

WACO'S 75 YEAR LEGACY OF INNOVATION AND GROWTH STRENGTHENED BY NEW PACKAGING REBRAND

Founded in 1949, WACO Industries has grown from humble beginnings based in downtown Johannesburg to become Southern Africa's leading manufacturer and distributor of industrial electrical products. This year, WACO is celebrating 75 years in the industry and elevating its status as a heritage brand with an exciting packaging refresh that will light up aisles at retailers and electrical outlets nationwide.

"We've developed from an industrial and wholesale supplier to a preferred provider, both locally and within the SADC region," says Werner Havenga, Managing Executive at WACO Industries.

This client-focused approach led to the launch of their call-and-collect service earlier this year, catering to the evolving needs of customers. But that was just the beginning of the celebrations.

Over the decades, WACO has expanded through strategic acquisitions and innovative product development, solidifying its role as a critical player in the region's electrical industrial landscape, but also into general electrical products.

Behind the remarkable brand

WACO's journey gained significant momentum in 2002 when it merged into then Bidvest's industrial division, Bid Industrial and now forms part of Bidvest Commercial Products and a division of the Bidvest group. This merger strengthened WACO's infrastructure and distribution capabilities, enabling the company to serve a wider customer base with a broader range of products.

"As we progressed, we recognised that with our ever-expanding product range and being a partner of choice to other leading electrical brands that our customer base was morphing into more diverse customer segments with electrical industrial, wholesale and retail customers all becoming equally relevant within our business," Havenga explains.

Today, WACO's operations are divided into several divisions, each serving different sectors of the industrial electrical market. These include general electrical products, power solutions, lighting, specialised fixings and fasteners. The general products division offers everything from domestic electrical goods, switches and sockets to tools, including seasonal electrical good such as heating and cooling appliances. Meanwhile, the power products division focuses on technical components such as rotary switches, sensors, and enclosures. This diverse range enables WACO to meet the needs of a broad spectrum of clients, from electrical contractors to large-scale industrial operations, with an increasing focus on consumers in the retail segment.

A new look for a trusted favourite

"Our customer focus has always driven our growth and relevance, but now we're sharpening that focus to include consumers as well as customers," says Havenga. "We've been trusted by electrical contractors

for years, and now our packaging will also feature a sleek, contemporary design that reflects our ongoing evolution, with our pre-packaging also being improved this year"

The newly refreshed packaging, set to roll out at retailers this year, is designed to make WACO products more appealing to individual consumers who aren't purchasing in bulk. The vibrant new look communicates WACO's commitment to quality, built on a 75-year legacy in South Africa.

"We know the decision point for consumers is often on the shelf, and with this refresh, we're standing out," adds Havenga. "We're still the same trusted brand, but now we're speaking to the DIY enthusiast or home renovator who wants the best from a retail shelf. This marks the next step in our journey—celebrating our heritage while introducing ourselves to new customers."

WACO's lighting division is also a critical part of the business, offering local and imported products. The company distributes various lighting solutions, including its own cost-effective lamps, catering to domestic and industrial markets. As part of the rebrand, these lighting products will also feature updated packaging, reflecting a modern yet trusted brand image.

Always growing and innovating

WACO's success can be attributed to its ability to adapt to changing market conditions while maintaining its commitment to innovation and quality. With over 7,300 product lines, a 14,000 m² Johannesburg

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Schneider Electric





Hubble Energy Next Generation containerised energy solution launched at Voltex Cape Town

On 21 August, Voltex Cape Town hosted the launch of the Hubble Energy Next Generation containerised energy solution. This event marked a significant milestone in the evolution of energy storage and management solutions, drawing the attention of key players in the Commercial & Industrial (C&I) and Agricultural sectors and professionals across the electrical industry. The launch event attracted diverse

attendees, ranging from installers and EPCs (Engineering, Procurement, and Construction professionals) to influential figures in the C&I and Agricultural sectors. The gathering was a testament to the broad appeal of Hubble Energy's latest offering, which promises to revolutionise energy storage and management practices across various industries.

Several keynote speakers led the event, including Marius Vincent, CEO of Hubble

Energy, Murray Leith, Hubble Business Development Manager; Shawn Roets, Voltex Western Cape Regional Manager; Sean McCauley, Voltex External Sales Manager; Alanna Wells, Hubble ubbHMarketing Manager; and Bobby Richter, Hubble Chief Technical Engineer.

A closer Look

The launch event was organised to

ensure that attendees walked away with a comprehensive understanding of the Hubble Energy Next Generation containerised energy solution. The event featured detailed presentations on the system's capabilities, installation requirements, and its numerous benefits to businesses in the C&I and Agricultural sectors.

One of the event's key highlights was the in-depth discussion on the installation criteria necessary for successfully deploying and commissioning the containerised system. Hubble Energy and Voltex experts shared their knowledge and experience, providing attendees with valuable insights into the system's technical aspects. This information is crucial for installers and EPCs who are tasked with implementing these advanced energy solutions in real-world settings.

Benefits for industry professionals

The event provided the professionals in attendance with a wealth of knowledge about advanced energy storage systems and optimal energy management strategies. The Hubble Energy Next Generation containerised energy solution is designed to meet the specific needs of the C&I and Agricultural sectors, offering a reliable and efficient way to store and manage energy. This is particularly relevant for businesses looking to optimise their energy usage, reduce costs, and contribute to sustainability goals.

The system's modular design allows for flexibility in deployment, making it an ideal solution for businesses of varying sizes and energy requirements. Whether it's a large-scale industrial facility or a small agricultural operation, the Hubble Energy solution can be tailored to meet specific needs, ensuring that businesses can maximise the benefits of renewable energy sources.

Voltex's commitment to innovation

Hubble Energy's Next Generation containerised energy solution also served as a platform to showcase Voltex's extensive range of products and solutions. As a leading supplier of electrical, solar, motor control, lighting, tools, transmission and distribution, and cable and wire products, Voltex is committed to providing its customers with the latest and most innovative solutions on the market.

This event highlighted Voltex's role as a critical player in the renewable energy sector, reinforcing its commitment to supporting the industry's transition to more sustainable energy practices. By partnering with Hubble Energy, Voltex continues to expand its offerings, ensuring that its customers have access to the best-in-class solutions that meet their evolving energy needs.

Strengthening relationships

One of the most significant takeaways from the event was the importance of maintaining strong relationships with key customers. The positive response to the invitation and the high attendance at the launch demonstrated the value that Voltex places on its partnerships within the industry. These relationships are crucial in ensuring that Voltex remains at the forefront of the electrical and energy sectors.

Enquiries: www.voltex.co.za

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The case for more women engineers working in South Africa

Despite engineering being identified amongst the most in-demand occupations in South Africa, women only constitute one-fifth of the engineering workforce and face persistent wage inequality. Addressing this imbalance is key. If one looks at the broader global economy, the McKinsey Global Institute calculates that equal economic participation by both men and women would increase annual GDP by 26%.

"While there is a positive trend of more women joining the engineering profession, as evidenced by a 35% annual increase in Engineering Council of South Africa registrations, the gender gap remains substantial. With only 7,000 women out of 52,000 registered engineers, it's clear that there is still much work to be done," states Dr Andrew Dickson, Engineering Executive at CBI-electric: low voltage.

The gender gap in engineering

He points out that the underrepresentation of women in engineering is not a reflection of their abilities, but rather a consequence of insufficient exposure to engineering careers from a young age

and the prevailing misconception that it is exclusively a male domain.

Snothile Dlamini, a Graduate Engineer employed by the company, concurs, explaining, "Engineering has historically been a male-dominated profession, fostering a perception that women are unwelcome or ill-suited. Personally, I grew up with the misconception that physical strength was essential for success in the field, leading me to believe I needed to overcompensate for my lack thereof. I had to challenge my belief that I had to conform to masculine stereotypes to fit into the engineering world." "There is also a lack of female role models in engineering," adds Mechanical Design Engineer, Samukelisiwe Bhembe.

"Consequently, my desire to be part of the industry was self-generated. While I had always been interested in Science, Technology, Engineering and Mathematics (STEM) subjects, information about engineering careers, particularly for women, was scarce during my high school years. Through my own research, however, I discovered Mechanical Engineering and was captivated by its multitude of

approaches to problem solving. Thankfully, industry information is becoming more accessible for young women today."

Rising above industry challenges

Sadly, seventy percent of women who graduate with engineering degrees are driven out of the industry after starting their careers by a culture of exclusion that marginalises their voices and undermines their contributions. Bhembe has defied these odds by cultivating self-confidence. "I just let my work do the talking."

Like Bhembe, Dlamini recognised the need for confidence in her abilities. She also emphasises the importance of asking questions or for help when necessary – something many female engineers are afraid to do for fear of appearing weak. Both women have demonstrated exceptional resilience in overcoming obstacles within the engineering industry. Dlamini's accomplishment as one of only two Black female graduates from the University of Pretoria's Electrical Engineering class is a testament to her determination, while Bhembe's assignment as lead design engineer on a major project highlights her

capabilities and potential.

Advice for aspiring engineers

Bhembe encourages young women to explore the world of engineering. "Don't be afraid of taking the road less travelled. If you love science and thrive on problem-solving, engineering is the perfect field for you. Be prepared for a demanding yet rewarding journey filled with learning and growth."

"You are enough," says Dlamini to new engineers. "You are qualified and competent. Don't feel pressured to outperform your male colleagues. Push boundaries, apply what you have learnt and don't give up." Dickson calls on South African businesses to foster a more inclusive industry. "By implementing fair policies and creating a supportive environment, companies can empower women to make significant contributions to both the sector and the broader economy."

"Engineers shape our world. By omitting women from this crucial role, we create a world designed by and for only half the population," he concludes.

Enquiries: www.cbi-lowvoltage.com

RS partners with Sharps Electrical to drive innovation and sustainable growth in Botswana



the comprehensive product range that RS currently offers. This includes electrical components, tools, and advanced engineering solutions tailored to meet the specific needs of the Botswana market.

Sharps Electrical will serve as the in-country point of contact for RS, ensuring customers have direct access to technical support and customer care.

By combining the strengths and expertise of both companies, the partnership aims to enhance the customer experience in Botswana. The collaboration will enable the provision of a wider range of high-quality products tailored to meet customer needs. Furthermore, investments in training and development initiatives will empower staff to deliver exceptional customer service, thereby nurturing local partnerships and enhancing logistical efficiency.

Shoniwa adds that the partnership is a significant step in RS's overall growth and expansion strategy. "It not only enhances our presence and operational capabilities in Africa but also presents significant

advantages for Sharps Electrical," he says.

By establishing a local partnership in Botswana, RS aims to engage with customers more intimately, offering tailored support and fostering enduring relationships. This strategic move not only expands RS's geographical footprint but also ensures enhanced service delivery.

RS South Africa has formed a strategic partnership with Sharps Electrical a leading electrical wholesaler and contractor in Botswana.

This collaboration marks a significant stride towards fostering innovation and sustainable growth in the Sub-Saharan African region.

The partnership aims to leverage the strengths of both companies to deliver superior products and services to customers in the region. Prosper Shoniwa, Exports Business Development and Operational Manager at RS, highlights the importance of this collaboration. "This partnership is crucial for RS as it strengthens our presence in the Botswana market."

his excitement about the partnership: "Our aim is to diversify our product portfolio in conjunction with RS to advance our shared objective of expanding our market presence in Botswana. Together, we can introduce innovative products and foster collaborative efforts to deliver impactful supply and service solutions to our customers."

The partnership will focus on selling and supporting

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Selecting the right finish for steel wire cable tray systems in data centres

Legrand has introduced a zinc aluminium surface treatment for its Cablofil steel wire cable tray system, designed to meet the unique demands of data centres.

This finish is suitable for both the white and grey spaces, ensuring durability and resistance to corrosion, which are critical in environments where uptime and reliability are essential.

Legrand's Cablofil wire mesh tray system offers data centre operators several advantages. With easy installation, it allows for maximum cable capacity and improved airflow.

The system's robust design ensures it can withstand harsh conditions, and its customisable options enable it to meet specific facility requirements. Additionally, independent tests show the Cablofil system significantly reduces electromagnetic interference (EMI) when properly installed and earthed. Its surface finish absorbs EMI, helping to minimise disruptions to connected devices.

