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ISSN 1028-1215

Business News

FOUNDED 1980 National Distribution JULY 2019

Clean water, clean technology

Drill rigs of the future

Bags can displace pallets

No more splinters.

Benefits of automatic

CEO shares vision.

EV charging infrastructure accelerates

THE then minister of transport, Blade Nzimande, said in March 2019 that there are a total of 867 EVs (Electric Vehicles) registered in the country. The rise in the number of electrically powered vehicles in South Africa can be the result of several trends that are currently taking place -and may keep the number of EVs

Gauteng accounts for half of this total with 390 of the 867 registered vehicles, while in Western Cape there are 252. The rest is made up by the country's remaining provinces with fewer than 100 vehicles in each of them. This distribution is probably the result of the concentration of infrastructure needed for this type of transportation. As even though there are charging facilities are available in each province, Gauteng is the front runner with over 90 stations.

(Updated figures as of May 2019 puts the total EV population at around 1 300. Ed.)

More charging stations

However, the adoption of electric transportation is bound to increase even more in following years since public charging stations will become more available. These charging stations are said to be located along National Routes. Jaguar Land Rover is in charge of this ambitious plan. The company has made a huge investment into "Jaguar Powerway", a network of chargers which are developed together with EV charging service and Equipment Company GridCards. The R30-million initiative will include 90 charging points, some of which will be located at shopping centres.

The installation of new charging points aims at closing the gap between South African cities. South Africa's city centres will soon be connected by a series of charging stations along the N3 between Gauteng and Durban and the N1 between Gauteng and Cape Town. Cape Town will also be connected to the Garden Route with more charging stations along the N2 all the way to East London. Most of these stations on the public network will be 60kWh fast chargers, which means that a charge from 0 to 80% will take around 72 minutes.

Similarly, Nissan South Africa says that the company will start working on a focused pilot programmed this year to establish the necessary environment for the complete introduction of EVs and related technologies from 2020. BMW has global launch of electric cars last year, Jag- only set to increase in the next five to 10



Africa, six of which are shared with Nissan, and the group is hoping to expand the base by adding an additional 30 ChargeNow stations to the South African charging network by the end of this year.

New electric vehicles entering the market

Infrastructure is important to accelerate the adoption of EVs, but a wide variety of electric cars available in the market is also necessary. The first manufacturers to introduce electric vehicles in South Africa were Nissan and BMW with the Leaf and the i3 respectively. The Nissan Leaf was introduced to South Africa in 2013 and the company has confirmed that it is planning to roll out a brand new Nissan Leaf soon. Two years later, the launch of the BMW i3 brought about a renewed interest in electric cars, so the sales of the Leaf experienced a sudden rise.

Even though the South African market already offers these two all-electric cars, the introduction of an entire electric car industry is on the way. More car manufacturers have announced their intention to enter the industry in response to global trends. In 2018, around 1.6 million EVs were sold in the US, Europe and China. Manufacturers believe that South Africa has the potential to become a globally competitive EV market as well.

A brand new all-electric car has entered the local market early in March After its 57 ChargeNow charging stations in South uar Land Rover announced that it would be launching its own electric vehicle to the South African market in March 2019. And so it did. Drivers will soon see more and more Jaguar I-Paces, the company's first all-electric cars, on the South African streets.

Voted "Car of the Year" at the European Car of the Year Awards 2019, the Jaguar I-Pace has a lithium-ion battery which can be topped-up with a range of flexible charging types like 7.4kW wall box units installed in homes, public chargers along the "Jaguar Powerway" and even regular household sockets, making charging the car more accessible to everyone.

A new car in the local market may cause another renewed interest in electrically powered vehicles, as it happened in 2015 with the introduction of the BMW i3. The I-Pace represents a new era of motoring in South Africa and, coupled with the company's investment in the infrastructure, they have certainly paved the way for wider adoption of zero-emission vehicles.

As Christian Rennella, CEO of the online service QuotesAdvisor.com that compares car insurance prices, expressed electrically powered vehicles are in themselves an indispensible and natural development of the auto industry in the 21st century and the car insurance industry keeps up with this development. Christian estimates that the car insurance prices for EVs in South Africa will decline of 20% by 2020, as EVs will become less of a rarity, which causes prices to go down.

Government initiatives

Moreover, there are some local government initiatives that foster the adoption of electric vehicles. These include the Automotive Production and Development Programme and the Green Transport Strategy. Whereas the former seeks to open up discussions related to EV imports and more infrastructure developments, the latter outlines efforts to contribute towards a 5% reduction of emissions in the transport sector by 2050. These two initiatives are part of the government's plan to lower carbon emissions and reduce their dependency on fossil fuels. They considered that a switch to EVs is inevitable and essential.

The number of electric cars in the country has doubled over the last year and now, with development of infrastructure grid, new cars entering the market and government intervention, the uptake of EVs is

Young entrepreneurs groomed



N the spirit of Youth month, a new generation of entrepreneurs were groomed recently, through a holiday programme offered by Volkswagen Group South Africa (VWSA).

In partnership with the organisation Young Entrepreneurs, VWSA's Community Trust hosted a four-day programme to cultivate a spirit of entrepreneurship in young children from the surrounding communities.

A total of 52 children of VWSA employees between the ages of 9 and 13 years formed part of the holiday programme, held at the PeoplePavilion in Uitenhage. The budding entrepreneurs were taught about various aspects of starting a business, from designing logos to creating their own products from recycled materials. These products were displayed and sold at a Market Day on the final day of the programme.

VWSA has partnered with Young Entrepreneurs since 2017 to host these entertaining and educational programmes for children at Uitenhage Primary School during the school year, bringing it to the PeoplePavilion in 2018 so the children of VWSA employees could also participate.

Youth development remains a priority for the company, and this partnership is only one example of VWSA's efforts to uplift and empower the youth. Through the Community Trust, VWSA continues to support the loveLife Youth Centre in Kwanobuhle, which runs various programmes aimed at supporting and encouraging the youth, as well as teaching them life skills. The Community Trust has also set the goal of eradicating illiteracy in children under the age of 10 years, through its schools in Uitenhage.



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Marshall plan for Ascendis?

BIG changes are afoot at Steenberg-based pharmaceutical giant Ascendis Health with key board appointments signalling a new strategy is about to unfold.

In May the Ascendis board saw a shake-up on the behest of large shareholders than insisted on the appointment of experienced consumer sector executives Andrew Marshall (formerly the CEO of fishing group Oceana and packaging group Nampak) and Phil Roux (former Tiger Brands executive and Pioneer Foods CEO).

A subsequent announcement saw Marshall – initially installed as chairman of the Ascendis board – appointed as acting

CEO "until the Board has appointed a suitable candidate to fill this role".

Ascendis anticipated making a permanent appointment of a new CEO within three months. In the interim Ascendis appears to be in safe hands with Marshall building a formidable reputation at both Oceana and Nampak as a smart allocator of capital and an executive that is able to keep a lid on costs.

Marshall retired from executive duties in 2014, but has kept his hand in corporate matters as chairman of cinema group Ster-Kinekor.

The slightly disappointing news is that the appointment of Marshall as acting

CEO coincided with the resignation of Roux with immediate effect. Observers felt the combination of Marshall and Roux could have been an effective partnership in turning

around Ascendis.

The no nonsense
Roux – who restructured Pioneer Foods
towards a brand rather
than a food commodity
business - was initially
tipped as a contender
to take the role of
CEO.

Officially, Ascendis indicated that the board was of the collective view that Roux could offer greater value to the Company in a consulting role.

This means Ascendis has asked Roux to consult on an ongoing basis.

In the meantime, Ascendis is still busy in negotiations relating to an unsolicited offer received for its Remedica business unit in Cyprus.

If Ascendis can clinch favourable terms for the disposal of Remidica then the company will be in a position to mobilise the proceeds to comprehensively cull its high debt levels.

It seems logical that a permanent CEO will only be appointed once the Remedica deal is concluded, which will give the new company leader a fresh start with a new look business not lumbered with burdensome debt.

In the half-year to end December Ascendis interest charges on its debt cost over R200 million, which tore a huge strip of the operating profit number.

Debt was last stated at a bloated R5 billion, which is considerably more than the market value of Ascendis at the time of writing.

Ascendis roughly R4.5 billion for Remedica in 2016. speculation Initial suggested that the Remedica business which has performed well since acquisition would be sold for more than what Ascendis originally paid. Expectations have more recently been tempered around a possible purchase price as negotiations with the unnamed bidder have dragged on for close to six months.

WISP – nothing ghostly about R67,9 million for CT's green economy

THE Western Cape Industrial Symbiosis Programme (WISP), a multiple award-winning free facilitation service to businesses, is managed by Green-Cape, a business partner of the City of Cape Town.

Alderman James Vos, Mayoral Committee Member for Economic Opportunities and Asset Management recently conducted a site visit to the manufacturing plant of Sealand Gear, a participant of the WISP initiative in Woodstock. Sealand Gear is a specialised bag and apparel manufacturing company that makes

use of recycled and upcycled materials.

'I am pleased to announce the phenomenal financial benefits that the WISP initiative has generated for Cape Town's green economy. The additional revenue generated by these businesses totalled R34,6 million, calculated on cost savings of R24,8 million and private investments of R8,54 million.

The WISP programme has proven to be a lucrative one, as for every R1 that the City invested, R7 is returned as direct financial benefits,' said Alderman Vos.

WISP facilitators

provide businesses with technical expertise by connecting them with unused or residual resources such as materials, energy, water, assets and logistics. Through the sharing of resources, businesses are able to:

- Contribute to the growth of the economy
- Cut costs and increase profit
- ness processes
 Create new revenue

Improve their busi-

- streamsLearn from us and each other
- Operate more sustainably

'This is a programme that we are particularly proud of, as it operates at the direct company interface with waste management. It helps manufacturing companies to increase competitiveness while reducing the burden on the environment,' said Mike Mulcahy, CEO for GreenCape.

Furthermore, 36 600 tons of waste is diverted from landfills with an estimated fossil greenhouse gas saving of 147 700 tons CO2e (equivalent to the annual electricity usage of 39 800 South African households).

'We realise the important role that the



green economy plays to build a sustainable city. Through the City's partnership with GreenCape, it can identify and explore economically viable opportunities in the green economy. It is necessary for the City to accelerate progress towards sustainable

development and poverty reduction through creating more sustainable uses of natural resources,' said Alderman Vos.

Channel partnership established

KWIKSPACE and Kaap Agri, the specialists in agricultural, fuel and related trade and retail markets in Southern Africa, have entered into a channel partnership that will see Kaap Agri stores

promote the Kwikspace offering. The partnership agreement, signed during May 2019, is the first promotional/reseller partnership entered into by Kwikspace.

Initial roll-out,

which began shortly after the agreement was in place, utilises Kaap Agri stores in Paarl, Franshoek, Ceres and Vredenberg. The Paarl outlet now has Kwikspace's 3 x 6 m relocatable units on display in

open-plan format, with the remaining three stores utilising promotional banners and specifically trained sales personnel to promote the product lines.

The tangible display provides customers

with a look and feel opportunity, allowing them to familiarise themselves with unit composition. The Kwikspace-trained Kaap Agri sales teams across all stores provide accurate and de-

tailed information on all aspects, including flooring, finish types and the range of available extras like air conditioning, burglar bars, special lighting and other options.

approached "We Kaap Agri due to a mutual client profile specifically in the agricultural and construction industries," says Mico Botha. Cape Town Reginal Manager, Kwikspace. "They have an established footprint of 60 stores nationally, which provides us with a new platform to market our product lines and access to market. Potential customers in these stores will be able to see how Kwikspace relocatable units can be used for a variety of onsite applications, from accommodation to kitchens and laundries, to dining rooms, offices, store rooms, guard houses and even "They have an established footprint of 60 stores nationally,..."

mobile clinics among many others."

"Kaap Agri is an inspiring and forwardleader in SA king business," says Botha. "They have an open mind to new opportunities and have very approachable leadership. Our entire product range, optional extras and updated pricelists are communicated to the Kaap Agri sales teams, who also receive training from Kwikspace."

Kwikspace retains all responsibility for manufacturing, preparation, delivery and handover of all units bought via Kaap Agri outlets.



Golden Arrow targets acquisitions

CAPE TOWN-based transport group Hosken Passenger Logistics and Rail (HPLR) – which owns Golden Arrow Bus Services (GABS) -has hit the acquisition trail.

Last month HPLR announced it had acquired the remaining shareholdings not already held by GABS in Sibanye Bus Services and Table Bay Area Rapid Transport (TBRT) with a view to expanding its bus and transport operations in the Western Cape.

Shareholders are advised that GABS has concluded sale of shares agreements.

outstanding The shareholdings comprised a 33.3% stake in Sibanye and a 24.97% interest in TBRT, and will cost HPLR around R26.5 million and R39 million respectively.

Owning 100% of these enterprises could be very useful for GABS. Sibanye is a joint venture (established in 2001) between GABS and two emerging bus operators - Abahlobo Transport Service and Siyakhula. Sibanye operates buses and provides services from Atlantis to the Cape metropole.

TBRT has been an official MyCiTi vehicle operating company for the City of Cape Town since 2013. It mainly operates the trunk service along the Atlantic seaboard, as well as feeder routes in Atlantis and the Cape Town central business district.

HPLR said the acquisitions were in line with its broader strategy to expand its interests in transport related busiand involved

taking full control of businesses where the company already had a majority interest and was responsible for the management and day to day operations.

Sibanye's net profit after tax for the 12 months ended 31 March 2019 was almost R17 million. while TBRT generated almost R23 million.

If these acquisitions had taken place on April 1 2018, HPLR's revenue would have increased by more than R87 million and group profit by an additional R16.7 million.

In the year to end March, HPLR endured what CEO Francois Meyer described as a myriad of operational challenges - including a five-week protected strike and an additional illegal strike that affected the MyCiti operations. Then there was also unparalleled fuel price increases of 48% compared to the prior year, and the destruction of buses with the run-up to the national elections.

But Meyer noted that overall demand for reliable road-based passenger public transport services continued to increase as a result of problems on the rail system in the Cape metro-

"Regrettably, in the run-up to national and provincial elections, widespread service delivery protests negatively affected the provision of scheduled bus services, particularly in areas adjacent to mushrooming informal settlements across the city. In addition, rivalry in the taxi industry sparked sporadic violence and disruption to road based public transport."

Group revenue reflected a decrease of 1.6% to R1.8bn - partly as a result of the strikes mentioned above. Meyer said two fares increases totalling 14.5% were implemented over the financial year.

He stressed that despite the increase in the fuel price and 8.5% increase in wages (which make up the HPLR's two largest cost drivers) management's focus on finding efficiencies across its operations showed positive results containing the increase in operating expenses to just 1.7%.

With Sibanve and TBRT now fully onboard, the financial performance to the 2020 financial year will be interesting to gauge.

Perhaps what will be even more fascinating is whether the financial year ahead will see HPLR deliver a deal that addresses the 'rail' part of its corporate identity.

Kropz moving closer to Elandsfontein harvest



THINGS are finally starting to happen at the Langebaan-based Elandsfontein mine, which is regarded as South Africa's largest known sedimentary phosphate deposit.

Well located only about 40km from the shipping port of Sal-ElandsdanhaBay, fontein's controlling shareholder has been working tirelessly to develop a state-of-theart phosphate mine capable of producing up to 1.5m tons of phosphate rock from an automated processing plant. Phosphate is used predominantly in the manufacturing of plant fertilizers.

One of the big local shareholders is African Rainbow Capital Investments (ARC), which owns a 25% stake in Elandsfontein.

While the project continues to face early hitches and delays, the latest trading update from ARC suggests some traction has been found following the listing of Kropz on the AIM market in Lon-

don at the end of 2018. ARC said significant progress had been made to complete testing and finalise the engineering design for the reconfiguration of the concentration plant at the Elandsfontein mine.

ARC pointed out that Kropz announced recently that commissioning of the mine and

the concentration plant was now only expected to happen during the

fourth quarter of 2020. ARC noted that: while additional test work is still required, significant work has been done to advance the front-end engineering and design".

Total cost - including additional capital expenditure, operating costs and debt servicing requirements - was estimated at \$20m or R290m more than initially envisaged.

Kropz and ARC have already sunk around \$120m (more than R1.7bn) into Elandsfontein in form of exploration, bulk sampling and feasibility studies as well as the

subsequent construction of a mine, mineral processing facility and associated infrastruc-

In a more detailed report Kropz said local mining specialists Mintek and US-based Eriez undertook confirmatory pilot scale and other processing test work to confirm the final processing design of the mine and processing plant.

DRA Mineral Projects was appointed to complete the front end engineering design.

Kropz said that while additional test work was still required - which was expected continue into the third quarter of this year - significant work had been done by the Elandsfontein operating team to advance the front end engineering and design.

Kropz ČEO Ian Harebottle conceded that the additional cash requirements as well as the delay to first production at Elandsfontein were disappoint-

But he stressed the additional test work still required to optimise the process flow sheet meant the company was constantly improving its understanding of the ore body and the processing methodology required to support the successful and robust operation once in production.

These are critical months for Elandsfontein in its bid to become a powerhouse player in the fertilizer sector.

In February Kropz appointed respected mining executive Jan Steenkamp as MD of Elandsfontein.

Steenkamp - currently a non-executive director on the board of African Rainbow Minerals (ARM) has served as CEO of Avgold as well as held

key positions in Assmang, Avmin, ARM Exploration and ARM Ferrous.

Steenkamp was specifically tasked with developing the operational team and driving the Elandsfontein project through to commercial produc-





SUCCESS TAKES COLLABORATION







It is with great excitement that we can announce that RSA Litho acquired a shareholding in Shumani Mills Communications and will merge their respective operations into one.

