publication of ISO 9001:2026 follows extensive international collaboration.

The International Organisation for Standardisation (ISO) has announced the launch of ISO 9001:2026 quality management systems requirements, the new edition of the world's leading quality management system standard.

Trusted by more than one million organisations worldwide, the updated edition of ISO 9001 reflects how business itself

is changing, helping organisations strengthen resilience and deliver long-term value, meet evolving customer expectations and serve increasingly interconnected global supply chains.

For almost four decades, ISO 9001 has provided organisations of every size and sector with a globally trusted framework for improving performance, building customer confidence and driving continual improvement.

While maintaining the proven principles that have made it the international benchmark for quality management, the 2026 edition responds to an increasingly complex operating environment, where organisations must balance resilience with innovation and adapt quickly to changing markets and technologies.

ISO Secretary-General Sergio Mujica said ISO 9001, known as the gold standard in quality management, has helped organisations globally to build trust and deliver consistent value to customers.

"I am delighted to announce the publication of the new edition of ISO 9001, a milestone that reflects both the enduring strength of this International Standard and its ability to evolve alongside the needs of organisations worldwide," Mr Mujica said.

"Today's business environment demands even greater agility, and this updated edition ensures the world's most widely used quality management standard continues to provide organisations with an internationally trusted framework to navigate change with confidence."

The new edition introduces targeted updates to improve clarity, usability and relevance while building on the familiar framework organisations already use. It places greater emphasis on leadership, a culture of quality and ethical behaviour, while providing greater clarity on the consideration of risks and opportunities to support better strategic decision-making. A new section also helps users better understand the intent of the requirements and apply them consistently.

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ISO

The standard also adopts the latest Harmonised Structure for ISO management system standards, making it easier to integrate ISO 9001 with other management system standards.

In short here's what you need to know

Ethics and quality culture: Leadership accountability will go beyond processes to building a culture of integrity and trust.

Risk and opportunity clarity: Stronger guidance to separate and manage both effectively.

Climate change and stakeholder focus: Organisations will need to integrate sustainability and environmental risks in their QMS.

Digital transformation: Recognition of AI, IoT, and Industry 4.0 in quality systems.

Alignment with other standards: Easier integration with ISO 14001, ISO 27001 & ISO 45001.

A 3-year transition period is expected, meaning organisations must comply by September 2029.

What this means for businesses

Companies aiming for global competitiveness, especially in regulated sectors like telecom, construction, logistics, and energy, should start preparing now with gap analysis, leadership alignment, and culture readiness.

Whether you're a quality manager, compliance head or business leader, the revision isn't just about ticking boxes, it's about driving resilience, trust, and sustainable growth.

Sam Somerville, Chair of ISO/TC 176 Subcommittee 2 and Convenor of the international working group that led the revision of ISO 9001, said the publication marks the culmination of years of international collaboration and demonstrates the strength of the standards development process.

"Bringing together experts across industries, sectors and countries enabled us to challenge ideas, build consensus and develop a standard that reflects the different realities organisations face today," Ms Somerville said.

"It's incredibly rewarding to see this work come to fruition. We hope organisations around the world will use ISO 9001:2026 to build confidence and create lasting value for the people and communities they serve."

Susan Taylor Martin, Chief Executive, BSI said: "Millions of companies around the world look to ISO 9001 to ensure their operations and activities have quality at the core. This essential standard of best practice helps businesses both improve their productivity and power their growth. In our interconnected world with complex global supply chains, a consistent approach that improves quality has never been more critical. The latest update to ISO 9001 is a testament to continued worldwide collaboration, ensuring the standard remains relevant and fit for purpose. We're proud that BSI has helped drive quality management from a British standard, almost 40 years ago, into the world's most widely used framework for quality we see today."

Organisations already using ISO 9001 will find the new edition represents a natural evolution, helping them build on existing management systems while ensuring they remain relevant, effective and aligned with today's operating environment. ISO 9001 will also be part of ISO's first offering of digitally enhanced content – to be available from 1 October 2026.

ISO 9001 is used across every sector of the global economy, supporting organisations ranging from manufacturers and technology companies to hospitals, universities, governments, financial institutions, social enterprises and small businesses. Its broad adoption has made it one of the world's most widely recognised frameworks for quality management and a common language for organisations operating across international markets.

The publication of ISO 9001:2026 follows extensive international collaboration through ISO's global network of national standards bodies, bringing together experts from around the world to develop a consensus-based framework that reflects evolving business needs and international best practice. ■

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Local manufacturers and suppliers call for reversal and relief from sweeping new tariffs on imported steel, tungsten carbide products and cutting tools as ITAC issues notice calling for comment on proposed new steel tariffs and rebates

PtSA driving appeals for tool, die, mould and special machining sectors.



Local manufacturers reliant on imported high-strength steel tools and suppliers of tungsten carbide products and cutting tools have approached the government for relief from sweeping new tariffs that were introduced in May 2026 following preliminary determinations after the first phase of the review the tariff and rebate structure to protect domestic manufacturing capacity, which was completed last year. Protection on a range of steel products was increased to the World Trade Organisation (WTO) bound rate, which in most cases was 10%, but included tariffs of up to 30% on certain downstream products such as bolts, nuts, screws, rivets and similar products. At the same time, some additional rebates were created for steel products not manufactured in South Africa.

The tariffs now imposed on certain tungsten carbide products and cutting tools have effectively increased the cost of production for local manufacturers that rely on these inputs to produce a wide spectrum of components used by many different industries and not just those involved in metalworking engineering. Virtually anything that you see around you would have at some stage had a cutting tool influence, whether it is your computer screen, your cellphone, your vehicle or the

beverage you drink. This is the reality of what might not be comprehended by those that take these decisions to implement tariffs. It makes it even more bizarre when the majority of the carbide products, high-strength steels and cutting tools that are now subject to a tariff are not produced locally.

Additional requests

ITAC says it received 109 written submissions from interested parties subsequent to the publication of its initial findings in August 2025. After the publishing of Report 764 in May 2026 ITAC notes that there have been further submissions calling for either additional products to be considered for possible duty increases or import controls, as well as requests for the creation of additional rebate provisions.

There is no mention of the objections received by ITAC. But there have been a number and Production Technologies Association of South Africa (PtSA) is one of them acting on behalf of its members.

"The R13 billion local tool, die, and mould-making manufacturing sector requires specialised steel that is currently unavailable from domestic producers. High-strength steel is



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primarily used to manufacture precision cutting tools, such as end mills, drills, and taps, as well as wear-resistant components like piercing and ejection punches,” said Tapiwa Samanga, Group CEO of the Production Technologies Association of South Africa (PtSA).

“We have established that for the tool, die, mould and special machining sectors, the biggest and one of the most urgent impacts is on high-strength steels. We are therefore appealing to the government for a reversal of the applied measures or an expedited, backdated rebate,” continued Samanga.

It is said the local tool, die, and mould-making manufacturing sector is valued at R13 billion per annum, with associated maintenance services contributing another R2 billion per year.

“Because over 85% of TDM demand is currently fulfilled by imports, the value of locally manufactured and supplied tooling (excluding imports) is R2 billion per year,” PtSA notes in a briefing document prepared ahead of its exemption application. “The domestic industry is currently heavily reliant on imported tooling, dies and moulds.”

The Cape Chamber of Commerce and Industry helped facilitate the dialogue in the hope of expediting the process of rebates.

To whom it may concern

One of the leading importers and suppliers of manufacturing tools, machining solutions and knowledge has written to ITAC requesting that the authority review this decision because of the impact of these tariffs has on downstream manufacturing industries. Castings SA has been provided with a copy of a submission that has been sent to ITAC. Herewith a copy of the correspondence.

“I am writing to formally express concern regarding the tariff measures implemented and gazetted with effect from 15 May 2026, which were introduced with the objective of safeguarding and supporting the South African steel and automotive manufacturing sectors. According to SARS’ tariff amendment notice, these measures increased customs duties on various tariff subheadings under Chapters 72, 73, 82 and 83 following ITAC Report 764.”

“While we fully support initiatives aimed at strengthening local industrial capacity and encouraging domestic manufacturing, the current tariff structure is having significant unintended consequences for the South African cutting tool industry and the broader manufacturing sector. The tariffs now imposed on certain tungsten carbide products and cutting tools have effectively increased the cost of production for local manufacturers that rely on these inputs to produce automotive components, engineering products, mining equipment, aerospace components, and other value-added manufactured goods. Industry discussions and internal business assessments indicate that ITAC-related tariffs have become an additional landed-cost layer.”

“Tungsten carbide cutting tools are not merely imported finished goods competing against local production. They are essential production inputs enabling precision machining, productivity, quality control, and competitiveness within South African manufacturing operations. Unlike many consumable products, cutting tools directly influence the efficiency and cost competitiveness of local manufacturers who compete both domestically and internationally.”

“The consequence of the current tariff regime is that downstream manufacturers face:

- Increased production costs.
- Reduced competitiveness against imported finished components.
- Higher costs for export-oriented manufacturers.
- Reduced investment attractiveness in local manufacturing operations.
- Increased pressure on small and medium-sized engineering businesses already operating under challenging economic conditions.”

“In many instances, the tariffs do not promote meaningful localisation, equivalent technology, performance levels and

production capacity are not available locally. Instead, the tariffs create additional costs for manufacturers without delivering corresponding benefits in local industrial development. This situation is particularly concerning for the automotive component sector, where South Africa’s competitiveness depends on maintaining globally competitive production costs and productivity levels.”

“Modern carbide tooling is a critical enabler of advanced manufacturing and Industry 4.0 production environments. Any increase in tooling costs is ultimately reflected in higher component costs, reducing South Africa’s attractiveness as a manufacturing destination.”

“Furthermore, the timing of these tariff increases coincides with significant increases in global tungsten carbide and cobalt input costs, as well as broader supply chain pressures experienced throughout 2025 and 2026. The additional tariff burden compounds these cost pressures and amplifies their impact on local manufacturers. Internal industry analyses have specifically identified tungsten, cobalt, and ITAC-related tariffs as cumulative cost drivers affecting the carbide tooling supply chain.”

“We respectfully request that ITAC undertake a review of the impact of these tariffs on downstream manufacturing industries and consider:

1. Excluding tungsten carbide raw materials and semi-finished carbide products from the tariff scope.
2. Implementing rebate provisions for manufacturers who utilise carbide tooling in the production of export goods until or if the tariff is fully removed.
3. Introducing tariff exemptions where no equivalent local manufacturing capability exists.
4. Conducting a comprehensive economic impact assessment on downstream industries before further tariff expansions are considered.
5. Engaging directly with stakeholders from the cutting tool, engineering, metalworking, mining equipment and automotive component sectors.”

“South Africa’s industrial policy objectives should support the entire manufacturing value chain rather than unintentionally increasing costs for industries that create employment, drive exports, and contribute to economic growth.”

“We remain committed to supporting local manufacturing and industrial development. However, we believe the current tariff measures require reconsideration to ensure that they do not undermine the competitiveness of the very manufacturers they seek to protect. We would welcome the opportunity to participate in any consultation process and to provide further information regarding the impact these measures are having on the cutting tool and precision manufacturing sectors.”

New comment document

Subsequent to ITAC’s shock publication in May 2026 it has now published another notice on 18 September 2026 (NOTICE 4157 of 2026) where it has proposed increasing customs duties on several steel products to their respective World Trade Organisation (WTO) bound rates. The proposed increases cover a range of products.

However, ITAC has also proposed new rebate provisions for certain steel products that are not available in the Southern African Customs Union (SACU) market. Products classified under tariff headings 82 and 83, which cover cutting tools and industrial blades, are now being considered for the full 20% rebate provision.

The notice calls for interested parties to make comment. Interested parties have until 16 October 2026 to submit representations.

ITAC has stressed though that final determinations would be made only once the Commission had considered comments on the preliminary determinations. ■

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Ford South Africa embraces its “second century” with a bold declaration of its commitment to South Africa

Also calls for fairness amid growing competitive pressure.

In 2023 Ford Motor Company of Southern Africa marked a century in South Africa. Today, it marks something different: Intent; with the release of a bold new corporate manifesto that draws a line under its clear, sustained commitment to South Africa, customers and dealers and an enhanced commitment to champion the critical role industrialisation plays in our country's future.

“Today we draw a line in the sand. We're declaring that the intention for our second century in South Africa is to be an unwavering champion of industry and industrialisation as drivers of shared value. We call on government, industry bodies and stakeholders to come together to ensure local automotive manufacturing can compete on a fair, strong and level playing field domestically and globally,” said Neale Hill, President of Ford Motor Company, Africa Operations.