Addressing zinc whiskers concerns

One of the primary concerns in selecting cable management solutions for data centres is the potential formation of zinc whiskers on steel trays.

Zinc whiskers are tiny filaments of zinc that can grow from the surface of galvanised products. If these whiskers detach, they can become airborne and damage sensitive equipment like circuit boards.

Legrand specialists believe the risk of zinc whiskers is minimal with their zinc aluminium finish. In contrast to other finishes, this surface treatment ensures both safety and reliability in modern data centre environments.

What are zinc whiskers?

Zinc whiskers grow on zinc-coated products, especially in environments with vibration or friction. Once airborne, they can cause serious damage to IT systems by short-circuiting sensitive electronic components. While this is a rare occurrence, it's a significant concern for IT managers, especially in cleanroom environments like data centres.

Zinc aluminium finish

Legrand's advanced surface treatment immerses steel wire material in an alloy of zinc and aluminium, a process similar to traditional pre-galvanisation but with enhanced protection. This zinc aluminium coating offers superior corrosion resistance, extending the system's life expectancy compared to other finishes like hot dip galvanisation.

In rigorous salt spray tests, Legrand's zinc aluminium finish has endured over 1,000 hours, earning certification as a Class 8 product, providing assurance that the system will last in demanding conditions. Moreover, to date, zinc whiskers have not been found on any zinc aluminium-coated Cablofil products, further solidifying its safety in data centre applications.

Other surface finishes

While Legrand's zinc aluminium finish offers unique benefits, other finishes are also available depending on the specific needs of a data centre.

Electroplated (EZ): Zinc electroplating involves immersing raw steel in an electrolytic bath, producing a smooth, shiny finish ideal for indoor applications. Although zinc whiskers can still form on electroplated products, they remain the preferred choice for many data centres.



Even major manufacturers use zinc-plated components within their equipment.

Powder Coated (PC): This finish uses epoxy powder, available in various colours. While powder coating provides a visually appealing finish and can help identify cable runs, it doesn't eliminate the risk of zinc whiskers. However, it's often chosen for its aesthetic appeal and colour coding possibilities.

Pre-galvanised (PG): This finish involves dipping steel in a zinc bath before manufacturing. Although pre-galvanised steel is popular due to its affordability and corrosion resistance, it may show weld burns, which are potential weak spots. While it is commonly believed that zinc whiskers do not form on pre-galvanised products, Legrand experts caution that this finish lacks the corrosion resistance of other finishes, such as zinc aluminium.

Enquiries: www.legrand.co.za

Labelling like a pro with industrial label printers

There's no doubt that for electricians and cable installers, labels are a critical element of the job. A lack of labelling or illegible labels could prove costly to the safety and efficiency of a project – a risk that could damage the reputation of a professional electrician or infrastructure installer.

Brother offers a range of robust, industrial label printers that are perfect for working on site. The PT-E550W model even lets you print directly from your smartphone or tablet using our Mobile Cable Label Tool app. Improve your on-site efficiency with our fast print speeds, label preview function, built-in label templates and symbols and a high strength cutter.

The Brother P-touch Pro Tape range provides durable, flexible and cost-effective labelling solutions and can be used by electricians to label signs and notices with general warnings, control gear and switch gear, electrical trunking and conduits, contact details, cables and cabling, lighting, solar panels, electrical car charging points, distribution boards or consumer units, electrical sockets and PAT testing.

Stronger for longer

In the electrical industry, labels are exposed to tough environments. Designed to stay intact on smooth, textured and powder coated surfaces, our strong adhesive tape offers three times more strength on textured surfaces on average compared to Brother's standard tape, based on results from independent testing. This makes the tape ideal for electric panel identification.

Professional labels covered

The strong adhesive tape is part of Brother's P-touch Pro Tape range, offering solutions for all your professional

labelling needs. The range consists of six other tapes designed for a wide range of applications and environments:

- Flexible ID laminated tape created for cable wrap and flags.
- Heat shrink tube made of special non-adhesive tape that grips to the cable when shrunk down.
- Flag die-cut non-laminated label ideal for fibre optic and other thin cables.
- Self-laminating tape allows printed labels to be protected and permanently sealed with a laminated layer overwrap. Ideal for cables including larger diameter CAT6A.
- Security laminated tape for added reassurance, visibly shows if the label has been tampered with and cannot be reapplied once peeled.
- Stencil tape suitable for industrial markets, the tape has a thermal sensitive layer that masks ink or special fluids to directly mark components or parts.

Staying labelled

Brother P-touch laminated labels have undergone a series of vigorous tests to prove they will remain in place and stay legible when exposed to abrasion, chemical and temperature extremes.

The flexible ID tape and self-laminating tapes have specially formulated adhesive to wrap securely around curved surfaces with a minimum diameter of 3mm.

Pro Tapes have been designed to be a perfect team with our range of label printers for electricians. Opting for a Brother genuine supply label tape means you can be reassured they will deliver the best possible results together – which are compliant and efficient.

Enquiries: www.brother.co.za/label-printers/industrial-label-printers/



The latest 14-piece insulated Tork Craft electrician's tool set

Sparkies, or anyone who works on or around electrical circuits, often build up a special kit of electrician's screwdrivers and pliers. These unique tools are designed to insulate the utensil and the operator from the dangers of high-voltage circuits and even electrocution. So they're a vital part of any electrician's toolkit.

Now, South Africa's favourite tool brand, Tork Craft, has some good news for the electrical contractor in its new 14-piece insulated electrician's driver and hand tool set. Featuring a full set of fully thermoplastic polyurethane insulated hand tools and drivers packed in a nylon zip pouch, this set is poised, ready, and up to any high-voltage task.

The seven-piece screwdriver set features precision-engineered S2 steel blades and ergonomic TPU-insulated handles and sheaths. It also includes a Category III safety volt tester with a bright red LED light. The set includes four 0.4 x 75 mm number 2, 0.8 x 100 mm number 4, 1.0 x 125 mm number 5, and 1.2 x 150 mm number 6 slotted screwdrivers, as well as three 60 mm zero, 80 mm number 1, and 100 mm number 2 Philips screwdrivers.

The TPU insulated plier set comprises three 180 mm combination pliers, 160 mm side cutters, and 200 mm long nose pliers. The set also includes a 160 mm wire stripper and two 10 m rolls of black and red insulation tape. The pliers have convenient slotted lanyard openings. These lightweight and durable tools are all safety-rated to a kilovolt and easily handle temperatures between minus 40 and 70 degrees.

Tork Craft is a Vermont Sales brand. Established in 1985, Vermont Sales offers a wide range of tool solutions from more than 40 leading, tried, tested, and guaranteed brands. Available through well over 3,000 outlets across Southern Africa and backed by the Vermont Sales Force, the company also offers comprehensive training across all its brands.

Enquiries: www.vermontsales.co.za



DMG MORI, Renishaw, and Siemens are working as innovation partners



CAM applications. For example, machine operators on the shop floor can purchase a digital twin package that allows them to create a simple NC program on the PC and thus carry out a collision check without using the machine. A CAM user, on the other hand, can create sophisticated parts in a CAD environment and perform a quick initial validation of the program. With DMG MORI's new, scalable digital twin offerings,

customers can now individually determine the scope of the required simulation and purchase the corresponding packages.

The DMG MORI digital twin for machine tool machining helps to avoid programming errors that cause rejects and damage to the actual machine. It can ramp up production up to 40 percent faster, significantly reducing the energy consumption of the real machine. Even

new processes can be set up digitally while the machine is in operation. It also helps to reduce unproductive machine times, such as test machining, by as much as 75 percent. This is because the testing and running-in of programs is transferred from the actual machine to the virtual world.

Enquiries: www.siemens.com/za

Siemens is consistently expanding its ecosystem for the machine tool industry. Together with its partners DMG MORI and Renishaw, the technology company is presenting new offerings as part of Siemens Xcelerator.

With a focus on scalability and high flexibility, there are now even more intelligent machining applications for CNC users that seamlessly complement the Siemens solutions and deliver a high value-add based on them. The open digital business platform Siemens Xcelerator thus creates a powerful ecosystem of partners to jointly accelerate the digital transformation of the industry.

The Siemens Xcelerator offering from Renishaw consists of a solution for measuring and monitoring the condition of tools. The basic system is already offered by DMG MORI. The solution is based on a high-precision laser system for tool measurement from Renishaw and the edge-based analysis software Analyze MyWorkpiece /Monitor from Siemens.

The condition monitoring solution enables the automatic validation of tool wear and the timely automatic replacement of worn tools. The solution also ensures that the manufacturing process is traceable thanks to data evaluation. The fast tool inspection by optical scanning reduces manual intervention and therefore disruptions within the manufacturing process. The data-driven analysis approach ensures the traceability of the manufacturing process, which closes the loop in terms of quality assurance and production planning (closed-loop manufacturing).

The manufacturer of high-precision machine tools, DMG MORI, is expanding its offering for the end-to-end digital twin for machine tool machining on the Siemens Xcelerator Marketplace. Specific solutions for the digital twin of the control system, machine, and workpiece will be presented for a variety of applications. This makes it possible to optimise machining processes long before the real machine is put into operation. Based on the digital native CNC Sinumerik One, the portfolio includes a tailored digital twin for the user – regardless of the shop floor or

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SIEMENS



Automatic schematic generation in the cloud

Automating the generation of schematics leads to faster results and fewer errors. Solutions provider Eplan has developed a variety of technical approaches for this process.

One of these is the cloud-based software eBuild, with which users can generate their projects with a simple mouse click. The new Version 2025 is now available – with significant advantages in ease of use, operation, and for configuring and generating schematics.

Automatically generating schematics is nothing new. Exactly how this happens is getting increasingly innovative and one thing is clear: the cloud has become indispensable in this process. Eplan's eBuild software, which is fully integrated into the Eplan Cloud, now offers even more ease of use and maximum simplicity. The new Version 2025, which is available now, impresses with numerous improvements for the more efficient use of macro technology in engineering.

"We have developed a solution that is easy to use, but at the same time is very innovative in terms of its functionality,"

says Eplan's Business Owner Functional Design Holger Jansen.

Operation in the cloud – even easier and now context sensitive

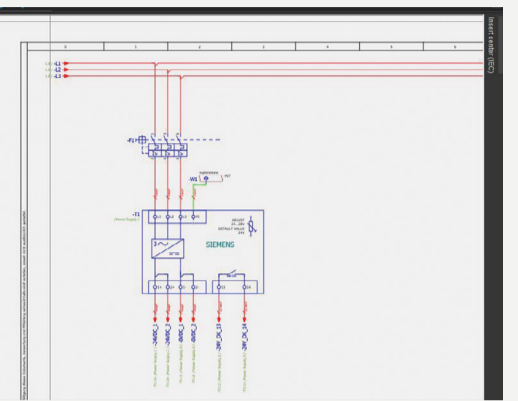
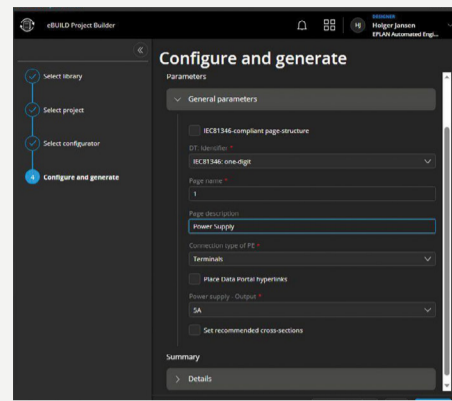
The user interface has been optimised so that users simply have a better overview of the project even more quickly. For instance, the new Navigator bar means that users can keep an eye on the eBuild configuration and generation process at all times. And that is not all on the technology side of things.

"The new context-sensitive Inline app assistance technology gets users faster results," Jansen says.

"This new help functionality, which is directly embedded inline into eBuild, makes it even easier to use."

How it works

The process is very easy. Users just log into the Eplan Cloud and can access their own projects via their company organisation in the cloud. No software installation is necessary for this. In Project Builder – a part of Eplan eBuild – the corresponding macro libraries can be selected and then



the project can be configured and/or generated. The new Navigator supports users in this area by making the selection process easier.

End-to-end data consistency – from product structuring to the actual project realisation – is also ensured on the system side by complying with guidelines and standards.

