



Don't blame plastics



It's us that pollute!

5

Oh la vanche!



L'autosuffisance énergétique

14

Fishing at risk



World in hot water

26

Long awaited duelling of Sandown Road begins

Construction will ease congestion and improve access to Rivergate and N7.

By Tony Clarke - Joint MD Aska Property Group

AFTER 11 years of planning, the Sandown Road Link was opened on 29 October 2013. The opening was celebrated by not only those attending the "Road Opening Ceremony" hosted by township developers Garden Cities, The Milnerton Estates and The Aska Property Group, but equally celebrated by the motorists using this east-west link between the West Coast Road and the N7 Freeway.

From the word "go" the road link was an immediate success. Traffic streamed along the road right after the official opening by Minister Robin Carisle, and bottles of champagne were handed out to the happy motorists. It was said then that work on implementing the second carriageway needed to start immediately.

Sandown Road is threaded through the residential suburbs of Sunningdale, Parklands and Sandown as well as the Rivergate commercial and industrial development. The opening of this east-west link brought relief to motorists previously restricted to using the internal road networks of these suburbs. Locals will remember queuing on Gie Road for what seemed like endless periods.

The link provided further stimulus in growing these popular suburbs. Suffice to say that with the growth here and the need by the outer-lying areas for improved movement through these suburbs, capacity of the link was reached in just five years.

The requirement for the dualling of Sandown Road Link was prioritised by The Western Cape Government, The City of Cape Town and the developers. The Public Private Partnership, the effort and the co-operation between the parties and the joint funding agreement enabled the speed with which this road can now be dualled.

Two consulting teams were appointed to facilitate the design and manage the on-site construction.

HHO Africa were appointed to deal with the dualling of Sandown Road from the intersection of Parklands Main Road to the east, including a new road over rail bridge, the dualling of Malibongwe Road, the sur-



Diagram reflecting the dualling of Sandown Road.



The first road-over-rail bridge built here in 2013. The second bridge now commissioned runs parallel to the first bridge built.

facing of the second carriageway over the Diep River and the roadworks up to the N7.

This contract has been awarded to Baseline Civil Contractors in an amount of R87 Million. The contract commenced on 9 November last year. The contractors will establish two site camps, one nearest the road-over-rail bridge and another south of Sandown Road in Rivergate. Material is now being ordered with construction com-

mencing in earnest during January 2019.

BVI Consulting Engineers were appointed to deal with the dualling of Sandown Road from the intersection of Parklands Main Road to the west, through the suburbs of Sandown and Parklands to Sunningdale Drive in Sunningdale.

Continued on P2

Partnership brings water



ON 17 October, Grundfos in partnership with SOS NPO, launched the Future of Water project at the Masibambane Secondary School in Bloekombos – the home to a community of about 45 000 people where small businesses in the settlement are prohibited from using municipal water in their trade, and schools are on strict quotas to limit their water usage.

Grundfos and SOS NPO partnered to deliver water to the community. The project involves the installation of water towers to provide non-potable water for car washing and irrigation for micro-farms, and the delivery of water to the six schools in the settlement, an HIV clinic and churches.

The first stage of the project will see the installation of eight 5 000-litre tanks at Masibambane Secondary School. The tanks will provide sufficient water for everyday activities, as well as aid in the provision of irrigation for the school's food garden.

In the Future of Water project, Grundfos will assist with the installation and maintenance of their pumps.

Other partners include M'hudi Farm, a neighbour to the Bloekombos settlement and the first fully black-owned wine farm in South Africa, Swish Properties, who provide the non-potable water from an aquifer at their development in Woodstock, Isuzu's school water unit trucks that transport water to schools and communities, JoJo Water Tanks to store the water, and NuWater who will contribute a water treatment plant to make the non-potable water potable.





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IN THIS ISSUE

- 11 Industrial Gases
- 12 Petrochemicals / Oil & Gas
- 15 PPE
- 18 Property
- 20 Pumps & Valves
- 22 Heavy Lifting
- 24 Wire, Rope, Hoist, Sling, Chain, Rigging
- 25 Fishing
- 27 Cutting & Welding
- 28 Logistics & Supply Chain Management
- 29 Processing Plant Machinery & Equipment
- 30 Tooling
- 32 On the Contrary
- 32 The Other Side of the Coin

Distell gets high

NEW Distell CEO Richard Rishton – a former executive at SABMiller – is certainly whipping up froth at Stellenbosch-based liquor group Distell.

Late last year came the rather astounding news that the maker of best-selling ciders like Savanna and Hunters and Klipdrift brandy was delving into cannabis-infused beer.

Distell has agreed to distribute and market cannabis-infused beer made by Durban-based Poison City Brewing (PCB).

Distell has not had a beer in its portfolio since the seventies when the old Stellenbosch Farmers Winery (SFW) had a specialist lager joint venture with Louis Luyt.

CBN hears that big hitters like RCL Foods

CEO Miles Dally and Spar CEO Graham O'Connor initially backed the PCB venture.

Distell, over the years, has enjoyed success in niche liquor categories – most notably Amarula Cream liqueur (which performs strongly in international markets).

PCB's lager is not as radical as one might expect. It is made with hemp, a variety of the cannabis sativa plant, which is not loaded with the ingredient that gets the mainstream marijuana use a 'high'.

Reports suggest demand for PCB's brands have outstripped demand, which is presumably where the financial muscle, efficient distribution channels and marketing prowess

of Distell will come in very handy.

In other news at Distell, the group has also launched a premium and fine wine hub in form of Libertas Vineyards and Estates.

Libertas is a new stand-alone company that will own brands like Alto, Nederburg, Durbanville Hills, Plaisir de Merle, Pongracz, Fleur du Cap and Allesverloren and as well as the unique heritage assets of Chateau Libertas, Zonnebloem and the Tabernacle.

Libertas MD Kay Nash said Distell had started the premiumisation journey at all levels in the business from fine wine skills to brands and brand experiences, portfolio structures, ways of working and new col-

laborations, and global routes to market. "We believe our actions will speak louder than our words so its heads down and getting under the hood for a while."

She said Libertas was making bold decisions regarding how we operate and compete. "Distell with their strong wine DNA, are championing the need for a new approach. There is recognition that the category is challenging and inherently complex and requires a specialist focus, different culture and entrepreneurial approach."

In recent years Distell has enjoyed remarkable success in the mainstream wine category with brands like 4th Street, Paarl Perle and Drosty Hof.

Nash stressed the "exquisite focus and passion" needed to drive success in the fine wine category would be harnessed in the new business."

Nash indicated that the first priority in the short-term would be to critically review the large portfolio.

"We have eight brands and 40 sub-brands operating in 88 markets globally across 22 grape varieties, and spanning 384 SKU's. The cost of this complexity is significant and it hinders our ability to focus and support winning propositions."

She noted Libertas had already started to consolidate the secondary production from four sites to a single site at Nederburg to ensure a more efficient supply chain.

Results of 2018 international coastal clean-up

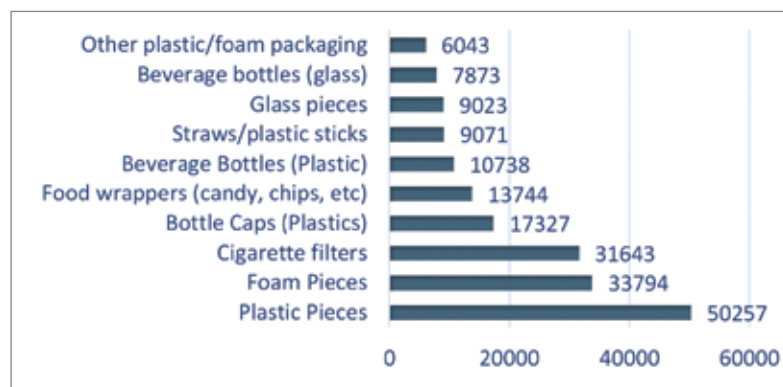
"Through its active involvement each year, the plastics and packaging industry has proven that its concern for marine litter is not just an awareness project, but a driving passion that transforms actions into words"

THE results of the 2018 International Coastal Clean-up, which took place on Saturday, 15 September 2018, have just been released.

"For more than two decades, thousands of South African volunteers have been joining the rest of the world on the third Saturday of September to remove, collect and document the litter from our country's coastlines.

During the 2018 event, 19 563 volunteers collected 241 425 items nationally in audited clean-ups that took place along the country's 2 500km long coastline," reports John

Top pollutants on South Africa's beaches



Kieser, Sustainability Manager of Plastics|SA and Western Cape ICC coordinator of this annual event. (Although this is the official figure, many more vol-

unteers and kilograms of litter were removed at un-audited clean-ups that took place throughout South Africa and throughout the month of September.)

According to Kieser, the most recent results showed that broken down plastic pieces, foam pieces, cigarette butts, bottle caps, food wrappers (such as chip packets and sweet wrappers), glass pieces, beverage bottles, straws and lolly sticks continue to be the biggest pollutants on our country's beaches.

Asthma pumps were the most prolific medical items found in the three Cape provinces, whilst in Kwazulu-Natal (especially in urban

clean-ups), it was disposable syringes.

"The main cause of litter on our beaches and in the marine environment is irresponsible human behaviour. The improper disposal of waste and a lack of waste management infrastructure are the two biggest issues that need to be addressed and corrected," he stressed. Kieser added that the increase in the amount of disposable diapers found illegally dumped (especially around informal settlements) was another area of concern, whilst nationally, approximately 2, 5 km of rope/string and 2, 8 km of monofilament line (fishing line) were also removed from our beaches.

The plastics and packaging industry taking action

Through its active involvement each year, the plastics and packaging industry has proven

2018 South African Volunteer Numbers	
Northern Cape	1 078
• Audited Clean-ups	790
• Non Audited Clean-ups	288
Western Cape	9 381
• Audited Clean-ups	2 476
• Non Audited Clean-ups	6 905
Eastern Cape	6 351
• Audited Clean-ups	1 867
• Non Audited Clean-ups	4 484
KwaZulu-Natal	More than 2 753
• Audited Clean-Ups	2 753
• Non Audited Clean-Ups	Not available

that its concern for marine litter is not just an awareness project, but a driving passion that transforms actions into words. However, their work is not only limited to one day or one month of the year. Instead, several weeks are spent on pre-event lo-

gistics (such as distributing bags, gloves and other support material) to ensure that the material reaches the 400 coordinators nationwide and that South Africa's involvement in the International Coastal Clean-up takes place without a hitch.



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Long awaited duelling of Sandown Road begins

Continued from P1

Tenders are currently being prepared for this section of the road with a view to the successful tenderer being appointed early in 2019.

The contracts will run concurrently with a view to completion of the respective sections simultaneously. Completion of the road

dualling will take 12 to 15 months.

Better N7 access

And while the dualling is underway, the Western Cape Government will plan and construct a loop ramp from Mali-bongwe Drive onto the N7. This ramp, forming part of the future

clover leaf intersection there, will greatly assist southbound motorists. Instead of crossing oncoming traffic lanes on their right, motorists will be able to take a left lane ramp and enter the flyover travelling south.

There will no doubt be some inconvenience

to motorists with construction of this scale taking place.

Hopefully this article will comfort motorists in that there is light at the end of the tunnel - traffic flows into and out of the Parklands/Sunningdale/ Sandown and Rivergate area will be greatly improved.

Bitter pill for C2C

STEENBERG-based company Coast2Coast Capital (C2C) – headed by former chartered accountant Gary Shayne and banker Cris Dillon – is taking some strong medicine as its key investment in Cape Town-based health care brands conglomerate Ascendis flounders.

C2C was the driving force behind Ascendis, which started with an acquisitive bang in 2013 and grew into a listed company worth over R20bn.

But acquisition-hungry companies often suffer indigestion from swallowing too many businesses too soon. Ascendis has proved no different, and is now in the throes of a restructuring process that is likely to see the sale of operational entities and non-core assets. Ascendis has literally become Descendis with the share price in free fall near the end of 2018.

The problem for C2C is that it seems the company was heavily geared (ie borrowed) against its shareholding in Ascendis – including underwriting a R750 million fund raising exercise in 2017 at R20 per share.

In recent months there have been a slew of announcements detailing sales of Ascendis shares by C2C. These transactions are a so called ‘involuntary sales’ forced by financial institutions that were pledged the shares as security for loans. The forced shares sales are understandably executed at lowly prices, which surely means C2C are taking a bath on their Ascendis investment.

While the pressure is on C2C, Ascendis is in a race to restore value and market confidence by selling off assets.

In January Ascendis received an unsolicited offer for recently ac-

quired offshore pharmaceutical business Remdica, which is based in Cyprus.

In May 2016 Ascendis acquired Remdica for around R4.4 billion – which is more than the group’s current market value of R2.8 billion. Whether Ascendis can negotiate anything near the original purchase price remains to be seen.

So far Ascendis has already sold its Isando manufacturing for R130 million with an agreement to continue producing the products currently being manufactured at the premises.

The sale forms part of a strategic review adopted in March last year by Ascendis following the appointment of new CEO Thomas Thomsen.

The review aims to create a sustainable and leading market position for the business as well as improve performance by accelerating

organic growth, improving cash generation and enhancing profitability.

This has meant that the Pharma and Consumer Healthcare divisions have been identified by the group as core focus areas.

The longer term plan will see Ascendis Health driving geographic expansion and growth by strengthening its current foothold in Europe, the Middle East and Africa.

Interestingly, Ascendis has indicated that strategic acquisitions would be considered to enhance and complement the core businesses.

Ascendis’ Biosciences division has been identified as non-core and the company confirmed the logical next step is to divest from the business.

The Biosciences hub comprises Avima/Klub 5, Efekto, Marltons and Afrikelp, is considered non-core to the

group’s new strategy. In the 2018 financial year, the Biosciences businesses contributed revenue of R933 million (12% of group turnover) and profits of R131 million (10% of group profits).

Ascendis Sports Nutrition in South Africa and Ascendis Direct has also been sold off.

The Ascendis Sports Nutrition business – comprising brands like Evox, SSN, Supashape, Muscle Junkie and Nutrimax - fetched R54 million.

Ascendis Direct – the group’s direct selling and network marketing business – was sold for R40 million.

Ascendis’ targeted objective is to generate a 7% to 10% organic revenue growth rate and 22% to 25% profit margin by the 2023 financial year.

Of course, the biggest short term challenge for Ascendis is turning around global



sports nutrition business Scitec. At last count Ascendis said Scitec was delivering encouraging early results and the group remained committed to this investment.

The group noted: “While Scitec operates in a highly competitive sector, the sports nutrition market is growing at around 4% to 5% per annum and is profitable.”

What’s more new consumer segments have been identified which will effectively double the size of Scitec’s target market

- with specific focus on key markets such as Hungary, UK, Germany and the Middle East.

At the time of writing Ascendis’ share price – courtesy news of a possible deal with Remdica – had perked up a little...although not to the levels where C2C would feel more reassured.

At this delicate juncture, CBN wonders whether a strategic new investor – possibly an empowerment firm – might not emerge as a white knight determined to save the day at Ascendis?

Not so festive cheer

CAPE Town’s larger fashion retailers strained over Christmas as the moribund economy dampened festive moods and put a squeeze on discretionary spending.

In the 26 weeks to December 23 Woolworths – which also retails groceries (see box) - reported group sales up just 1.9% compared to the previous year.

The company said sales growth was impacted by one day less of pre-Christmas trade compared to last year.

Disappointingly Woolworths Fashion, Beauty and Home (FBH) sales declined by 2% after being impacted by a significantly smaller winter clearance sale in the first quarter.

But Woolworths reported that sales in the second quarter of the year had shown positive growth.

The price movement for the FBH segment was 1.7% with net retail space growing 0.6%.

Truworths saw its retail sales edge up 2% in the 26 weeks to end December 30 to R10.5 billion.



Truworths said ‘account’ sales comprised 51% (2017: 50%) of total retail sales with account and cash sales increasing by 3.7% and 0.3% respectively.

Retail sales for Truworths Africa (excluding the UK-based Office segment) increased by 2.4% to R7.6 billion with account sales comprising 70% of the top line figure.

Account sales increased by 3.7% and cash sales decreasing by 0.4%.

Truworths said like-for-like store retail sales remained unchanged compared with last

year, while trading space in Truworths Africa increased by 1%.

Truworths said trading space was likely to increase by around 2% in the 2019 financial year.

The company said product deflation averaged 1.5% for the current period. The slightly better news is that Truworths Africa has implemented a new lay-bye offering and an e-commerce platform.

In commentary on the sales update, Truworths said it continued to experience difficult trading conditions in both its main mar-

kets. “Low economic growth, high unemployment, modest increases in negotiated wages and higher average fuel and utility prices contributed to low consumer confidence and constrained spending in South Africa...”

The Foschini Group (TFG) – based in unfashionable Parow – fared slightly better with consolidated turnover increasing 8.3% for the December 2018 trading month with directors reporting solid performances across all business segments.

Directors said TFG Africa’s turnover growth for the December trading month, coming off a high base in the previous December, was 7.2% with same store turnover up 4.2%.

A breakdown showed a sprightly 10.2% growth in clothing sales, 7.5% in home-ware & furniture, a nearly 5% drop in cosmetic sales and a 7.5% decrease in cell phone sales.

TFG said cash turnover grew by 6.5% and credit turnover growth was 8.2%.

In the nine months to end December 29, TFG said there was a 9.5% turnover growth in the local business.

The company said growth was underpinned by strong Black Friday trade as well as

strong December trade across all the business segments.

Directors noted: “The impact of Black Friday, in pulling forward what would have traditionally been December sales, is becoming more pronounced - especially in certain merchandise categories such as cosmetics and jewellery.”

Merchandise deflation for the nine-month period in TFG Africa averaged around -4%.

Groceries...not much better

PAROW-based supermarket giant Shoprite reported total turnover growth up just 0.03% to R72.9 billion in the six months to end December 2018.

The company said that in difficult circumstances the number of customer visits increased by 1.7% and product volumes by 0.2%.

Shoprite’s core business, Supermarkets RSA, achieved 2.58% sales growth for the period.

Directors noted: “Persistently low internal food inflation in South Africa of only 0.2% for the period marks 18 months of near stagnant prices of basic foods in which the group has a larger market share.”

They said the core Shoprite middle income consumer base remained under pressure. “This was evidenced in Christmas sales in categories – like ‘Back to

School’ essentials - which outperformed traditional discretionary purchases such as toys for the first time.”

Shoprite said its liquor stores remained the standout performer with 20.09% sales growth for the period.

Looking ahead Shoprite said expansion remained on track with 50 new supermarkets opened in the period, and plans had also been finalised to open another 37 before June 2019.

Woolworths Food sales increased 6.3% in the 26 weeks to December 23 with volume growth driven by low inflation, higher levels of promotions and price investment.

The price movement was just 1.2% with comparable store sales increasing 4.2% and net retail space growing 1.4%.

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Heavy duty impact traffic door

ENGINEERED not only for optimum durability and safety, the Apex SR 9000 heavy duty impact door manages to blend into any environment as a result of its sleek, modern design.

Wim Dessing, sales executive at Apex Strip Curtains & Doors, says this cost effective, insulated traffic door has found popularity in market sectors where dependable operation coupled with an attractive appearance is important.

"Locally manufactured by the company, the Apex SR 9000 door combines functionality with longevity and allows easy movement of pedestrians and goods," Dessing says. "We find that customers often specify this particular door up-front."

The door is manufactured from a 3 mm ABS skin which retains its physical properties down to temperatures of -40°C. The low maintenance skin is impervious to mois-



The Apex SR 9000 impact doors offers dependable operation coupled with an attractive appearance.

ture, acids, petroleum products, animal fats, rodent, insects and salt solutions.

The door's insulation characteristics are enhanced by its high-density, non-CFC urethane foam core. The patented honeycomb framework and flexible urethane foam insulation provide optimum stability and superior soundproofing qualities.

Standard vision panels, constructed from

3 mm clear polycarbonate sheeting, are available in a number of custom sizes and are scratch-resistant and UBC compatible for enhanced visibility. Windows can be mounted in various positions on the door, and double pane vision panels can be installed for use in refrigerated areas.

"Wear is always an issue on impact doors, and to prevent excessive wear on the pe-

rimeter edges the door panels are bull nosed with a minimum radius of 8 mm. This significantly reduces maintenance on the doors," he says.

The Apex SR 9000 doors are mounted on an internal welded steel perimeter with corner gussets, using a CMI type 'V' gravity hinging system. Gasket keys are moulded in place and retain gasketing without the use of screws, rivets or other fasteners. High bumpers are also fitted to the door panel to further absorb impact from forklift trucks and carts. This also reduces stress on hardware and mount assemblies.

Dessing says the company provides a full technical advice service that assists customers to configure the best door for each application.

In addition, installation support and prompt delivery times ensure that customer productivity is not compromised.

Carbon tax coming

THE carbon tax will become effective from 1 June 2019.

The carbon tax bill and related measures will enable South Africa to meet its targets as agreed in the Paris Agreement, the National Treasury said in a statement.

The revised bill takes into account comments received during the Parliamentary hearings convened by the Standing Committee of Finance earlier this year, following publication of the draft bill in December 2017.

Cabinet adopted the carbon tax bill in August 2017, noting the bill as an integral part of the system for implementing government policy on climate change.

"The Carbon Tax Bill gives effect to the 'polluter pays' principle and aims to price greenhouse gas emissions by obliging the polluter to internalise the external costs of emitting carbon, and contribute towards addressing the harm caused by such pollution," stated the National Treasury.

ter the review, and be subject to the normal transparent and consultative processes for all tax legislation, after any appropriate Budget announcements by the Minister of Finance."

The tax, the department said, will be implemented in a phased manner and will take into account the country's NDC commitments to reduce greenhouse gas emissions.

Tax incentives

Complementing the implementation of the carbon tax will be a package of tax incentives and revenue recycling measures to minimise the impact in the first phase of the policy.

The department explained: "To cushion the potential adverse impacts on energy intensive sectors such as mining, iron and steel, the introduction of the carbon tax for the first phase will not have an impact on the price of electricity. This will be achieved through a tax credit for the renewable energy premium built into the electricity tariffs and a credit for the existing electricity generation levy."

In 2013, government implemented the energy efficiency savings tax incentive to support businesses investing in energy efficient equipment and practices.

"Government will consider extending the duration of this incentive to be aligned with the first phase of the carbon tax and also undertake a review of the incentive in collaboration with the Department of Energy and the South African National



Energy Development Institute. The energy efficiency savings tax incentive combined with these two measures will help cushion emissions-intensive and trade-exposed sectors during the first phase," Treasury said.

The design of the carbon tax provides significant tax-free emissions allowances ranging from 60% to 95% for the first phase. This will be to provide sectors with sufficient time and flexibility to transition their activities through investments in energy efficiency, renewables and other low carbon measures, the statement read.

"This includes a basic tax-free allowance of 60% for all activities, a 10% process and fugitive emissions allowance, a maximum 10% allowance for companies that use carbon offsets to reduce their tax liability, a performance allowance of up to 5% for companies that reduce the emissions intensity of their activities, and a maximum 10% allowance for trade exposed sectors. This will result in a relatively modest carbon tax rate ranging from R6 to R48 per ton of CO₂ equivalent emitted," said Treasury.

Reducing GHG emissions

The National Treasury further noted: "A review of the impact of the tax will be conducted after at least three years of implementation of the tax and will take into account the progress made to reduce GHG emissions, in line with our NDC [national determined contributions] Commitments."