Both *RSA Litho* and *Shumani* holds very strong positions in their respective markets and the combination of both companies' abilities and knowledge will enable us to reach new heights in *innovation*, *productivity* and *customer offering*.



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#YOURPRINTERFORLIFE

Quality strip curtains offer affordable solution



The patented Balledge feature on Apex General Purpose Strip Curtains allows strips to part easily allowing access.

HIGH quality PVC strip curtains offer an affordable solution in applications where dirt, dust or insects need to be kept out and where hygiene, humidity, temperature and noise need to be controlled.

Apex General Purpose Strip Curtains offer another advantage apart from high quality manufacture, and this feature ensures longer life even under harsh operating conditions according to Wim Dessing, sales executive of Apex Strip Curtains & Doors.

Locally manufactured under stringent quality control conditions, Apex General Purpose Strip Curtains feature the patented Balledge® design which facilitates an optimal thermal seal. The specially reinforced edges on individual strips, allows these to part easily under pressure allowing people and goods to move through unhindered. The rounded edge also ensures the strips do not snag or scratch goods or people as they move from one area to another.

Made from specially formulated PVC material which is transparent allowing good visibility between cordoned off areas, the Apex General Purpose Strip Curtains are equally at home in heavy engineering and light fabrication facilities as well as packaging and warehouse operations.

Dessing cites as an example instances where the product has been used to enclose loud machinery to contain noise levels or where it is used to control levels of humidity where this is critical to the quality of finished products.

"Tests have shown that PVC strip curtains can reduce noise levels by between seven and fifteen decibels, and this certainly assists in improving working conditions," he says.

In packaging and warehousing operations where keeping the temperature at specific optimum levels is critical, use of strip curtains has proved invaluable. Applications where temperature control is important also include food preparation areas, cold storage and freezer areas, as well as refrigerated trucks. In such facilities, PVC strip

curtains are also effective in keeping out dust and insects thereby maintaining high levels of hygiene.

Similarly, in pharmaceutical and chemical plants PVC strip curtains are used to ensure hygienic and dust-free manufacturing and packaging ar-

Apex Strip Curtains & Doors has been manufacturing PVC strip curtains since 1981, and the company's team is able to assess individual applications and propose the best fit solution to meet the operating parameters.







Digital solutions maximise vehicle uptime

THERE is a growing demand in the Africa and Middle East (AME) region for monitoring remote solutions according to Cummins AME Automotive and Electrification Leader Ms Rashi Gupta. Remote monitoring solutions are critical for maximising up-time and reducing total cost of ownership of equipment.

Telematics is essentially an 'add-on' technology on an engine that transmits real-time information to the Cummins' servers in the US. Here, extensive algorithms are applied to this raw data, from coolant temperature to engine power, to flag any fault codes, whereupon recommendations can be made to fix any issues as quickly and as cost-effectively as possible.

We find that telematics is of huge benefit in remote locations such as in the AME region. It also promotes good driver behaviour. Instead of continuing to drive when a fault code is detected, the fleet manager can now contact the driver and inform him or her to take the vehicle to the nearest workshop," Gupta highlights. A future development in Cummins' telematics technology is to integrate it with products from Original Equipment Manufacturers, thereby offering customers a complete solution.

With about 100 000 vehicles running globally on Cummins' telematics solutions at present, pilot trials are being undertaken in the AME region to demonstrate the value-add for customers. The major advantage is that remote monitoring streamlines proactive maintenance, as a job card can already have been opened and the necessary parts procured even before the vehicle in questions arrives at the workshop.

The combination of electrification and telematics represents a paradigm shift in the AME region. "We do not believe that there will be one dominant technology in the future. We truly believe it will be a mix. Diesel engines are still our bread and butter, but other fuel sources will take over, and the company that is able to offer a comprehensive solution is the one that will be able to operate in the future," Gupta concludes.



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Could social entrepreneurship put a dent on SA's high youth unemployment rate?

A recent report by the Thompson Reuters Foundation ranks South Africa as having the second best environment for social entrepreneurs in Africa, after Nigeria. Considering South Africa's subdued economic growth and worryingly high level of unemployment - particularly among the youth - social entrepreneurship may offer a solution that boosts the economy while simultaneously addressing some of the country's pressing social issues.

This is according to Gugu Mjadu, spokesperson for the 2019 Entrepreneur of the competition Year® sponsored by Sanlam and BUSINESS/ PARTNERS, who is encouraging Africa's youth to look within their own communities for opportunities to serve a social purpose, while generating income and creating employment from business activi-

"The youth unemployment rate, according to recent Stats SA data, currently sits at a staggering 55.2%, with job opportunities in the formal sector being few and far between. Social entrepreneurship offers this vulnerable group of job seekers a unique way to create their own informal employment, based on the current needs that they identify within their own communities.'

However. while young social entrepreneurs may be hungry for opportunities and possess the vision required to change the country for the better, Mjadu notes that they cannot do this on their

"The budding young social entrepreneurs of South Africa need support from all major stakeholders – both public and private – to achieve their vision.

"From a private sector perspective, this is

where enterprise and supplier development can come into play. Business competitions such as the annual Entrepreneur of the Year® competition sponsored by Sanlam and BUSINESS/ PARTNERS, can also play an important supportive role in terms of stimulating this entrepreneurship and providing incentives for business success," she

adds.

Mjadu refers to the competition's Judges Prize winner, Beverley Gumbi, as a prime example of this. "One of our past competition winners, Beverley Gumbi, is the founder and owner of Isivuno Container Business – a container conversion, rental and supply company that offers a creative solution to the dire shortage of infrastructure and service delivery in both urban and rural communities in South Africa."

Gumbi says that she

is particularly driven by the prospect of bettering the community, country, and ultimately even the continent.

"I want to contribute to local economic growth and socially sustainable development through the manufacture, design and supply of 'fit for a purpose' converted shipping containers and park homes for communities and SMMEs at extremely competitive rates.

"A great example of this was the National Lottery project which entailed the establishment of an early childhood development site. We provided container classrooms, kitchens, ablution facilities, offices, installed a JoJo tank, and more. When the project was finished, I was struck by the fact that just a few weeks before it had been a bare piece of land, and when we left it was filled with happy staff members and children - that's an

incredibly rewarding feeling," says Gumbi.

Today, Isivuno Containers is a well-established company with 30 staff members, says Mjadu.

"This just goes to show how, with the right level of support, social entrepreneurs have the ability to not only drive social change, but also ef-

fect great economic change by creating new employment opportunities at a time when South Africa needs them most," she concludes.





New soluble varnish removal range

THE new Hy-Pro Soluble Varnish Removal (SVR™) Systems offers complete recovery and maintenance for turbine lubricants. SVR™ will be available across Africa through Hytec Fluid Technology HFT.

The prevalence and potential economic impact of varnishing in industrial applications is so significant that OEMs recommend the use of varnish removal systems from start to mitigate risk. "There was a need for a simple, easy-to-use product to prevent and remove dissolved and breakdown products in lubricants, which, if allowed to accumulate, from



Hy-Pro Soluble Varnish Removal (SVR™) Systems are now available from Hytec Fluid Technology (HFT).

varnish", says Wynand Kapp, Divisional Manager: Industrial Filtration (HFT).

SVR™ attacks the source of the varnish problem on a molecular level, removing the oxidation by-products that form varnish deposits. SVR™ removes acid to improve oxidative stability, slow oxidation rates and

ing filter purification technology for soluble varnish contaminant removal. Unlike competing systems, SVR™ purifies 100% of reservoir volume each day. Ion Charge Bonding (ICB™) is a family

reduce varnish produc-

tion. SVR™ Systems

feature industry lead-

of ion exchange resin technologies used to purify industrial lubricants. Initially developed in the 1990s, it has widely been used to purify turbine and compressor lubricants as well as phosphate ester fluids. ICB™ restores demulsibility during normal turbine operation without damaging additives.



CBN July 2019

Stainless steels in the water industry - cost and quality benefits

AS maintenance costs escalate and plant maintenance becomes more difficult, the use of stainless steels in water applications has increased significantly world-wide.

Care needs to be taken with selection and design of stainless steels in order to ensure low maintenance applications.

Pitting corrosion caused by chlorides in water, is the most likely problem to arise during the long life of a stainless steel installation.

Understanding the corrosion mechanisms which can occur in stainless steels can have a profound influence in the way we:

- · Design equipment
- Design plant layout
- Design actual process
- Run the plant

Aid to selection of stainless steel

There are over 500 grades of stainless steel and the graph above is an indicator of which

CHARACTERISTICS

or turbidity problems

Attractive appearance

Smooth surface

Recyclable

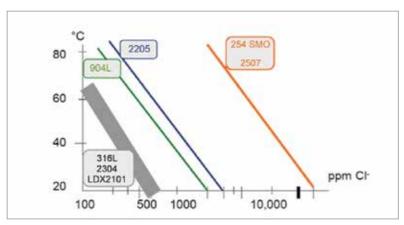
High corrosion resistance

Good wear and fatigue resistance

Materials covered by well-defined standard

stainless steel in water industry applications.

No corrosion or leach products, no organoleptic



grade is suitable for a particular application, based on water temperature and chloride

In assessing upfront the grades to be specified, there are several areas that require attention:

- Temperature
- Chloride concentration on water
- Oxygen content of the water
- · Unusual conditions such as static solids and industrial waste water
- Introduction of chemicals
- Handling and storing of chemicals

Flow rates

Advantages of stainless steel

After selection of the appropriate grades for the application(s) intended, stainless steels will offer significant advantages.

- · There should be minimum problems with atmospheric corrosion - provided the correct grade is chosen
- They are better than other most commonly used materials in high velocity and turbulent flow lines
- · They do not depend

Low maintenance, consistent operation

Less bacterial slime, low energy consumption, low

Ready availability, in most product specifications

cleaning costs, good for conveying wet solids.

Cost benefits and low environmental impact

Clear and pure drinking water

Low maintenance, long life

Clean, hygienic, 'high tech' image

ADVANTAGES

The following table provides more details of the advantages offered by the different characteristics of

on coatings to perform well.

Stainless steel is a sustainable material

The table below proapplications:

Areas and applications where stainless steels have been effectively used

and fully recyclable.

vides more details of the advantages offered by the different characteristics of stainless steel in water industry

Stainless steels have many applications in the water industry, a few of which are listed below:

Mechanical and **Biological systems**

- Screening systems, sieves
- Grit chambers
- Aeration trenches and tanks
- Inlet and outlet construction for sedimentation
- Scraper installation
- Screening drums
- Tank covers
- Sewage water transportation
- Gas transportation

Pipe systems

- Potable water mains and distribution systems
- Sewerage water transportation

Hardware & miscellaneous

- · Lining for concrete tanks
- Manholes and covers

Desalination

- 2507 super duplex has replaced titanium in many applications
- 2205 has replaced more expensive grades such as 904L and 254SMO
- LDX 2101 has replaced more expensive 316L

Cost benefits

Upfront Costing

Projects are often costed solely on upfront

costs for a specific budget period and the future costs are ignored. The savings of low maintenance, corrosion resistant stainless steels on a Life Cycle Costing basis have always been apparent but with the creation of many new lighter and stronger grades of stainless steel, the Upfront Costs are reducing and becomingly

Life Cycle Costing

beneficial.

- The enormous cost savings achieved with a maintenance-free product are becoming more relevant
- Tanks pipes and structures which do not require periodic repainting or replacement become a huge advantage

The graphic below is an illustration of the significant cost saving of stainless steels over the life of a project, system or installation.

Summary

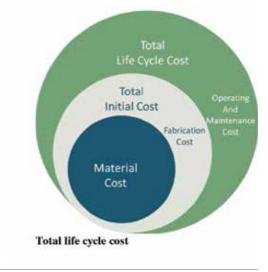
Provided that care is taken with:

- use of the correct grade (specified by a specialist)
- correct design to ensure minimising corrosion and mechanical problems

Stainless steels can offer highly successful and economically viable solutions for your plant both in first-off/ upfront costs and life cycle costing.

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This information is part of a four-hour presentation - Stainless Steels In The Water Industry - approved by Consulting Engineers South Africa (CESA), which is offered by NDE'S technical team to companies considering the use of stainless steels in their water application projects and processes. Email: basil. goldswain@nde.co.za



Reusing wastewater can become the norm

By Dalia Saad, Visiting Researcher, School of Chemistry, University of the Witwatersrand Research Fellow, UNISA, University of

WHEN it comes to developing technological solutions to the world's problems, social processes matter as much as the scientific ones. Wastewater reuse projects in various parts of the globe provide a useful example of this reality.

Wastewater is water that has been previously used, and includes everything from sewage to water drained from baths and showers. This water can, with proper treatment, be recycled

and reused for a variety of activities - watering crops, fighting fire, cooling industrial machinery and even human consumption.

Recycling water increases the of drinking ter available, but it also has a twofold benefit for the environment: it avoids tapping into natural resources and significantly reduces pollutant discharges. But wastewater reuse

suffers from a perception problem. People do not want to drink water they think of as "dirty". So even those wastewater reuse projects which use advanced technologies and apply thorough scientific evidence and processes can fail without community sup-

Countless examples from countries as varied as Jordan, Namibia and Singapore show that wastewater reuse projects can be successful. In fact Namibia is a global pioneer in wasterecycling. country's Goreangab treatment plant attracts experts from developed nations like Australia and the US, seeking solutions to their own growing water scarcity.

Following these successful experiences, more countries are now investing in wastewater for different purposes. Abu Dhabi, for example, plans to recycle all its wastewater by 2020. In South Africa, the first wastewater recycling plant for drinking water production was constructed in 2010.

Disgust and worry

The purpose of reuse is obviously a key factor. People are less concerned when treated wastewater is used for fighting fires or waterks than they are when it is used on agricultural crops or for drinking.

There are also cultural and religious factors at play. In the past decade some Muslim farmers in Jordan, Tunisia and Kuwait worried that the rules of the faith prevented them from using wastewater for irrigation. In fact, a "fatwa" - an authoritative religious ruling - has been issued since 1978 by the Council of Leading Islamic Scholars in Saudi Arabia stated that

treated wastewater can be used if its treatment removed impurities of taste, colour and smell.

Perception is also an issue. No matter the quality of the treated wastewater. people disgusting because it's previously been in contact with human waste.

Education about the treatment process can also help to improve people's attitudes and perceptions towards all sorts of reused waste-

People need to be clear about the scientific processes used to treat wastewater. They also need to understand how rigorous a process must be followed before wastewater is suitable for drinking. Singapore's biggest wastewater treatment plant has a visitors' centre and offers daily tours, including for school children, to explain its processes.

The popular media cial role. In the same way that descriptions like "Toilet to Tap" "Recycled Sewage" prompt disgust, media coverage that outlines to process of treating wastewater and the value of this resource could change attitudes for the better.

Genuine engagement

In Jordan, as part of its national water strategy in 2008, authorities ran a huge educational campaign to raise awareness about the

need to use wastewater for agriculture. Water issues were covered in newspapers, on television and on the radio, explaining the value of recycling wastewater. Officials also visited and libraries to speak with people there about the project. All of this helped to encourage acceptance of the project and it was a success.

This example and others, as well as a solid body of research evidence, show that wastewater reuse projects can be successful. Effective public involvement, community participation throughout the project cycle and proper education about the treatment process are crucial.

Saving water – it's a no brainer

THE Beverage Company is South Africa's leading independent manufacturer and distributor of carbonated soft drinks, energy drinks, mixers and still beverages.

One of its five production facilities is based in Cape Town's Epping Industria and as its products are 99% water, it is a major consumer, 'consuming' one million litres per month.

"Even before the water crisis we were examining ways of becoming more efficient and cost effective in our production facilexplained David Putterill, General Manager of WC Operations.

"As early as 2016 we had improved our water use efficiency from a world industry average of 1:1.8 to 1:1.3 that is the ratio of the amount of water used to make 1 litre of product – a saving of half a litre, which on a plant with a capacity of up to 20 000 bottles/h, is considerable.

"As a major water consumer and the prospect of Day Zero actually becoming a reality, without an alternate water supply we could foresee serious interruptions in production and even partial closure of the plant.

"After consultations with the City, our solution was the sinking of seven experimental boreholes on the property. At a depth of approximately 90 m, five were found to provide acceptable quality and volumes of ground water which could reduce our consumption of municipal water by more than 30%."Safety and quality of our products is our number one consideration and while we do treat municipal potable water to a higher standards through advanced filtration, similar measures were necessarv for the extracted ground water, which actually results in the ground water being of a higher quality standard than the treated municipal water" he said.

The treatment process is by the tried and tested RO (reverse osmosis) technology, used in the majority of desalination plants. Aquamarine Water Treatment provided a containerised RO plant and ancillary tanks, pipework and primary filtration equipment under the guidance of project consultants Forester De Deer & Associates. The installation, which became operational in July 2018, has a daily maximum daily capacity of 330kl, cutting the dependency on potable municipal water from 1Ml to +/-660kl per day.

Saving potable water has not been the only benefit of BevCo's RO installation.

"In any food process

there is always some waste water generated and in our case this is produced by our bottle washing process and when certain products naturally expire when water is combined with sugar, colorants and flavouring.