A set of rules and configuration interfaces can be intuitively and quickly created without knowing any higher programming languages – skills in Eplan macro technology suffice here.

These Eplan macros are then augmented in eBuild with a set of rules. Users next use this configuration method to input their client's requirements for a machine or plant system. A new feature in eBuild 2025 is the ability to configure from an internet browser – on Windows, Android or iOS. So there are no longer any obstacles for using eBuild as an engineering configurator on mobile devices.

Generation in the cloud means even more collaboration

Enquiries: www.eplan.com

Home and business AI uptake drives Rectron Summit 2024

Hundreds of delegates, including resellers and vendors, confronted the multi-faceted future of rapid artificial intelligence adoption, its risks, and opportunities.

Coming to grips with the countless applications and potential unexpected innovations and risks in Artificial Intelligence adoption drove the central theme of the Rectron Summit 2024: Future Forward With AI. The annual ICT conference connected Rectron's network of dealers and vendors from across South Africa, and even some abroad, with the aim of unlocking opportunities through emerging technology.

"Artificial intelligence had been a part of humanity for decades already, gradually progressing from experimental settings in the 1950s to the emergence of machine learning in the 1990s, to becoming a mainstream reality across people's personal and professional lives," said Spencer Chen, Rectron chief executive.

"By 2024, we saw a rapid acceleration and proliferation of AI applications, from virtual assistants, image (and speech) recognition, natural language processing, predictive analytics, autonomous vehicles, health and biotech, with countless sectors embracing the efficiencies and innovative solutions AI unlocked.

"AI use, while promising, came with ethical, as well as technical questions that needed to be addressed, from the impact on public opinion, jobs, AI autonomy, and the security of powerful AI systems against cyber threats or unintended system activity," he added.

The Rectron Summit 2024 took place on 12 September at The Focus Rooms in Modderfontein, Johannesburg, showcasing emerging technology while providing support for resellers to upskill and keep up with a rapidly evolving tech marketplace. In line with Rectron's key

ethos of "improving lives," the event offered resellers a first-hand experience of new tech, new markets, and global technology trends with a multi-faceted programme based on three themes:

Harnessing AI

The programme explored the benefits of integrating AI and related technologies into workspaces, enhancing customer and operational experiences by streamlining processes and accelerating deliverables.

Accessibility

AI demonstrated its ability to open untapped avenues for businesses, offering advanced solutions. It regulated access to information, creating more inclusive digital experiences for a larger audience.

Security

Like any new tool, attendees needed to understand the opportunities AI offered and how to use it safely and effectively. Businesses, whether large or small, were empowered with advanced security options to prevent data compromise, ensuring a secure environment.

As the AI market matured rapidly, full-scale deployment increased across all sectors of technology for businesses and households. Businesses that recognised the value of investing in AI reaped significant rewards.

Rectron's partnership with its vendors was essential in bringing their shared vision to life. The showroom floor highlighted the latest AI-related products Rectron offered, featuring South Africa's most important brands, alongside key stage presentations by industry experts on AI and its role in business. Workshops, breakaway presentations, and demonstrations kept attendees, media, and retailers engaged.

Enquiries: www.rectron.co.za

Capitalising on Africa's data centre boom

Data centres undoubtedly represent enormous opportunity in Africa as demand for seamless network connectivity continues to rise on the continent and around the world. Advances in engineering, technology and sustainability make it possible to overcome some of the historical barriers to growth and capitalise on this trend, says Craig Blankers, Director: Acting Sector Lead, WSP in Africa.

On the African continent, urbanisation, population growth and the ongoing expansion of 3G, 4G and 5G networks are major drivers of the data centre boom, as more and more people connect to the Internet.

Internationally, the speed of change in the industry and the catalytic advances in artificial intelligence (AI) and other high-density technologies demand a vast amount of processing power to run – and that's changing how data centres are designed and built.

Revenue in Africa's data centre market is projected to reach US\$6.47 billion within this year and is expected to show a compound annual growth rate (CAGR) of 7.18% by 2029, resulting in a market volume of US\$9.15 billion.

Though impressive, this growth is minimal when compared to global market predictions of 8.45% CAGR and a market volume of US\$624.10 billion by 2029.

Factors including limited infrastructure, slow digital transformation, and lack of awareness about the benefits of data centres, and advances in engineering and technology, play a role in these slow growth predictions.

Yet, according to the Africa Data Centres Association, Africa alone needs 1000 MW and 700 facilities to meet growing demand. And investment is starting to come through.

Despite recent investments in data centre infrastructure in Sub-Saharan Africa, much of the continent's capacity remains in South Africa, where the market comprises of 408 MW. Nigeria and Egypt follow with 140 MW and 118MW respectively.

Kenya is making strides as well, with

79 MW, while Morocco closes out the top five with 65 MW of supply. With traditional data centre hubs like Amsterdam and Dublin now facing acute land and capacity constraints, and increasingly restrictive policies for data centres development, hyperscalers and operators are beginning to expand into different regions, presenting an opportunity for African locations like these.

The energy conundrum

The reliability of municipal power supplies remains a big challenge. The higher computing power needed – and therefore additional cooling power required – by facilities running AI demands reliable energy supply, not to mention flexible innovative solutions for reliable operations and enhanced performance.

Many African countries have unstable, coal-intensive grids and strategic power outages intended to reduce peak demand. Because data centres need power to stay operational 24/7/365, reliance on onsite back-up generation is often the (expensive) norm.

More public and private sector investment in renewable and sustainable energy technologies, driven in many cases by the adoption of green economy policies and growth strategies, is beginning to have a positive impact on the availability of reliable energy. Solutions such as onsite solar power plants and energy wheeling are gaining traction – enabling data centres to be powered by solar facilities built nearby.

Other advances in engineering design and technology, such as distributed uninterruptible power supply (UPS) systems providing back-up power at rack level, to specialised mechanical systems distributing stable liquid cooling direct to AI processors, are on the rise, too.

WSP's Mission Critical experts are constantly adapting client designs to keep pace with the rate of technology change and speed to market demands.

Enquiries: www.wsp.com



A Glimpse into mining innovation and investment

Deputy Minister of Mineral and Petroleum Resources visits Electra Mining Africa to explore innovations in the mining industry, emphasizing job creation, beneficiation, and the importance of private sector investment

Electra Mining Africa has long been a pivotal platform for showcasing innovation, technology, and progress within the mining and industrial sectors. This year, the event attracted notable attention from the government, with the Deputy Minister of Mineral and Petroleum Resources, Judith Nemadzinga-Tshabalala, visiting the exhibition.

Her visit underscored the vital role that Electra Mining plays in fostering economic growth and advancing South Africa's mining industry.

Electra Mining Africa at a glance

Electra Mining Africa is Southern Africa's largest trade show in the mining, electrical, automation, manufacturing, power, and transport industries. Held from 2 to 6 September at the Expo Centre in Johannesburg last month, the event showcased over 950 exhibitors across 40,000 m² of space.

With over five decades of history, the exhibition serves as a business and trade hub for local and international companies seeking to promote their innovations and expand their market reach.

An historic show

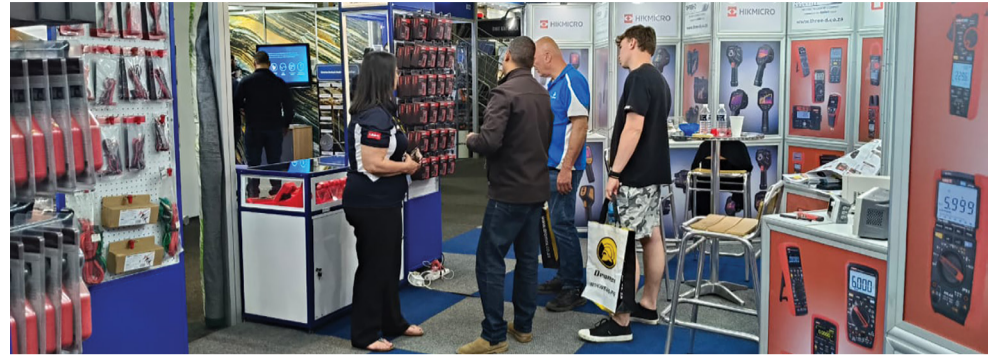
This year's edition of Electra Mining Africa was the largest in the event's history. Many exhibitors also introduced new products to the market for the first time, further highlighting the importance of the event as a platform for launching cutting-edge solutions.

By connecting businesses, government officials, and industry leaders, Electra Mining Africa continues to foster economic growth not only in the mining sector but also in related industries such as manufacturing, power, and transport. The exhibition serves as a space for meaningful interactions and strategic partnerships that will propel the South African economy forward.

Electra Mining Africa remains a cornerstone of Southern Africa's industrial sector, attracting attention from both the government and the private sector. The Deputy Minister's visit not only showcased the importance of innovation and investment but also reinforced the need for stronger partnerships to drive growth and job creation in the mining industry. As Electra Mining continues to expand, it's clear that the exhibition plays a vital role in shaping the future of South Africa's economy.

Electra Mining Africa will return in 2026, to continue its legacy of showcasing innovation.

Enquiries: www.electramining.co.za



Three-D Industries were at Electra Mining Africa showcasing top-quality cable accessories and solutions. Three-D Agencies aim to always provide its customers with the highest level of service and expertise. By only providing products of the finest quality their goal is to be a preferred supplier to customers. Whether you need test instruments, power tools, hand tools, wire and cable markers, lugs and terminals, cable protection solutions, or battery and hydraulic tools, Three-D Agencies has you covered.

Enquiries: www.three-d.co.za



Wearcheck made a splash at Electra Mining Africa at stand E30. WearCheck customers, which hail from a wide range of sectors, but predominantly mining, power-generation and engineering, have access to a comprehensive selection of monitoring techniques. The scientific analysis of used oil, as well as fuel and other fluids, forms the staple service in WearCheck's condition monitoring programme. This fundamental technique, which the company has perfected over nearly 50 years, involves analysing oil samples using various laboratory instruments, to determine whether traces of certain elements are present in the sample.

Enquiries: www.wearcheck.co.za

CONTINUED FROM PAGE 1

WACO'S 75 YEAR LEGACY OF INNOVATION AND GROWTH STRENGTHENED BY NEW PACKAGING REBRAND



distribution centre and branches in Durban, Cape Town and Gqeberha, WACO remains a reliable partner to electrical outlets across Southern Africa, meeting their electrical needs efficiently and sustainably. As the company looks ahead, its focus on expanding its product offering even further and embracing new technologies to ensure it remains a leader in the electrical sector for years.

To mark its 75th anniversary and the launch of its new packaging, WACO is running several promotions, including a competition with significant prizes.

"This is in commemoration of our 75th anniversary and our expansion into the retail space," says Ravinash Naidoo, Marketing Manager at WACO Industries. "In the coming months, we're giving away R120,000 in prizes—including a home solar inverter system and cash prizes.

WACO's continued innovation ensures it will remain synonymous with electrical products, just as it has been for the past 75 years in South Africa.

Enquiries: www.wacoelec.co.za / +2711 677 2500



COMTEST had a prosperous Electra Mining Africa 2024, with an exhibition stand handled by COMTEST Account Sales Managers Lourence Menezes, Hennie Classen and Sihle Ngubane, with Jannie Dirks, Group Sales Director and Leanne Cole, Group Marketing Manager. "We look forward to following up on all of the new business leads we made during Electra Mining, and it was also great to see a lot of our loyal customers and dealers there too," said Dirks after the event's conclusion.

Enquiries: www.comtest.co.za



Visitors to Electra Mining 2024 was able to step into the vibrant world of ACDC Dynamics and immerse themselves in the essence of ingenuity through the exclusivelineup of pillar brands that will be showcased at the event. ACDC Dynamics showcased the innovation and reliability that define their presence in the South African electrical and lighting industry at Hall 6, Stand C18. The electrical giant showcased howits range of products can elevate projects and operations across various sectors.

Enquiries: www.acdc.co.za

Locally manufactured MCCs for the global market

With a history of delivering large engineering projects globally, Iritron has over 20 years' experience in designing Motor Control Centres (MCCs) built to the highest international specifications, explains Alwyn Rautenbach, the CEO of Iritron.

Iritron, is an engineering, integration and manufacturing company providing solutions in the fields of electrical, instrumentation, control systems and decision support systems.

