

# CAPE Business News

FOUNDED 1980

National Distribution

OCTOBER 2022



**SBS automated grain drying system**

Optimum moisture control.



10

**Kwikspace – providing roofs over heads**

For 50 years!



14

**Beka Schreder lighting solutions**

For first automotive SEZ.



25

## “Shifting gear: towards a sustainable oil and gas future for Southern Africa”

*The Editor's observations from the 2nd Annual Southern Africa Oil & Gas Conference 2022.*



*The man in the hot seat; Andre de Ruyter, Eskom CEO detailed the utility's gas to power plans in his keynote address.*



*Bongani Sayidini, COO of the Petroleum Agency presented the thought provoking presentation – Unlocking the Onshore & Offshore Oil & Gas Potential.*

**D**MRE, (Dept, Mineral Resources & Energy) PASA, (Petroleum Agency SA) and SAOGA (South African Oil & Gas Alliance) partnered again to present the 2nd Annual Southern Africa Oil and Gas Conference on 15 and 16 September 2022 at the Westin Hotel in Cape Town. The conference which attracted more than 170 in person and virtual delegates was addressed by more than 30 eminent speakers and provided a critical platform to engage with topical key issues, challenges, and opportunities of the local and regional industry with the objective of restoring investor confidence while providing networking opportunities.

The conference topics included:

- Petroleum prospectivity, recent oil and gas discoveries, legislative changes in the region. Upstream oil and gas investment opportunities in the region.
- Policy options and possible energy pathways identified in the IEA Africa Energy Outlook 2022. Oil and Gas projects development in the context of energy transition.
- Socio-economic benefits of selected projects.
- Technologies to reduce negative

impacts of oil and gas activities on the environment; and Progress on the development of the Ocean Economy Master-plan.

This event supplemented similar initiatives that were often not accessible to local companies, especially those from previously disadvantaged groups, trying to build a presence in the exploration and service industries. The event improved access and provide networking opportunities between local, regional, and global role-players in the oil and gas industry.

Some highlight presentations included:

- **New Exploration Opportunities & Recent Advances in SA's Offshore & Onshore basins** by Bongani Sayidini, CEO of PASA, who detailed the Region's huge and largely untapped indigenous oil and gas resources and their potential to make South Africa and its near neighbours independent of imported oil and gas. He also highlighted the administrative hurdles and constraints to future development.
- **The keynote address on Day 2 by Andre de Ruyter, Eskom CEO** who laid out Eskom's vision of embracing gas to power as a partial solution to the coun-

try's energy shortfall. These included the upgrade of existing OCGT power plants to more efficient combined cycle and gas powered plants, new 3 000MW gas fired CCGT capacity in Richards Bay, and the possible repurposing of existing coal fired power stations to natural gas. However, with the proviso that turbine efficiency losses at altitude of 20% mitigated against this on the Highveld and a more pragmatic option was to generate at sea level and 'import electrons' to higher altitude locations from coastal areas. Options identified included from within SA and potentially, from jointly developed gas fired power stations in gas rich Mozambique via the existing Mozal transmission line.

- **Presentations by: Neil Hodgson, Vice President of Searcher, Dennis Zekveld, Country Chairman Shell Namibia E&P and Paul Eardley-Taylor, Head of Oil & Gas Southern Africa at Standard Bank.** All speakers described in detail the huge oil and gas potential of onshore and particularly, offshore finds in the Orange, Outeniqua and East Coast Basins, sighting the discoveries in Venus and Graff

Continued on P2

## Diarise: The African Agri Investment Indaba

14 - 16 November 2022  
CTICC, Cape Town.



**A**FTER a 2 year absence, the 5th Annual African Agri Investment Indaba is back in Cape Town from 14 – 16 November 2022. In partnership with the Western Cape Department of Agriculture, WESGRO, South Africa National Convention Bureau (SANCB) and the UK Department For International Trade, the event brings together over 1 100 key stakeholders – from governments, banks, financiers, investors, project owners, project developers, commercial farmers and the agri and food processing industry – to discuss trends that will influence food and agribusiness economics over the next decade in Africa.

As part of the two-day conference agenda, a highlight is the DFI Forum which will look at previous experiences and lessons learned from DFI investment and how they transform food systems in developing countries. Featured speaking companies include AfDB, AgriFI, EBRD, IFC, Proparco, IFU, FMO, Norfund and more. Delegates are encouraged to secure your place and conduct real business through our dedicated matchmaking service and high-level networking sessions. In the wake of global disruptions, it's time to reconnect, re-engage and re-evaluate agrifood opportunities on the African continent.

Continued on P11



Unit 1 Platinum Park  
Platinum Crescent  
Montague Gardens  
Cape Town

Tel: 021 551 2660  
[www.bonfiglioli.com](http://www.bonfiglioli.com)



IN THIS ISSUE

- 10 Agri-Processing & Harvest Supply Chain
- 13 Occupational Health & Safety - Onsite Accommodations
- 16 Water Engineering: Water Reuse / Water Storage / Grey Water Systems / Waste Water Treatment Solutions
- 20 Compressors / Plant & Equipment
- 21 Boilers & Burners / Combustion Technology / Heating Control
- 22 Special Steels & Fabrication
- 23 Certification / Testing & Inspection Services
- 25 Warehousing: Storage / Distribution & Logistics
- 27 Power Solutions / Energy Efficiency / Power Generation / Transmission & Distribution
- 29 On the Contrary

We value your input

Only through your input can we continue to improve.

- Comments
- Suggestions
- What would you like to hear about

editor@cbn.co.za

“Shifting gear: towards a sustainable oil and gas future for Southern Africa”

Continued from P1

(Namibia) fields on the West Coast, The Luiperd, Brulpadda and blocks 11B/12B discoveries in the Outeniqua Basin and the largely undiscovered areas of potential in the Durban and Zululand Basins.

Government dragging its feet?

All speakers reinforced the exciting potential of oil and gas developments in the region but several speakers voiced concerns over the apparent lack of communication

between government agencies and the inordinate amount of red tape and time taken to obtain licencing and permits including visas and work permits for foreign specialists.

One speaker quoted the time taken for a permit to be obtained

from the Dept. Water and Sanitation, which took 300 days to process.

Speakers were enthusiastic of the interactions they had had with the Namibian authorities and the efficiency their requests had been dealt with.

Guyana was sighted as an example of as small country where its efficient administration had exploited oil discoveries and turned them very quickly into meaningful production.

A lesson to be learned?

The economic impact of the beer sector in SA

Compiled by Robin Hayes

ON 12 September South African Breweries (SAB) launched a research document that detailed the economic impact of the beer sector in South Africa.

The report compiled by Oxford Economics and sponsored by SAB, provides a holistic view of the economic impact of the entire beer sector in the country and is intended to independently quantify just how important the beer sector is and the socio-economic footprint of the beer industry in South Africa, in a technically sound way.

According to Richard Rivett-Carnac, SAB's CEO quoted in the report's Forward, "while many previous studies exist show-

ing the sector's socio-economic impact in part, none have ever attempted a rigorous, coherent estimate of our impact with the same metrics, at the same point in time."

Rivett-Carnac continues: "What is apparent from the report is the positive role that beer plays in the South African economy. We have learned things we suspected, but never previously had data to verify: brewing is a highly productive activity, with spill overs of human capital into the wider economy. It underpins jobs and GDP throughout South Africa, both upstream and downstream.

"Using data from 2015-2019, the report concluded that 1 in every 66 jobs in the country has been linked to economic activity arising from beer, amounting to 249 000 jobs in total. The beer sector supported R71bn gross value added (GVA) contribution to South Africa's GDP in 2019, and R1 for every R79 of GDP in South Africa was linked to the economic activity from beer that year, meaning the beer



Picture credit: MenStuff

sector helped stimulate about 1.3% of the South African economy. These are just a few of a number of compelling stats that highlight our economic impact from brewing to distribution, procurement, sales and marketing" he said. Other interesting stats produced in the report in the 2019 year include:

- On average, beer manufacturer's employees were around nine times more productive than the average South African worker.

- R33bn in goods and services was the value procured by beer manufacturers from other SA companies.
- The beer sector sold R73bn worth of beer to final consumers in SA.
- Beer production, selling beer to consumers, retailing and the hospitality outlets supported a total tax contribution of R43bn.

"At a moment when South Africa's economy seems to be on the cusp of recovering, our socio-economic footprint highlights our potential to invigorate the economy by leading and growing our category. Beer matters, for the economy, job creation and the success of a wide array of partners up and down our value chain. We have a mission to get South Africans to see beer differently. Our aim is to leverage our role in the economy to continue to responsibly contribute to our communities and society and build this country forward. This report strengthens the foundation to move that vision forward" Rivett-Carnac concluded.



Need a Storage Solution?

Dexion offers efficient, cost effective solutions of all your storage requirements. Dexion racking is designed and manufactured in compliance with the S.E.M.A code of practice, providing you with a quality, fully adjustable storage solution.

- » Rack inspections, rack maintenance and certification
- » Static Racking
- » Cantilever Racking
- » Shelving
- » Mezzanine Floors
- » Conveyors
- » Mobile Racking
- » Mobile Archive Shelving
- » Small Parts Storage & Bins
- » Staff Lockers



Cell 083 264 6043 Email ron@dexioncape.co.za  
Tel 021 552 0220 Fax mail 086 517 2949  
Southern Storage Solutions (Pty) Ltd  
t/a Dexion Storage Solutions  
Unit 22 • Frazzitta Business Park cnr Koeberg & Freedom Way • Milnerton • Cape Town • 7441

www.dexionrackingandshelving.co.za



Empowering SMMEs to secure sustainable contracts

RESEARCH has shown that five out of seven small, medium and micro enterprises (SMMEs) fail within their first year of operation. One of the reasons, according to Debbie Tagg, chief operating officer of Smart Procurement World, is that SMMEs in South Africa struggle to access markets and get sustainable contracts.

The Absa Enterprise & Supplier Development Event, which is organised by Smart Procurement World, aims to address this, and ensure that SMMEs have the skills, knowledge and con-

nections to access their markets and contribute to economic growth as proficient, corporate ready suppliers. This year's 7th annual Absa Smart Supplier Conference takes place on 13 September 2022 at Gallagher Convention Centre, Midrand. It forms part of the 16th Annual Smart Procurement World Indaba, South Africa's largest and longest-standing event for procurement and inbound supply chain professionals.

"The Absa Enterprise & Supplier Development Event prepares suppliers to be ready for business by giving them technical support while

creating access to the market through buyer-meet-seller platforms," Tagg expands. Over two days, SMMEs will benefit from peer to peer networking and Buyer/Supplier MatchUp sessions. They will also have access to an SMME helpdesk, Knowledge Hubs and SMME clinic. "The networking will promote collaboration between SMMEs. The Supplier MatchUp will enable small business owners to visit buyers in the public and private sectors. SMMEs will have the opportunity to ask buyers questions about their processes or

just to make themselves known. Buyers will have the opportunity to build a base of reliable, tried and tested SMME suppliers," Tagg explains. "The SMME helpdesk will provide SMMEs with a vital opportunity to engage with a selection of business experts to gain valuable knowledge on pressing questions, challenges, and opportunities. All hosted businesses will become part of Smart Procurement's SMME Clinic community where they will gain access to a wealth of ongoing training and networking opportunities even post the event."



# CT's first solar plant in Atlantis to be built next year

THE City has issued the tender for engineering, procurement and construction of its planned 7MW Atlantis solar photovoltaic (PV). The facility will be connected directly into the City's electrical network. It is foreseen that the future could hold the construction of similar plants across the metro.

Said Councillor Beverley van Reenen, the City's Mayoral Committee Member for Energy:

'This is one of a range of interventions to end load-shedding over time. The power plant would start generating electricity in 2024 and be in operation for 20 years, with a foreseen annual output of 14,7GWh.

'The City currently purchases most of its electricity from Eskom. High Eskom price escalations expected in future may not be financially sustainable for the City and its residents. It is expected that the Atlantis solar plant will enhance the City's financial sustainability as the cost of generating the electricity would be lower than the bulk procurement

from Eskom. Reducing the dependency on Eskom also means the City can develop and explore more climate-friendly power sources than Eskom's coal-fired power stations.

Said Cape Town Mayor, Geordin Hill-Lewis; 'This is another decisive step that the City is taking toward a more secure, cheaper and cleaner energy future for the people of Cape Town. Apart from the City's own build generation, strides have also been made to enabling independent power production and small-scale embedded generation. In this financial year, R15 million has been allocated to pay for energy generated by small-scale embedded generators through the feed in tariff of 75,51 c/kWh (excluding VAT) and the 25c/kWh incentive offered for small-scale embedded generators. I recently announced a policy shift allowing qualifying commercial and industrial electricity generators to sell energy to the City. The City also issued its first tender in the new Independent Power

Producer (IPP) programme which entails buying 200MW from IPPs within the City's electricity supply area.'

## Net zero

'One of the goals of this programme is to achieve the City's net-zero carbon municipal buildings commitment by 2030, and this power plant would be expected to contribute towards this. There would be a significant reduction in the City's carbon footprint if it switched from Eskom to solar-generated electricity' continued van Reenen.

'Other important impacts of this development are that it holds the potential to enhance the attractiveness of Atlantis as an investment hub and it is expected to stimulate the green and broader local economy. This holds the potential to increase investment and thus enable job creation, boosting the local and Cape Town economy. The investment in construction of the Atlantis plant is expected to result in a R47,2 million gross domestic

product increase. It is also expected that this development will enhance the safety of the surrounding communities, as well as stimulate the surrounding property market,' she concluded.

## How to tender

- Tender documents may be collected during working hours between 08:30 to 15:00 from 16 September 2022.
- The physical address for collection of tender documents is: Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town.
- The closing time for receipt of tenders is 10:00 on 25 October 2022.

*Tender submission details are as follows: Tender Box 127 at the Tender and Quotation Box Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town. Or visit: [www.capetown.gov.za/tenders](http://www.capetown.gov.za/tenders)*

# Impact of loadshedding on food security

AGRI SA's Executive Director Christo van der Rhee has written to Eskom CEO Andre de Ruyter requesting an urgent engagement on the outlook for loadshedding in the coming weeks. With loadshedding escalating as South Africa enters the summer crop planting season, the current energy crisis may have implications for food security into the coming year unless farmers can put measures in place to mitigate against the effects of loadshedding.

Electricity is a key agricultural input. According to the Department of Agriculture, Land Reform and Rural Development (DALRRD) statistics, the agricultural sector spent approximately R9 billion on electricity in 2021. This is more than 7% of the sector's expenditure on intermediate goods and services. A reliable power supply is especially critical for the sector's irrigation and water treatment.

The consequences of loadshedding for the different agricultural commodities are far-reaching, with potentially devastating outcomes. Moreover, the impact of loadshedding extends beyond the blackout.

It usually takes up to an hour to resume irrigation systems when loadshedding ends, costing farmers time and incurring additional labour



Christo van der Rhee.

costs. Blackouts also disrupt cooling and packing with ramifications for food quality, and they pose a health hazard for humans and animals alike as they disrupt access to clean water for consumption and stop wastewater treatment.

For export commodities, the consequences include a disruption to cold chain protocols mandated by foreign markets and late shipments. These outcomes will diminish South Africa's standing as a reliable source market.

Ultimately, the greatest threat of loadshedding is to the country's food security. As crops fail due to the lack of irrigation or farmers plant less for fear of losses, the country will only experience the consequences of loadshedding in the future as the produce anticipated from this summer's crop fails to

materialise. The result will be food shortages and high prices.

Agri SA is aware of the recent announcement that Eskom will approach the market to procure 1 000MW, but farmers need to know what the plan is beyond this initial attempt to stabilise the grid in order to plan for the season ahead.

Given the magnitude of what's at stake, Agri SA has approached Eskom for engagement in order to understand the current challenges and gain some insight into the outlook for the year so the sector can make plans to mitigate the risks, protecting both food consumers and producers. We trust that the power utility and government will work with us to avert a food certainty crisis in addition to the ongoing power crisis.

# The world is on the move again



WHEN international borders started to open in mid-2021, the travel and tourism industry expected a slow recovery, primarily due to too many travel restrictions still in place, coupled with an uneven vaccine rollout globally.

However, the recent surge in travel activity has taken the industry by surprise, exceeding the conservative recovery projections. According to visa outsourcing and technology services

specialist VFS Global, the number of visa applications between January and August 2022 alone was almost four times larger than the total number of applications for the whole of last year.

Jiten Vyas, Chief Commercial Officer, at VFS Global, says, "This increase is primarily driven by a high pent-up travel demand. With the opening of international borders, easing of travel restrictions, and the resumption of regular

international flights, the industry is witnessing peak 'revenge' travel.

Canada and Australia were the top locations for outbound travel from South Africa in terms of visa application volumes, while growth was also seen in outbound travel to Schengen locations, particularly in Italy and the Netherlands. According to Vyas, the resumption of in-campus classes at overseas universities was also a major contribut-

ing factor to the spike in outbound traffic.

"Even though the effects of the pandemic remain omnipresent in certain parts of the world, many embassies are still inundated with visa applications," he adds.

## Agility is key

"Keeping pace with the changes, our businesses have become even more customer-centric, resilient, and efficient right across our global network of 140+ countries. As a result, by December 2020, we were able to resume operations in 1 600 Visa Application Centres (more than half our global network), catering to over 50 client governments across 129 countries." As of today, two thirds of the VFS Global application centre network is now up and running.

## 50LT BREWING TANK WITH STAND



PLASTICS FOR AFRICA

3 Montague Drive, Montague Gardens  
021 551 5790 | [www.plasticsforafrica.co.za](http://www.plasticsforafrica.co.za)

Future proof your fire protection system with **FireDos®**

Speak to the company that knows foam systems best

Efficient • Effective • Easy to use & test

FireDos foam dosing proportioners and skids • Monitors and water cannons • Mobile dosing and monitor trailers • Bund, tank top and rim pourers



**dosetech fire 30**  
special risk fire protection

+27 (0) 861 111 544 • Mike – [mgf@dosetech.co.za](mailto:mgf@dosetech.co.za)  
[firedos@dosetech.co.za](mailto:firedos@dosetech.co.za) • [www.dosetech.co.za](http://www.dosetech.co.za)

ALL INDUSTRIAL, MOBILE, SPRINKLER REQUIREMENTS



# Imperial obtains approval for acquisition of 100% stake in J&J Group



IMPERIAL, owned by DP World, announced today that all the requirements relating to its 100% acquisition of J&J Group, the largest integrated logistics operator on Mozambique's Beira corridor, have now been fulfilled.

The transaction relating to the acquisition of the first tranche of shares (51%) of the J&J Group, which was announced on 29 July 2021, was closed on 18 July 2022. This will be followed by the acquisitions of the second and third tranches of 46.5% and 2.5%, respectively.

J&J Group offers end-to-end logistics solutions along the Beira and North-South corridors, specializing in the transport of break-bulk, containerized, project, fuel and out-of-gauge cargo between Mozambique, Zimbabwe, Zambia, South Africa, Malawi and the Democratic Republic of the Congo.

Sultan Ahmed Bin Sulayem, Group Chairman and CEO of DP World, said: "This acquisition strengthens DP World's position as an end-to-end logistics provider, by adding J&J's significant presence along these key corridors in Africa – a market where trade is expected to grow at more than twice GDP driven by population growth, accelerated urbanisation and rising middle classes."

"This acquisition complements our 'Gateway to Africa' focus..."

M o h a m m e d Akoojee, Chief Operating Officer of DP World Logistics and Group CEO at Imperial added: "This acquisition complements our 'Gateway to Africa' focus as it optimises and expands our reach in Africa by providing scale in end-to-end cross-border transportation services in key countries and new industries. This is possible through well-established routes, port capabilities, a well-developed asset base, including a fleet and warehousing space, as well as an entrenched customer portfolio."

Through the acquisition of the J&J Group, Imperial will be positioned for quicker go-to-market outside of South Africa and end-to-end access to certain key countries and corridors (port to customer) in Africa.

"We are excited for J&J to partner with Imperial and believe that the operations of these two businesses are very complementary. This combination offers existing and potential J&J clients a true gateway to Africa," explained Carlyle and Ethos Private Equity, currently the controlling shareholders of the J&J Group.