"Previously this effluent was simply discharged into the mu-

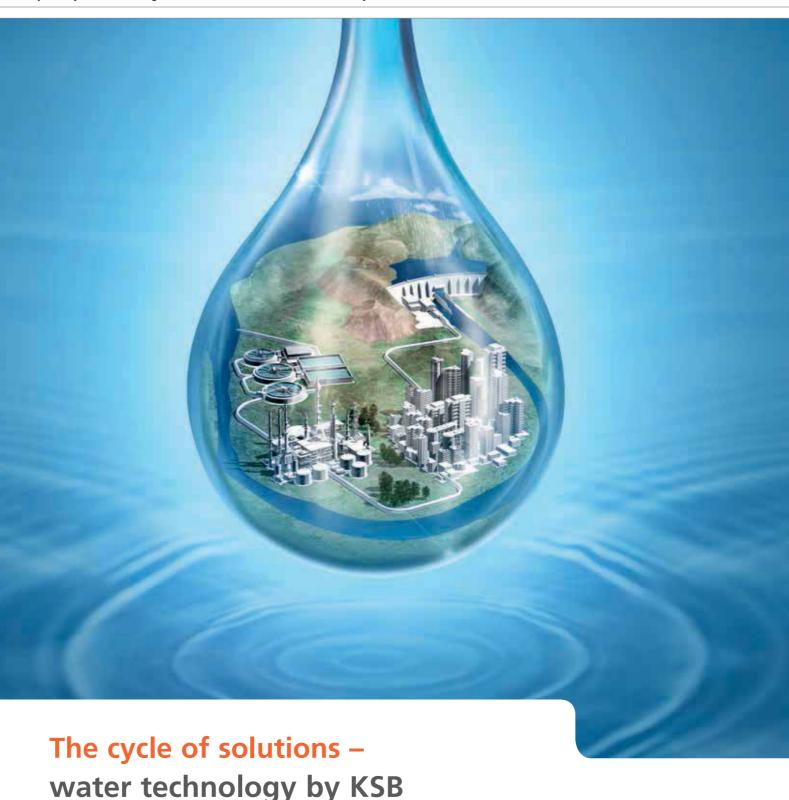
nicipal sewer and the discharge cost levied by the municipality on occasion reached R200 000/month.

"Some research revealed that cattle are particularly fond of our blended but expired products and now a substantial amount is delivered free to farmers as part of their cattle feeding regime. As we have a water treatment plant on site, previously discarded wash water is now 'reprocessed' to be used again.

The overall saving of these two initiatives has resulted in cutting our municipal discharge levy from R200 000/month to R40 000/month" he said.

The bottom line?

"The total cost of the RO plant and ancillary equipment was in the region of R7-million and while the municipal per kilo litre rate has decreased from Level 5 to Level 1, the payback period will still be achieved within a few years. Thereafter a real win-win situation with a real contribution to profits, a more efficient world class production facility and, should we experience another drought emergency, we'll be prepared and playing our part in saving our precious resource" he concluded.



Water is crucial for our survival – for every one of us, for all nations and peoples. Clean water supplies and efficient sewage treatment have never been more important. Prosperity and well-being depend on it, worldwide. KSB's know-how and extensive pumps and valves product range help you meet all water supply and treatment requirements, efficiently and affordably. We are one of the few suppliers worldwide with endto-end solutions addressing all stages of the water cycle – from water extraction to sewage treatment.

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High-pressure jetting and vacuuming combo for tight spots

SEWERAGE ing operations can become expensive, time consuming and labour intensive for operators if they need to use multiple vehicles for sucking and jetting. Werner South Africa Pumps & Equipment (Pty) Ltd is introducing the first bakkie-mounted vehicle in South Africa that has the combined ability to perform suction and jetting. The Baroclean Rapid Response Vehicle is said to be an excellent option for applications where bigger seweragecleaning trucks cannot easily fit, such as shopping centres or office park basements.

The Rapid Response Vehicle is mounted on a local Toyota chassis and has a high-pressure pump, vacuum pump suction and aluminium tank with two compartments; 800ℓ capacity sludge and a 400ℓ capacity water tank. It also has a payload of



Rapid response vehicle operating in Barcelona.

over 700kg. The range of features in the unit provides high performance solutions in a compact package.

Clients in the plumbing and construction industries will find the Rapid Response Vehicle particularly useful because of its agility and versatility. It can be driven into small, challenging locations and perform multiple maintenance and cleaning functions where other

sanitation equipment cannot.

The hydro-cleansing combined vehicle's high-pressure pump has three solid ceramic pistons that provide pressure of 150 to 320 bar. The pumps and vacuum draw their power from the base vehicle's engine, via a full-power transfer gearbox.

The suction and jetting system is controlled through a control panel at the rear of

the vehicle, located in a waterproof box.

The Rapid Response Vehicle costs vary, depending on the chosen finishing features, and have a delivery time of six months from order.

Baroclean is a French sanitation equipment company that has over 35 years' experience in producing jetting units and combination tankers for the maintenance of sewer networks and septic tanks.

New pumphead technology for polymer dosing

THE launch of a new pumphead designed for use with the awardwinning Odos range of peristaltic metering pumps has been announced by Watson-Marlow Fluid Technology Group. Qdos 20 with the ReNu™ PU pumphead offers repeatable flow of 28 ℓ/\hat{h} at 4 bar for fluids of wide-ranging viscosity whilst metering accuracy is assured to $\pm 1\%$. The launch of the Qdos 20 ReNu PU responds to a growing worldwide demand for polymer dosing systems in wastewater treatment. The majority of these systems use polymers to dewater sludge to minimise its bulk, thus reducing the cost associated with the disposal and storage of the cake by up to 75%. Users of the new pumphead already reveal significant process improvements for dosing polymers, when compared to diaphragm metering pumps. ReNu PU

The ReNu PU pumphead is designed to deliver maximum process uptime. This is facilitated by rapid, safe and easy pumphead removal and replacement. There is no need for specialist tools and no requirement for specially trained on-site maintenance technicians.

Moreover, the ReNu PU pumphead offers integral leak detection and chemical containment; an important point as cleaning up



polymer spillages can be hazardous to operatives and time consuming.

Customer feedback

A major utility provider on Lake Michigan, Illinois has confirmed the suitability of the ReNu PU for the accurate dosing of polymer flocculants. The company had a requirement to clean-up wastewater run-off from a limestone quarry; installing a Qdos pump fitted with a ReNu PU pumphead allowed them to meet water quality standards with a low maintenance, reliable solution.

A major UK brewery is also able to testify to the pumphead's effectiveness. The brewery used a diaphragm metering pump for polymer dosing. However, the small non-return valve within the diaphragm pump would easily become blocked by the polymer. In turn, the pump would require frequent cleaning, a process made

more challenging by the fluid's high viscosity.

ity.
"We don't have any such issues with the Qdos, which reliably doses polymer for around 12 hours every day," says Mr Dave Burrows of SUEZ UK, who is responsible for the effluent plant at the brewery. "I really can't fault the reliability or simplicity of the Qdos pump or the ReNu PU pumphead. In addition, when the pumphead reaches its end of life, you get a useful notification. Replacement is quick and easy - we're up and running again with 5-10 minutes." The Qdos 20 ReNu PU has proved a complete success, with no issues experienced over an extended period of time.

"I really can't fault the reliability or simplicity of the Qdos pump or the ReNu PU pumphead...."



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Clean water, clean technology

MUNICIPALITIES are tasked to provide the safest, most cost-effective water with the least environmental impact which places a multi-barrier approach to filtration as a high priority.

This means drinking water processes must conserve energy, use minimal chemicals, occupy less space and generate less waste.

Originally developed in Israel for irrigation applications, Amiad automatic self-cleaning are recognised for their clean technology benefits in drinking water treatment.

Available in Southern Africa through exclusive franchise holder Macsteel Fluid Control, Amiad automatic self-cleaning filters integrate a set of screens to provide a balance of strength, filtering capacity and filtration. When sediment builds up on the inside of the filter, a self-cleaning mechanism of small nozzles is engaged to allow the filter cake to exit the filter in a concentrated stream. Water loss to backflush is minimal (typically less than 1% of the flow) and the filter continues operating during the self-cleaning cycle.

A fractional horsepower motor, which draws just 0.5 A at 220/440 V 3-phase power, is all that is required to rotate the cleaning scanners which as they are highly focused and efficient, yield minimal initial head loss, which translates into significant energy saving of over 50% compared to sand media filters.

Water consumption is also minimal as backwash water is less than 1% of the total flow through the filter which equates to consuming less than one-quarter of the backwash required to clean a media filter with the same filtration capacity.

No polymers, filter aids or flocculating chemicals are required, reducing costs, maintenance time and employee exposure to chemicals. Greater filtration efficiency can also reduce the addition of chlorine to maintain target disinfection residuals.

Automatic self-cleaning filters do not require storage tanks for water or sand media, so they can deliver equal filtration capacity on a smaller footprint compared to other filtration technologies, taking up less space, while eliminating the need



for costly foundation preparation and ancillary equipment.

Complementing or replacing media filters

In municipal water treatment plants, automatic self-cleaning filters can replace or complement media filtration, offering lower levels of disinfection by-products and reduced energy demand. Pre-filtration with these filters significantly reduces turbidity (measured as both TSS and NTUs) of influent water resulting in a cleaner, more efficient operation of the main filtration system, lower labour requirements, reduced use of chemicals and significant reduction in the release of media filter backwash water.

Pre-filtration protects RO and UF membranes

More than 40 million m3 of desalinated water is produced daiby approximately 15 000 desalination plants worldwide, including in South Af-

Automatic self-cleaning filters are extremely effective at removing suspended particles and organisms down to the unicellular level, as well as dissolved solids; however, they can be compromised by larger particles, which reduce membrane life and efficiency and demand costly, chemical-intensive cleaning. Installation before RO

and UF membranes provides valuable protection by removing biological organisms, organic matter and inorganic compounds, such as precipitated salts, metal hydroxides, clay, silt and oth-

er silica-based materi-

Acting as a pre-filter, they increase recovery rates and lessen chemical consumption and disposal for membrane cleaning, resulting in a reduction of the energy requirements of the desalination process.

Building-scale systems

In urban environments, automatic filters are serving as POE (Point of Entry) filtration systems to

HVAC systems in critical environments (such as hospitals) and as pre-filtration for POU(Point of Use) purification systems in high-rise buildings.

protect water and

By integrating automatic self-cleaning filters with UV disinfection equipment stormwater run-off can be treated for reuse.

Customised water filtration solutions

For more than 40 years, Amiad has provided outstanding filtration technology to industrial, municipal and irrigation users around the world. Its filtration systems are more than just effective and reliable, they're environmentally sound: no chemicals, no polymers, a bare minimum of backflush water and reduced energy demand. In addition. many of the systems don't even require electricity and their small footprints save valuable installation space.

Amiad's decades of experience combined with Macsteel's footprint, form an ideal combination that aims to assist with filtration requirements in South Africa's water-scarce environment.

Abridged from original published in WASE March/April 2018

The process of purifying saltwater can be improved

DESALINATION is a term that Cape Town residents have most likely become familiar with. The process of purifying saltwater serves as an ideal solution to drought and a shortage of drinking water.

It is not without limits though, as scientists are always looking to improve it in terms of how much filtered water can be produced and how much energy that production needs. One group of scientists may have found the an-

swer. Researchers from Rice University's Laboratory for Nanophotonics in Texas demonstrated a solar-powered desalination system that could increase the output of purified water by 50%. This increase is thanks to an inexpensive addition to the process: nanoparticles.

According to applied physics graduate and one of the project's leaders, Pratiksha Dongare, desalination can be improved by redistributing the light that is captured during the solar power conversion process.

In traditional desalination, heated saltwater is flowed across one side of a membrane, while cold purified water flows across the other side. The difference in temperature causes two different levels of water vapour pressure, which then forces the vapour to travel through the membrane which in turns filters out chemicals. This technology can be difficult to scale up to industrial sizes, as the bigger the membrane is, the bigger difference in water temperature and the less water that can be filtered.

The solution, Dongare and her colleagues found, is simple and cost-effective. By putting light-absorbing nanoparticles into the membrane itself, it becomes a solar-powered heating element. The saltwater is heated up by the membrane, which then saves on energy costs and helps with purified water amounts when the technology is built on a bigger scale.

With this discovery, rural areas that have little or no access electricity, can produce their own drinking water in times of crisis. The technology could also be applied to desalination plants in South Africa, such as the one located at Cape Town's Water-

Source: Phys.org

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One stop marine facility

SEASCAPE Marine Services has been supplying the marine industry with propulsion and power generation solutions for vessels ranging from pleasure yachts to offshore commercial vessels since the 1960's. They are conveniently situated in Paarden Eiland close to the majority of South African boat builders. Seascape Marine Services has been the importer and distributor for Yanmar marine engines since 1983 with a propulsion and power generation range which covers sailboat, powerboat and commercial engines from single cylinder 9 hp engines to 8-cylinder 4 500 hp medium speed engines. Yanmar has produced

more than 26 000 medium speed engines.

After their range of Yanmar commercial diesel outboards were discontinued Yanmar partnered with Neander Shark to distribute the Dtorque diesel outboard. With its innovative design features the Dtorque is an excellent choice when considering fuel efficiency, lugging power and durability. It also has a life expectancy of at least double that of a comparable 60 or 70 hp petrol powered 4-stroke outboard. The engine is rated at a respectable 50 hp @ 4 000 r/min, but it is the torque of 111 Nm at a modest 2 500 r/min and fuel consumption of 11.9 litres per hour at wide open throttle

from its petrol-powered counterparts. The low-down power will quickly put the vessel on the plane and will have plenty of torque heavy displacement duty vessels such as small aquaculture

If more power is required for outboard powered commercial vessels, Seascape Marine Services have recently been appointed as the distributor for the Cox marine products, developers of the world's first diesel powered 300 hp outboard engine. The Cox CXO300 was launched November 2018 with production starting in the 3rd quarter of 2019. The engine produces 650 Nm at

which distinguishes it 1 700 r/min and the peak power of 300 hp is reached at 3 000 r/ min. There are two gear ratios (12.3:1 and 1.46:1) and three shaft lengths of 635 mm, 762 mm and 889 mm to cater for different operational requirements. As diesel engines are typically more robust and economical than their petrol-powered counterparts, the engine will last up to 3x longer and can save the operator up to 25% on fuel consumption.

> When slow speed manoeuvrability, high speed efficiency or shallow water operation are requirements, Seascape Marine Services can offer the best in water jet design. Hamilton Jet pioneered water jet design

and this technology has progressed to such an extent that they now offer jets from small pleasure craft to large commercial offshore vessels. Due to their exceptional slow speed manoeuvrability, reliability and easy maintenance, Hamilton jets have become the jet of choice in the ferry and oil & gas industries especially as its proprietary control systems control both the jets and the engines.

For on board power generation, Seascape Marine Services is the distributor for Kohler Marine generators in sizes ranging from 5 kW to 200 kW in both 50 and 60 Hz, single and three phase, for leisure and commercial applications. Kohler has developed a proprietary paralleling system, which manages the run-time of coupled generators to ensure all of them are run an equal amount of time which allows for better maintenance planning.

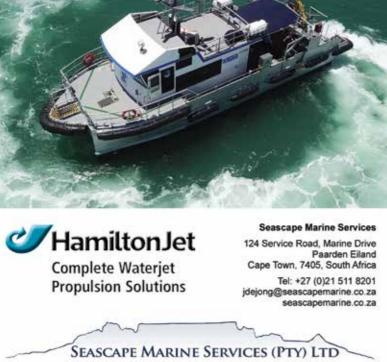
Marine

Seascape Services' most recent appointment is to distribute Zipwake Dynamic Trim control system which delivers a more comfortable ride, better performance and improved fuel economy - whatever the conditions. Zipwake achieves this by employing a fast acting interceptor linked to a control panel with high frequency GPS, 3 axis gyro sensors and motion controller which automatically ensure elimination of uncomfortable and dangerous boat pitch and roll.

Seascape Marine's service department has fully factory trained and qualified staff that can service and repair, not only their own brands but any marine propulsion or auxiliary engine.

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DSCT and Africa Projects Consultants have signed an agreement to seal their partnership.

AS part of its commitment to accelerate transformation in the South African shipbuilding industry, Damen Shipyards Cape (DSCT) has recently helped to empower Africa Projects Consultants; a small, black-owned business focused on the shipbuilding and ship repair sectors, via a R5 million interestfree loan to purchase a state-of-the-art pipebending machine. This investment will enhance Africa Proiects Consultants' capabilities and so grow its business. Both companies have signed an agreement to seal their partnership.

Jaap de DSCT managing director, said: "Every ship is comprised of a mass of pipes, much like the veins and arteries in the human body, so

good pipework is fundamental in every vessel. Up until now, there has been no pipe-bending service that could adequately cater to our needs. With this initiative, there will soon be a modern capability able to serve both our demands and those of the wider shipbuilding and repair sector in our region." The new machine will dramatically improve quality and reduce the time and cost involved in bending pipes. It will arrive in South Africa at the end of Septem-

The way pipe-bending of thick wall thickness pipes is done now involves manually welding together two pipes and an elbow or alternatively complete bend pipes were imported. This much more technologically advanced pipe-bend-

ing machine will not only increase the speed at which the pipe bending and fabrication can be done, it will also increase quality substantially. This makes the products and services offered by Africa Projects Consultants much more efficient with turnaround quicker times, enabling the company to be more competitive. With this new equipment Africa Projects can expand its services to other customers in the maritime and other markets.

Project manager and co-founder of Africa Projects Consultants, Taufeeq Phipps added, "With DSCT's help we will now be able to grow our business into something that can sustain a large number of employees in the Western Cape." DSCT's financing of the pipebending machine is

part of its Enterprise Supplier Development (ESD) programme. This also involves DSCT mentoring suppliers in areas such as sales & marketing and financial management, and also in delivering local and international networking opportuni-

Eva Moloi, transformation manager at DSCT, adds that DSCT is committed to and very passionate about transforming the country by playing a critical role in the marine industry. "Projects, like the construction of the three Multi-mission Inshore Patrol Vessels for the South African Navy. have allowed us to introduce black-owned companies to incredible opportunities to which they otherwise would not have been exposed."