Rautenbach explains that driven by quality standards, the company has ISO 9001:2015 quality management system accreditation and is considerate of the wellbeing of the environment and its staff, customers and contractors, boasting ISO 14001: 2015 and ISO 45001:2018 accreditation. Iritron's panels also carry the SABS mark.

"We always engineer solutions that contribute to the effectiveness of operations according to the client's specifications. Return on investment needs to be justified, and that is where Iritron excels," he adds.

As members of the Electrical Switchgear Association of South Africa (ESASA), Iritron is a custom panel and MCC manufacturer with a manufacturing facility in Gauteng; and as a level 7 Engineering and Procurement (EP) with the Construction Industry Development Board (cidb), provides construction installation management.

"While our professionalism and quality compliance allow us to execute faceted projects successfully, nothing beats word of mouth," states Rautenbach.

Internationally, the company has completed a number of complex control and automation projects that included the design and manufacture of custom panels and MCCs including the following notable projects:

Multi-million rand cross-border project in Gabon

Last year Iritron completed an expansion project for a manganese mine in Gabon. The mine is the world's second largest high-grade manganese producer. Iritron has a history of delivering large engineering projects globally, and this project was no different. The company has more than 20 years' experience in the manganese mining market, starting in South Africa, and expanded into the rest of Africa and abroad.

The project – designed by a global multidisciplinary EPCM consultancy – tasked Iritron with delivering a solution that comprised multiple engineering disciplines with tight deadlines: electrical MCCs, a control system, CCTV and network cabinets form part of the delivery. The project, explains Rautenbach, was awarded to Iritron owing to its proven engineering expertise and experience in this type of delivery.

"A project of this magnitude included some unique challenges. The company was impacted by worldwide semiconductor shortages that created logistical challenges due to supply chain disruptions and capacity shortages. The ongoing pandemic and port congestion did not alleviate the problem either. This required the Iritron team to turn their operations 'upside down', in the literal sense, to keep to timelines," he explains.

What is meant by that statement, adds Rautenbach, is that the team started work on the MCCs in reverse – activities usually scheduled for the end of a build were completed first.

"This was a testament to the ingenuity of the project and the engineering team, as no time was wasted waiting for equipment to arrive. "The team got ahead as a result of its technical expertise and proven design methodologies, to ultimately reduce overall project risks posed by the supply chain bottleneck. Iritron successfully delivered the project on time and within budget, and in the process securing additional larger projects."

Make-over for packaged goods plant

The estimated R7.5-million project, for a major South African packaged-goods company required refurbishing and upgrading a plant with the latest optimised control systems. The scope of work revolved around replacing eleven Wheat Mill's programmable logic controllers (PLCs) with one Siemens S7-1500 PLC. The PLC panels were replaced by remote IO panels. The old PLC programs were reverse-engineered and reprogrammed into the new Siemens PLC.

The eleven-storey plant comprises more than 4 000 instruments that are all connected to the control system. Iritron was responsible for replacing all the panels, switchgear and PLCs connecting to the original supervisory control and data acquisition (SCADA) system. New communication cables and power cables were supplied and installed.

A showcase of WEG's hybrid power and sustainable solutions

Mines today look to partner with original equipment manufacturers (OEMs) who share their commitment to sustainability, and can offer the latest technology to optimise production while reducing their carbon footprint.

This is the view of Eduardo Werninghaus, CEO at WEG Africa, whose exhibit at the Electra Mining Africa highlighted the company's extensive range of energy technologies – including solar, wind, steam and battery energy storage solution.

This diversity of choices, says Werninghaus, allows customers to consider various hybrid energy options to meet their sustainability goals.

"WEG's important differentiator is that we can draw from our wide selection of energy generation solutions, so we are really unbiased when helping customers find the most suitable design for their specific conditions," says Werninghaus.

"By including renewable energy sources in our offering, we ensure customers can optimise sustainability while not compromising productivity."

In the field of solar power, WEG has an extensive portfolio of products for all stages of the photovoltaic solar generation projects, with solutions for energy conversion and internal distribution systems. These cover aspects all the way from the plant to the point of connection with the electrical system through high voltage substations.

The focus on clean energy is also driving the expansion of biofuel production, making steam power increasingly relevant to the local economy. WEG has established a leading role in turbogenerator solutions in Brazil, for example, where it has recently supplied systems that this year will add 140 MW of clean energy to that country's capacity.

"WEG also provides customers with the technology they need to improve energy efficiency – thereby reducing not only their costs but their carbon footprint as well," he says.

"Our WEG W23 Sync+ electric motors are the most complete line of high efficiency units, with exceptional efficiency regardless of speed or load variations."

These motors can deliver energy savings of up to 30% in comparison to conventional IE3 induction motors using frequency inverters. Werninghaus also points to the cutting edge technology employed in WEG's frequency inverters, allowing speed variation in three-phase induction motors.

Quantifying the impact of sustainability initiatives is also important, which is why WEG has developed its WEGSEE+ platform for calculating potential energy



savings. This allows customers to predict the potential savings achievable by replacing motors, gearboxes and inverters. The tool provides the necessary data for making smart decisions so that resources can be optimised.

Werninghaus highlights how WEG has embraced sustainable production in its own operations, emphasising its understanding of how important this priority is for its customers. As a measure of this commitment, WEG was awarded Gold Medal status from Ecovadis last year. Ecovadis is one of the world's main global rating agencies for corporate sustainability management.

"We are also judged to be a 'leader' company by CDP Climate Change, who focus on assessing companies' decarbonisation management," he says. "Our environmental, social and governance (ESG) risk is also classified as 'low' by Sustainalytics."

Part of WEG's sustainability drive is also to promote local production, which reduces the carbon footprint associated with long haul transportation of products, and promotes the local economy while reducing lead-times for customers. The company's electric motor production lines in Johannesburg are just one example of WEG's local resource base. Among its many South African facilities is the Robertsham operation which engineers automation systems, the genset manufacturing operations in Cape Town and now also in Johannesburg, and the transformer manufacturing facilities in Wadeville and Heidelberg.

Enquiries: www.weg.net



Redundant PLCs and other equipment was replaced with modern equipment, ensuring a modern plant control system with available spares. The new equipment will reduce unplanned downtime, owing to control equipment failure, thus increasing plant reliability and throughput. It also ensures a reduction in control equipment and potential points of failure and maintenance in the long term.

"New technology was implemented, for example, in the

roller mill electrical works, with a new MCC designed, manufactured, fitted, supplied and installed by Iritron. The MCC is equipped with automation company ABB's switchgear and OEM-supplied free issue variable-speed drives (VSDs). The MCC is equipped with 45 direct online starters and 26 VSD starters," concluded Rautenbach.

Enquiries: www.iriron.co.za

Predictive maintenance is built on digitisation and automation

Predictive maintenance is rapidly transforming how industries manage and maintain their assets. According to the Predictive Maintenance and Asset Performance Market Report 2023–2028, the global predictive maintenance market is forecast to grow at a compound annual growth rate (CAGR) of 17% until 2028. The report valued the marketplace at \$5.5 billion in 2022, highlighting its significant role in enhancing asset maintenance and monitoring efforts across various sectors.

Heavy industries driving growth

Obinna Uche, Sales Director for Power Systems at Schneider Electric, Anglophone West Africa, believes that industries with high asset investments and substantial downtime costs are at the forefront of this growth. These industries rely on predictive maintenance to minimise disruptions and optimise operations.

In West Africa, the convergence of digitisation and automation has become central to companies' predictive maintenance strategies. By integrating sensors and connected devices across operations, businesses are now able to collect crucial data on equipment health, performance trends, and potential failure patterns.

Real-time data for informed decision-making

Access to accurate, real-time data enables maintenance teams to make informed decisions, prioritise tasks, and allocate resources effectively. This proactive approach contrasts sharply with traditional reactive maintenance, where issues are only addressed after they arise.

Automation plays a pivotal role in processing this data quickly and accurately. By leveraging advanced analytics and machine learning (ML), companies can develop predictive maintenance algorithms that accurately forecast equipment failures. This foresight not only prevents costly operational disruptions but also supports better planning for future production and market trends.

Empowering proactive maintenance

Automation further enhances predictive maintenance through the use of smart products and equipment capable of collecting and processing data autonomously. These devices, equipped with built-in processing capabilities, can detect anomalies and issue warnings without human intervention.

For businesses across West Africa, shifting from reactive to proactive maintenance offers a range of benefits, including:

- **Efficiency:** Digitisation and automation boost operational efficiency by minimising downtime and maximising productivity.
- **Profitability:** Proactive maintenance reduces maintenance costs and prevents revenue losses from unplanned shutdowns.
- **Predictive Accuracy:** By leveraging data analytics and ML, businesses can anticipate equipment failures and take timely action to prevent disruptions.

Schneider Electric's EcoStruxure architecture integrates Internet of Things (IoT) devices, automation, and data

analytics, providing real-time monitoring, anomaly detection, and predictive maintenance scheduling. EcoStruxure operates across three layers: Connected Products, Edge Control, and Apps, Analytics, and Services, offering end-to-end coverage of predictive maintenance processes, from data collection to actionable insights.

For instance, the EcoStruxure Plant offering supports predictive maintenance by employing advanced analytics and real-time data evaluation. It enables:

- **Data Collection:** Live data from critical connected assets within the plant environment.
- **Advanced Analytics:** Sophisticated analytics to identify potential threats and anomalies.
- **Early Warnings:** Timely alerts for equipment issues, enabling proactive intervention.
- **Decision-Making:** Users can take direct action or engage Schneider Electric's Service Bureau for expert support.

Expert services to optimise maintenance

Schneider Electric offers a suite of services to help businesses optimise their maintenance strategies. These include audits, modernisation, consulting, implementation support, and ongoing maintenance, ensuring that companies can fully realise the benefits of predictive maintenance.

As industries continue to embrace digitisation and automation, predictive maintenance stands out as a key enabler of operational resilience, profitability, and long-term success.

Enquiries: www.se.com/za/en/

Enhancing industrial efficiency with WearCheck

Motor Control Centres (MCCs) are pivotal components in the industrial sector, providing centralised control and protection for electric motors, fans, pumps and other equipment. They act as centralised systems that house electrical components like circuit breakers, motor starters, relays, and power-distribution busbars.

WearCheck's condition monitoring expertise is instrumental in optimising the efficiency of MCCs, reducing downtime and enhancing productivity.

Philip Schutte, general manager for WearCheck's asset reliability care (ARC) division, explains, "MCC systems are integral to the efficient operation of machinery that uses electricity in various industrial environments. By managing the distribution of electrical power, MCCs ensure that machinery operates smoothly and safely. MCCs are used in many sectors, including manufacturing, water treatment and petrochemicals, among others."

However, like all critical infrastructure, MCCs require regular maintenance and monitoring to prevent failures and optimise performance. This is where WearCheck comes into play, offering significant benefits for the longevity and efficiency of MCCs. "Regular maintenance of MCCs is crucial to prevent unexpected breakdowns and ensure continuous operation. Traditional maintenance practices often involve scheduled inspections and manual checks, which, while effective, can be time consuming and may not always detect issues early. This is where condition monitoring offers a more proactive approach," says Schutte.