"Future changes to rates and tax-free thresholds in the Carbon Tax will follow af-

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ADB launches AEP

The African Development Bank has launched the Africa Energy Portal (AEP)

THE AEP portal, hosted at <http://Africa-Energy-Portal.org>, will consolidate, validate, and disseminate energy data and insights across Africa's energy value chain, covering generation, transmission, distribution, regulation and policy.

The AEP is designed to address a lack of information in the sector, by providing a one-stop-shop for accurate, reliable, relevant, and up-to-date information on energy in Africa. This will include statistics on investment flows and deals, as well as the socio-economic outcomes of power projects.

"Many international and local stakeholders have experienced the data access and reli-

ability challenges that hold back substantive participation in the numerous opportunities within Africa's energy sector.

The AEP is strategically positioned to resolve these challenges, by providing stakeholders with the requisite information to facilitate decision making, and fast track investments and initiatives that will revolutionise Africa's energy sector," said Amadou Hott, Vice President of Power, Energy, Climate Change and Green Growth at the African Development Bank.

In addition to being an information repository, the AEP will also provide an interactive platform for knowledge-sharing amongst

Africa's energy sector stakeholders and experts. It will serve as a virtual space for engagement, and progressive dialogue on pertinent issues affecting the development of the continent's energy and power infrastructure.

The AEP will leverage the bank's energy sector and statistical expertise in order to consolidate and generate verified data and statistics on Africa's energy sector. The bank also aims to collaborate with regional organisations, and in-country statistics agencies to develop data collection and validation procedures to improve the quality of publicly available information on the continent's energy sector.

Binning plastic: The answer is not what you think

Tim Stewart, Executive: Packaging at Novus Holdings, takes a look at the issue of plastic pollution and asks the question, what really needs to change?

WE tend to blame plastic for polluting the environment, but the way we are using it might very well be the problem.

Earlier this year, Plastics SA released the audited results of the biggest pollutants found on our beaches during 2017. The majority of waste was food wrappers, plastic containers, bottle caps and lids, a trend that John Keiser, Sustainability Manager at Plastics SA, attributed to human behaviour that needed to change. He added that plastics are valuable as they make our lives easy, but they do need to be disposed of responsibly to avoid filling up landfills, waterways and oceans.

A culture of littering

Littering has unfortunately become commonplace, which is easily seen along the highways, our streets and neighbourhoods. Litter is a threat to our tourist industry, and that in turn, could threaten job security. In addition, our takeaway culture has seen us increase the use of single-use plastics and throwing it away.

What can fix it?

Education and awareness is the first step, but we also need to accept that behavioural change is required. Plastic will always be around. It is our responsibility to



commit to throwing our waste away – or better yet, recycling it - instead of simply dumping it on our streets. A litter-free society begins with our own individual attitudes and behaviour.

Are we recycling?

Plastics SA recently released the plastics recycling figures for

the year ending 2017, and for the seventh year running, plastics recycling in South Africa has continued to grow, with more than 334,727 tons recycled back into raw material. With an input recycling rate of 43.7%, South Africa has outperformed Europe whose recycling rate currently sits at 31.1%.

Anton Hanekom, Executive Director of Plastics SA, recently said that recycling works well in South Africa because there is a financial imperative, whereas in Europe, it is the right thing to do.

Essentially, we have to become more responsible with the materials we use, and therefore recycling is absolutely necessary as the population grows.

As Hanekom recently said “the relevance of recycling is becoming more prominent as the image of plastics and the drive to create a long-term, circular economy demand end-of-life solutions for plastics packaging and plastics in general.”

What about shopping bags?

Many local retailers have started making a concerted effort to do their part in reducing plastic waste and are introducing different alternatives for single-use plastic bags. However, all materials used (plastic, paper, cotton or fabric) have an impact on the environment.

A recent study** done by the Danish Environmental Protection Agency finds that plastic bags are, contrary to popular belief, kinder to the environment than many other re-usable bags, such as cotton or cloth bags.

“This is because the entire production cycle

isn't taken into account when people assume that cotton bags are better for the environment. For example, it can take more than 20 000 litres of water to produce 1kg of cotton,” says Stewart.

Novus Holdings' ITB Plastics, offers a 100% recyclable LLD plastic bag that is also washable. This bag is also made from recycled material; is thicker than an ordinary plastic grocery bag (a sturdier product with added strength – robust for carrying up to 20kg) and; it can be used up to 200 times (before being handed in for responsible recycling).

**Life Cycle Assessment of grocery carrier bags, February 2018



Energy saving

ANYONE within the agricultural sector will know that operating an irrigation system can be expensive, with one of the primary factors being the cost of energy. The good news is that there are ways to reduce costs and achieve savings at the end of the day.

Significant savings can be realised by leveraging available technology to provide an appropriate electric motor and variable speed drive combination that will reduce owning and operating costs while providing reliable performance.

WEG IE3 Top Premium Efficiency motors and WEG Variable Speed Drives (VSDs), from Zest WEG Group, will do just that.

As a supplier with a solid track record in irrigation applications, Zest WEG Group can provide an example to show how energy costs can be reduced. In a pivot pump application which operates for 4 000 hours in a single year - relative to two planting cycles – it was possible to do a comparison between a standard efficiency IE1 motor (91% Eff) and a premium efficiency WEG IE3 motor.

WEG IE3 Top Premium Efficiency motors not only offer maximum ingress protection with a higher winding insulation system to increase motor life expectancy, but also offer efficiencies of up to 96.6% and benefits can be

seen when compared against IE1 standard efficiency motors. Using a 22 kW 2 Pole at 75% of full load IE1 motor with an efficiency of 91%, measured against a WEG IE3 motor with 93% efficiency, estimated savings of R2 100 per year at the current tariff will be achieved.

Much higher savings can also be realised by using a WEG VSD

in combination with a WEG motor. An IE1 electric motor, again operating for 4 000 hours per year at 91% efficiency, will consume about R93 800 worth of energy still using old methods by means of valves that can be throttled to reduce the output of water volume and/or pressure. The same water volume and/or pressure could be achieved

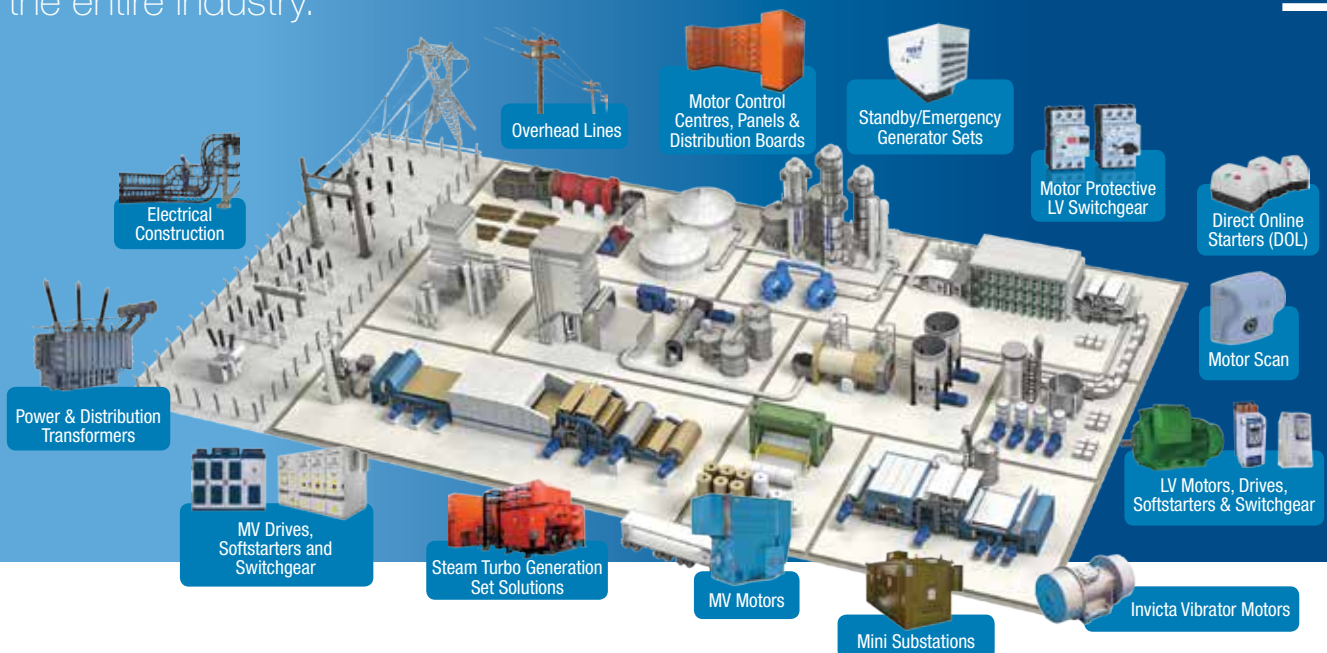
using a VSD to reduce the motor speed while simultaneously further reducing the energy absorbed when compared to running the motor direct online from a power source.

If a 10% reduction in operational speed using the VSD is assumed, further savings of 22% to 27% could be achieved; based on the affinity law principle of hydraulics.



Zest WEG Group offers the most efficient combination to reduce energy consumption - the WEG W22 electric motor with a WEG VSD.

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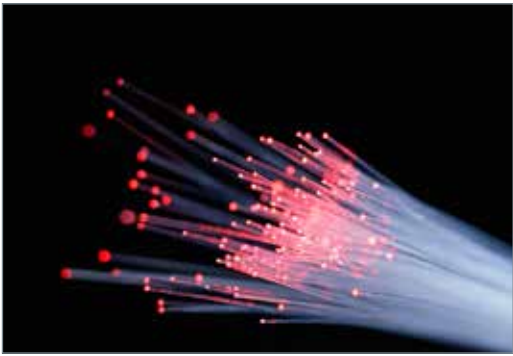


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Data connectivity boost

Low latency access between Africa and the Americas set to benefit local carriers, content and cloud providers as well as enterprise



TERACO, Africa's largest vendor neutral colocation data centre provider has said that clients currently making use of its data centres in Cape Town and Johannesburg are set to benefit from the cross connection to the South Atlantic Cable System (SACS) - Africa's first transatlantic link connecting Africa to the Americas.

Owned by Angola Cables, the new subsea network provides the most direct routing for internet traffic across the Atlantic and according to Teraco, will bring immense opportunity for clients within the data centre.

"This is an exciting development and includes much needed investment into local infrastructure. Built with a direct purpose to boost business in South Africa, SACS will provide improved connectivity and significantly lower latency routing between Africa and the Americas," says Jan Hnizdo, Teraco

Managing Director.

Offering five times the speed of existing cable routings and an improvement of up to 60%, SACS reduces latency from Fortaleza (Brazil) to Luanda (Angola) from 350ms to 63ms; Luanda is connected with the same latency to London and to Miami of approximately 128 milliseconds, the link from Miami to Cape Town has been reduced to 163ms - from 338ms in the past prior to SACS.

When asked about the main benefits of the system, Angola Cables' CEO, Antonio Nunes said that latency is a global issue, especially in the era of software driven services. "SACS has the capabilities to dramatically improve this - and at the same time Angola Cables is bringing new routes to Africa with a lot of available capacity."

The Angola Cables submarine network is already providing Teraco's data centres

in South Africa with direct connectivity to Brazil, Chile, Argentina and Bolivia, but also to Miami giving Teraco's DC clients a premium opportunity to connect and share digital content with the America continent.

Nunes says, "The SACS southern hemisphere, ultra-low latency routings presents a massive opportunity for Teraco's direct clients' to access fast and reliable cross connections between Africa and the Americas."

Hnizdo added that SACS will be a great contributor to increased economic growth as this new system compliments the European route: "Having a southern-based cabling system is also good as a contingency plan. SACS provides not only an alternative, but a cost effective option to access regions that were previously difficult to reach."

"As Teraco grows its market presence across carrier, content, cloud and enterprise sectors, our clients will benefit from the latency and diversity offered by the subsea cable systems now available. Access to the Americas has never been easier and we look forward to an increase in transatlantic traffic fully utilising the SACS cable system that is built on 100Gig technology."

Focus on the challenges, not the technology



Rodney Taylor.

DIGITAL transformation and the Internet of Things (IoT) are widely discussed topics in business today. That said, many organisations are still slow in getting their transformation initiatives underway and implementing tangible IoT solutions. According to Rodney Taylor, CEO of Activate Group, this is because most people get so caught up in the technology that they do not focus on the challenges they are trying to solve.

"We need to move away from the notion

that when a new technology emerges, we must find an application for it in our business," he says. "It is because of that type of thinking that organisations often implement technologies on a whim, only to find that it does not yield the type of results they were expecting. This then leads to them being hesitant to adopt new technologies in the future, because they are not yet proven."

Taylor says that we need to change the way we think about technology, particularly when it comes to IoT. "For IoT to make a tangible difference to business, organisations need to focus on the challenge first. The technology is there, but unless you have an in-depth understanding of the issue you are trying to solve, you will become bogged down

and progress will be slow," he says. "However, if you focus on the challenge and then look at what technologies are out there that could solve the problem if applied differently, you will see how much easier it is to embrace IoT."

IoT is always about connecting things and making the organisation's most valuable assets visible. "We work with many retail clients and two of the biggest challenges they face is the cost of electricity and optimising their workforce. Through IoT, for example, they can monitor electricity usage in real-time, and can switch off appliances remotely when they are not required. At the same time, they can monitor employees to ensure that their time is spent optimally on the most important tasks," says Taylor. "This is just

one example where IoT can drive efficiency and save costs, but there is a myriad of other applications out there as well."

He adds that it cannot be about embracing every hyped-up technology that comes across your desk. "Unless a technology can solve an immediate problem for your organisation, improve efficiency and drive down cost, it is probably not the right solution for you," says Taylor. "Technology for the sake of it can be very dangerous and costly. However, if it is applied in the right way to solve business challenges, the business can benefit hugely."

"I am yet to see an industry or sector that cannot benefit from IoT," he says. "It's the application thereof that makes all the difference."

Exhibition organiser wins four industry awards

THE Exhibition Industry Alliance, which unites the Association of African Exhibition Organisers (AAXO) and the Exhibition and Event Association of Southern Africa (EXSA), recently hosted the Exhibition Industry Awards, an annual event which gives recognition to outstanding performance of companies and individuals.

Specialised Exhibitions Montgomery was announced the winner of three AAXO ROAR Awards: 'Best Trade Exhibition 6 000m² and under', for Madex 2018; 'Best Trade Exhibition 12 000m² and above' for Electra Mining Africa 2018; and 'Best Africa-Bound Exhibition

for CAMINEX 2018.

"To be recognised amongst our industry peers is a great honour and we are delighted to have won the three AAXO awards," says Gary Corin, Managing Director of Specialised Exhibitions Montgomery. "We believe that our continued success as exhibition organisers lies in our ability to adapt to meet changing market needs, the expertise and hard work that our dynamic and experienced team invests into each exhibition, and the continued support of all our stakeholders, whom we thank."

"Our thanks also go to the Exhibition Industry Alliance for this opportunity; not only

to receive our awards, but also to celebrate awards presented to our industry colleagues."

Later in the evening Gary Corin was announced as the EXSA Hall of Fame 2018 award winner in recognition of his years of dedication and contribution to the exhibition industry.

With over 22 years of exhibition experience, holding the positions of marketing director and chief operating officer prior to his becoming managing director at Specialised Exhibitions Montgomery, Gary is enjoyed by many for his integrity, honesty and zest for life.

Speaking after the



Gary Corin.

event, Gary expressed his appreciation to all his industry colleagues and said that "Exhibitions are my passion and to be acknowledged in this way is a great privilege."

The next Exhibition Industry Awards will take place in January 2020.

Light Steel Frame course for Building Contractors, Germiston

25 Feb - 1 March 2019

THE Southern African Light Steel Frame Building Association (SASFA) is running a five day training course for building contractors, designers and inspectors. Successful completion of the course for Building Contractors will enable attendees to correctly erect a simple LSF structure, and to plan and supervise installation of cladding, lining, insulation and services.

Who should attend?

The course is aimed at new as well as practising builders and building contractors of light steel frame buildings. Attendees must at least have passed Grade 12, and be able to read building plans.

Course Content

The course covers all aspects of LSF, including practical work - trainees will erect a

small LSF building:

- Steel frames: properties of steel, manufacturing of steel frames, setting out and erection
- Installation of external cladding, and
- Internal lining, insulation and services

The five day course will be presented by SASFA, in co-operation with Marley Building Systems and others.

The attendance fee covers a set of course notes, refreshments and light lunches daily. A certificate of successful completion will be issued to qualifying candidates.

Course fee (Vat Incl): SASFA members: R 7 700/person Non-members: R 8 100/person. To register, go to www.saisc.co.za/wp-content/uploads/2018/11/Registration-form-SASFA-Builders-Course-22-Feb-2019.pdf



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No charge for solar PV system registration

THE City would like to clear up some of the confusion that has become apparent in light of the City's reminder that solar PV systems need to be registered with the municipality.



Summary

- There is no charge for the registration of solar PV systems. A fee will only be applied for failure to register the system
- No solar PV 'tax' is in the pipeline
- The registration will tell the City of Cape Town where a system is connected so that staff and contractors are not electrocuted when working on the network
- Draft national legislation indicates that formal registration of SSEG systems will become mandatory

No charge for registration

It must be stressed that the City does not charge for the registration of solar PV systems. The R6 425,90 service fee will only be applied in cases where residents fail to register their system with the City. Residents should note, however, that there may be costs associated with ensuring that the system is either compliant or off-grid.

Registration no precursor to solar PV 'tax'

The registration requirement is also not a precursor to taxation directed at those who off-set their mu-

nicipal electricity consumption using solar power. There are no such plans in the pipeline. The main reason that registration is required is to ensure the safety of our staff and to supply electricity to all customers at certain quality standards. Information on where these systems exist can also be used for electricity demand control, quality of supply management and for planning future investment in electricity infrastructure.

Only 2% of systems confirmed as off-grid

Some residents have queried why registration is necessary even if the system is not 'grid-tied,' i.e. connected to the City's electricity infrastructure. In response, it must be noted that the City has statutory obligations to ensure that all grid-tied systems comply with safety and performance standards. In order to understand whether a system is grid-tied or off-grid, all PV systems must be registered so that the City can confirm if the system is connected to the grid and so that off-grid systems are not mistaken for unauthorised grid-tied systems. Registered

systems will be cross-checked with aerial photographs which the City is using to identify the existence of all PV systems.

Furthermore many solar PV systems that claim to be off-grid are not electrically separate from the house's wiring and are therefore not technically off-grid. To qualify as 'off-grid,' a solar PV system must be completely electrically separate from a property's wiring; for example, a pool pump that is powered by a solar PV system only.

Certain other configurations of PV systems can also qualify as off-grid; for example, if a change-over switch is installed so that the property uses only electricity from the PV system, or only from the City's grid, but never both at the same time. Of the systems that have registered for authorisation thus far, only about 2% are confirmed as off-grid. The registration process for off-grid systems is a simplified process as the equipment does not need to comply with the City's standards. (The equipment will still need to comply with national safety standards). At a minimum, a letter will be required which has

been signed by a registered electrician verifying that the system is truly off-grid.

Very small systems that would not be mistaken for grid-tied systems, such as solar powered appliances or solar lights, need not register.

Solar Water Heaters (SWHs) that use the sun's thermal energy to heat water directly are not considered electricity generators and do not need to be registered. Nevertheless, solar PV panels that are directly connected to a hot water geyser element via a change-over switch will need to be registered (as do all solar PV panels irrespective of their use) to confirm that the system is an off-grid PV system and is not mistaken for a grid-tied system.

City pre-empting national legal requirement for registration

It has always been a legal requirement that generation systems connected to the City's network be authorised by the City prior to being connected. It has taken some time for South Africa to develop national standards to connect PV installations safely. In the absence of national standards, the City has developed interim standards for PV systems to be safely and legally connected to the grid.

Draft national legislation indicates that formal registration of SSEG systems will become mandatory. 'The City understands the frustration that

comes with government red tape. However, the safety of our staff and residents is paramount. As solar PV is now becoming affordable for many more of our residents, and uptake is expected to increase, it is important that we ensure that residents and the industry are aware of what is required in terms of the City's Electricity by-law, and that existing systems are compliant. Offering a grace period for registration of these systems was the best way to achieve these aims.

It is very clear that we are moving towards a system of national registration and it is the City's intention as far as possible to assist its residents with this transition within the confines of legislation,' said the City's Mayoral Committee Member for Energy and Climate Change, Councillor Phindile Maxiti.

Registration forms

Forms for registration as well as a guide to completing the registration process can be downloaded from www.capetown.gov.za/solarPV. The information required is quite technical, so should residents struggle we would advise that they contact the installer for assistance, as registration of the systems should have been provided as part of the installation service.

Once completed, the forms can be sent to the relevant technician as per contact details at the link referred to above.

On the move brand cost savings ahead

Vehicle Branding and Wraps are the only forms of advertising that will cost you less than two rand a day. So it is now wonder why it is one of the fastest forms of advertising out there. Reaching thousands of people everyday 24/7, whether on the road, in a parking lot, shopping centres, restaurants or the school run.

Custom graphics also reduces the risk of hijacking and theft, as your vehicle is easily identified. It also makes it easy to spot in the parking lot.

What makes Vehicle Branding and Wraps most cost effective. No monthly maintenance costs like you would on regular media streams. Drive people to your website without paying the click charge. Then something that a lot of people do not know. Get the signage company to design the cus-

tom graphic for free or a nominal fee. Who better to ask than the people who actually do the production. No huge ad or design agency costs.

Vehicle Branding and Wraps is an innovative way to create your very own moving 3D billboard. There are companies out there that advertise moving billboards per day or month. These have various restrictions levied on them and they need to be stationary for most part of the day. Your custom graphic goes with you, where ever you go, whenever you go 24/7. And your custom graphic loves traffic, grabbing the attention of those around you.

When considering the advantages, which definitely out weighs the negatives. You must consider the material performance. Typically one wants to



consider seven to ten year vinyls for printed images and vinyl decals. And cast vinyls for solid colours and large areas of coverage. There are numerous products out there, so one must definitely seek the advise of a professional operation when choosing your custom graphic. Vinyls and printed vinyl graphics are harmless to vehicle bodies and can be easily removed. Need to change some details on your graphic. Its as simple as strip and replace.

Vehicle Branding and Wraps will actually enhance your trade-in value, as they can actually protect your vehicles paint from chips, scratches or fading. All you need to do is peel it off and your car will look like new again.

Have a budget constraint or are you a start up company? You do not need to wrap the full vehicle. One can simply brand the back window or even a quarter or half a vehicle. Some of the most powerful examples are when the graphic is slick and simple.

An even cheaper form is car magnets. Branding that is printed onto a magnetic material, that sticks to your car body. However dust can get in-between the material and your vehicles body leaving fine scratches after a while. So when choosing this option you need to ensure a very clean surface. It will require regular cleaning. But its nice to be able to take off your message when going on holiday.

SKF goes with the predictive maintenance flow

SKF, the bearing and rotation technology specialist is addressing every aspect within the digital revolution space in order to arm its facility with the necessary capabilities for the seamless, efficient, cost-effective, safe and eco-friendly production of bearings of exceptional quality.

SKF took the decision to adopt a digital predictive maintenance approach to ensure a continuous process flow. SKF has created an innovative network of wireless sensors to precisely and continuously monitor the most critical machines.

The sensors which are inside an IMx-8 box capture and analyse data from the industrial equipment in real

time and alert operators of any problems to avert costly equipment failures. Monthly production halts are now a thing of the past; intervention is done in a graduated way every two or even three months without greatly affecting work flow.