“We're fully aware that when you mark a milestone moment, the instinct can be to look backwards. But, looking backwards isn't what is needed for our economy and the future of South Africa's automotive industry. As we face one of the most existential shifts in our lifetime, we know that we must move beyond simply honouring the past, to a focusing on driving absolute clarity about our vision for the future,” said Hill.

“Many companies can claim to be invested corporate citizens, but few can back this up with proven actions that cut across generations. This manifesto is not a ‘marketing moment’; it's a purposeful signal from Ford that we're shifting from being focused on a milestone to an absolute and sustained focus on driving national momentum. We're making the strongest promise we can as the oldest OEM in our country,” he said.

A call for fairness amid growing competitive pressure

Beyond sentiment, this manifesto carries a pointed policy message. “Ford South Africa has never simply been a manufacturer operating within this country, we are, and have always been, a builder of industry, of skills, of communities and of national capability,” said Hill.

“This manifesto is our declaration to South Africa: We will continue to invest, to build and to employ. Equally we will continue to support the need for policy and regulatory conditions that allow local manufacturers to compete fairly against those who simply import vehicles into this market.”

Ford's manifesto calls on government, industry bodies and stakeholders to work together to close this gap, including through the ongoing development of programmes such as the second phase of the Automotive Production and Development Programme (APDP2), to ensure that companies who invest



capital, create jobs and build local skills are not placed at a structural disadvantage to those who do not share the same commitment to the country.

“We are actively engaged in these discussions, because the future of this industry – and the hundreds of thousands of livelihoods that depend on it. This relies on getting this balance right,” said Hill. “This is not about protectionism for its own sake. It is about ensuring that the enormous investments already made in this country, and the investments still to come, are not undermined by uneven operating realities.”

A call to action

With this manifesto, Ford South Africa is calling on government, policymakers, industry partners and fellow manufacturers to join in advocating for a regulatory framework that supports local industrialisation, protects existing investment, and creates the conditions for continued growth. Ford believes that a fair and level playing field is not only good for manufacturers; it is essential for the millions of South Africans whose livelihoods, directly and indirectly, depend on a thriving local automotive industry.

“The manifesto will roll out across brand, dealer and internal communications channels, reinforcing Ford South Africa's broader commitment to local manufacturing, export growth and community investment. It is the most visible commitment we can make that says Ford South Africa remains committed to building on its century-long legacy, and to being a vocal, active and consistent advocate for an automotive industry that is strong, competitive and built to last in South Africa, for South Africa and built by South African hands,” said Hill. ■

Specialist chemical manufacturers, DZanetech provides bespoke products, consulting and technical support to local industries.



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Transnet looks for partner to expand manganese corridor and export terminal

Will be required to develop and operate a new manganese export terminal for 25 years, as it seeks to expand the mineral's export capacity by 20%.

Transnet has begun the process of selecting a private-sector partner to upgrade the rail route from the Northern Cape manganese fields to Ngqura and develop a new export terminal at the port. The project could require investment of R30 billion to R44 billion over a proposed 25-year partnership, according to Transnet's request for qualification (RFQ), issued on September 23.

The Ngqura Manganese Export Corridor links Hotazel in the Northern Cape to the Port of Ngqura in the Eastern Cape over approximately 1 100km of rail.

The project formed part of a programme to attract private investment, improve freight services and expand capacity, Transnet said in a statement.

The RFQ is the first stage of selecting a partner. Applicants will need to demonstrate that they have the financial resources and technical and operating experience required. Those that qualify will be invited to submit detailed proposals.

Estimated investment includes R10 billion to R20 billion for rail infrastructure, approximately R16 billion for the new manganese terminal and around R4 billion for train operations and rolling stock, according to the RFQ. These amounts remain indicative, with final requirements to be confirmed during the proposal stage.

The corridor would initially target the movement of approximately 12 million tons of manganese a year, potentially increasing to 16 million tons as demand and investment allow, the document states.

The planned terminal would have capacity to handle approximately 14.7 million tons a year initially, with provision to expand to around 16 million tons. This is the terminal's handling capacity, distinct from the initial volume targeted for the corridor.

What is manganese used for?

Manganese is a versatile element primarily used to make steel stronger, manufacture batteries, and support plant and human health. Manganese acts as a deoxidiser and desulphuriser to remove impurities, greatly increasing the strength, hardness, and wear resistance of steel and iron.

Manganese is a vital alloying agent, deoxidiser and

desulphuriser in the foundry industry used to improve the strength, toughness, and wear resistance of cast metals.

Produced without manganese, steel breaks up when hot-rolled or forged. Steels generally contain less than 1 per cent manganese. Manganese steel is used for very rugged service, containing 11 to 14 per cent manganese, it provides a hard, wear-resistant, and self-renewing surface over a tough unbreakable core.

Pure manganese produced electrolytically is used mostly in the preparation of nonferrous alloys of copper, aluminium, magnesium, and nickel and in the production of high-purity chemicals.

Practically all commercial alloys of aluminium and magnesium contain manganese to improve corrosion resistance and mechanical properties.

South Africa is the world's top manganese exporter, having shipped about 26 million metric tons in 2025, according to the Minerals Council.

Manganese export activities currently spread across the Nelson Mandela Bay port system would gradually be brought together at the new facility, according to Transnet's plans. This consolidation was expected to reduce road congestion, cargo

handling movements and dust emissions, Transnet said. The proposed partnership would use two separate companies, with different responsibilities.

The first would develop and operate the terminal and manage rail freight services, including trains and customer relationships. Transnet would own 51% of this company, while the selected private consortium would hold 49% through a holding company, according to the RFQ.

The second would be wholly owned by the consortium's holding company and would finance, repair and maintain the rail infrastructure.

It would be paid under an agreement with the Transnet Rail Infrastructure Manager (TRIM), linked to making the infrastructure available at agreed performance standards.

Ownership of the rail infrastructure would remain with TRIM. The proposed ownership arrangements, investment requirements and partnership term may still be refined during the procurement process, the RFQ states.

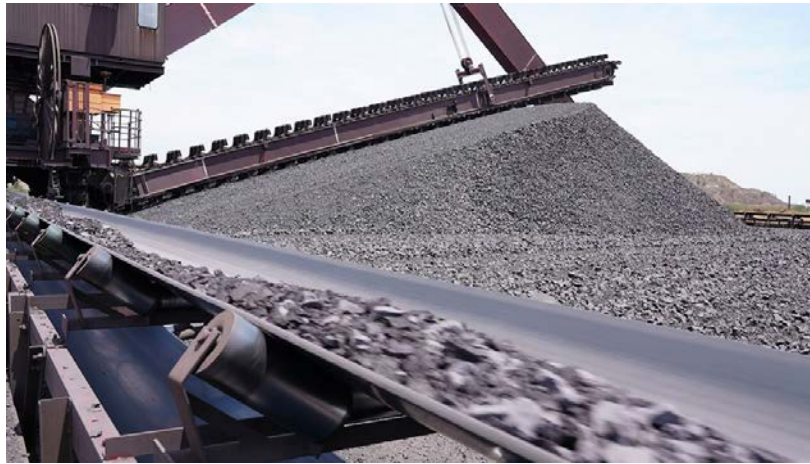


Photo United Manganese of Kalahari

SPS positive about participation at Electra Mining Africa 2026



Brian Bakkes, Kosta Kousiakis and Wayne Bakkes, all of SPS – Scientific & Precision Solutions, on the company's stand at Electra Mining Africa 2026

“With the mining industry worldwide changing rapidly, the industry is balancing the need for productivity and competitiveness. Along with this are growing expectations around safety, sustainability and responsible operations, all aspects that have not been neglected in the past but with today’s AI accessible communication channels, they are more at the forefront of many more individuals, companies, organisations and advocates’ campaigning for reform and change. It is therefore important to be seen by the industry as embracing these aspects,” said Kosta Kousiakis of SPS (Scientific and Precision Solutions), a supplier of high-quality laboratory instruments, equipment and consumables used in many different industrial, biological, life science, analytical and general laboratories.

“Mining is one of these industries that we supply equipment and services to – equipment that offers accurate and efficient results that help the mining industry operate with confidence and satisfaction in the areas of sample preparation, mineral processing, geotechnical testing and analysis of alloy composition.”

“Electra Mining Africa 2026 took place at the Johannesburg Expo Centre (Nasrec) from 7–11 September 2026, drawing 41 390 visitors and over 1 000 exhibitors and SPS was one of those exhibitors. The exhibition is one of Southern Africa’s leading platforms for mining, manufacturing, automation, power and transport innovation.”

“This is the second time that we have participated at this particular exhibition. Another important exhibition for us is

analytica Lab Africa, which only takes place again in 2027.”

“As is the case with many exhibitors the objective of our decision to exhibit was to generate sales leads and build brand awareness, both aspects that drive business growth. And yes, we did achieve these objectives.”

“There are many other positive reasons and benefits as to why you take space at an exhibition. They all form part of an overall strategic marketing campaign but one of the biggest advantages is to show your products and to make first hand contact with a possible new client. There is also the networking and communication aspect.”

“Not to be negative but there are also combined risks of high costs, poor lead quality, and intense competitor pressure that could mean that participating at an exhibition can sometimes harm your business more than it helps it. But if you have prepared and participate with a positive attitude these negatives do not come into the equation.”

“Seeing the strong turnout and meaningful conversations that we had has been truly rewarding. Attendees were mainly from South Africa but we did make contact with international visitors. It is still too early to talk about any notable success stories as we still have many follow-ups to do.”

“Overall it was a progressive and constructive exercise for SPS and we are confident that we will participate at the next Electra Mining Africa, which takes place in 2028.”

For more information contact SPS – Scientific & Precision Solutions on TEL: 011 916 5000 or email info@spsrsa.co.za or visit website www.spsrsa.co.za

Investment holds the key to South Africa's steel demand outlook



Steel demand is showing resilience despite weak GDP growth, but a sustained recovery will depend on investment moving from project announcements to actual construction and steel consumption, according to an opinion in the South African Iron and Steel Institute Steel Matters.

South Africa's economy remains in a low-growth environment, with the latest national accounts pointing to weaker momentum. Real GDP grew by 1.1% in 2025 and increased by 0.4% quarter-on-quarter in Q1 2026, before contracting by 0.2% in Q2. The contraction was broad-based, with trade, manufacturing and mining among the largest negative contributors. While household and government consumption each increased by 0.4%, this was more than offset by a deterioration in net exports as imports rose 4.9%, compared with 0.9% growth in exports.

For the steel industry, however, the more important indicator is fixed investment. Gross fixed capital formation was equivalent to approximately 13.7% of GDP in 2025 and declined a further 0.2% quarter-on-quarter in Q2 2026. Investment in construction works fell 4.0%, transport equipment 3.4% and transfer costs 7.9%, partly offset by higher investment in machinery and other equipment.

This remains a key constraint on the steel demand outlook. Infrastructure development, electricity transmission, renewable energy, logistics and industrial projects offer the strongest potential sources of incremental steel demand.

The critical issue is execution. Announced investment only translates into steel demand once projects move into procurement, construction and physical implementation. The continued decline in fixed investment suggests that this transmission has yet to gain sufficient momentum.

Steel consumption indicators are nevertheless more encouraging. Apparent steel use (ASU) increased 2.5% in 2025 to 4.55 million tons and is forecast to increase a further 4.9% in 2026 to 4.78 million tons. Real steel use (RSU), a stronger measure of underlying consumption, increased 4.3% in 2025 to 4.58 million tons and is expected to rise by a further 4.5% in 2026 to 4.78 million tons.

The inventory cycle also provides some support. Steel stocks declined in 2025 and are expected to fall further in 2026, indicating that consumption is drawing down inventories rather than generating significant stock accumulation. If end-user demand remains firm, depleted inventories could eventually require replenishment, providing an additional lift to steel orders.

The medium-term outlook is therefore more constructive than the weak GDP environment suggests. ASU is projected to grow at a compound annual rate of 3.7%, while RSU is forecast to expand by 4.4%. Faster execution of infrastructure and industrial projects could provide further upside to these projections.

However, the market remains exposed to high electricity and logistics costs, import competition and potential trade diversion. These factors will continue to influence the competitiveness of domestic steel producers and downstream manufacturers and could limit the extent to which improving demand translates into higher domestic production.