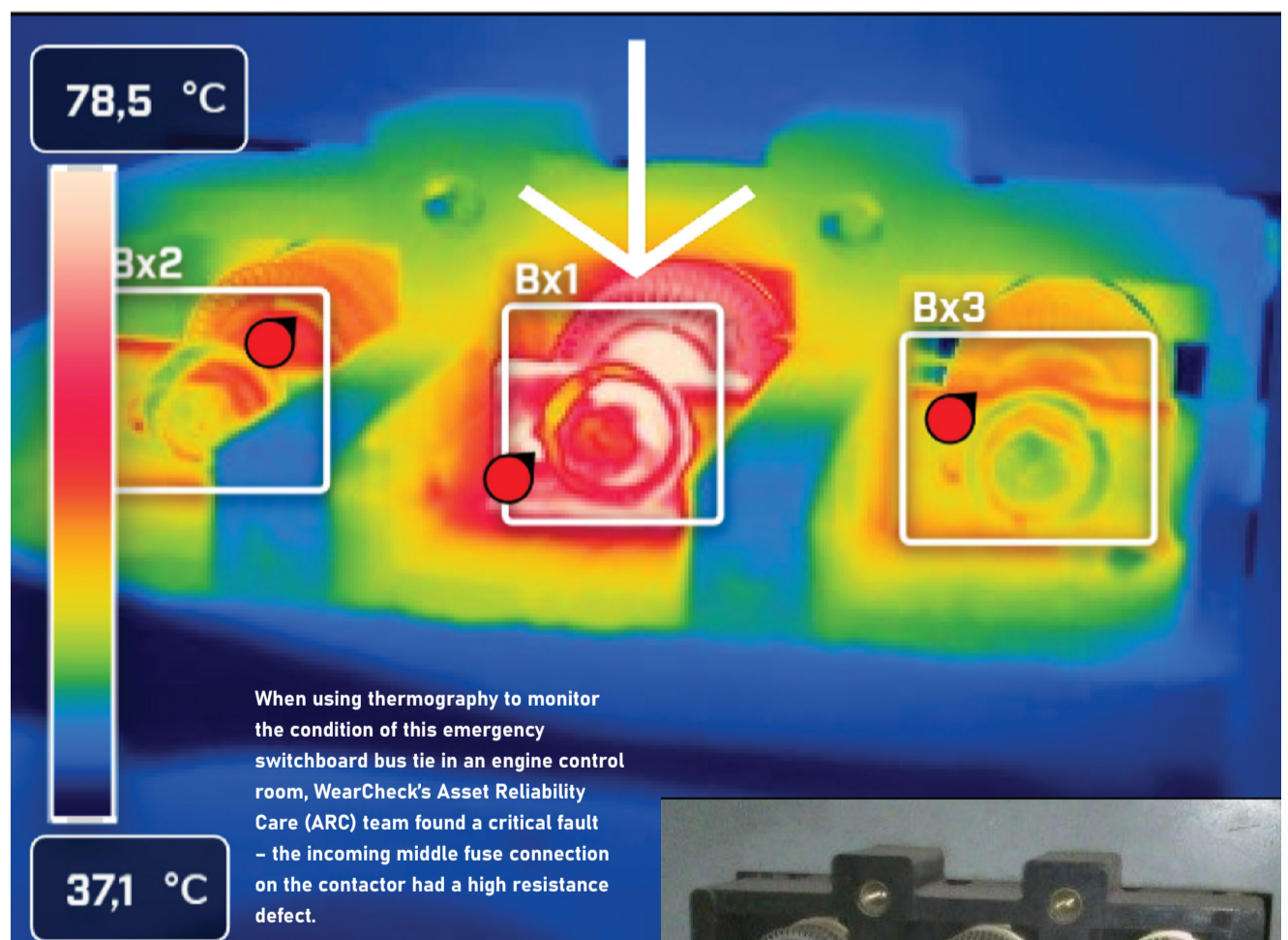
"WearCheck's condition monitoring programmes involve measurement and analysis of parameters such as temperature, vibration, and electrical characteristics to assess the MCC's health. Using various techniques, WearCheck technicians can detect anomalies and potential failures before they result in failures or downtime."

"We use different methods to assess the health and functionality of MCCs and associated equipment, including thermal imaging, vibration analysis, infrared thermography, partial discharge testing, harmonic analysis and insulation resistance testing," adds Schutte.

"Some of the faults we detect include overheating, loose connections, motor overload or failures, short circuits, electrical arcing and power quality issues."

Benefits of condition monitoring:

- **Early fault detection** - timely intervention can prevent minor issues from escalating into major failures.
- **Reduced downtime** - by predicting and addressing potential failures before they occur, condition monitoring helps minimise unplanned downtime - especially in



mining and manufacturing, where continuous operation is critical to productivity and profitability.

- **Enhanced safety** - monitoring the condition of MCCs can prevent hazardous situations such as electrical fires or arc flashes.
- **Cost savings** - for many clients, WearCheck's proactive maintenance approach has saved significant maintenance costs and avoided downtime.
- **Optimised performance.**
- **The insights gained** from the various condition monitoring techniques enable WearCheck's ARC technicians to advise maintenance teams and assist them to make informed decisions about when and how to perform maintenance tasks.

Schutte concludes, "As MCCs are essential for the efficient and safe operation of industrial facilities, it is important to incorporate condition monitoring into MCC maintenance strategies to enhance their reliability, safety,

and performance. This proactive approach prevents costly downtime and ensures that equipment operates at peak efficiency, ultimately contributing to the overall success of industrial enterprises."

Enquiries: www.wearcheck.co.za or [email support@wearcheck.co.za](mailto:support@wearcheck.co.za)



Complete electrical termination solutions from Pratley

Complete electrical termination solutions for the mining industry are available from local manufacturer Pratley.

Apart from individual products, Pratley can supply entire lighting circuits for mines, highlights Marketing Director Eldon Kruger. A typical mine has light fittings every 7 m, with Pratley being able to provide all the terminals and cable glands pre-fitted for any circuit length.

"It is a systematic way to connect lighting on-site in a mining environment. It is done quite efficiently by installing a catenary cable and then attaching LED lights that are now used due to energy efficiency requirements. The cable glands are adaptable, and everything is integrated with the junction box itself," explains Eldon.

A circuit breaker can be included to allow the lights to be switched off quickly if a new fitting needs to be installed on-site. The mine can then return the light fitting to its workshop for repair so it can be used again. "It is a highly convenient and adaptable lighting solution for mines," adds Eldon.

On the junction box side, Pratley's Flameproof Ex d Envirobox®, which received the prestigious 'Technical Product Innovation' award from the South African Flameproof Association (SAFA), is ideal for hazardous mining environments. Whereas, all traditional direct-entry flameproof junction boxes are made from steel, cast iron or aluminium, the Envirobox® is made from a specially formulated, robust engineering polymer unique to Pratley and is completely corrosion resistant.

The material has exceptional mechanical properties such as strength, stiffness, creep, and dimensional stability. As a result, the junction box can withstand 2 x 20-joule impact tests in a staggering -40°C environment.

It has also been third-party tested to a massive 4 000-kilopascal internal pressure. Additionally, it is IP66/68 certified for continuous underwater depths of up to 300 m, making it water, dust, and gastight. The lid and base have an accurately machined flamepath.

The flameproof Ex d Envirobox® can be supplied with



either 4 x M20 or M25 entries or smaller upon request. It can accommodate Pratley Ex d flameproof cable glands and accessories and is therefore exceptionally versatile. Each box is supplied as a standard four-way box with two flameproof blanking plugs.

The internal bosses are drilled and tapped to provide an earthing point for terminal mounting rails or earth lugs. These are electrically connected to the box entries providing complete earthing continuity.

Boxes can be fitted with an N35 terminal rail, a Pratley patented Cranked rail, an inverted Cranked rail, or Piggyback rails. Pratley Kwikblok® terminals and pre-cut lengths of cable with glands can also be factory fitted to customer requirements.

An optional external earthing point and is supplied with

4 x M6 Nuts and washers as well as a M6 Spring washer. The junction box has threaded mounting M5 holes and can accommodate an indexable mounting plate that can be purchased separately if required.

The flameproof Ex d Envirobox® is fully certified to SANS, EN and IECEx Standards, including ATEX for use on surface and underground mining applications (Ex db I/II B+H2 T6..T5 Mb Gb, Ex tb IIIC T85..T100 Db) in Zone 1, 2, 21 and 22 and an ambient temperature range of -40°C to +55°C.

"Our goal was to produce the only direct entry junction box that is corrosion resistant. The Pratley Flameproof Ex d Envirobox® marks yet another world-first product for Pratley," concludes Eldon.

Enquiries: www.pratleyelectrical.com

COMTEST Introduces AMETEK's Mi-BEAM Series

COMTEST, the official representative of AMETEK Programmable Power in South Africa, has unveiled the new Sorensen Modular Intelligent-Bidirectional Energy AMplified (Mi-BEAM) Series. This cutting-edge DC power system is designed to meet the demands of modern high-power electronics testing, offering a reliable, scalable, and versatile solution for industries such as automotive, energy storage, aerospace, and industrial applications.

Performance and flexibility

The Mi-BEAM Series is the latest addition to AMETEK's extensive portfolio of high-performance testing systems. Tailored for complex, high-power electronic testing, it covers all phases of the product lifecycle—from advanced research and development (R&D) to design validation and production testing.

This system is particularly suited for applications where both sourcing and sinking of power are required, such as battery testing, fuel cell testing, solar inverter testing, and electric powertrain validation.

The Mi-BEAM Series offers complete DC power source and sink capabilities, delivering power levels from 12 kW to 37 kW in a single 4U rack-height chassis. For larger testing requirements, the system is fully scalable, allowing users to combine systems in parallel to achieve power outputs of up to 1.2 MW.

The available voltage ranges include 600V, 1,500V, and 2,000VDC, with a maximum current of 150A per system,

making it suitable for a wide array of testing scenarios.

Key features of the Mi-BEAM Series

The Mi-BEAM Series offers several standout features that set it apart from other power testing systems:

- **Comprehensive Solution:** Includes software for battery testing, simulation, and solar array simulation, making it an all-in-one system for various applications.
- **High Power Density:** With a power density of up to 37 kW in a 4U rack, the Mi-BEAM offers efficient use of space (9.25 kW/U).
- **Fast and Clean Power:** It provides the fastest transient response available and low output ripple and noise, ensuring precise testing conditions.
- **Extended Warranty:** AMETEK backs the Mi-BEAM Series with a 5-year manufacturer-based reliability guarantee.
- **Scalability:** The system is scalable up to 1.2 MW in parallel configurations, making it ideal for large-scale testing needs.
- **Wide Voltage Range:** Capable of handling output voltages up to 2,000 V, it offers the flexibility to test a variety of high-power electronics.
- **Bidirectional Output:** With the ability to provide bidirectional current up to ±150 A (or ±4,800 A in parallel systems), it is well-suited for charge/discharge testing of batteries and other energy storage devices.
- **Efficient Energy Use:** The Mi-BEAM



Ametek's Mi-BEAM SERIES, a high-performance, modular, bidirectional, regenerative programmable DC power system for application in battery simulation and testing (charge/discharge), electric powertrain testing, fuel cell testing and solar inverter testing.

- boasts a regenerative capability of up to 95%, allowing it to return energy to the grid, reducing operational costs.
- **User-Friendly Interface:** The system is equipped with a colour touch panel interface for ease of use, offering a seamless transition between source and sink modes.
- **Built-in Safety:** The Mi-BEAM features islanding detection, ensuring operational safety during testing procedures.

Applications

The Mi-BEAM Series is highly versatile and can be used in a wide range of applications, including:

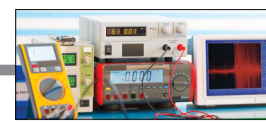
- **Battery Testing and Simulation:** For charge/discharge testing of batteries, the Mi-BEAM offers precise control and fast transient response, ensuring accurate results.
- **Electric Powertrain Testing:** Ideal for automotive testing, especially for electric vehicles, where high-power testing is crucial.

- **Fuel Cell Testing:** The system's bidirectional power capabilities allow for comprehensive fuel cell testing, from charge to discharge.
- **Solar Inverter Testing:** The Mi-BEAM is also equipped for solar inverter testing, thanks to its ability to simulate complex power flows and regenerative capabilities.

The AMETEK Mi-BEAM Series, available through COMTEST, is an advanced solution for high-power electronic testing across multiple industries. Its combination of high-power density, scalability, and energy efficiency makes it an ideal choice for businesses looking to optimise their testing processes.

With built-in safety features, a user-friendly interface, and a five-year warranty, the Mi-BEAM Series is set to become a preferred option for testing in the automotive, energy storage, industrial, and aerospace sectors.

Enquiries: www.comtest.co.za



Making a world of difference in energy security

“ABB is making a world of difference in helping industries across Africa automate, digitalise and electrify their operations to optimise productivity and ensure operational efficiency while driving sustainability,” comments Edith Kikonyogo, Local Division Manager, Southern Africa Cluster, ABB Process Automation, Energy Industries.

ABB's integrated automation and digital solutions support many customers worldwide in developing new and renewable energy models, enabling energy-efficient and low-carbon operations across traditional industries.