SKF has developed a nomad solution called QuickCollect to monitor the remaining machines. This portable sensor, which is the size of a mobile phone, can be fixed to strategic points on certain PLCs (Programmable Logic Controllers), making it possible for anyone to monitor machine health without the need for extensive training or diagnostic expertise. Results such as temperature, rotation speed and vibra-



tions are displayed directly on the operator's mobile phone. Combining an easy-to-use sensor with mobile apps, machine condition can be quickly and easily identified and inspection, process and machine health data can be shared company-wide. These latest-generation sensors developed by SKF gather new forms of data such as impact detection and provide advanced levels of information which in the past operators were unable

to access.

To further improve flexibility, SKF has also introduced processes to simplify machine configuration that speeds up switch-over between tasks. Re-initialisation on the old lines, which required between four to eight hours, has today been reduced to around one hour. SKF expects this process to eventually be immediate.

The training of operators will be imperative so that they can understand the complete ar-

chitecture to establish if, for example, a failure comes from the network, the MES (Manufacturing Execution System), or higher up. The responsibility will fall on the upskilled operators to initiate the correct procedures.

SKF's digital transformation has already seen the replacement of the Göteborg plant's four conventional production lines (each line was only able to manufacture one bearing type), with a single, almost completely automated 4.0 production line that can deal with different bearing sizes and selections. SKF's digital revolution encompasses a range of solutions including industrial robots and AGVs (Automatic Guided Vehicles).

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Temperature maintenance with EHT

HEAT sensitive industries today require highly effective temperature maintenance solutions to keep operations running optimally. In the bitumen industry for example, viscosity must be managed and maintained consistently, and temperature maintenance plays a critical role in this process.

It is therefore not surprising that various heat transfer solutions are used to maintain temperature. One of the methods used is thermal oil which is available in a wide range of specifications to suit various processes.

The term thermal oil represents heat transfer fluids that move heat from one heated source to another process. Thermal oils are available in different forms like synthetic oil, petroleum-based oils such as paraffins and synthetic glycol-based fluids.

One of the country's suppliers of bituminous products uses a combination of thermal oil, electrical heat tracing (EHT) and flu gas to maintain plant temperature and subsequent operations

and material viscosity.

However, the organisation has increasingly found that the thermal oil leads to high capital outlay and overall operational expenditure: oil condensates and evaporates; and prolongs plant maintenance and shut down time as it takes longer to reach specified temperatures.

As a result, this organisation now runs a hybrid heating solution which is made up of five percent thermal oil and the majority EHT. "Electrical heat tracing offers virtually no additional maintenance once installed and it significantly cuts down on shutdown and maintenance time as it reaches optimal temperature quicker.

"Reaction time is limited when a plant experiences downtime or a shutdown. According to the organisation, an effective heating solution like EHT is more feasible than thermal oil which takes much longer to become fully operational again."

Adds Frik Van Dyk, Engineering Manager from eltherm SA, a pro-

vider of heat tracing solutions: "EHT also offers significant energy cost savings as it requires a lot less power to maintain temperature than thermal oil solutions. Also, due to advancements in EHT application, systems can be used virtually anywhere on a plant."

Additional thermal oil drawbacks include:

- Sudden electricity trips or unplanned shutdowns may cause the oil to overheat;
 - Overheating causes degradation and sludge
 - This will necessitate cleaning and replenishing the oil
- Leaks especially in the combustion area can cause fire hazards; and
- Valves, gaskets and packings should be suitable for thermal oil use.

"EHT is undoubtedly the future and we hope to move over all our operations to heat tracing in the foreseeable future," says the organisation.

Working towards zero waste

*Kate Stubbs,
Director for Business
Development and
Marketing at Interwaste*



SOUTH Africans generate over 42 million m³ of municipal waste each year, with the vast majority of this waste being disposed of at landfill sites. In fact, according to Henry Roman, Director of Environmental Services and Technology at the Department of Science and Technology – South Africans are dumping as much as R17 billion worth of material at landfill sites across the country.

When you consider this, and the fact that South Africa is likely to run out of landfill space by 2024, given the overflow of waste, then you

begin to understand the enormous amount of pressure for businesses and the government, alike, to create more sustainable developments, to better manage the waste to landfill challenge.

How much are we recycling?

According to the Department of Environmental Affairs, only about 34% of waste collected in South Africa, is effectively recycled. This poses a serious threat on the country's waste management resources, as landfills are not designed to breakdown waste, only to store it – and given the high volume of valuable materials being reduced to waste – landfills will ultimately be filled. As a result, the question is where then will all the waste go?

How much could we recycle?

There is a real opportunity for South Africa to increase its recycling scope – if we look at innovative recycling and repurposing projects that really engage our communities to make a change. From a figures perspective, South Africa has the potential to recycle more than 6.9



million tons each year – bringing the current 34% up to at least 65%.

South Africa is aiming to reach a target of 20% of total waste being diverted from landfills by 2019. This means that sound and sustainable innovations would need to be sought by companies, to ensure they are not only compliant (from a waste perspective) but also support governments' objectives of reaching these targets. However, if we cannot find ways for these companies to use this type of waste as revenue generating resources, we are likely to lose momentum for allowing companies to actively support waste reduction or directing waste towards recycling and reuse.

Over the past several years, new legislation has been developed to support more environmentally friendly and sustainable waste management processes, in-

cluding improvements in the disposal of waste to landfill and, more importantly, to encourage the waste industry to seek alternative solutions. The National Government has also put policies in place to support the implementation of the new legislation and identified strategies to divert certain waste from ending up at landfill sites. An example of this is the National Waste Management Strategy, launched by the Department of Environmental Affairs (DEA) to promote waste minimisation, re-use, recycling and recovery of waste, among other things. So, Government really is active in trying to establish a more uniform way to ensure all public and private sector entities and citizens recycle all their reusable products, as far as possible, and contribute to national recycling initiatives and programmes.



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Water-efficient cleaning

TO manage a sustainable contract cleaning business, industrial and commercial cleaners are seeking efficiency in everything they buy, especially water-efficiency, given that it has become a very scarce natural resource. Gregory Venter, MD of Goscor Cleaning Equipment (GCE), reports that there is a growing demand for innovative cleaning technologies to conserve water.

"It is imperative for water-intensive businesses to start investigating ways to reduce their consumption. Within our Tennant range, we have two technologies – ec-H2O NanoClean and ES (Extended Scrubbing) – that set a new era in water efficiency," explains Venter.

Leading tech

Venter notes that 'Detergent-free' cleaning is a big trend in the commercial cleaning sector as the professional cleaning industry continues to find ways to get the better of water woes.

For example, with



Tennant's ec-H2O NanoClean technology – which electrically converts water into an innovative, detergent-free solution that cleans effectively – customers can save money, while reducing their environmental impact compared with daily floor cleaning chemicals. "The converted water is created by an on-board e-cell that generates millions of tiny microscopic bubbles known as nanobubbles that promote the cleaning efficacy of the solution," says Venter.

GCE also offers Tennant's Extended Scrubbing (ES) technology, which recycles cleaning solutions through a three-stage filtering system, to extend scrubbing time.

"Scrubber-dryers equipped with the ES system can recycle cleaning solutions, resulting in extended scrubbing uptime and improved productivity. This allows for scrubbing and decreased water consumption and disposal by up to 66%," he says.

Away from Tennant, GCE also offers Kaivac's OmniFlex Dispense-and-Vac system, which is ideal for the heaviest soil and grease conditions. It dispenses very little water with a spigot and agitating brush. Apart from being up to 60 times better at removing soil and contaminants than mopping, it also uses considerably less water than a conventional spaghetti mop, for example.

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Upskilling employees through e-learning platform

Ackermans has launched its new in-store electronic learning solution to train new and existing staff

“AT Ackermans, we value the development and personal growth of all our employees, enabling lifelong career progression for them within the retail industry. We wanted to offer our employees an interactive and vibrant learning experience that would essentially motivate them to take their skills to the next level,” says Reinette Lourens, Training Manager at Ackermans.

“Developed over 18 months, the platform provides learners with tools that may assist in elevating their performance in their current role, as well as provide simple and easy access to learning which will assist in their career trajectory.

“Replacing our paper-based in-store programmes, the e-learning platform are developed in such a way that a Shop Assistant entering employment with Ackermans could eventually progress to the role of Store Manager and beyond, if the learner has the required dedication.”

In recent years, e-learning has become increasingly popular in workplaces around the world, as it offers organisations effective, cost-efficient ways of delivering quality training to employees spread across the country.

Lourens discusses the benefits of e-learning in the workplace.

Flexibility and accessibility

Learning can be conducted at a time and place that suits the

learner. This has major benefits for remote workers or shift-workers, as they will have the same access and opportunity as those who work standard business hours.

“Our e-learning platform provides staff with up-to-date learning material - available to all of our employees - even those in the remotest areas of South Africa.”

Saves money and time

E-learning provides cost-effective ways to deliver training to a large group of learners. “It doesn’t rely on trainers having to travel or be present in order to deliver learning.”

This also reduces administration costs and even printing costs, which is better for the environment too.

Instant feedback

Employees are able to get real-time feedback, and because everything is conducted online, management can swiftly analyse participation, as well as track the progress of individual employees.

Certification

With some e-learning platforms such as the one at Ackermans, staff have immediate access to electronic certificates upon completion of a Level. This saves time and provides instant gratification to eager learners.

Companies caught short with GDPR

A viewpoint from Stuart Scanlon, the managing director of epic ERP



AS implementation of new EU General Data Protection Regulations continues, many South African companies are finding themselves unprepared and likely to face stiff penalties if

they don’t seek compliance as a matter of urgency.

Protection of personal information has been thrust squarely into the spotlight in recent years, spearheaded by the recent Facebook Cambridge Analytica scandal where a third party app scraped millions of users’ data, allegedly to influence the outcome of the 2016 US election. While local laws such as POPI exist, the EU is taking a far more aggressive stance on just how much control citizens have over their personal data – specifically regarding sensitive subjects such as race, ethnicity, gender, bio-data, sexual orientation, and political and religious opinions

– which cannot be handled without explicit consent. Companies must also delete information about a contact as and when requested. The regulations stipulate that it must be as easy for someone to withdraw their consent as it was to grant it. This has been termed “The Right to be Forgotten”.

According to the regulation, individuals have the right to:

- Be informed
- be forgotten
- Rectification
- Object
- Portability

In the case of a security breach, which poses a high risk for an individual’s rights, the

controller must contact and inform them. If the person requires more details about the breach, this information must be conveyed in an easy and understandable language.

Even if a company is not based in the EU, it must adhere to these regulations if it holds data belonging to EU citizens.

This is where many South African companies are getting caught short. If found to be in breach, they could be fined by the UK’s Information Commissioner’s Office (ICO) up to 2 percent of their global turnover or up to EUR20 million (R326 million), which is a significant amount.

Far from being a reason to panic, the

U.K. Direct Marketing Association sees this evolution as an opportunity for businesses to transform the way they see people, and how they interact with prospects and consumers. In their words: “Businesses should seize upon GDPR as the catalyst to transform their businesses into human-centric ones. They should use the GDPR framework as the foundation for an authentic and transparent relationship with their customers.” By streamlining, refining and focusing on improved data governance, the benefits of more effective data-driven marketing can certainly outweigh the effort required to be compliant.

Mining industry campaigner honoured

FOR more than 20 years Aspasa (The Aggregate & Sand Producers Association Of South Africa) director, Nico Pienaar, has focussed his energy on bringing about fair trade in the mining industry while promoting safer, healthier and more environmentally sustainable mining practices.

His efforts have recently been rewarded with two separate awards which were made in quick succession. The first was presented to him by the Minister of Mineral Resources, Gwede Mantashe, at the Mine Occupational Health and Safety Summit which was held in Benoni recently. The

special award was made in recognition of his valuable and ongoing contributions to the Mine Health and Safety Council (MHSC) as director of surface mining industry association, Aspasa.

Aspasa is a long-serving member of the MHSC and serves on numerous committees and boards where its primary focus is to create a fair and equitable environment for its members to operate in. It is also at the forefront of instilling ever-safer mining practices with zero harm to those on and around the mine at the forefront of its efforts. Also, to promote environmentally friendly practices.

Nico was also awarded a CEO Global Titans Building Nations Award 2018 for unsung heroes of the African business landscape. It is made in recognition of individuals who carry out important work behind the scenes to improve trading conditions and the lives of all in the sector with the motto “Do your best to inspire others, to do the same”.

Speaking of the awards, Nico said that he was honoured that his efforts on behalf of Aspasa have been recognised. “It has really been a collaboration of all within the association, as well as our members who have driven us to do the best for our sector



Nico Pienaar, director of Aspasa receives an honorary award from Mineral Resources Minister, Gwede Mantashe.

and the entire mining industry.

“Aspasa remains at the forefront of promoting good mining practices and we continue to break new ground in

the delivery of mining practices that are safer and less harmful to the environment, while remaining profitable and sustainable for generations to come.

Business Recovery - without breaking the bank

When businesses get into difficulties or face an unexpected challenge or crisis - and they all do at some stage - it's not too late to call in a recovery specialist. Howard Cooke is such a person

SOME SITUATIONS ARE HARD TO TURN AROUND

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Those that charge on make smart moves, and this does not have to involve one of the BIG 5 either.



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Howard Cooke (Bcom, CA, Business Rescue) & Associates

STRESS in business is a fact of life and not an abnormal phenomenon. There can't be many businesses in existence that could claim a problem-free run, just as there can't be many adults who claim to have had a flawless life.

Even the Steve Jobs and Elon Musks of this world got into difficulties. What distinguished them from failures was their belief in themselves and the tenacity to fight on, emerging stronger for the experience – “what does not kill you makes you stronger”.

The fact that a business managed to get to the point of having to confront challenges is testament to the fact that they existed for long enough to “earn the right” to go into

troubled water. Like a yacht leaving harbour with fair winds, they had enough endurance to face the inevitable storm and those that batten down the hatches, reef their sails and forge on emerge all the stronger, with enhanced skills.

Having worked in businesses both listed and small operations in SA, in Europe, the UK, and Middle East, across servicing and manufacturing, I've learnt that business is never plain sailing. I have also seen that the solutions are often seat of the pants, robust, and not startlingly divergent and solutions mostly come from within.

What is most revealing is that businesses can reinvent themselves and literally rise phoenix-like, identifying perhaps some key factors that needed tweaking that empowered them to turn around their destiny. Had those businesses engaged costly consultants precisely when most vulnerable, this may have been the final straw that broke the stressed camel's back.

Good health is too often a change in lifestyle and not time in ICU and mostly comes from within, with perhaps some good advice and gentle prodding to get going. Luck also comes with effort.

Certainly, one sometimes needs the global experience and collective knowledge of one of the Big 5. But sometimes not. Ask Bell Pottinger. I believe that SME's are mostly well posi-

tioned to sail through stormy patches; they can do so with their own resources and an extra pair of experienced hands helping to pull the ropes with them as opposed to instructing them remotely.

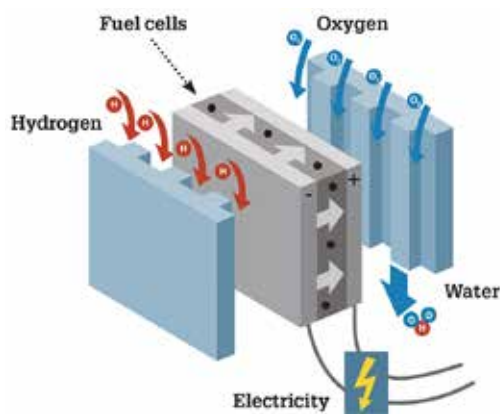
I know that sustainable solutions are often robust and not expensive, pleasurable and indeed often fun. Perhaps slightly perversely, I am an accountant who rather enjoys messes - for a while. The challenge is in finding the solution, the pleasure is in seeing change and growth, and the fun is in the second half team fight-back that chalks up a victory.

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Investment in the production of decarbonated hydrogen by electrolysis

AIR LIQUIDE announces that it acquired an 18.6% stake in the capital of the Canadian company Hydrogenics Corporation, a leader in electrolysis hydrogen production equipment and fuel cells. This strategic transaction, which represents an investment of 20.5 million US dollars (±R287 million), enables the Group to reaffirm its long-term commitment to the hydrogen energy markets and its ambition to be a major player in the supply of carbon-free hydrogen, particularly for industry and mobility markets.

Convinced that hydrogen will play a key role in the energy transition, Air Liquide has been a pioneer in the development of the hydrogen sector for several years. Air Liquide and Hydrogenics have also entered into a technology and commercial agreement to jointly develop PEM (Proton Exchange Membrane) electro-



lysis technologies for the rapidly growing hydrogen energy markets around the world.

Commenting on this investment, François Darchis, Senior Vice-President and member of the Air Liquide Group Executive Committee, supervising Innovation, said: "Water electrolysis is one of the key technologies to accelerate the emergence of hydrogen as a sustainable energy carrier. Indeed it enables the production of totally carbon-free hydrogen, thanks namely to renewable electricity. By

partnering with Hydrogenics, a leader in electrolysis and fuel cell technologies, Air Liquide is reinforcing its technology portfolio in hydrogen production and strengthening its ability to offer competitive decarbonated hydrogen on a large scale. We are more than ever convinced that hydrogen will play a major role in the fight against global warming. Drastically reducing CO₂ emissions is vital for the planet.

In this area, Air Liquide has the most ambitious objectives in its industry".

Fuel cell filling station opens

THE hydrogen infrastructure is growing steadily in Europe, and emission-free fuel-cell vehicles can now refuel at more and more locations. Linde, a Clean Energy Partnership (CEP) partner, has now opened another hydrogen station in Hanover, Germany

The new filling station is on the grounds of Linde's own 'Gas and More' retail outlet in Industrieweg. It is one of the first filling stations to be built nationwide as part of the Clean Energy Partnership and with support from the Federal Ministry of Transport and Digital Infrastructure (BMVI). The Industrieweg H₂ station received approximately EUR450,000 in funding from the National Innovation Programme for Hydrogen and Fuel Cell Technology (NIP). The investor and owner is Linde; the hydrogen facility is operated by the joint venture H₂ MOBILITY Deutschland.

Linde is using a new generation of its proprietary cryogenic pump, which converts the liquid hydrogen stored into a gaseous state compressed to 900 bar. For drivers, its operation is intuitive, and the refuelling process takes three to five minutes. This advanced technology is also used at Linde stations in the USA, Japan and China. It allows for refuelling up to 200 cars a day in Hanover. The capacity of the liquid tanks can be increased from the current 400 kg to 800 kg if required.

Hydrogen-powered e-mobility reduces CO₂ emissions

Hydrogen (H₂) provides a way to expand the range of fuels available in the transport sector in a climate-friendly way, as H₂ produced with renewable energy can help to significantly reduce climate-damaging CO₂ emissions. The operation of a hydrogen-powered fuel-cell

vehicle causes no local pollutants or carbon dioxide (CO₂) emissions. The range of these vehicles is between 500 and 800 kilometres per tank of fuel.

To turn electromobility powered by hydrogen and fuel cells into a success story requires both an attractive range of fuel cell vehicles and, at the same time, a corresponding supply infrastructure. The expansion of the corresponding filling station network is progressing well. There are currently 55 H₂ filling stations in Germany; by the end of 2019 there will be 100 stations across the nation.

The Clean Energy Partnership (CEP) demonstration project laid the foundation for the expansion of the hydrogen infrastructure in Germany by defining common standards and norms.

The Clean Energy Partnership (CEP) is an industrial partnership dedicated to the market activation and system capability of hydrogen

and fuel cell mobility, with a view to achieving a sustainable energy transition. Air Liquide, Audi, BMW, Daimler, H₂ Mobility, Honda, Hyundai, Linde, OMV, Shell, Total, Toyota, and the Westfalen Group are involved in the project. www.cleanenergypartnership.de

Founded by CEP partners, H₂ Mobility, a company whose shareholders are Air Liquide, Daimler, Linde, OMV, Shell, and Total, is responsible for the Germany-wide expansion of the hydrogen infrastructure. BMW, Honda, Hyundai, Toyota, Volkswagen, and NOW GmbH advise H₂ Mobility as associated partners.

The NOW GmbH (National Organisation for Hydrogen and Fuel Cell Technology) coordinates - on behalf of Germany's Federal Government - funding programmes for the development of electromobility with batteries and fuel cells. www.now-gmbh.de

Local hydrogen generation

WHEN it comes to the bulk manufacturing of hydrogen, there are adequate, cost-effective solutions for generating high-volume hydrogen locally available.

"However, for the supply and storage of hydrogen, small-to-medium users have relied, for the most part, on gas in cylinders - as a convenient and consistent means of generating high-purity hydrogen at smaller volumes on site has previously not been readily available," says Ian Fraser, Managing Director of RTS Africa Engineering.

RTS Africa, in collaboration with its long-term principal Nel Hydrogen, has been a leader in the supply of

many of South Africa's hydrogen electrolyser technology solutions for the past two decades.

Based in Norway, their principal Nel is a world leader in the supply of conventional alkaline-based hydrogen electrolysis systems.

"A constraint with conventional alkaline electrolysers is that they only become economical when producing larger volumes of hydrogen - in excess of some 60 to 100 normal cubic metres. It is possible to make smaller alkaline electrolysers but, at that scale, they are not economical," he explains.

However, as PEM electrolysers employ a different technology to produce hydrogen,



For the supply and storage of hydrogen for small-to-medium users, RTS Africa's Nel PEM electrolysers are the ideal solution.

these units can be far more compact. For example, many small PEM electrolysers can be found serving in laboratories in the form of a bench-top supply of small-scale on-site hydrogen.

"Typically, these units would be supplying quantities of a couple of cubic centimetres," Fraser points out, adding that PEM technology can also be used for much higher capacity electrolysers.

PEM electrolysis technology is both ingenious and simple. At the core of a PEM electrolyser is a proton exchange membrane. The conventional alkaline electrolysis process uses electric-

ity to split water into hydrogen and oxygen. In a PEM electrolyser, however, water reacts at the anode to form oxygen and positively-charged hydrogen ions (protons). The electrons flow through an external circuit and the hydrogen ions selectively move across the PEM to the cathode. At the cathode, hydrogen ions combine with electrons from the external circuit to form hydrogen gas.

Fraser points out that PEM electrolysers - when using 'clean' energy - are completely environmentally-friendly, as they use only electricity and demineralised water in the process. "The fact

that it is possible to have a smaller volume electrolyser, which does not need an alkaline electrolyte is in certain instances also an advantage, he explains.

"They have application in the chemical industry: for example, in plants making furfural alcohol or hydrogen peroxide to name just two products. They are also used to supply hydrogen to power stations and annealing plants."

The smaller units also have wide application in research institutions and universities where laboratories might need a reliable on-demand supply of ultra-high-purity hydrogen.



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Refinery will process 650 000 b/d

THE ongoing investment in refining, petrochemicals, fertilizer and gas is driven by the desire to bring innovation and efficiency into all aspects of Nigeria's oil and gas sector, the President/Chief Executive, Aliko Dangote has said.

Dangote, who made this disclosure recently at the Nigeria International Petroleum Summit in Abuja, said the company is committed to the concept of energy efficiency and innovation in the oil and gas sector.

The 650 000 barrels-per-day capacity refinery will be the largest in Africa and is claimed to be able to meet 100% of the do-



mestic requirement of all liquid petroleum products (Gasoline, Diesel, Kerosene and Aviation Jet), leaving the surplus for export.