The key message for 2026–27 is that steel demand is improving, but investment execution will determine whether the recovery becomes sustained. Infrastructure and industrial projects provide the clearest upside, while the Q2 contraction in GDP and fixed investment highlights the continuing gap between announced investment and actual economic activity. ■

SAIF 60th Annual Awards Dinner 2026

The South African Institute of Foundrymen invites you and your customers to the 2026 Annual Awards Dinner to be held at Summer Place, Boksburg, located on Cnr Elizabeth and Leith Road, Bartlett, Gauteng on Thursday 29 October 2026.

This is the 60th occasion that the SAIF Annual Awards Dinner will take place. Various awards are handed out to

industry including the Insimbi Alloy Supplies Award for the best first year university student in metallurgy, the Fosco Award for the best final year university student in metallurgy and the Lauds Technical Award for the best technical presentation by a SAIF Member. If there are candidates nominated or qualify an Honorary Life Member Award will be given and the A H Guy Award will be given to a candidate who has done exemplary service for the South African foundry industry.

Learners who have successfully completed a minimum of seven (7) modules from the SAIF Foundry Technology Modular Programme are invited as VIP guests to the Annual Awards Dinner. This event serves as a platform to recognise their outstanding achievements. Students who meet the minimum module requirements must notify the SAIF office for verification.

The Annual Awards Dinner is a formal occasion. Please advise your party of the dress requirement i.e. Black Tie. The ladies' dress is also formal.

Date and Time: Thursday, 29 October 2026, 18:15hrs for 18:45hrs (6:15pm for 6:45pm)

Venue: Summer Place, Boksburg

Address: Located on Cnr Elizabeth and Leith Road, Bartlett, Gauteng

Dress: Black Tie formal

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Scaw's hot strip mill reaches new heights as production and efficiency continue to improve

The new hot-strip mill complex makes use of many modern, Danieli Green Steel technologies, from melting through finishing.

Since producing its first hot rolled coil in late 2024, Scaw Metals' Hot Strip Mill (HSM) at its Union Junction complex has progressed steadily from commissioning and product qualification into a rapidly maturing operation that is now delivering meaningful volumes to the South African flat steel market.

The R5 billion steel investment, which has been 75% funded by Absa and Investec and 25% funded by the State-owned Industrial Development Corporation, is the first new flat-steel mill to be built domestically since Saldanha Steel in the 1990s, but which has since been mothballed. The project is expected to increase Scaw's overall steelmaking capacity from about 500 000 tons per year to 750 000 tons per year once fully ramped up.

The Barnes Group acquired Scaw Metals, together with its Haggie and McKinnon Chain units, in May 2018.

The commissioning of the Hot Strip Mill marked a significant milestone for both Scaw and South Africa's steel industry. As the country's first new flat-steel mill to be commissioned in decades, the investment reintroduced competition into the local flat steel market and expanded Scaw's product offering beyond its traditional long-steel portfolio.

From the outset, management recognised that ramping up a modern flat-steel mill would require a phased approach focused on process optimisation, product quality and operational stability. Since its original production commenced in October 2024, the mill has gradually increased output as production teams worked through commissioning challenges, system integration requirements and the development of capabilities across a range of thin-gauge hot rolled coil products.

The ramp-up journey has demonstrated the effectiveness of Scaw's execution strategy. The construction phase was completed with commendable schedule adherence, supported by a management approach that ensured key decision-makers remained closely involved on site.

This enabled challenges to be resolved quickly and efficiently, avoiding lengthy approval processes and helping the business maintain momentum throughout the project.

Over time, production volumes have increased

consistently as operational experience has grown and processes have stabilised. Following the commissioning period and subsequent optimisation initiatives, the mill is now operating at significantly higher levels than during its early production phases and is currently producing approximately 25 000 to 30 000 tons of hot rolled coil per month. This represents a major achievement when compared with initial startup volumes and reflects the significant progress made by operating, maintenance and technical teams over the past two years.

Equally encouraging has been the steady improvement in mill yields and product quality. During the commissioning phase efforts focused strongly on quality control, process discipline and achieving tighter operational control across different product specifications. As a result, yields have improved progressively over time as operators gained experience and operational efficiencies were achieved across various hot rolled coil gauges and dimensional tolerances. These improvements have reduced process losses, enhanced product consistency and strengthened the mill's overall competitiveness.

The progress is particularly noteworthy given the challenging market conditions encountered during the ramp-up phase. The HSM entered a highly competitive market environment characterised by imported material, pricing pressure and aggressive volume strategies from established producers. Delays in the implementation of safeguard measures also contributed to increased import competition during the mill's early operating period. Despite these headwinds, Scaw continued to build market presence while simultaneously improving its production performance and product quality.

Looking ahead, the outlook for the Hot Strip Mill remains positive. Although some safeguard protections and anti-dumping measures are in place to supporting the domestic market, much more is required to provide a sustainable environment for local producers to prosper and protect local sales volumes and pricing. Combined with ongoing operational enhancements and continued yield improvement, the mill is well positioned to increase its contribution to Scaw's broader growth strategy and to South Africa's manufacturing sector. ■



The new hot-strip mill complex makes use of many modern technologies, from melting through finishing

AMSA, Veolia and Norfund partner

ArcelorMittal South Africa (AMSA), Veolia and Norfund, have entered into a development agreement to advance a portfolio of practical, investable energy, water and resource-efficiency projects across AMSA's South African operations.

The agreement launches a structured project development programme intended to convert identified decarbonisation and resource efficiency opportunities into technically sound, commercially viable and potentially bankable projects. By combining AMSA's industrial capabilities with Veolia's technical and operating expertise and Norfund's investment experience, the partnership will support the development of projects capable of attracting the capital and specialist expertise required for implementation.

Together, these projects have the potential to strengthen AMSA's operating resilience and cost position, with wider benefits for the competitiveness and sustainability of primary domestic steel-making and South Africa's industrial capability.

Initial priority projects include the recovery and use of blast-furnace gas and the optimisation and modernisation of AMSA's steam and power-generation infrastructure. Capturing and reusing gases already produced during steelmaking will reduce flaring, lower reliance on externally purchased fuel and improve the carbon and cost efficiency of AMSA's operations.

Modernising steam and power infrastructure will also improve energy

performance, operational reliability and production resilience. The broader collaboration will assess opportunities in renewable energy, water optimisation, wastewater treatment, resource recovery and other energy and efficiency initiatives across AMSA's operations.

By integrating energy, water and resource management within a coordinated development programme, the partnership reflects the Veolia-Norfund investment Platform's approach ►



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ArcelorMittal South Africa has partnered with environmental services company Veolia and Norwegian developing country investment fund Norfund to accelerate decarbonisation and resource-efficiency projects

to sustainable industrial infrastructure in Africa: Combining project development, technical capability, financing expertise and long-term operational experience. It also contributes to a broader environmental security of South Africa, by helping strengthen the resilience of essential resources and industrial systems in the face of growing environmental and climate-related pressures.

The programme will now proceed through detailed technical, commercial, financial and environmental assessment. The objective is to build a credible portfolio of practical, financeable projects capable of improving resource efficiency, supporting decarbonisation and strengthening the environmental security and resilience of South Africa's industrial sector. ■

IDC responds to Sunday Times article 'How IDC lost R1.5 bn on dud steel plant'

The Industrial Development Corporation (IDC) notes the article published in the 27 September 2026 edition of the Sunday Times carrying the headline 'How IDC lost R1.5 bn on dud steel plant'.

"This article infers that the IDC may have engaged in reckless lending which ultimately resulted in loss of public funds. In efforts to recover its funds, the Corporation identified several material breaches by parties involved in this transaction."

"Accordingly, IDC is currently pursuing active criminal and civil proceedings against SA Steel Mills in efforts to recover its investment in the business."

"Further to this, the IDC confirms that it has been engaged in labour-related matters with its employees to determine their roles and extent of negligence among other issues related to this transaction."

"However, due to our governance processes, confidentiality and respect for labour and employee relations, we can't comment further on the status of the process."

The background

The establishment of SA Steel Mills was due the dilemma of unpredictable supply for Vereeniging based company Pro Roof Steel and Tube. Management decided to secure the majority of their steel supply with an investment in a greenfield steel manufacturing mill. The company had previously set up a smaller mill in Vereeniging producing 50 000 tons a year but this was not enough capacity, even just for its own consumption.

Planning and construction of a state-of-the-art facility for the group began in earnest with the acquisition of a 57 hectare site in Meyerton, which is about 14kms from the Pro Roof Steel and Tube plant in Vereeniging. The fully developed site with existing 120 megawatt line power was cleared of unwanted structures and development of a 300 000m² under roof facility began. Structural and cladding operations were finished in 2018 and the rest of construction and installation of manufacturing and related equipment was finished in 2020.



The Financial Breakdown

It has been reported by Mail & Guardian that initial funding approved by IDC was R514 million in 2017 for a plant expansion project in Meyerton. Staggered disbursements over several years pushed total public exposure past R1 billion, soaring to R1.5 billion including accrued interest.

SA Steel Mills concluded several loan agreements with the IDC, including a R108 million construction loan in 2017, a R356 million facility in 2017, a R245 million facility in 2019 and a R404 million working capital loan in 2022, bringing total IDC exposure to about R1.1 billion.

Business rescue

SA Steel Mills entered business rescue in July 2024, resulting in over 1 100 job losses and prolonged non-payment of workers, while facing a major financial and forensic scrutiny over R1.1 billion in public funding from the IDC. Reports of stalling the process have been in the news since.

It has also been reported earlier this year by Mail & Guardian that former SA Steel Mills owner Rafik Mohamed was arrested and granted R100 000 bail by the Palm Ridge Commercial Crimes Court on charges of fraud, theft, and contravening the Companies Act. Meanwhile, internal IDC disciplinary inquiries led to the dismissal and sanctioning of senior and junior officials over weak due diligence and compliance failures. ■



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South African Human Rights Commission recommends a mandatory cashless payment requirement for all copper scrap transactions

The recommendation comes against the backdrop of an illicit copper trade that costs South Africa more than R45 billion a year. Says infrastructure vandalism should be treated as a human rights crisis.

The South African Human Rights Commission (SAHRC / the Commission) launches its policy brief, Infrastructure Vandalism as a Human Rights Crisis: Copper Cable and Scrap

Metal Theft, Regulatory and Enforcement Gaps, and the Erosion of Socio-Economic Rights.

The brief calls for infrastructure vandalism and illicit metals trading to be understood not only as criminal and economic concerns, but as matters with direct consequences for constitutional rights. To download the full policy brief click here: <https://bit.ly/4yJX12L>.

Public infrastructure is one of the principal means through which rights are realised. When water systems, electricity networks, schools, clinics and transport infrastructure are stripped or damaged, communities experience the consequences through interrupted water supply, electricity outages, compromised health services and disrupted education.

The Commission's concern therefore extends beyond the underlying criminal act. Where vandalism is recurring and foreseeable, the human-rights inquiry must also consider whether reasonable measures are being taken to prevent harm, regulate the relevant industries, disrupt organised networks, restore services and protect affected communities.

R45 billion annually

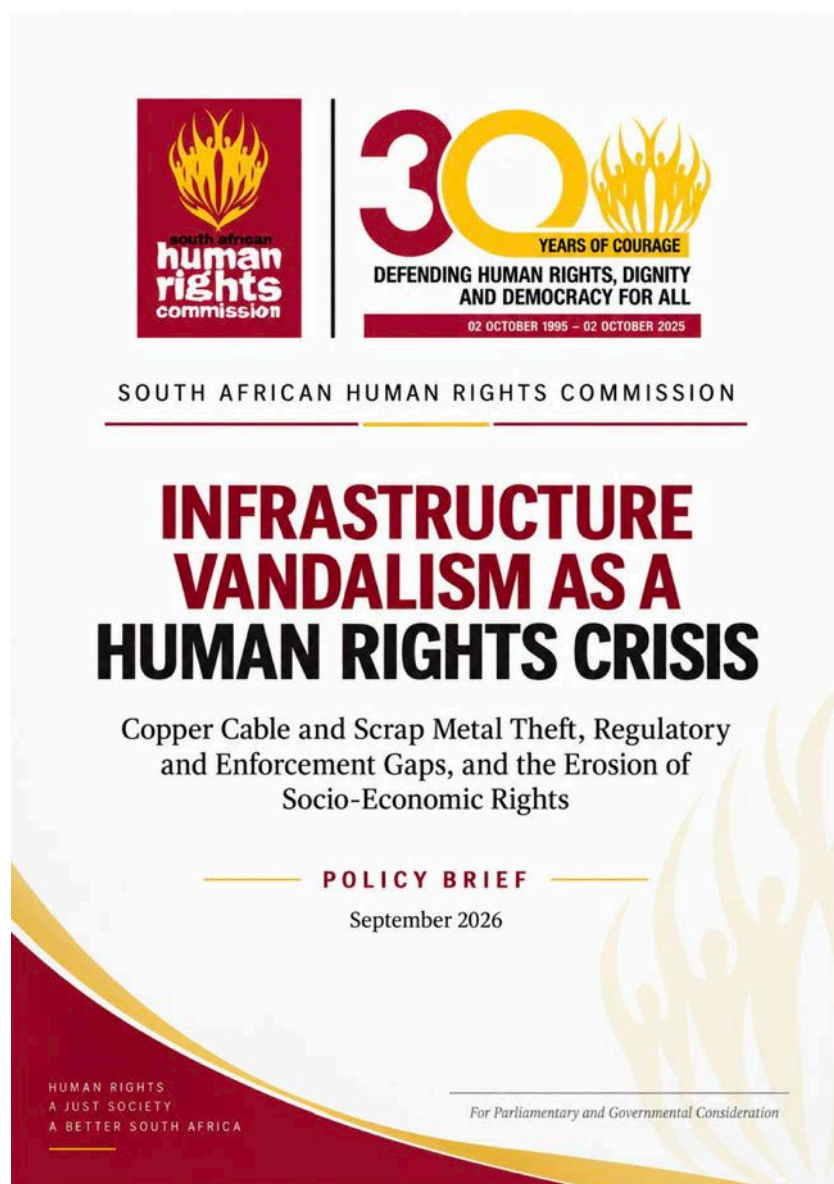
The scale of the problem remains significant. Research by Genesis Analytics, commissioned by the Department of Trade, Industry and Competition, has estimated the economic damage associated with copper theft at more than R45 billion annually.