Boat building for Eastern Cape

THE Port of Ngqura recently hosted the testing and launch of the first ever lomanufactured cally aluminium vessels by PE-based boat builder, Legacy Marine. As the company's ship yard is based in Perseverance, the low bridges blocked the route to the Port of PE in the past, restricting the building of larger vessels. When the new Port of Ngqura stepped up as an alternative port, it contributed to the expansion of boat building in the Eastern Cape.

"Now that the port is available for new vessel launches, we can build larger vessels, providing a boost to the boat building sector in the region. When we approached the port in 2017 as an alternative port from which to launch newly built vessels, they were very willing to assist us. Since then Legacy Marine has launched four new vessels at the port, with the last vessel being shipped to Angola in February," said Gary Tait, General Manager - Sales of Legacy Marine.

"We conducted all the vessels' commissioning and sea trials with our international clients in the port. The

THE expo, taking place



One of the Dive Support Vessels is being lowered into the Port of Ngqura.

Ngqura team has been extremely professional and provided immense support to us," Tait said.

Supporting local manufacturers

"We are open to new activities that make business sense" said Ntsimango, Vuyani Acting Deputy Harbour Master of the Port of Ngqura. We have shown that we are not only focusing on big vessels and revenue, but also on smaller upcoming businesses. The activities included the vessel launching, ship stability testing, seaworthiness testing, testing of navigational equipment, a survey according to local authority standards and the mooring arrangements – using ropes to keep the vessels alongside the berth,"

"We strive to give the best service possible to our customers – from the moment they enter our gates. We are looking forward to assisting more manufacturers of locally built vessels in our ports, helping them to grow their business," Ntsimango said.

Four vessels launched

The four vessels consisted of two Passenger Transfer Vessels for an international cruise liner and two customised Dive Support Vessels for Stapem Offshore, based in France. The two Passenger Transfer Vessels operate in Mozambique, while the Dive Support Vessels are designed to operate in the oil and gas production sector off the Angolan coastDive vesseis

The Dive Support Vessels were the latest two vessels tested and launched.

They are designed to work alongside a mothership and carry out subsea inspections and repairs to the oil platforms. They are working dive stations from where daily underwater operations are directed. These vessels are equipped with a 3-man air dive system, ROV (Remotely Operated Underwater Vehicle), a subsea HP (High Pressure) washer and subsea welding capabilities. Due to their size and efficient use of space the vessels are extremely costeffective and high-tech work platforms.

Latest technology

The two Dive Support Vessels were custom designed by international naval design company Incat Crowther in conjunction with Legacy Marine and the endclient.

They were built under American Bureau of Shipping (ABS) class survey, which was the first new vessel survey done in South Africa by ABS.

Port to introduce helicopter marine pilotage service

THE Port of Cape Town is to introduce a helicopter service in 2021 to transfer marine pilots onto and off visiting vessels. This would make the port the third to offer the service, the others being Durban and Richards Bay.

In 2018 Transnet National Ports Authority (TNPA) began exploring options to introduce a helicopter service after ongoing weather-related ruptions and high swell conditions negatively impacted on port operations and service in Cape Town. The port has traditionally used pilot boats to transfer marine pilots between vessels.

TNPA has an exist-



TNPA tested a helicopter service to transfer marine pilots at the Port of Cape Town recently.

ing fleet of three ageing AgustaWestland (AW 109) helicopters to service the Ports of Durban and Richards Bay but through its Fleet Replacement Programme has procured two new helicopters with an estimated valued of R250 million.

The Port of Cape Town is also scheduled to replace two of its workboats by 2019/20 and a request has been made to bring forward the replacement of two tugs and two launches to 2019/20 instead of 2020/21 in order to meet industry needs.

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Yann Amicel, Africa Area Manager, Soletanche, France

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on 22 - 23 July at the Landmark Centre in Lagos provides the visitor access to view leading technologies showcased by world class suppliers and source solutions to help drive operational efficiencies. Entry to the expo is free. Registration provides access to free training seminars and workshops to develop skills and knowledge. Agenda includes:

Agenda includes: Delivering technically correct, sustainable solutions for the maritime sector

Ifeanyi Enebeli, Environmental Consultant, CARES, Nigeria

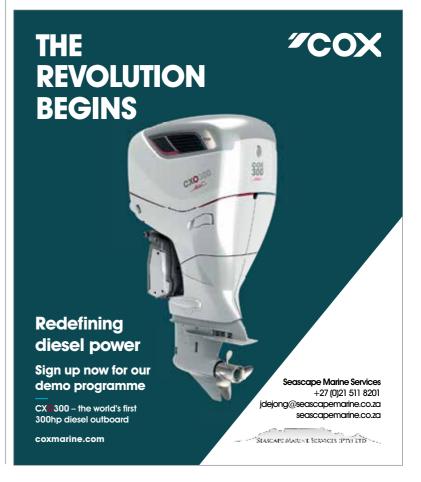
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Dr Chinedum Onyemechi, Reader, Department of Maritime Management Technology, Federal University of Technology Owerri, Nigeria



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CEO describes future drilling rig technology

OFFSHORE drilling rig technologies are continuing to develop and evolve in response to increased industry demand for safer and more efficient systems, said Transocean CEO and President Jeremy Thigpen at the recent Offshore Technology Conference 2019 in Houston, Texas.

the market While downturn of the past five years led many companies to sacrifice their R&D budgets, Thigpen explained that this was the wrong approach. "It's important to keep offshore in-novation going," Thigpen said. "We need to transform the offshore industry so that it can compete effectively with shale, improve drilling efficiency, and accelerate first oil.

Thigpen's presentation, entitled "Rig technologies of the future," described eight drilling technologies that Transocean has or expects to deploy on its rigs in the foreseeable future.

The time is now to support these technologies, Thigpen said. "The offshore envi-

ronment is favourable. Breakevens have been reduced from \$65/bbl in 2016 to \$40/bbl in 2019, and even lower in some cases." And the number of offshore FIDs has tripled from 2016 to 2019, he noted. Still, the economic environment has changed, he allowed. "How do we make the industry profitable at \$50/bbl? New drilling rig technologies, he suggested, would play a large part

Thigpen selected just a few of the upcoming technologies for his presentation. They included:

Well control package – this involves an enhanced kick detection device that is being developed by Enhanced Drilling Co. of Norway. "This is the key," Thigpen said. He also noted that this system is "less invasive" than a managed pressure drilling system, but added that it did not take the place of an MPD system, which could also be added on the rig.



- aShear this is a new blowout technology being developed by Kinetic Pressure Control, which is producing a technology called "aShear" – "which can shear anything," Thigpen noted. This new shear ram, he added, "is a blowout stopper," and can be retrofitted to any depth.
- Automated drilling control - This involves use of a wired drill pipe developed by IntelliServ, a joint NOV/Schlumberg-

er venture, which provides real-time downhole data that can be used to make adjustments during drilling. The technology has been deployed by Equinor off Norway for the past year on six Transocean rigs. Thigpen noted that Equinor has been "very pleased with the results." He added that Transocean was sharing the costs of this new technology with Equinor.

Human machine engineering - this involves sensor technologies and cameras which are placed on worker vests, as a safeguard against injury during drilling operations. The technology includes a warning system which alerts workers

to proximity to dan-

gerous equipment;

the equipment, as

an additional safe-

gets to close to it.

guard, if the worker

and even shuts down

Hybrid power packages - this technology enables the drilling rig operator to manage the rig's power more efficiently, reduce fuel consumption, and produce a lower carbon footprint. Thigpen noted that this technology has been deployed on the semisubmersible rig Transocean Spitsbergen.

20k drillship package - This technology, which has been in development by the industry for the past 15 years, will soon be ready to deploy. It will have a 20,000 psi well control system, a three-millionpound net hookload, and a 10,000 psi mud system. Thigpen noted that Transocean has been working with Chevron on this front. In December, it was announced that Chevron would deploy a newbuild Transocean drillship

equipped with these capabilities in the Gulf of Mexico, in the second half of

- Remote monitoring and prognosticating - these technologies remove people from the rig, thereby improving safety and lowering costs; they will also include remote dynamic positioning capabilities.
- · Data and health prognosticating - this technology will enable drilling rig operators to monitor and analyze critical systems so that they can plan maintenance activities, and thereby prevent or reduce downtime.

"These are just a few of the technologies we are working on," Thigpen said.

Reprinted from Offshore Drilling Technology Report.

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AMSOL employee share scheme creates value



AMSOL's employee share ownership scheme introduced in 2016 ensures that permanent employees at sea and ashore share equally in the company's success, irrespective of position and background.

AROUND 370 employees of specialist marine solutions provider, African Marine Solutions (AMSOL), are reaping the benefits of a payout created through the company's employee share ownership scheme (ESOP), with many owning shares for the very first time.

The scheme, introduced in 2016, has developed into a catalyst for economic empowerment and shared value creation within the maritime industry, with around 84% of the beneficiaries being black employees.

It is a key element of the company's employee value proposition, according to AMSOL Chief Executive Officer and company appointed Employee Trust representative, Paul Maclons.

AMSOL's shareholding includes employees and management who together own a significant minority shareholding, as well as Pan-African Capital Holdings, the Mineworkers Investment Company and RMB Ventures. The company is 100% South African owned and 59% owned by Black South Africans, with a Broad-Based Black Economic Empowerment rating of Level 3.

Championing **Empowerment**

"Our transformation journey has also been about aligning ourselves to do business in Africa. We've been able to change the profile of our suppliers quite significantly and more than 60% of local procurement is with black owned businesses and 24% with black female owned suppliers in our supply chain, which is transformation in action," says Maclons.

Deliberate interventions over the last three years have also seen women in the AMSOL workforce increase from 8% to 14% - now comprising a third of the senior management team and 25% at board level.

These efforts had recognised been through various accolades such as scooping the 17th Oliver Top Empowerment Awards in the category of Skills Development in 2018.

Hot dip galvanizing: corrosion control of iron and steel

Hot dip galvanizing is a corrosion control technology used globally for the corrosion control of steel and iron. The hot dip galvanizing process produces a durable, abrasion-resistant coating of metallic zinc and zinc-iron alloy layers that completely encapsulate the iron or steel article thereby preventing the steel or iron from "rusting". Hot dip galvanizing has been in use since 1836. Having proven itself for more than 180 years, hot dip galvanizing is unrivalled as a corrosion control technology for iron and steel both for now and into the foreseeable future.

An honest coating

The hot dip galvanizing process is simple and honest. Perfectly cleaned, oxide-free iron or steel is immersed in a bath of molten zinc at 450°C. A reaction occurs which metallurgically bonds the zinc / zinc-iron alloys to the iron or steel's surface.

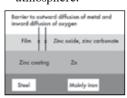
Hot dip galvanizing can be applied to steel or iron in all its manufactured permutations. A hot dip galvanized coating will not cover contaminated steel and under coat corrosion cannot occur, as it may with most inorganic coatings. Hot dip galvanizing is favoured for its low lifetime cost benefit, ease of application and comparatively long maintenance-free service life.

How hot dip galvanizing controls corrosion of iron and

A hot dip galvanized coating protects the metal's surface by providing corrosion

control to the iron or steel in two ways:

• Firstly, the hot dip galvanized coating acts as a barrier which shields the iron or steel from the atmosphere.

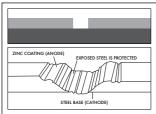


Secondly, the hot dip galvanized coating provides corrosion control by sacrificing the zinc in the coating. The zinc is sacrificed while the iron or steel remains protected from corrosion.

laboratories. Through this means users are assured of hot dip galvanizing of an internationally acceptable standard.

Galvanizing members: **Cape Region**

Galvanizing members of the HDGASA are represented in both the Western and Eastern Cape by well-established and experienced hot dip galvanizing operations. Galvanizers in the Cape have continued to provide certified services to a broad range of industry for several decades. HDGASA galvanizers are internationally acknowledged and



This is what happens at a scratch on galvanized steel. The zinc coating sacrifices itself slowly by galvanic steel. This sacrificial actions continues as long as any zinc material remains in the

Locally and internationally standardized

Hot dip galvanizing is simple, honest and is nationally and international standardized. The ISO 1461:2009 standard is used globally. The South African National Standards authority under the auspices of the SABS (South African Bureau of Standards) implemented the ISO 1461:2009 standard in its entirety as **SANS121:2011** thereby ensuring a globally accepted quality standard in Southern Africa. Accreditation of local hot dip galvanizers as being SANS121:2011 (ISO1461:2009) compliant is available from SANAS (South African National Accreditation Services) accredited

have been awarded for projects of the ilk of the Kirstenbosch Tree Top Walkway, known as the "Boomslang".

HDGASA galvanizing members are committed to meeting the corrosion control challenge faced in the global arena with professionalism and technological prowess. From gates and balustrades to industrial installations of structural steel, hot dip galvanizing provides excellent results in the area of corrosion control in the Cape Region.

The Hot Dip Galvanizers **Association Southern** Africa (HDGASA)

"The HDGASA offers an independent inspection service, checking for compliance against the relevant standards" says Robin Clarke "Liaising with regulatory and standards authorities governing the corrosion control and associated industries on behalf of our members to maintain a highly professional industry on par with international hot dip galvanizing stakeholders, is a key role of the association."

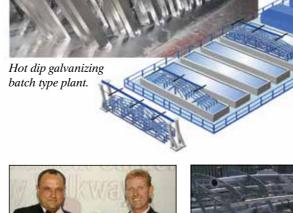
The HDGASA was founded in 1965, with the primary objective to develop and expand the market for hot dip galvanizing and duplex systems as cost effective corrosion control technologies.

Robin Clarke, Executive Director of The Hot Dip Galvanizers Association Southern Africa describes the association as "a not-for-profit trade association dedicated to serving the needs of end-users, specifiers, architects, engineers, contractors, fabricators and hot dip galvanizers throughout Southern Africa.'

The Association's key role

To achieve these goals the HDGASA provides specialised training and information to end users, engineers, consultants, contractors, specifiers, designers and architects. The HDGASA presents courses, workshops, technical research papers, hot dip galvanizing plant tours and provides up to the minute subject matter specialist advice from the design stage to final inspection of projects.

The HDGASA also publishes a range of supporting informative promotional literature such as our Steel Protection Guide and Design Wall Chart. Our









The Kirstenbosch Tree Top Walkway.

magazine titled Hot Dip Galvanizing Today is distributed to around 3 000 interested readers keeping them in touch with current technology, events and opportunities.

Zinc and steel in the circular economy

Both zinc and iron or steel are 100% recyclable. At the **INTERGALVA 2018** global gathering of the hot dip galvanizing industry, held in Berlin and attended by the HDGASA, the focus on the development of a circular economy was highlighted. The

scarcity of resources locally and globally is addressed through the ability to use existing infrastructure and materials; extending service life and providing long term benefits in a responsible forward thinking manner. By using hot dip galvanized steel structures, the structure or its elements can be reused or repurposed across several projects and years.

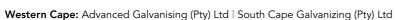
Contact us

Further information including case studies can be accessed at the Hot Dip Galvanizers

Association Southern Africa website www. hdgasa.org.za at no charge. Details of **HDGASA** Galvanizing Members can be found at http://www.hdgasa. org.za/galvanizingmembers/

For a free copy of our handy reference booklet Facts about Hot Dip Galvanizing or to subscribe free of charge to the HDGASA magazine 'Hot Dip Galvanizing Today, drop us an email with your full name, postal address and contact number to hdgasa@ icon.co.za for attention: The Marketing Manager.





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Gauteng: ArcelorMittal South Africa | Armco Galvanizers - Isando | Armco Galvanizers - Randfontein | Galferro Galvanisers | Lianru Galvanisers (Pty) Ltd | Monoweld Galvanizers | Pro-Tech Galvanizers (Pty) Ltd | Silverton Engineering | SMT Galvanizers | Transvaal Galvanisers







Hot dip galvanizing - the proven corrosion control technology for steel and iron



HOT DIP GALVANIZERS ASSOCIATION

Nano tech coating protects all surfaces

STOPAQ was developed in the Netherlands, using highly advanced nano-technology in the creation of a range of corrosion protection, sealing and waterproofing systems.

The Stopaq range of products have been used extensively across the planet, as an extremely efficient corrosion protection system on a vast range of pipelines, vessels, structures and as a sealant and waterproofing system on roofs.

It is currently protecting over 500 million m² worldwide under some of the most stringent environments, from the Arctic to severest desert areas, above and below ground, on and offshore, above and below sea level, in the oil, gas and water industries.

The product is used by most of the major oil companies worldwide and the material is 100% green and ecofriendly, containing no solvents or toxins.

Stopaq is cold applied and requires no profile for adhesion and only requires a

with a minimum of ST2 cleanliness. No special tools or equipment are required and no primer is used.

The material is applied directly to any substrate, be it steel, concrete, PVC, PE, glass, PÚ, and adheres at molecular level with zero cathodic disbondment and zero undercreep.

Stopaq does not crosslink and as a result does not age or deteriorate over time, thereby ensuring effective corrosion protection over the lifetime of the applied surfaces.

The Stopaq range of products are extremely versatile and can be used as highly costefficient field joints, for repairs to existing pipelines and vessels irrespective of the 'mother' coating.

As well as the Stopaq range, Stopaq Southern Africa also supply quality advanced polymers, polyurethanes, epoxies and polyureas used as both coatings and linings.

yvan@stopaq.co.za

Rising imports add to beleaguered coatings industry's woes

THE South African coatings industry has experienced a challenging year as a result of escalating raw material and electricity tariffs, the national economic slump and other disruptive factors such as load shedding, Aggie Argyrou, chairman of the SA Paint Manufacturing Association (SAPMA), told the association's AGM in Pretoria.