DP World has been growing its business in Africa, being a key growth region that offers many opportunities for further development in the ports and logistics sector, trade corridors, eCommerce, and others. Africa is centrally positioned to fit into the global trade and supply chains, and the development of trade corridors and port infrastructure is critical to connect the continent to drive economic growth and development. DP World operates nine ports and terminals across 8 countries in Africa – Algeria, Angola, Egypt, Mozambique, Rwanda, Senegal, Somaliland and South Africa.

## 1.5 Degrees

Africa's Net Zero Conference & Exhibition

### AFRICA'S INAUGURAL CLIMATE CHANGE EVENT.

28-30 MARCH 2023  
CENTURY CITY CONFERENCE CENTRE AND PRECINCT  
CAPE TOWN  
SOUTH AFRICA

## Official Invitation.

One point five degrees officially invites you to participate in the inaugural African continent climate change event. In Africa , about Africa, by Africans.



### Conference

3 Days of engaging high profile conferencing presented by African dignitaries, captains of industry and climate change champions.



### Exhibition

100 exhibitors displaying climate change technologies services and innovations.



### Climate change village

Climate change village showcasing Ev mobility, Recycled art, Intaka Island tours, Sustainable building tours, Recycled art installations, Sustainable product market and much more!



Sponsor • Exhibit • Attend

CAPE  
**Business News**  
Where industry speaks to industry

"we are delighted to announce that Cape business News has been appointed as the  
"OFFICIAL MEDIA PARTNER"

Contact : Lynn Chamier    [lynn@onepointfivedegrees.co.za](mailto:lynn@onepointfivedegrees.co.za)    [www.onepointfivedegrees.co.za](http://www.onepointfivedegrees.co.za)



# Polyco invests – converting unrecyclable plastic into eco-concrete

POLYCO PRO NPC, a Producer Responsibility Organisation (PRO) in South Africa that represents and promotes the recycling of all plastic packaging, has provided a R7-million, interest free loan to the Centre for Regenerative Design & Collaboration (CRDC) who will be using the funding to purchase machinery for their plant in Cape Town that converts unrecyclable and/or difficult to recycle plastic into eco-aggregate, that is then used in the building and construction sector.

CRDC has designed an innovative solution that uses commonly mismanaged plastic waste and converts it to an eco-aggregate called RESIN8. Through various initiatives and collection schemes, CRDC accepts all plastics.

“One of the greatest challenges of the plastics and recycling sector has been finding a solution to repurpose and to reintegrate difficult to recycle plastics into the economy,” says Patricia Pillay, Chief Executive Officer at Polyco. “Our focus is to make waste a valuable resource, keeping all plastics out of the environment through investing in recycling infrastructure.”

“The CRDC’s RESIN8 solution will divert thousands of tons of plastic that would have gone to landfill, or have landed up in the environment, but will now instead supply the construction sector with a high-quality eco-aggregate to be used in the production of various concrete products.”

To produce RESIN8, waste plastic is first shredded and then mixed with mineral additives. The mixed material is fed through an extruder to produce RESIN8, which is then granulated into a concrete aggregate-like material. The RESIN8 granules are used as a replacement for natural aggregates in the concrete mix used in the production of multitude of concrete products. To date, RESIN8 has been used in the construction of 700 houses in Costa Rica, in South Africa three large scale residential buildings in Khayelitsha and about 2km of roadside kerb and channels on various projects in Cape Town.

This RESIN8 plant in Cape Town will be

the first of its kind in Africa, and only the third plant in the world.

“Our goal is to complete the construction phase before the year-end and to be fully operational from March 2023,” says

Abraham Avenant, Chief Executive Officer at CRDC South Africa. “Once operational the plant will be able to process 610 tons of plastic waste per month into RESIN8.”

To test the viability of

RESIN8 as a construction aggregate, multiple concrete manufacturers partnered with CRDC’s South African team to test RESIN8 in building blocks, maxi bricks, pavers, kerbs, channels, and concrete pipes. Using RESIN8

decreases weight, increases or maintains strength, and increases the thermal properties of concrete bricks and blocks which add additional environmental benefits.

“The Cape Town RESIN8 plant has

been designed to be scalable and we aim to increase our production to 1 220 tons of plastic waste per month. Our ambition is to replicate the Cape Town RESIN8 plant in a further two cities before the end of

2023,” says Avenant.

To find out more about Polyco, visit their website [www.polyco.co.za](http://www.polyco.co.za)

To find out more about CRDC and RESIN8, please visit <http://crdc.global>



## 20 years of Industrial Efficiency

National Cleaner Production Centre  
South Africa

A **national industrial support programme** that partners with industry to drive the transition towards a **green economy** and **save money**.

**Services include:**

-  Industry and sector knowledge-sharing
-  Green skills development
-  Company technical support

Contact us for a free assessment  
**[www.ncpc.co.za](http://www.ncpc.co.za) | [ncpc@csir.co.za](mailto:ncpc@csir.co.za)**

THA 35-2022



Funded by the dtic, hosted by the CSIR





Advertorial

# In-line stone crushers



REC-O-QUIP has supplied two STC/DT stone crushers to Western Cape Government for Department of Transport to rehabilitate 100 000km of gravel roads.

STONE crushers and soil stabilizers machines in this product range are manufactured according to rigorous construction methods and are equipped with unique components resulting from the intensive research and development. They are designed for reliable and efficient performance under the most rigorous conditions.

“Optimal results are obtained by coupling the stone crushers and the soil stabilizers...”

The stone crushers, thanks to the use of highly wear-resistant steel, are suitable for the maintenance and building of unpaved roads and gravel/forest roads. They are ideally suited to crush stones of any type and of large

dimensions. Whether its forestry maintenance, plantation, vineyard or orchard maintenance, agriculture tilling or soil reclamation, maintaining green areas for commercial and residential properties or for sports and for creating and maintaining trails and dirt roads.

For the construction of road foundations, freeways, airports, large squares, railway lines and other infrastructural works, the ROAD product range also offers various models of soil stabilizers which guarantee excellent results, both in terms of productivity and the uniformity of soil mixing thanks to a working depth of up to 500 mm. Optimal results are obtained by coupling the stone crushers and the soil stabilizers of the ROAD product range to tractors with an average/high perfor-

mance power take-off equipped with creeper speed gears

### Stone Crushers

FAE stone crusher from the STCL series is just what you need, with the ability to work up to 150 mm deep. STC/DT will work on stones up to 300mm, with fixed carbon steel teeth and dual transmission. Large stones as big as 500mm in diameter, FAE lets you choose from at least 10 different stone crusher models in three different lines when paired with 130kW-370kW tractors.

### Soil Stabilizer

Do you need a soil stabilizer with a variable geometry chamber that guarantees maximum performance? The STABI/H and STABI/H/HP series has variable geometry mixing chamber

and special rotor for extremely precise work even up to 580mm. This technology has two important benefits. First, it allows the machine to penetrate the soil with just the rotor. Second, the mixing chamber's volume is variable. As the depth increases, the chamber's volume also increases, and so does the ability to manage the material being mixed.

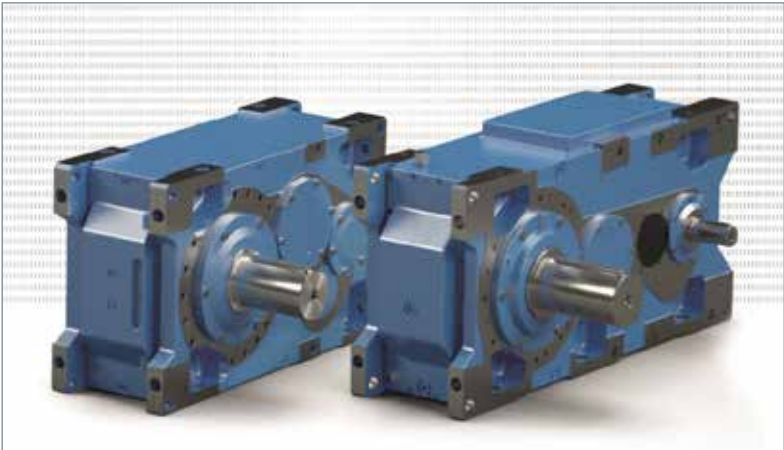
### Multitask Crusher

Do you need to mill rock or asphalt slabs, crush rocks and stabilize soil up to 280mm deep? The RSL series is compact and lightweight, and the MTL series, with variable geometry chamber, are models that have a 2,2m working width.

MTM, MTM/HP and MTH, MTH/HP series are both effective at crushing stones and rocks, milling asphalt and rock slabs, and stabilizing the soil up to 400mm and 500mm deep respectively. The Full Control System (FCS) makes it possible to set and automatically maintain the exact amount of water or liquid dispensed into the mixing chamber according to surface, crushing volume and forward speed, guaranteeing that the moisture level is always right. The 7" display lets you set parameters directly from the tractor cab so useful information about the machine's operating status can be monitored in real time. Additionally, you can create processing reports from the display.

All FAE multitask heads (except for the RSL) rely on the technology of the variable geometry mixing and crushing chamber.

# Industrial gear units for lifting drives in mining



The NORD MAXXDRIVE®-XD industrial range of gear units.

BMG has launched a new range of NORD MAXXDRIVE®-XD industrial gear units, designed to enhance the efficiency of lifting gear used in many industries, including the mining sector.

“Lifting applications place great demands on limited installation space for drives. NORD MAXXDRIVE® XD industrial gear units have been designed by NORD DRIVESYSTEMS, with an increased centre distance that is ideally suited to the U-shaped configuration of the drive, motor and cable drum, used in lifting equipment in all kinds of cranes,” states Deon Crous, National Sales Manager – Gears, for BMG’s Electromechanical division. “With the launch of these new industrial gearboxes, BMG is able to offer the mining sector a complete package of running gear and lifting gear drives for cranes from a single source.

“The housing of the MAXXDRIVE XD gear units has been specially designed for lifting applications and optimised for downward loads. The elongated arrangement of gear stages also enables a mechanical tailor-made dimensioning of the

gear unit with sufficient centre distance – thereby avoiding an over-dimensioning.”

BMG offers this range in five sizes, with centre distances between 509 and 963 millimetres and in versions with three or four gear stages that have identical housing dimensions and centre distances. This feature enables customers to standardise and reduce versions for the construction of cranes.

In addition, the MAXXDRIVE XD covers a wide speed range, with a maximum nominal gear ratio of 1:355. The constant torque across the whole speed ratio guarantees high efficiency while in use.

Standard components from BMG’s NORD range of industrial gear units are compatible with MAXXDRIVE XD. This ensures customers have a wide choice of options and are guaranteed short delivery time. The grey cast iron (GJL) or nodular cast iron (GJS) housing is available with an inspection cover, enabling a visual check of internal components, without having to remove the gear unit.

Apart from use in the mining sector, MAXXDRIVE XD industrial gear units are suitable

for ports, logistics and shipyards, in metal, chemical and paper facilities and for bulk goods trans-shipment.

Getriebebau NORD - leading global manufacturers of drive technology for mechanical and electronic solutions - is represented exclusively in southern Africa, by BMG.

BMG’s electromechanical team - which is committed to ensuring every mine and plant operate efficiently and safely - works in close partnership with NORD DRIVESYSTEMS, to offer ongoing supply and support of a wide range of engineering components.

BMG’s team of technicians supports the NORD range with a technical advisory and support service, which is tailored to meet the precise specifications of contractors, designers and the end-user. Local assembly at BMG World in Johannesburg, enables prompt delivery of drive systems and the quick availability of spare parts.

For further information contact Deon Crous, National Sales Manager – Gears, for BMG’s Electromechanical division, Email: [deonc@bmworld.net](mailto:deonc@bmworld.net) or visit the website: [www.bmgworld.net](http://www.bmgworld.net)

# Diarise: International Aluminium Conference

CTICC – 26-27 October 2022.

AFSA (Aluminium Federation of South Africa) will host the AFSA International Aluminium Conference and Exhibition (IACE) from 26-27 October 2022, at the Cape Town International Convention Centre.

The conference aims to position the South African aluminium

industry as a premium supplier to the continent and the world; and serves as a stepping-stone towards the vision of “Doubling Local Aluminium Demand by 2030”.

This ambitious target remains attainable as global demand for aluminium accelerated in recent years, and it is expected to

reach 120 million tons by 2030.

The main drivers are mainly from the construction and packaging sectors, with the wave of urbanisation globally fuelling large-scale construction for habitats, mass transportation, communication infrastructure and packaging for food and beverages.



## STONE CRUSHERS

STONE CRUSHERS FOR TRACTORS AND SKID STEERS

Stone crushers for PTO tractors from 80 to 500 HP



Multitask MTM  
240 to 360 HP



STC Stone Crusher  
80 to 220 HP



Soil Stabilizer  
STABI 300 to  
500 HP

Enquire now: ☎ +27 (0)72 647 9214 ✉ [info@recoquip.co.za](mailto:info@recoquip.co.za) 🌐 [www.recoquip.co.za](http://www.recoquip.co.za)



## Weir Minerals' display shows widest range

AMONG the innovations on display at the Weir Minerals Africa stand, at this year's Electra Mining Africa show, was the Warman® pump's WRT® technology, which improves wear life and energy efficiency with no additional capital cost requirement. This, says Marnus Koorts, general manager pump products at Weir Minerals Africa, has also been applied to the company's Enviro-tech® range, another strong slurry pump brand in Africa and the Middle East. The Warman® range includes slurry pumps, heavy duty mill circuit pumps, submersible pumps, dewatering pumps and process slurry pumps. Also in the range is GEHO® positive displacement pumps, known for long distance pumping of high-density tailings for distances of 200 to 300 km.

"Electra Mining Africa gave us the chance to expose our customers to other aspects of our portfolio," he says. "Most customers deal with the product lines relevant to their daily responsibilities – so it is exciting when they can see other aspects of our solutions that could add value."

Another eye-catcher at the exhibition stand was a 50kW unit from the Warman® SSB submersible slurry pump range, utilising the wear technology present in the industry-proven high chrome alloys used on slurry pumps, again leveraging technology from different brands. This unit boasted a high chrome impeller associated with its well-tested A05 material, with the motor encapsulated into the shell.

"We have also fine-tuned the ergonomics related to handling these pumps, based on our extensive experience in the field," says Koorts. "These units are moved around a lot, so lugs that are aligned sideways tend to break off if there is impact. We innovate even in small ways, by putting the lug facing upwards to avoid damage."

In addition to continuous innovation, he highlights the critical importance of the company's global infrastructure to support its wide range of pumping equipment. This gives customers confidence that service levels are consistent wherever the pumps are working.

"Whether our customer moves from Rustenburg to the Middle East, or from Canada to West Africa, they will find the same extensive range of our pumps supported to the same high standard," he says. "This sense of consistency is important to our

customers, especially given the amount of geographical movement of people in the mining sector."

He notes the Warman commitment to the ethos of 'Always Performing, Always Trusted, Always Innovating' that rests on a depth of institutional

knowledge across the company's footprint, giving customers peace of mind across plant functions.

"Our level of know-how and accessibility to mining customers is what differentiates Weir Minerals Africa," he concludes. "This is sometimes

difficult to convey if you don't appreciate our full extent of our offering; this is why our intensive face to face engagements at Electra Mining Africa remain so important."

For more information, visit: [www.minerals.weir](http://www.minerals.weir)



A Warman MCR400 connected to a Linatex rubber lined spool and Isogate WS 400 knife gate valve.



# HELUKABEL®

CABLES • WIRES • ACCESSORIES

(Channeling  
POWER)

(Channeling  
INNOVATION)

## CAPE TOWN BRANCH NOW OPEN



15 Longclaw Drive,  
Montague Gardens.  
Milnerton 7441



CAPE TOWN BRANCH  
+27 (0)21 534 1117



[capesales@helukabel.co.za](mailto:capesales@helukabel.co.za)



[helukabel\\_za](https://www.facebook.com/helukabel_za)  
[helukabel south africa](https://www.linkedin.com/company/helukabel-south-africa)  
[www.helukabel.co.za](http://www.helukabel.co.za)



## THE BEE IN MY BONNET COLUMN

## Sick of the consequences of wishful thinking?

I'm sure that every thinking person is thoroughly sick and tired of the energy debacle which reached uncharted depths with our recent experience of Stage 6 loadshedding.

The experience coincided with the 2nd Annual Southern Africa Oil and Gas Conference, adding importance to the conference's theme of energy sustainability in this part of the world.

As an attendee, what I appreciated was the quality and reality espoused by the more than 30 excellent and qualified speakers that the event attracted.

All of course, pro-

moted the continued use of fossil fuels as a mature, reliable, low emission and tested energy source and on more than one occasion described in detail the huge potential that our country and its neighbours hold as a future energy source, making SA self-sufficient in its energy requirements for the next 100 years or so, and with plenty to export too.

The upcoming COP27 UN Climate Change Conference to be held in Egypt in November will again – quite rightly IMHO – warn us of the consequences of burning fossil fuels and promote

carbon capture and the likes of hydrogen as the panacea we have all been waiting for. I wish with all my heart that this could be so.

The renewables industry – wind and solar – has done a 'good job' of demonising oil & gas as the planet's bogey men and has promoted this dream of clean, free energy that will last forever and ever more!

I pose the question – what's the difference between a dream and wishful thinking? I suppose it depends upon which part of the evolutionary path you're sitting on, but wishful thinking conveniently ignores phys-

ical facts like physics and mathematics.

#### The dilemma and the facts

South Africa is currently short of more than 6 000MW of base load electricity, that is if all our generating capacity was working as it should. It also needs to budget and plan for the replacement over the next 30 years or so, of 1 000MW of generating capacity per year to replace equipment and machinery that has a) reached the end of its useful life and b) that satisfies the demands of population growth.

There is only one

fuel that is sustainable and non-polluting and that's nuclear which has dashed the vision promoted by many green supporters of a nasty, dangerous material that can wipe out humanity! Countries that promoted nuclear such as France have suffered least from the latest energy tribulations; Germany with its abandonment of nuclear and coal have suffered the worst along with the UK. It was warned decades ago of the consequences of its reluctance to embrace more nuclear power by non-other than the then PM, Tony Blair. They are now suffering the

penalties of plumping for oil & gas which has resulted in through-the-roof energy costs, and that in a country which the greenies trumpet that +25% of the UK's energy is supplied by wind and a little solar.

SA's coal exports are booming as some Europeans are taking their coal fired powered stations out of mothballs, to combat the power shortage crisis. What say the environmentalists now?

Back to SA and a little maths. Our energy shortfall could be met within two years with the upgrading of current OCGT capacity and adding a further

two CCGT natural gas fired stations (if only we had the ready supply of gas, but it's coming if someone pulls finger!). Or, as the renewables over everything brigade suggest, wallpapering the countryside with a further +/- 3 000 wind turbines; or more than 30 of the largest 175MW solar farms covering an area of 142km<sup>2</sup> and incorporating 16 million solar panels! Oh the logistics (and feeding frenzy)!

There are many of these and other examples of the consequences of 'wishful thinking'. Maybe we need to learn the lessons?

## Lack of funding impedes services to people with psychosocial disabilities

MENTAL healthcare for persons with psychosocial disabilities has historically been under-prioritised. Globally, there has been a shift away from institutionalisation as the primary response to psychosocial disability toward community-based mental healthcare.

In South Africa, however, people with psychosocial disabilities are still being left behind because of under-resourcing and a lack of relevant and accurate data on the prevalence of such disabilities and trends in the use of mental healthcare services. These deficiencies have had dire consequences, as the ongoing Life Esidimeni Inquest demonstrates.

"Although our legislative and policy framework that governs community-based mental healthcare for adults with psychosocial disabilities largely aligns with the relevant constitutional and international norms and obligations, its implementation leaves much to be desired. This is largely due to major deficiencies in the system," says Marietjie Booyens who is a consultant at the Stellenbosch University (SU) Law Clinic. Booyens recently obtained her Master's degree in Law at SU under the supervision of Prof Sandy Liebenberg, the HF Oppenheimer Chair in Human Rights Law.

As part of her study, Booyens analysed sec-

tion 27 of the Constitution which acknowledges everyone's right of access to healthcare services. She also examined policy documents and legislation relating to mental healthcare as well as selected international human rights instruments that focus on the normative standards of availability, accessibility, acceptability and quality for community-based mental healthcare. According to the World Health Organisation, people with psychosocial disabilities have received a mental health diagnosis, and have experienced negative social factors including stigma, discrimination and exclusion.