The Commission's own work has also encountered the service-delivery consequences directly. For example, in June 2026, OR Tambo District Municipality informed the SAHRC that vandalism and copper theft were significant contributors to deterioration of water infra-structure and disruptions to water services.

The Commission is particularly concerned that these harms are not equally distributed. Poor, rural and informal-settlement communities often have the fewest alternatives when essential services fail, deepening existing inequality.

South Africa already has a substantial legal and regulatory framework, but important reforms remain incomplete.

Draft amendments published in July 2024 proposed stronger seller registration, electronic reporting and electronic payments. ►



The Commission also notes Cabinet's announcement on 26 August 2026 regarding a proposed Second-Hand Goods Amendment Bill, but at the time of publication no gazetted Bill had been identified.

The Commission therefore recommends urgent finalisation of outstanding reforms, stronger transaction traceability and seller verification, and enforcement directed at the entire illicit value chain, including organised networks, receiving dealers, facilitators and illicit financial flows.

Organs of state must also treat infrastructure protection, restoration and service continuity as part of their constitutional responsibilities, while businesses in the scrap-metal value chain should undertake appropriate human-rights due diligence and verify the lawful origin of materials.

The SAHRC will now engage Parliament, government, law-enforcement agencies, regulators, municipalities, State-owned entities and industry stakeholders on implementation of the recommendations. The theft of copper may begin as a criminal act, but its consequences extend far beyond the stolen material. When infrastructure fails, human rights ultimately fail with it.

The SAHRC says cash transactions make it harder to trace where stolen copper comes from and where the money from its sale goes.

It wants electronic payments to create a transaction trail that can be used by regulators and law enforcement to identify suspicious activity.

Mandate cashless transactions

"Cash transactions reduce traceability and can facilitate the movement of stolen metal through

apparently legitimate transactions."

"The Commission recommends that the Second-Hand Goods Act 6 of 2009 (SHGA) amendments include a mandatory cashless payment requirement for all copper scrap transactions, with electronic records retained for a minimum of five years," the Commission said.

The SHGA regulates second-hand goods dealers and recyclers. Although the Act contemplates registration of both buyers and sellers of scrap and waste metal, this requirement has been enforced against buyers but not sellers. ■



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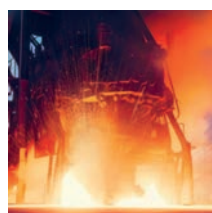
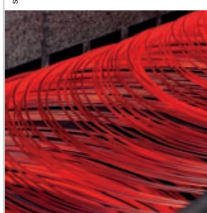
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Why metal recycling matters to South Africa's Industrial Development Strategy

RASA, together with the MRA, issue joint statement.

South Africa's Industrial Development Strategy (IDS) is focused on strengthening local industry and supporting inclusive economic growth. For the metal recycling sector, the strategy is particularly relevant because recyclers form part of the industrial value chain, recovering and processing scrap that becomes secondary raw material for steel mills, foundries and downstream manufacturers.

At the IDS Colloquium held by Parliament's Portfolio Committee on Trade, Industry and Competition in August, the Recycling Association of South Africa (RASA), together with the Metal Recyclers Association of South Africa (MRA), presented the metal recycling sector's perspective on the IDS.

According to the sector's presentation, South Africa processes an estimated 2.5 to 3 million tons of scrap annually. The industry supports more than 70 000 formal jobs and contributes to the livelihoods of an estimated 300 000 to 400 000 informal waste pickers.

"The metal recycling sector is an important part of South Africa's industrial value chain. If we want to strengthen local industry, we also need to create the conditions for recyclers to recover, process and supply more material into that industry,"

says Quintin Starkey, Chairman of the Metal Recyclers Association of South Africa (MRA).

A key issue raised by the MRA and RASA is the need for greater policy coherence across the recycling and industrial value chains. Policies affecting the availability and movement of scrap can influence investment, employment, recovery volumes and the supply of secondary raw materials to local manufacturers.

The sector's contribution extends beyond formal recycling businesses. Recognising the role of informal collectors and waste pickers, while supporting investment in infrastructure, skills, technology, and stronger markets for recovered materials, will be important for building a more inclusive industrial value chain.

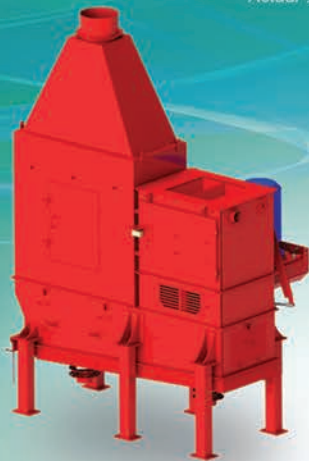
For MRA members, the engagement provided an opportunity to put the realities of the recycling sector directly into the industrial policy discussion. The message from the MRA and RASA is that scrap suppliers should be recognised as a legitimate part of South Africa's industrial value chain, with policy that supports material recovery, job creation and the supply of recycled material to local industry. ■



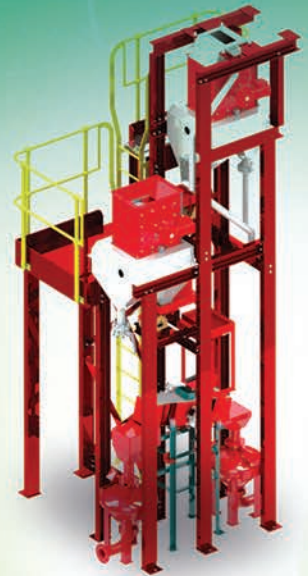
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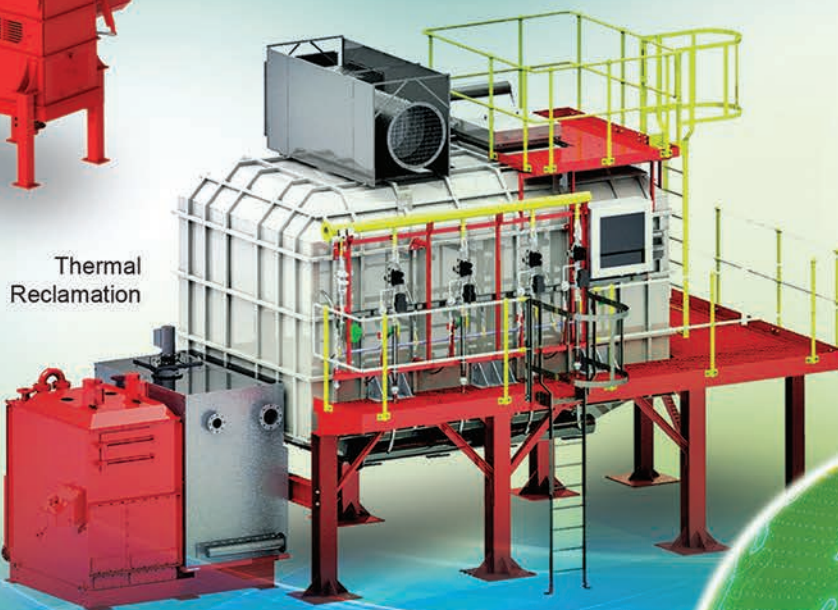
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Preparedness of automated and semi-automated South African green sand foundries for Industry 4.0: Challenges, opportunities and the way forward

South African foundries supply cast components to mining, automotive manufacturing, rail transport and capital equipment industries. Their competitiveness depends on consistent casting quality, reliable delivery and effective control of production costs. These requirements create a need to improve process visibility, reduce avoidable variation and strengthen traceability across manufacturing operations. Industry 4.0 offers opportunities to address these needs by connecting process measurements, equipment signals and quality records to support timely, evidence-based decisions.

Farai Banganayi of the Metal Casting Technology Station, University of Johannesburg and Annirudh Chowdhary of MPM Infosoft Pvt Ltd, Chennai, India recently presented a paper giving a comparative assessment of advantages, challenges, and opportunities. The paper is entitled: Preparedness of Automated and Semi-Automated South African Green Sand Foundries for Data Analytics and Industry 4.0: Challenges, opportunities and the way forward.

Below is the abstract of the paper from the recent technical presentation at the South African Institute of Foundrymen's technical evening and the conclusion.

Abstract

South African green sand foundries face increasing pressure to deliver consistent casting quality, control

production costs and strengthen participation in local and export supply chains. Their preparedness for data analytics and Industry 4.0 depends on the reliability and integration of process information, workforce capability and decision governance, alongside the extent of automation. This paper presents a narrative assessment of automated and semi-automated green sand foundries using South African sector sources, manufacturing readiness research and an industrial case study.

A five-stage preparedness framework and a phased implementation pathway are proposed.

Available evidence indicates a substantial contraction in foundry numbers between 2003 and 2020, while automotive production and export activity continue to create requirements for competitive local supply. Common barriers include fragmented laboratory and equipment records, weak casting

traceability, legacy interfaces, skills gaps and difficulty demonstrating investment returns. Automated foundries have greater opportunities for continuous data acquisition, whereas semi-automated plants can begin with structured laboratory and operator records and selective instrumentation.

A five-stage preparedness framework and a phased implementation pathway are proposed. Sandman is introduced as a Green Sand AI platform that can address the process information and decision-support gaps through integration, multivariate analysis, predictive monitoring and supervised corrective recommendations. A South African foundry case



reports improved capability and lower variability across seven sand parameters following a Foundry 4.0 intervention. These results illustrate the potential operational value of connected sand control, while aggregate observational data limit causal and economic conclusions. The way forward combines plant-level readiness assessment, practical pilot projects, workforce development and sector support for competitive, measurable digital adoption.