This high volume output from the Dangote Refinery is expected to transform Nigeria from a petrol import-dependent country to an exporter of refined

petroleum products. The refinery is designed to accommodate multiple grades of domestic and foreign crude and process these into high-quality gasoline, diesel, kerosene, and aviation fuels that meet Euro V emissions specifications, plus polypropylene.

Further investment

by Dangote is in the construction of the largest fertiliser plant in West Africa with capacity to produce 3.0 million tons of Urea per year incorporating Ammonia and Urea plants with associated facilities and infrastructure.

Nigeria is expected to save \$0.5 billion from import substitution and provide \$0.4 billion from exports of products from the fertiliser plant.

Thus, supply of fertiliser from the plant, which is set for commissioning before the second quarter of 2019, will meet the demand from both Nigeria and neighbouring countries.

Versatile and low cost pressure sensors

INSTROTECH is offering the compact and versatile type SEN-98/99 pressure sensors. The tried and tested principle of a thick-film ceramic measuring cell ensures great reliability.

The unit's overload protection limit is dependent on the measurement range, of which there are 31, running from -1...0 bar to 0...600 bar relative pressure or from 0...1 to 0...25 bar absolute pressure. There is a choice of 4...20 mA, 0...5 V or 0...10 V analogue outputs for signal transmission. Fast, on the spot information of the measured pressure is made possible by the practical AUF



type plug-on displays. Standard sensors have protection class IP65. The wetted parts are stainless steel, ceramic and sealing material FKM. The SEN-98/99 is manufactured with an accuracy of 0.5% as standard, an accuracy of

0.25% is available optionally.

The optimum design opens up a wide range of applications for pressure sensors, for example, hydraulic systems, compressors, refrigeration industry, welding, vacuum, water and oil, gases.

Oil investments rapidly approaching peak level from 2013

By Tomas Kristiansen

ALREADY in 2020, Rystad Energy expects new investments in oil production to reach the level from 2013. "We are seeing the beginning of a new investment cycle," the company says. The North Sea is one of the areas in question.

Investments in global oil production are once again showing strong growth, reports Norwegian Rystad Energy.

As early as next year, offshore investments will reach the level from 2013, which, with total investments of USD

115 billion, was one of the strongest years in the last decade. Investments peaked at USD 144 billion in 2011 and then abruptly declined to USD 23 billion in 2016.

These figures only apply to entirely new oil production and thus do not include data on shale oil and output from OPEC member states. However, the figures do confirm that a paradigm shift has occurred and investor confidence has rebounded in force.

"We are seeing the beginning of a new investment cycle," assess-

es Rystad Energy Partner Markus Nævestad.

He recently participated in Marine Money's London Forum, where he presented oil production market scenarios for both offshore and onshore and gave his view of how large the demand for oil transport will be.

"Offshore is once again competitive. That applies to areas including the North Sea and Brazil," he added.

The price of oil is one of the two factors that sets a project's break-even point and thus is completely decisive for whether or not energy

companies and investors choose to invest capital in new production. According to Nævestad, production costs have declined far enough, along with the price of oil stabilizing at a point between USD 60 and USD 70 per barrel, that the business case has again become viable.

Trump stealing the limelight again this year

There are still, however, a number of variables that can disturb the picture. On an overall level, the market is fluctu-

ating considerably more now than a few years back due to factors such as US President Donald Trump, sanctions against Iran as well as OPEC's agreement to maintain a production cap – all of which impact the price. But for the time being, Rystad assesses that, towards 2023, the interval will be between USD 60 and USD 70 per barrel and will probably peak next year around USD 70.

Developments on the US market and shale oil production will be completely decisive for how the market will advance. If Rystad's ex-

pectations hold water, the US will in a matter of years have expanded oil production so much that it will correspond to one-and-a-half times that of Saudi Arabia. This could already take place in 2025 with rapidly inclining growth curve entailing around 20 million barrels per day, which tanker carriers, for one, will benefit from, as oil exports as well as production are also showing strong growth.

Braemer ACM also supports the latter development forecast. According to Global Head of Research Henry

Curra, US exports will increase dramatically concurrent to the expansion of refinery capacity in countries such as China.

Curra, who also attended the Marine Money conference, agrees that there are factors that could shift development.

"In 2018, everything was about Trump. That will also be true in 2019," as he puts it.

New production record in sight

When it comes to production of oil – and gas – things are going the same way for investments. 14 days ago, the Norwegian Petroleum Directorate (NPD) projected that production levels could of oil and gas on the Norwegian Shelf could break the previous record from 2004, according to an NDP prognosis.

Oil and gas production will probably dip slightly in 2019 but will then increase again in the following years, approaching in 2023 the record level from 2004.

"The activity level on the Norwegian Shelf is high. Production forecasts for the next few years are promising and lay a foundation for substantial revenues, both for the companies and the Norwegian society," wrote NPD Director General Bente Nyland.

Looking at 2018, exploration activities were higher than the preceding years. A total of 83 new exploration licenses were granted for the Norwegian Shelf – and that is a new record.

English Edit: Daniel Frank Christensen
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Award for Mokveld's Typhoon Valve System

MOKVELD's Typhoon Valve System – with its cutting-edge low shear technology – has been recognised for its contribution to cleaner production in the oil and gas industry with the ONS2018 Innovation Award.

Awarded since 1982, the Innovation Award recognises the crucial importance of cutting-edge technologies and solutions. "The ONS Innovation Award is one of the most important fairs in the oil and gas industry," explains Laetitia Jansen van Vuuren, Technologies Product Engineer at Energas Technologies, the sub-Saharan Africa distributor of the Mokveld range of valves for the past 17 years. "The award is intended to recognise innovative technologies that demonstrate their ability to advance the oil and gas industry. Winning the ONS2018 Innovation Award recognises Mokveld's innovative Typhoon Valve System and the value this technology will add to the oil and gas industry."

The Typhoon Valve system is a solution suited for existing or new oil production plants. In contrast to conventional choke and control valves, Typhoon Valve uses patented trim technology to involve a larger fluid volume that is actively dissipating energy. "By using low shear valves and pumps, it is also estimated that greenfield separation plants can be built 30-50% lighter and smaller, which will have large cost saving potential on both OPEX and CAPEX for oil companies. Oil production is a fluctuating market and Energas will support and supply the sub-Saharan African market with the new valve technology," says Jansen van Vuuren.

Understanding the tech

In every process plant you will find sources of unwanted turbulence and emulsification of oil and water. The main principle behind low shear processing is prevention of separation problems caused by shearing of the production fluids in conventional valves and pumps. Switching from conventional valves to low shear versions gives significantly improved separation and less oil residues in the produced water.

In contrast to conventional choke and control valves, the Typhoon Valve uses the principles of a vortex to control petroleum flows. The main purpose of using the vortex is to involve a larger fluid vol-

ume in dissipating energy, which is required to control the flow. This is a totally new way of regulating flow through valves and the technology is patented in 22 countries/areas.

Process benefits

Using the Typhoon System technology will reduce the mixing and

emulsification of oil, water and gas. Chemicals are often used to try to increase separation by repairing damage caused by emulsification of the well fluids due to shear. The effect of separation enhancing chemicals will vary over the well lifetime, dependent on the composition of the fluids.

"The Typhoon Sys-

tem deals with the cause of the separation issues by reducing emulsification and shear forces exerted on the fluids. Due to the permanent reduction in shear, Typhoon System has a lasting positive effect on separation, regardless of changes to the composition of the well stream over the field's

lifetime," explains Jansen van Vuuren.

Used either as a choke or control valve in petroleum process streams, the Typhoon System will improve the efficiency of downstream separation without resorting to chemicals or additional treatment processes.

Potential process benefits include higher

efficiency without the need to increase the in size of the separator; reduction of the number of separator steps; in brown field applications, increase in production when using the same separator; and less need for, or improved effect of process chemicals like emulsion breaker, flocculants and anti-foam.

"The Typhoon System may therefore reduce overall cost and may increase production rates. The Typhoon System will assure that oil producers will be able to produce in an environmentally friendly way by improving the quality of their waste water," concludes Jansen van Vuuren.

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Very low flow liquids and gasses measurement



INSTROTECH is offering Kobold model KDF/ KDG, low volume flow meters and monitors, now available with shorter (90mm) installation length.

The instruments operate on the suspended float principle with a stainless steel ball, and are available in special versions for liquids and gases (air). The devices with stainless steel housing are installed vertically with flow direction from bottom to top via 1/4" thread or hose connection of 8 mm diameter. The needle valve enables an optimal setting of the flow rate. The respective flow rates can be read quickly and easily by a direct view of the measuring tube made out of rugged borosilicate glass.

The version for liquids is available with 11 standard measuring ranges from 0.02...0.25l/h up to 10...100 l/h for water. The KDG with 12 measuring ranges from 2...20 NI/h up

to 300...3000 NI/h for standard air can cover many applications. In addition to the standard measuring ranges on stock, the devices can be customized for almost any other media, operating pressure and operating temperature. Optionally fitted with ring type proximity switches, preset flow rates can be remotely monitored from the outside.

The meters with differential pressure controller, that can be supplied with upstream pressure controller or downstream pressure controller, are a simple and practical way to keep the flow rates constant. In the robust stainless steel housing, a valve with diaphragm made of FPM or FFKM ensures that the flow rate is kept constant in the preset range. For more information on Kobold's KDF/KDG low volume flow meters and monitors, contact Instrotech on 010 595 1831, sales@instrotech.co.za

NitraLife has it covered!

Assists RSI SmartCanopy with on-site, on-demand nitrogen for premium-quality steel and paint finishes

FROM having two employees in 2007, today the company employs 150 people working at their modern facility in Pietermaritzburg, KwaZulu-Natal. The company exports to 22 countries and has a manufacturing capacity of 2,500 canopies a month – with further expansion expected in 2019.

Recently, to augment and strengthen its manufacturing efficiencies and capabilities, the company purchased two nitrogen generators from leading local manufacturer and supplier of nitrogen generators, NitraLife.

"Two key aspects of the RSI SmartCanopy manufacturing process are the cutting of thin gauge stainless steel up to 2 mm; and the spray painting of their finished units. In keeping with their ethos of continuous improvement and innovation, RSI sought to improve both these processes even further – and is now using our nitrogen generators to enable them to do so," explains Tom

Sowry, Managing Director of NitraLife.

"The one supplies assist gas to the company's fibre laser cutter; while the other provides clean, dry nitrogen gas for RSI's spray painting facility," he explains.

Sowry adds that, with the fibre laser cutting of stainless steel, nitrogen gives a superior quality cut which is clean, with no oxidation.

"Generating nitrogen for laser cutting on-site and on-demand has proven to be a convenient and cost-effective boon for our customers – including Rock Solid Industries. Furthermore, it has another key added advantage over cylinder gas supply – in that customers never run the risk of downtime due to running out of gas," he points out.

The use of nitrogen also has substantial benefits for RSI's spray-painting section.

"Overall, our quality has vastly improved. We get fewer runs and sags – and consistently achieve excellent gloss

levels – even when the ambient temperature is high," explains RSI Managing Director Michael Voss.

Importantly, he also notes that the company has had a 15% reduction in paint consumption since the adoption of nitrogen in their spray painting process.

The issue of quality is very important to RSI.

"Today's pickup trucks have sophisticated paint finishes which match that of any luxury German sedan. Therefore the quality of our paint finishes has to match these high standards," Voss elaborates.

When it comes to these high-end paint finishes, RSI's customer base expects upmarket standards – at an affordable price. The company has taken appropriate measures, one being that the General Manager: Quality Control has had more than 25 years' experience working in the LEAN division of an automotive OEM.

"Having NitraLife generators means that



Michael Voss, Managing Director of Rock Solid Industries ('RSI') with a NitraCut nitrogen generator.

we can have a reliable supply of gas on-site and on-demand. We estimate that the purchase of the NitraLife units – in comparison to conventional cylinder supply – paid for itself in about 13 months. Thereafter, the only costs to RSI are maintenance and service – which are

minimal."

Sowry concurs, adding: "We see considerable growth in the supply of NitraLife nitrogen generators to the spray-painting industry in particular – where the benefits of nitrogen over compressed air have been clearly illustrated time and again."

Total makes significant discovery

TOTAL has made a significant gas condensate discovery on the Brulpadda prospects, located on

Block 11B/12B in the Outeniqua Basin, 175 km off the southern coast of South Africa. The Brulpadda well

encountered 57 meters of net gas condensate pay in Lower Cretaceous reservoirs. Following the success of

the main objective, the well was deepened to a final depth of 3 633 m and has also been successful in the Brulpad-

da-deep prospect.

"We are very pleased to announce the Brulpadda discovery which was drilled in a challenging Deepwater environment", said Kevin McLachlan, Senior Vice President Exploration at Total.

"With this discovery, Total has opened a new world-class gas and oil play and is well positioned to test several follow-on prospects on the same block."

Total drilled this exploration well with the latest generation drilling ship and was able to leverage its experience in similar environments, such as the West of Shetland, UK. Following the success of Brulpadda and confirmation of the play potential, Total and its partners plan to acquire 3D seismic this year, followed by up to four exploration wells on this license.

The Block 11B/12B covers an area of 19 000 square kilometres, with water depths ranging from 200 to 1 800 m, and is operated by Total with a 45% working interest, alongside Qatar Petroleum (25%), CNR international (20%) and Main Street, a South African consortium (10%).

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Starting from a small office in Cape Town CBD, the company name Pienaar Brothers was registered in 1962. Over the years they have grown to one of the largest suppliers of Personal Protective Equipment in Southern Africa. Currently it has 10 branches throughout the Northern, Western, Southern and Eastern Cape and KZN, located in Cape Town (head office), Wellington, Worcester, Saldanha Bay, George, Mossel Bay, Port Elizabeth, East London, Durban and Kathu.

The company – a level 3 BEEE contributor – is proud of its reputation, stock holding and service delivery to its customers. A comprehensive range of personal protective equipment is supplied to a diverse spectrum of industries including Mining, Manufacturing, Oil & Gas, Agriculture, Construction, Fishing and Food industry.

Its mantra is at all times, to strive for on-time, in full order delivery to the customer’s doorstep by well-presented friendly staff via its fleet of 22 highly visible delivery vehicles.



Well trained sales representatives are on the road daily and a friendly and efficient telesales department is on hand should a sales rep be unavailable. For those customers still wanting to walk into a shop to see, feel and touch products, retail outlets are available at any one of its branches.

Over the years Pienaar Brothers developed their own range of products that cater for a number of industries, one of them is the well-known Raven Spectacle range. It also has close relationships with number of international suppliers and provides premium PPE products from 3M, Bova, LeMaitre, Wayne, Neptune, Profit, Uvex, Honeywell, DuPont and CAT amongst others.



Pienaar Brothers recently completed a major revamp of its retail outlet at its Paarden Eiland premises -22 Auckland Street - and invites customers to view its comprehensive range of PPE approved gloves, workwear, safety footwear, eye protection and respirators – all in one modern and accessible retail outlet that provides for all industry.

Contact Pienaar Brothers today for all your PPE requirements.



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 Kathu Tel: (053) 723-2196 • Wellington (021) 864-1437
 website: www.pienaarbros.com

PPE is there to save lives

FAILURE to adhere to best practices in occupational health and safety can have adverse financial implications for companies, says Anton Zwanepoel, Business Unit Manager at Innovative PPE Solutions, a subsidiary of Innovative Solutions Group TM.

"We have in recent times, seen lawsuits approaching R100 million lodged on behalf of workers who were not properly protected from the hazards inherent in their workplace. Work stoppages and labour disputes arising from safety issues result in hugely inflated production costs and, most importantly, too many lives are lost or wrecked in accidents that never should have happened, because companies compromised on their Personal Protective Equipment (PPE) ex-

penditure," Zwanepoel says.

He says organisations should spend between 5% and 10% of their operating costs on initial PPE purchases, which include the likes of comprehensive safety gear for employees, ventilation in the workplace, fire extinguishers and cleaning materials.

"Global trends show that in the financial year of 2015-2016 there were over 51% of workplace deaths from falling from heights and 50% of serious workplace injuries occurred from slipping and tripping, according to Eurostat. PPE has immense benefits for both employers and employee. Employers are less likely to face legal action. Adhering to a solid PPE plan also increases the lack of accidents, which reduces production

costs, staff turnover and improves service delivery," Zwanepoel says.

In recent years employers have become more aware of the dangers inadequate safety equipment poses on employee wellbeing and the company's bottom line. During 2015-2016, companies lost over 27 million working hours due to injuries on duty, according to Eurostat.

Injuries on duty in South Africa are recorded by the Department of Labour and the Workman's Compensation Fund. However, there have been calls for a more accurate reporting system to record the number of injuries and claims per annum.

But employers often lament the high costs associated with the implementation of safety regulations in

the workplace. Choosing to exclude a comprehensive safety plan altogether or opting for unscrupulous suppliers of PPE.

Innovative PPE Solutions (IPS) will help companies remain compliant with safety regulations, assist with their specific requirements and ensure the organisation is not at risk while at the same time ensuring their employees' safety by looking out for safety risks in the workplace.

"If management is conscious of dangers in the workplace, safety is bound to improve significantly. Safety performance will become value driven and safety excellence will be maintained with the use of proper PPE, together with employees understanding the necessity of PPE in the workplace," Zwanepoel concludes.

Scaffold solution combines comfort, advanced safety

WHEN erecting, altering, or dismantling scaffolding, scaffolders are regularly exposed to the risk of a fall. In addition, scaffolders often work in adverse weather conditions. Therefore, MSA Africa has introduced the V-TEC™ Personal Fall Limiter (PFL) to cater for health and safety requirements in this market segment.

The V-TEC™ PFL with aluminium scaffold hook delivers durable protection that is both quick and easy-to-use, and comfortable to wear all day, every day thanks to its lightweight construction. Tim Bissett, MSA's Technical Manager for Fall Protection, acknowledges the challenges facing the scaffolding sector.

"In the hierarchy of fall protection, the first step is to avoid the risk, which we realise is not practicable for

scaffolders much of the time." Bissett reveals that the V-TEC™ is the most compact and lightweight self-retracting lanyard ever developed in its class, using multiple spring radial energy-absorbing technology.

This new design eliminates the need for an external energy-absorber outside of the housing, making it the smallest retractable lanyard in its class on the market. What the V-TEC™ scaffold hook solution provides is a fall protection system that enables a scaffolder to carry out their work while secured to horizontal, vertical, or tube connections between joints.

The V-TEC™ PFL's pedigree is derived from developments in the hi-tech automotive industry, combining an ultra-tough polycarbonate transparent



The V-TEC™ PFL with aluminium scaffold hook delivers durable protection that is both quick and easy-to-use.

outer casing that facilitates inspection. Also suited for ladder work, and with a single-handed operation, the aluminium scaffold hook has an easy-on, easy-off hook with an automatic closing feature. It is compliant with EN, ANSI and CSA requirements.

A-OSH EXPO 2019



THE ninth annual A-OSH EXPO, Africa's largest occupational health and safety (OHS) expo, takes place from 14 to 16 May 2019, at Gallagher Convention Centre, Midrand. Here, you will once again find Africa's most comprehensive personal protective equipment (PPE) offerings all under one. Securex South Africa 2019, a show with an established 26-year pedigree within the security and fire sectors, runs alongside, as well as – for the first time – the FM Expo, which showcases products and services associated with property and building management and maintenance.

All aspects of safety, security and health at work are brought together at A-OSH Expo, across the spectrum of safety, security, health-at-work,

and environmental issues. The show helps to match up the sector's leading product and service providers with Africa's OHS professionals and business leaders, providing a platform for knowledge exchange and relationship building, and bringing delegates and exhibitors alike access to the latest thinking, products, trends and legislation.

Held over three days, A-OSH EXPO features a number of highly popular free-to-attend seminar theatres, which provide in-depth content on critical industry issues.

Sven Smit, portfolio director at Specialised Exhibitions Montgomery, says high-risk work environments in the mining, agriculture, industrial and construction sectors – which have historically played strong roles in the economy down the

years – mean that OHS has a strong focus here for the government, business and employees in turn.

He notes, "These sectors have historically had a continuously strong presence at A-OSH EXPO each year, and the show's Personal Protective Equipment (PPE) exhibitors have always been able to showcase the best that is on offer. A-OSH EXPO 2019 has already once again lined up key sponsorship from well-respected PPE companies, Dromex and BBF, and we are very happy to have exhibitors of this calibre committed to next year's show. We further anticipate having additional key exhibitors once more in the working at height sector, as well as fire safety, which of course both feed into the PPE arena in their own ways."

Platinum Sponsor Dromex is a major player in the supply of technology solutions to personal protective equipment and, together with its international partners which are all leading industrial players, is active in the fields of textile, chemical, environmental sustainability and research and development.

Gold Sponsor BBF Safety Group (BBF) is an integrated workplace safety solutions provider that helps customers create safe working environments. The company offers a full portfolio of head-to-toe PPE and workplace safety advisory services that range from auditing to consulting and training.

"Every kind of work exposes its employees to potential dangers, whether they relate to working with machinery, working at height or underground, being exposed to hazardous chemicals or even being subjected to psychological stress. Whether your interest in OHS stems from playing a role in the government or private sector, or whether you are an employee interested in workplace health and safety, we are excited to begin the journey to A-OSH EXPO 2019 and bring you our comprehensive and holistic offering," concludes Smit.

For more information please visit www.aosh.co.za, or contact Specialised Exhibitions Montgomery on +27 11 835-1565.

Insurers tougher stance on fire risk has retail focus



WITH insurers placing greater demands on businesses to comply with all relevant fire-safety standards and regulations, ASP Fire has employed two new fire engineers to enhance its service offering.

ASP Fire CEO Michael van Niekerk comments that there are significant opportunities in the retail industry, with ASP Fire having carried out about 13 shopping centre fire-risk evaluations to date. The average shopping centre is very much an environment in flux. However, if anchor tenants occupy a space in excess of 2500m², then sprinkler systems have to be installed.

Shops larger than 250m² in area are required to have manual fire-detection systems in place, while shops in excess of 500m² require automatic fire detection

and emergency evacuation systems. This also needs to be linked to the shopping centre's building management system, so that patrons and other tenants can be forewarned timeously in the event of any emergency.

It is essential that any business or residential environment is, firstly, adequately prepared to deal with a fire, and that, secondly, people are mentally prepared to act swiftly, and with purpose, during a fire. The cheapest and most effective way to combat a fire is through the use of portable fire extinguishers and fire-hose reels. It is a legal requirement for every building in South Africa greater than 250m² in area to be equipped with fire-hose reels at a ratio of one per 500m² or part thereof.

Importantly, these must be located in such a manner that the end of

the hose, not the water stream, can reach every part of the building. A minimum of one fire-hose reel is required on each floor of a multi-storey building. In addition, portable fire extinguishers must be installed at a ratio of one 4.5kg dry chemical powder fire extinguisher per 200m² or part thereof in offices.

ASP Fire conducts fire-risk assessments to determine whether the actual fire load within a building exceeds the installed fire-protection system design. "We are able to advise clients and to assist them with a suitable fire-protection strategy and system design to cater for any worse-case scenario. We specialise in turnkey fire protection projects, whereby we design, supply, install, and maintain fire protection equipment in buildings," van Niekerk concludes.

Advertisement

IBAS undertakes best in class access at Media 24 HQ, Cape Town



In 2015 NASPERS undertook a facade facelift project of its Media 24 building in the Cape Town CBD which is approximately 90 metres tall. IBAS was asked to evaluate the building access challenges created by the unique requirements of a dining room jutting out of the building line. It was apparent that conventional scaffolding equipment and methodologies would not suffice.

The Media 24 building is located at 40 Heerengracht Street, Cape Town. The revamping included architectural design on the north face and an entertainment area on the roof. The idea was to construct a structure on the roof and suspend facades down on the sides.