Booyens says her study shows that mental healthcare remains underfunded, investment in community-based mental healthcare is lacking, and significant disparities in resource allocation exist between provinces, between rural and urban areas and between the public and private healthcare sectors.

"Because of poor resource allocation, people with psychosocial disabilities don't have access to facilities, goods and services they so desperately need.

"Monitoring and information systems are also ineffective, safeguards for the quality and acceptability of care are lacking, and there is insufficient engagement with people with psychosocial disabilities and their representative organ-

isations when policy is made, and its implementation evaluated.

"There is also a lack of clarity on the applicable standards for quality, ethical care; and poorly functioning oversight and accountability mechanisms."

Booyens adds that the sparse resources available for mental healthcare remain concentrated in psychiatric institutions and even where funding for institutionalised care has been reduced, that funding has not been ring-fenced for community-based mental healthcare.

She says this severe under-resourcing is unlikely to be addressed if we do not see an improvement in our monitoring and information systems.

"If relevant and accurate data are not collected regularly and processed reliably, we cannot ensure that sufficient resources are allocated, we cannot target the most vulnerable groups for urgent intervention, and we cannot determine whether further reform is needed to meet the mental health needs of persons with psychosocial disabilities.

"The state must invest in improved monitoring and information systems so that accurate, relevant, and quality data can be collected to improve the community-based mental healthcare system."

Booyens emphasises that people with psychosocial disabilities who live in rural areas

must have the same access to the necessary resources as their counterparts in urban areas.

"We must address inequities in the distribution of infrastructure and human resources, and set clear and measurable targets nationally, provincially and locally for improved access to community-based mental healthcare goods, facilities and services. We also need special measures and more resources to improve the quality, acceptability and availability of community-based mental healthcare in rural areas.

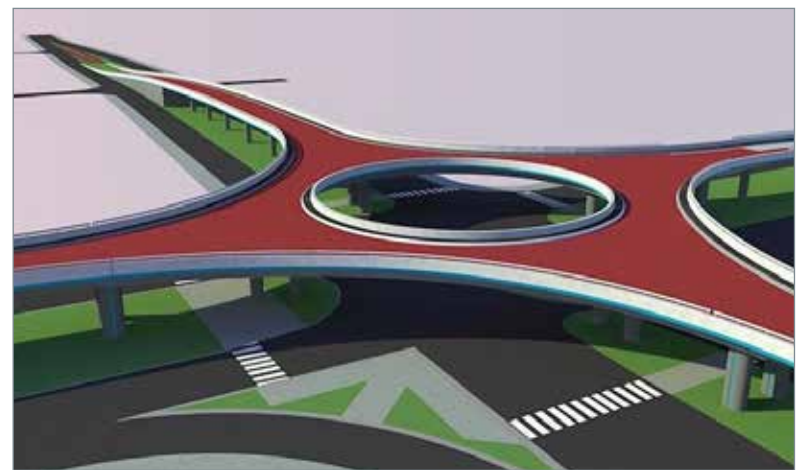
"A clear and comprehensive set of standards for the provision of community-based mental healthcare at all relevant facilities must be developed and consistently implemented.

"People with psychosocial disabilities and their representative organisations must also be included in decision-making processes, the development of community-based mental healthcare programmes, as well as the monitoring of such programmes when they are implemented."

According to Booyens, community-based mental healthcare must follow a rights-based approach to improve the health of people with psychosocial disabilities and to empower them to pursue their own goals.

"We cannot consider psychosocial disability as some isolated corner of 'healthcare' only."

## Work commences on CT's own 'Sky Circle'



Work commences on CT's own 'Sky Circle'

THE City of Cape Town advises the public of the upcoming lane closures at the intersection of Govan Mbeki Road and Jan Smuts Drive in Hanover Park.

The lane closures will be in place while the City constructs a freestanding elevated traffic circle – the first of its kind in South Africa – as part of the roll-out of the MyCiTi service to the metro-south east.

Over the weekends, high volumes of traffic move through the

intersection at Govan Mbeki Road (M9) and Jan Smuts Drive (M17) in Hanover Park. Road users can be at ease, as the lane closures have been scheduled to fall outside the morning and afternoon peak hour periods to limit the impact on traffic flow.

The City's Mayoral Committee Member for Urban Mobility, Councillor Rob Quintas, says pedestrians and cyclists will also benefit as dedicated lanes for walking and cycling along Govan Mbeki Drive and at the

intersection form part of this project.

"Apart from the traffic circle that will be used by the MyCiTi buses, the City is also upgrading the intersection to improve traffic flow. The improvements entail the reconfiguration of the intersection, dedicated turning lanes, improved traffic signals and signalisations," added Quintas.

Work commenced on Tuesday, 27 September 2022 with a duration of about 19 months, until 30 April 2024.

## World's tallest timber apartment tower to be built in Zanzibar

28-storey Burj Zanzibar would be Africa's first sustainable high-rise.

THE Indian Ocean island of Zanzibar is planning the highest green building in the world, a 28-storey apartment tower designed in hybrid timber technology. Named Burj Zanzibar – "burj" meaning tower in Arabic – the spectacular high-rise is designed to reach 96 metres in height. Dubbed "vertical green village", it would represent an iconic landmark

not only for the island but for the whole of Africa and a global environmental milestone, being the first timber structure worldwide of such proportions.

The design of the mixed-use apartment and commercial building, in a playful beehive style with breathtaking ocean views, was unveiled to the public in Muscat, Oman on 1

October. Dutch-born architect Leander Moons, responsible for the concept, said: "Burj Zanzibar is not just an outstanding building but a new ecosystem for the future of living". The residential tower with 266 residences is to be located in Fumba Town, East Africa's pioneering eco-town developed by German-led engineering firm CPS.



## DHL invests R127m in solar powered new head office

DHL Global Forwarding, the well-known international air, ocean, and road freight services provider, has inaugurated a new transshipment hub and head office in Johannesburg, South Africa. The sustainable, primarily solar-powered complex was officially opened on Thursday, 22 September 2022.

Located in the Sky Park Industrial Estate, it provides easy access to OR Tambo International airport. The facility's temperature-controlled chambers, Good Distribution Practices (GDP)-trained personnel enable the new hub to cater to the unique needs of Africa's rapidly advancing life sciences and healthcare (LSH) sector. The facility's opening marks a significant addition to DHL Global Forwarding's extensive logistics net-

work, further strengthening its positioning on the African continent and in South Africa while enabling the group to handle its customers' requirements more efficiently.

Amadou Diallo, CEO of DHL Global Forwarding Middle East & Africa, said: "We are proud that this new facility was built to the highest standards of sustainability and energy efficiency in line with DHL Global Forwarding's goal of reaching net-zero logistics-related emissions by 2050. Already, our climate protection initiatives and CO2 emissions reduction programs have had a positive impact on logistics supply chains globally and building sustainable infrastructure like this solar-powered facility takes us closer to our goal." The warehouse and head office are

almost entirely powered by green electricity from photovoltaic panels.

The new facility includes offices and a 10 000m<sup>2</sup> warehouse. It will serve as a hub for transport, logistics, and warehouse solutions, as well as international freight expertise for different industries. This includes a strong focus on Africa's life sciences and healthcare (LSH) sector, which with an expected annual growth rate of 6.3% and anticipated revenue of EUR 7.1 billion by 2023, is one of the booming industries in the country. To serve the needs of the LSH sector, the site has been designed to meet the DHL Global GxP Pharma standards and the highest Transported Asset Protection Association (TAPA) A security standards.

## 450 stores and more for The Crazy Store



THE Crazy Store has opened its 450th store in Gqeberha at the Boardwalk Mall in Summerstrand.

Kevin Lennett, The Crazy Store's Managing Director has been at the helm for 10 of the business's 25 years and has seen the business's vision of expanding its footprint become a reality. "The 450th store was a goal we set for the business and to see this target become a reality, and in an important area for us, is a reason to celebrate – and of course to thank our customers for their ongoing support, and our team for their hard work and commitment to meeting the needs of these customers."

The opening of the store takes the business's total retail space to 104,788.55m<sup>2</sup>, and the warehouse space for all warehouses combined

(Cape Town, Durban, Gqeberha and Johannesburg) is 62 423m<sup>2</sup>.

There's also a staff contingent of just over 2 100 people which will continue to increase as new stores are opened.

Thanks to sales of The Crazy Store's Charity Duck initiative in store, where 10% of all sales is donated to The Children's Hospital Trust, an impressive R1 140 000 had been donated up to May 2022 with sales of the duck continuing to climb.

"The Crazy Store will continue to focus on the look and feel of its stores, with strong yellow and blue colours reflecting our corporate identity, as well as a happy and positive in-store environment."

It's not only the store experience that has evolved; The Crazy Store's marketing has

too from a single page leaflet customers can, in December, expect a 32-page Festive Season shopping guide and a 28-page Toy catalogue with activities for children.

"As the needs of our customers change, so does our product offering. In a years' time I imagine I could be discussing a new department and new products because when we say, 'You never know what you might find', it's our mission to stock the product before you know you need it," concludes Lennett.

In addition to the new store in Gqeberha, The Crazy Store also opened six more stores at the following locations during September: Hayfields (Pietermaritzburg), Dorandia (Pretoria), Sabie, Greenfields (East London), Port Alfred and Witbank.

## Bearings 2000 acquires MCL

NATIONAL industrial supplies specialist, Bearings 2000, has acquired Gqeberha-based MCL Engineering Products. The acquisition will expand Bearings 2000's reach in the Eastern Cape and provide added value for customers in the region. With similar backgrounds, values, and approaches to business, MCL and Bearings 2000 make an ideal fit.

"As a progressive business, we at Bearings 2000 are constantly evolving our methodologies and expanding our footprint in South Africa's bearings landscape to provide our customers with best-in-class products and service levels," says Bearings 2000 managing director, Ross Trevelyan.

MCL has been an SKF distributor for over three decades in the Eastern Cape and is acclaimed for reliable service and for bringing additional products such as gearboxes, conveyor rollers, linear motion, and energy chains to the region.

"Our goal is to uphold these relationships and improve our market

penetration by providing further value to clients," says Trevelyan. "Moreover, the product offering will be strengthened with Bearings 2000's product range that will be available through the Gqeberha distribution hub."

Products will include SKF, COOPER, COC, and DODGE premium brands of bearings, SYN, B2K, and FKD economical brands of bearings, and Dongil and SYN brands of power transmission. These product ranges and brands will be bolstered by products already available such as Bonfiglioli gearboxes, Igus power chains, Interroll conveyor products, and THK linear motion brands.

As MCL transitions to become Bearings 2000 Gqeberha, it will become Bearings 2000's third coastal distribution hub, alongside those in Cape Town and Durban.

"The Gqeberha hub will reinforce our distribution capability in the area thereby broadening our reach, reducing delivery times, and providing our cus-



MCL Rodney McLagen and Bearings 2000 Ross Trevelyan.

tomers with improved availability and technical support through an extensive product suite and enhanced overall service," says Trevelyan. Says Rodney McLagen, managing member of MCL: "With the added value of the Bearings 2000 Group – including larger stock holdings, new products and services, a level 1 B-BBEE rating and a procurement level recognition of 135%, as well as outstanding advanced systems, procedures, and competent staff and management – I am confident that Bearings 2000 Gqeberha will become a significant force in the Eastern

Cape industrial supplies sector."

Trevelyan adds: "We are set to expand on the vast history and relationships that MCL has created over decades of providing quality engineered products and superior service. Further, we want to notify potential sellers in the market that we are active in the acquisition space and looking for future business opportunities!"

The acquisition has the full backing of the brands that both companies distribute.

For more information on Bearings 2000, visit [www.brg2k.co.za](http://www.brg2k.co.za)

## Efficient 5G network is reliant on a reimagined policy and regulation landscape

A sustainable and efficient 5G network needs to be underpinned by a competitive landscape where the sharing of resources is encouraged – this was the main takeaway from an insightful panel discussion at the Southern Africa Telecommunication Networks and Applications Conference (SATNAC), hosted by Telkom.

"5G is an incredible offering, but we can't look at it in the same way we've considered other technological advancements," says Liza Zouabi, Group Pricing and Competition Regulation Executive at Telkom Group.

"While diversification of services is important for the consumer, it makes sense to invest in greater consolidation between industry players on an operational level, so that we can improve efficiencies for the market as a whole."

Today, 5G connectivity is a catalyst for innovation. While it is not a general-purpose solution, it gives rise to exponential opportunities for new data, new designs and new

technologies that could allow people, communities and businesses to advance towards economic growth and development.

By 2030, it is expected that 90% of the South African population will be covered by 4G or 5G networks, highlighting the huge investment that telcos are making in this network offering.

Yet, as a result of current competition policies and regulations, operators each need to invest in their own 5G network infrastructure.

"In the race to deploy this next-generation solution, we've found that industry players have invested in new infrastructure in areas where this infrastructure already existed – leading to over-servicing," says Jacob Munodwafa, Executive Secretary and Chief Executive Officer of SATA.

"If operators were allowed to combine their resources, there could be more capital available to deploy services in underserved areas and maximise connectivity

for all consumers."

The opportunities offered by 5G are exciting, however, the uptake of these services will likely be determined by its affordability and reliability.

"Our duty is to manage the sector in an inclusive and sustainable way," says Dr Charley Lewis, Acting Chairperson of ICASA. "During the Covid-19 pandemic, we allowed operators to share the much-needed spectrum so they could deploy their 5G networks. With the right policies in place, we could again authorise passive and active infrastructure sharing – for the benefit of all stakeholders."

"We're bringing new 5G and spectrum policies to the fore," says Mr Philly Mapulane, Deputy Minister of Communications and Digital Technologies. "Our aim is to transform the digital landscape to benefit government, its partners in industry, and most importantly, our people. But we cannot do it alone – we need support

from all stakeholders."

Increased reliance on 5G technology has the power to offer enhanced remote working, AgriTech, telemedicine and distance learning experiences while also improving the accessibility of these services for all South Africans.

"5G policy plays an important role in bridging South Africa's digital divide," says Serame Taukobong, CEO of Telkom Group. "In order to effectively unlock our digital economy, we need to consider the entire ecosystem and how it will be shaped and supported by the policies and regulations we implement."

For Telkom, we believe the success of 5G is where it can make the most impact while understanding that the majority of South Africans are still very dependent on 3G and 4G. We are currently piloting a 5G network proof of concept in Umlazi, where schools, clinics and hospitals, and a police station are testing the capabilities of this connectivity," concludes Taukobong.



# The importance of moisture maintenance in grain storage



*SBS Agri offers farmers a complete grain management solution.*

MOISTURE control in grain storage means money. The option to harvest and supply grain to the market before your competitors not only reduces on-field risks but also increases your potential earnings based on market supply and demand.

While harvesting

early reduces the risk of crop damage due to extreme or unexpected weather (think climate change), pests, theft or animal invasion, harvesting grain crops with a higher moisture content comes with its own challenges. These include mould and pest infestation while in storage and the need

to reduce the moisture content to market prescribed levels. But SBS Agri has you covered.

The SBS Agri Automated Grain Drying and Conditioning system alleviates these risks and allows for harvest at as much as three months early and at a moisture content of up to 27%. The

system dries grain to the globally accepted threshold of below 14% moisture content, maintaining this moisture level for extended periods in aerated grain bins regulated by the SBS Agri Automatic Fan Control (AFC) Unit.

Following harvest and cleaning, grain can be dried to within the desired moisture content range using an SBS Hot Air Generator. Grain drying can be terminated when a moisture content of between 15-17% is achieved, reducing both drying time and cost moved to storage bins and cooled to further reduce the moisture content of the grain by up to 3%.

Maintaining a storage temperature within the silo and keeping grain at a constant temperature of between 15 - 20°C is a highly efficient means of preventing mould, insect and pest development and infesta-

tion, preventing hot spots and retaining the correct moisture percentage, allowing grain farmers to store grain for extended periods of time. The SBS Agri AFC unit controls the aeration fans used on storage bins using electronic humidity sensors. These sensors can measure the humidity in the atmosphere to an accuracy of within 2%.

Designed to automatically select the best time to run the

aeration fans, the AFC unit continuously checks atmospheric conditions, automatically switching fans on and off and only running when conditions benefit the stored grain. The humidity sensors on the unit are set according to the specific grain equilibrium chart to ensure grain is stored and maintained to the desired requirements.

By eliminating the need for manual monitoring and the risk of

human error, the SBS Agri AFC unit allow farmers to take a much needed break with the confidence that their grain is safely stored.

Saving costs and protecting your stored grain should not be giving you restless nights, you need to talk to us today. Email: [info@sbsagri.co.za](mailto:info@sbsagri.co.za) or visit our website for more information on the SBS Agri systems and solutions that can make your farm more profitable.

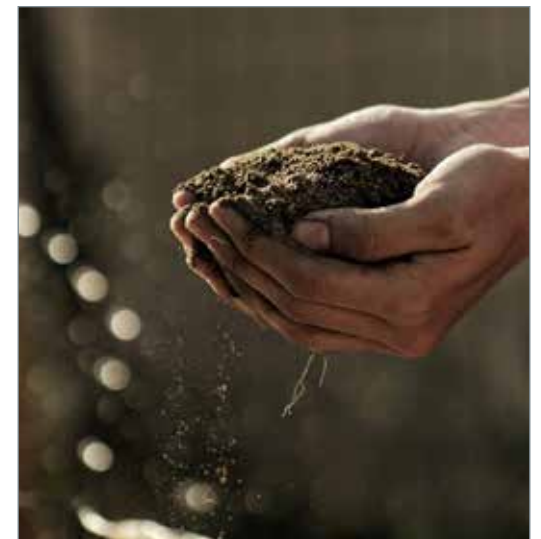
## Why microbes matter to Nederburg

"I'm always surprised by those who see Mars as our next frontier for exploration. What about the ground beneath our feet? We're just beginning to learn how rich and diverse it is. It's literally crammed with information on which our survival as a planet depends. Shouldn't that be the quest we make our priority?" asks agricultural specialist for Distell, Henk van Graan.

His focus is on holistic, low-intervention farming in the pursuit of creating a more resilient terroir for Nederburg, where ultimately healthier vines will lead to even better wines and inputs such as chemical fertilizers, pesticides and herbicides can be curtailed, if not altogether eliminated.

"When I studied viticulture in the 1990s, soil wasn't given that much emphasis. In those days, it was considered more of a planting medium to be treated with appropriate interventions for optimal vine growth. It's only in recent years that awareness about intrinsic soil life and health has grown, and with it an awareness of the connection to climate resilience and food security.

"As we move towards more regenerative farming, where we start with the health of the soil, we are beginning to uncover the extent to which beneficial micro-organisms of the soil food web (bacteria, fungi, protozoa etc.) are linked to sustainability. Ironically, while this type of farming involves many ancient practices, in some ways it represents a whole new frontier for modern farmers. Especially as we deepen our knowledge of mycorrhizal networks, where microorganisms in the



root systems of plants connect individual plants together and transfer water, carbon, nitrogen, and other nutrients and minerals.

"We've come to understand that around 70% of the earth's microorganisms exist below the surface of the ground. That's more diversity below than above ground. To consider this on a micro-scale, can you imagine that there can be more than 25 000 species of microorganisms in a single teaspoon of soil!"

### Microbes matter

"As we begin to appreciate the ecosystems of healthy soils, we are learning in more detail about how their microbial populations provide structural support for all types of plants. They help to fix nitrogen, aerate, moisturise and enrich the soil. Carbon compounds are released by plant roots into the soil to feed billions of organisms and cycle nutrients. As a result, aggregate habitat is created to play an important role in filtering, retaining, and draining water."

Microbial communities also play an important role in carbon sequestration, using light energy converted

into chemical energy (carbon compounds via root exudates) that is stored in the soil during photosynthesis.

Van Graan quotes soil scientist and conservation agronomist Ray Archuleta to explain: "The plant and soil are one". In other words, without plants, we wouldn't have microbes and without microbes, we couldn't call it soil.