"Transport costs were negatively affected by the rising price of fuel, the depreciation of the rand, and the difficulty in recovering excess costs from

financially struggling consumers. My experience after 31 years in the coatings industry is that DIY home improvement paint sales are invariably one of the first market categories to show a decline when the economy is not doing well," Argyrou, who is a director of Warrior Paints, stated in his chairman's re-

He is more optimistic about business prospects for the year ahead and urged SAP-MA members to place more emphasis on the training of staff, stressing that every training programme offered by SAPMA was now accredited with the various Sector Education and Training Authorities (SETAs) and government funded.

South African coatmanufacturers should also keep a close eye on the increasing level of imports of raw materials, Sanjeev Bhatt, vice chairman of SAPMA, warned at the meeting.

Bhatt, MD of Synthetic Polymers, told the meeting that some SA paint producers had applied for a temporary rebate on the import duty that applied to titanium dioxide which will assist in lowering the cost of locally manufactured coatings.

Solvent-borne resin producers had also applied for duty protection on acrylic resins following the sudden spurt of resin imports from countries such as Taiwan, Egypt and the UAE. "I would urge coatings manufacturers to keep a close watch on imported products landing in South Africa to ensure that the volume of cheap and sub-standard imports is controlled," he urged the meeting.

SAPMA has already in the past expressed concern about the lack of suitable import duty protection to prevent the dumping of raw materials and resins, and reminded the DTI that any product imported into SA would have to meet the compulsory specifications of the National Regulator for Compulsory Specifications (NRCS). SAP-MA implored the DTI to utilise the services of the NRCS to control any imports that could threaten the survival of the industry.

More than 1 000 abrasion resistant pipes to copper mine

HMA Wear Solutions has collaborated with design engineering company Lycopodium on the ceramic piping specification for the Cobre Panama project by First Quantum Minerals Ltd. of Canada. This \$6.3 billion copper project is anticipated to be one of the few new 'red metal' mines to enter production by the end of the decade. Lycopodium is responsible for the design of the mineral-processing plant at Cobre.

HMA Wear Solutions is part of the HMA Group, specialising in the design and manufacture of

equipment. It provides a range of products and materials such as rubber, polyurethane, white iron and ceramics to reduce costs and increase performance through improved design, optimal material selection, and a unique manufacturing process.

The \$7.38 million contract awarded to HMA Wear Solutions saw 1 115 pipes supplied over a two-year period, with a size range from DN200 to DN1 200 and a design pressure ranging from 1,4 MPa to 10 MPa. According to HMA Wear Solutions International Sales Manager Mark Langbridge, a particular achievement of the project was zero damage during shipping, "with our milestone targets achieved every month."

Cobre is a large openpit copper development in Panama. The concession is 120 km west of Panama City, and 20 km from the Caribbean Sea coast, in the district of Donoso, Colon province. The concession consists of four zones totalling 13 600 ha. Operations include an international er plant, a large electric mine fleet, and in-pit crushing and conveying. The goals for 2019 are to commence ore feed from the mine to the process plant, the ramp-up of the process plant to an annualised 74 Mtpa mill feed, and a targeted 150 000 tons copper in concentrate production.

By 2020, the process plant will be ramped up to an annualised 85 Mtpa mill feed, and a targeted 270 000 to 300 000 tons copper in concentrate production. This will reach 350 000 tons in 2021, and an additional investment by First Quantum post-2022 to achieve the revised 100 Mtpa mill feed. Kev brands represented by HMA Wear Solutions worldwide are Uretech, GTech Cyclones, and Eriez. Its service offering encompasses design, manufacturing, scheduling, procurement, execution, commissioning, and condition monitoring. Some key focus products are slurry and pneumatic pipelines, dense medium and classification cyclones, distributors and chute work.

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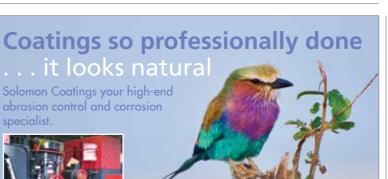
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consumers for over 30 years. It is a 100 percent black owned 51 percent woman owned







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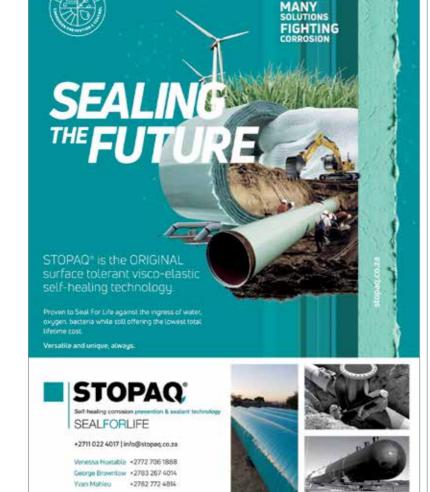
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Blackheath Industria Western Cape 7560 South Africa Tel: 021 905 2912 Email: populier@mweb.co.za fers pickup and delivery. Solomon Coatings pre-cleans every item to SABS recommendations before it is coated to ensure that the powder finish will be durable, consistent and attractive. Each item is then coated by hand and cured in a 7 m gasfired industrial oven. Before any item leaves the factory floor, quality inspection ensure that the finish conforms to Solomon's rigorous

Solomon Coatings is a family owned and operated business that is proud to provide long term employment in the Cape Town community.

standards.



Versatile lift trucks

BLTWORLD's extensive range of materials handling equipment, encompasses Meclift variable reach trucks, which are equipped with paper clamps, for the efficient handling and loading of paper rolls and sawn timber in and out of trucks and railway carriages.

Meclift "The ML1812R, which is a multi-purpose forklift truck, moves swiftly in confined spaces, like warehouses and cargo vessels and can also be operated inside containers, for easy loading and unloading of paper rolls. This cannot be achieved by conventional forklift trucks," says Ken Mouritzen, managing

director, BLTWORLD. "These compact and robust reach trucks increase efficiency and safety during paper and timber handling, also reducing operating times. Safety on site is significantly improved.

"In addition to handling in the paper industry, the ML1812R machine - with a lift height of 6 m and a lifting capacity range of 18 tons - is perfect for almost any other material handling requirement in every sector."

By extending, lifting and lowering horizontal booms, paper reels can be safely handled at a distance from the cabin. This cabin can be raised the driver with improved visibility in all situations. Other safety features include service, parking and emergency brakes.

An important feature is that fork positioning can be altered from inside the cabin, without the operator having to get out to manually adjust the gap between the levers. Forks are available in different lengths, widths and thicknesses according to exact requirements.

The lifting carriage of this machine has a hydraulic side-shift for accurate and effortless positioning. The cabin's hydraulic vertical movement facility of erator to comfortably drive into a container.

Various kinds of Meclift attachments increase opportunities for using one machine for multiple purposes. For example, a Meclift fitted with a coil ram or coil clamp, can efficiently and safely handle steel coils or rolls of wire. By combining the strength of these coil handling attachments and the extended reaching ability of these reach trucks, cargo handling operations are safer, faster and more cost efficient.

Another important lifting attachment is the double fork system that enhances the flexibili-

ty and performance of goods handling. This special double fork attachment offers many benefits when loading and unloading containers or trailers. For example, four pallets or a similar load can be easily handled at the same time and it is possible to fully load a 20 ft container with only two lifts. The weight of the load is not a problem because these double forks can handle the same maximum load of 18 tons, which is the lifting capacity of the machine. Double forks use the same fixing points as normal forks, which means switching between the two is ef-

fortless.



Meclift variable reach trucks, equipped with paper clamps, are used for the efficient handling and loading of paper rolls and sawn timber in and out of trucks and railway carriages.

Meclift air cargo pallet forks ensure efficient and effortless cargo handling at airports. Lifting booms are designed to handle extra long objects in confined spaces, especially inside containers. When equipped with the loading box attachment, loading of aluminium bundles into a container is highly efficient. The

dimensions of these loading boxes can be custom-made, according to specific needs. The design of this patented tool prevents scratching and bending of goods.

Meclift variable reach trucks are powered by a diesel engine and are economical to run, requiring minimal maintenance.

Lifting legend has big

MORRIS Handling, South Africa's largest crane company, supplies and manufactures tric overhead travelthe highest of European Standards and Morris have had the sole Sub-Saharan Agency for this product range for over a decade and the units have proven themselves in thousands of applications in more than 28 countries in Africa. The company has built a reputation for its professional expertise in design, fabrication, machining and assembly of light, medium and heavy engineering products.

Spares and associated electrical equipment are available as well as comprehensive maintenance crane training.

Through Crane Aid, Morris' service division, the company services, maintains, load tests and refurbishes all makes of cranes, hoists and lifting equipment.

> sales@morris.co.za www.morris.co.za

African foot print the ABUS range of lift-Material ling cranes, wire rope ing equipment, a range hoists, jib cranes, chain hoists and accessories. supplied from ABUS The product range Kransysteme GmbH in Germany. These units at Morris is predomielecnantly based around are manufactured





Image shows a recent Installation of a 10 ton, 16.5m span, 7m height of lift, Double Girder ABUS EOT crane at a platinum mine located in Lydenburg, to be utilised in a central mine workshop building. Project completion date estimated end of July 2019.



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Copper twin



A typical Condra double-girder electric overhead travelling crane undergoing testing at the company's Johannesburg factory.

THIRTY YEARS' reliable duty in a corrosive environment has won for Condra a repeat order from Lonmin Platinum for an overhead tankhouse crane to replace an identical machine delivered three decades ago.

The original crane was installed in 1990 at Lonmin's Middelkraal Farm refinery outside Marikana, North West Province, where it lifts and positions copper plates and slabs within the acid tanks used during the electrolytic refining process.

During this final phase, anodic copper slabs with a 99 percent purity attained during three prior processes are suspended by the crane in large tanks filled with

an electrolyte solution of copper sulphate and sulphuric acid. Small, thin sheets of pure cathodic copper are then positioned between these anodes and an electric current applied. Copper ions leave the anodic slabs and move through the electrolyte to place themselves on the cathodic sheets, which after time become thick copper plates of 99,99 percent purity, ready for removal by the tankhouse crane for rinsing and despatch to factories that produce copper products.

Lonmin's doublegirder electric overhead travelling crane has a span of 19,9 metres, a capacity of 5 tons, a lifting height of 7,7 metres and two lifting speeds of 2 and 8 metres per minute. Long-travel over the 42 metres of the tankhouse is 80 metres per minute.

Condra has delivered to other refineries tankhouse cranes with longtravel speeds as high as 140 metres per minute, more than three times the speed of a standard crane and about as fast as an average person's jogging speed.

To cater for a possible customer need for higher speeds in the future, we have included in Lonmin's new crane provision for an easy upgrade to frequency drives," explained Condra's managing director Marc Kleiner.

"Condra is currently investing in improved digital loadcells to further improve reliability across our tankhouse line in general, even though the reliability of the Marikana crane was well proven over a period of three decades," he said.

Lonmin's new tankhouse crane will incorporate features from Condra's design library that move it beyond the company's current generation of tankhouse cranes.

These include four LED girder downlights to illuminate the work area, remote crane control with a pendant back-up, an electrical control panel fitted with acid filtration ventilation to cater for the corrosive tankhouse environment, and a special paint finish for the same reason.

Quality control will include inspection and certification at defined stages of manufacture, and there will be magnetic particle inspection of the welding seams to ensure airtight girders and the avoidance of corrosion on the internal faces.

Ordered in April, the crane will be delivered before the end of August.



pipe welding equipment



THERMOPLASTIC piping specialist, Plasti-Tech has launched a 'budget' range of plastic pipe welding equipment to meet the needs of a price-sensitive South African market. The Johannesburgbased thermoplastic piping specialist will offer a full range of products from Suda Plastic Pipe Welding Machinery.

"The Chinese manufactured Suda machines are of very high quality, and are a costeffective alternative to our high-end range of welding equipment manufactured in Germany," explains Brad Chamont, managing member at Plasti-Tech.

Chamont says the decision to offer these machines was driven by the price-sensitive nature of the local

market. "For this reason, we decided to source a 'budget' range of plastic pipe welding equipment that comes at a significantly lower price without compromising quality. Our competitive edge with the Suda range will be the price, quality and availability," he adds.

Suda Plastic Pipe Welding Machinery offers a wide range of products, including HDPE butt welders, workshop fitting machines and HDPE pipe cutting saws.

Suda offers a wide range of hydraulic fusion welding machines, with over 16 models available to choose from all the way from the SUD160H to the SUD2500H. The range is suitable for welding plastic pipes and fit-

Some of the key features of Suda's hydraulic butt fusion welding machines include the removable PTFE-coated heating plate with separate temperature control system; an electric planning tool with reversible double cutting edge blades; a hydraulic unit which provides the machine with compressing power; and low starting pressure, which ensures reliable welding quality of small pipes.

Suda's common manual butt fusion welding machine is suitable for welding plastic pipes and fittings. The range is made from lightweight aluminium material, making it easy to carry and transport. It consists of a planning tool, heating plate, basic frame and support.

Budget' range of plastic | Complete pressure solutions

SPRESS - Superior Pressure Solutions manufacture, supply and service highpressure equipment throughout Africa and neighbouring islands with over 50 years of accumulated industry experience and a range of high quality products, it has a solution for all pressure related applications.

Spress represents three German sourced products; Bauer, Mehrer and Maximator.

Bauer Kompressoren offers state-of-the-art complete solutions for the field of sports & safety, high pressure compressors for industrial air and gas and even tailor-made solutions, from compression to treatment and beyond to the distribution of air, breathing air and nitrox.



Mehrer is one of the oldest and most traditional compressor manufacturers in the world and is today one of the leading manufacturers of oil-free piston and diaphragm compressors for technically demanding tasks. As a distributor of this equipment,

Spress specialise in the fail-safe, economical and completely oil-free compression of gases, gas mixtures and air and handle all Mehrer related sales, services and spares in southern Africa.

Maximator is a leading supplier of highpressure, testing, hydraulic and pneumatic systems. As Spress is South Africa's main distributor of Maximator, it can supply and design complex Maximator systems for economical solutions and specialised requirements.

YEA

Containerised compressor helps customer bust the dust

experiencing downtime

with their two existing

compressors, which

as the plant works 24/7

- were essential for its

operation. Faced with

the manufacturer ap-

The answer to the

abrasive dust problem

lay in placing the com-

ongoing

a solution.

downtime,



WHEN Rand-Air Business Development Manager Henry Fourie was faced with a dusty and demanding challenge, he needed to come up with a solution which would address the problem effectively.

The problem was that the customer manufactures an industrial mineral and, in so doing, produces a very fine, but exceptionally abrasive, dust. This would get into equipment such as compressors and forklifts and clog them up in a very short space of time.

What prompted the request from the manufacturer was the fact that they were upgrading and doubling the size of their plant. This new plant would produce an even finer product. However, they were

pressor into a specially designed, hermetically sealed housing - somewhat like a shipping container. This sealed housing was fitted with special filtered air intakes to make sure that none of external dust reached the compressor.

Air filtration is not a particular speciality of Rand-Air; however, to provide an effective solution in this instance. Rand-Air tested various air filtration solutions until they came up with one that was optimal.

"We put this proposal and the pricing struc ture to our customer, who was very pleased with the idea and accepted it," says Fourie.



Manufacture, sales and service of High-pressure and Neiahborina islands.





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New electric compressor range

ELGi's electric screw air compressors are available from 5.5kW - 15kW for smaller air requirements (EN Series) and from 22kW -250kW for medium and large applications (EG Series).

Tried and tested in Sub-Saharan Africa's harsh environment for over 25 years, ELGi has an installed base of over 300 high-pressure diesel-driven units across the region. The majority of these units are being used for key applications in South Africa's water well, exploration, post hole, down-the-hole (DTH) and auger drilling segments.

Integrated Air Solutions is an air compressor specialist with the capability of locally customising ELGi compressors under OEM approval; a key differentiating factor that has seen the completion of numerous successful customisation projects.

pressure Reduced losses and increased efficiencies are what every customer is looking for in a compressor and the ELGi electric range incorporates an encapsulated airend (EN Series) and efficient three-stage air-oil separation system.

The result is a compressor that delivers air efficiently and reliably with minimum pressure drop. This, combined with a low lifecycle cost, places the benefits of lowest total cost of ownership in the hands of customers and end-users.

The superior technology airend encapsulates all major functional systems such as intake, compression and separation within a common frame, ensuring silent operation. The efficient threestage air-oil separation system reduces oil particles to less than 3ppm. The robust air-cooling system comprises high efficiency coolers and cooling fans to ensure low operating temperatures, extending compressor life. The

two-stage air filtration system facilitates air to enter through a pre-filtered enclosure, thereby enabling cleaner suction which keeps internal components clean and increases the life of consumables.

The screw compressor elements are manufactured in-house using hi-tech machining centres for rotor grinding and machining castings of different sizes. The electric range is powered by a high efficiency heavy



duty IP55 electric motor. Furthermore, the new generation intake valve system has been designed to reduce starting load, delivering direct savings on power consumption.

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The new servo motor introduced

THE new MS2N Synchronous Servo Motor is Tectra Automations' latest product offering to break new boundaries in the electric drives and controls industry. The new MS2N servo motor range combines high dynamics with compact dimensions and energy efficiency, with more torque, higher speeds, a practical single-cable connection and extensive options for the highest servo mechanism requirements.

The new MS2N includes over 50 motor types in six motor sizes, five motor lengths, and more than 20 fully configurable options, covering maximum torque up to 360 Nm and maximum rotational speeds up to 9 000 r/min. It is 30% smaller than its predecessor, has a low rotor inertia for maximum dynamics and high rotor inertia for optimal adaption motor masses.