“We are making a world of difference in helping industries across Africa automate, digitalise, and electrify their operations to optimise productivity and ensure operational efficiency while driving sustainability,” says Kikonyogo.

Energy is essential for society to progress even further, and the entire energy mix, including hydrocarbons, has a role to play. By prioritising the efficient production and processing of resources, with their responsible use, ABB can assist industries to reduce emissions as part of the transition to net zero by 2050.

The technology leader's many years of experience allows it to support industries in Africa and other regions to meet their commitments and maximise the value of their operational investments, while reducing carbon emissions, waste, and costs throughout the energy transition journey. “ABB Energy Industries division is enabling the energy transition process in Africa in a more sustainable manner,” says Kikonyogo.

One example of how ABB makes a difference is in gas. The technology it uses for gas pipelines helps meet the world's energy needs, while its analytical equipment detects leaks for further action. It has also worked on developing dual-fuel propulsion for liquefied natural gas ships, enabling them to utilise electric power as they deliver this fuel to where it is needed.

While some customers in Africa struggle

to deliver an uninterrupted energy supply due to various factors, ABB has the capability to integrate power and process automation helps to stabilize energy supply, particularly when incorporating renewables. The ABB Ability™ System 800xA® Distributed Control System (DCS) plays a central role in ensuring a secure, stable, and affordable energy supply for industries.

This versatile and comprehensive DCS integrates process, electrical, safety, and telecoms into one unified system. It combines process control, electrical control, and safety systems into a single platform and supports a wide range of applications, from small installations to large, complex plants. The DCS provides advanced process graphics, live video extensions and intuitive interfaces to improve operator performance.

It features built-in management of alarms and additional functions like alarm grouping and analysis. In addition, it has a highly modular and flexible I/O system for easy installation and expansion and supports various communication protocols and integrates seamlessly with existing systems. Robust cybersecurity measures protect against threats and ensure system integrity. The DCS offers tools for online and offline engineering, reducing project execution time and costs.

It supports late binding and standardization, minimising the impact of changes during project execution. Additional benefits are enhanced situation awareness and decision support through integrated video systems and advanced graphics and reduced hardware requirements and project costs through virtualisation and efficient engineering tools. The DCS also streamlines operations and maintenance with a single user interface for all maintenance actions.

Another solution that balances energy demand with availability is the ABB Ability™ OPTIMAX® energy management system. It provides operators insights on energy consumption and consolidates data from various sources. When



customers consider new energy projects, minimising risk and optimising costs are essential. With ABB Adaptive Execution™ methodology, the traditional project approach evolves to deliver results faster and capex savings of up to 40%.

ABB Ability™ OPTIMAX® provides accurate visualizations and automatic reporting to help comply with legal requirements like ISO 50001. Control and optimisation benefits include day-ahead and real-time optimisation based on weather and load forecasts. It balances energy supply and demand, optimising energy flow using predictive data.

In terms of predictive optimisation, it uses machine learning and enhanced AI for forecasting and simulation. In addition, it creates optimal schedules based on forecasts, loads, and prices, updated throughout the day. It also integrates multiple energy vectors such as electricity and heat to optimise overall energy use and supports the addition of renewable energy sources without compromising grid stability.

While energy projects are under construction, one must reduce energy demand to increase availability. ABB's digital solutions deliver performance insights and empower industries to optimize energy use. These solutions include asset condition monitoring, asset health and management, predictive maintenance, energy management, simulation, virtual commissioning, remote

support, and collaborative operations.

In Sub-Saharan Africa, ABB has a strong footprint backed by its skills, customer-centricity, products, and solutions. “Whether you are looking at new energy sources or managing older power generation technologies, working together is the only way we can make a world of difference in progressing to a net zero future,” says Kikonyogo.

Unmitigated carbon emissions will exacerbate global warming and threaten our health, agriculture, water supply, biodiversity, and natural ecosystems. Addressing this challenge requires a focus on energy security and a shift towards renewable energy in Africa. With industries in the region already adopting renewable energy, ensuring a stable, affordable, and uninterrupted electricity supply is equally important to securing Africa's energy sector.

ABB is a technology leader in electrification and automation, enabling a more sustainable and resource-efficient future. The company's solutions connect engineering know-how and software to optimize how things are manufactured, moved, powered and operated. Building on over 140 years of excellence, ABB's more than 105,000 employees are committed to driving innovations that accelerate industrial transformation.

Enquiries: www.abb.com or go.abb.com/processautomation

Danfoss focuses on meeting decarbonisation goals

Danfoss, a global industrial leader, is advancing decarbonisation efforts in the African mining sector through innovative solutions that boost energy efficiency and operational performance. As mining companies grapple with the challenge of achieving net-zero emissions while meeting increasing production demands, Danfoss is offering technology to support this dual goal.

Craig Rapson, Global Business Development Director for Mining, Minerals, and Cement at Danfoss South Africa, highlights the growing demand for minerals, particularly those required for clean energy technologies. “The energy-intensive nature of mining, combined with rising production, means energy demand will continue to grow, which contradicts decarbonisation targets,” Rapson says.

He emphasises that transitioning

to alternative energy sources like solar PV, wind, and energy storage is essential, but such transitions will require significant investments. However, immediate improvements can be made with minimal investment by focusing on system reliability, proactive maintenance, performance monitoring, and system optimisation.

Danfoss is at the forefront of this effort, particularly with its cutting-edge variable speed drives (VSDs). These drives offer an opportunity to reduce global energy consumption, especially since electric motors account for up to 75% of industrial energy usage. “VSDs have seen incredible advancements in efficiency, size, and functionality,” Rapson explains. He notes that while VSDs alone won't solve the CO₂ challenge, their proper application can significantly improve energy efficiency without compromising production.

Danfoss's latest iC7 series represents a significant leap in VSD technology, designed specifically for harsh environments like mining. Compact and easy to integrate, the iC7 improves energy efficiency and reduces CO₂ emissions.

It also features advanced heat management with back-channel cooling and intelligent security, including hardware-based protection and encrypted data transfer, making it suitable for industrial IoT applications.

Alongside the iC7, Danfoss offers a full suite of mining solutions, including full harmonic filters and advanced power systems, all aimed at improving performance and reducing downtime. These solutions help mining companies meet both their energy efficiency and sustainability targets while maintaining operational excellence.

Sikantha Naidoo, Senior Country Sales Manager for Sub-Saharan Africa at Danfoss, underscores the company's role as a technology partner for mining organisations striving to decarbonise.

“We focus on energy efficiency, machine productivity, lower emissions, and electrification. Our solutions are designed to meet the specific needs of the mining sector,” she says.

Danfoss's commitment to environmental, social, and governance (ESG) standards is integral to its approach. “Sustainability is embedded in everything we do, from our operations to how we engineer solutions for our customers. Our focus areas include decarbonisation, circularity, and diversity, equity, and inclusion,” Naidoo adds.

Danfoss continues to play a pivotal role in the transformation of the African mining industry, providing practical solutions to help companies meet their sustainability goals while ensuring operational efficiency and reliability. Through innovations like the iC7 series and a firm commitment to ESG principles, Danfoss is leading the charge towards a more sustainable future for mining in Africa.

Enquiries: www.danfoss.com

SEW-EURODRIVE's growing local range drives entry into new markets

SEW-EURODRIVE is rolling out an even greater selection of planetary drives as part of its strategy to 'close the loop' in its product offerings by expanding into more industry sectors.

Among the new ranges being introduced into South Africa are its SEW PPK series and the SEW P2.e series of planetary gear units – both showcasing new opportunities for industrial gearbox users. According to Jonathan McKey, National Sales and Marketing Manager at SEW-EURODRIVE, these new additions to the local range highlight the company's global engineering and applications capabilities.

"The PPK series was originally developed by SEW-EURODRIVE in Brazil, for instance, to serve their large and thriving sugar sector," says McKey. "Our design and engineering experts in Germany then further leveraged these advances when they developed the SEW P2.e series – aimed at larger applications."

He emphasises that both series built upon the key benefits that planetary gear units present to customers: a compact solution for space-constrained conditions, alongside high torque and low speed outputs. The SEW PPK series delivers 10 to 18 kNm of torque with a ratio range from 65:1 to 390:1, while the SEW P2.e series encompasses torque ratings from 24 to 124 kNm with ratios from 15,2:1 to 332:1.

"The SEW PPK satisfies the need for a lower torque requirement, and is well suited to southern hemisphere markets," he explains. The ratio can be further reduced by

the addition of a primary reducer before the planetary head, to reach ratios up to 10,650:1 – for a much lower speed capability.

The SEW P2.e was then developed with all these benefits, but with a broader spectrum of diversity in its speed – up to 100 rpm – as well as in ratio and torque, he says. While most planetary gearboxes have a three-stage design, the SEW P2.e can also be supplied in a two-stage model.

Greg Lewis, SEW-EURODRIVE Business Development Manager for Projects, points out that the company has been careful to retain the same critical dimensions as previous SEW P-series models. This allows customers to migrate seamlessly to the more versatile SEW P2.e units without altering their operating environment or infrastructure.

Among the common applications in the mining sector for planetary gearboxes, says Lewis, are clarifiers, thickeners and apron feeders. Other industrial applications include slewing drives, screw feeders and wood panel presses.

"In the agricultural sector, sugar mills are big users of planetary units," he says. "The SEW PPK series, arising as it did to serve the needs of sugar mills in Brazil, has exciting opportunities for application in African countries."

McKey highlights another important aspect of these planetary ranges: their reduced weight compared to traditional technologies.

"A sugar mill's crystalliser, for example, will conventionally have a multi-gear solution which applies considerable weight and strain

on the system," he explains. "A compact planetary unit from SEW-EURODRIVE can now deliver the same results with much less weight – within an integrated design. The benefits are also felt in less wear on components like bearings and the civil structures, which leads to less maintenance being required."

Also, on SEW-EURODRIVE's showcase of new products is its high performance ECO2 geared motors, designed in line with the company's sustainability focus and the market's growing demand for products that are more environmentally friendly in their manufacturing process.

The ECO2 range boasts a coating-free design, so there are no solvents or coatings used on the outer surfaces. This makes these units efficient and reliable in indoor applications where humidity levels can reach 60%, and they can operate in temperatures between minus 20° C and 60° C. Their aluminium construction reacts with oxygen to form a thin protective layer; the ECO2 design also meets the requirements of ISO 12944 corrosive category 1.

On the automation side, a highlight of the SEW-EURODRIVE offering is the SEW MOVI-C® drive technology – a comprehensive modular automation system designed to provide seamless integration and high performance for various industrial applications.

Willem Strydom, SEW-EURODRIVE's Manager Business Development Electronics points to applications like hoisting where MOVI-C® facilitates the use of regenerative power from braking and this energy can be fed back into the system or stored in battery packs. The MOVILINK® digital data interface

(DDI) connects the drive train into the data system through a unique single hybrid cable solution

"This further allows customers to receive real-time information on a range of indices, such as energy efficiency, application performance and condition monitoring," he says. "This differentiates us significantly in the market."

Enquiries: www.sew-eurodrive.co.za



Minimal maintenance required for dry-type transformers

With minimal levels of maintenance needed, dry-type transformers offer reliable performance over lengthy lifespans, with few of the risks and hazards associated with oil cooled transformers.

According to David Claassen, Managing Director of dry-type transformer specialist Trafo Power Solutions, the fact that these units are air cooled means much of the limited servicing required relates involves maintaining clear air channels, which can be compromised by the

accumulation of dust layers.

"To allow for the transformer to cool effectively, it is important to regularly check that there is not an excessive build-up of dust on or around the transformer," Claassen explains.

"Depending on the ambient conditions, dust can build up in these confined spaces and start to impede the free flow of air."

Dust accumulation can be easily addressed by using a leaf blower or similar appliance to remove the dust from the transformer. This method quickly disperses the dust, leaving the surfaces clean and allowing for more efficient heat transfer.

He highlights that a regular maintenance schedule is especially vital in applications such as coal mines, where there are often high dust levels. Where dust layers prevent adequate cooling, the transformer could run at temperatures higher than its design parameters. This, in turn, degrades the insulation material faster and could significantly reduce the unit's lifespan.

Even in the event that a completely sealed enclosure is used (≥ IP55), it is possible for dust to enter the enclosure while the doors are opened or in cases where the doors are



left open accidentally.