The proposal to erect scaffolding from the street 85m high on the south side of the building would have required road closures; and the time to build it that high. Finally building from the top downwards was not an immediate option with locally available equipment. IBAS was asked to propose an alternative whilst enhancing safety and efficiency.



Contact Wouter, or Errol on 072 443 2900, or email admin@ibasgroup.com

WWW.IBASGROUP.COM



This was achieved by IBAS deploying a product they have used for over 20 years - namely Layher scaffolding, imported from Germany. This approach not only reduced overall costs, but ensured completion on time.

The biggest challenges were:

- Scaffold was cantilevered at a 4m overhang and the suspended height of the scaffold was 12m down with a 6m return underneath the balcony. Thirty tons was suspended with a load capacity for an initial life load of 8 workers.
- The scaffold could not be back propped to the building due to the cladding and glazing work. To meet time deadlines, IBAS's approach was extended to further and safely support 24 workers on the structure, suspended from the roof-top.
- Being a media building it was critical not to disturb the antennas and communication equipment which were in live operation at all



times. This created a very exacting working environment.

- Due to weather proofing measures, no drilling was allowed on the roof nor could any tools or equipment be stored or dropped onto the roof (or elsewhere). To assist with this IBAS extensively added safety netting as a counter measure.
- Only smaller equipment could be conveyed in the service lift to the roof-top; and then only at night after 11pm! Approximately 40 tonnes of equipment was carried by hand and foot up to the roof-top!

When all the scaffolding was removed completely IBAS Rope Access division was contracted to complete the delicate and intricate cladding of the building.

IBAS launches world first round disk platform, here in the Cape

South Africa based IBAS Group has grown to be one of most consistent service providers in the demanding industrial access and related value-add sectors. The company was founded over 24 years ago to provide innovative solutions to the SASOL group of companies. Wouter Booysen, the founding MD remains in that role, and the company continues to expand its related range of services including:

- Traditional scaffolding under the IBAS Ultra-Safe brand incorporating Layher scaffolding.
- Life-lines were piloted by IBAS in South Africa in the mid-1990s and remain a key skill along with rope access.
- Innovations include the IBAS DISK Platform, below.

The company is a Level 3 BBEEE contributor, and has 51% black shareholders. The company services its oil, energy, mining, power and other sector clients with great satisfaction from its various facilities in

Secunda, Sasolburg and, Somerset West.

The IBAS DISK Platform is ideal for difficult and dangerous to access internal cylindrical structures such as vessels, silos, towers and round tanks. The platform is custom designed for each particular environment. In its generic form it can be assembled or opened in umbrella like manner, from the bottom or from the top of a structure. For example, it can be passed through a 600 mm man hole and be deployed, from the bottom or top of the structure, opening up to a diameter of 6 metres or more. Its outer circumference is designed to buffer the IBAS DISK Platform from jarring bumps with the inner walls of the structure. It can safely transport people and equipment.

The company believes that this engineering feat may be one of the first of its kind world-wide, if not the first. It is offered as a service to companies with challenging access issues.



Site B – Growthpoint responds

WE take this opportunity to confirm our position on the acquisition and to set the record straight with regards two inaccurate, unchecked pieces of information that have been extensively reported as facts - but are completely untrue.

The untrue statements are:

- that we knew the land had more bulk than advertised when we bought it
- that had the bulk been correctly advertised, the sale price would have been R227 million and not R86.5 million, or that the site was undervalued.

With regards the price: In South Africa, the government (at all levels) sells land. Only some private property developers sell bulk. The only places that sell bulk in Cape Town are the V&A Waterfront and Century City, which have particular legislation in place and where a 'package-of-plans' process is followed.

Accordingly, we bought the land; not the bulk.

When we decided what to pay for the land, we did so based on its residual valuation, we do not simply work on a bulk rate as this is not the market norm.

The residual valuation is based on the risk associated with the perceived build, the cost to

build, the market rental that could be achieved, and a reasonable yield. This indicates what could be paid for the land.

At the public auction, we understand that there were approximately 20 other registered bidders. They were all serious bidders as they had paid deposits - who would have done a similar exercise and understood the true value of the site. Growthpoint's bid was the highest. We were prepared to pay well for the site because it is adjacent to several other buildings we own.

A purchase price of R227-million as suggested isn't remotely feasible for any successful development of this property and is materially in excess of the going market rates for a property of this nature in this area. Interest on the land would run at over R2-million a month and any development would require a rental far more than what could be achieved in the market, meaning any form of development would be impossible.

The latest professional external valuation of the site is R92-million at 1 December 2018. Taking our purchase price, and the related interest, Growthpoint has paid more.

With regards the bulk:

We did not buy the bulk; we bought the land. No one is required to buy bulk.

Growthpoint had no prior knowledge of anything different to the city's advertised 17 500m² rights for Site B. When we bought the land, we were aware site B had a base zoning scheme and the tall building policy made the possibility of more bulk a real reality. All other bidders had access to this information.

With regards what Growthpoint's planned development means for Cape Town and its people:

Our development of retail, commercial and hotel will be an approximately R2.2 billion investment in the City. We currently have several tenders out for the development, designed to encourage significant investment in South Africa. We are committed to bring more investment to Cape Town. Naturally, these efforts will also rely on these businesses being welcome in the city.

The developed site would contribute an additional R16 million in rates to the city each year, supporting the city's ability to deliver on its mandates.

It will be an asset to the City with ongoing economic benefits.

Approximately 1 000 jobs will be created during construction.

The hotel will be a long-term employer. It will be an international brand hotel (not yet invested in South Africa) and will attract more tourists to the City.

Buy-to-demolish. Here's what you need to know

By **Barrie Swart, Head of Gumtree Property**

MANY first-time or small-time property investors buy dilapidated homes to fix them up and sell for profit. If you have the time and the skills, there's a lot of money to be made this way. But is the same true for buying a home and then demolishing it to rebuild from scratch?

Because the primary value of a property lies in the land itself, theoretically it makes sense to tear down a less-than-ideal home and rebuild something that is more likely to attract a great buyer. However, the reality is that buy-to-demolish is a risky approach and is both expensive and bureaucratic. Your investment can get tied up with various bodies, failing to earn an income for an unknown amount of time, and remain at risk of being turned down. It's important to have a Plan B in place, should your project end up being rejected.

In effect buy-to-demolish is a niche strategy demanding very careful consideration of a multitude of factors.

1. Demolition itself is pricey and subject to the National Building Regulations Act. If the local authority finds that your site is dangerous in any way, you will be required to secure it. If you fail to do



so, they have the right to secure it themselves and send you the bill.

2. You will need a property lawyer, surveyor and town planner involved from the get-go to assess the property and advise on the specific zoning rights of the area you wish to develop – even subdivisions are governed by these laws. Be especially careful about heritage buildings – you may be surprised by what is officially considered 'heritage' and therefore demolition is either ruled out altogether or subject to extra processes.
3. Aside from lodging an application with the local authority, the development will be subject to public participation – and your

neighbours may not be keen to have bulldozers on the street.

4. Once objections and responses have been dealt with, an engineer will have to perform a technical assessment, and only then will the council make a decision to approve or decline the application.
5. Once approved, you will need to plan for a number of other factors. Environmental issues – such as the presence of asbestos – could complicate the issue. Dumping and hauling the rubble will also require permits and further costs. Likewise, water, sewage and electricity cannot simply be switched off and ripped out. There are many requirements for

safely disconnecting or abandoning utilities that you will have to adhere to.

6. Most banks will not allow you to demolish a mortgaged home because you are destroying the security for the loan. In which case, you will have to have equity on hand – either your current home or cash in hand. Talk to your lender about an investment or construction loan upfront and be sure to study the fine print of any mortgage agreement you may enter into. You will have to be able to prove that the home you will be building will be worth substantially more than the one you are tearing down. This will require significant amounts of documentation from a surveyor, the builder, the architect and other parties.

If you can find a property and a loan that is free of liens and conditions, and you have the time and resources to go through the lengthy approval process, you may be able to successfully buy-to-demolish. One alternative is to go through the process and then sell off the land at a premium with all approvals in place to another party to do the building.

In most cases, though, you are much better off salvaging the existing home than demolishing it entirely. (After all, the chances of you building a R4-million house for R1-million are very slim). And if you are able to live on the property as it is being renovated and to rent out your current home, you can still earn an income from your investment during the process – providing that you and your loved ones are able to put up with the constant noise!

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Description	Code	Price Incl VAT
Two Day PV Products and Installer Course		R3 995.00
250W PV Panels	T0003650	R1 495.00
5kVA Voltronic Inverter	T0003654	R9 795.00
Pre-wired 5kVA Inverter and Back Plate Incl. AC&DC DB	T0003653	R14 375.00
3.7kW Lithium Battery	T0003647	R27 595.00
MC4 Male Connector	T0003738	R19.95
MC4 Female Connector	T0003739	R19.95
4mm Solar Cable Black	T0003655	R7.95
4mm Solar Cable Red	T0003724	R7.95
PV Combiner Box 4 String	T0003564	R2 695.00

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2018: A year in review

Lightstone Reviews 2018 Findings and Predictions for 2019

THE tough economic climate during 2017 induced pressure on the property market which ultimately deterred growth within this market. After renewed hope for this sector in 2018, transactional activity unfortunately remains subdued and as a result, business confidence has also decreased, recording the lowest number of transfers in the last three years for the third quarter of 2018. The continued debacle over land expropriation without compensation could also have a negative effect on all sectors of the property market, as talks of claims on commercial and retail have emerged.

Commercial property

In an analysis of the South African com-

mercial property market, the largest numbers of transactions are made in the R 2.5 million rand or less range. An evident spike in volume of transactions occurred in the latter part of 2017 and the first quarter of 2018.

In a rather alarming finding, the total transfer values have dropped to around R3 billion rand year-to-date, which is a loss of more than R1 billion when compared to the same period in 2017. This is the most significant drop since 2016. Gauteng is still the zone experiencing the most transactions, followed by the Western Cape.

Retail, industrial & office

In an interesting finding during the third

quarter of 2018, retail property had experienced the most registrations between these three sectors, with 525 transfers.

This is closely followed by industrial property with 510 transfers and lastly office property with 250 transfers. Although growth within the retail space has slowed down there is still progress which is catalysed by consumer spending habits.

The annual nominal inflation for the industrial, office and retail markets, indicate that industrial property is above the 6% mark, while the retail and office spaces are both at 5% and 4% respectively.

In a summary of predictions for 2019 the following has been highlighted in Lightstone's findings:

- Industrial property has shown demand, and this can be mostly attributed to the development of the logistics sector in the country. It is forecast that the growth will steadily continue into 2019 as new projects and expansions are planned for the logistics sector.
- In terms of property investments, the country will experience a similar trend in 2019 as was seen in 2018. Subdued activity will ensue where companies will opt out of real estate investments until the 2019 general elections have been concluded. Dependent on the election outcome, a slight uptick in activity can be expected.

V&A Clock Tower redecorated in time to see in 2019

COMMISSIONED to refurbish the Clock Tower at the V&A Waterfront, building refurbishment company, Indawo completed the much-needed redecoration of, arguably, the most important building at the V&A Waterfront, in time for it to see in 2019.

This South African favourite historic building, completed in 1883, was the original harbour signal station and port captain's office. Escaping a possible demolition in 1975, the Clock Tower received a makeover in 1976 after which it was declared a national monument in 1978. A further restoration of the Clock Tower was done in the late 1990s.

According to Indawo managing director, Geoffrey Jäck, the precinct is a busy one with local and international tourists visiting the V&A Waterfront. On top of this, the Waterfront is a working harbour, which adds to the pressure placed on external structures in and around the area.

Redecoration at a tourist attraction also adds to the challenges that face refurbishment companies. As such, safety is important for workers and visitors. Scaffolding was the safest means of access to the higher levels of the tower.

"The project involved the complete redecoration of the tower and restoring it to its original state," says Jäck. "including the right colour choice to ensure the original aesthetic appeal is maintained. The lead roof sheeting



was also replaced. This is roof sheeting that is specifically cut to size and installed. A bird deterrent was also installed. During redecoration, the production team had to contend with high consumer traffic and winds that often is a challenge for painters in areas with continuous consumer traffic."

The external structure was repainted, and the wooden staircase and balcony refurbished and restored to ensure this iconic landmark remains a key attraction for local and international visitors. The new lead roof sheeting has ensured a good as new structure and the Clock Tower now stands proud again in the V&A Waterfront.

Lead roof sheeting has a long lifespan if well maintained. Its flexible properties also allow for it to be a good sealant resulting

in a safe waterproofed product. Also used as a covering for gutters, lead can provide an ideal solution to waterproof a roof. Correct installation is critical to ensure this long lifespan is maintained.

At a time when tourism plays a major role in driving South Africa's economy, the redecoration of the Clock Tower as an historical landmark will, once again, become a must-see on the travel agendas of many tourists. Maintaining the country's historical infrastructure is critical to our future economic growth.

Jäck says that maintenance of historical infrastructure is vital to preserving our heritage and driving the economy through our tourist hotspots. Regular maintenance on heritage buildings will preserve their aesthetic appeal for centuries to come.

Defending the common property

SECTIONAL TITLE (ST) owners need a better understanding of how ownership of the common property works and what they can and cannot do with it.

So says Andrew Schaefer, MD of national property management company Trafalgar, who notes: "We find that one of the most frequent causes of friction between residents in ST schemes is misuse of the common property by one or more owners - and that this usually arises from a simple lack of knowledge about where sections actually start and stop and how shared ownership of the common property needs to be viewed.

"For example, we have seen owners - and tenants - decide to block off the section of a walkway that only leads to their front door with a security gate, put a fence around a piece of garden in front of their unit, hang an awning over their balcony from the outside wall of the building, or put up a carport on the roadway in front of their garage."

In a big complex, he says, there are also always those few owners (usually long-time residents) who will become "territorial" over certain parts of the common property - such as the particular open parking bay that they prefer, the swimming pool which happens to be adjacent to their unit, the stairway that leads to the roof area above their top-floor home, and even their

favourite braai spot.

"But fortunately, problems like this are usually quickly resolved when we explain to the owners in question that the actual 'sections' in an ST scheme are defined by the interior walls of each apartment or townhouse - and that ownership of an 'undivided share' of whatever lies beyond those walls does not mean that they can do as they please on this common property or just appropriate any part of it that they estimate to be their 'share'.

Schaefer says it is important for ST own-

ers to remember that whatever they do on the common property affects all the other owners and residents.

In addition, he says, if you wish to gain exclusive use of any part of the common property, such as your favourite parking bay or a part of the garden, the trustees will first need to consider what sort of precedent this might set, how it could affect the relative values of all the sections, and who will now be responsible for the maintenance and upkeep of this part of the common property - and the costs involved. If they agree to

your request, you will most likely have to pay an extra levy.

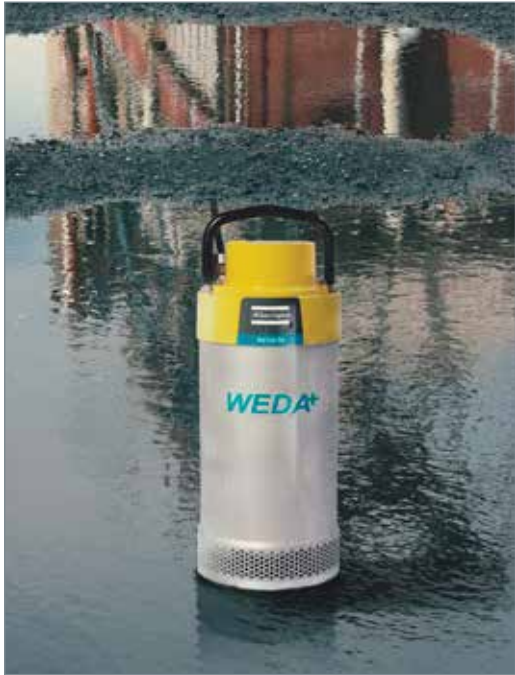
"But first, the trustees will need to take steps to formalise the arrangement. Just like alterations to individual sections, changes to the common property can't be allowed to go ahead without permission or being properly recorded, for the protection of the value of your investment as well as those of the other owners. And alienating any part of the common property can only be authorised by unanimous resolution, which requires 100% owner approval."

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New range of dewatering pumps



ATLAS Copco WEDA 50+ and 60+ dewatering pumps have been designed to provide customers with enhanced levels of performance alongside improved efficiency, hassle-free maintenance as well as augmented capacity.

The WEDA pumps range contains a built-in starter and motor protection system that allows for optional automatic level control. The pumps' smart modular design includes machined slots that allow for the easy separation of the different parts of each pump. All stainless steel bolts and nuts used within the machine are the

same size, therefore making it possible to use one effective tool to complete the entire operation. Other standard components include a reinforced cable entry, built-in run capacitor / contactor, an adjustable discharge connection of 90° or 180°, Class F insulated stators with thermo switches in all windings as well as external plug for grease filling.

These pumps have adjustable wear resistant nitrile rubber diffusers and hardened high quality clog-free chrome impellers. Adding to its durability, the machine's light weight and compact

design allows for easy transportation, installation and storage in confined areas.

Featuring a low friction sealing system, operators are able to change seals, the impeller and other components within minutes. Maintenance is simple thanks to the WEDA ISP (Instant Service Pack) that contains the seals, bearing oil and oil housing that can easily be changed onsite.

A novel feature across this range is the rotation control and phase failure protection that prevents the risk of the impeller rotating in the wrong direction and in the case

of phase failure will halt the pump.

The economical WEDA+ range features a fuel efficient new motor design with greater efficiency and reduced start current, double row ball bearings with better lifespan as well as new hydraulic ends.

The 50+ and 60+ pumps are offered in a normal head (25m and 30m) and high head (41m and 52) respectively with the 60+ also available in a super high head (76m). The WEDA 50+ features a maximum flow between 1 173 – 2 347 l/min while a maximum flow of between 984

– 2 650 l/min can be achieved with the 60+ pump, according to the head size used. The 50+ only requires a maximum power input of 7,5kW while the 60+ pump needs a maximum power input of 10kW. Both units have a maximum solid handling size of 8mm.

With the introduction of the dewatering pump range, Atlas Copco Power Technique added a fourth pillar to its portable energy product offering to bring 360° air, power, light and flow solutions and services to mining and industry across Southern Africa.

Enhanced maintenance with adjustment technology

RECOGNISING that throatbush wear rate has a major impact in the overall efficiency of slurry pumps, Weir Minerals has developed superior rotating and axial adjustment technology.

In many applications, the pump's throatbush is the component that has the shortest life compared to the impeller and liners, with considerable variability.

Adjusting the gap between the throatbush and the impeller front shroud reduces hydraulic recirculation in the pump. This prevents localised wear

on the throatbush, improves hydraulic efficiency and lowers the total ownership cost for the operator. To avoid impacting the plant's production, these adjustments are often performed while the pump is operating. However, this can have safety implications for individuals working at the front of the pump unit.

"Manually adjusting an alloy throatbush on a large pump requires several people and is labour intensive. It requires mechanical tools to adjust the four pusher bolts, one at a time, in order to re-

duce the gap between the throatbush and impeller. We wanted to find a safer and quicker way to extend the wear life of the pump with regular adjustments, which led us to development of this technology," states Marcus Lane, Global Product Manager for Centrifugal Pumps for Weir Minerals.

"Our automated throatbush adjustment solutions are available for pumps fitted with either rubber or alloy throatbushes on Warman slurry pumps used in the most arduous applications. By mechanising the ad-

justment procedure, personnel are removed from the line of fire, and the accuracy of axial movement is increased," states Ron Bourgeois, Director of Slurry Pumping Technology Group for Weir Minerals.

Weir Minerals' automated adjustment systems speed up the process, allowing for more frequent adjustments with minimal effort. When maintaining an alloy throatbush, all four bolts are adjusted at the same time to ensure even adjustment and accurate positioning, improving the wear life of the throat-

bush.

Rubber throatbush adjustment is considerably different because it poses the risk of hysteresis and premature failure of the throatbush. The goal is not to adjust to a minimum clearance but to maintain a standard gap to ensure that there is no contact between the impeller and throatbush, whilst periodically rotating the throatbush face to avoid acceleration of localised wear.

"We developed an automated rotating solution which maintains an optimum gap between the throatbush

and impeller front shroud for the particles to flow through without catching and tearing the rubber. The localised surface wear is usually near the discharge position, but by slowly rotating the throatbush, we even out the material loss over the entire face. Field results have been very positive, showing an average of 40% increase in wear life," states Claudio Needham, Application Engineer for Weir Minerals.

For the smaller Warman® slurry pumps used in medium to heavy duty applica-



Adjustment mechanism reduces throatbush wear.

tions, Weir Minerals offers a single point adjustment mechanism, providing both axial and rotational repositioning. This allows one individual to safely stand to the side of the pump while making the adjustment.

Mining operators who have trialled Weir's adjustment technology have reported improved wear life and safer, simpler maintenance through the process of regular adjustment.

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Dirty water no problem for pump range

ACCORDING to Henru Strydom, Sykes product specialist at Integrated Pump Rentals, the hardened stainless steel internal components on its range of Sykes auto-prime pumps is a key factor in ensuring their high performance and low maintenance needs.

Strydom points to the tough 316 stainless steel impeller and wear plate construction in the pump range from Sykes, making it suitable for harsh construction, mining and sewage by-pass environments with high water flow and long pipe runs.

“These pumps are at home transferring anything from clean water to slimes, sewage, sludge and liquids laden with solids,” he says. “In addition to the robust design of the internals, the priming design is also very user-friendly; our contractor pumps feature fully automatic priming and can run dry for extended periods without

damage.”

This is achieved by an innovative oil bath mechanical seal assembly that allows priming with long suction hoses and suction lifts of up to nine metres.

“As fluid levels fluctuate, the pump will ‘snore’ until there is enough liquid for it to fully reprime itself automatically,” he says. “This means that they can be run mainly operatorfree, as the diesel powered units come standard with a minimum of 27 hours of fuel supply – much longer than the usual refill intervals of about 12 hours.”

Options are also available on standard models for full plug-and-play automation, in applications where automatic stop and start functions are required to regulate water levels.

Efficiency is also a strong point for Sykes, with an average efficiency across the range of about 78%, while handling larger solids than most other auto-



Hardened stainless steel internal components promise high performance and low maintenance.

priming units on the market, he says, highlighting the higher shaft stiffness ratios due to an over-designed shaft and bearing housing.

“The construction sector will find the rental units on trailers particularly versatile and easy to operate, especially as Integrated Pump Rental can provide all the pipework for quick and easy setup as well as lay-flats, couplings and adaptors,” says Strydom. “Where a specific application needs a solution to be designed and managed,

we also conduct project work to the customer’s specifications.”

These pumps can be coupled to either diesel engines or electric motors. As the agents for Sykes for the past three years, the company also conducts in-house builds of electrically driven pumps in permanent installations with variable speed drives for lower energy consumption. Its generous stockholdings of wet ends shorten the lead-times on these builds by up to four weeks.

Advanced new range of vertical turbine pumps

STRONG demand for high efficiency vertical pumps has prompted global pump manufacturer, KSB, to manufacture a comprehensive range of advanced vertical turbine pumps for a wide range of applications.

The new “B-Pumps” are multi-stage vertical turbine pumps with a submerged hydraulic system comprising strong and efficient discharge casing assemblies, column pipes and pump bowls in the assembly. Depending on the size and application required the new range is available in 17 sizes with three different impeller types.