In South Africa, where the threat of drought is never far away, cover cropping in vineyards has long been an important way of promoting soil health and biodiversity, while reducing evaporation and regulating temperatures. The roots of cover crops feed and stimulate the populations of soil microorganisms that recycle plant material and enrich the soil with nutrients. In time, these nutrients will feed future cover crops and, of course, the vines themselves.

Under Van Graan, cover crops planted at Nederburg have included oats, lupins, fava beans and vetch. He is finding that healthier soils, leading to more abundant cover crops, bring more beneficial insects that act as natural insecticides and pesticides.

## SBS AGRI OFFERS A COMPLETE GRAIN MANAGEMENT SOLUTION

from bulk storage bins and silos, conveyors, catwalks and stairs to our specialised automatic fan control unit, aeration system and drying systems including the highly fuel efficient SBS Hot Air Generator.

**We work alongside farmers to develop customised grain management systems that enable early harvest yields, reduce risk to crop while in storage and maximise returns.**

Call Us Today

**086 048 2657**

[info@sbsagri.co.za](mailto:info@sbsagri.co.za)

[www.thesbsgroup.com](http://www.thesbsgroup.com)

Follow Us:



# Diarise: The African Agri Investment Indaba

Continued from P1

Media partner CBN spoke to Ben Leyka, the CEO of the African Agri Council, organisers of the African Agri Investment Indaba.

## What is the DFI Forum and its significance?

**A:** The DFI Forum is a dedicated platform for global Development Financial Institutions to showcase their individual and combined efforts to achieve food security in Africa.

A first of its kind at the Agri Indaba, participating DFIs will highlight opportunities for the private sector and African governments to collaborate closely as they introduce tailor-made solutions for a food insecure continent.

## With all these international funders taking part, what are the expected outcomes?

**A:** Promote the African continent as an agriculture business and investment destination and facilitate the flow of capital into bankable projects to increase production capacity and strengthen African food systems.

## Does investment from these bodies require sanction from our Dept. of Agriculture?

**A:** No they do not. However it is important for the South African national Department of Agriculture to highlight policy reforms shaping the South African business environment to encourage FDI into the sector.

## Is the brief to the speakers to highlight successful (or otherwise) projects throughout the region or to identify issues or blockages that hamper development initiatives?

**A:** Both. The Agri Indaba's speaker faculty will highlight opportunities, challenges and trends dominating the business of food and agriculture across African countries.

In the past few weeks, the event has confirmed support from AfDB, FMO, IFU, Industrial Development Corporation,

ITSCREDIT, Norfund, Casidra and Lindsay Africa who will be exhibiting at the 2022 edition.

Companies looking to get involved in this year's Indaba or interested in showcasing their solutions can con-

tact the organisers at: [eventhost@agricouncil.org](mailto:eventhost@agricouncil.org) or visit [www.agri-indaba.com](http://www.agri-indaba.com) for more information.



## AFRICAN AGRI INVESTMENT INDABA

14 - 16 NOVEMBER 2022  
CTICC, CAPE TOWN  
SOUTH AFRICA

## YOUR GATEWAY TO INVESTMENT OPPORTUNITIES ACROSS THE ENTIRE AGRIFOOD VALUE CHAIN

Hosted by the African Agri Council NPC (AAC), join us at the largest investment gathering in food and agriculture on the African continent!

Focusing on achieving food security through private sector investment in African food and agriculture, this years live event will host leading industry experts and attendees from across the globe as they discuss:

- ✓ Increasing the prominence of venture capital and private debt investment
- ✓ How DFI's can assist companies to manage risk and opportunities
- ✓ The role of the private sector in climate-smart innovation
- ✓ Financing SME's in the wake of the pandemic crisis

For more information, or to book your seat please contact [eventhost@agricouncil.org](mailto:eventhost@agricouncil.org) or register online at [www.agri-indaba.com](http://www.agri-indaba.com)

[www.agri-indaba.com](http://www.agri-indaba.com)

1100+  
High level participants

45+  
Industry expert speakers

50+  
Countries represented

350+  
Key investors

600+  
Pre-scheduled meetings

## FEATURED SPEAKERS



**Dr Ivan Meyer**  
Minister of Agriculture  
Western Cape Provincial Government  
South Africa



**Nhlanhla Nene**  
Chairman of the Board of Directors  
Thebe Investment Corporation  
South Africa



**Atsuko Toda**  
Director: Agriculture Finance and Rural  
Development Department  
AfDB, Côte d'Ivoire

Hosts



Destination partner



Media partner



Strategic partners



Co-located with:



Organized by:





## Improved bearing block units for higher efficiency

BMG's range of BTC bearings and components - which is manufactured exclusively for BMG to stringent quality and safety specifications - has been extended to include new bearing block units.

"These robust BTC bearing block units have been developed recently for dependable use in many rotating equipment applications in general industry and the agricultural sector. The newly designed red components have an improved quality housing to ensure a stronger component that will not crack in tough conditions and a higher grade of steel for greater load capacity and speed stability," explains Carlo Beukes, Business Unit Manager, Bearings Division, BMG. "Other important advancements include an efficient amount of Shell

Alvania EP2 grease, eco-friendly biodegradable packaging materials to reduce our carbon footprint and installation and maintenance instructions."

These bearing block units, which are supplied with an Allen Key, are available from BMG's extended branch network, as well as through the compa-

ny's online shopping platform that adds value to BMG's service offering and makes shopping for engineering components even more convenient.

BMG's BTC agri-component product offering includes gearboxes designed specifically for packhouses, harrow discs, PTO and yokes, hub bearing units

and fertilizing discs. Other components in this range include ball, taper and spherical roller bearings.

For further information Carlo Beukes, Business Unit Manager, Bearings Division, BMG, Tel: +27 11 620 7558, Email: carlob@bmg-world.net, Website: www.bmgworld.net



## Expropriation Bill passes without addressing serious flaws

**Statement by Christo Van der Rhee, Executive Director at Agri SA**

THE National Assembly (NA) have debated and passed the Expropriation Bill as referred to it by the Portfolio Committee on Public Works and Infrastructure. Unfortunately, the NA did not use the debate to engage with the serious flaws which remain in the bill and missed this opportunity to mitigate its likely harm to the agricultural sector and wider economy should the Bill in its current form be adopted.

The Bill that was passed by the NA continues to allow for the possibility of nil compensation for expropriation in terms of clause 12(3) and (4). In its initial submissions to government on the Bill, Agri SA commissioned two studies to inform and support its com-

mentary. Our position remains that the inclusion of the nil compensation clause will undermine access to capital and capital formation for the sector and economy. Examples from similar land policies implemented in countries like Zimbabwe and Venezuela illustrate the potentially disastrous impact that these policies can have on agriculture, the broader economy, and society.

Another significant issue with the Bill is how it defines expropriation itself, which Agri SA believes is too narrow. This essentially opens the door to a form of indirect expropriation through the limitation of property rights without compensation being payable.

These issues will have a negative impact on our shared national commitment to building a more inclusive agricultural sector. It will weaken the protections afforded to private

property and this could see an exodus of capital from the agricultural sector and the broader economy. The anticipated loss of jobs and investment will impact both emerging and established farmers alike.

As the Bill now makes its way to the National Council of Provinces (NCOP), we call on legislators in that body to take into account the Bill's apparent flaws and its likely devastating economic impact. A further assault on the certainty of property rights will only add to a climate that deters investment in, amongst others, the agriculture sector which will undermine the country and region's food security.

Property rights are the cornerstone of economic development and Agri SA will use every tool at its disposal to ensure their continued protection under the Constitution of South Africa.

## R1,9 million disbursed to combat agricultural crime

ON 5 September 2022, the board of trustees of the Agri Securitas Trust Fund met to consider requests for financial support for rural safety projects. The board approved R1,9 million for disbursement, but this is a drop in the ocean given the scale and cost of agricultural crime to the sector.

The Fund received requests from 22 farmer associations in five provinces. Funds were allocated to farmer associations in the Northwest, KwaZulu-Natal, Eastern Cape, Mpumalanga, and the Free State. Yet the need remains overwhelming.

In 2018 alone, the total cost of agricultural crime exceeded R7,72 billion and necessitated the installation of security equipment to the value of R1,9 billion. The degree to which the farming community is subject to violence and property-related crime poses an enormous problem for the sector and impacts negatively on food security and agricultural investment.

"The farming community's safety is a food security issue. The vulnerability of farming communities and rural communities is therefore not only a farmers' issue but a community issue and a national imperative. It is there-

fore important to support farming communities in their vigilance to safeguard them and their workers," said Cobus van Zyl, chair of the Agri Securitas Trust Fund.

The Agri Securitas Trust Fund was established in 1999 to assist farming communities to safeguard farmers, workers, and operations by working with local farming communities and the police. Since its inception, the Trust Fund has disbursed more than R 16 million, thanks to donations from the private sector. This funding has filled a critical gap in the State's policing capacity.

"Most of the funding requests from farmer associations were for the installation or expanding of camera systems. These are reported by local communities to be the most successful method for both deterrence and tracking of suspects. These systems cover large parts of the rural areas, and their blanket coverage provides valuable information in the investigation of criminal activities," said van Zyl.

"Agri SA is grateful to the trust fund for making these contributions to our farmer associations and for the donations of corporate

institutions and other private sector donors, and we urge South Africans to continue to contribute to the Trust to fill this vital gap. It is these donations that secure our farming communities and enable them to produce food for the people of our country to have food on the table," said Christo van der Rhee, Executive Director of Agri SA.

"More importantly, we continue to urge Minister Bheki Cele to fast-track the more effective implementation of the Rural Safety Strategy. This is the only real way to prevent crime in our farming communities, saving both lives and businesses, and ensuring that South Africans continue to enjoy food security for generations to come" says van der Rhee.

Visit Agri Securitas Trust Fund web page: <https://agrisecuritas.org/>

**Enquiries:**

- Kobus Visser, Agri Securitas Trust Fund: 082 388 0010
- Christo van der Rhee, Executive Director of Agri SA: 083 380 3492
- Cobus van Zyl, Chairperson Agri Securitas Trust Fund: 083 283 7076



**BMG**

An Invicta Holdings Group Company

PART OF **EVERY** PROCESS

Quality Components  
Technical Expertise  
Superior Service

**Dedicated to Brilliant Service**



**NO TIME FOR DOWNTIME**

BMG brings together the world's leading brands of geared drives, electronic drives and electric motors. We offer integrated drive solutions and vast technical expertise to ensure reduced power consumption and maximised uptime.

For more information, contact your nearest BMG branch.

[www.bmgworld.net](http://www.bmgworld.net)

BEARINGS • SEALS • POWER TRANSMISSION • DRIVES & MOTORS • MATERIALS HANDLING  
FASTENERS & TOOLS • HYDRAULICS • PNEUMATICS • FILTRATION • LUBRICATION • VALVES • TECHNICAL RESOURCES • FIELD SERVICES

**B-BBEE 2**  
EMPOWERING CAPABLE





**RENT OR BUY**

[KWIKSPACE.CO.ZA](http://KWIKSPACE.CO.ZA)

**Building Modular  
Excellence Since 1972**

**JOHANNESBURG 011 617 8000  
DURBAN 087 287 5060  
KHATU 078 801 1008  
CAPE TOWN 087 287 5079  
PORT ELIZABETH 087287 5043**



# What are the safety risks of working at height



SADLY, work carried out at height is responsible for more fatalities and injuries than any other construction activity. Let's look at what working at height is, and the safety risks that are created because of it.

## The two most common safety risks of working at height

When it comes to the most common safety risks of working at height, they're generally categorised into two distinct brackets: falling from height and dropping equipment from height.

The risks of falling at height range from near-misses, all the way to fatality. When somebody suffers a fall from height, the consequences are usually serious, and construction work regularly involves working at height. Whether it's climbing ladders, lowering and raising yourself using a harness and pulley system, or even climbing scaffolding, the risks suddenly become very serious indeed.

So serious, in fact, that many companies are now dedicating extensive staff training to working at height. And little wonder. Work carried out at height is responsible for nearly one third

of fatal accidents on construction sites. Standing on unstable surfaces, using ladders incorrectly, and overstretching are particularly common causes of slips and falls.

On the other hand, workers can drop equipment from height. You may think that the impact of dropped items is less severe, but this too can be fatal. Any number of injuries all the way from fractures to paralysis and death can be caused by dropping items from relatively low heights.

More often than not, the ground level area below work taking place at height is cordoned off and access is restricted. Workers below are required to wear personal protective equipment (PPE) including hard-hats, which protect against dropped items.

## How to minimise the risks of working at height

The first step is to make sure that your team are properly trained. Ensure they're competent, experienced, and have the skillset to carry out any work at height. Different work tasks involve different knowledge and skills – it's important that you have the right people working on the right tasks.

After that, avoid working at height wherever possible. The design team should be able to spot opportunities that will minimise the amount of work carried out at any height. If work needs to take place at any height, is it possible to bring the construction down to ground level and work from there? Could machinery carry out the work instead? Is there a different way to approach the task?

Make sure that personnel are using the correct equipment for the task at hand. It's especially important that staff have a safe way to carry their equipment to and from the place of work – backpacks can hold several different tools which might instead fall from pockets. Lanyards are another option that ensures items cannot be dropped.

Finally, know the area that you're working in. If work is being carried out on an aging, decaying roof or surface, then your methodology should have accounted for weak surfaces and potential collapse. Ensure that your workers are confident and comfortable, and that there are no unexpected surprises: reaching just a little too far could have disastrous consequences.

# 5 waves of change to strengthen Kwikspace for the next 50 years

*In the year of their golden anniversary, Kwikspace has undergone changes to safeguard their position as South Africa's leading prefabricated building supplier for the next 50 years.*

## 1. Achieved Level one BB-BEE

Kwikspace has been acquired by AIH Limited, a private equity company and Lehumo Kwikspace Holdings SPV Pty Ltd. The purchase is beneficial for Kwikspace's growth. With a higher Level 1 B-B-BEE status Kwikspace has more opportunities to tender on additional projects such as projects for schools, hospitals and more.

## 2. Expansion to new provinces

Kwikspace has added to its five national branches by opening two new branches in Mpumalanga and Richard's Bay. The Mpumalanga branch is the company's first in the province. These new branches will enable Kwikspace to reach many more people who will benefit from the services it provides in a shorter timeframe.

## 3. Dignifying spaces with new units

Kwikspace upheld its vision and mission to dignify and improve lives by supplying units; the majority were for



*Kwikspace's head office in Kilprivier.*

the Department of Education. Kwikspace prefabricated solutions provide safe, equipped, and diverse spaces that range from schools to clinics.

## 4. A well-rounded internship programme that turns out high-performing candidates.

Kwikspace is committed to the communities in which it operates and to the people who drive the company forward, in light of this, Kwikspace conducts internship programmes that aim to upskill people from previously disad-

vantaged groups, both within the company and to external groups. The two SETA accredited programmes are offered to graduates who have recently completed their studies and for a period of 6-8 months for people still studying.

## 5. 50-year celebration

Kwikspace celebrated its 50<sup>th</sup> year in business, over the last 5 decades Kwikspace has become Africa's largest and preferred supplier of prefabricated buildings. Kwikspace supplies a wide range of

buildings for purchase or rent. They include bathrooms, dormitories, kitchens, and clinics. Kwikspace looks forward to making the next 50 years better than the last!

"Our goal for the next 50 years is to provide even more safe and reliable spaces to help improve the lives of people in our communities so they can flourish," says CEO Dirk Steinberg and, "We believe these five waves of change position our company in great stead to achieve this."

# Hearing loss is a neglected hazard for miners in South Africa

**By Nomfundo Moroe**  
- Lecturer at the  
Department of Speech-Language Pathology and  
Audiology, University of  
the Witwatersrand

HEARING conservation programmes were introduced nationwide in 2003 by the Mine Health and Safety Council, an organisation comprising labour, the state and employers. But in 2013 the industry conceded that these were not having the desired impact of reducing the new cases of occupational noise induced hearing loss.

We conducted a study to understand how these programmes were being implemented in the industry and to identify areas for improvement.

There were no clearly defined action plans. We also found flaws in the formulation of hearing conservation programmes. Intervention programmes need to include occupational audiologists. Furthermore, the mining industry needs to be

accessible for research purposes.

## Noise-induced hearing loss

In 2003, hearing conservation programmes were rolled out throughout the industry.

The programmes targeted two key areas. The first stated no employee's hearing should deteriorate by more than 10% from the baseline by December 2008. The second was to ensure that, by December 2013, the total noise emitted by all equipment would not be higher than a sound pressure level of 110 dB(A). At the summit to review the milestones in 2013, the chairperson of the Mining Council admitted that the industry was not making the desired progress with noise-induced hearing loss.

Our research investigated the management of occupational noise-induced hearing loss in the South African mining industry from policy formulation to implementation, moni-

toring and evaluation. We interviewed members of the Mine Health and Safety Council and analysed regulations and policies on the management of occupational noise-induced hearing loss since 1994.

There was a lack of comprehensive studies addressing all the pillars of hearing conservation programmes. Some stakeholders were excluded from the formulation and implementation of these programmes. We also identified gaps in the role of occupational audiologists in the mining sector.

In addition, we faced restrictions when trying to gain access to the mining industry for research purposes. At the core of the problem was the fact that hearing conservation programmes are complex interventions. They have multiple pillars. These include periodic noise exposure measurement and monitoring, engineering controls as well as personal hearing protection.

Our original review of hearing conservation

programmes was published in 2018. But more recent research I've done shows that the problems persist.

## Way forward

Currently, hearing conservation programmes are not successful and this may not change unless contextually relevant changes are adopted.

These changes include embracing innovative and evidence-based advances in hearing conservation programmes. Objective stakeholders such as audiologists must be allowed to evaluate the cost versus the benefit of implementing hearing conservation programmes.

Existing programmes need realistic reviews to understand what works, for whom, and under what circumstances. This is key to evaluating the status of these programmes.

*Article originally published in The Conversation, May 6, 2021.*

## CAPE BUSINESS NEWS

Cape Business News, founded in 1980, is primarily a promotional vehicle for companies that have the Cape Business community as a primary target market.

## ADVERTISING

For all your advertising requirements, contact our Sales Team  
sales@cbn.co.za





*The QuikDeck® Suspended Access System provides a modular platform that can be assembled from a few basic components and configured to fit almost any shape or size. It can be built in the air, or on the ground and then hoisted into position.*

## QUIKDECK® SERVICE

## WE HELP BUILD TODAY, SO YOU CAN IMAGINE TOMORROW

SGB-Cape is the largest industrial services company in South Africa and helps clients achieve their project, plant maintenance, shut down, and new build objectives.

The company's multidisciplinary services are designed to cater directly to client needs, to be coordinate and directed by experienced management teams and implemented by a highly trained workforce. The concept is intended to eliminate contractor interface problems, by providing integrated services from a single source.

The inherent flexibility allows SGB-Cape to consistently meet deadlines while never compromising on their high standard of integrity and build quality.

### ACCESS & SUPPORT SCAFFOLDING

SGB-Cape is the largest scaffold company in South Africa, and has been providing the industry with scaffolding excellence since 1948.

The company's diverse product offering, coupled with the knowledge and expertise of highly trained employees, remains unsurpassed. With their continual development of scaffolding systems and components, SGB-Cape provides improved access solutions to clients – which in turn advances the safety and productivity for their personnel and other subcontractors on site.

SGB-Cape is a member of the Institute for Working at Heights (IWH).

### QUIKDECK®

The QuikDeck® Suspended Access System provides a modular platform that can be assembled from a few basic components and configured to fit almost any shape or size. It can be built in the air, on the ground and then hoisted into position. The equipment can be leapfrogged and relocated as work progresses, providing an even and stable work platform.

QuikDeck® reduces the risks of conventional scaffolding and is safer, easier and more efficient. It also supports higher loads with a load capacity of 366 kg/m<sup>2</sup> and has been used in construction and repair of bridges, offshore platform painting, construction and maintenance of boilers, industrial pipe racks, painting and repair.

SGB-Cape's specially trained team ensures that platforms are built safely and efficiently.



### ROPE ACCESS SERVICES

SGB-Cape Rope Access is a specialised and internationally recognised training and access company for industrial work at height. SGB-Cape Rope Access' IRATA® (International Rope Access Trade Association) accredited rope access offering provides the skills and knowledge required to work at height where ropes and associated equipment are used to gain access to and from difficult or "hard to reach" work areas.