It comes equipped with a quick locking mechanism which is simple, practical and reduc-



MS2N Servo Motor has a wide range of applications.

es installation time. In the MS2N product line, intelligence progresses all the way up to the motor by storing the individual readings of every single motor as well as the saturation and temperature data, into the motor data memory.

The MS2N Servo Motor comes equipped with a certified SIL3 Encoder, which allows for maximum level of safety for all safety functions. This includes safe absolute end position which replaces the hardware limit switch by software, 31 configurable safe cam areas, reduced commissioning due to semi-automatic support and PC-free device replacement when servicing.

The motor has a maximum torque error range of 5%, which compares very well with the standard torque error range of +5 and -35%.

Applications in which this product may be utilised include force and pressure control in robotics and production machines and condition monitoring, like detection of production faults or bad parts.

Tectra Automation, a Bosch Rexroth South Africa Company, is a leader in the supply of automation solutions, providing leading technology, expertise and product support across Africa.

Diesel Electric Services is a turnkey power solution provider and can add value by keeping all your electrical power infrastructure requirements under one umbrella.

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Product range:

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- UPS's (Static / Rotary) Power Factor Correction
- Voltage Stabilisers
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• Bulk Fuel Tanks

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- . Photovoltaic Solutions



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Record-breaking sponsorship and entries for SAISC 2019 Steel Awards

THE SAISC Steel Awards have come a long way since their humble beginnings 38 years ago when the occasion was marked with a cheese and wine event attended by a handful of people, in a room decorated with printed posters of the entries. This year, record sponsorship of the awards has grown by a remarkable 40%. In 2018, the Awards attracted ten sponsors while this year, 14 leading steel companies have put their weight behind this prestigious event.

Asked why thought that the 2019 Steel Awards has attracted this increased level of sponsorship, CEO Paolo Trinchero explains that the Steel Awards has always been seen as the 'Oscars' of the steel industry. "Over the past three years, the SAISC team has been building the Steel Awards as its own brand, and taking a very strategic approach to increasing the reach and visibility of the event within the broader built environment," Trinchero explains. As such, the SAISC has adopted an integrated approach to marketing the event, sponsors and projects submitted - across traditional print, online and digital channels.

"I think that both sponsors and nominators have noticed, and appreciate, the value of this broad media and market exposure."

The main objectives of Steel Awards are to showcase excellence in the use of steel in construction. Sponsorship income enables the SAISC to deliver a world-class event potentially attended by more than 900 people in three locations concurrently. The sponsorship income also enables the SAISC to develop and deploy public relations (PR) and marketing material throughout the pre-and post-event period showcasing the benefits and cases studies of the use of steel in construction in South Africa.

This year's entries closed on 29 March 2019 with a recordbreaking 94 projects entered - as opposed to the 80 projects entered in 2018, and the 56 in 2017. The first judging sessions started on 30 April and site visits will be conducted throughout May and June.

"One of the encouraging signs in this year's awards entries – the tough economic challenges and con-

strained market conditions of these industry sectors notwithstanding - is the increase in large industrial, mining and manufacturing entries, as well as international projects by South African contractors using South African Steel," he says. Also notable is an increase in the number of projects submitted by architects.

"The increased sponsorship this year, as well as the greater number of entries, is an indication that the SA steel construction community is extremely dedicated and tenacious, committed to 'telling and selling' the positive story of steel, and able to deliver world-class projects," Trinchero concludes.

SAISC members in-

clude the steel mills, merchants and valueadded processors and service centres, steelwork contractors, companies that provide services (such as fabrication, galvanising or painting); or products such as fasteners, paint and a variety of other products, client bodies, architects, specifiers, consulting engineers, project managers, quantity surveyors, engineering procurement and contract management contractors and assorted others.

"...both sponsors and nominators have noticed, and appreciate, the value of this broad media and market exposure."



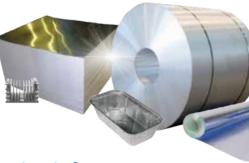
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Major improvement to SAIW flagship programme

IN the last few years, following a decision to focus more on the internationally recognised International Institute of Welding's (IIW) IWIP Basic, Standard and Comprehensive programmes, the SAIW removed the SAIW Inspectors Level 1 course from its curriculum while SAIW Inspectors Level 2 took somewhat of a back seat.

"In retrospect, we see that this has not worked out in the way it was planned and we will, with immediate effect, be bringing back a new version of the Inspectors programme which includes both the SAIW Inspectors courses and the IIW courses," says Jim Guild, SAIW's caretaker executive director.

He adds that for more than 40 years the SAIW Welding Inspector programme (Level 1 and Level 2) were the backbone of the South African welding industry and by far the most popular courses at the SAIW. These courses have been specifically tailored to meet local industry requirements and, since inception,

they have been the preferred education and training choice of the large end-user organisations and fabricators in the local welding industry. "It's time to refocus on these iconic courses," says Guild.

SAIW systems and quality manager, Harold Jansen, says that while the outstanding quality of the IWIP courses is not doubted by the local industry, it is abundantly clear that industry wants the SAIW courses to once again play a major part in the SAIW Inspectors programme. "We have heard them and it makes absolute sense. After all, these are courses that were developed in conjunction with local industry with content that is absolutely pertinent to South African conditions and local industry characteristics."

After deep analysis and research, and taking into account the needs and desires of the local industry, the SAIW has launched a new, improved Inspectors programme, which ingeniously incorporates both SAIW Levels

1 and 2 with the IIW programmes.

Shelton Zichawo, SAIW training services manager says that from a local perspective alone, the advantages of the new arrangement are enormous in that it focuses squarely on national requirements in the development of local competence, and addresses directly the local needs of national skills development. "And, perhaps most importantly, it's what our industry wants," he says.

He adds that by combining the best locally-focused programme with an internationally recognised programme, the SAIW will offer the best of both worlds.

In order to ensure the best possible standards, the SAIW has taken cognisance of the latest industry feed-back and has refined the courses to ensure they are completely up to date with the pertinent technology. "By amalgamating parts of the IWIP programmes with SAIW programmes we have created a world-class product to the satisfaction of the local industry. From the students' perspective they obtain two diplomas simultaneously at each level – one South Africa focused and one internationally focused," Zichawo says.

Upon successful completion of the SAIW Inspectors Level 1 qualification examination, the student will not only be issued with an SAIW Inspectors Level 1 qualification, providing access to the South African industry with this sought after 'feather in your cap', but also with an IWI Basic Diploma, allowing individuals to enter the global market, with an internationally recognised and respected International Institute of Welding (IIW) qualification.

Should students want to go to the next level, after completing SAIW Inspector Level 1 course, they will no longer be required to obtain two years' experience as Welding Inspectors before enrolling for the SAIW Level 2 course. The two years' experience will only come into play should a qualified Senior Welding and Fabrication Inspector (Level 2) wish to obtain the IWIP Standard qualification. "This enables the students to get into the market two years earlier with a higher qualification making them that much more marketable in the industry and more likely to get a higher paying job," says Zichawo.

He adds that the IWIP Comprehensive course, the highest level in the Inspectors programme will remain a stand-alone course in the future.

"A very small number of people may be caught at a crossroad in the progression path," says Zichawo, "and each person will be treated sympathetically and with support from SAIW to ensure they achieve the best outcome for their future."

Anyone uncertain about how they are affected by the changes that are being introduced is invited to speak with any of the lecturing staff or any of the following members of the SAIW staff – Shelton Zichawo, Nico Fourie, Laetitia Dormehl or Michelle Warmback.

Steel shows its mettle

WHEN deciding whether to build a bridge from steel or concrete, there are a number of factors which need to be considered. Steel offers numerous advantages, including quick construction in the field, the ability to prefabricate sections, predictable material properties, the lower weight of steel compared to that of concrete - and the fact that any structural damage is readily accessible for inspection.

"Contemporary bridge designers have the choice of steel or concrete for their construction material. However, these days, bridges are often not constructed exclusively of concrete or exclusively of steel, an example being the steel-beam and concrete-deck bridges we see today," explains Amanuel Gebremeskel, Technical Director of the Southern African Institute of Steel Construction (SAISC).

"Design of the bridge greatly affects its initial cost and naturally, the more efficient the design the lower the cost. A further consideration in the design of the bridge is its purpose. That is, whether it will be carrying pedestrians, motor vehicles or railway roll-

ing stock," Gebremeskel explains, adding that one of the major advantages of constructing bridges from steel is the decreased weight.

This means lower erection costs, since the bridge sections can be handled using lighter construction equipment. If designed soundly, the lighter weight of the steel bridge will also allow for lighter foundations. Generally, it is easier to make spans continuous for both live and dead loads - and to develop composite action with steel designs rather than with concrete ones

"However, the major advantage in the construction of steel bridges is that they are considerably faster to complete, with fewer logistical challenges. Where a bridge is being constructed over a busy highway, for example, disruption to traffic is far less. With steel construction, the need for time-consuming and elaborate formwork is also eliminated. If necessary, steel sections can be prefabricated off-site and then bolted and welded together to complete the final structure," he comments.

In terms of maintenance, historically, decks are the most vulnerable part of the bridge. To replace a concrete bridge deck requires removal of the entire section at one time; whereas steel bridge decks can be replaced one lane at a time, allowing for uninterrupted – albeit reduced – traffic flow.

Where bridges cross other infrastructure or (particularly in Africa with the often rugged terrain) geographical features such as a deep ravine or river, steel has the advantage that the section of the completed bridge can be shallower than its concrete counterpart.

"Over and above these considerations - not just locally but globally - environmental considerations are also an important factor in the use of steel," he adds.

In this respect, today, the raw material used to construct bridges is often scrap steel. In a white paper, the (American) National Steel Bridge Alliances states that new steel bridge construction in the US annually consumes about 350 000 tons of scrap metal. And, when a steel bridge has reached its allotted lifespan, the raw material can be recycled. Although not a perfect

example, the steel from the World Trade Centre has now been recycled into other products.

When bridges have to be constructed in environmentally sensitive areas, the fact that steel spans can be longer than their concrete counterparts minimises the environmental impact as fewer piers are needed to support the bridge.

In addition, highperformance 'weathering' steels offer greater weather resistance, and feature toughness and weldability at affordable prices. "This technology is readily available in South Africa," Gebremeskel points out.

"Over the past two decades steel construction profiles have appeared in new forms, both internationally and locally. For example, tubular steel is now widely used, and is known for its aesthetic appeal, its light weight and its superior strength.

Furthermore, with the advent of laser fabrication, steel tube can very quickly be processed into interlocking bridge components, thereby improving the strength, speed and efficiency of welding, resulting in stronger and more aesthetic appealing structures," he says. The choice of wheth-

er to build a steel or concrete bridge is also dictated to some extent by which region of the world the bridge is being built in - as concrete is cheaper in some areas. In other areas, the ruling price and availability of steel may well make it the preferred construction option.

"Bridges play a most-

ly unacknowledged yet cardinal role in all of our lives. While offering design and economic benefits, the use of steel as a construction medium for bridges also offers the more lasting appeal of design excellence. If one thinks of the internationally renowned San Francisco 'Golden Gate' bridge, Millennium bridge in London or the Sydney harbour bridge, one has excellent examples of structures that are of immense practical use and yet at the same time are highly visually pleasing examples of superb engineering design.

As with many other bridges around the world, the element which has made these enduring and iconic structures possible was the versatility and excellence of steel," he concludes.

Stor-Age packs profits

CAPE Town-based Stor-Age – a specialist property company that specialises in self-storage units - is still growing rapidly despite the more tempered outlook for the local real estate sector.

In the year to end March, Stor-Age's total property revenue increased by 68% to R521 million with rental income coming in 63% higher at R482 million.

exponential The growth in top line is explained by Stor-Age's acquisitions recent in South Africa and the UK. On a like-forlike basis, (excluding the acquisitions in the 2018 and 2019 financial years) SA rental income increased by a commendable 7.5% - driven by a 0.5% increase in average occupancy levels and a 7.0% increase in the average rental rate.

Stor-Age's is premised on the increased demand for storage space for personal and business use. Offering the 'You lock - you keep the key' concept, Stor-Age owns various unit sizes ranging from three metres square to 30 metres square that are secure and come with flexible lease periods.

The user base is currently split between 70% to 80% domestic users (event driven and lifestyle users) and the balance commercial users that are typically SME (small to medium enterprises).

Stor-Age finds itself in a sweet spot in both the domestic and commercial markets. Densification and urbanisation drive self-storage demand amongst a mobile population with security estate and apartment living on the increase,

while SME's need storage space no matter if they are upscaling or downscaling.

Stor-Age Gavin Lucas said the increase in the average rental rate was slightly constrained by the 1% increase in VAT from 14% to 15% (effective from April last year).

"Although we were able to pass on the increase to existing tenants on the effective date, the nature of our dynamic pricing model meant we absorbed a portion of the VAT increase in rentals for new tenants moving in after 1 April 2018.'

While conceding growth was slightly lower than previous reporting periods, Lucas said the like-for-like growth was a pleasing result in the overall context of the SA economic environment with residential and commercial customers under considerable financial strain.

Stor-Age disclosed that total occupancy in the SA portfolio grew by 80 000 m² year-onyear. Excluding the impact of acquisitions, occupancy growth in the SA portfolio was 4 500 m².

Lucas said the closing rental was up 9.3% year-on-year.

Stor-Age's Western Cape based property portfolio includes storage centres at Maitland. Bellville, Pinehurst, Edgemead, Gardens, Table View, Sea Point, Retreat, Ottery, Stellenbosch, Durbanville, Claremont and three properties in Somerset West.

The total value of Stor-Age's local and UK portfolio is more than R6 billion. Stor-Age said the local portfolio closed

es and increased tarat 357 600 m² - up by almost 100 000 m² iffs, municipal rates, as well as low GDP mainly due to the acgrowth." quisitions of Cape Still, Stor-Age is Town-based rival All-Store (6 100 m²) and staying on the front foot and has pencilled the Managed Portfolio in a 7% to 9% growth (86 700 m2) during the in distributions to vear.

shareholders for the 2020 financial year.

Looking ahead, Lu-

cas said local econom-

ic conditions remained

challenging with low

levels of business and

consumer confidence.

"Several risks remain

elevated, most notably

concerns around elec-

tricity supply shortag-

In terms of new developments, the R90 million Tygervalley Stor-Age site (just off the busy Durban Road and close to the N1 highway) of 7 500 m² has just got under-Overall nine new

sites have been secured and five of these already have town planning consents in place. These could see a total estimated spend on build-out of more than R850 million.

Another key Cape Town development will be the Sunningdale Stor-Age (6 600 m²) on the busy corner of Berkshire Boulevard and Whitehall Way. Town planning has already been approved and development planning is un-

Stor-Age also advised that another property of 6 600 m² was under negotiation at an undisclosed location in Cape Town.

Racking safety

Some safety tips from Acrow.



WE'VE all seen that video. The one where the forklift lightly taps the back of the racking frame and the whole warehouse racking comes crashing down. What a nightmare. Could you imagine the potential loss of life? Yet, everything (before the collapse) seemed ok - it simply looked like a loaded warehouse. What went wrong - is racking really that dangerous?

Yes. Racking that is not maintained is a dangerous asset. You need to maintain the quality of your racking and know that you are dealing with something that quickly can be a disaster for your stock, warehouse, people and business. Here are a few tips to check up on your safety.

Always follow the instructions on the load safety notices. Don't try load something heavier than what is prescribed on those load notices. Racking is designed to take specific weights and going above those weights can be disastrous. Spend a few minutes understanding those load notices.

- Importantly, if they are missing, make sure you get some from the original designer of the racking. The information on them is critical to stopping a collapse.
- Make sure your frames are plumb. One of the must dangerous situations in any warehouse is a racking system that is not plumb. The whole warehouse is in danger of crumbling. SEMA requires that frames have a plumbness of 1/350. If you don't have the equipment, call a racking supplier and they will gladly help you check your racking plumbing.
- Don't move beam levels around. It is important that beam levels are kept to their original design. Moving beam levels to accommodate higher pallets or try increase space considerably reduces the racking loading capacity. Consult with a racking manufacturer if you wish to change your beam levels

on forklift safety, the importance of inspecting pallets for damage and correctly placing the pallets on the beams. Driving a forklift in confined areas is no easy job, and sometimes small bumps do happen. There are several protective products that can be installed on racking to minimize the damage – but importantly, forklift drivers should be trained correctly and encouraged / praised to report and damages.

Train your staff

Carry out weekly inspections in house and an annual inspection by a qualified / trained racking inspector. Racking manufacturers and designers are likely to offer a service where they will do a yearly inspection on how your racking is and offer replacements for any damages. Take advantage of this. Problem areas will be identified, and any dangerous equipment can be quickly replaced.

People underestimate the danger that unsafe racking can pose and increasingly businesses have started acknowledging health and safety requirements and are taking steps to mitigate the risk.

Regular racking inspections = good prac



New security grille introduced

MAXIFLEX has introduced Stackdoor®, an innovative certified security door solution that combines robustness, high safety specifications, efficiency and optimum security in a neat, compact and flexible package.

Manufactured in The Netherlands, Stackdoor's stackable, strong, lightweight construction is claimed to differ from any other rolling door, security door, open security grille and speed gate currently available in the market. As the name implies, the door stacks rather than rolls, delivering a host of advantages.

This patented Stackdoor® security grille owes its stacking system to its ingenious design; the grille is constructed from steel slat profiles and solid steel pins which disappear into horizontal beams. The aesthetic thin design of the steel slats allow for maximum transparency when closed.

Another key feature is a mechanism which locks automatically after the grille is closed making it virtually impossible to forcibly lift. This anti-lift design which requires no lock, provides a break-in delay of up to 15 minutes.