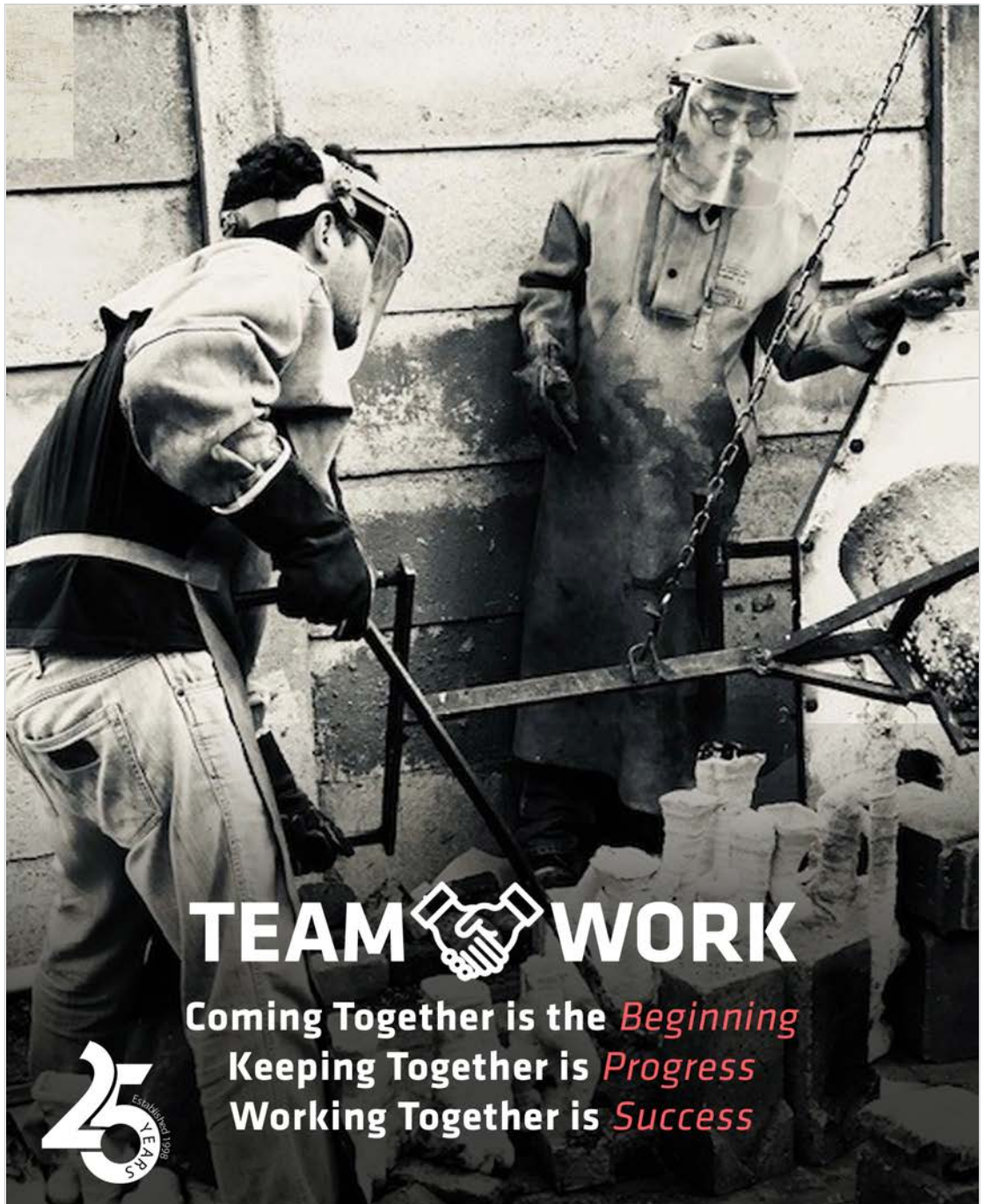
Conclusion

The preparedness of automated and semi-automated South African green sand foundries is uneven and must be established through plant-level evidence. Available foundry indicators show a contracted industrial base, while downstream manufacturing and localisation objectives create a continuing need for quality, cost and delivery competitiveness. Fragmented process records, weak traceability, legacy interfaces and skills gaps limit the conversion of existing measurements into useful analytical decisions.

Both automation categories can begin a phased transition. The immediate priorities are consistent measurement, structured records, common identifiers and an agreed response workflow. Advanced prediction and prescription should follow locally validated data and demonstrated process value. Sandman offers a potential Green Sand AI platform solution to these operational gaps while complementing existing equipment and expertise.

The supporting South African case reports improved capability and reduced dispersion across seven sand parameters after a Foundry 4.0 intervention. It illustrates potential value without establishing national readiness, causal AI effectiveness or quantified rejection savings. The way forward is to combine targeted pilots, workforce development, sector support and verified outcomes, then scale the capabilities that the plant can sustain.

A full version of the paper is available from the Metal Casting Technology Station at the University of Johannesburg. For more information TEL 011 559 6952 or email mcts@uj.ac.za. ■



TEAM  WORK

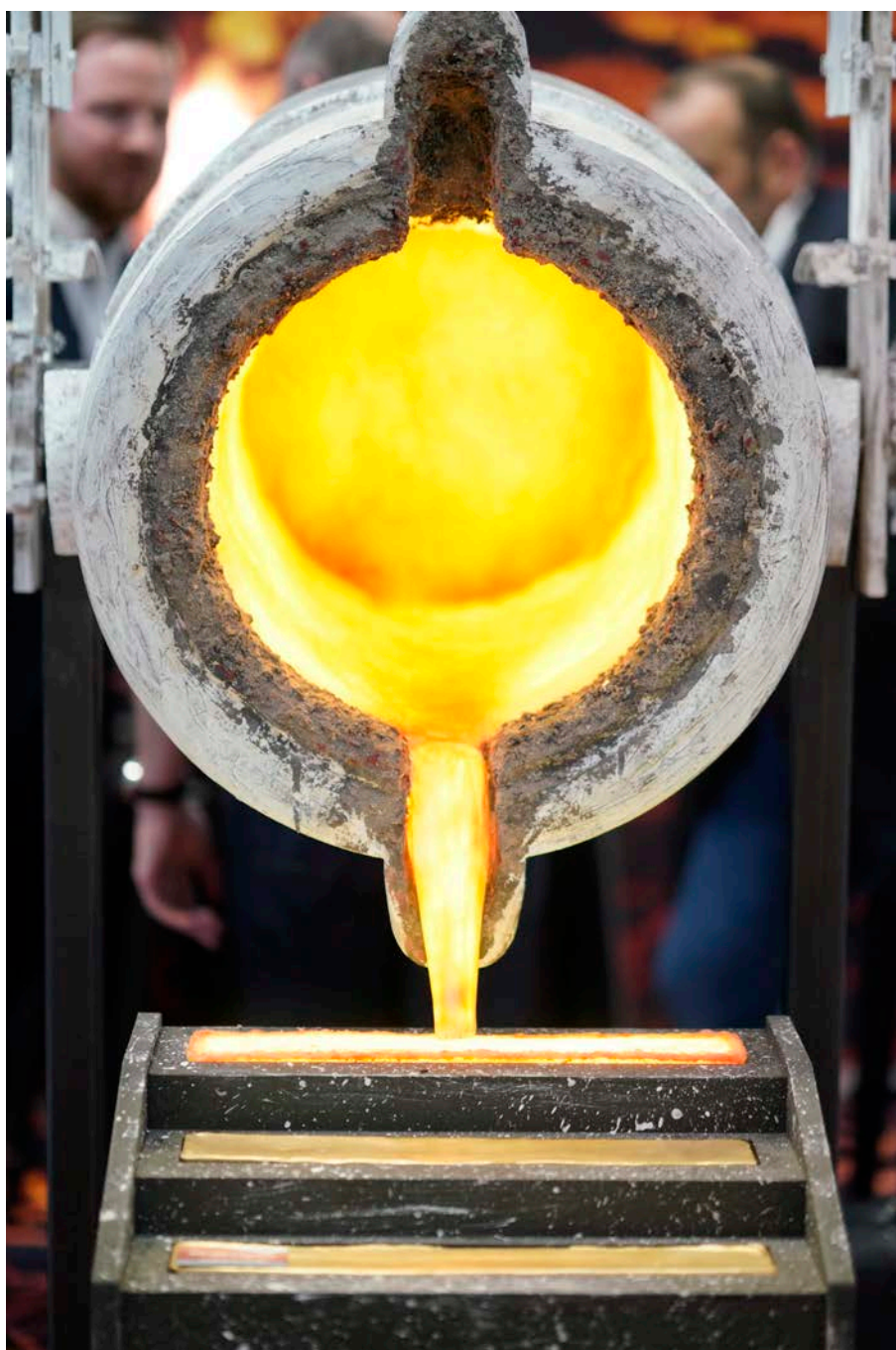
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Working Together is *Success*



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Explore the power of four: ‘The Bright World of Metals’ sharpens its profile for the transformation of the metals industry



The metals industry is at a turning point. Energy has become a strategic factor, decarbonisation is influencing investment decisions and new technologies are rapidly transforming production and value creation. At the same time, markets and supply chains are shifting, and international competition is intensifying. Companies are therefore faced with the question of how production along the metallurgical value chain can remain both competitive and sustainable in the future. From 21 to 25 June 2027, ‘The Bright World of Metals’ in Düsseldorf, Germany will bring together the international industry to address these challenges. GIFA, METEC, THERMPROCESS and NEWCAST will showcase technologies and solutions for the next generation of metal production and provide a forum for exchange, partnerships and new perspectives across markets and national borders.

Looking ahead to 2027, the trade fair quartet is refining its profile with a further developed brand identity, new communication formats and additional digital services. This makes clear, well in advance of the event, what Düsseldorf 2027 stands for: An industry in motion and the people, technologies and ideas shaping its future.

“The guiding principle ‘Explore the Power of Four’ embodies the strength of the trade fair quartet: Four highly specialised world-leading trade fairs united as an international business platform for the entire metallurgical value chain. It encapsulates what the industry needs today more than ever: Collaboration across disciplines and markets to drive cross-sector transformation. The new brand identity is based on comprehensive target audience analyses and findings from ►

The Bright World of Metals



EXPLORE THE POWER OF FOUR.

direct dialogue with the industry. The new visual identity, with the Sphere as its unifying element, reflects these perspectives. It was crucial for us to develop the new identity from within the industry itself," explains Malte Seifert, Director Metals & Autonomous Technologies.

"We looked closely at what drives our exhibitors and visitors today and what they expect from a leading international platform. The Sphere encapsulates this shared understanding: Four strong world-leading trade fairs, each with a distinct profile, achieving more together."

"Explore the Power of Four" symbolises the close interconnection of the four world-leading trade fairs whilst preserving their specialist focus. GIFA, METEC, THERMPROCESS and NEWCAST retain their distinct profiles. This enables visitors to explore the themes of their respective trade fairs in depth whilst discovering solutions and developments across industry boundaries.

Exhibitors already confirmed include ABP Induction Systems, ASK Chemicals, Eirich, Heinrich Wagner Sinto, Laempe Mössner Sinto, MAGMA, Norican Group and Oskar Frech, amongst others.

"Our industry faces decisions that will determine its competitiveness for decades to come. This is precisely why 'The Bright World of Metals' brings the right people together: Companies, researchers, technology providers and users from around the world. Anyone who wants to help shape the future of the metals industry cannot afford to miss Düsseldorf," says Till Schreiter, CEO of ABP Induction Systems and President of THERMPROCESS.

More than just a new brand identity

Communication and digital services are also being consistently developed. A central content hub brings together relevant industry topics throughout the year. The focus is on decarbonisation and energy efficiency, smart factory and artificial intelligence, the circular economy and resource efficiency, as well as innovations and future technologies.

With the new FairMatch system, visitors and exhibitors can identify business partners and arrange appointments even before the trade fairs take place. New Live Partner packages offer exhibitors additional opportunities to extend their trade fair presence through digital channels, editorial content and live coverage.

"Our aim is to provide the industry with the best possible support in its transformation and to create an economically viable business platform for exhibitors and visitors. It is crucial that information leads to direction, that contacts develop into partnerships and that these in turn result in concrete business," said Seifert.

New impetus for knowledge and dialogue

'The Bright World of Metals' is also evolving in terms of content. The expanded supporting programme will have an even stronger international focus. Together, VDMA Metallurgy & Thermoprocessing and the Federal Association of the German Foundry Industry (BDG) are organising key specialist events, creating a forum that brings together plant manufacturers, foundries, the metallurgy sector, research organisations and end-users. Machinery and plant manufacturers will thus play a greater role in shaping the programme's focus.

The existing THERMPROCESS Forum is evolving into the THERMPROCESS Forum & ecoMetals Hub. Organised by VDMA Metallurgy & Thermoprocessing, it is dedicated to forward-looking topics such as energy efficiency, decarbonisation, the circular economy and

innovative thermal process technologies.

Furthermore, 'The Bright World of Metals' places dialogue between industry and politics at the centre. At a new central opening event, senior representatives from politics and business will come together to discuss the industry's key future topics for the first time. This builds on the 'Politics meets Business' dialogue launched in 2023 and integrates it more closely into the core programme of the four world-leading trade fairs. The transformation of the industry requires not only technological innovation but also a reliable political framework.

In 2027, 'The Bright World of Metals' will not simply present itself with a new look. Four world-leading trade fairs, four specialist perspectives and a shared platform for the transformation of the metals industry: Explore the Power of Four.

For further details visit www.gifa.com

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GE Aerospace acquires Consolidated Precision Products

Pays \$11.75 billion to own more of its supply chain.

GE Aerospace has announced that it has signed an agreement to acquire Consolidated Precision Products (CPP), a leading manufacturer in the USA of highly engineered castings, from private investment firms Warburg Pincus and Berkshire Partners.