Rope access techniques are used in a wide range of repair, maintenance and inspection roles in industries including offshore oil and gas, renewable energy, confined spaces, power, petrochemical, and construction.

Regardless of the size or complexity of the job, whether it is work at height training, lifeline installation or access, SGB-Cape Rope Access can provide an affordable solution.

### The following services offered by SGB-Cape can be supplied at height:

- ACCESS SOLUTIONS: SCAFFOLDING / QUIKDECK® DECKING / ROPE ACCESS
- (IRATA® CERTIFIED PROFESSIONALS)
- CORROSION PROTECTION & FABRIC MAINTENANCE: UHP WATER BLASTING / HP CLEANING
- TANK CLEANING
- INSPECTION: UWILD SUPPORT / NDT INSPECTIONS / BOLT TORQUING
- THERMAL INSULATION SERVICES AND CLADDING SERVICES: HOT AND COLD INSULATION
- LIGHT STRUCTURAL REPAIRS: ROPE ACCESS CERTIFIED FITTERS AND CODED WELDERS
- PASSIVE FIREPROOFING (PFP) APPLICATION SERVICES / CERTIFIED ASBESTOS REMOVAL CONTRACTORS / COMPOSITE PIPE
- REPAIR SOLUTIONS / PLASTIC WRAP FOR ENCAPSULATION
- ROPE ACCESS - IRATA TRAINING PROVIDER & FULL MEMBER



## Leveraging better wastewater treatment to save planet

Reinhard Seidel, Sales Engineer for Verder South Africa

FOR water to truly be utilised without harm it needs to be clean and the fact is that fresh water is not an infinite resource. Additionally, increasing urbanisation is placing strain on water resources and infrastructure networks alike across Southern Africa. Fresh water used in industrial and process applications that is not remediated properly before being discharged back into local sewerage systems is also a heavy contributor to water pollution, placing further pressure on water treatment plants.

Effectively utilising wastewater is not only essential to environmental conservation and a smart way to address water shortages, but also potentially a resource, from which water, energy, nutrients and a variety of recoverable materials can be garnered.

Beyond that, it can also serve as a marketable commodity in its own right. According to the UN Environmental Programme, and the Global Wastewater Initiative, there is 330 km<sup>3</sup> of municipal wastewater being generated globally each year. If this

wastewater could be managed effectively, the resources embedded in this water could be used to irrigate and fertilise millions of hectares of crops, as well as produce biogas that could supply energy for millions of households.

One of the reasons given why wastewater isn't treated to its full capacity is because of the cost associated with upgrading wastewater treatment systems. However, the Environmental Protection Agency in the US notes that this can be mitigated, as plant upgrades can pay for themselves or end up saving a plant money.

Engineers have difficult questions to ask themselves.

For example, "are we going to ask for the minimum specification that will perform the duties and meet compliance for a lower initial cost, or is there any benefit in selecting a pump with a higher initial cost that might be over-engineered in the short-term, but there is the potential for savings when the entire lifecycle of the pump is considered?"

### Peristaltic pumping

There are technological developments that can help reduce costs associated with maintenance and improve plant uptime, such as a technology called peristaltic pumping that is both efficient and cost-effective.

Over time, this has evolved from familiar lower pressure, low flow medical devices into heavy duty, medium pressure industrial pumping solutions that mimic the well proven principle of peristalsis found in the human body. Hose pumps are an essentially simple technology, using a specially designed, re-enforced rubber hose that is repeatedly compressed by a rotating pressing shoe and then allowed to relax. This action results in a simple positive displacement pumping mechanism with a powerful, high vacuum suction, dry priming action.

The key factor in wastewater treatment applications is that the pumped medium, for example, lime, flocculant or other dosing

chemicals – is always contained within the tube and never allowed to come into contact with any of the pump's moving parts. There are no valves, glands or seals for the pumped medium to affect, which often account for the weak points on other pump types. This brings significant benefits in eliminating much of the process downtime and maintenance costs, as the only component that may need to be replaced with any sort of frequency will be the flexible hose.

Data from the EPA notes that some wastewater treatment plants are able to remove more nitrogen and phosphorus from their discharges than others depending on their equipment and how they treat wastewater. This suggests that there is room for progress and improvement, which bodes well for better and more economical wastewater treatment.

The result in doing so is clear – not only would it go a long way to addressing environmental sustainability, but also sparing us from the nightmare scenario of running out of the precious resource that is drinkable water, which is absolutely indispensable to our health, recreation and social and economic progress.

## Inferior thermostatic mixing valves increase chance of scalding - IOPSA

THERE has been a concerning increase in the use of inferior thermostatic mixing valves in solar-heating systems. These products are also being installed in the hot water systems and on specific plumbing fixtures in old-age homes, clinics, hospitals and schools.

Quality thermostatic mixing valves protect people from scalding. They achieve this by ensuring a safe water temperature in the bath, shower, basin, bidet and kitchen sink. This is by accurately blending hot and cold water to keep temperature consistent even when the incoming water pressure or flow fluctuates.

Brendan Reynolds, Executive Director of the Institute of Plumbing South Africa (IOPSA), says that the use of these inferior thermostatic mixing valves places many lives at risk, especially the most vulnerable.

"Hot water from a solar water heater can reach temperatures of up to 90°C. A serious burn can occur within three seconds of being exposed to water that is 60°C in temperature. Hot water at 48°C can lead to a serious burn within 10 minutes" Reynolds says.

Many of the inferior



*Quality thermostatic mixing valves protect people from scalding by ensuring a safe water temperature in the bath, shower, basin, bidet and kitchen sink.*

thermostatic mixing valves are being mass manufactured for an international market by companies in the East.

A thermostatic valve that has been manufactured according to the SABS standard will allow the correct quantity of water through the hot water system. Importantly, it also reacts swiftly in the event of a cold-water supply failure. When this occurs, it automatically shuts down and allows only a small amount of water through the pipe.

The influx of inferior mixing valves in

the country over the years has been on the back of a significant increase in demand for solar-water heating systems. A growing awareness of the importance of sustainable living is also driving the uptake of the technology among large property developers and owners, as well as middle- and upper-income homeowners.

Notably, the authorities have established localisation targets for solar water heater installations on many affordable housing projects.

This is to stimulate the South African manufacturing industry but there are no such requirements for important plumbing components such as thermostatic mixing valves that are assembled or manufactured in the country according to the relevant quality standards.

It remains a serious concern that burn injuries account for about 180 000 deaths every year throughout the world. "The highest burn-related deaths are in low- and middle-income countries. These burns are usually as a result of an accident at home. To what extent poor plumbing contributes to this worrying state of affairs still needs to be investigated. Unlike other countries in the world, we do not keep such statistics. However, I am sure that, if we were to undertake such an investigation, it would be a real eye-opener. This is considering the extent of substandard plumbing workmanship and the use of poor-quality plumbing products in the country," Reynolds concludes.

PERISTALTIC HOSE AND TUBE PUMPS

# VERDERFLEX

## The perfect pumps for (waste) water treatment



# VERDER

passion for pumps



VERDER is manufacturer of VERDERFLEX® pumps

VERDER PUMPS SOUTH AFRICA (PTY) LTD TEL +27 (0)11 704 7500 MAIL [info@verder.co.za](mailto:info@verder.co.za) WEB [www.verder.co.za](http://www.verder.co.za)



# Southern Africa's leader?

FIVE-DAY factory workweeks sustained through the pandemic, an increasingly strong order book and the recent purchase of Cape Town's BB Cranes: all would indicate the likelihood of Condra becoming southern Africa's leading crane manufacturer.

Industry observers are saying this may already be the case if permanent staff headcount is used as the yardstick. It follows continuing growth resulting from carefully planned expansion of company capacity and capability in crane design and manufacture, automation being one example. There has also been steady extension throughout central and southern Africa of the after-sales service network.

Condra's automated crane option, available since 2019, represents the culmination of fifteen years' experience in semi-automated installations. Using new developments in sensors, controls and software to precisely control load uplift and positioning in repetitive operations, automation increases productivity and reduces the risk of load damage in specific manufacturing and mining applications. The option is available across all three types of Condra crane: overhead (bridge) designs in single and double-girder configuration, portal (gantry) cranes, and jib (cantilever) cranes.

The company also manufactures an extensive line of hoists in two main ranges: the KSeries and the SH (short headroom) Series. There is additionally a variety of modular component sub-assemblies such as crabs, endcarriages, bottom blocks and cable-loop systems, all fabricated to customer specification from some 200 modular parts produced in long production runs to achieve competitive prices through economies of scale. Short lead times are achieved through large inventories.

End-carriages are configured with either standard speed, dual-speed or variable speed drives, using individual drive or idler bogies from 125 to 630mm in diameter.

Hoists are supplied with capacities of 250 tons and more.

Condra customises all component sub-assemblies to the customer's precise requirements, thereby avoiding the time consuming administration needed to transact and

liaise with many different suppliers, and allowing a focus on the end-user's application.

All components carry a standard twelve-month guarantee.

Growth at Condra was organic until the company in 2016 acquired a majority shareholding in BB Cranes, a leading Cape

Town lifting equipment manufacturer and long-standing customer of Condra's hoists and end-carriages, which BB marries to crane girders fabricated at its own factory.

The remaining shareholding was bought on March 1 of this year, making BB Cranes a wholly

owned Condra subsidiary and allowing it to begin increasing market share in the Western Cape through expanded manufacturing and refurbishing capabilities, and improved productivity.

For more information, visit Condra's website: [www.condra.co.za](http://www.condra.co.za)



## THESE MACHINES HAVE BEEN ENGINEERED TO ENDURE

Condra cranes and hoists are without equal in their quality, performance, reliability and overall lifetime cost. Operating data and the experience gathered from installations around the globe are today incorporated in all Condra products, the endurance of which has been proven in highly corrosive and abrasive environments, and under wide extremes of temperature, humidity and altitude. Technical support, service and spare parts delivery are guaranteed worldwide.

WORLDWIDE



 **condra**<sup>®</sup>  
Cranes & Hoists

11 Indianapolis Boulevard, Raceway Industrial Park, Gosforth Park Ext 4,  
Germiston, Gauteng. P O Box 752639, Gardenvue, 2047, South Africa  
Tel: +27 11 776-6000 | Fax: +27 86 669 2372  
e-mail: [sales@condra.co.za](mailto:sales@condra.co.za) | [www.condra.co.za](http://www.condra.co.za)

CONDRA A-042019

portal cranes | bridge cranes | cantilever cranes | hoists | end-carriages  
single & double-girder overhead travelling cranes | crane components



## More conservation focus on Western Cape rivers urged at World Rivers Day event

"WE need to do more to protect our rivers, as rivers not only support all life, but they also attract economic development, Anton Bredell, Western Cape Minister of Local Government, Environmental Affairs and Development planning said at the World Rivers Day Symposium, hosted by the National Department of Water and Sanitation, in Cape Town.

Bredell said the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) deserves special recognition for the work it is doing to protect and rehabilitate rivers in the Western Cape.

DEA&DP was recently awarded a silver medal at the annual Enviropaedia Eco-Logic Awards in the Water Conservation category. "This award recognised the long-term water quality management as well as riverbank rehabilitation work the Department is doing as part of the Berg River Improvement Plan (BRIP).

The Department is also assisting local authorities in developing 29 Estuary Management Plans for river mouths on the Western Cape coastline. Estuaries are critical ecological infrastructure that provides significant services to people and the economy. But any problem in the catchment or along the course of a river eventually ends up in the estuary. These Management Plans are the mechanisms that enable the coordination and alignment of management objectives and activities across all sectors, Bredell said.

"We are also very

proud that the Berg River Estuary is since 2022 recognised by Ramsar as an International wetland of importance. Our research calculated that the Berg River Estuary offers ecological services worth more than R5bn, and the international recognition from Ramsar will add to this," Bredell said.

Bredell warned that due to climate change and population growth pressure, our rivers are bearing the brunt in terms of disrupted flow patterns, environmental degradation, and pollution. "We need clean and healthy rivers to survive. Invasive aliens remove an estimated 55 billion litres of water from strategic water source catchments in South Africa per year. Our BRIP programme has already cleared 13.6km of river course from alien plants and rehabilitated the riverbanks with indigenous plants and trees at a cost of R13.6million. However, the Berg River is 294km long, so there is still a lot of work to be done."

Bredell said the Western Cape Department of Local Government recently signed an agreement with the Danish Government that will see cooperation and knowledge exchange between Western Cape and Danish experts to improve management systems at 17 wastewater plants that release treated water into the Berg River.

World Rivers Day is recognised annually on the fourth Sunday of September. The purpose is to increase public awareness and stewardship activities for rivers across the world.

## German WWTP achieves 97.5% phosphorus load reduction

UPGRADE of chemical dosing equipment at a wastewater treatment plant in Germany is delivering high performance on phosphorus removal, says Thomas Klobuczynski, Industrial Sales Engineer, Watson-Marlow Fluid Technology Solutions, Germany.

The wastewater treatment plant (WWTP) serving the town of Hessisch-Lichtenau in Germany is taking an innovative approach to chemical metering in a phosphorus removal application. Two diaphragm pumps, originally used to dose ferric chloride to eliminate phosphate, are being replaced with a single Qdos CWT peristaltic pump from Watson-Marlow Fluid Technology Solutions (WMFTS), in a first for the country.

The Fürstenhagen wastewater treatment plant serves an 18 500 population-equivalent (PE) in the Werra-Meißner district of Hesse state.

### Ferric dosing

Chemical dosing with the precipitating agent ferric chloride sulphate ( $\text{FeClSO}_4$ ) is required at the biological treatment stage for consistent phosphorus reduction, because the phosphorus load at the plant inlet is highly variable. Environmental regulations mean discharge of treated effluent to the River Losse is strictly limited to 0.70 milligrams per litre (mg/l) total phosphate, an average of 0.50 mg/l total phosphate per annum and 0.20 mg/l (ortho-phosphate).

Single-point dosing is used to deliver the precipitate, with

the chemical metering pump drawing the ferric chloride from a 25m<sup>3</sup> holding tank. It is then transferred to the dosing point, which is some 30 metres away.

According to the operator, it is essential that dosing is carried out consistently 24/7, but the two legacy diaphragm pumps performing this task, operating alternately, were unreliable and required frequent servicing.

Wastewater operations manager Marco Quehl said, "We need a constant basic amount of precipitant to be dosed, and the quantity needs to increase automatically in line with the phosphorous load at the inlet."

### Corrosion challenge

According to Quehl, the biggest problem with the diaphragm pumps was that the corrosive ferric chloride sulphate left iron residues on the pump valves, resulting in poor sealing against the valve seats and constant minor leaks. "This required frequent minor maintenance work, and after an average operating time of around 12 months, in which the two diaphragm pumps ran alternately, we had to replace the pumphead, or even the entire pump," he said.

Most chemical dosing pumps need regular maintenance to remain operational. This can take a pump out of service for hours, often necessitating the need for a back-up pump to provide process continuity. It also takes the full attention of at least one skilled onsite technician.



The Qdos CWT in situ at the Fürstenhagen wastewater treatment plant.

### Time saving

Pumpheads across Watson-Marlow's entire Qdos range do not need to be taken apart. Instead, the pumphead is simply removed as a single unit and a new one clicked in place. It takes one operative less than a minute, offering substantial benefits in terms of time saving and onsite health and safety, as maintenance staff have no chemical contact.

The new Qdos CWT is the world's first peristaltic pump with no tube, which represents a step-change in the mechanics of peristaltic pump design. The pump underwent its first field trial at Fürstenhagen WWTP as part of a long-term test period.

### Reduced stress

The Qdos CWT pumphead incorporates an EPDM element, which is elastically compressed against a PEEK track. This reduces material stress and fatigue, providing significantly longer service life, reduced main-

tenance, and less plant disruption.

The pump is self-priming and there is no fluid back flow, even when the pump is not in operation. This also prevents gas locks, so there is no risk of interruption and no need for additional equipment such as pressure-sustaining valves, air-discharge valves or holding pumps.

Operations manager Bernd Sennhenn said, "The Qdos CWT was installed 12 months ago, and it has been running faultlessly since then. It was possible to install this pump as a direct replacement for a diaphragm pump."

Reflecting on the trial at Fürstenhagen WWTP, Quehl said, "The Qdos CWT has been in operation for more than 8 000 hours and dosed a total of almost 90 000 litres of precipitating agent and hasn't needed any maintenance."

"In comparison with diaphragm pumps, the Qdos CWT also doses more evenly and with lower pulsation, which protects the pipework and connectors. There's

no need for pulsation dampers."

### Continuous operation

The Qdos CWT has been operating at an average of 75% of its maximum capacity, demonstrating its capability and reliability at higher performance ranges.

This reliability of the Qdos CWT lies in the design of the technology. The fluid contact element is subjected to low stress levels, and although a second metering pump is kept in reserve at Fürstenhagen, to ensure operational availability, it is practically never needed.

Due to the overall reliability and functionality of the Qdos CWT pumphead, the Fürstenhagen plant has achieved a 97.5% reduction in phosphorus load over the year.

"The new Qdos CWT technology is simply the best when it comes to dosing precipitating agent at our plant. There's no need for anyone else to come to me with other solutions," concluded Quehl.



## HIGH PERFORMANCE PERISTALTIC PUMPS

Minimal maintenance –  
Maximum Performance

Flow rates up to 108,000 l/h at up to 16 bar

No seals or valves to wear out, clog or leak

Conveyance of abrasive liquids with up to 80% solids

Minimum maintenance effort - changing the hose is enough

**Bredel**

Hose Pumps



## CoCT incentivizes developers to make use of on-site wastewater treatment plants

*CoCT incentivizes developers to make use of on-site wastewater treatment plants.*



IN September 2021 the City of Cape Town put a halt on all developments that would rely on the Potsdam, Zandvliet and Macassar Wastewater Treatment works due to the works being over capacitated. This was not good news for developers who stood to lose millions of Rands.

On the 22nd of July 2022, the City of Cape Town released a media statement advising that the City has developed a Standard Operating Procedure for temporary wastewater 'packaged plants', which would help developers to continue with developments in the aforementioned areas.

In it the City states that it is "committed to doing everything possible to enable sustainable economic growth and development, while meeting obligations that take into account the capacity of services infrastructure when applications for new developments are submitted."

The Standard Operating Procedure outlines the actual process and emphasizes that developments can now continue if the developer installs a temporary wastewater treatment plant. In

doing so, the city will waive the Development Charge for sewage AND discount the sewage charge on the utilities bill for as long as the private plant is in operation.

The Clarus Fusion manufactured by Maskam Water is not just a temporary packaged plant, but a permanent sustainable solution. More than 300 Clarus Fusions have been installed in nine African countries and it has proven to be very successful in the urban environment.

One such installation was done a mere 2m from the boardroom of the Department of Environmental Affairs and Development Planning in the heart of Cape Town CBD. No odour can be detected and the plant is running smoothly while the staff engages in their day to day duties. It is a permanent, sustainable solution built for urban use, that is saving them a million litres of water per year. The treated effluent is used for toilet flushing.

Other urban installations include the Synergy Grove Restaurant in McGregor, where patrons walk over the Clarus Fusion WWTP

to visit the restrooms, Curro School Bloemfontein, Barloworld Caterpillar and American School in Maputo, all of which uses the treated effluent for irrigation. This is but to mention a few.

The Clarus Fusion can be installed underground in public open spaces so no space is lost and it has no visual effect on the development. And seeing as the system is modular, it can be expanded as you build.

By re-using the treated effluent for irrigation and/or toilet flushing, developers will also comply with the 2018 bylaws that state all new developments need to install water demand management systems or alternative water for non-drinking applications.

We hope that this trial phase will become permanent solutions, for sustainable development while not wasting precious potable water on non-potable applications.

*For more information on getting the green light on your development in the affected areas, contact: Annalize Nieuwoudt, annalize@maskam.co.za, 0833055233*

## SA's water security update - have the "chickens" finally come home to roost?

**By Benoît Le Roy,  
CEO of the SA Water  
Chamber**

WHILST writing this short opinion piece our country was subjected to Stage 6 load shedding with planned outages of between eleven to fourteen hours daily, mostly in business hours and peak times. The consequences are serious in water terms as we need electricity to pump bulk water to our cities and to distribute the water to industrial, commercial, households and government facilities. On the return side we need electricity to pump sewage from city collection networks to treatment systems to keep our living and working areas sanitised.