According to KSB Pumps and Valves regional sales manager for Sub-Sahara Africa, David Jones, the pump sets cover heads of up to 200 metres and flow rates of up to 720 li-



KSB’s new B-Pump series is suitable for a wide range of above-floor or underfloor discharge applications.

tres per second with anything from one to 25 stages. Stage casing diameters range from 152mm to 610mm with various designs allowing above-floor or under-floor discharge. B-Pumps can be driven by vertically mounted electric motors or via a right-angle gear with a horizontal diesel engine or electric motor. The maxi-

mum permissible speed is 3 500 r/min.

A wide range of materials can be specified including standard grey cast iron and steel derivatives or special material including stainless steel, duplex and super duplex stainless steel or customised materials. Internally the pumps have intermediate pump shaft bearings which are lubricated by the fluid handled, or may be fitted with an external lubrication supply.

Externally, the casing is designed for a pressure of 16 bar; the discharge flange dimensions are compliant with DIN, BS and ASME standards. On request pressure ratings above 16 bar can also be supplied. The maximum temperature of the fluid handled should not exceed 105 C.

Sucker relieves silting



The SlurrySucker cleaning a tailings dam at a chrome mine.

WHEN a chrome mine in the Steelpoort area recently experienced a challenge with a tailings dam overflowing with slurry sediment, it was Integrated Pump Rental and its SlurrySucker Maxi dredging unit that came to the rescue.

“One of our mining customers had a tailings dam that was filled with slurry to over 110% of its capacity and the sediment needed to be removed to ensure optimum functioning of the tailings facility,” Lee Vine, managing director of Integrated Pump Rental, explains.

Equipped with 37 kW Bravo 700 Grindex pump, and with capacity to pump 70 t/h of

slurry, the SlurrySucker Maxi operates at an average of about 40% concentration, depending on factors such as the material’s specific gravity and how solid the sediment has become.

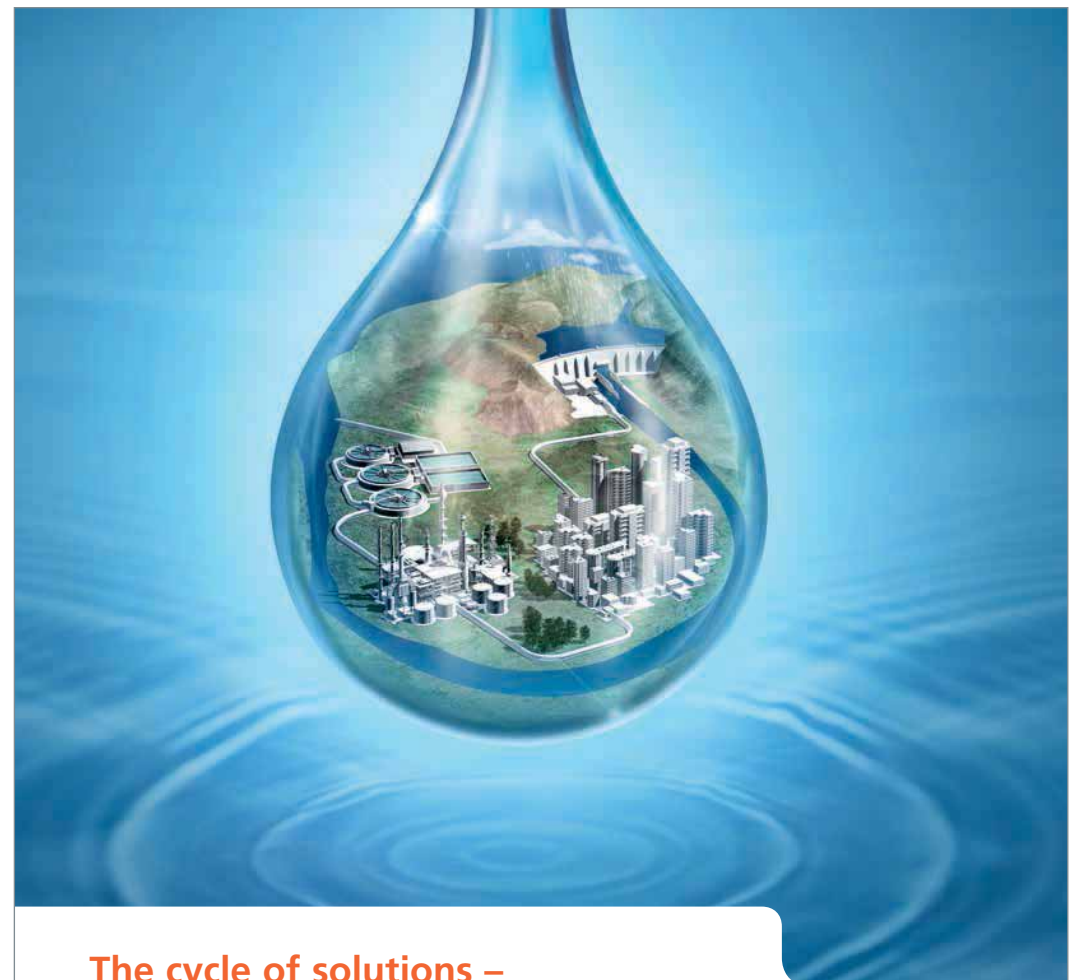
“The beauty of the SlurrySucker Maxi is that we only need one small area to begin the desilting work,” says Vine, “In this case, we started in one corner of the dam and created a cut by attacking the sediment to create space for more water to re-enter the working area.”

He highlights that the mine needed the dam to remain on line during the dredging, so water would continue to enter the pond from

the processing plant.

“The SlurrySucker only needs a 400 mm draught of water above the sediment for the floating unit to operate,” he says. “A dewatering pump takes the top layer of water and feeds it down to the dredge-head, where the slurry is agitated so it can be pumped away.”

The dredging unit is pulled back and forth across the dam, creating a new cut on each journey by removing a lane of silt at a time. Despite its capacity of 75 dry t/h, the SlurrySucker Maxi model’s compact design makes it simple to move and operate. It measures just 5,4 metres in length and is 2,5 metres wide and 3 metres high.



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Platforms raises the bar in access rental

INVESTING in a new fleet of telehandlers and access platforms from materials handling supplier Manitou, JCH Platforms has enhanced the platform and telehandler offering available from others in the market with access platform units ranging from 12 to 28 metres and telehandlers from a lightweight two tonner to a nine ton unit. Each unit in the Johnson Crane Hire fleet has its own special design and unique capabilities facilitating use by customers in varying applications.

A popular smaller unit is the ManGo 12 access platform, with a working height of 12 metres, which unlike most access platforms, unit is designed with the same access capability as a scissor lift, making it a lightweight

machine for both construction and industrial markets but with the advantage of an articulated boom to overcome any vertical restrictions that a standard scissor lift would have.

Some of the improved safety measures include galvanised steel baskets making them less likely to corrode and profiled mesh floors for better traction and safety. The hydraulic pump on the machine is fitted with a retraction pump that absorbs any residual oil in the system providing a much smoother operational experience. The Safe Man System (SMS) protects operators by minimising the risk of crushing.

Another popular range is the ATJ line of access platforms which includes the 180ATJ with an 18 metre reach,



Typical of Johnson Crane Hire's range of telehandlers and access platforms.

the 200ATJ with 20 metre reach and the 280TJ reaching 28 metres with an access

platform with a 4 metre telescopic jib that redefines the up-and-over capabilities of this

type of machine.

In its telehandler range, JCH Platforms includes the lightweight M420H Buggy, which brings various benefits as it can be employed on a building slab to move material over horizontal distances too. Telehandlers will usually only reach as far as 18 metres or the third floor of an average building, where they will place material near the edge of the slab. The Buggy provides a solution, feeding the various work areas efficiently and quickly; its low profile allows it to operate between floors, as the height restriction is less than two metres. This makes it ideal for confined areas, reducing the amount of foot traffic required to move bricks, cement and other building material.

900t megayacht safely lifted

HANSA Heavy Lift has used two of its on-board cranes, which have a combined lifting capacity of up to 1 400 tons to safely manoeuvre the 900 ton and 63.1 meter long megayacht M/Y Irimari into the sea at Antalya, Turkey.

"This was a very sensitive heavy lift operation that required special engineering expertise at each stage, from planning to execution," said Emek Takmaz, Project & Transport Engineer, Hansa Heavy Lift.

"From the moment the project started we were in close contact with our customer to enable a detailed design process ensuring that the yacht would not be scratched or damaged during the recent move."

"Our in-house team of engineers always works closely with our clients to develop customized solutions to ensure the safe delivery of cargo of all sizes," said Ian Broad, Director Cargo Management, Hansa Heavy Lift.

"During the project's planning stage, we determined the most suitable lifting arrangement and operation steps that helped us to eliminate all of the possible risks involved."

Hansa Heavy Lift engineers had to carefully select the frames to carry the yacht in order to maintain its structural integrity. Furthermore, close attention was paid to suspension stability due to the difference in the shapes of the frames.

More attention to zero fall needed

CONSTRUCTION regulations demand that measures be put in place to address the risk of falling from height, but the mobile crane segment has particular needs that require users, manufacturers and even regulators to consider.

According to Cedric Froneman, Johnson Crane Hire's executive for safety, health, environment and qual-

ity (SHEQ), there are unique risks facing crane crews, due to the height of most mobile cranes being less than 4 m from the ground often with inadequate anchor points available.

"There are unique challenges when dealing with large mobile cranes, leading to a fall factor of two – signifying the most dangerous level – for the crane crew moving around

on top of a machine," says Froneman. "Compared to a fall factor of zero, where the workman's lanyard can be attached to an anchor point above their head, most mobile cranes only have attachment points at waist level or even sometimes only at feet level."

Given the relatively low height of some mobile cranes, it is also possible that anyone

falling may reach the ground before the shock absorbing lanyard can take their weight, essentially providing no fall protection.

"So, we can't rely on the fall-arrest principle," he says. "We rather need to focus on fall-restraint systems, and this relies largely on the crane original equipment manufacturer (OEM) to put systems in place on the mobile crane to stop the workman from falling in the first place."

Froneman highlights that this raises the question of regulation, and the need to create a 'level playing field' among both the OEMs and the mobile crane users.

"At the moment, we have a situation where many of the fall-restraint systems are offered as an optional extra, rather than as a standard component," he says. "The systems are also not always required by regulation, so the extra costs are borne by those users who choose the higher levels of safety, placing them potentially at a commercial disadvantage in the marketplace."

Continuous engagement

Froneman emphasises that Johnson Crane Hire engages continuously with its OEM suppliers to find ways of better protecting the crane crew while they are on the machines. Examples of what is now available are integrated horizontal lifelines on the booms of certain brands of newer

machines.

"It is important that these safety enhancements are made by the OEMs, as users are not permitted to simply modify mobile cranes in any way they see fit," says Froneman. "These machines are built to strict safety and technical specifications, so any modifications need to come from the OEM."

Among the situations where the crane crew must be on top of the mobile crane are when counter-weights are loaded from a truck to the deck of the crane. The workmen, who must stand on the mobile crane to position the counterweight, are at risk of falling when they are attaching the slings or moving the counterweight into position.

The crane hook is then often used by some to support the workers with a retractable lifeline, which is hazardous in itself and is not in line with the requirements of Driven Machinery Regulations 18 (8); "No user shall require any person to be moved or supported by means of a lifting machine unless that machine is fitted with a man-cage designed and manufactured according to an approved SANS standard".

Another potentially dangerous context is in the wash bay, when a cleaner must stand on a wet mobile crane deck while also holding a spraying device.

"In compliance with construction regulations, Johnson Crane Hire has developed



Operators are trained in fall-arrest practices.

a fall protection plan specifically for mobile crane applications and is constantly innovating new ways of protecting operators from the risk of falling," says Froneman. "In the wash bay, for instance, we have installed a horizontal life-line to which cleaners must attach themselves."

Risk assessment

The company has developed a full risk assessment with regard to climbing on and off mobile cranes, which includes a low body position, three-point contact, full body harness with adjustable lanyards, and the use of two anchor points at opposite sides of the operator.

With its own accredited in-house training programmes, Johnson Crane Hire trains its operators in terms of fall-arrest practices and standards according to the relevant unit standard. This training must be done every two years, in compliance with the Occupational Health and Safety Act and Construction Regulation requirements.

"This level of compliance is vital for us and is a strict requirement of the many blue-chip companies we work with. We also share information and experience with our customers in the interest of continually raising the standard of safety during lifting operations," concludes Froneman.

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Two floating cranes for open-sea operation

IN the fourth quarter of 2018, JingJiang Port Shipbuilding & Engineering Co., Ltd. ordered two Konecranes Gottwald Model 8 floating cranes. To be operated by Cosco Shipping Bulk Co., Ltd. (Cosco), the cranes will handle bulk off the coast of Guinea, Africa as of the end of 2019.

Cosco Shipping Bulk Co., Ltd. (Cosco) is a subsidiary of one the world's leading shipping companies, China Cosco Shipping Corporation Limited, and a new customer for Konecranes Gottwald floating cranes. The cranes for Cosco will tranship bauxite for the production of aluminium from river barges onto ocean-going Panamax vessels on the open sea. With these two cranes, the number of Konecranes Gottwald floating cranes in operation on the western coast of Africa totals ten.

plays a key role in the supply chain, we opted for Konecranes Gottwald Floating Cranes. These cranes have proved themselves in Africa and beyond as particularly productive and reliable in rough open sea environments."

Giuseppe Di Lisa, Sales and Marketing Director of Konecranes' Business Unit Mobile Harbour Cranes: "Based on mobile harbour crane technology, our floating cranes expanded their capabilities quickly from tranship-

ping mid-stream to operation on the open sea."

Built for use on the open sea, the two Model 8 floating cranes for Cosco are designed in accordance with Lloyd's Register Code for Lifting Appliances in a Marine Environ-

ment, which allows them to be operated at wind speeds up to 24 m/s and maximum wave heights of 2.5 m. Both cranes offer a maximum outreach of 43 m and a powerful 63 t grab curve for continuous-duty bulk handling.



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"Based on mobile harbour crane technology, our floating cranes expanded their capabilities..."

Mr. ZhiJun Fan, General Manager of Technical Division of Cosco: "We will operate the two floating cranes within the framework of our cooperation with China Aluminum group, an important step in the implementation of China's 'One Belt, One Road' initiative. The aim is to transport bauxite from Guinea to the aluminium plants in China. As transshipping raw materials at sea quickly and safely

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SAWA looks to the future

SOUTH Africa is recognised as a reputable trading partner not only in the sub-Saharan region but globally. South Africa has a competitive, challenging terrain which ensures that quality products are the ones which succeed. This ensures the successful export of all the value added downstream products within the industry.

These products include wires of different grades and qualities; wire rope; and strand along with formed wire items like welded link chain, springs, nails and welding electrodes, explains Keith Campbell, director: South African Wire Association (SAWA). "All these products are exported globally, and have been for many years now. South Africa has a reputation as a supplier of innovative, quality goods at competitive prices."

Created in 2002, SAWA is specifically tasked to assist members to participate in



global markets by creating an awareness of the importance and benefits of this export economic sector for our industry. "Our membership base includes large, medium and small manufacturers who are able to accommodate specific client requirements crafted from South African materials," says Campbell. All SAWA members are reliable, competent companies who adhere to the Association's Code of Conduct for international trade.

Industry Training

SAWA continues to suc-

cessfully train newcomers to the export sector. Employees from various companies as well as entrepreneurs entering the export industry have received training at the SAWA main office in Bedfordview, Gauteng. "We provide training in both business and export practices. Currently we offer a one-year certificate course or a two-year diploma course, which is very intensive. We've trained over 50 individuals in the wire and other industries over the past few years," he states.

For more information visit the website <http://www.sawa.co.za/>.

Rigging expertise repairs fire system

A new benchmark has been set by Skyriders Access Specialists when it replaced an entire deluge fire sprinkler system at a major petrochemical producer towards the end of last year.

A deluge fire sprinkler system is similar to a pre-action system, apart from the fact that the sprinkler heads are open and the pipes are not pressurised with air. These systems are connected to a water supply through a deluge valve that is opened by the operation of a smoke- or heat-detection system.

While Skyriders' scope of work was to replace the system, it also had to coordinate its own operations with another contractor tasked to replace the insulation material around the petrochemical storage tank in question.

Skyriders Marketing Manager Mike Zinn points out that this was the first time the company had been requested to replace an entire system, which he likens to assem-

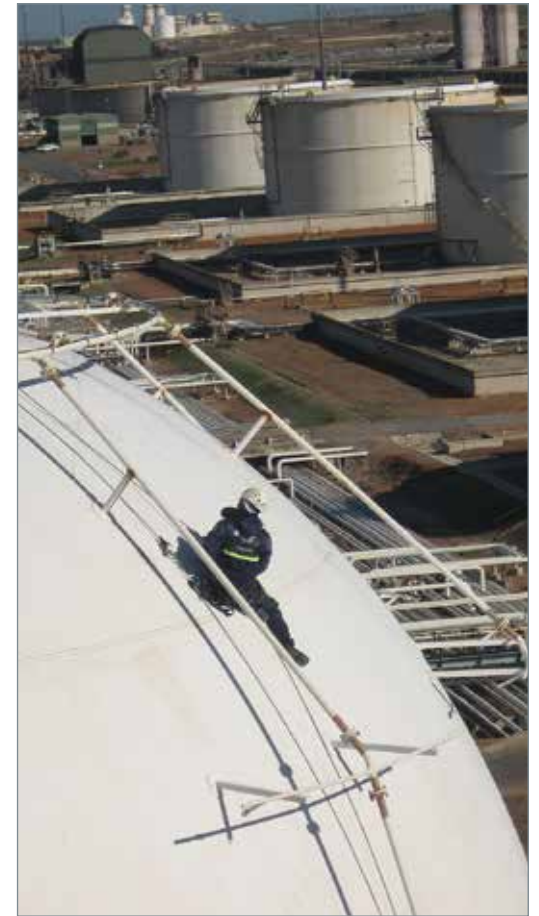
bling an intricate piping puzzle, including ancillary components such as nozzles.

"Normally we are only responsible for sections, typically where a particular piece of pipe has a hole in it, or if it is blocked. However, production pressures over the year-end period resulted in our client requesting us to undertake the mammoth task of replacing the entire system," Zinn explains.

The 28-day project was completed successfully by an eight-person rope-access team.

Skyriders' proactive approach to devising the necessary methodology for the project, while still being sufficiently flexible to adapt it to specific conditions on-site, was highly praised by the client.

"In the end, our approach worked perfectly. It was based entirely on rope access, and once again proved the suitability of this technique in technically-demanding and



Skyriders used rope access for a maintenance project at a major petrochem producer.

time-sensitive projects such as this," Zinn adds. "In addition, our approach maximised

the safety of all personnel, and guaranteed the quality of the work undertaken."

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When should you remove a synthetic sling from service?

SYNTHETIC slings are one of the industry's go-to choices for projects; one of the reasons why they have become a popular choice is their durability and strength. Unfortunately, there are times when those durable accessories have outlived their usefulness, even becoming a danger to employees. Look out for these tell-tale signs that it's time to take a sling out of service.

Fraying

Fraying on any part of the sling could be a sign that this item is reaching the end of its lifespan. Because a sling has to work with varying weights, just one use of a fraying item could lead to the entire sling ripping apart—it goes without saying that this could be catastrophic.

Scorching

For companies that work with fire or heated elements, the sling can come in contact with heat sources beyond its recommended maximum temperature. While some slings may not



show wear and tear, seeing the dark black marks of scorching could indicate serious damage. Make sure to do a thorough inspection of the mark; it may only be cosmetic in nature or received by brushing against a surface with ash or soot.

Weakened Metals or Plastics

Metals or plastics used on any part of the sling should also be inspected along with the materials. In both cases, a weaker eyelet or covering could lead to overall damage or selected issues around the area. Wipe away

any dirt to make the best determination; in some cases, the presence of a spot could mask otherwise glaring problems such as cracks or bending.

Stretching

When materials are constantly stretched to the breaking point, it's only a matter of time before they break or warp. If a sling seems significantly longer than its initial measurement, do a more thorough inspection and take the sling out of service during evaluation.

Advise supplied by
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Copper fish cages save the day

THE Mozambei Tilapia farm in Mozambique had a major problem with predators destroying the synthetic nets and bio-fouling clogging the net apertures. The high nutrient load from Lake Kariba spills into Cahora Bassa and clogs the nets where the fish is kept. It is estimated that the fouling in Cahora Bassa is twice as intense as in Kariba.

Polyethylene and rigid HDPE netting has traditionally been used to build the cages but both types of material are vulnerable to intense bio-fouling in the first three meters of the water column, reducing the water flow through the netting which results in low dissolved oxygen levels - severely affecting fish growth, health and food conversion efficiency.

Bio-fouling build up necessitates the cleaning of the nets every few weeks, causing high stress levels in the fish and heavy mortalities.

The removal of the fish from the nest for cleaning purposes is also very labour intensive.

Attacks on the nets by predators such as otters and crocodiles are not uncommon and to prevent damage to the holding nets, additional predator nets have to be installed.

Copper cages have been widely used throughout the world to secure the fish, eliminating the need for predator nets and, as copper is not subject to bio-fouling, fish are healthier and the mortality rate is much lower.

In 2010 Copper Development Association Africa (CDA) appointed Advance Africa - renowned aquaculture consultants - to carry out tests on copper panels which proved that copper nets prevented predator attacks and drastically reduced bio-fouling.

The first copper cages were supplied to Mozambei in 2013 where Advance Africa managed the deployment, monitoring and evaluation of the copper cages. These were supplied by Copalcor, a large non-ferrous metal manufacturer in Germiston. The results have been extremely positive.

CDA is currently marketing the use of copper cages to the rest of the aquaculture operators in Africa.

Tests on copper cages, supplied by another CDA member, Non

Ferrous Metal Works and deployed, monitored and evaluated by Advance Africa, were concluded in 2017 in the marine waters off Richards Bay and further tests are currently underway in Saldanha Bay; possibly the worst waters on the South African coast in terms of bio-fouling.

The operating costs to clean synthetic nets are high and time consuming whereas the implementation of copper alloy nets not only prevents predator attacks but eliminates the need to remove the net from the water which results in greatly reduced running costs. There is also the ad-

vantage that the net remains a long-term asset as there is no deterioration of the metal.

Aquaculture is said to be the fastest growing business in the world but Africa is still way behind its huge potential. Copper alloy cages could play a significant role in increasing the

growth of aquaculture in Africa and make it more profitable.



Top: Mooring and launching a copper alloy net at Cahora Bassa and bottom an installation at Cahora Bassa.

Cu Copper Development Association Africa

Copper Alliance



High strength, corrosion resistance and anti-biofouling has made copper alloys a desirable material for aquaculture netting

Providing a cleaner and healthier environment for farmed fish to grow and thrive

Much has been written about the depletion of natural fish stocks in rivers, estuaries and the oceans because of overfishing. Aquaculture, an industry that has emerged only in recent decades, has become one of the fastest growing sectors of the world food economy. Aquaculture already supplies more than half of the world's demand for fish; a percentage that is predicted to increase dramatically over the next few decades.

Recently, copper alloys have become important netting materials in aquaculture. What sets copper alloys apart from the other materials used in fish farming is that they have strong structural properties. Attacks on nets by predators are not uncommon and to prevent

damage to holding nets made from traditional materials, additional predator nets often have to be installed. Globally in fish farms where fish have been secured in copper cages, it has been found that there is no need for an additional predator net.