GE Aerospace Chairman and CEO H. Lawrence Culp, Jr., said, "Investing in mission-critical casting capacity is needed to support the strong simultaneous demand across commercial engines, aftermarket and defence. By combining GE Aerospace's technology capabilities and FLIGHT DECK with CPP's manufacturing experience, we expect to expand capacity, improve performance and accelerate new engine technologies for the current fleet and next-generation platforms."

CPP, headquartered in Cleveland, Ohio, manufactures highly engineered castings and sub-assemblies primarily for the commercial aerospace and defence markets. Founded in 1991, CPP is one of the world's largest producers of investment and precision sand castings, producing complex

super alloy, titanium, aluminium, magnesium and steel castings for a variety of leading commercial and military aircraft, weapon systems, commercial and regional/business jets, helicopters and industrial gas turbines. CPP has a global team of 6 600 employees across more than 20 facilities. GE Aerospace has been a CPP customer for over fifteen years.

"We will leverage FLIGHT DECK to drive process and quality improvements, supporting higher output, and integrate design and manufacturing to bring engine technologies to market faster for our customers. These improvements will also ensure manufacturing readiness to deploy enhanced airfoil technology for a more

reliable ramp," added Culp.

"GE Aerospace has been a great partner to CPP for many years, and we are excited to further strengthen this long-standing relationship. As we advance our position as an industry leader in castings, GE Aerospace has expressed strong enthusiasm for supporting our continued growth and expanded vision. Together, we look forward to delivering meaningful value and advancing the success of both

GE Aerospace has been a great partner to CPP for many years, and we are excited to further strengthen this long-standing relationship.



GE Aerospace just spent \$11.75 billion to control more of its own supply chain. The company is acquiring Consolidated Precision Products, a major manufacturer of the precision castings used inside modern jet engines. The deal is GE Aerospace's largest acquisition since becoming an independent company in 2024. Demand for aircraft engines is strong but producing enough engines has been constrained by some of the hardest components to manufacture. Precision castings used in turbine airfoils require extremely demanding production processes, and Reuters reports they have remained a major bottleneck across the aerospace industry. GE expects demand for airfoils to rise more than 30% by 2030, while CPP is expected to generate roughly \$2 billion of revenue in 2027

organisations,” said CPP CEO James Stewart.

Warburg Pincus Managing Director Dan Zamlong, said, “We are incredibly proud of the platform we have built in partnership with Berkshire Partners and CPP’s talented management team.

CPP has been transformed into a leading precision casting company in the industry, with significant investments in its operations, technology, quality systems and talent, while expanding its ability to support customers across the commercial aerospace, defence, and power generation markets.”

Transaction details

The transaction is expected to deliver strong near and long-term value creation for customers and shareholders. The purchase price of \$11.75 billion will be financed with \$7 billion in cash, with the remainder in new debt.

About GE Aerospace

GE Aerospace is a global aerospace propulsion, services, and systems leader with an installed base of approximately



50 000 commercial and 30 000 military aircraft engines. With a global team of approximately 57 000 employees building on more than a century of innovation and learning, GE Aerospace is committed to inventing the future of flight, lifting people up, and bringing them home safely.

For further details visit www.geaerospace.com

Metal Casting Technology Station

The Metal Casting Technology Station (MCTS) is an initiative of the Department of Science and Innovation (DSI) managed by the Technology Innovation Agency (TIA) and hosted by the University of Johannesburg, at the Faculty of Engineering and the built environment.

The MCTS' primary function is to act as a partner for metal casting industry in South Africa to provide technical support to improve the competitiveness of industry through:

- Applied research and development activities
- Technology demonstration and transfer
- Human Capital development
- Process and product development

The MCTS is ISO 9001:2015 certified with the following capabilities:

- Full green sand and chemical bonded sand testing facilities
- Mechanical and Metallurgical Testing (such as hardness, tensile and impact test) which is 17025 SANAS accredited

- Material characterisation facilities using high level techniques such as Scanning Electron Microscope (SEM), X-Ray Diffraction (XRD), X-ray fluorescence (XRF)
- Small scale casting with 5kg and 50 kg melting furnace

The MCTS has a close working relationship with local partners such as the SAIF, NFTN, TLIU, Recapitilise Cluster Programme and international partnerships with IK4 Azterlan (Spain), Central Metallurgical Research and Development Institute (Egypt), Freiberg University (Germany), MPM Infosoft (India) and the University Of Wisconsin Platteville (USA).



Contact us for more information:

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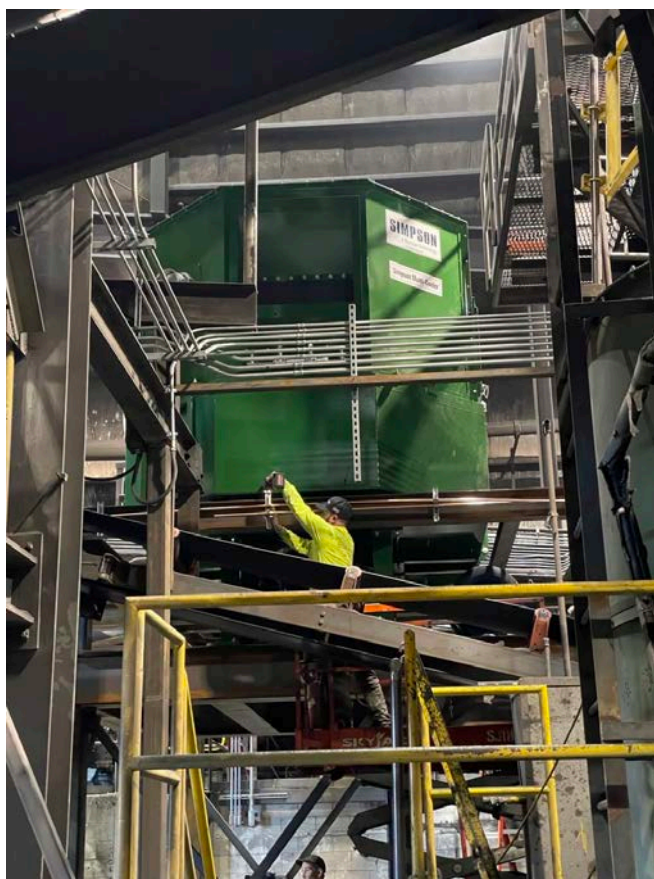


Progressive Foundry enhances sand consistency with Simpson Multi-Cooler®

Progressive Foundry, an iron foundry in the USA focused on quality and continuous improvement, was looking for ways to reduce scrap and improve overall casting consistency. The foundry's goal was to gain tighter control over sand cooling and moisture to deliver stable, repeatable sand



With the Multi-Cooler in place, Progressive Foundry achieved a new level of control and consistency in their green sand system. Compactability was held within ± 2 points 90% of the time and within ± 3 points it was held 95 to 98% of the time. The foundry also realised a 7% reduction in bond usage relative to iron poured



For Progressive Foundry, the Multi-Cooler has proven to be more than a cooling system – it's a process control tool



Progressive Foundry, an iron foundry in the USA, has invested in a Simpson Multi-Cooler

properties across their moulding lines.

When evaluating options, Progressive identified the Simpson Multi-Cooler® as one of the only systems capable of both measuring and controlling output moisture. Unlike other sand coolers that add water based on incoming sand temperature, the Multi-Cooler continuously monitors and adjusts moisture levels to maintain a consistent output, thus ensuring uniform sand quality.

Confidence in Simpson's equipment also played a role

"We already had a 22G Simpson Multi-Mull® that was built well, so we trusted the Multi-Cooler would be a quality product as well," said Plant Engineer Josh Magill.

Installation

Installation was smooth, with much of the system arriving preassembled. Once operational, the impact was immediate.

"The consistency of the sand leaving the muller is much better than expected. The Multi-Cooler does 100% of what Simpson promises it will do," said Magill

Results and impact

With the Multi-Cooler in place, Progressive Foundry achieved a new level of control and consistency in their green sand system. Compactability was held within ± 2 points 90% of the time and within ± 3 points it was held 95 to 98% of the time. The foundry also realised a 7% reduction in bond usage relative to iron poured. Even when running beyond the rated capacity of their 22G Multi-Mull, the system continues to deliver stable, high-quality sand with reduced mulling time.

More than cooling

"For Progressive Foundry, the Multi-Cooler has proven to be more than a cooling system – it's a process control tool. It returns consistent, tempered sand back to the silo that can be easily mulled to a quality green sand. There's nothing comparable to it in the market," ended Josh Magill.

For further information contact Peter Petersen of Mondeco Solutions on 079 448 1277 or email peter@mondeco.co.za or visit www.mondeco.co.za.

For more on Simpson visit www.simpsongroup.com

Renishaw reports AM as main driver of Specialised Technologies performance

Renishaw plc, headquartered in Wotton-under-Edge, Gloucestershire, UK, has reported that increased demand for its Additive Manufacturing machines was the main growth driver in its Specialised Technologies segment during its 2026 financial year.

Specialised Technologies was Renishaw's fastest-growing segment, with revenue reaching £107.5 million for the year ended June 30, 2026, up 43% from £75.0 million in FY2025. Adjusted operating profit reached £4.7 million, compared with an adjusted operating loss of £9.9 million in the previous year.

FY2026 was Renishaw's first year reporting under three new business segments: Industrial Metrology, Position Measurement and Specialised Technologies. The Specialised Technologies segment comprises the company's Additive Manufacturing, spectroscopy and neurological product lines. The segment figures therefore do not represent standalone AM revenue or profit.

Renishaw stated that growth in Specialised Technologies was driven mostly by sharply higher demand for its AM machines, particularly from the aerospace and defence sectors.

The company secured multiple-machine orders from existing customers and stated that it was gaining market share, particularly in these markets. All product lines within Specialised Technologies generated a profit during the year.

Growth was also evident geographically. In the Americas,

The company secured multiple-machine orders from existing customers and stated that it was gaining market share, particularly in these markets.

Renishaw reported strong demand for high-value capital equipment, including its metal AM machines. The company said aerospace and defence, along with power generation, were the main drivers of growth in the region.

Total group revenue from the Americas increased by 35% at constant exchange rates to £219.0 million.

In EMEA, where total revenue increased by 3% at constant exchange rates to £214.9 million, Renishaw also reported good growth in sales of AM machines.

Renishaw also highlighted recent developments in its AM software. The company launched its LIBERTAS software at Formnext 2025 in Frankfurt, Germany.

Renishaw states that the software enables complex geometries to be produced without the need for additional supports. The company also cited its TEMPUS technology as part of the development of its AM offering.

Beyond its established aerospace and defence activities, Renishaw reported increased interest in AM from the consumer electronics sector, which it sees as a potential area for further expansion.

For more information, visit www.renishaw.com





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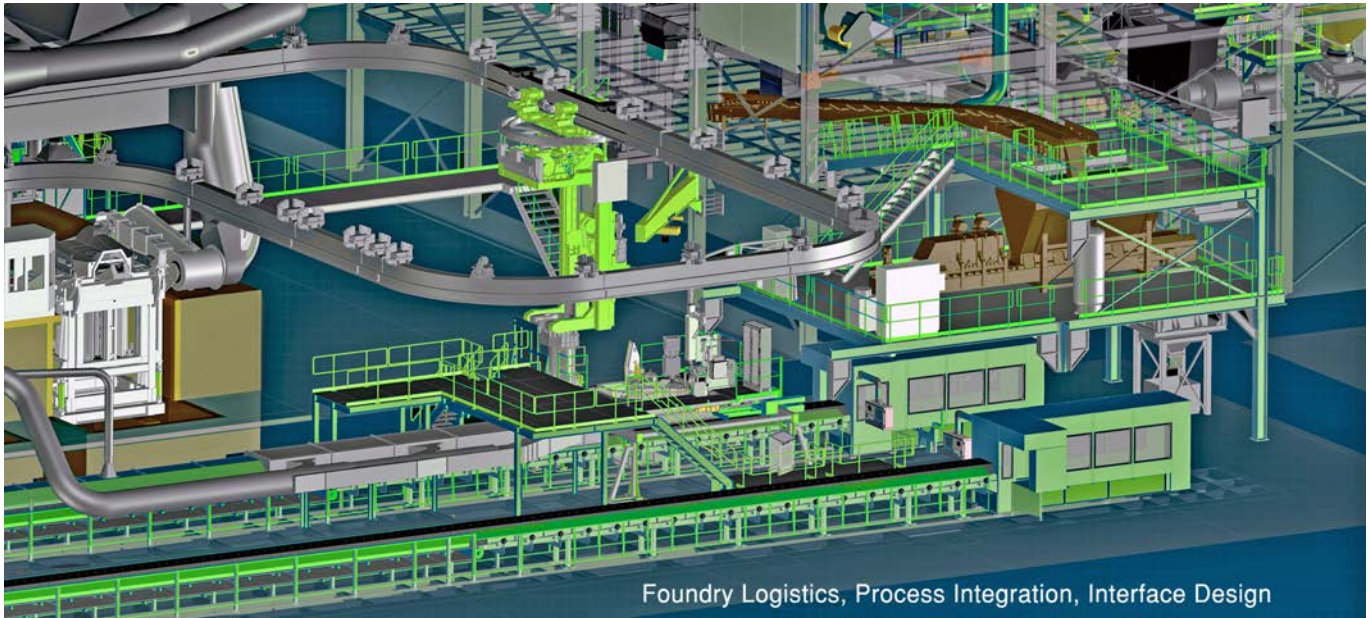


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Gemco pursues a holistic approach for an optimally functioning foundry

End-to-end integration results in more stable production, shorter throughput times, fewer disruptions and greater control across the entire production process.