This level of blackouts causes water and sanitation systems to fail as they are designed to operate 24/7 and not 10/7 hours.

The Nelson Mandela Bay Metro has suffered the near onset of Day Zero with business already suffering nearly a decade of unreliable water services; business, active citizenry and national government have tried their best to little avail and with some rains alleviating the disastrous situation somewhat,

so no real and effective human interventions. Having said all this, where are we at with our water security strategy and implementation despite the energy crisis?

The last ministerial update was quite positive given institutional stabilisation of DWS and a very successful Water Summit held in March of this year. However, very little if any real progress in implementing our water security is visible and the Ethekweni flood disaster persists with closed beaches due to sewage infrastructure not being reinstated due to an apparent shortage of R20 billion according to the unicity mayor who made is clear that the city does not have the funds and is waiting for a national government bailout but national government coffers are also dry.

The NWRSIII, National Water Resource Strategy III, draft was gazetted end of July for public comment and is a very encouraging draft strategy for several reasons. The first of them is the one of PSP, Private Sector Participation, that the minister has made very clear in public here and at the recent International Water Conference in Stockholm earlier in

September where the global leaders, influencers and technical specialist gather to share their updates. In SA we need to find ways of simplifying our complex water value chain architecture to start implementing some of the required initiatives supported largely by private sector resources.

The second encouraging theme is that of digitisation of the water value chain. Why is this encouraging? It's the fastest growing sub-sector in water even before the pandemic but firmly put on the agenda since the pandemic as it enables the targeted management of assets and drives asset delivery efficiencies without necessarily attracting concomitant hardware implementation.

In the medium-term digitisation also enhances more efficient targeted capital projects where digital efficiencies have been maximised whilst reducing the human and carbon intensities of managing the infrastructure. Regulatory functions can also be simplified and managed in real time through digital twins and through DTL, Distributed Ledger Technology, resulting in immutable and more transparent transac-



*Benoît Le Roy.*

tions that make water infrastructure project easier to fund and inculcates transparency and trust between stakeholders.

*Benoît Le Roy has forty years of water engineering experience and is the CEO and co-founder of the South African Water Chamber - established to represent the private water infrastructure sector to collaborate with and assist government to implement the national water and sanitation master plan; he is also a founding director of Nexus Water Alchemy and Water Ledger South Africa, both incorporated South African companies at the leading edge of the nexus of water digitisation. This will not only be key in reindustrialising the water sector, but it will also provide a myriad of skilled jobs and the opportunity to again export water related products and expertise globally.*

## New Worcester reservoir construction on schedule

ANTON Bredell, Western Cape Minister of Local Government, Environmental Affairs and Development Planning congratulated Breede Valley Municipality with progress made with the construction of a new 20 mega litre water reservoir outside Worcester, during a recent site visit.

Bredell said "Without water security, it is impossible for a community to prosper. Breede Valley Municipality understands this, and therefore they have done the work to now be able to commence with construction of this water reservoir, which will augment their water security for future decades."

Bredell said the Western Cape population increases with



*Recent progress visit to the reservoir construction site.*

more than 100 000 people a year, and municipalities need to incorporate this in all their planning activities. "Population growth places huge pressure on budgets and resources, but the only way to deal with it is through careful planning and budget-

ing." The new water reservoir has a budget of R74million, of which R24.7million comes from the National Municipal Infrastructure Grant, and R49.3million is funded by the Breede Valley Municipality. The Provincial Department

of Local Government supports the project with planning, registration, monitoring and evaluation, and compliance administration.

Construction commenced in April 2022, and the project is scheduled for completion in August 2023.

**We value your input**

Only through your input can we continue to improve.

- Comments
- Suggestions
- What would you like to hear about

**editor@cbn.co.za**



## Pump orders for wind turbine installation vessels



High-pressure pump of the Mutitec series, similar to those that will be used in the wind turbine installation ships. (© KSB SE & Co. KGaA)

KSB S.A.S., a French company belonging to the KSB Group, received three major orders in August 2022 to equip several wind turbine installation vessels (WTIV) with high-pressure pumps of the Multitec series.

to have sufficient stability for the work and to minimize the influence of the swell.

Spudcans are the base cones at the foot of the lowerable lifting legs of such an assembly vessel. These cones provide a secure foot-

when the lifting legs are retracted again, the cones have to be pulled out of the soft seabed. This involves extremely high forces.

To lower these and to break the suction when the legs are pulled out, the surfaces of the spudcans are equipped with flushing nozzles. Multitec high-pressure pumps supply these with the necessary seawater and the required flushing pressure.

The drive power of the pumps, which are made of high-quality duplex steel, is between 250 and 410 kW. The flow rates are between 120 and 300m<sup>3</sup>/h. The discharge pressures are between 30 and 50 bar, depending on the pump size.

ing on the seabed while the wind turbines are being erected.

The KSB pumps will be used as so-called spudcan jetting pumps. After completion of the work,

For the construction of fixed wind farms, the use of offshore jack-up platforms is state of the art today. The lifting platform is fixed to the seabed before the actual work

“Spudcans are the base cones at the foot of the lowerable lifting legs of such an assembly vessel.”

## Mattei implements Lean Product & Process Development with Milan Polytechnic University

EVEN at 100 years old, you can still focus on technological innovation and research & development. This is the case of Mattei SpA, a compressed air manufacturer from Vimodrone, Milan.

Founded in 1919, Mattei is a true micro-multinational, which today has two production sites in Italy, six regional branches on three continents and 250 employees. Its strength is a proprietary technology used in the construction of compressors - rotary vane technology - which permits energy savings of up to 30-40% when compared to the same usage with equivalent “screw” compressors. This distinctiveness has always been combined with a strong focus and investments in research & development along with the choice to entrust University experts for process innovations.

### From expertise to excellence.

This is how the Lean Product and Process Development project was born, one which has been worked on together since March 2019, by Stefano Murgia, Mattei's technical director, and Monica Rossi, assis-

tant professor at Milan Polytechnic who has a Master's in Management Engineering and a PhD in Management Economics and Industrial Engineering.

“The starting point was the situation Mattei found itself before the project started”, explained Murgia and Rossi. “The emerging picture from the data collection showed that a large proportion of time was spent on reacting to day-to-day responses and that there were difficulties in indicating and establishing priorities. The result was a situation of perpetual emergency, aggravated by an organization structured in “silos”, with

no sharing and communications system, little planning and no clearly defined specifications and targets”. Mattei was suffering from what is called “infinite capacity” i.e. the illusion of being able to cope with infinite demands, which in reality just translates into great frustration for both personnel and end clients.

A change of pace and organization was needed, starting with the product engineering process which had to be based on customer requirements. “We introduced documented processes and prioritization of activities, setting up cross-functional teams

with different competencies. A central role in this reorganization is assigned to the project manager, who coordinates the necessary resources made available by the various company departments, implements the project, follows its development and guarantees the quality of the project path and the results, while respecting costs and implementation time-frames”.

It was not simply a question of “reviewing the organization” but of suggesting a radical change of approach, moving away from the “silo” culture to one of information sharing, from linear hierarchy to the circularity of teamworking within processes guided by clear priorities. It was not a top-down process, but a tailor-made intervention, where results are measured in the field and the involvement of staff is critical to the success of the transformation.

There are already tangible results too: in 2018/19 it took more than a year to bring a new product to market, whilst in 2021 an entire project plan was created along with two new products being launched; RVXi and RVD for the US market. In 2019 response times to client requests could be as much as several weeks; by 2021 that was down to just a few working days. The conversion of requests into orders has also tripled; a very significant increase in redemption rate. Finally, the time spent on solving daily issues that crop up decreased significantly, freeing up more resources to be spent on design and innovation.



## MATTEI breaking boundaries in terms of Energy-efficiency... RVX 55-90i

Savings in energy-consumption, reduction in negative environmental impact, improvements in our safety and fighting the battle against global-warming.

### All this is MATTEI.

- **7%** Efficiency improvement
- **30%** Maintenance cost reduction
- Innovative oil injection system
- Maestro XC remote monitoring capabilities and control Cloud portal
- Energy saving fan
- Lowest total cost of ownership in it's category



**ROTORVANE**  
COMPRESSOR SALES

Tel: +27 11 472 5954

Email: [info@rotorvane.co.za](mailto:info@rotorvane.co.za)

[www.rotorvane.co.za](http://www.rotorvane.co.za)



For more information visit: [rotorvane.co.za](http://rotorvane.co.za)



## Outsourced steam production to become a norm for businesses

IN recent years, the demand for outsourced steam solutions has grown significantly as steam-reliant businesses continue to look for ways to reduce their costs, increase their efficiency and cut their fuel use.

The latter has become especially important as the ongoing Russia-Ukraine war has resulted in an increase in the global demand for coal, once again adding to the operational costs of local businesses that rely on this commodity. With this in mind, South African companies that use steam in their day-to-day operations should understand their options in order to remain relevant in an increasingly competitive landscape.

This is according to Jonathan Probert, Head of Business Development for EP Steam – a division of Energy Partners and part of the PSG group. “Probably the biggest factor driving this change is the fact that businesses are increasingly becoming frustrated with their own ability to efficiently operate and maintain their steam infrastructure without passing the increasing cost on to customers. In addition to the rising costs associated, this is as a result of the fact that the skills around maintaining steam operations have become scarcer.”

The result, as Probert explains, is that many businesses are in a situation where they have to maintain the efficiency of ageing infrastructure with fewer and fewer skilled individuals at their disposal.

“There is also another prominent issue that some have begun to experience, which is an overall decrease in the quality of the coal that they can acquire for their budget. Again, the current global economic climate has had the biggest impact this, with coal prices expected to average around 80% higher in 2022 compared to last year. Naturally, using lower-grade coal decreases the efficiency of one’s system, which also hikes up one’s operating costs. It takes expert skills in steam generation to manage this kind of challenge and the majority of companies just don’t have this at their disposal.”

Probert points out that until relatively recently, the majority of businesses simply didn’t have a way to deal with these challenges, leaving them with few options short of installing new systems. “Of course, the cost of this is massive and generally beyond the capability of many companies – especially in a depressed economy. Until about ten years ago, outsourcing your steam production was a relatively unknown phenomenon in the industry, and it is only now that outsourcing has gained momentum as a solution to the problem of degenerating efficiency levels.”

Probert states that partnering with a service provider who owns and operates boiler and steam systems while selling the steam to the business as a utility gives businesses access to cutting-edge skills in this discipline, as well as the latest technology in steam generation without the need to spend any of their own capital. “Should your company make the move to outsourcing, a good service provider can now come in, take over your entire steam generation system (from operation to maintenance and pro-

vide you with immediate cost savings.”

He explains that Energy Partners, as an example, not only brings much-needed skills into the mix, but also state-of-the-art boiler and control systems that ensure optimal running efficiency and therefore ensure a reduction in energy use. “Real-time monitoring for steam systems is a game-changer. The simple fact is that newer steam generation systems are more reliable and can produce much more consistent results. Dedicated and constant monitoring and maintenance is something that most businesses are not equipped for, but it is completely within the capability of a dedicated service provider,” Probert notes.

“Whether it is food production, paper production, textiles or any other business, being able to increase the efficiency of your steam production without the need for capital outlay is becoming even more valuable. Outsourcing this incredibly important component of your business is possible, available and becoming the norm for more and more companies in these industries,” Probert concludes.

*Article credit: EP Steam and ESI Africa.*

## Optimising boiler plant saves fuel/operational costs

THE dramatic increase of operational and fuel costs is undoubtedly the most common day-to-day challenges ALL sectors face. Due to global environmental pressure, reducing carbon emissions has also become a business imperative.

With over 35 years’ experience in the boiler and burner industry, Grant Renecke, MD at Combustion Technology, and his team have been addressing these issues as a priority.

Together with their suppliers, Combustion Technology collectively tackle the most cutting-edge and impactful projects utilising the most innovative products to address such everyday challenges.

“It is essential that we offer our customers innovative technology and customised / turn-key solutions as it plays a huge role in bearing down those operational costs”, says Grant.

“Energy efficiency is the distinguishing factor at all boiler plants. This is a very questionable factor in South Africa with its dependency on coal fired boilers.”

### How does a boiler management system work?

Similar to a car’s on board computer diagnostics, a boiler management system analy-

ses the boiler’s complete functions to ensure optimum operation, alerting the ‘driver’ when there is a malfunction or default values are outside normal parameters.

Boiler management services are critical in today’s environment, providing round the clock monitoring to show how a boiler is performing.

For optimum efficiency, the Combustion Technology Boiler System Interface enables 24/7 off-site monitoring of the plant performance and all the boiler’s key functions - and as standard fitment, is included with all their containerised boiler rentals.

From the comfort of the office or home kilometres away, customers are able to track and monitor what is happening on site in real time to ensure reliability and efficient performance:

- Steam flow metering.
- Water level control.
- Fuel consumption compared to steam generation.
- Fuel pressure.
- Stack temperature.
- Ideal emissions (O<sub>2</sub>, CO<sub>2</sub>, CO).
- Tracking and monitoring of any element that interferes with production / output.

Built-in alarms alert



Grant Renecke.

the engineers at the Combustion Technology head office if set points drift off commissioned values. Immediate interventions are actioned to ensure that the highest efficiencies are maintained.

With this service, the company offer further fuel bill savings thanks to the ability to read O<sub>2</sub>, CO and CO<sub>2</sub> emissions. This enables users to know immediately when fuel is being wasted and also to track where and when any problems arise. Monitoring the changing ambient conditions, varying combustion values and the conditioning of fuel, are all critical factors in an efficient operation.

“It is our commitment to deliver solutions that are real. Energy efficiency cannot just

happen on paper; it has to translate into the balance sheet of the business and we guarantee to do exactly that.”

Its Autoflame Mk8 and Mini Mk8 controllers can manage up to 10 boilers simultaneously.

“Our solution ensures that the boiler works at continuous levels of efficiency, throughout the boiler and burner’s firing range. We offer the products, service and guarantee to achieve exactly that and it’s what differentiates us and saves our clients’ money.”

“We have proven cost savings and efficiency time and again,” says Grant, “One of our customers recently reported a phenomenal 30 – 40% of fuel saved in one month!”

## 24/7 BOILER MANAGEMENT SERVICE

MASSIVE FUEL SAVINGS  
LOWER EMISSIONS  
IMPROVED EFFICIENCY

COMBUSTION  
TECHNOLOGY



We help you Optimise your Boiler Plant to improve Energy Efficiency and SAVE COSTS

Tel: +27 715 3171 | Email: [info@combustiontechnology.co.za](mailto:info@combustiontechnology.co.za) | [www.combustiontechnology.co.za](http://www.combustiontechnology.co.za)





# VSM ACTIROX – Superior Grinding Performance

‘INCREASED productivity and greater economic efficiency’ - words metal fabrication shops everywhere want to hear. According to Dennis Phillips, National Sales Manager at PFERD-

South Africa, it’s easier to achieve than one would think and can be done with VSM ACTIROX—a range of high-performance abrasive fibre discs and belts used for metal stock removal processes.

**Maximum stock removal – faster cut**

“ACTIROX features the latest generation, triangular shaped, ceramic abrasive grain and due to their precise and upright posi-

tioning on the backing material, delivers maximum stock removal during stock removal processes”, explains Phillips.

Ceramic grains’ major advantage over conventional abrasive grains, like Aluminium Oxide, is their ability to continuously self-sharpen. During use, ceramic grains break down progressively to reveal new sharp cutting edges that cut consistently, and aggressively, throughout the product’s service life.

ACTIROX’s self-sharpening characteristics and cutting performance are even more pronounced. “ACTIROX grains start as triangles and are constructed to break down in a pre-defined and controlled manner, says Phillips. When the triangular grain breaks down, new and extremely sharp cutting edges are ready to continue the abrasive’s aggressive and fast grinding”.

**ACTIROX abrasives help increase productivity**

Phillips claims that ACTIROX fiber discs and belts are unsurpassed when considering stock removal rates; especially when compared to conventional grinding discs and even bench grinding wheels. “Metal manufacturing operations will benefit from a significant reduction in processing time and overall increased productivity due to its fast stock removal rate and extended service life”, he said.

Additionally, the high-performance ceramic abrasive grains together with a special grinding coating significantly reduce the temperature within the grinding zone. The low grinding temperature means no heat-discolouration occurs on metals—such as stainless steel— that don’t conduct heat well; resulting in an overall reduction of processing steps.

“Staying true to PFERD’s philosophy of ‘There is no substitute for quality and safety’, operators grinding with ACTIROX experience less strain because the abrasive produces less vibration and noise.

Not only is operator ergonomics improved but less strain is placed on machinery which increases equipment utilisation and service life”, says Phillips.

**VSM**

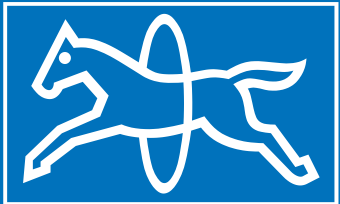
**ACTIROX FIBRE DISCS AND BELTS**

**MAXIMUM STOCK REMOVAL**

TRUST BLUE

**THERE IS NO SUBSTITUTE FOR QUALITY AND SAFETY**

**PFERD**



[www.pferd.com](http://www.pferd.com)

- High-performance abrasive fibre discs and belts for stock removal processes.
- Triangular shaped, ceramic abrasive grains, self-sharpen to continually reveal new and extremely sharp cutting edges.
- Unsurpassed stock removal rate due to upright grain position.
- Special grinding coating reduces temperature in the grinding zone, resulting in no heat-discolouration and subsequent rework.
- Improved overall process efficiency.



Contact PFERD South Africa for further information:  
Tel: +27 11 230 4000 | E-Mail: [info@pferd.co.za](mailto:info@pferd.co.za) | Website: [www.pferd.co.za](http://www.pferd.co.za)



## JC Auditors delivers another first



*All smiles as the team at First Medical Company displayed their dual certification for ISO 13485 and ISO 9001.*

SANAS-accredited certification body JC Auditors' (JCA) commitment to enhancing audit processes has paid off, becoming the first company in Africa to offer a range of audits under one umbrella. The company's integrated; cost-effective audit approach that allows for the evaluation of multiple standards in a single audit promotes safety, compliance, and efficiency in various sectors in South Africa.

JCA is the only organisation in Africa to offer accredited certifications for Road Transport Management System (RTMS), ISO 9001, ISO 14001, ISO 45001, ISO 22000, ISO 3834 and ISO 13485.

The company most recently achieved SANAS accreditation for ISO 3834 Fusion Welding and ISO 13485 Quality requirements for medical devices. Increased accreditations for standards has allowed the company to steadily diversify into various sectors, including the health industry, liquor industry, engineering, mining, construction, waste management and information technology, with some big names now listed as clients.

The company, however, remains conscious of the difficult trading conditions in South Africa and is committed to introducing cost-effective solutions. "Our one-stop solution is proof of this," says Managing Director Oliver Naidoo. "It is a strategic approach to ensure we can offer the South African market all the standards needed under a single umbrella."

According to Naidoo, the team at JCA has made remarkable progress in awarding certification to a host

"The company most recently achieved SANAS accreditation for ISO 3834 Fusion Welding and ISO 13485 Quality requirements for medical devices."

of transport operators that have successfully implemented international standards in their business, particularly the world's three most popular standards ISO 9001, ISO 14001 and ISO 45001.

These include leading industry players such as Unitrans, Reinhardt Transport, Crusade Logistics and Premier Logistics.

There is increasing momentum for other international standards such as ISO 22000 Food Safety, recently awarded

to Tanker Services Food and Chemicals, as well as Onelogix United Bulk and Imperial Fast n Fresh. Onelogix United Bulk has also become the first dangerous goods transporter in South Africa to be awarded ISO 39001 Road Traffic Safety certification by JCA.

JCA recently received the outstanding achievement award jointly with the RTMS NPC at the inaugural African Supply Chain Excellence Awards (ASCEA).

## Environmental programme keeps score

GLOBAL GreenTag is a unique, world first, whole of life, whole of sustainability green product rating/certification programme that has been playing an important role in South Africa, highlighting local, exemplary, ethical product manufacturers and supporting the growing needs of the green building market with trusted, third-party assessed, certified and verified product information.