"It is also important to check that the temperature probes are measuring accurately," he notes.

"This, of course, ensures that any unexpected temperature rise will trigger the necessary alarm, and that the feed-in circuit breaker to the transformer is tripped in the event of overheating."

Terminals on the transformer should be checked, as it is possible for these connections to loosen due to vibrations or other factors. This is a simple process of checking the torque on these connection points, as any looseness could lead to partial discharge, heat build-up and further damage.

To guide the customer in their maintenance planning, Trafo Power Solutions provides a maintenance manual with each installation. This details the required frequency of service interventions, which in a clean indoor environment is usually only once a year. Under dusty conditions that might be encountered outdoors, the maintenance should normally be conducted every six months.

"Beyond our standard requirements, we also provide our customers with site-specific servicing guidelines that suit their application and environment," says Claassen. "Indeed, we can provide the actual maintenance service should the customer require – ensuring that they have access to a detailed log of results and recommended interventions."

He explains that, while the maintenance tasks are generally straightforward, the transformer does need to be de-energised by a qualified technician before this work is conducted. This ensures the necessary compliance to regulations relating to medium voltage equipment, including procedures for lock-out and isolation.

"A key advantage of dry-type transformers is that this maintenance is relatively quick and simple compared to oil cooled transformers," he notes. "A key difference in the servicing of these two technologies is that conventional oil cooled transformers require oil samples to be regularly taken and sent away for testing and analysis. This is a costly and time consuming addition to their total cost of ownership."

Enquiries: www.trafo.co.za



Why it's a good time to convert to LED UFOs

The time to convert your metal halide highbays to LED UFOs is here. Apart from being ahead of the game when it comes to the new LED lighting standards, the exercise will prove both energy and cost-saving long into the future, and the imminent non-availability of metal halides won't trip you up. Here we unpack some of the main benefits:

Energy Efficiency:

LEDs are considerably more efficient than metal halides when it comes to watts input versus lumen output. A typical 400W metal halide highbay can be replaced by a 150W LED UFO, leading to up to 60-70% energy savings. You will consume significantly less energy with LEDs, especially with respect to large commercial or industrial settings.

Longer Lifespan:

LEDs have a much longer lifespan, often lasting 50,000 hours or more, compared to metal halides that typically last 6,000-15,000 hours. This translates to fewer replacements and lower maintenance costs.

Better Light Quality:

LEDs offer instant-on, flicker-free lighting, whereas metal halide lamps require warm-up time and can flicker as they age.

Higher CRI (Colour Rendering Index):

LED UFO lights typically have a higher CRI, providing clearer, more natural lighting that enhances visibility and safety in workspaces.

Reduced Heat Output:

Metal halides emit a significant amount of heat, which can

increase cooling costs in temperature-sensitive environments. LEDs run much cooler, reducing the load on HVAC systems.

Dimmability & Controls:

Dimming options and compatibility with smart lighting controls are common with LED systems, offering greater flexibility for energy savings and lighting customisation.

Environmental Benefits:

LEDs do not contain hazardous materials such as the mercury found in metal halide lamps, making them far more environmentally friendly and easier to dispose of at the end of life.

Some of the more common questions we get from electricians looking to make the switch from metal halide to LED highbays:

Will I need to rewire the existing fixtures?

In many cases, a simple retrofit can be done without rewiring. However, some applications may require new ballasts or drivers for optimal performance.

How do I choose the correct wattage for LED replacements?

Select your LED UFO replacements according to their lumen output, and then by default the wattage requirement will be significantly lower than the metal halide highbays.



As a gauge, a 400W metal halide can be replaced by a 100-150W LED UFO, for example. Check the LED fitting for compatibility with any existing control systems.

How will the light distribution compare to metal halide fixtures?

LED UFO highbays provide a more uniform light distribution. Unlike metal halide lamps, which can lose brightness over time and create uneven lighting, LEDs maintain consistent light levels throughout their lifespan.

All in all, those switching to LEDs for their factory, school or hospital lighting can expect to enjoy infinitely better quality light, consistently, and more efficiently.

Enquiries: www.radiant.co.za



Sonnenglas LED jars receives a nomination as one of the world's best sustainable products

Dezeen has announced the 81 projects longlisted for this year's Dezeen Awards in the sustainability categories.

The 81 longlisted projects, which are in the running for awards in six different sustainability project categories, are by studios located across 20 different countries, including Rwanda, Australia, Brazil, Germany, India, Austria and South Africa.

In the Sustainable Design (consumer) category Sonnenglas received a nomination.

Sonnenglas was founded in 2013 with the aim of providing a sustainable light source for communities affected by frequent power outages in South Africa.

"Our mission was to create a product that not only harnesses solar energy but also promotes social impact. Starting with just 15 employees, we launched our fair-trade production in Johannesburg, producing our first lamps for the South African and European market. What began as a solution to help those in off-grid areas has grown into a symbol of sustainable design that's beloved worldwide," says Anita Chenga from

Sonnenglas. "Our factory, located in the heart of Victoria Yards, Johannesburg, remains the centre of our operations and reflects our commitment to sustainability and fair labour practices. Today, Sonnenglas has grown to a team of over 65 and our products are sold worldwide, maintaining our core values of ethical production and environmental responsibility," she adds.

Chenga provided some more insights into the brand and the importance of the upcoming awards.

What does it mean for Sonnenglas to be longlisted in the Dezeen Awards 2024, especially in the sustainable design category?

Being longlisted in the Dezeen Awards 2024 is a great honour for Sonnenglas. It's a recognition of the efforts that have always been at the heart of our brand: the commitment to creating eco-friendly products that make a positive impact on both people and the planet.

As the first solar-powered lamp to be awarded the prestigious Blue Angel

certification, we take immense pride in our commitment to sustainability, innovative technology, and eco-friendly design. Being longlisted validates the hard work that has gone into creating a product that serves more than a practical purpose. This motivates us to continue pushing boundaries and work on innovative solutions.

How does Sonnenglas ensure these lamps are sustainable products?

Sustainability is thought through every aspect of Sonnenglas. Our solar modules store solar energy during the day and provide clean LED light in the evening, serving as an eco-friendly alternative to conventional lamps and candles, significantly reducing CO₂ emissions. Our manufacturing facility also runs entirely on solar power, supported by 105 photovoltaic panels generating 40 kW of energy, making our production in Johannesburg climate-neutral.

We also take great care in sourcing environmentally friendly and recycled materials wherever possible, and all our suppliers must sign a strict code of conduct to prove that fairness and quality can go hand in hand in the electronics world. One of many examples of this is our 100% guaranteed sustainable solder, which comes either from a guaranteed sustainable supply chain from certified producers in emerging countries or from high-purity secondary raw materials of European origin. This conscious selection not only ensures high-quality end products, but also protects people and the environment from the negative effects of conventional tin mining. Furthermore, our "Trade Instead of Aid" philosophy supports sustainable employment in South Africa, offering fair wages and development opportunities, particularly for women in leadership positions. Our products contribute to 14 of the 17 Sustainable Development Goals (SDGs), reinforcing our dedication to positive global impact.

Could you share some insights into the design philosophy that led to Sonnenglas being recognised for its sustainability efforts?

Our design philosophy revolves around simplicity, functionality, and environmental responsibility. Our motto, "Sustainability by Design," guides every step of our process. The Sonnenglas Solar Lantern is designed as a modular system, allowing individual parts to be replaced rather than discarding the entire product when a component wears out. This approach reduces waste and extends the product's lifespan. The modularity also ensures that customers can replace parts at a low cost, promoting sustainable consumption.

Our newest SOMO Gen6 solar module, reflects our philosophy of combining sustainability, innovation, and aesthetic appeal. This module can be used across all products of our growing assortment, reducing the need for additional purchases and encouraging a more thoughtful approach to consumption. Beyond its functionality, Sonnenglas® has also become a stylish element in homes and a trusted companion for outdoor activities such as camping and hiking.

What impact do you hope the recognition from the Dezeen Awards will have on the future of Sonnenglas and its global reach?

We hope that this recognition will spread our message of sustainability and innovation, helping to inspire more people to choose eco-friendly and fair-trade products. The Dezeen Awards provide a platform to showcase how sustainability and good design can coexist beautifully. This allows us to expand our reach globally, showing that eco-conscious choices can also be stylish and practical. It reinforces our belief in the growing demand for sustainable solutions and motivates us to continue developing products that make a meaningful difference worldwide.

Enquiries: www.sonnenglas.net/en



Lighting Pro's: A leader in South African lighting

Established in 2019 by Dalene van Rensburg, Lighting Pro's has quickly become a leading force in the South African lighting industry. With over three decades of experience, Dalene founded the company with a clear vision: to provide comprehensive lighting solutions and promote local manufacturing.

A one-stop lighting solution

Unlike many lighting companies that focus solely on their own products, Lighting Pro's offers a wide range of solutions from various suppliers.

This comprehensive approach allows them to tailor their offerings to meet the specific needs of each customer, whether it's for commercial, industrial, or residential applications.

Leveraging experience and expertise With her extensive experience in the electrical and lighting industry, Dalene brings a wealth of knowledge and problem-solving skills to Lighting Pro's. Her ability to recommend the right products and solutions ensures that customers receive optimal lighting for their environments.

Embracing technological advancements

The lighting industry has undergone significant transformations in recent years, with the rise of LED technology and the integration of lighting controls. Lighting Pro's has been at the forefront of these advancements, offering innovative solutions such as sensors, dimming options, and daylight harvesting.

A commitment to quality and compliance Lighting Pro's provides high-quality

products that meet all relevant standards, including SABS and NCRS regulations. The company ensures that all projects comply with OHSA requirements, prioritizing safety and compliance.

Staying ahead of the curve

The lighting industry is constantly evolving, and Lighting Pro's is committed to staying at the cutting edge of technology. Through continuous research and development, the company stays informed about the latest trends and innovations, such as smart lighting and wireless technologies.

A focus on customer success

Lighting Pro's believes that effective lighting can significantly impact business outcomes. In one notable project, a retail customer experienced a 25% increase in customer flow by strategically using lighting to attract attention to a specific area.

Nurturing future lighting professionals As the industry continues to evolve, there is a growing need for skilled lighting specialists. Lighting Pro's is committed to mentoring and training the next generation of professionals, providing them with the opportunity to learn from experienced experts and gain valuable hands-on experience.

Lighting Pro's has established itself as a trusted and reliable partner in the South African lighting industry. With a focus on quality, expertise, and customer satisfaction, the company is well-positioned to continue leading the way in innovative lighting solutions.

Enquiries: www.lightingpros.co.za



A bespoke solution for Pick n Pay Clothing flagship store

When Pick n Pay Clothing sought to launch a flagship store at the Gateway Theatre of Shopping in Durban, Rubicon was delighted to partner with them.

The goal was to create a space that would not only reflect the rich heritage in KwaZulu-Natal while honouring the company's founder, Raymond Ackerman, but also showcase modern retail functionality.

This was to be done through unique design elements, local culture representation, energy efficiency, and lighting functionality, and it's safe to say our team met the brief.

Rubicon was brought on board to address the store's unique requirements:

Custom Light Fixture: Rubicon supplied a 72-meter custom-built light fixture that runs through the center of the store. The fixture is designed to mimic the shape of the Tugela River, and it has become a focal point of the store's design.

Decorative Lighting: Rubicon provided decorative lighting elements for the Drakensberg wall and fitting rooms, enhancing the store's ambiance and bringing the space to life.

Energy-Efficient Features: The store was equipped with energy-efficient appliances and energy meters designed to achieve a 6-star Green Building Council rating, through dimmable LED lighting which conserves energy and reduces total energy usage.

Innovative Elements: The store's design included innovative elements such as sugar cane ceiling panels and local tribal prints on fixtures to highlight the rich local culture.

Featured Landmarks: Customers will also notice that the fitting rooms were styled to resemble shipping containers, celebrating Durban's port and local landmarks. Each showcases historical details celebrating landmarks such as the Comrades Marathon, the Red Desert, and Raymond Ackerman, the founder of Pick n Pay.

The partnership and collaboration between Rubicon and Pick n Pay resulted in creating a distinctive retail



experience that made the store a standout destination, reflecting both local heritage and the company's values.