In reality, the efficiency of a foundry is not solely determined by installations and production processes. A suitable layout and good logistics are prerequisites. Gemco, as a foundry planning and consulting engineering company, is involved in the planning of new foundries or the modernisation of existing foundries.

"A foundry is a complex system of people and installations that exchange energy and material. The performance of a foundry is influenced by the specification of the production programme, the equipment, transport capacity, their interruptions and energy requirements," explains Huub van der Weiden, Area Account Manager at Gemco Engineers B.V.

"The concept of casting systems, metallurgical properties, process control of mould and cores as well as ensuring consistent quality and punctual deliveries are emphasised in foundries. The installations are maintained and the machine builders focus on the continuous improvement of their machines, frequently with the involvement of the foundry customers. That is why, when considering a new investment, foundries and machine builders often spend a lot of time on improving the systems from the experience of both," added van der Weiden.

"We are involved in the projects from conceptualisation up to implementation. Just as important for improvements, as the installations and the process itself, is an analysis of the various bottlenecks or the material flows to the installations. The core of Gemco's work lies in the planning of new foundries or the modernisation of existing production installations allowing for an optimal selection as well as the effective interaction of systems and departments."

Beyond individual equipment

"A modern foundry is more than melting, moulding, casting, cooling and post-processing. It depends on the coordinated

interaction of people, material flows, energy supply, sustainability and digitalisation."

"Gemco therefore pursues a holistic approach that goes far beyond the classic consideration of individual machines or production steps. The key is to consider all these factors as an integrated overall system from the starting point and thus create competitive and long-term profitable foundries."

"End-to-end integration ensures that equipment is sized for actual capacity needs, bottlenecks are systematically identified and buffers are kept to the minimum required. Material flows are simplified and automated wherever this makes economic sense. Maintenance-friendly design and easy system access support high availability."

"The result is more stable production, shorter throughput times, fewer disruptions and greater control across the entire production process."

Buffer systems for more efficiency

"Good logistics in new foundries or changes to the logistics in an existing layout can already optimise the overall performance; in existing plants, often without affecting the capacity of the individual system."

"Gemco analyses all logistical processes, the value stream and the essential transportation of all semifinished products."

"We make sure that the logistics of good parts, NOK parts and parts in quarantine do not mix. With the installation of matched buffer capacities, the utilisation of installations can be optimised and sub-processes can be better exploited."

"Dynamic buffer systems, having products in different manufacturing states in shelves, usually automatic and high, reduce the overall buffer volume in the foundry. In addition to lower capital requirements (buffers are ultimately an area of factory space), this also leads to fewer human errors in ▶

logistics and often to fewer forklift truck movements, which promotes safety."

"Beyond that, logistical calculations are important to achieve good material flow with buffers at strategic points to optimally manage the bottlenecks so that their maximum capacity is utilised."

"Bottlenecks will always occur somewhere and then move elsewhere depending on which ones are resolved. However, it is beneficial to identify potential hold-ups and the most common bottlenecks in advance."

"The use of different scenarios for different products is important as bottlenecks can be hidden because they can be based on, for example, wrong assumptions."

"In this way, the various causes of bottlenecks in different installations and stages in the overall process sequence can be systematically identified. Derived from these findings, it becomes readily apparent which capacities are required for which installations and where buffers are desirable. Based on such an analysis, it is possible to make the right choice as to which bottlenecks need to be eliminated and which not," continued van der Weiden.

"Gemco plans buffer systems keeping bottlenecks in the value stream in mind and always with the option of bypassing the buffer system in the event of a malfunction. During the detailed planning, attention is paid to the accessibility for maintenance, repair and operation in order to optimise the available uptime," said van der Weiden.

"The logistics of ancillary and support processes must also be considered. It is important to optimise them, as these costs are not borne by the customer. This includes recycling material, but also waste streams such as slag, dust, scrap, used sand and others."

"Gemco is of the opinion that their logistical routes should not cross each other. A robust concept is required for data traffic, cooling water, extraction and supply of fresh air, compressed air and electricity. Good logistical planning therefore makes an important contribution to the efficiency of the foundry, reduces human error and curtails costs. This also applies to the accessibility of the installations for maintenance and repair work, especially at the casting, moulding and blasting installations."

Keeping internal and external logistics in mind

"In addition to the internal processes within the plant, care must also be taken in advance regarding the design of the external area and the surroundings of the plant. The area and space available outside the foundry are different for each project."

"Truck and forklift traffic with different frequencies must constantly be kept in mind, as these are often subject to restrictions and even require permits." Points to consider include the following:

- > Do measurements have to be carried out before a truck enters or leaves the works premises, such as for weighing or radioactivity measurements?
- > How are the trucks loaded and unloaded?
- > Which turning circles are required for the trucks?
- > Are there regulations regarding circulation and/or heavy traffic on and to the site for 2nd and 3rd shifts?
- > Are warehouses or storage areas required outside the foundry and where?

"For this purpose, all occurring and required movements must be taken into consideration," van der Weiden ended.

Contact Gemco Engineers B V on TEL: +31 (0) 40 2643 607, email eng@gemco.nl or visit www.gemco.nl for full details on the company's design engineering services. ■

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Volvo EX60 rear underbody die cast as a single aluminium part



The Bühler die casting cell consisting of two Carat 840 die casting machines

Bühler's megacasting technology has entered series production in Europe with the new Volvo EX60. At the automaker's Torslanda plant in Sweden, two Bühler Carat 840 die casting cells manufacture the vehicle's rear underbody as a single aluminium part, replacing about 100 conventionally manufactured and assembled components. This reduces weight, a key advantage for electric vehicles, helping to lower energy consumption and extend driving range. With the EX60, Volvo becomes the first European carmaker to deploy megacasting technology in series production.

Megacasting uses high-pressure die casting to produce large vehicle-body sections in a single piece. In conventional manufacturing, the same structure consists of several parts that must be transported, stored, assembled, and welded. At Volvo Cars' Torslanda plant, the EX60's rear underbody is cast close to the vehicle assembly line. The one-piece design reduces production and logistics steps, contributing to lower weight and greater structural rigidity.

Lower weight is particularly important for electric vehicles, as it can reduce energy consumption and increase driving range. The EX60 is based on Volvo Cars' SPA3 electric-vehicle platform, which integrates the battery into the vehicle structure as a load-bearing element.

8 400 tons of locking force

The scale of the project is reflected in the dimensions of the die casting equipment used at Torslanda. Each Carat 840 provides 8 400 tons of locking force to keep the mould closed

while liquid aluminium is injected at high pressure. The machine can inject more than 200 kilograms of aluminium within milliseconds.

Each casting cell is 7.6 metres high, occupies around 160m², and weighs more than 1 000 tons when fully installed. Delivering the two cells to Torslanda, 12 kilometres from Gothenburg, required 120 truckloads.

The rear underbody is produced using a 130-ton die with modular inserts. Individual sections of the tooling can be changed without replacing the entire die, helping Volvo implement design changes faster.

The project is the result of years of close collaboration between Volvo Cars and Bühler. "The Volvo EX60 represents a significant technological leap for Volvo Cars. We have invested many hours and kilometres in developing the new Volvo EX60, which is one of the most advanced cars on the market. We are particularly proud that the megacasting technology from Bühler Group brings Swiss innovation to this new generation of vehicles. In this way, the EX60 combines our Swedish roots with Swiss technology and demonstrates how international collaboration can help drive the future of electric mobility," says Jesus Fernandez de Mesa, Managing Director of Volvo Car Switzerland and Head of Central Europe Cluster.

From emerging technology to industrial reality

To bring megacasting into series production, Volvo Cars created the industrial conditions needed to operate the technology at scale. They built a dedicated hall at Torslanda and trained specialist teams. The installation is the company's ►

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first in-house megacasting facility and marks the first use of the process within its global production network.

Megacasting extends structural die casting from individual components to complete sections of the vehicle body. The entire process, from melting and die filling to component handling and assembly-line integration, must work as one production system.



The megacasting cell manufactures the vehicle's rear underbody as a single aluminium part, replacing about 100 conventionally manufactured and assembled components



The Volvo EX60 is another example of how megacasting is becoming an established part of automotive manufacturing

"The EX60 is another example of how megacasting is becoming an established part of automotive manufacturing. As automakers seek more efficient ways to produce electric vehicles, large structural castings are playing an increasingly important part of next-generation vehicle architectures," says Cornel Mender. ■

SpaceX plans its own turbine blade foundry in Texas to aid AI boom and reduce bottleneck

A secretive SpaceX facility in Bastrop, Texas, may be part of Tesla and SpaceX CEO Elon Musk's latest effort to speed up the artificial intelligence buildout – not by manufacturing chips, but by producing the turbine components needed to power data centres.

On 30 August 2026, Musk said SpaceX is tackling a manufacturing bottleneck that has become a major constraint for the fast-growing AI industry.

SpaceX plans to build the highly specialised foundry for gas turbine blades in Bastrop, Texas. The move comes amid a growing shortage of high-temperature components for gas turbines, while the power demand of AI data centres in the United States continues to rise rapidly. Elon Musk sees the availability of cast turbine blades in particular as a key bottleneck in expanding new gas-fired power generation capacity.

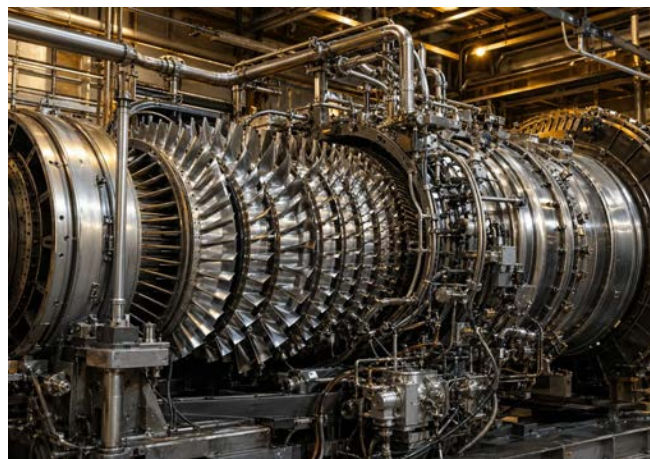
With this move, SpaceX is entering a manufacturing field that goes far beyond its traditional space business. As CEO Elon Musk confirmed on the social media platform X, the company plans to cast highly specialised turbine blades in-house. The new facility is planned for Bastrop, around 48 kilometres east of Austin, close to an existing Starlink facility.

The background is remarkable. The rapid expansion of AI data centres is driving a sharp increase in electricity demand across the United States. Despite the parallel expansion of renewable energy, Musk expects natural gas to continue playing an important role in providing additional power capacity

for at least several more years.

However, new gas turbines apparently cannot be supplied fast enough. And according to Musk, one of the key bottlenecks is foundry capacity.

"The limiting factor for gas turbine production is casting the blades," Musk explained. By bringing this process in-house at SpaceX, he believes the company could accelerate the availability of gas turbines by as much as 18 months. ■



An example of gas turbine blades. Picture Rapid Precision Castings

The ‘German badge tax’

The ‘German badge tax’ describes the significant price premium commanded by legacy German luxury automakers relative to their baseline manufacturing costs. As open markets introduce disruptive competitors offering advanced technology at a fraction of the price, this prestige markup is increasingly exposed as an economic illusion.

M Flavio de J M from Mexico posted on LinkedIn recently and it is his opinion and facts that do give food for thought. However, Ivan Jovanovic’s (from Germany) comment is short and to the point – in opposition. There are various other viewpoints given.