Copper also demonstrates corrosion-resistant properties in marine and fresh water environments, which makes it the material of choice for Fish cages

Additionally, copper alloys actually prevent biofouling in both marine and fresh water environments, this is hugely beneficial from a cost saving perspective, as the removal of the cages for cleaning purposes is unnecessary.

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Red alert at Abagold

HERMANUS-based abalone farming enterprise Abagold is doing everything in its power to prevent another red tide incident from devastating its operations. In Abagold's latest annual report directors detail just how hard the company had to work to recover its abalone pipeline that had been so severely decimated by the red tide event in early 2017.

Abagold MD Timothy Hedges stressed that the lessons from 2017 made it clear that further diversification - both geographically and in product offering - would be critical to the long-term sustainable success of Abagold.

And there is an acknowledgement that prevention is better than cure with Hedges noting: "The knowledge that the business in Hermanus could potentially again be impacted by a red tide event, focused a tremendous effort and financial commitment on designing, developing and installing a multifaceted defence mechanism to protect our farms and future operations from such an event.

He said water quality remained a top priority for Abagold, and that phytoplankton and marine biotoxin monitoring occurred continuously.

He said a Harmful Algal Risk Assessment was also carried out daily during the red tide season (October to March). "To mitigate against any future red tides or other Adverse Water Quality (AWQ) conditions, the AWQ re-use plant has been completed and water quality studies are to commence to ensure correct protocols and best practices are employed when required."

Hedges said in-tank water quality parameters had also been the focus of research during the year - especially exploration of self-cleaning tanks.

In terms of restoring production at Abadold, Hedges said the strategic decision by management to anticipate the benefit of incremental spat production through significant early investment in the hatchery expansion was a prudent move.

This, he said, enabled increased spat production in the fiscal year, and the hatchery produced 9,53 million spat that were transferred to the farm to speed up re-population of the farming operations.

Hedges said with this reallocation of resources, the targets for the year in relation to animals transferred into full-scale production were surpassed. "It was even more critical, with this volume of spat available, that the business focused on ensuring that all the basics of farming were being executed as effectively as possible."

Recovering from the red tide event was not the only challenge for Abagold last year. Hermanus also experienced waves of civil unrest - which was linked to Zwelihle, the community from which Abagold draws most of its employees.

Hedges said these disruptive actions could easily have railroaded the excellent work achieved by staff during the earlier part of the year. "But, due to many managers and dedicated staff members taking risks to arrive at work and to ensure that the animals were constantly fed, tanks were cleaned, and product was packed and processed for the market, there was almost no noticeable impact from these actions on the performance of the company."

Hedges warned, though, that the real work and dedication of the Abagold team

would be truly tested with the ongoing demand for improvement in efficiency and productivity to allow the business to achieve the full farms with the right size and weight distribution by June 2020 - which is three months earlier than originally planned.

In terms of diversification, Hedges said a structured programme would ensure a stable revenue stream and spread business risks.

He said this would be achieved through continued investment in businesses like Specialised Aquatic Feed, Oman Aquaculture, Abagold Mauritius and Port Nolloth Sea Farm Ranching.

He stressed that management had committed to ensuring that the level of quality back-up knowledge and experience was in place at the primary operation in Hermanus so that focus on Abagold's core business

was not lost.

What is encouraging for the year ahead is that Abagold's hatchery performed excellently in 2018 with a new "stretch" target of 1,6 million spat per month.

Hedges said the expansion of the facility meant that the hatchery had already reached more than double its original capacity by December 2017.

"Further innovation and improvements have been implemented this year and the 9,5 million spat produced in 2018 is something to be proud of."

Hedges said the consistent production of increased volumes of high-quality spat to Abagold's farms was the essential basis for the recovery of the production pipeline.

He added that the expansion of operations on farms operated by other Abalone producers led to a high demand for spat in the

forthcoming twelve months. "The hatchery division remains the platform for the rest of the operation to achieve growth targets, competitive feed conversion rates and cost efficiencies."

Abagold's annual report disclosed that the Sea View, Sulamanzi, Amaza and Bergsig production pipelines were populated as quickly as transfer from the hatchery was possible.

The yield (growth net of sales/starting volume) achieved was a commendable 99% - especially compared to previous yields of less than 90%.

Hedges cautioned it would still take six more months to get back to full capacity and a further 12 months to achieve the optimal size distribution. "The operations team remains comfortable that the pipeline will be fully restored by July 2020."

Tiger ships out, AVI holds out

CAPE TOWN fishing giant Oceana Group - best known for its Lucky Star canned pilchards brand - will soon be cast off from its long-standing anchor shareholder.

Late last year household goods conglomerate Tiger Brands announced a decision to 'unbundle' its 42% stake in Oceana. This means shareholders in Tiger Brands will be given their proportionate share of Oceana shares at the end of the second quarter of this year.

Tiger - which owns brands like Tastic, Koo, All Gold, Purity, Albany and Oros - does not regard the holding



in Oceana as core strategic investment. While Lucky Star is one of the best known staple food brands in South Africa, the risks associated with the fishing sector probably don't appeal to Tiger Brands or its major shareholders.

The decision by Tiger

comes just ahead of the start of the 2020 long term fishing rights allocation process - which (if talk around the docks is to be believed) looks set to distribute more quotas to smaller community based and black owned fishing enterprises.

In the interim, empowerment company Brimstone Investment Corporation has taken the opportunity to bid Tiger for 8m Oceana shares at a cost of around R580. Brimstone already has a 17% stake in Oceana, and looks set to push its stake to around 23% with the share purchase exercise.

With the bigger Brimstone stake and the 10% shareholding held by Oceana's Empowerment Trust, the direct black ownership in Oceana shifts up to around 33%.

Of course, the bigger issue is that Oceana is arguable better positioned to benefit from

opportunities in the local and global fishing sector without a large shareholder like Tiger onboard.

Oceana has diversified into the lucrative US fish meal and fish oil sector, and new CEO Imraan Soomra has reiterated a desire to break into the burgeoning aquaculture sector locally and abroad.

So far Oceana has played it cool. An official statement noted that a sub-committee has been mandated to explore the opportunities presented by the development.

"Oceana has always operated as an independently listed company and we remain

committed to our strategy and business plan."

More intriguing, however, is whether Tiger's decision to cut loose its stake in Oceana might inspire AVI, another giant consumer brands conglomerate, to follow suite with regard to its stake in iconic Cape Town fishing company I&J.

There were initial murmurings that AVI - which has a strong contingent of foreign shareholders - was open to offers on I&J - which, aside from the core hake business, also owns the Simplot seafood business in Australia and an abalone farming venture in the Western Cape.

Lately talk of an I&J sale has died down with no more references to the matter from the AVI headquarters.

Fishing sector observers are adamant that I&J would need to reinforce its empowerment credentials to ensure no big cuts in quota in the upcoming fishing rights allocation process.

The difficulty, of course, is finding an empowerment partner with the funding required to execute such a large deal. It was strongly rumoured that Premier Fishing & Brands were keen to snag I&J - but to date nothing has materialised.

Fishing at risk - UN warns world if global warming >1.5°C

A report released by the UN Intergovernmental Panel on Climate Change (IPCC) has found that if the world continues to warm at its current rate, global temperatures will rise by 1.5°C between 2030 and 2052. This will have catastrophic effects on water scarcity, global food production, and almost entirely wipe out global coral reef systems.

For Africa and Sub-Saharan Africa in particular the findings of the report are especially damning. With-

out immediate global cuts in carbon dioxide emissions, average temperatures in Africa will rise more than two degrees celsius above pre-industrial levels by 2050. By this time, heat extremes never experienced before by humans in this part of the world could affect 15% of sub-Saharan Africa's land area in the hot season, causing deaths and threatening farmers' ability to grow crops.

Fishing will also be affected. Every year, about 82 million tonnes of fish are caught in

the sea. For every degree of warming, this could decrease by 3 million tons. This may be an underestimate, as it doesn't take into account the potential impact of coral reef collapse, ocean acidification or overfishing on fish populations.

The report is the result of the work of 91 dedicated lead authors and review editors from 40 countries, and the inputs of 133 contributing authors. This group assessed more than 6 000 scientific publications on climate change and climate change



mitigation strategies.

The report found that pledges that governments made over the last three years are not enough to keep warming below 1.5°C,

even with ambitious and very challenging efforts after 2030.

Under the Paris Agreement, signed in 2015, 197 countries agreed to hold the rise

in average global temperature to "well-below 2 degrees centigrade above pre-industrial levels" and to make efforts to limit the average rise in temperature to 1.5 degrees centigrade. South Africa has ratified the Paris Agreement; however these pledges are well below what is needed to reach the 1.5 degrees celsius temperature target.

Although the report found that this is not impossible, it will require unprecedented transitions in all aspects of society.

Limiting global

warming to 1.5° implies reducing emissions of carbon dioxide by about 45% by 2030, compared to 2010 levels. This would require rapid and deep emission reductions in all sectors as well as the use of a wide range of technologies such as removing carbon dioxide out of the atmosphere. Methods for doing this include: planting trees; bioenergy combined with carbon dioxide capture and storage; changed land management.

For the complete report go to www.ipcc.ch

360° coating solutions



“OUR recent investment in a fibre-coupled diode laser makes us one of only a very few companies in South Africa with laser cladding capabilities and we are extremely excited to bring this technology to our customers”, states Thermaspray’s Managing Director, Dr. Jan Lourens.

Laser Cladding Technician, Jordaan Lourens, who has undergone extensive training on laser cladding in Germany, will oversee the new product portfolio.

Laser cladding is a coating process akin to welding and has been especially developed for aggressive environments. Laser cladding forms a metallurgical bond with the substrate material, which makes this technology far less prone to cracking under point loading or impact when compared to thermal spray methods, which are mechanically bonded to the substrate material. Due to laser cladding’s impressive wear and abrasion resistance, this technology helps to extend equipment lifespan for reduced total cost of ownership for customers and end-users.

While laser cladding is similar to PTA cladding in terms of the types of materials such as stellites, carbides and ceramic metal composites (cermets) that can be deposited onto the substrate, a restriction of PTA cladding comes in when heat input and dilution become critical factors. “Laser cladding offers several important advantages over traditional welding methods, notably low heat input, low dilution and very low porosity, putting laser cladding in a league of its own,” notes Jordaan.

He explains that crucial benefits of low heat input are lower residual stresses in the substrate material and avoidance of work-piece distortion. “La-

ser cladding enables accurate localised application of weld beads and thus presents the perfect solution for applications where localised refurbishment and sensitivity to distortion are key. Multi-layer buildups over large surface areas are also easily clad with laser applications.

Laser clad coatings and refurbished areas are also far more forgiving to impacts and bumps, much like traditional welds, when compared to thermally sprayed coatings.” Jordaan adds that Thermaspray’s highly skilled team can offer expert advice on the best coating or cladding solution that will deliver optimum results.

Laser cladding enhances the surface of components to last longer, making this technology ideally suited for both the refurbishment of worn components to OEM specifications, as well as for surface enhancement of new components.

This advanced technology has seen success in the power generation, automotive, mining, petrochemical, oil and gas, and pumps industries, among others. “Laser cladding has opened up new markets for us, such as the agricultural and mining sectors, as we are now able to offer solutions that we previously could not,” notes Jordaan.

Due to its excellent properties, laser clad-

ding is effectively applied to a diverse range of applications. It is a proven technology for the refurbishment of industrial gas turbine blade-tips and turbine rotor repairs in power generation plants.

Laser cladding is also successful in refurbishing down-the-hole (DTH) drilling equipment, hydraulic shafts, gearbox housings, crankshafts, guides and rollers, boiler tubes as well as logging equipment.

Thermaspray is in the process of obtaining ISO 3834 certification, which is the quality standard for welding applications. “As most power generation plants require all welding-related work done by contractors to be compliant to this standard, it is essential that we obtain this certification for our laser and PTA cladding technologies,” affirms Jordaan.

“The turnaround time of laser cladding depends on the size of the components; while small components can be laser clad within 20 minutes, larger components may require a few hours or more of cladding. Working closely with an international welding engineer who does consultative work for us, we successfully combine extensive global knowledge and experience with local expertise to offer the surface engineering market a turnkey solution,” concludes Jordaan.

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SAIW Open Days in Cape Town

AS part of its strategy to promote welding as a career to the youth of the Western Cape and to the country in general, the Southern African Institute of Welding (SAIW) has put into motion a series of Open Days to enable young people who are in the process of deciding what to do with their lives to see what welding and its related technologies can offer them.

The first Open Day was held with great success in Johannesburg on the 11th January 2019 with Cape Town and Durban to follow in the near future. Liz Berry, SAIW’s Cape Town representative says they are looking for a suitable time for the Western Cape Open Day and will announce it shortly.

According to the SAIW executive director, Sean Blake, there is little doubt that one of the most pressing global issues for young people is finding a solid, fulfilling and financially rewarding career. “In a country like South Africa, where the unemployment rate is amongst the highest in the world, and job opportunities increasingly hard to come by, this issue is perhaps the most urgent of all,” he says.

But, he adds, all is not lost! “Welding, being the foundation of almost everything that is manufactured, constructed



Dennis Randall demonstrating submerged arc welding.

or built, constantly requires welding professionals to operate in a vast range of industries including the construction, automotive, oil and gas, aeronautical, shipping, power generation and more. In fact, the welding industry is pretty much the perfect hedge against recessionary economies in terms of its ability to provide employment.

“We have called welding the ‘miracle career’ because of its ability to provide employment both locally and abroad with recent surveys showing, for example, that more than 75% of the people who successfully complete an SAIW course get

employed in a stable job,” Blake says.

Open Day Initiative

The first ‘experimental’ Open Day in Johannesburg was a rip-roaring success with nearly 50 young people attending. “The response was better than we expected pointing to the need for young people to gain first-hand experience of what the welding industry can offer in terms of a career,” says Blake.

He adds that experiencing at close quarters the wide range of career possibilities in welding helps to counter the stigma that welding is a low-paying ‘backyard’ activity for fixing

gates and burglar bars. “Nothing could be further from the truth,” Blake says. “In the three broad categories of Welding Inspection and Technology, Non-Destructive Testing, and Practical Welding there are a host of different complex, high-end specialities to choose from enabling young people to find a career in something that suits their individual interest and temperament ... and make a good living!”

All participants were given a chance to, inter alia, make a weld, see a robotic welding machine in action, see the processes involved in a host of non-destructive testing techniques and to witness some of the activities in the SAIW’s state-of-the-art Materials Testing Laboratory.

The response from the participants was, as expected, enthusiastic.

Brian Phungwayo said: “Excellent Day! Very Informative. Made me very interested to find out more about welding as a career.

Bonisle Isaac said: Wonderful, informative. Wish we had had even more time!

Ishmael Manzini: It was a perfect day. So interesting and exciting. Thank you for giving me the chance to be part of it!

For more information contact: Tel: 021 555 2535 / Email: dimitra.kreouzi@saiw.co.za

Welding – the miracle career

There is no better career choice for a young man or woman than welding. It offers a wide variety of activities from inspection to administration through to actual welding in a host of different applications. And most importantly, with a welding qualification, you’re certain to get a job.

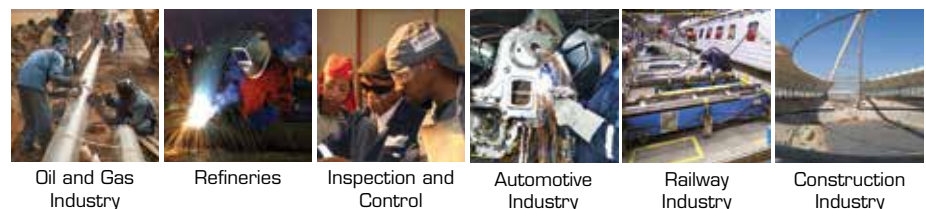
So, see below for a list of our many courses and contact us for more information on how to bring a miracle into your life.



Courses offered by the SAIW

Welding Quality Control; Welding Inspection; Welding Coordination; Codes of Construction; Heat Treatment; Competent Persons; Welding Symbols; Welding Metallurgy and Failure Analysis; Practical Welding; Non-Destructive Testing – Visual Testing, Magnetic Testing, Penetrant Testing, Eddy Current Testing, Radiographic Testing, Ultrasonic Testing.

For further details refer to the Course Prospectus on our website.



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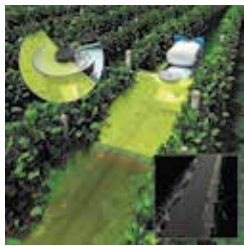
Manoeuvring agricultural robots with 2D laser scanners

HOW can we harness modern technology in a way that will allow people to collaborate with business even more intelligently, efficiently, and sustainably in the future? The solution? 2D laser scanners on robots! SICK has applied 2D laser scanners to crop robots in order to assist a scientific project at Wageningen University and Research Centre.

How do you navigate agricultural robots through a field? The major challenge of this application can be found not only in the wide variety of crops out there, but also in the fact that crop rows are neither completely straight nor all the same width. Now, Wageningen University and Research Centre has developed a solution that uses SICK Automation's LMS111 2D laser scanner.

Precision Agriculture

Precision agriculture is on the rise but what does it mean? It is a practice that marks a move away from the model of subjecting every field to a standard treatment and instead takes a semi-tailored approach that considers the requirements of each crop. Custom sowing, fertilisation, pesticide ap-



Agricultural robots with 2D laser scanners from SICK Automation.

plication and disease control have the potential to not only save money, but also reduce the impact on the environment.

However, the more efficient benefits that precision agriculture brings are unfortunately not yet enough to outweigh the performance of the large, fast farm machinery that save significant quantities of manpower.

Recently, however, a solution to this problem has been introduced in the form of small agricultural robots that are able to work in fields 24 hours a day, slowing down or stopping as the situation demands, and operating almost entirely without human input.

Navigation without GPS

A good navigation system is one of the fundamental requirements for using agricultural robots successfully. The system must be able to ac-

count for deviations in the shape and size of crops, crooked rows of differing widths, as well as other irregularities.

Standard GPS systems are not up to the job. For this reason, the Wageningen University and Research Centre developed a navigation process in which robots would be guided not by a GPS function, but instead by an LMS111 2D laser scanner from SICK Automation.

The LMS111 2D laser scanners collect raw data and then filters the information it needs out of this. A whole range of practical tests were performed during the growing season to check whether the system was functioning as it should. The results proved that it is indeed a reliable solution for navigating crop areas cultivated using conventional methods.

Summing up, Dr Frits van Evert from Wageningen University and Research Centre states: "We have invested a great deal of time and energy in this project. Just recently, our efforts put us in a position to publish our findings in a leading scientific journal. I would therefore like to express my sincere thanks to SICK for providing us with the laser scanner for our research."

Improving inbound logistics performance

A DHL case study

THE customer is an international car manufacturer present in approximately 120 countries, producing a range of cars and vans. Headquartered in Europe, it is one of the top automotive brands in the region. At the same time, it enjoys international success, counting emerging economies such as Brazil and Russia among its leading markets. With a stable of brands under its belt, the manufacturer has achieved a global presence through its alliance with and acquisition of other automotive companies.

With 94 suppliers spread out all over Turkey, the manufacturer was facing complications managing its automotive component collections. Additionally, it had to coordinate not only the export consolidation, but also onward distribution of these components to its manufacturing plants in France, Spain, Slovenia and Romania.

Customer Challenge

- Coordinating with 94 suppliers
- Manufacturing plants located in multiple countries



- Managing the export consolidation and onward distribution of the automotive components from supplier to manufacturing plant

DHL Supply Chain Solution

- Cross-docking operation in Gebze, Turkey
- Parts consolidated before onward distribution
- Route planning and freight management
- Facilitated customs clearance process
- Order and supplier management

Customer Benefits

- 2 000 shipments per annum
- 98% truck utilization

- Improved supplier performance
- Enhanced order and supplier management processes
- More accurate planning

DHL Supply Chain's proven inbound expertise in the automotive industry, its ability to pioneer breakthrough logistics services in emerging markets and its integrated service offering – combining contract logistics capabilities with freight management expertise – proved to be the winning formula. A brand new platform that would provide reliable and efficient service across the country and into the manufacturer's plants and warehousing depots in France, Spain, Slovenia and Romania was established.

This involved daily "milk runs" with a cross-docking operation in Gebze, Turkey, where the parts are consolidated before onward distribution. Furthermore, a comprehensive solution encompassing a whole range of services, from consolidation and route planning, customs clearance and freight management, to order and supplier management was put in place.

Following its implementation, the solution has engendered a host of advantages for the manufacturer. Not only has truck utilization increased to 98%, but also supplier performance has been on the uptick. Furthermore, enhanced order and supplier management processes has allowed for more accurate planning and quicker customs clearance.

Based on this track record of improvements, the manufacturer increased the scope of the contract by 300%. The multilingual team from DHL Supply Chain now handles around 2 000 shipments per annum, delivering unparalleled value to the manufacturer.

Hospitality and supply chain maintenance

A five-star hotel in Paris was in need of a global logistics provider to support its supply chain needs by managing a three-year, thirteen-phase restoration. Specifically, the hospitality client needed a company that could provide purchase order (PO) management, electronic data exchange, international transportation of FF&E and OS&E from suppliers to a consolidation warehouse in Paris, inside placement and offsite removal of packing debris.

Challenges and Opportunities:

The hospitality client knew its logistics provider would face a variety of challenges with the ambitious restoration, but the end result would bring a myriad of growth opportunities and provide an enhanced customer experience. The challenges UniGroup Logistics overcame included:

- Scheduling the



transportation, warehousing and installation services for a phased installation that included three different colour schemes and varying floor plans for non-standard room sizes

- Coordinating amongst client representatives, suppliers and service providers as all were located in multiple countries and time zones
- Verifying goods were available on time through a joint PO management process where suppliers and UniGroup Logistics received copies of

the PO at the same time for complete visibility

- Confirming customs documentation (commercial invoice, certificate of origin, shipper's export declaration, etc.) was prepared and accurate for the goods

- Monitoring the complex textile delivery process, which required fabrics to be imported and exported multiple times using a variety of suppliers in different countries
- Maintaining a secure and respectful environment that did not disturb guests in other parts

of the hotel during the restoration

- Working around other service providers and parties such as the general contractor, drapery and carpet installers, hotel staff and hotel guests

UniGroup Logistics provided a single-source solution, managing transportation, warehousing and installation services for the restoration project. Since the completion of the hotel in Paris, the client has hired UniGroup Logistics to manage additional remodelling projects and development of new hotels.



Lack of storage space? Think up!

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Predictive motor maintenance – a reality



WEG Motor Scan monitors motor data, stores it in the cloud for access via App and an IoT platform.

LEVERAGING digital technology will allow mines, process plants and other industrial operations to reduce operating costs.

Fanie Steyn, manager rotating machines at Zest WEG Group, says one of the areas that stands to be most impacted is predictive maintenance. "This is where access to accurate data can be used to increase production efficiency and reduce downtime, and for the first time industry will be able to do this remotely with electric motor installations," he says.

WEG Motor Scan is a brand new solution available from Zest WEG Group that facilitates remote monitoring of electric motor installations. This innovative technology allows engineers and maintenance personnel to make informed decisions about the health of installed motors and react accordingly, depending on the data captured.

Steyn says that the WEG Motor Scan solution uses Industry 4.0's digital technology including the Internet of Things (IoT) and big data analytics. The

technology allows for the monitoring of running hours, measurement of vibration and surface temperature as well as providing data on speed and start/stop time. The load and efficiency will be included in the second phase. Data is extracted via Bluetooth using a smart device with the innovative app that is available on android and iOS phones and tablets. Users can also access the data on laptops and desktops via a dedicated web portal.