Stackdoor® is specifically designed for restricted spaces. As the security grille does not roll around its axis but rather stacks neatly and



compactly upright, it takes up very little head room and eliminates the need for large shutterboxes normally required for rolling doors. The modular mounting system allows for easy integration into the ceiling or wall.

The grille can be easily installed inside or outside in straight, round, U- or L-shaped areas, in corners as well as in upwards or downwards closing applications without requiring additional support beams. Available in unlimited widths, Stackdoor® is ideal for securing extra narrow spaces or entrances that are too wide for standard solutions. Even revolving doors can be secured with Stackdoor®. Subsequently these doors meet a virtually unlimited spectrum of security requirements that range from securing shop fronts to entrances and parking areas at malls

and office parks. As the security grille stacks vertically, there are no limitations with regards to the thickness of fabrication materials. The grille is constructed with significantly stronger materials that are three to five times thicker than traditional rolling doors offering an extremely robust yet lightweight solution.

Stackdoor® is an official certified security solution and holds the title of the safest security grille in the European market. The breakin resistant grille is the only product on the market to be officially RC2/RC3 certified (EN1627) and is compliant to security level 4 and 5 standards.

The security grille is available in various powder-coated ours as well as in stainless steel and carries a 5-year warranty.

The extensive Stackdoor® product portfolio from Maxiflex includes Stackdoor® Compact, Stackdoor® Corner. Stackdoor® Curved, Stackdoor® Up, Stackdoor® Park and Stackdoor® Bold

Pallet-free bulk bags for food commodities

WITH increasingly stringent regulations in the global supply chain, the logistics industry is taking a closer look at the relationship between wooden pallets and food safety.

In response to demand from customsingle-operator pallet-free bulk bags have been developed by TELLAP, providing a cost-effective, safe, stable and environmentally-friendly packaging substitute to the heavy, expensive wooden pallet and bulk bag design. "TELLAP pallet-free

bulk bags are a dependable alternative to a normal bulk bag and pallet. The patented system has two plastic sleeves integrated into the base of the bulk bag. A standard forklift simply raises the TELLAP from the base. There is no need for a wooden pallet, no need for fumigation and no need for more than a single operator to do the job," explains Ken director, Mouritzen, TELLAP. "We all know there are many issues associated with wooden pallets - including weight, packaging damage and contamination from splinters, nails and mould. A regular wooden pallet can weigh up to 23 kg while a TELLAP system weighs less than 2.3 kg, which means users are not transporting dead weight, just prod-

"With the TELLAP system, users have the assurance of efficient, secure and hygienic packaging, storage and transportation. loose and bulk products - including food commodities and ingredi-

utilisation in warehousforklift operator.

is necessary with the

Dry,

ents, stay fresh and are safely handled. "This patented packaging system uses the space between the sleeves to increase bag volume by approximately 10%. This means users are able to transport more product at no additional cost, while reducing the number of bags, trucks and containers by about 10%. These are substantial savings for any business."

From the time of delivery, users appreciate greater efficiencies and lower operational costs. TELLAP bags offer safety, stability and improved space ing, containers, rail cars and trucks. They can be stacked securely two high in a container or four high in a warehouse and are loaded and unloaded by one

TELLAP pallet-free bulk bags also comply with ISPM-15 regulations, which apply to all soft and hardwood packaging materials. These regulations stipulate the mandatory treatment of solid timber packing and dunnage, in order to reduce the risk of pest or disease entry into foreign countries. No heat treatment or fumigation



development of TELLAP. Integrated sleeves increase stability during storage and transport, making the system safer for workers, also protecting the integrity of the product.

TELLAP system. So, more cost savings.

TELLAP bags are manufactured to international standards, conform with strict quality controls and are independently tested. Care for the environment has been at the forefront in the design of this system. TELLAP bulk bags are recycled or re-used and there is no packaging waste or dumping in landfill. The risk of splinters, contamination or expensive product-loss associated with wooden pallets is a thing of the past.

TELLAP bags can

be customised to exact requirements. Options include spouts, liners, baffles and printing.

Environmentallysustainable TELLAP pallet-free bags are manufactured from 100% polypropylene. These bulk bags are recycled or re-used and there is no packaging waste or dumping in landfill.

To check on individual transport savings that can be achieved by using this system, TELLAP has a calculator available online http://tellapbags.com/why-tellap/ tellap-calculator/

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Warehouse, Storage and **Distribution -Workshop**

THIS workshop is mainly aimed at candidates who undertake a variety of warehousing, storage and logistics activities. This training is about the safe and collection. efficient management, storage, handling and dispatch of goods in a warehousing environment.

Learning outcomes:

- The importance of good stock control
- Understanding stock and how it affects all departments
- Responsibility and accountability
- Control of documentation
- Access to stores, assertiveness and time management
- Receiving and despatching process
- Returns and back

- Storage of stock
- Standards and ethics
- Communication

Course content: Introducing the role

- Job descriptions
- The role of the storage and distribution controller
- Responsibility and accountability

Practical Skills

- Basics of warehouse/stock control Maintain health, security and safety in the workplace
- Hygiene and pest control
- Develop effective working relationships with colleagues
- Effective receiving/distribution of
- Dispatch goods and

- materials from a warehouse environment
- Placing goods in storage
- Evaluating loading facilities
- Environmental support – waste management
- Packing and displaying of stock
- Colour coding stock
- Handling damaged stock

- · Standards and ethics in stores
- · Stock control management systems
- · Stock pilferage
- Time management - meeting deadlines

Communication Skills

- Effective verbal and written communication
- Positive attitude
- Assertiveness skills
- · Problem solving

Event details:

Non-members: R1715

Date: Tuesday, 23 July 2019 Venue: Cape Chamber of Commerce & Industry Time: 08:00 for 08:30 - 15:45 Cost P/P: Members: R1110

Register Now: 021 402 4300 Helga Smit

About Tyme

AFRICAN Rainbow Capital Investments (ARC) - which has strong Cape Town links in its investment team that includes business heavyweights Tom Boardman (ex Nedbank boss) as well as former top Sanlam executives Johan van Zyl and Johan van der Merwe - appears to have made a promising investment in new digital bank TymeBank.

The progress of TymeBank will keenly monitored remembering the last time a 'new bank' launched it was the hugely successful Capitec Bank - backed by Stellenbosch-based investment house PSG Group.

Like Capitec, Tyme-Bank plans to disrupt banking traditional models by using technology to keep a lid on costs to customers.

TymeBank - which boasts that a prospective client can open a bank account in under five minutes - had a

'soft' launch in November last year with the digital bank officially opening for business in late February this year.

In a recent update, van Zyl reported that TymeBank had made significant progress with acquiring new clients since the official launch

He said the bank succeeded in acquiring more than 400 000 clients and is aiming to get to 500 000 clients by the end of this month

The news coincided with an announcement that top private equity investor Ethos had backed TymeBank to the tune of R200 million. This will give Ethos' AI fund an 8% stake in the new bank.

Van Zyl reiterated

that TymeBank aimed to achieve 2 million clients over next three years with 1.3 million active client accounts. "Of this, the bank envisages a minimum of 200 000 clients having TymeBank as their primary bank account."

TymeBank has no branches and its core banking system is hosted securely in the Cloud. This reduces its overheads and delivers significant cost-savings that are passed on to its customers.

TymeBank reckoned customers can open a FICA compliant bank account in under five minutes at over 500 kiosks in Pick n Pay and Boxer stores around the country. Or they can open a reduced feature account on TymeBank's website and then upgrade to a full featured account when they get to a kiosk in store.

Dieter Botha, chief information officer of TymeBank, said the new bank was very aware of the importance of earning customers' trust in this new digital bank. "When you pay or draw money with our yellow debit card, you need to know that it's going to work every single time. For us, this is crucial."



While traditional banks have evolved around mainframe computers and on-site data centres, Tyme-Bank makes heavy use of the cloud platform Amazon Web Services' (AWS).

Botha stressed Tyme-Bank had invested significantly to ensure the security of customers' personal and financial data. "Conservatively we have 30-40 different tools to manage and maintain our cyber posture. This includes assurances for perimeter, network, application and data security, plus all the monitoring and responses to that.

Another critical point of contact between the bank and its customers are the

TymeBank There are already more than 500 deployed at Pick n Pay and Boxer stores countrywide. TymeBank manufactures these kiosks, which typically comprise an Android tablet through which the customer interfaces, a power and peripheral management unit connected to a small Raspberry Pi unit as well as the debit card printer and storage facility.

These are all monitored remotely using Internet of Things (IoT).

Botha believed through the effort made to ensure both security and availability for users, TymeBank is set to revolutionise the local banking scene.

Banking fraud on the increase

THE report released by the Ombudsman for Banking Services revealing that 50% of all complaints are fraud-related, reinforces the importance of improved cyber awareness. Banks run extensive education and awareness campaigns and implement numerous security measures to protect their clients. But consumers are still being tricked by sophisticated cybercriminals who continue to find new and advanced techniques to gather sensitive personal information which they use to bypass banks' security measures.

The latest research from Mimecast and Vanson Bourne found that 45% of South African firms reported an increase in targeted spear-phishing attacks using malicious links or attachments over the past year. Impersonation fraud, in which cybercriminals register Internet domains that appear to be those of legitimate businesses - including banks - was found to have increased by 37%.

Consumers need to remain vigilant by arming themselves with knowledge over how these criminals operate and what risky behaviour to avoid. South Africa ranks 3rd globally for the number of cybercrime victims, with consumers and businesses losing an estimated R2.2 billion a year, according to the South African Banking Risk Information Centre.

Targeted attacks can affect individuals and businesses alike and reports like this should be a warning to organisations that there's still a huge lack of awareness around cyber risks.

They need to make security awareness a part of their culture by implementing effective and consistent train-

Credit profile benefits

CONTINUING Rand weakness, fuel increases, rampant corruption and Eskom's darkens woes point some economists to predict that South Africa will run out of money by 2042!

Companies consumers are bearing the brunt of increased prices and the failing South African economy.

In response, more companies are becoming wary about who they hire, service providers are enforcing stricter conditions to adhere to before extending credit and consumers are tightening the proverbial belt.

Companies consumers alike are able to mitigate some of these conditions by requesting a credit report on either the potential customer or themselves, say financial service company, Accountability Group (Pty) Ltd.

A credit report is a document detailing an individual or company's credit record as displayed by the credit bureaux.

The report summarises the level of risk for a service provider when extending credit to a company or consumer. It incorporates information such as a personal credit score, payment profile and information adverse which is important indicators of someone's creditworthiness and indicates indebtedness, payment behaviour and payment history

with regards to the respective credit providers. Lenders will most often refer to these detailed payment profiles indicated in the report before making an informed decision.

Credit reports are not only used to determine the credit worthiness of a potential customer, but the therein can be a good indication of a consumer's character and assist in mitigating potential fraud by verifying the consumer's identity and contact information. You may know someone who has done business with a charismatic and seemingly dependable individual

or business, only to find out that they have been scammed. By doing one's due diligence and obtaining a credit report before engaging in financial arrangements will ensure your transactional safety and peace of mind.

Accountability membership allows access to all relevant information on individuals or companies in one report, enabling informed financial decisions to be made. It offers its members the opportunity to request a Comprehensive 4-in-1 Consumer Credit Report via its Member's portal on the Accountability website (www. accountability.co.za).

comprehensive report combines all credit information retained by the four major South African based credit bureaux and provides an extensive overview of a consumer's personal credit profile. It is important to keep in mind that consumer consent will always be required on

any consumer reports. Credit profiles con-

stantly change, and it is therefore imperative to review a potential individual's, or even your own, creditworthiness prior to engaging with a financial transaction.

Email: sales@accountability.co.za Website: www.accountability.

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A fresh approach to South Africa's power challenge

Comment from the South African Institute of Electrical Engineers.

IN March 2019, Eskom announced that it had been forced to implement Stage 6 load shedding. This amounted to as much as 6000MW of a total estimated installed capacity of 51 000 MW being unavailable to users, with more disruptions likely to come during the approaching winter. A combination of ageing power stations, unplanned maintenance, and design flaws in new power stations Medupi and Kusile, have forced the utility into implementing rolling power cuts to give itself enough space to make emergency repairs to the system.

Eskom is under huge financial strain, facing structural challenges, logistical issues, and a skills shortage that severely affects the company's ability to detect system faults early enough to prevent further crises.

The ramifications of this supply instability go far beyond the inconvenience of missing a live football match or some meat spoiling in the freezer. Thousands of small businesses around the country are complaining that their already fragile businesses face ruin should electricity continue to be disrupted. Extended blackouts place citizens under increased security risk, as opportunistic criminals take advantage of congested traffic and compromised alarm systems.

Eskom's issues will take some time to fix, but in the short-term. the Government will want to reassure South African consumers that it cannot only prevent a black out, but



ensure security of supply for the long term. In his February State of the Nation address, President Cyril Ramaphosa announced plans to unbundle the state power utility into three separate entities generation, transmission and distribution.

This plan will undoubtedly bring muchneeded improvements in efficiency, but the transformation of the industry can't stop there. Unbundling is not the sole panacea to the country's electricity woes, and South Africa's power market needs thorough regulatory, technological and economic shift away from the current centralised system.

With thousands of kilometres of infrastructure sending electricity to customers across the country, the transmission network loses as much as 40% of generated power through thermal heating.

South Africa needs to move towards a decentralised model made up of localised generation-to-distribution nodes with shorter transmission lines. While power losses will still affect these nodes, these losses will be reduced significantly to as little as 15% of generated power.

A decentralised model is much more flexible. and makes it easier to employ renewables in microgrids equipped with more cost-effective battery units, further alleviating the burden on the national grid during peak periods. Moreover, when a failure happens, its impact is isolated to a limited area and repairs are completed much faster. Securing microgrids is easier, as private operators are better equipped and

incentivised to protect themselves against the threat of unsafe, illegal connections.

Localised grids have the dual benefits of easily reducing the cost of power by as much as half the current cost and easing the burden on the national grid. These benefits can only increase exponentially over time as cheaper and more efficient technologies are developed. The first African country to unbundle its power utility in 2001 was Uganda, followed by Nigeria 2010. These early examples offered many lessons, but most importantly that unbundling should not be the end of the story but must be accompanied by a well-structured regulatory framework that supports new competition and continued operational efficiency. Any regulatory body responsible for the sector needs to be strong enough to do the important job of opening the industry to new independent power producers, while creating innovative incentives for consumers to produce and store their own power and feed it back into the system if, and when needed.

Opening the power industry for diversification will not pose a threat to Eskom. In fact, it can only strengthen the utility's role as the base load supplier, as it will offer the company the muchneeded margin to conduct thorough maintenance and ensure that any new build programmes are conducted steadily and strategically, with the best interests of all South Africans at heart.

Etherline® single pair tackles the demands of Industry 4.0

ON the ground research has revealed that size, rather than speed, will be the next trend for Ethernet cables. LAPP predicts this trend will be particularly relevant for the installation of sensors in the smart factories of the future.

The transmission of data via fieldbus systems is quickly becoming obsolete. The demand for seamless communications between production line and head office is on the rise and Ethernet is rapidly being adopted as the new standard for industrial automation systems.

recent years, manufacturers have focused on developing "higher and faster" Ethernet cables even though only a handful of applications generate enough data volume to require such speed and capacity.

With this in mind, LAPP has developed a revolutionary single pair Ethernet cable - called ETHER-LINE® single pair - which can be easily

installed into tight places thanks to its reduced dimensions. Fully shielded, the new ETHERLINE® single pair is also thin, light, robust and can even achieve a range of up to 1200m at 10 Mbit/s with no data disruption. Among other benefits, this new cable can also reduce installation time by 50% compared to other cables in the same category - a great saving for both installer and customer.

Although the passive components are yet to be designed, at LAPP we believe this innovation will bring huge benefits to many of our customers, especially those involved in the installation of sensors for Industry 4.0. Thanks to its space saving capabilities and safe data transmission, the ETHERLINE® single pair answers the demands of the smart factories of the future and paves the way for a new approach to cabling solutions for this fast growing industry.

For more information contact info@lappgroup.co.za

Azipod® electric propulsion can save \$1.7 million in fuel costs pa.

AN independent study by marine consultancy Deltamarin revealed that the ABB Azipod® electric propulsion system for ferries could save up to \$1.7 million in annual fuel costs per vessel.

By simulating a transit on seven existing ferry routes, researchers found that a ferry equipped with twin 10 MW mid-power range Azipod® units consumed less fuel compared to a similar vessel powered by a traditional shaftline propulsion system. Lower fuel consumption also means that the Azipod®powered ferry would reduce CO2 emissions by approximately 10 000 tons per year. This is equivalent to the amount of carbon dioxide emitted by about 2 200 passenger cars an-

The global ferry industry, which transports 2.1 billion passengers every year, according to trade association Interferry, is facing increased pressure to meet the vessels while lowering maintenance. International Maritime Organization's target of reducing annual emis-

sions by 30 percent by

To help ferries improve energy efficiency and lower emissions, ABB launched a new series of mid-power range Azipod® propulsion systems in June 2019. The latest Azipod® series is available in the 7.5 to 14.5 MW power range and fills the gap between the low and high-power range of Azipod® propulsors already in the market.

"We are continuously strengthening our portfolio of electric, digital and connected solutions that maximize the potential of ships and ultimately enable more sustainable operations," said Peter Terwiesch, President of the Industrial Automation business at ABB, which offers solutions for a wide range of industries, including marine. "With the launch of the midpower range Azipod® propulsion, we will be able to empower more shipowners to improve the performance of their environmental impact."

electric drive motor is in a submerged pod outside the ship hull, can rotate 360 degrees to increase maneuverability and operating efficiency, and has a proven ability to cut fuel consumption by up to 20 percent compared to traditional shaftline propulsion systems. Due to minimal noise and vibration, Azipod® propulsion also improves passenger and crew comfort. Azipod® propulsion have accumulated more than 15 million running hours, saving over 700 000 tons of fuel in the passenger cruise segment alone.