‘The German ‘Badge Tax’: How Open Markets Exposed the Illusion of Legacy Luxury

One Mercedes-AMG G 63 costs \$4 899 900 MXN in Mexico. For the same money you can buy three Jetour G700 Gaia – 892 horsepower, 1 135 Nm, 0–100 in 4.8s, air suspension, three rows, every screen you can name, it floats – with spare change.”

“That’s not a bargain. That’s a verdict. Even worse: German cars enter Mexico duty-free (EU-Mexico FTA). The Jetour pays a 50% import tariff – the WTO ceiling. And it still undercuts the G63 by more than three to one. The protected car loses. The taxed car wins.”

“So what exactly is the extra \$3.4 million pesos buying? A louder exhaust. A stiffer ride. A badge on the grille. Lower MPG, 3 year, versus 10 year warranty. The engineering gap isn’t just closed. It’s reversed.”

“The badge is all that’s left.”

“Volkswagen’s own leaked internal documents say the quiet part out loud. Emden builds a car for €4 850. Tianjin builds it for €1 078. German labour: €74/hour. Chinese labour: €12/hour. 800 fewer annual working hours in Germany. Energy at 2.5x the Chinese cost. VW is now weighing four plant closures and 100 000 job cuts. Its own conclusion: Survival requires austerity.”

“Meanwhile, in China – the market that once delivered a third of German profits. Mercedes sold 1 153 electric CLAs in the first half of 2026. Xiaomi sold 80 000 SU7s. The five German pillars – VW, Audi, BMW, Mercedes, Porsche – now hold 1.6% of China’s EV market. Their combined EV sales there fell 55% in Q1 2026. BMWs dropped nearly 65%.”

“They’re losing because they’re selling yesterday’s engineering at tomorrow’s prices on a four-year cycle, while the competition refreshes every eighteen months.”

“The German answer has been to build walls. The EU’s Industrial Accelerator Act wants ‘Made in EU’ content and prior approval on foreign investment. Walls don’t fix cost structures. Walls buy time. Time is the one thing Germany has already spent – profitably, for a while. The priorities were clear. The consequences have arrived.”

The lesson isn’t just about cars. One doesn’t get strong by locking the door. One gets strong by becoming the one to beat. The Chinese EV industry got here through twenty years of brutal domestic competition. The German industry got here through a century of engineering excellence that quietly became decades of complacency – protected by trade rules that made competing optional.”

“The badge still works. Someone will still pay \$4.9 million pesos for the noise. But the badge no longer signals superiority. It signals something else: A willingness to pay a premium for a product that no longer justifies one.”

“Paying a 230% markup for a badge isn’t prestige. It’s just foolishness.”



“Three?”

“It’s what one Mercedes costs.”

Ivan Jovanovic’s comment in response

“3 Jetour after 3 years will be worth 20% of original value. G63 AMG have great chance to have higher value over time if some special edition ones. Don’t fall into the trap of cheap please. It is simply not worth comparison as those cars target different users. None of them would buy other.”

Meanwhile in South Africa

The Jetour T-Series payload saga is back in the spotlight after local testing produced conflicting results for one of the range’s models.

While testing at the Clayville Testing Centre in Gauteng supported the revised 475kg payload rating for four of the five T-Series models tested, the midrange T2 2.0T XPlora produced a discrepancy. Jetour says it exceeded the 475kg rating by 4kg, while official weighbridge results seen by the Automobile Association (AA) indicate that it fell 20kg short. Jetour has, however, put the discrepancy down to fuel levels distorting the tested tare weight used for the calculation.

The test results come after Jetour revised the approved payload ratings for its T1 and T2 models from 300kg to 475kg, following consultations with its Chinese head office and the National Regulator for Compulsory Specifications (NRCS).

So what is the problem?

The controversy kicked off earlier this year after the Jetour T1 and T2 models, which were launched in late 2025, came under fire for their 300kg payload ratings, which were uncharacteristically low for an ‘adventure’ SUV.

While the T-Series models surged up the sales charts to become one of the country’s most popular midsize SUV line-ups, with the Jetour T2 also winning the 2026 South African Car of the Year title, the payload remained a concern for families wanting to load up and hit the open road.

After all, simply having five lightweight passengers would be enough to push the vehicle beyond its permitted payload, and that’s before any luggage has been added. ■

Fabri raises \$13.5 million to create digital foundry

Fabri is a startup that wants to create a “digital foundry,” and just raised some funds to help it reach this goal. There are far too few foundries in America. These legacy businesses are closing or find it difficult to recapitalise after founders retire. Money is elsewhere, chasing bytes not bits, and foundries are an ancient business.

Reports 3DPrint’s Joris Peels: “Even if firms invest in manufacturing, then CNC, precision manufacturing, or 3D printing will be at the forefront of their plans. Foundries are old world, a part of an America that made things. Now, with most products being made outside of the US, this is a decided problem for the defence industry in particular. Fabri is therefore part of a new cohort of firms that want to reinvent foundries.”

“As far as I know, Skuld was the pioneer, reinventing foundry technology years ago. With a renewed focus on defence, independence, and a US military gap, many more firms are following it now. The US needs to build more submarines to shore up its nuclear triad, it needs to replenish its depleted (by half to two-thirds) precision missile arsenal, and will need to build many more autonomous vehicles in the future. This is a significant opportunity for additive, but also Fabri and firms like it. What Fabri wants to do is use the latest computational tools to advance foundries through automation. By reducing labour as a component of investment casting and speeding up lead times, the firm hopes to grow by shipping parts faster.”

“Fabri is 3D printing wax moulds to skip a few steps in the investment casting process. Furthermore, they hope to automate many steps and use data and software to optimise production. For now, the company is working in aluminium, copper, bronze, C71500, and steels, and wants to expand into nickel (IN713C, Mar-M247). Casting sizes are limited to 7 x 13 x 15.75 inches. The company is ITAR registered and has the CMMC Level 2 cybersecurity validation, as well as JCP Enhanced Validation, which also looks into compliance and security.”

“In some cases, foundry lead times can exceed two years, so this is a real opportunity with real money behind it. Fabri will now have real money as well. The firm has raised \$13.5 million from the likes of Lavrock Ventures, Balerion Space Ventures, RTX Ventures, Lockheed Martin Ventures, Marlinspike, Tenon Ventures, and SBXi. The latter is a club comprised of Accel, Polaris Partners, GETTYLAB, General Catalyst, Pillar, Danaher, Underscore VC, and Glasswing Ventures, all working together to back MIT founders. Balerion is a space VC that has stakes in Anduril, Vast, and Relativity. So their money means a lot, given their exposure to firms that need to build stuff.”



An A15 bracket developed by NASA as part of the Text-to-Spaceship and Evolved Structures research, cast by Fabri. CAD to casting in 5 days. Winner of the 2026 AFS Casting of the Year (Small Foundry)

“Marlinspike, which has the coolest name of any VC, invests in AI, robotics, aerospace, and cybersecurity, and is also in Anduril. So having Anduril as a prospective client should not be too much of a problem. And having both Lockheed and RTX on this is just awesome for Fabri. Fabri also received \$5 million in 2024, and RTX and Lockheed were a part of that as well.”

“Fabri says on its site that people should ‘Join us and rebuild American manufacturing. The DoD named castings a top-four defence priority. The foundry is the front line of reindustrialisation.’ Boom, no ambiguity there, no talk about golf clubs or spinal cages. This is a company with focus. And to go out and be able to just focus so fully on the DoD opportunity is a real benefit for the firm.”

“The firm, which is led by ex-Relativity staffer Steven Davis, ex-Velo3D software engineering manager Pieter Coulier, and ex-Inkbit VP of Operations Tom Cole, benefits from real experience in wanting to do something old completely new again. Hopefully, they’ll develop a tool to fit a purpose, become reliable, and stray away from complexity. Fabri also hopes to leverage ‘our exclusive high-throughput additive manufacturing process and AI-driven design software, we can deliver casting in days, saving our customers critical time and money.’ It is working on FoundryOS, which ‘interprets part geometries, generates tooling-free patterns, and automates process control from shell building through pour and inspection, with full traceability from melt to delivery.’ And the firm is very ambitious, saying that, ‘the plan is one new foundry a year until American casting capacity is back where it should be.’”

“The really cool thing is that they’re not going to (as far as we know) sell the software. The intention is also not to sell the equipment. Instead, they’re going to, like Seurat and Vulcanforms, use their technology to build a service. So they’re actually in the business of buying, building, and retooling foundries. We would expect more firms like Fabri to emerge over the coming years. Given the critical needs of US defence and the vast amounts of money at play, this is a very lucrative space to invest in. What I also like is that in Precision Castparts, they have a natural predator in that \$10 billion behemoth. Smaller defence-oriented foundries such as Waukesha Foundry, Barron, and Signicast will also be more than a little curious. So they have exit opportunities aplenty in large and huge firms. Fabri may very well quietly and in the background build a very competitive significant business that is defensible to boot.” ■

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Power | 400V three phase

Melting capacity | +-250 kg/
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SPECTRO introduces new, improved SPECTROSCOUT kt portable ED-XRF analyser

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SPECTRO Analytical Instruments has introduced the new, improved SPECTROSCOUT kt portable ED-XRF analyser for rapid, reliable analysis of precious metals and alloys on the spot.

Incoming inspection, quality monitoring, and hallmarking require fast, precise, accurate, and non-destructive measurement of gold, silver, and other precious metals and alloys. Hallmarking centres, showrooms, assay offices, jewellers, pawn shops, jewellery makers, refiners, and recyclers also need an affordable analyser that offers a small analysis spot, fits crowded workspaces, withstands constant operation, and requires little operator training.

Based on technology used in the proven SPECTRO xSORT handheld analyser, SPECTROSCOUT kt provides onsite transportability together with robust construction and silicon drift detector (SDD) X-ray technology. The SDD technology offers performance superior to that of the Si-PIN detectors used in many competitive instruments. Its fundamental parameters screening method is similar to that used in SPECTRO MIDEX and SPECTROCUBE D benchtop analysers, and optional customer-specific calibrations can further enhance accuracy. Together, these capabilities support fast, dependable, non-destructive analyses on the spot.

Other instruments may sacrifice speed for analytical performance or identify major alloy grades without quantifying minor elements. SPECTROSCOUT kt provides precision and

accuracy across the concentration ranges typically found in precious-metal alloys, with measurement times of 30 to 90 seconds. Standardisation requires one sample and approximately five minutes. The combination of analytical performance and throughput makes the analyser suitable for small shops and portable use, as well as a backup system for larger operations.

SPECTROSCOUT kt covers all relevant elements in precious-metal alloys – 25 total – measuring major precious metals and many minor elemental concentrations. Its readouts provide clear results for valuation.

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SPECTROSCOUT kt connects by USB cable to SPECTRO XRF Analyser Pro software running on a Windows-based tablet, laptop, or PC. The system is simple to use and maintain, even for operators without specialised knowledge.

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Why transparency makes all the difference when grinding workpieces

The CC-GRIND VIEW from PFERD TOOLS makes the machining process visible and reduces the need for reworking.

Transparency builds trust. If we can see something, we can assess it better and manage it more effectively. This principle doesn't just apply to architecture or design, it's also equally valid when machining metal, in particular during grinding work.

If you can't see what you're doing, the work process suffers

In many applications the area being machined is not visible during the grinding process, meaning the user constantly needs to put down their tool to check their progress. This costs time and makes it more difficult to work consistently. It also increases the risk of removing too much material or needing to rework areas. These interruptions soon add up, especially when working on relatively long weld seams.

A clear view of the contact area and clear advantages while working

With its CC-GRIND VIEW, PFERD TOOLS is bringing transparency to the grinding process. Its special design provides a clear view of the contact area between the tool and workpiece. The stock removal remains visible during the process and can be assessed straight away.

As a result, the user can keep working without constantly having to stop. They can see their machining progress immediately, target their work more effectively and prevent



unnecessary stock removal. Mistakes are identified earlier, much less reworking is required and the results are more consistent. All this saves time, reduces material consumption and makes the entire machining process more economical.

The performance you need for your work process

The CC-GRIND VIEW also offers a very practical level of performance. Its dimensional stability makes it easier to achieve a flat surface and prevents dents and hollows. The VICTOGRAIN high-performance abrasive grain ensures particularly fast working. Users also benefit from the lower vibrations and much lower noise emissions.

The CC-GRIND VIEW shows that transparency makes all the difference. It provides a clear view of the contact area, which improves workflows, reduces mistakes and boosts productivity.

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