It reinforced Pick n Pay's commitment to environmental sustainability and honoured the founder, enhancing the store's connection with the greater community. Additionally, the collaboration improved the store's atmosphere by fostering a vibrant and engaging shopping environment.

Rubicon's comprehensive range of specialised lighting and smart building solutions are guaranteed to bring retail, commercial or industrial space to life.

Rubicon's fittings perfectly blend aesthetics with function and energy savings, and our team offers unparalleled customer satisfaction with expert design capabilities and technical support. Extensive industry experience allows our team to provide high level technical support, while their design capabilities will bring your smart building projects to life.

Enquiries: www.rubicon.tech/pages/lighting



LED lighting solution for a Rustenburg mine's conveyor belts

A Rustenburg-based mine's previous undercover conveyor belt lighting consisted of older fluorescent luminaires, which resulted in frequent lamp replacements and different colour temperatures and brightness, causing poor uniformity and light distribution.

This old lighting installation has been replaced with the South African designed and manufactured OPTIWAY. This LED bulkhead provides enough light for the mine to comply with the safety regulation requirements. This product was chosen not only for its ease of installation and robustness, but also for its cost effectiveness, low maintenance and high photometric performance.



The mine management has been extremely satisfied with this installation, resulting in more conveyor belt lighting and walkways being converted to this solution.

A small, highly versatile and robust low-power LED bulkhead

The OPTIWAY LED bulkhead utilises the latest LED technology and a unique optical distribution that suits most lighting applications. Its small size and robust design will provide the necessary amount of light for any low-power bulkhead application.

The OPTIWAY is suitable for use in various industrial environments, which include underground haulage, outdoor mining areas, oil and gas refineries, food and beverage plants, manufacturing process plants and any application that requires a low power and robust luminaire.

The uniquely designed optional OPTILINK plug-in system simplifies the installation process significantly, especially for underground mining applications.

The high quality of light and the large range of input voltages make it possible to use this bulkhead for 230VAC or ranging from

90-305VAC. The design and choice of materials used make the OPTIWAY highly vandal resistant.

Various mounting options, including a wall mounting bracket, hook bracket, or mounting by simply using a metal or plastic cable tie, make this luminaire a truly versatile low-power bulkhead.

Further key advantages of the OPTIWAY include:

- Designed and manufactured in South Africa, this taking the continent's harsh environmental conditions into account
- Ta of up to 450C (Not applicable to all configurations)
- Robust corrosion-resistant housing and diffuser
- Latest LED technology with maximised system efficacy
- Optimised optical distribution
- Maintenance-free lifespan of 50 000 operating hours
- Standard version supplied with 500mm heavy duty, flame retardant, oil resistant rubber-sheathed HO7 cable
- Optional OPTILINK plug-in system for underground mining applications
- Available in neutral white light (4000K) with a CRI >80
- Surge protection 3kV/3kA - Optional: 10kV/10kA
- 3-year warranty (Terms and conditions apply)

Locally manufactured

BEKA Schröder develops and manufactures energy-efficient LED lighting products in South Africa, designed and suitable for local conditions.

BEKA Schröder is proud to be associated with Mabone LED Consultants in providing a successful LED lighting solution for this project.

Enquiries: ind@beka-schreder.co.za.

Transforming commercial lighting with Aurora Lighting Africa's high-efficiency, wattage selectable LED downlights

In today's dynamic commercial environments, efficient and flexible lighting solutions are crucial for optimising both operational efficiency and energy savings.

Aurora Lighting Africa's latest innovation, high-efficiency, wattage selectable LED downlights offer a compelling solution for businesses seeking to enhance or upgrade their lighting systems. These advanced downlights not only provide superior performance and versatility but also facilitate seamless retrofitting and replacement of existing luminaires.

Energy efficiency and cost savings

Aurora Lighting Africa's wattage selectable LED downlights are designed with energy efficiency at the forefront with an impressive lumen output of up to 140lm/W.

Traditional lighting systems, whether incandescent or fluorescent, consume significantly more energy compared to modern LEDs. By incorporating wattage selection, Aurora's downlights allow users to adjust the wattage according to the specific needs of different areas within a commercial space.

This means that businesses can optimise energy usage based on the actual lighting requirements, leading to substantial reductions in electricity consumption and utility bills. This flexibility ensures that lighting is both efficient and tailored to the dynamic needs of commercial spaces, ultimately translating into long-term cost savings.

Versatility for various commercial applications

The ability to adjust wattage and lumen output provides unparalleled versatility in commercial lighting design. Aurora Lighting

Africa's downlights can be tailored to suit a wide range of environments, from offices and conference rooms to showrooms and hospitality venues.

This adaptability makes them an excellent choice for businesses with diverse lighting needs or those looking to consolidate their lighting solutions across different areas.

Whether upgrading an existing lighting system or installing new luminaires, these downlights can be adjusted to match the specific requirements of each space. This versatility is particularly advantageous for businesses that need to frequently adapt their lighting configurations, ensuring that the lighting remains effective and efficient regardless of changes in usage or layout.

Seamless retrofitting and replacement

This ease of retrofitting means that businesses can upgrade to energy-efficient LED technology quickly and cost-effectively, minimising disruption to daily operations.

Additionally, the ability to select different wattages means that businesses can achieve the desired lighting levels without having to invest in a completely new lighting system.

Enhanced lighting quality

Lighting quality is a key factor in creating a productive and appealing commercial environment. Aurora Lighting Africa's downlights deliver superior light output with the flexibility to adjust wattage and lumen output at the point of installation. This ensures that spaces are well-lit and visually comfortable, whether the goal is to enhance employee productivity in an office or create a welcoming atmosphere in a retail store.

Advanced optics and uniform light distribution further improve the quality of



illumination, reducing glare and shadows that can affect visibility and ambiance. This enhanced lighting quality contributes to a more pleasant and effective working environment, ultimately supporting better performance and customer satisfaction.

Durability and low maintenance

In addition to their energy efficiency and versatility, Aurora Lighting Africa's downlights are built for durability. With a lifetime of 50,000 hours and a 5-year warranty, these fixtures require less

frequent replacement compared to traditional lighting solutions. This long-term reliability not only reduces maintenance costs but also ensures consistent lighting performance over time.

"The launch of these high-efficiency wattage selectable downlights aligns with global efforts to reduce energy consumption and combat climate change," said Scylagh Clunnie (MD of Aurora Africa) at the launch of the new catalogue.

Enquiries: info@aurora-africa.com



First solar PV course hosted in a bid to create more green jobs in South Africa

Med-TechEngineers, through its engineering and technology academy – Med-TechEngineers Academy hosted its first SAPVIA PV GreenCard training course last month.

This comprehensive five-day programme aims to equip participants with the knowledge and skills to effectively design, install, operate, and maintain photovoltaic (PV) solar systems.

"Our training aligns with the need for skilled professionals in the industry," notes

Dr Gift Mphefu, Managing Director of Med-TechEngineers.

"Africa has the potential to lead global decarbonisation efforts, and as South Africa has been highlighted as a country that will capitalise on new green industries and generate job opportunities in renewable energy, we stand ready to upskill those that want to take up these opportunities."

His statement is further supported by recent analysis from specialist development

agency FSD Africa, which forecasted that up to 3.3 million new direct green jobs could be created across Africa by 2030, with estimates of 140,000 jobs in South Africa alone. Most of these jobs are projected to come from the renewable energy sector, with solar energy leading the charge.

"We are thrilled to offer this SAPVIA PVGreenCard training course to individuals interested in pursuing a career in this rapidly growing renewable energy sector," adds Mphefu. By providing a comprehensive curriculum and hands-on experience, we aim to empower installers with the skills and knowledge needed to improve installation,



adhere to quality standards, and comply with the compliance necessary to build a more secure and safe industry."

The training will cover various topics, including solar energy fundamentals, PV system design principles, installation and commissioning, operation and maintenance, and grid integration. Each day will feature lectures, interactive discussions, hands-on practical sessions, and case studies to reinforce learning objectives.

Upon successful completion of the course, participants will receive a certificate endorsed by the South African Photovoltaic Industry Association (SAPVIA), thus enhancing their credibility within the industry.

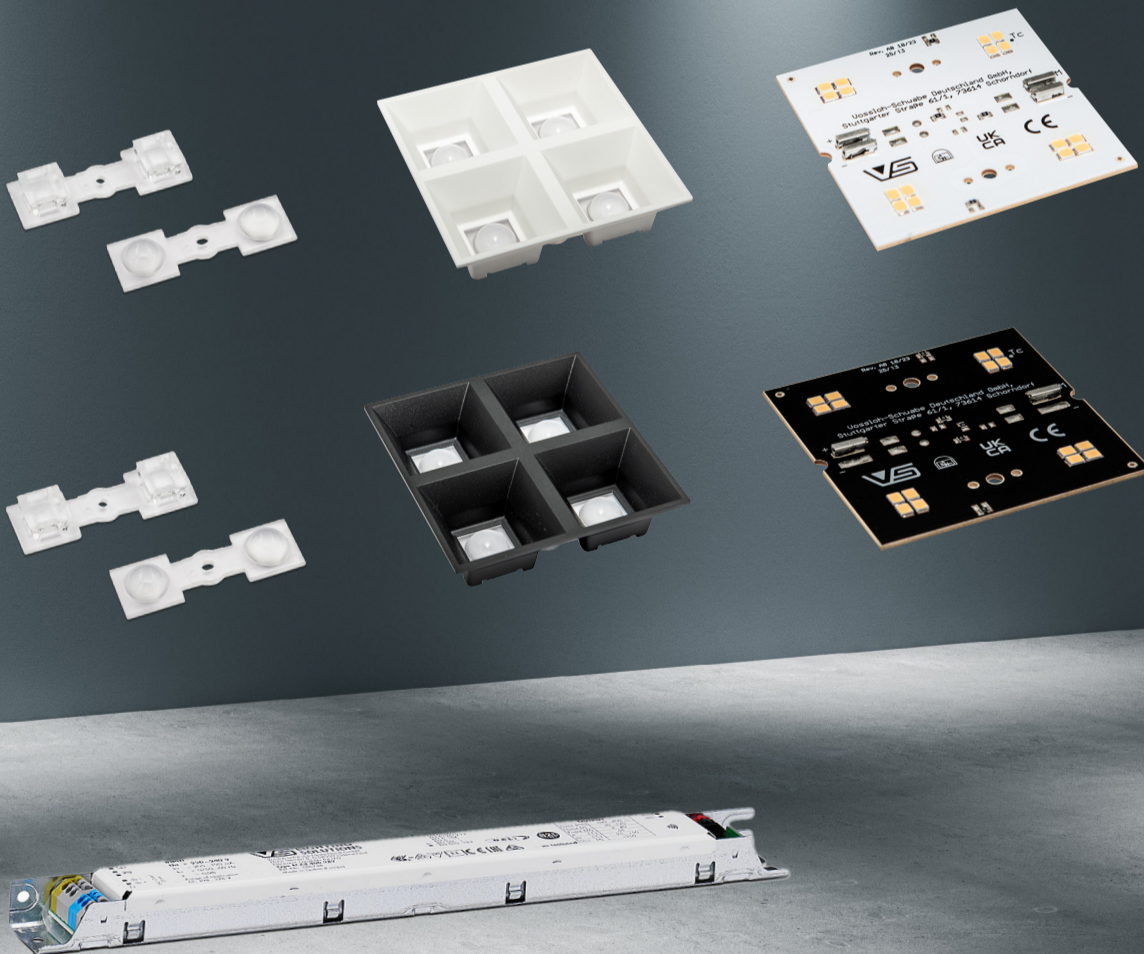
The course is designed for engineers, technicians, artisans, project managers, and solar power entrepreneurs – all installers in the solar PV space who are passionate about safety, compliance, and sustainability.

Enquiries: www.med-techengineers.co.za/product/sapvia-pv-greencard-training/

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- Lighting

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- DBs, switches, sockets and protection
- Tools of the trade
- Lighting

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Published monthly by:
Crown Publications (Pty) Ltd
P O Box 140
Bedfordview, 2008
Tel: (011) 622-4770
Fax: (011) 615-6108

e-mail: sparks@crown.co.za
Website: www.crown.co.za

Printed by: Tandy Print

The views expressed in this publication are not necessarily those of the editor or the publisher.

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 Total 14 865 per month.