Global GreenTag's assessment system, which is recognised by leading green building programmes globally, uses scientifically robust life cycle analysis to comparatively rank the performance of eco and health-preferred products. It provides metrics on a range of sustainability issues, including energy and water efficiency, indoor environment quality, pollution prevention, resource use, producer responsibility and detailed health impacts. Its range of programs allows environmental, health and social impacts to become consideration factors in making building product decisions, mitigating risks for professional firms and ultimately protecting building occupiers and the environment.

GreenTag programs are performance-based and use a cradle-to-grave analysis of product impacts and benefits, synergy with other products, detailed health impacts plus more specific information from programs like the Global GreenTag Modern Slavery Declaration™, the first product level declaration of its kind in the world to help eliminate incidences of Modern Slavery in supply chains. It also provides a Product Health Declaration™ - another world first, material health transparency tool - into which progressive manufacturers fully disclose the ingredients of their products to finally receive a rating of the healthiness of their products in use, including a specific health rating of products for people with asthma and allergy sensitivities.

The GreenTag system is quantifiable and objective with different, scored levels of certification, allowing for infinite determination of which products are good, better and best, empowering the market to be more discerning and selective.

Product reports and detail are available to the public on a free-to-air website. Ethics and transparency are core to the GreenTag product assessment services, where all areas of Corporate and Social Responsibility – Health, Environment and People – are taken into account; while vision and objectives of the company as a certification operator are monitored regularly by external stakeholders who actively contribute to the development of its Standards and Certification programs, through public consultation processes in accordance with ISO 14024 requirements.

For the market, GreenTag provides genuine green products with genuine recognition in a sea of 'Greenwash' that has ruled in the eco market and created confusion for buyers. Any brand can claim to be an environmental saviour with a few 'natural' ingredients and some sharp marketing. GreenTag cuts through the greenwash so that professionals and consumers alike can confidently choose products that have been made in the most planet-friendly ways possible and assessed using evidence based, robust, cutting edge science.

Ultimately, GreenTag takes the doubt out of buying and because buyers know they can trust the label, genuine green products earn the greatest reward of all: trust.

Driven by a purpose to protect all living systems, Global GreenTag's goal is to have a strong and meaningful presence, globally, and to be a part of the bigger conversations across the planet to ensure this happens.

Global GreenTag is an internationally recognised, multi-award-winning, Type 1, Ecolabelling, Product Certification, Environmental Product Declaration (EPD) and Product Health Declaration (PHD) program operator, based in Australia, with offices in South Africa, Mainland China, Hong Kong, Taiwan, Korea, Malaysia and the USA (Canada, North and Latin America) and recognised in over 70 other countries.

Global GreenTag programs are formally recognised in WELL™, LEED®, BREEAM International, Earth-Check®, Green Star®, LOTUS® and the Malaysian Government's MyHIAU program. These accreditations and compliances make Global GreenTag the world's most connected Product Certification Mark and the most efficient 'One Stop' certification provider in the Built Environment and Business Operations sectors.

Find us on [www.globalgreentag.co.za](http://www.globalgreentag.co.za)

# Healthy Green Living & Working Spaces Need Certified Sustainable Materials & Products



green product certification trust brands

Global GreenTag (Pty) Ltd: Africa  
CRN 2013/191170/07  
+27 21 790 0286  
+27 82 770 6552  
[lizette@globalgreentag.co.za](mailto:lizette@globalgreentag.co.za)

[www.globalgreentag.africa](http://www.globalgreentag.africa)





## Over 75 Years of dedication to Local Industry!

A thriving manufacturing industry creates jobs and business opportunities, enables skills development and improves our competitiveness in global markets. A first step is procuring locally manufactured goods, this has obvious benefits for national competitiveness and economic growth.


SABS’ mandate is to provide standardisation, voluntary conformity assessment, and local content verification services to enable the achievement of the country's industrial, economic, and developmental objectives. Now more than ever our industry needs Quality Assurance through standardisation! **Start your Certification journey today and Contact us!**

### SANS/ISO 50001 Energy Management.

For organisations committed to addressing their impact, conserving resources and improving the bottom line through efficient energy management, SANS/ISO 50001 was developed.

Designed to support organisations in all sectors, this ISO/SANS standard provides a practical way to improve energy use, through the development of an energy management system (EnMS).

**SANS/ISO 50001** is based on the management system model of continual improvement also used for other well-known standards such as SANS/ISO 9001 or SANS/ISO 14001. This makes it easier for organizations to integrate energy management into their overall efforts to improve quality and environmental management.



GET STANDARD  
**ONLINE**

### SABS provides services to assist the implementation of best practice solutions:

- Manage and develop South African National Standards
- **Laboratory Testing Services for a diverse range of Products. Supporting of South African Manufacturing industry as well as Municipal delivery through: Testing of water quality, Testing/Certifying Water Meters, Smart Meters, and other products/systems.**
- Certification of Companies to International Management System Standards such as **SANS/ISO 50001, SANS/ISO 14001, SANS/ISO 45001, SANS/ISO 9001** and much more.
- Certification of Products and the Application of the **SABS Mark Scheme**.
- Training of Management and Employees on Implementations of SANS/ISO systems
- **Local Content Verification for South African manufacturing industry**

### SABS a Trusted Partner in Delivering Quality Assurance.

Contact SABS to establish support for your Standardisation, Testing, Local Content Verification, Training and Certification Aspirations.



**Tel.:** + 27 (0)861 277 227  
**E-mail:** info@sabs.co.za  
**Website:** www.sabs.co.za



# LED lighting solution for TASEZ

BEKA Schröder has supplied the LED lighting solution for various sections of the Tshwane Automotive Special Economic Zone (TASEZ) in Gauteng, South Africa. TASEZ is Africa's First Automotive City taking the lead in growing Africa's industrial revolution and providing meaningful employment and business opportunities for communities and SMME's in the City of Tshwane.

This first-class development required a first-class lighting solution. BEKA Schröder has supplied LED luminaires for various sections of TASEZ. They have been chosen as they have been designed and manufactured in South Africa, are robust, cost effective and provide an efficient lighting solution to maximise energy and maintenance cost savings.

## Automould and Aeroklasduys buildings

Various LED luminaires have been installed in and around the Automould and Aeroklasduys buildings. The ECOBAY and LEDBAY (with emergency version) highbays have been installed inside the buildings, and the DUISA emergency lighting range has been installed at Emergency exit doors. The LEDTEC S lowbay provides general area lighting in the loading bay areas. The ZELA decorative post top illuminates the parking areas, and the OMNISTAR-MIDI floodlight provides general area lighting around the buildings. The SERIES 300 decorative bulkhead has been installed on the outside of the security guard buildings, with the BEKANOVA bulkhead being installed around the main buildings.

## Tai Summit Warehouse

The ECOBAY LED highbay illuminates this all-in-one warehouse. The signage of the warehouse has been illuminated with the LEDBEAM and LEDSTREAM floodlights. Here too, the ZELA has been installed in the parking area.

## Sodecia Cluster

In this section, automatic parts for the vehicles are manufactured. Various LED luminaires have been installed in and around the Sodecia Cluster.

In the manufacturing plant and warehouse, OMNISTAR-MAXI LED highbays, LEDNOVA-MIDI

(emergency version) bulkheads, and BEKA VAPOURLINE industrial luminaires were installed. The tunnel area that is used to remove scrap metal is illuminated with the ROUGHGUARD LED vandal-resistant linear LED luminaire.

In the PAO Building,

LED PANELS (standard and emergency versions) have been installed in the ceilings, together with the BEKARONDO LED downlights. The SERIES 30 decorative bulkheads provide general area lighting along the building.

The entrance area is illuminated with ECO-

BAY LED highbays, whilst security lighting is provided with the LEDFLOOD-MIDI floodlights.

For further enquiries, contact *Heinrick le Roux, Benita Delpont or Sean Govindasamy* at +27 (0)11 238 0000 or *north-ern@beka-schreder.co.za*



The OMNISTAR-MIDI floodlight provides general area lighting around the Automould and Aeroklasduys buildings.

**BEKA Schröder**  
Experts in lightability™

**40+**  
YEARS  
of  
Lighting Excellence



## Emergency Lighting Solutions

Our wide range of **high-quality**, South-African designed and manufactured **LED luminaires** with **battery back-up** provide lighting in areas that have been **affected by a power failure**. Our emergency lighting also ensures that **escape routes** are clearly marked.

For a **holistic Emergency Lighting Solution**, contact us today!



+27 11 238 0000  
[www.beka-schreder.co.za](http://www.beka-schreder.co.za)

over  
**100**  
years



**LOCALLY**  
manufactured



## Automated turnkey solution solves scrap, trim and waste requirements



THE stages of a typical waste extraction system in metal production is to convey, process, and recycle. Waste extraction is a primary necessity in all industries where it is produced. If done correctly then the working environment improves and there is a commercial incentive through efficient recycling practice. L.A.C Conveyor Systems have worked closely with IntegratedAIR on several automated turnkey solutions that not only solve today's process needs but offer capacity for future expansion.

IntegratedAIR systems was recently approached by a client building a new beverage can manufacturing facility. They required a system for their trim and can scrap waste created in the production process. The IntegratedAIR solution collects bright aluminium trim and can scrap from multiple areas within the facility to one central place to

be effectively processed for recycling.

The waste extraction system is made up of two air systems that come together in the baler room. The first collects bright aluminium trim scrap from trimmers and cupping presses and is designed with extra capacity for future expansion. Material is conveyed to the front-end scrap separator, which feeds into the baler via a weigh hopper system to accurately weigh the scrap and create consistent bale sizes.

The second air system collects whole can scrap from around the plant and only runs when required. There are can scrap sweep up points in the trimmer area, decorator area, necker, flanger and baler room. This system will convey scrap to the whole can scrap separator feeding into the baler again via a weigh hopper system. From here the process is completed with the integration of a palletis-

ing system

For businesses whose operations involve the handling of scrap metal bales, a robot palletiser is a great solution to improve ergonomic conditions, efficiency, and productivity. L.A.C Conveyor Systems scrap palletisers are designed and manufactured in-house. This includes;

- End of arm tooling that allows the robot to handle a wide variety of bale sizes,
- Robust belt conveyor transfer for bales leading up to robot palletising
- Heavy-duty pallet roller conveyor used on outfeed, transferring completed pallet stacks to an unload station.

Systems are typically designed to automatically and continuously, stack, palletise and strap scrap bales. Bale dimensions are measured through the system flow to ensure scrap bales are within tolerance. "OK" bales are stopped on the conveyor at the robot pick up position and are picked and palletised with "NOK" bales picked and placed on to a reject conveyor.

This automated end of line approach enables increased process consistency and efficiency thereby reducing the labour requirement and operational costs while improving ergonomic conditions.

*Article originally appeared in Warehouse News: <https://warehouse-news.co.uk>*

## GLTC – since 1984 your one-stop MH provider

BY virtue of being the sole distributor of several internationally renowned, complementary forklift brands such as Bendi, Crown, Doosan and DEC, as well as Battery and Energy Storage Solutions, GLTC is a renowned MHE supplier that can address any problem statement optimally and service end users' needs across board. In a typical warehouse, not one piece of equipment can provide the complete solution, so with GLTC's multiple brands, one has a 360-degree turnkey solution from one supplier.

### Turnkey solutions

GLTC's turnkey solutions approach means that it can offer customers the flexibility they need, by offering options such as outright purchase, short and long-term rental, as well as maintenance plans. This is complemented by its nationwide forklift sales, service, rentals and equipment spares through a comprehensive dealer network. GLTC has also made the refurbishment route a viable alternative through its dedicated Rebuild Centre focused on refurbishing ex-long term rental units.

As part of the Goscor Group of Companies, GLTC can also offer end user solutions that range from cleaning equipment to earthmoving equipment and power products. The Group has its own finance division in place to offer tailor-made financial solu-



tions to customers.

### Bespoke energy solutions

GLTC has for years been offering bespoke energy solutions for materials handling equipment, including lithium-ion, lead-acid and copper stretched metal (CSM).

**Lithium-ion:** The company has been testing this technology for more than two years on some sites. A key differentiator for GLTC is that its lithium-ion offering is customer and application-specific. The company offers both imported and locally manufactured alternatives. The two options are for normal ambient applications such as manufacturing plants and warehousing, as well as low ambient, cold room environments where productivity is principal.

**Lead-acid:** Lead-acid batteries still remain relevant in some of the tasks such as forklift's in a single-shift operation.

The batteries have a long track record of

being robust and reliable, and still remain the main battery of choice in the industry.

**CSM:** GLTC believes it is the only company in the country offering a solution that sits between lithium-ion and lead-acid – copper stretched metal (CSM). This solution has been well received in bottling applications and manufacturing environments. It is ideally suited for multi-shift applications with one battery through fast and opportunity charging, as well as seasonal business with high activity peaks.

Apart from electric solutions, GLTC offers lift trucks powered by EU Tier 3 engines providing lower greenhouse gas emissions combined with lower fuel consumption, better performance, reliability and durability than the previous engine generations.

### Speed of service

Maintenance alone is not the whole story when it comes to uptime and the consistent improvement

to the bottom line. A supplier's efficiency is not only based on the availability of spare parts and fulfilment of maintenance contracts but is largely measured on the speed of the service.

GLTC's service target is to respond within 4 hours within a radius of 100km.

The strategic national footprint of branches in Gauteng, Durban, Pietermaritzburg, East London, Port Elizabeth, Cape Town, Nelspruit, Bloemfontein and Polokwane as well as the Garden Route, complemented by a strong network of dealers in the outlying areas, allow GLTC to meet its stringent response times.

GLTC's use of newer technologies and fleet management solutions, are helping ease maintenance issues. Rapid developments in machine technology, particularly the use of electronic controls and remote monitoring systems, have opened up new avenues of fleet monitoring and remote troubleshooting.

## Oceana sells CCS Logistics to focus on core fishing business



Oceana Group's Desert Diamond.

THE Oceana Group Limited is selling its Commercial Cold Storage (CCS) business for R760 million in a transaction that will enable it to invest in and expand its core fishing business.

CCS is being bought by a consortium comprising African Infrastructure Investment Managers (AIIM), a subsidiary of Old Mutual Alternative Investments dedicated to infrastructure investment in Africa; Bauta Logistics, a specialist food logistics company in mid- and East Africa and Moko-bela Shakati, a strategic investment and empowerment partner.

"This deal is a win-win. The transaction offers good value for Oceana. It strengthens our balance sheet allowing us to focus on leveraging the scale and capabilities of our fishing and fish-processing operations. It also gives CCS the access to capital it needs to remain competitive and grow," says Oceana CEO, Neville Brink.

He says the transaction will come as no surprise to anyone who knows Oceana. CCS has been considered non-core for some time and has not been prioritised in terms of expansive capital allocation.

AIIM Investment Director Damilola Agbaje says: "The cold chain logistical infrastructure sector is underdeveloped, and in places non-existent, across Sub-Saharan Africa and this investment diversifies AIIM's current portfolio into a high growth and high impact area. CCS's technical expertise and operational track record provides a crucial platform for regional expansion and securing strategic customer relationships."

CCS has six cold stores, five in South Africa and one in Namibia, of which three are owned and

three are long-term leases. Total storage capacity is some 100 000 pallet spaces. Oceana, mainly its Lucky Star fish imports, represents between 15% to 20% of CCS' revenue with the bulk of its business coming from third-party manufacturers, importers and exporters.

Brink says that Oceana will retain its relationship with CCS as long as service levels are maintained, and rates remain market related. As part of the transaction, Oceana has entered into a three-year contract with CCS from the date of implemen-

tation, with an option to renew. Oceana will continue to provide transitional services to CCS for a year following implementation.

The parties aim to conclude the transaction by 28 February 2023, subject to regulatory approval. These include approval from the competition authorities in South Africa and Namibia and the exemption or transfer of fish processing establishment rights in terms of the Marine Living Resources Act.

Webber Wentzel acted as legal advisor and Investec as financial advisor to Oceana on the transaction.



# Proline Promass Q 300/500 with smart 4-tube technology

WORLDWIDE, over 90 million barrels of crude oil, natural gas and refined hydrocarbons are produced, transported, stored, and sold to end customers every day. Any measuring inaccuracy results in enormous shortfalls for suppliers or buyers. This is not the case with Promass Q. Thanks to its revolutionary 4-tube technology and an extended measuring range for pipelines up to DN 250 (10"), operators of loading stations are just one example of those who enjoy its many benefits.

Promass Q, the high-tech Coriolis flowmeter from Endress+Hauser, is now also available for larger pipe sizes with maximum flow rates between 850 and 2400 t/h (6700 and 18 900 bph). Furthermore, the implementation of the revolutionary 4-tube technology opens up numerous promising applications in the oil and gas industry – for example, as a highly accurate duty meter for custody transfer and

fiscal metering, or as a precision reference device (master meter) for on-site verification measurements.

#### Benefits

- Best measuring accuracy ( $\pm 0.05\%$  o.r.) and exceptional repeatability ( $\pm 0.025\%$ ) over the entire measuring range: tested and confirmed on various external, accredited oil and gas calibration facilities
- Excellent measuring performance for liquids with microbubbles thanks to patented MFT (Multi-Frequency Technology)
- Outstanding density measuring accuracy (tested by H&D Fitzgerald/UK):  $\pm 0.2 \text{ kg/m}^3$  ( $\pm 0.0002 \text{ g/cm}^3$ )
- Best turndown and zero point stability in the industry
- Can be used for process temperatures up to  $205^\circ\text{C}$  ( $401^\circ\text{F}$ ) or in the

low temperature range down to  $-196^\circ\text{C}$  ( $-321^\circ\text{F}$ )

#### 4-tube technology – one-of-a-kind, worldwide

4-tube technology offers customers matchless advantages. Compared to Coriolis flowmeters with two measuring tubes, four tubes allow up to 25% higher flow rates. This speeds up all transactions in the oil and gas business and thus saves money by reducing, for example, standstill times for loading and unloading oil tankers, resulting in lower port charges. Another advantage is that unwanted pressure losses are much less significant with four measuring tubes.

#### Robust and compact

Promass Q sensors, which are available in stainless steel and in IP66/67, ensure reliable and low-maintenance long-term operation. Harsh environmental



conditions offshore coupled with high humidity and salty splash water do not pose a problem for smooth measurement operation. The compact design is unparalleled relative to the flow capacity that can be reached (max. 2400 t/h – 18 900 bph). It allows for installation even in the most confined spaces.

#### Best measuring perfor-

#### mance in the industry

Numerous test measurements have proven Endress+Hauser Coriolis flow measuring technology to be the best method for viscous hydrocarbons (heavy oils, bitumen, etc.) or fluids with entrained gas. This is particularly true for Promass Q with line sizes DN 150 (6") to 250 (10"). Thanks to its special measuring tube geom-

etry and the innovative 4-tube technology with two independent measuring tube pairs ("2 in 1"), both flow and density measurements can be carried out with unmatched performance.

#### Proline 300/500 transmitters – proven for years

The Proline 300/500 transmitters that can be combined with Pro-

mass Q sensors offer numerous innovations that have been proven for years and give customers genuine added value in their plants. These include WLAN (web server) for wireless operation and configuration on site, His-toROM for safe storage of configuration and device data, as well as Heartbeat Technology for diagnostics, device verification and process monitoring.

Condition monitoring is at the  
core of wind turbine reliability

WearCheck, Africa's leading condition monitoring company, is committed to serving the energy industry by boosting turbine reliability.

Our specialist wind turbine gearbox and hydraulic oil testing programmes ensure reliable power supply with reduced risk of unexpected failure.

**Healthy turbines keep clean energy flowing!**

#### Branches

Bloemfontein	+27 51 101 0930
Eastern Cape	+27 82 290 6684
Gauteng	+27 11 392 6322
Middelburg	+27 13 246 2966
Northern Cape	+27 66 474 8628
Rustenburg	+27 83 938 1410
Western Cape	+27 21 001 2100

#### South Africa (Head Office)

+ 27 31 700 5460

support@wearcheck.co.za

www.wearcheck.co.za

**WEAR<sup>®</sup>  
CHECK**  
Condition Monitoring Specialists



Testing and Analysis | Lubricant-Enabled Reliability | Asset Reliability Care



# Embracing the hydrogen economy

*In an exclusive interview, the editor spoke to Alan Zhao, New Power Director - Africa & Middle East for Cummins Inc. about its advances in the hydrogen economy.*

FROM being a traditional builder of diesel engines used to power applications in transportation, off-road, mining, construction and standby and permanent power generation, Cummins has over the past few years been working to embrace the power of hydrogen, through acquisitions, partnerships and extensive R&D.