The latest Azipod® 'M' series is equipped with ABB's fourth generation permanent magnet motors that draw on proven Azipod® propulsion technologies and have been refined to further increase power and maximize efficiency. The design simplicity of the system provides increased robustness and reliability, at the same time allowing for ease of

With this expansion, The Azipod® propul- the Azipod® propulsion system, where the sion family now covers the power range of 1-22 MW and is available for vessels from smaller crafts to icebreakers capable of independently operating in the harshest conditions. In addition to ferries and RoPax vessels that carry both vehicles and passengers, the mid-power range will also be applicable for larger offshore construction midsize cruise ships and shuttle tankers.

"Building a futureproof, robust RoPax ferry requires proven technology that enables energy efficiency, saves valuable onboard space and provides increased passenger comfort. These features, coupled with superior manoeuvrability that would allow the ferry to operate a precise schedule crucial for a busy route, have made ABB's Azipod® propulsion a natural choice for our newbuild project," - said Peter Ståhlberg, CEO of Wasaline.

With over half of its global revenue generated from solutions that directly address the causes of climate change, ABB is at the forefront of sustainable development.





OPINION

Could it be that climate alarmism is beginning to decline?

Continued from back page

sade of the first millennium it failed to arouse us.

And then there is my favourite, the lachrymose pleading of the UN secretary general while on a special tour of the South Pacific in which he prayed for the industrial world to implement the Paris Agreement on Climate Change, instead of largely ignoring it.

Many of these islands are poor and believed they were having to wait too long for the promised huge dollops of cash to raise sea walls and other things to stop their islands being flooded by predicted rising seas (no evidence for this though some exists of islands sinking). The secretary general clearly felt he had some explaining to do.

Each of these three developments make me think belief in man-made climate change is fading. Overall, the main evidence is in the increasingly hysterical pitch of the doomsayer's warnings, and the ratchetting up of the anti- free market rhetoric. The Guardian newspaper's instructions to its staff. It's worth quoting at length.

Use climate emergency, crisis or breakdown instead of Climate Change Use global heating instead of climate Use wildlife instead of biodiversity Use fish populations instead of fish

Use climate science denier or climate denier instead of climate sceptics.

This instruction to Guardian writers and sub-editors was followed by this horrible piece of double speak:

The original terms are not banned but do think twice before using them. If you think a specific term is needed to help people find your story online, then please check with the Audience

(Audience Team? The department of climate change propaganda more like).

This instruction was issued by a woman who signed herself Editor-in Chief, Guardian News & Media. As a former newspaper journalist, I don't know whether to laugh or cry.

If the Guardian's propagandists are desperate to keep the scare going, the United Nations secretary general is now bewailing the fact that countries are not holding to their lukewarm promises to act against the so-called climate threat to the world and its people.

Best of all, the infamous American

climatologist-cum-computer-worshipper Michael Mann – he of the infamous Hockey Stick graph that conveniently ignored the Medieval warming period in Europe when grapes could be grown as far north as York in England (try that now!) and Greenland was warm enough to grow wheat and raise cattle - started a wailing and gnashing of teeth after the Australian election.

Using the "Royal We" he said;

"We have lost Australia for now" he sobbed. "A coalition of a small number of bad actors now threaten the survivability of our species".

Speaking ex-cathedra like a climate-change Pope. "Climate change is now an existential threat", he said. "Political will seems to be fading," he added

Let's hope so. If the climate is changing to our detriment, we need to know by how much. Then we need to seek technological answers. What we don't need is a massive dose of climate socialism and a political bureaucracy to enforce whatever unelected officials think is necessary.

That will start a slide to tyranny.

PS.All wind farms in Poland will be scrapped by 2035, with no new turbines built to replace them, the Polish Ministry of Energy has announced.

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your story to editor@cbn.co.za for consideration.

Cuba is no example to follow 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

- the view of James Peron, president of the Moorfield Storey Institute and author of several books including Exploding Population Myths and The Liberal Tide.

VENEZUELA is proof of the miraculous impact of socialism. They took a prosperous nation and destroyed it almost overnight. That's a problem for that other socialist paradise—Cuba.

Cuba relies on aid from Venezuela to put food on the shelves. Venezuela doesn't have any surplus to give and has cut aid to their comrades. Now Cuba has to ration food because there isn't enough. CBS reported:

The Cuban government announced Friday it is launching widespread rationing of chicken, eggs, rice, beans, soap and other basic products in the face of a grave economic crisis. Commerce Minister Betsy Díaz Velázquez told the state-run Cuban News Agency that various forms of rationing would be employed in order to deal with shortages of staple foods.

Cuba wants to blame the long existing U.S. trade embargo. But embargos don't have a major impact. Lots of countries sell oil and many countries sell beef. If one country doesn't want to sell a product, or doesn't have it, it doesn't mean others don't have it or aren't willing to trade. If an embargoed country really needs a product from one specific nation, they just find a third party to do the purchasing for them. If the trade policies of the Trump administration means the U.S. won't sell widgets to Cuba and they can only use American widgets, they will then buy them from a company in Brazil that buys them from the United States. Trade finds a way in spite of embargos. The only time trade can't find a way is when there's nothing to trade—that is where and why socialism becomes a prob-

The problem isn't the embargo; the problem is Cuba is bankrupt and their currency worth almost nothing. Trade requires both parties to the transaction to have something of value to trade. Cuba can't trade because Cuba is very bad at producing. Without hard currency they can't buy the products they need. The embargo isn't stopping them from buying, socialism is.

Cuba's socialist planning results in low agricultural production. Cuba dedicates a lot of time to growing very little food and the result, according to CBS, is:

Cuba imports roughly two-thirds of its food at an annual cost of more than \$2 billion and brief shortages of individual products have been common for years. In recent months, a growing number of products have started to go missing for days or weeks at a time, and long lines have sprung up within minutes of the appearance of scarce products like chicken or flour.

Reuters notes:

Communist-run Cuba imports between 60 percent and 70 percent of the food it consumes at a cost of around \$2 billion, mainly bulk cereals and grains such as rice, corn, soy and beans, as well as items such as powdered milk and chicken.

Domestic output in all those categories declined last year, according to the report.

Cuba, where 80% of the land is owned by government, no longer produces the food it needs and it can't import food either as they can't pay for it. To trade you have to produce and socialism doesn't produce.

To buy food Cuba needed hard currency so it relied on Venezuela to bail them out with currency from oil exports. But socialism in Venezuela halved oil exports. Earlier this year Bloomberg reported: "Venezuela, once Latin America's largest oil exporter, ended 2018 with a whimper as overseas sales dropped to the lowest in nearly three decades". Under government ownership oil production in Venezuela "fell by more than half in the past five years".

Oil paid for food for Cuba, now it doesn't. Cuba, once a food exporter, suffers from shortages under state-owned agriculture. Without the ability to produce food they relied on imports and to import they relied on Venezuela for cash. When socialism in Venezuela dramatically reduced oil exports, the country couldn't prop up Cuba any more. So the failure of socialism in Venezuela exacerbated the failure of socialism in Cuba and food lines result.

Commerce Minister Betsy Díaz Velázquez admits there isn't enough food but insists Cuba will not return to the misery of past socialist policies. She promises the rationing will, at the very least, "lead to equal distribution". Now, that is something socialism is good at doing, spreading misery for everyone equally.

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Printed by:

RSA Litho

Scammers target job seekers with sophisticated money-stealing scheme

KASPERSKY LAB experts detected emails, Kaspersky Lab researchers a blast of sophisticated spam emails in the first quarter of 2019, featuring fake job-offers that seemed to come from HR-recruiters in large corporations that traditionally attract a lot of interest from potential employees. However, the emails actually came from spammers and installed money - stealing malware on users' devices.

Spam emails are an often underestimated threat, yet they can spread malware through social engineering methods like deception and psychological manipulation, and claim many victims. To track such

use honeypots – virtual 'traps' able to detect malicious emails and catch threat actors. For this particular operation, they tracked fraudsters trying to exploit unwary people looking for a new role.

Analysis of the findings from the honeypots is included in the new Spam and Phishing in Q1 2019 report. This shows that recipients of the spam emails were offered a tempting position in a large company.

They were invited to join a job search system for free by installing a special application on their device that would provide access to the job-search database. To make the installation process look trustworthy, the attackers accompanied it with a pop-up window carrying the words "DDoS Protection" and a fake message that claimed the user was being redirected to the website of one of the largest recruitment agencies.

In fact, victims were redirected to a cloud storage site from where they would download a malicious installer that looked like a word file. Its function was to download to the victim's machine the infamous Gozi banking trojan, one of the most commonly used malware for stealing money. Kaspersky Lab detects it as Trojan-Banker.Win32.Gozi.bqr

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Business News

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Everybody feeling happy yet?

"HEERS!" announced Luke the Dude to the uncharacteristically quiet congregation of merry conversationalists frequenting the local Pub & Grill. He got only one response.

"What are we cheering?" enquired Jon the Joker suspiciously.

"The bright new sunshine in the dawn of Ramaphosing optimism and high hopes for all, of course!" gushed the Dude.

"Rubbish!" opined the Joker, unsmiling. "What happened to 'Useless,'?" Luke the Dude was emulating parliamentary chairman Raseriti Tau's hurt look on being informed that he was talking rubbish – by the learned John Steenhuisen of the DA – while only maintaining order! "You should know, Dear Jon, that if this had been a more formal debating chamber you would have been kicked out. Rubbish, I ask you."

"Rubbish," said Jon the Joker. "This is not parliament. The governor in this esteemed establishment caters for a betterbehaved brand of customer. Not so, Guv?"

The Governor responded with a careful nod, unconvinced that Jon was actually being complimentary. Kicking out paying customers was, as a rule, bad for business.

"Harumph," pronounced The Prof. "I believe young Lucas here is merely trying to bring some good cheer to this unusually glum gathering. Someone tell us a happy story, please."

"That would be fiction then, wouldn't it?" judged Colin the Golfer. It seemed the only happy beings present were the Big White Dog and her leashed friend, the furry golden hound. Unlike some of the other regulars, the Big White Dog needed no leash.

"I have been thinking about that; the glumness I mean," offered Bob the Book. "It is a bit like the 1994 election, when we as a nation shared a sense of relief and optimism. Only, this time the let-down is almost instant. After 1994 it took us a long time to realise how 'free and fair' that so-called election really was. The Ramaphosa dictum of boiling the frog slowly was working.

"This year the election results were hardly out or the gallery of known rogues were re-elevated to positions of first-at-thetrough and getting a cut of the deal.

"Right on cue a person who was, in her own words, wining and dining in Denmark on your tab – you pay the bill because she is your ambassador, a position for which she has neither the qualifications nor the experience – informed the world of her racist hatred for fellow South Africans of a different skin colour. She cared not that they were the ones filling the trough.

"So of course we feel, shall we say, disappointed. After all, in the lead-up to 1994 we did vote with a large majority for the end of apartheid and for negotiations towards a new South Africa. This was to be liberation for everybody."

"I do not agree," disagreed Big Ben. "This is not like 1994."

"Well," ventured Stevie the Poet, "The most important difference is that the war that was raging in Kwazulu-Natal and Gauteng between ANC killers and Inkatha killers has been ended.

"That war started because the ANC was not inclined to settle political differences democratically, regarded Buthelezi's Inkatha Freedom Party as its only real challenge and proceeded to convince the Zulus of the IFP with the AK47 rather than the empty promise. Those Zulus fought

back and many thousands of people died.

"The war ended because the ANC won. It won on the killing fields and it seemingly won at the ballot box. The ANC now rules KZN and the IFP is a small party.

"But the killings have not stopped. In post-election 2019, Cape Town ranks among the murder capitals of the world and the relentless genocide on our farms continues. South African farmers and their workers are being murdered – sometimes with their families, sometimes after unimaginable torture – week after week.

"The DA's Ina Cilliers says 184 farm attacks and 20 farm murders have been recorded in the first six months of the year.

"Imagine the international outcry if that had happened in any first-world country. But there is no debate in the UN Security Council, no diplomatic protests from the world's leaders. It is not debated even in our own parliament as our ANC masters shrug the horror off with incompetent policing.

"And there are many ways of manipulating the crime stats, from the generals down to the constables in the charge office — when I reported the minor matter of a cell phone stolen, the cop refused to record it as a theft, claiming that I had, instead, 'lost' it."

"Another important difference," added Headmaster Humphrey, "is the scale of ethnic 'transformation' in the workplace.

"It is hard enough to run a business at a profit without social engineers prescribing the skin colour of the people you employ, but that is exactly what our masters are doing. Just when we thought we would all be South Africans, the ANC has decreed that, again, we are Africans, Indians, Coloureds and Whites. In that order. And we have to be employed in the same ratio as our representation in the general population.

"No matter, for instance, that 'coloureds' are the majority population group in the Western Cape — countrywide we form a small minority and so we have to be a small minority in your workforce, whether your business is based in the Western Cape or not."

Headmaster Humphrey took a paper out of his folder. "This is what Dr Anthea Jeffery of the SAIRR said in 2011 about our labour laws: The Employment Equity Act 'currently allows employers to set targets for demographic representivity based either on national or regional demographics. Under the (then new) bill, reference to regional demographics will fall away. This will have particular ramifications for employers in KwaZulu-Natal (where 9% of the provincial population is Indian) and the Western Cape (where 52% of the provincial population is coloured). The change will make it harder for employers in these provinces to fill quotas, and is likely to fuel anger among coloured people, in particu-

"How right she was, as we were reminded when Jimmy Manyi pontificated that 'coloured' people were in over-supply in the Western Cape and had to get a move on. Since then he has won further notoriety as a Zuma/Gupta champion and very shortlived media tycoon.

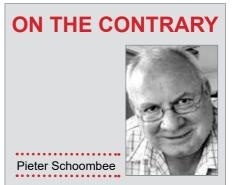
"The Solidarity trade union calculated then that the law could force almost a million 'coloured' bread-winners out of our jobs, to make way for South Africans who are blacker than us. White job-seekers are in the same boat, with Eskom being the most dangerous example." "All of this," sighed The Prof, "is sadly true. But it is also true that most South Africans, of whatever hue, are normal, decent people. So I still want to hear a happy story. And if nobody else is going to tell it, I shall tell you mine.

"You know that on top of my little hernia problem I have recently cracked a rib, with the result that I use a walking stick. The mildly irritating side effect is that I look older than I am. But not to worry.

"I recently had to fetch my wife from the airport and as I had the time, I stopped on the way for a coffee. Inside the restaurant I was met by a very neat young man with a wide smile: 'Good morning! And where do the young people wish to sit? A table at the window?' This banter continued throughout; for instance, when I declined sugar with my coffee, he heartily agreed: 'Good decision. We young people have to take care of our health; we have a lot of living to do!'

"Instead of sweetener, I had fun with my coffee and left in a good mood.

OPINION



"At the airport I found my wife in a crowd of people and as I gave her a hug, I looked up and it seemed everybody was smiling at us, happily sharing our evident joy at being together.

"You know something," confided The Prof, "if I had known growing old would be so enjoyable, I would have done it long ago!"

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Could it be that climate alarmism is beginning to decline?

HERE are encouraging signs that the millennia madness infecting the Western World is beginning to burn out, particularly the politico-religious belief than modern economies are progressively making the planet uninhabitable.

Western millennium madness regularly occurs in the decades just before and just after the Christian calendar reaches the 1 000-year mark.

Around 1000 AD, people in Europe went crazy. Some went about whipping their backs until they bled believing this would bring about Christ's return; the dead would rise from their graves and ascend to heaven and all unbelievers would fall into the depths of Hell.

In the run up to 2000 AD, many who were then adults can recall the hysterical prophesy that all computers would crash on the stroke of midnight 1999, planes would fall out of the sky, banks would collapse and absolutely everything that had a microchip would seize up. In other words, a digital Armageddon.

We all know none of this happened: neither the return of Christ nor the collapse of computers worldwide. Middle-aged programmers made fortunes "fixing" the non-existent problem that many energetically promoted.

Who benefitted from the first millennia madness? Why, the priests of course. Church donations went up, and such was the enthusiasm for the Crusades (prompted by an appeal by the Pope) that the fourth one consisted of children who tried to walk to Jerusalem. Few survived. I am not sure if any reached the Holy City.

The Y2K (year two thousand) scam pales into insignificance compared to the daddy of all millennia madness –the climate change scare. It is now into its 30th year of true believers trying to persuade the countries of the world to abandon mod-

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ern industrial production and the scientific method that have together created such things as clean piped, water, sewerage systems, modern medicine and dentistry – to mention a few.

Whether or not the world's climate is changing, is no longer the issue. What to do about it is. For those who blame business and industry for all the world's ills, an alarmist view has proved just the ticket for former communists and socialists of all kinds. Helped by a headline-hungry media the drumbeat of planetary doom has been beating loudly with, so far, some dozen or so predications of calamity having come and gone – all false – and all the result of computer predictions that have failed to materialize in measurable reality.

But as I said earlier there are signs the strength of crying "the sky is falling in!" is waning.

The recent Australian general election result was one indication. Voters Down Under voted overwhelmingly against climate alarmism to the shock horror and the usual wailing and gnashing of teeth from climate doom believers.

Then there is the instruction to its writers by *The Guardian* newspaper the prime British media supporter of climate change alarmism, to ramp up their alarmist rhetoric on the subject.

And a third indicator of climate alarm boredom is the emergence of tearful primary school children on the streets of Sweden and Britain, urging politicians not to "destroy their future" by failing to take draconian measures to fight climate change. Like the pathetic children's cru-

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