These factors combined have resulted in a number of technical innovations which seem to contradict the oft held belief that harnessing the power of the earth's most abundant element, Hydrogen (H<sub>2</sub>) is still something of a pipedream.

While the energy density of H<sub>2</sub> eclipses that of fossil fuels such as petrol, diesel and natural gas it has been notoriously difficult to obtain, handle, store and exploit, requiring about six times more energy to extract than it provides as opposed to fossil fuels – the reverse – of around 1:3 – coal wins hands down with an energy ratio 1:300!

### Fuel cells and ICE

Against its seeming non-starter name tag, various companies have experimented with either fuel cells or ICE (internal combustion engines) to turn extracted H<sub>2</sub> into power at the wheels. Cummins have done both.

As far back as 2015, Hydrogenics – now part of Cummins – partnered with Alstom to produce the first hydrogen powered train – known as iLint – in Germany.

Combined development resulted in a train that uses fuel cells to power a 150 seat train that tops 140km/h and has a range of up to 1 000km on one hydrogen tank, without the connection to an overhead pantograph, emitting only water from its fuel cell which produces electricity to drive the train's electric motors.

Since 2018, two iLints have been operating in commercial service in Germany and interest from other German and European operators has seen their numbers grow to 40+ mainly on non-electrified lines, previously the domain of diesel locos.

Cummins dominance in the ICE industrial market has resulted in a range of engines that share a common platform – being able to run on diesel, compressed natural gas (CNG) or hydrogen. From the cylinder head gasket down – typically: block, crank, pistons etc. these variants



Alstom hydrogen powered iLint train.

share the same components and it is only the cylinder heads, induction and exhaust systems that differ, making manufacturing more efficient, reducing parts inventories, commonality in maintenance regimes and ultimately a price competitive offering.

Unlike the compression- ignition process found in diesel engines, CNG and H<sub>2</sub> powered engines require spark ignition, similar to regular petrol engine vehicles. Other areas of difference between CNG and H<sub>2</sub> engines involve detailed cylinder head design, direct injection and induction systems and in the case of H<sub>2</sub>, exhaust gas treatment.

So with these similarities, you might not know that a vehicle is designed for H<sub>2</sub>, but its fuel tank would be a dead give-away as H<sub>2</sub> vehicles utilise a carbon fibre tank, manufactured by NPROXX in The Netherlands, a Cummins JV partner. The use of carbon fibre overcomes the corrosion issues found between H<sub>2</sub> and steel, and NPROXX have perfected techniques to produce fuel tanks that cater for the 350 – 700 bar pressures required for CNG and H<sub>2</sub> operation.

The joint venture will provide customers with both hydrogen and CNG products for both highway and rail applications.

### Hydrogen production

Cummins has been part of many of the world's hydrogen "firsts." This includes

powering the world's largest – a 20MW PEM (Proton Exchange Membrane) hydro powered electrolyser in operation in Bécancour, Canada; the world's first megawatt-scale demonstration plant for storing wind energy in the natural gas grid in Windgas Falkenhagen, Germany; the world's first hydrogen-powered passenger train in pilot operation across Europe; and the world's first hydrogen refuelling station for ships, cars, trucks and industrial customers in Antwerp, Belgium.

Recently, Cummins announced the expansion of its PEM electrolyser manufacturing capacity at its Oevel, Belgium, factory to 1GW with the support from the Important Project of Common European Interest (IPCEI) Hy2Tech programme. IPCEI – recently approved by the European Commission, with funding granted by Flanders Innovation & Entrepreneurship Agency (VLAIO) – will help Cummins develop a new generation of PEM electrolyser cell stacks to power large-scale hydrogen production systems. IPCEI Hy2Tech includes 41 projects from 35 companies in 15 European countries.

The expansion in Belgium adds to Cummins' already scaling global electrolyser manufacturing footprint. The company has added capacity at its Mississauga, Canada, facility and is building two new electrolyser factories in Spain and China, each starting at 500MW of manufacturing capacity and scalable to 1GW.

## “Weaning the world off fossil fuels is essential, but ... time is running out...”

SCHNEIDER Electric, prominent in digital transformation of energy management and automation, has issued a rallying cry for governments, companies and individuals around the world to wake up to the huge – but often still under-estimated – role they can play in building a more electric, digital and energy-resilient future.

“Weaning the world off fossil fuels is essential, but it will take time – and time is running out when it comes to climate change,” said Gwenaëlle Avice-Huet, Schneider Electric's Chief Strategy and Sustainability Officer. “The good news is that there are solutions we can leverage today. In particular, there's much more we can do to optimise how energy is consumed in the first place. This demand-side of the energy equation is a powerful lever, and one that deserves much more action and attention than it is currently getting” she said.

Ms Avice-Huet was speaking on the eve of Climate Week NYC 2022, which she and several other senior Schneider Electric attended.

This year's event took place against the backdrop of a dramatically disrupted global energy landscape. Soaring energy prices have highlighted that the energy transition needs to be not only about the

environment, but also about society and addressing the unequal and often very painful economic toll the crisis is taking.

“Energy insecurity is a global and growing reality we can't ignore,” said Ms Avice-Huet, “As an impact company we're acutely aware that we're not here to simply raise the alert on the issues, but that we need to deploy our insights and know-how to deliver actual solutions and bring everyone along the path to sustainability.”

Schneider Electric founded its own Sustainability Research Institute in 2020 to reinforce its contributions to the climate and energy debate. The institute's reports offer valuable insights and policy recommendations on the untapped potential of electrification, digitization, efficiency and circularity. Its research team has been expanded significantly since its creation and regularly collaborates with external research partners and influencers such as the World Green Building Council and BloombergNEF.

Schneider Electric is dedicated to becoming an environmental, social and governance (ESG) leader and enabler. Earlier this summer, the company confirmed its commitment to reach net-zero across its entire value chain by 2050 by becoming one of the first organisations



Gwenaëlle Avice-Huet.

in the world to have that commitment validated by the Science Based Targets initiative (SBTi).

Schneider's products, software and services help its customers and partners to speed up their decarbonisation efforts and attain greater resilience. The company will announce a string of innovations for efficiency and sustainability during its flagship annual Innovation Summit World Tour customer and partner event, which kicks off on October 12.

### IN THE NEXT ISSUE:

- Cutting / Welding / CNC Punching
- Electrical: Cable / Power Accessories  
Lighting / Test & Measurement
- Energy Sources: Renewable Energy /  
Wind / Solar PV / Bio Energy
- Flooring: Finishes / Sealants
- Food / Bev / Dairy: Factory  
Engineering & Production Lines
- Hydraulics & Pneumatics
- Industry Bodies / Institutes
- LNG & LPG Gas: Storage /  
Processing / Logistics
- Maritime / Harbour Services
- Personal Protective Equipment
- Power Transmission: Drive  
Technology / Bearings / Motors
- Refrigeration: Cold Chain Solutions /  
Storage / Logistics
- Tooling / Machine Tools
- Transportation / Freight / Logistics &  
Supply Chain Management

Cape Business News is always on the lookout for stories of companies that are shaping the Cape business landscape. If your company has a story to share, in these, or any other business sector, send your story to [editor@cbn.co.za](mailto:editor@cbn.co.za) for consideration.

## CAPE Business News

### Chairman:

Rudi Leitner  
[rudi.leitner@hypenica.com](mailto:rudi.leitner@hypenica.com)

### Publisher:

Robin Dunbar  
[robin.dunbar@cbn.co.za](mailto:robin.dunbar@cbn.co.za)

### Editor:

Robin Hayes  
[editor@cbn.co.za](mailto:editor@cbn.co.za)

### Production Manager:

Elise Jacobs  
[elise.jacobs@cbn.co.za](mailto:elise.jacobs@cbn.co.za)

### Sales & Marketing Director:

Robin Dunbar  
[robin.dunbar@cbn.co.za](mailto:robin.dunbar@cbn.co.za)

### Sales Team:

Heather Ferreira  
[heather.ferreira@cbn.co.za](mailto:heather.ferreira@cbn.co.za)  
Shaun Austin  
[shaun.austin@cbn.co.za](mailto:shaun.austin@cbn.co.za)  
Centaine O'Reilly  
[centaine@cbn.co.za](mailto:centaine@cbn.co.za)

### Subscriptions:

[subscriptions@cbn.co.za](mailto:subscriptions@cbn.co.za)

### Cape Business News

[sales@cbn.co.za](mailto:sales@cbn.co.za)

Cape Business News has taken all reasonable care to ensure that the information contained in this publication is accurate on the stated date of publication. It is possible that the information may be out of date, incomplete or the opinion of the author. It is therefore advisable that you verify any information before relying on it. Cape Business News accepts no responsibility for the consequences of error, or for any loss or damage suffered by users of any of the information and material contained in this publication. Materials published in this newspaper are subject to copyright and other proprietary rights.



50LT BREWING TANK  
WITH STAND

PLASTICS  
FOR  
AFRICA

3 Montague Drive, Montague Gardens  
021 551 5790 | www.plasticsforafrica.co.za

CAPE  
Business News

Cape Business News, founded in 1980,  
is primarily a promotional vehicle for  
companies that have the Cape Business  
community as a primary target market.

ADVERTISING  
For all your advertising requirements,  
contact our Sales Team  
sales@cbn.co.za

GRIPPER & CO (PTY) LTD  
INDUSTRIAL AUTOMATION  
& PNEUMATIC EQUIPMENT

TECHNICAL EQUIPMENT SUPPLIERS & AGENTS

158 Lower Main Rd, Observatory, Cape Town  
Tel: 021 447 7203 • Fax 021 447 6981  
www.gripper.co.za

# A toast to Trump and Putin

“A moment please, dear friends and others,” Luke the Dude raised his voice. “I wish to introduce a toast!” “Well cheers then,” said Jon the Joker swallowing a gulp of his Lager, “not that it matters, but in the spirit of bonhomie, what are we toasting?”

“I say ‘Cheers!’ to the wheels of justice,” toasted Luke, “and the world being moved in the direction of sanity.” He raised his glass and sipped, as did the rest of the usual congregation in the local Pub & Grill, agreeing that sanity was indeed a toastworthy destination.

Except for Big Ben. “Well ...” doubted he suspiciously, “I am not sure that my idea of sanity is the same as Luke’s. He could have me toasting the DA without me even knowing it. I’ll never hear the end of that, you know? So, Dude, don’t toast in riddles.”

“I for one don’t mind in the slightest toasting the DA,” smiled Miss Lily brightly, “if you look at the majority of Homo Kakistocrius ruining our country, the DA is a

shining light of sanity. Cheers!”

“See what I mean?” grumbled Big Ben. “Before I ban politics from the bar,” intervened The Governor, “who needs a refill?” Most did.

“My toast is to sanity in the world,” elucidated Luke, “still dawning but nevertheless promising. Not locally, Governor, relax. No light shining here, except, of course, for the DA in the Western Cape ...”

“Useless!” grinned Jon the Joker.

“Interesting thought, Lucas,” The Prof cut in. “Your image implies darkness – do you have the forces of fascism in mind, raising their ugly heads in Europe and the Americas?”

“Bull’s eye as usual Prof,” confirmed Luke the Dude. “The forces of autocratic rule. Russia of course, scheming to restore the old Soviet superpower, while home-grown fascism sprouts in countries like Hungary and Italy. And the unthinkable happening in the United States, where Russia assisted with their internet warfare and

disruption to get Putin’s Preferred Politician elected to the White House. To their own surprise. And from there the Putin-Trump axis launched their assault on America.”

“You may not have noticed,” lectured Bill the Beard, “that Trump left the White House in January 2021.”

“Made no difference,” nodded Luke the Dude, “the Trumpo-Putin assault on America continues as maliciously as ever. The division of the ‘United’ States against itself and the undermining of Americans’ belief in democracy is being spectacularly successful. That country is now more viciously divided than at any time since their Civil War. ‘1776!’ is a Maga slogan – referring to the Declaration of Independence in the American Revolution against the foreign ruler and now abused to foment revolt against the democratically elected government.”

“So, what are we toasting?” enquired Big Ben.

“We are toasting Justice now shining through,” replied Luke. “The law

OPINION

ON THE CONTRARY

The columnist is a  
journalist and editor  
based in Onrusrivier.  
His awards for  
journalistic excellence  
include the Mondis and  
the Sanlam Awards.  
.....  
Pieter Schoombee  
.....

is closing in on the treacherous Mr Trump from a number of fronts. And in Europe Putin’s War on Ukraine is being spectacularly lost.”

“Here’s to Trump and Putin!” winked The Prof. “May they soon be toast!”

E-mail: noag@maxitec.co.za

# Lake sediments show decades of coal ash contamination

Researchers who analysed bottom sediments from five North Carolina lakes near coal-fired power plants say coal ash contamination has entered the lakes by three different routes. Credit: Wang et al, Environmental Science and Technology

By Duke University

AN analysis of sediments from five North Carolina lakes near coal-burning power plants has found that coal ash pollution of surface waters has been more persistent and widespread than was previously known.

The findings, from scientists at Duke University and Appalachian State University, show that large quantities of coal ash have been transferred and deposited in lake sediments since the beginning of coal operations in North Carolina.

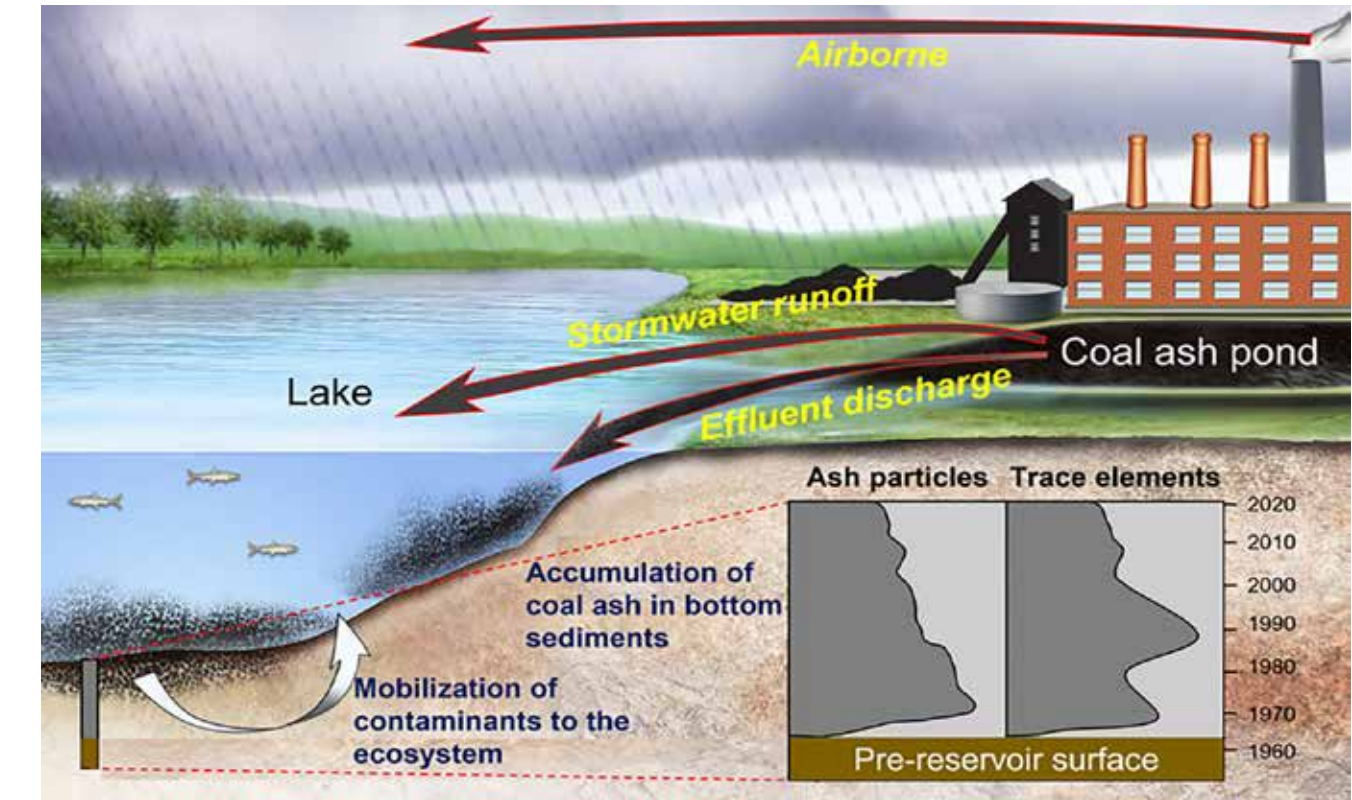
“The bottom sediments of a lake represent a complete history of what has fallen into the lake water and settled to the bottom,” said Ayner Vengosh, a Duke University Distinguished Professor of Environmental Quality at the Nicholas School of the Environment. “Using our age-dating methods, we were able to go back in time, in some cases even before the coal plant was built, and reconstruct the history of the lakes.”

Coal ash is the residual material from burning coal to generate electricity, and is known to contain hazardous metals including lead, chromium, cadmium, mercury, arsenic, selenium and molybdenum, many of which have been tied to human cancers and other health effects.

The contaminants are not locked into the lake sediments, Vengosh said. A chemical analysis of the pore water within the lake sediments indicated the metals leached out from the buried coal ash and could enter the aquatic food chain. The study appears Oct. 3 in the journal Environmental Science & Technology.

“These are recreational lakes,” said Zhen Wang, a Ph.D. student at Duke Nicholas School of the Environment and the lead author of the study. “Some of them, like Hyco Lake, were originally built for the coal plant, but over the years, it has become very desirable real estate where people build their dream homes. It looks very pristine and beautiful, but if you dig in, you find piles of toxic coal ash.”

The five lakes in the study were created for nearby coal plants: Hyco Lake and Mayo Lake, North of Durham in Person County; Belews Lake, northwest of Greensboro in Rockingham, Forsyth and Stokes Counties; Mountain



Island Lake, northwest of Charlotte in Mecklenburg County; and Lake Sutton, northwest of Wilmington in Brunswick County. For comparison, the researchers also sampled Lake Waccamaw in Columbus County, west of Wilmington, a natural lake that was dammed in 1926 so it wouldn’t dry out during droughts.

“By looking at the microscope we were able to identify the different types of coal ash that were deposited over time in the lakes “ said Ellen Cowan, a professor of Geology at Appalachian State University who was a co-author of the study.

“At several of the sites, it appears that coal ash was initially just dumped into the nearby lake,” Cowan said. “Over time, when the Clean Air Act was enforced and scrubbers were added to the coal plant smokestacks to catch fine particulates, we see changes in the coal ash with higher proportions of small par-

ticles.”

Yet, the tiny particles of coal ash contain the highest concentrations of toxic elements, which made contamination worse for the lakes, Vengosh said. “The toxicity of the coal ash actually becomes worse because those small particles contain higher concentrations of the trace elements.”

The study authors suggest the coal ash could reach lakes by three possible routes: Atmospheric emissions of coal ash, particularly before the installation of the scrubbers, settled in nearby lands and was washed back into the lake by its watershed; climate events like tropical storms and hurricanes flooded and flushed the nearby coal ash impoundments to overflow into the nearby lakes; and ordinary flows of effluents from the coal ash ponds reached the lake as part of their routine operation.

“While previously we thought that lakes

and groundwater are being contaminated by leaking or effluents discharge from of coal ash ponds, the new findings indicate that we have underestimated the environmental impact of coal ash,” Vengosh said. “We thought that the majority of the coal ash is restricted to coal ash ponds and landfills. Now we see it’s already in the open environment.”

The study authors warn that this is a much larger problem and given climate change it will only grow worse. “We did a very detailed examination of five lakes, but there are numerous lakes or open water reservoirs next to coal plants not only North Carolina, but all over the country,” Vengosh said. “The phenomenon that we discovered probably applies to many other sites across the US and all of them are going to be vulnerable to more extreme weather events and flooding that we know is coming from global warming.”