Powerful analytics help to process the data and predict pending failures or hidden problems based on frequency spectrum analysis. Warning levels are pre-set based on acceptable baselines of temperature/vibration and sophisticated software is able to plot performance curves with the captured data. The data is sent to the cloud for storage facilitating fast access and more accurate decision making.

"Using the WEG Motor Scan solution minimises the requirement to manually collect and monitor data, and it eliminates the

guesswork from preventative maintenance routines," he explains. "This removes the inefficiency of reactive maintenance and assists in minimising motor failure."

WEG Motor Scan solution is currently available for frame sizes from 63 to 450, providing this innovative monitoring solution for motors ranging from 0,18 kW up to 1250 kW. It can be fitted on newly manufactured motors or retrofitted to existing installations. The sensor itself is battery powered and has an estimated life span of three years. It is designed to work in ambient temperatures ranging from minus 40°C up to 80°C, has a protection rating of IP66 and can operate in Zone 1 areas with a T4 temperature rating.

Offering optimum flexibility, the sensor can be used on direct online starting as well as variable speed drive (VSD) applications.

"This is a major value add for our customers and the market and will in reality set a new benchmark in predictive maintenance," Steyn concludes.

New compact metering device for single-line lubrication systems

SKF announced the introduction of its Lincoln SLC metering device for grease. Developed for use in single-line lubrication systems, this compact metering device features a compact and modular design for less jointing and decreased risk of leaking.

Featuring a spring-reset control piston, the metering device has a high venting capability for compatibility with greases up to NLGI 2. The device provides reliable operation in harsh conditions and low temperatures. Delivery volume can be either adjusted via regulating screws or



set with dosing screws, both options ensure each lubrication point receives the required amount of lubricant.

The SLC is available in two versions – the SLC1 for one to 12 outlets and the SLC2 for one to six outlets. Both are offered with BSP or NPT threads and in C3 corrosion classification. Metric

and imperial sizes are included for inlet and outlet fittings.

With the most compact construction in its class, the SLC is suitable for use in renewable energy, construction and mining applications, as well as when replacing smaller, mid-pressure, dual-line lubrication systems.

1st Dealer Summit hosted

"OUR dealers are our primary route to market and are perfectly positioned to deliver our comprehensive product and service portfolio to the customer's door step quickly and efficiently," notes Dennis Vietze, Managing Director of Wacker Neuson Sub-Saharan Africa.

In line with this dealer-centric approach, the past few months have seen the roll out of a number of new dealerships both in South Africa as well as cross-border. While previously Dealer Summits were organised at corporate level, Wacker Neuson South Africa took the initiative to implement the first Summit of its kind in the Sub-Saharan African region. On 24 and 25 January 2019, thirteen dealers from across South Africa as well as from neighbouring countries Botswana, Mozambique, Namibia and Zimbabwe, gathered at Wacker Neuson's premises on



A Wacker Neuson 1601 dumper at work.

Johannesburg's West Rand to share in this milestone event.

Industrial Building Supplies and Plant Hire (IBS) in Windhoek, Namibia, claims the title of longest standing dealer whilst newest kid on the block, All Power and Lawn Equipment in the Limpopo Province, joined the Wacker Neuson dealer fold in January 2019.

During the two-day Dealer Summit

a business review of 2018, company targets for 2019 as well as a detailed strategy explanation of Wacker Neuson (Pty) Ltd. were unpacked. Enforcing communication and transparency within the dealerships was one of a number of the primary objectives of the Summit. "A Wacker Neuson dealer is not meant to only sell our premium equipment; we want to treat them as part of the

family and therefore trust within all business activities is one of our most fundamental drives," affirms Vietze.

The Summit also provided the dealers with the opportunity to engage with international colleagues and representatives from Wacker Neuson production sites in Germany, Austria and the United States who, as product specialists, were able to impart invaluable knowledge.

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Massive precision lathe boosts in-house capacity

ONE of the largest lathes on the African continent has been installed at Marthinusen & Coutts' power generation equipment repair facility in Benoni. Marthinusen & Coutts is a division of ACTOM (Pty) Ltd and this acquisition further boosts its capabilities to conduct high-precision machining in-house.

In operation since its commissioning in August last year, the lathe can machine rotors and other components of large electrical and mechanical rotating equipment. With a 3,2 metre swing, it has the capacity to handle workpieces with a mass of up to 40 tons and 10 metres in length.

Marthinusen & Coutts now has the ability to offer the machining of very large workpieces in-house and this will improve both the turnaround time and competitiveness of its offering to customers.

According to Craig Megannon, works ex-



The newly installed 140 t lathe at Marthinusen & Coutts' power generation repair facility.

ecutive at Marthinusen & Coutts, its business unit ACTOM Turbo Machines was acquired approximately four years ago allowing the division to offer customers a full electro-mechanical solution for all rotating equipment. our capacity and services offered

"The lathe is a further investment to grow to customers. It was purchased in Europe last year and underwent a substantial rebuild and modernisation to enable automated operation," he explains

"This included having it modified to achieve the fine tolerances normally required for the machining of precision power generation equipment," Meganon continues. "We also upgraded it from semi-automatic operation to a high-precision, numerically-controlled machine."

"We previously would sub-contract very large items to be machined, which led to logistical risks in transporting workpieces back and forth," he says. "This

made the procedure very expensive and time consuming, impacting on our competitiveness for performing such work."

He adds that the new lathe can also be utilised by other business units within Marthinusen & Coutts and will be a boost to the broader ACTOM Group. It will especially benefit ACTOM Turbo Machines, for instance, which provides a mechanical maintenance and repair service complimentary to Marthinusen & Coutts' own maintenance and repair service for electrical rotating machines.

Marthinusen & Coutts, together with ACTOM Turbo Machines, offers a full range of electro-mechanical services including maintenance, repair and specialised manufacture of electric motors, generators, turbo machinery and other high speed mechanical rotating equipment.

New generation of BEAM and BEAS angular contact thrust ball bearings for machine tools

SKF has developed the double direction angular contact thrust ball bearings for machine tools where space is limited and easy mounting is required. The high-precision bearings serve as support bearings for the ball screws, which are commonly used to drive the various axes in the machine tool. This application requires a particularly reliable radial and axial guidance, which can be achieved with the bearings of the BEAS (for shaft diameters from 8 to 30 mm) and BEAM series (for bolt mounting and shaft diameters from 12 to 60 mm).

SKF has now optimised the ready-to-mount bearings for higher load capacities and speeds. To this end, SKF engineers have modified the internal geometry of the bearings to increase the dynamic load capacity of the latest BEAS models by up to 17 percent compared

to their predecessors. The BEAM models reach up to 20 percent more. These higher load ratings ultimately improve the service life and availability of the machine.

In addition, the latest BEAM bearings allow up to 15 percent higher speeds, depending on size, while the new BEAS versions even achieve up to 35 percent higher speed limits. The higher speeds can help to reduce the required machining time per workpiece. This further increases the productivity of the machine.

On top of this, the standard sealed and lubricated bearings are equipped with a new, low-contact seal. It prevents the ingress of dirt better than many comparable products, but still causes less friction. This is not only more energy efficient, but also minimises heat development - which on the one hand extends the service life



of grease and bearings and on the other hand minimises the thermal deformation of the machine structure. This in turn contributes to higher machining precision, especially as a newly developed, ball-centred cage made of glass-reinforced polyamide significantly reduces the risk of vibrations.

The more durable BEAM and BEAS bearings are also easy to install due to their increased number of bores. At the same time, the interchangeability of the bearings is fully maintained, thus reducing maintenance effort.

Threefold universal use – the new X-treme Evo

WALTER AG is releasing an all-rounder for every material, machine and drilling application

THIS can be used universally in three different ways: In all ISO material groups. It is designed for a wide variety of applications such as inclined entries and exits, drilling holes close to the edge of the workpiece or convex and concave surfaces. Furthermore, it is also intended for use with all machine concepts: In machining centres, horizontal or vertical, or in lathes, rotating with driven tools, axial and radial (with angular head), or sta-



tionary. As a first step, Walter is bringing out the X-treme Evo in the variants 3 and 5 x Dc without internal coolant and 5, 8 and 12 x Dc with internal coolant. In addition to the DC160 variant, the drill from the Advance range is also available as the DC260 Advance with and without internal coolant. According to Walter, the greatest strengths of the X-treme Evo lie in its long tool life and high levels of productivity and process reliability.

The WJ30ET (full coating) and WJ30EU (point coating) grades are new to the X-treme Evo: A highly tough micrograin substrate combined with Walter's own TiSiAlCrN/AlTiN multi-layer

coating on an AlTiN base layer. Extremely wear-resistant for a long tool life – even while maintaining high cutting parameters. Another innovation is the thinner web with steep approach angle, along with the fourth land that lies close to the drill tip. The steep approach angle reduces the feed force and increases the positioning accuracy. The deep-seated fourth land is engaged even quicker and consequently optimises drill guidance, particularly for inclined entries and exits. The new type of face geometry on the X-treme Evo creates plenty of room for the chip in the centre and therefore improves chip removal, particularly in soft material.

We value your input
Only through your input can we continue to improve.

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

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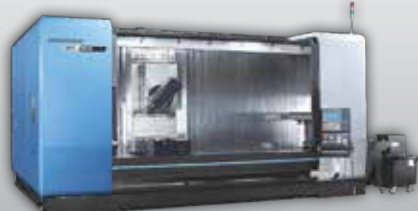
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MACHINE GREATNESS™

The dead hand of bureaucracy strikes again

Continued from back page

edented rate, believing that they are the future of urban transport.

There are three such companies in California. One called Bird (sic) hires out only electric scooters. Another called Lime (sic) also hires out bicycles to cater for the fitness fanatics. The third one called Spin (sic again) has branched out to cities outside California.

It is a picture of success, typically American, land of the free and home of the entrepreneur where a good idea can be developed into a fortune, where the economy is free and private property revered and protected.

So you would think, but you would be wrong.

You see, the smell of freedom and private money-making is anathema to all civil servants – whether local, provincial, or national. In the US that would be City, State and Federal. Not-so civil-and-not-so-servile servants are the same everywhere. Certainly we have plenty.

The bureaucrats of San Francisco saw an opportunity to tax and control, so they have

banned electric scooters without a permit.

They say this is a temporary measure while they decide whom to permit to ride a scooter, how much to charge, what the application forms will look like and what extraneous information they will demand.

The bureaucrats must also have time to think, to set up committees, elect a chairperson (sic) and book meeting rooms with tables that seat 20 people. Not to forget the writing of a 50-page report of their findings and recommendations.

Meanwhile the awful money-making will have to stop.

It is truly amazing that despite such public servants California continues to spout bright ideas to make customers' lives better when it has.

It is irritating beyond bearing how unelected bureaucrats think they are doing good by interfering. If they simply left everything to market forces the electric scooter business would either sink or swim.

Ah, you may say. Leaving the market

to get on with separating the sheep from the goats would mean less work for Bureaucrats.

Indeed, it would. And what a better place the world would be.

The San Francisco bureaucrats have a different idea altogether. They are determined to punish the scooter companies for starting up without their permission. They plan to only permit five companies to operate and allow only 2 500 scooters to use the roads.

Even that is not enough for these control freaks. Each of the five companies will have to pay USD\$ 25 000 every year to the cities and another USD\$ 10 000 for "public property repair and maintenance".

No doubt that will go to paying salaries to more unproductive drones to oversee the scooter hiring business.

Maybe they will get free uniforms too. With baseball caps with embroidered letters in gold thread proclaiming them "Scooter inspectors".

If it happens I would not be surprised.

STEEL INDUSTRY CAPTURE within the context of STATE CAPTURE

PRE-2015 dti Minister Rob Davies was a staunch critic of AMSA (Arcelor-Mittal SA), to such an extent that he removed the 5 percent duty that was in place at the time. That was done in retaliation of AMSA's policy of import parity pricing and AMSA's repatriation of billions of profits out of the country. "So, we will continue to pursue tariff reduction in mature industries, such as steel, that produce high value goods for downstream industries", Minister Davies said at that juncture.

In 2015 everything changed: a Black Empowerment deal was concluded involving AMSA and well known individuals, 10 percent custom duties were introduced and 12 percent safeguard duties followed in 2017. Significantly also, Minister Davies' view on duties made an about turn; all of a sudden his view was that South Africa had 'no choice' but to impose customs and safeguard tariffs on imports of certain steel products to protect the local industry. With 'local industry' he must have meant AMSA, because everything and everybody below AMSA was prejudiced by these duties.

What perhaps is also of significance in this regard was the meeting, prior to the above-mentioned events, between then President Zuma and Lakshmi Mittal (the owner of ArcelorMittal Interna-

tional) and AMSA, also in 2015. There is a strong perception in steel industry circles that this meeting set in motion the process aimed at protecting AMSA, by means of customs- and safeguard duties, which severely prejudiced the Steel Downstream.

Manufacturing in South Africa, in particular steel manufacturing, at least partially as a result of these duties, is experiencing business closures and severe job losses - something South Africa cannot afford. South Africans consequently need to know:

- who was present during the meeting between President Zuma and Lakshmi Mittal?
- in particular, was Minister Davies present?
- what was discussed, specifically with regard to the Steel Industry?
- is there a record of that meeting? and
- what undertakings were given, and in exchange for what?

In an article published in Businesslive on 1 November 2018, Peter Bruce (former editor of Business Day and the Financial Mail) suggested that Minister Davies must come clean at the Zondo Inquiry about his interactions with the Guptas. Minister Davies reportedly has

indicated that he is ready to testify at the Commission.

Thus, while Minister Davies is at the Commission, we request Paul Pretorius, the Commission's evidence leader, to interrogate him about the meeting between President Zuma and Mr Lakshmi Mittal, a meeting which may have changed the course of South Africa's Steel Industry, perhaps forever - made it uncompetitive, sped up de-industrialisation, caused business closures and job losses on a large scale - thus putting South Africa at risk.

The South African Steel Downstream pays a huge price to keep the monopolistic AMSA alive. Now the Steel Downstream (and South Africa) demand answers.

Previous NEASA communiques on this topic:

- 7 August 2018 - Steel Downstream sacrificed for the sake of AMSA
- 15 August 2018 - AMSA and safeguard duties: a slap in the face of the Steel Downstream
- 22 August 2018 - Open letter response by Minister Davies: No 'safeguarding' conspiracy between government and ArcelorMittal
- 28 August 2018 - AMSA: To the contrary Minister Davies

New research on tax avoidance

The largest 10% of multinationals are associated with as much as 98% of an estimated 7 billion ZAR tax loss.

A new SA-TIED research study estimates that South Africa loses about 7 billion ZAR a year due to profit shifting by multinational corporations; amounting to about 4% of total current corporate income tax receipts. While this assessment is comparable to reviews for other non-tax haven countries, the new study is unique in being the first to estimate profit shifting by firm size.

The key finding suggests that 98% of the tax loss is associated with profit-shifting by the biggest 10% of multinational corporations.

The study relies on standard methods for estimating profit-shifting globally, and in a novel way accounts for the increased propensity of larger firms to engage in profit-shifting, which is well established in the literature. By failing to account for differences in profit-shifting by firm size, the authors believe

that the current recognized empirical approach to estimating profit-shifting underestimates its scale by 40% to 80% globally.

Profit shifting takes place when multinational firms move profits from a higher-tax-rate country to company affiliates (a parent company, sister company or subsidiary) in a lower-tax-rate country to reduce their overall tax bill. The research concludes that half of all profits shifted out of South Africa are moved to Switzerland. The corporate income tax rate in Switzerland is 8.5%, while that of South Africa is 28%.

Some forms of profit-shifting are legitimate, but the practice is increasingly recognized as a challenge for tax authorities and governments worldwide. The G20 finance ministers (including South Africa) called in 2013 on the OECD to find a solution to these chal-

lenges. As a result, the OECD initiated the Base Erosion and Profit Shifting (BEPS) project, which outlines global best practices for countering profit shifting. Profit shifting is increasingly recognized as a key challenge for developing countries because they rely relatively more on corporate tax revenues. In South Africa, 19% of all tax receipts come from corporate income tax.

The new working paper from UNU-WIDER, as a part of the SA-TIED programme, is the first study on profit shifting in South Africa to follow the OECD recommendation of using tax administrative data to enhance understanding of the scale of profit shifting. This research has been made possible by the SARS and National Treasury commitment to global best practice in data access and management for research purposes.

IN THE NEXT ISSUE:

- Agri-processing Industry and Supply Chain
- Building and Construction
- Civil Engineering / Projects in progress
- Corrosion and Abrasion Control / Specialised Coatings
- Food, Beverage and Wine Supply Chain
- HVAC / Temperature Control
- Industrial Development Zones / infrastructure & Development
- Instrumentation and Process Control Management
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Tel: 021 2500400

Printed by:

RSA Litho

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Playing ball with Putin

“What do you know,” remarked the romantic Jean-Jay to nobody in particular (he was eyeing our wondrous bartender, the sweet Angie), “it feels like Christmas was yesterday and here we are, already looking at St Valentine’s day, that one, with the expensive roses. But who, Messieurs and Mesdames, needs a reason for love?”

“Not you, Lover Boy,” conceded Luke the Dude with malice aforethought, “and that is why you Frenchmen cannot play rugby. You think of love and take your eye of the ball. Mid-February is also – while it is still summer! – the beginning of the Super Rugby season with a good old Stormers-Bulls game. Not at Newlands but just as well, looking at their kiddy jerseys.”

“That is so, Monsieur,” agreed Jean-Jay readily, “and that is also the reason why you are no good at the game of love. Too much keeping your eye on the ball.”

“Fill up the glasses, please Angie dear,” ordered The Governor, sensitive soul that he is. We were gathered at the local Pub and Grill, as the local congregation of conversationalists do on the odd occasion, to share our convictions on the villainy of politicians and other con artists locally and abroad.

“No doubt the Stormers will come out on top,” The Governor clumsily continued to change the subject, “but I don’t know about that Donald Trump. Looks like his years of dealing from the bottom of the deck are finally catching up with him. What do you clever fellows think?”

“Forget it Boyo,” retorted Colin the Golfer, “no clever fellows here.”

“Useless!” exhaled Jon the Joker.

“Try ‘erudite gentlemen,’” advised Bob the Book kindly.

Irene the Queen, being neither a fellow nor a gentleman, was having no part of this silliness. “Trump, what a despicable man,” she held forth, “no grasp whatsoever of the difference between fact and fiction, which explains why he doesn’t read and also why his lawyer won’t let him give evidence under oath – a ‘perjury trap’ he calls it! Doesn’t that give the game away? The man cannot open his mouth without lying.

“It is perfectly natural for Donald Trump to steal from rich and poor alike on an industrial scale, with fraudulent schemes like The Trump Foundation, Trump University and the Trump casinos. All of those exposed and closed down now, along with other failures like Trump Airline, Trump Vodka, Trump Steaks, Trump bottled water. And still some very weird people in the United States support him. Female voters too, while the pervert ranks among the lowest form of crotch creepers.”

“Useless, that one!” interjected Jean-Jay, grabbing the words from an astounded Jon the Joker’s mouth. “Pete’s sake!” The Joker added, hurt.

“Whatever is ticking in his mental ‘kraaines,’” concluded Irene, “Trump has absolutely no respect for women.”

The Prof lit his pipe. “Indeed, my dear,” nodded he thoughtfully. “in the strange world inside the skull of the US president, the laws of narcissistic self-interest trump everything else. There is no room for respect, not even for his wife or, even worse, his daughter. There is room only for the unchecked indulgence of Donald Trump.”

“I don’t agree!” burst forth Big Ben, who has been huffing and puffing to get a word in ever since The Governor started this horse manure. “Donald Trump is not like other politicians; take this wall for instance ...”

“You take that useless ‘postponed’ wall,” gifted Jon the Joker, “The Americans don’t want it. At least those of normal intelligence. Same way as no Germans wanted the Berlin Wall. Not even the Great Wall of China, the most ‘beautiful’ wall on earth, kept people out. Ever hear of ladders, Genius?”

“Let me make my point!” Big Ben turned up the volume. “The point is, he is a man of his word, not like other politicians. As candidate he promised to build the wall when elected, and now he wants to keep his promise. What’s wrong with that? We should admire him for that!”

“Hang on there a moment, Boyo,” explored Colin the Golfer with narrowed eyes. “Are you not, maybe deliberately, forgetting one half of that election promise? You know, the half that gave Trump’s word on the Mexicans paying for the wall? That lie he promised repeatedly and with glee. He even conducted himself like a girlish cheerleader to excite his brainless followers with it!”

“No but look at what the Democrats are doing! That Pelosi woman has been exposed as an extremist Socialist! And look at those Clintons! Criminals who colluded with the Russians!”

“Ah ha!” exclaimed Irene the Queen. “Hillary Clinton is to blame, I thought so! The man has been ordained the head of the house so no woman must head the country, right? If she tries, she must be slandered beyond the Styx and back. And you must chant, ‘Lock her up!’ Not so?”

“What are you talking about,” shouted Big Ben in bewilderment. “Are you saying he was chasing her skirts?”

“Now there’s a thought to exercise the mind,” mused Stevie the Poet.

“Quite,” retorted Irene sharply. “Fortunately, and particularly so for the business interests of Moscow’s high-level prostitutes, Trump did not chase Hillary’s skirts. That scenario is rendered impossible by his overriding lust for self-interest. Because had he tried, he would today have been without those body parts of his that

have since become the butt of rude jokes on America’s more graphic talk shows. With first-person descriptions by his ex-lover Stormy Daniels.”

“Now now,” sighed The Prof. “We are all friends here. Let’s not get provoked beyond the barrier of, say, the better class of wedding joke. Or the sound barrier, Benjamin old son. If you don’t mind.

“And I have to add my penny’s worth here, Benjamin. It has become standard practice among Pres. Trump’s paid propagandists and unpaid supporters alike to respond to criticism of him, any criticism, not by defending him but instead by, immediately and aggressively, attacking his opponents and critics – his ‘haters’ in Trump-speak. For that, Trumpists use whatever fantasies and lies they like because they need to take the conversation away from facts and figures. When the defence of Trump’s lies and frauds depends on facts and figures, he is indeed indefensible. So his defenders switch the target away from him and rely on slander ... stopping at nothing, not even false accusations of rape and murder. Please let us not go there.”

“Well ...” conceded Big Ben reluctantly albeit graciously.

“And speaking of facts,” counselled Stevie the Poet, “the reality is that the legal knot of Russian collusion, obstruction of justice, witness tampering and false statements is tightening around the House of Trump. Including, of course, the Don himself.”

“I told you so,” said Luke the Dude, doing his best to make it look like a throwaway

OPINION

ON THE CONTRARY



.....
Pieter Schoombee
.....

line. “I told you so eight months ago.”

The general uproar from the assembled armchair analysts, joined by the rudely awakened big white dog, suggested a consensus that this was a boast of no less than Trumpian proportions.

“Please Angela my dear,” ordered The Prof, “pour a round on my account. This I want to hear.”

“Don’t take my word for it,” said Luke modestly, “you can check it in Cape Business News of June 2018. As chronicled there, I asked you to imagine how Trump would act if he was indeed in Putin’s pocket. Fact is, he would be doing exactly what he is doing now. Damage the credibility of the FBI and US justice system, break down the Paris Accord, the G7, NATO and all the structures of the democratic world Putin wants weakened, hamstringing China and the US, endanger the Middle East and praise Putin. I’ll say it again:

“Here’s a clue: Who’s happy here? Surprise! Surprise! It’s Vladimir!”

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The dead hand of bureaucracy strikes again

ANCIENT Romans used to say that there was always something new coming out of Africa, by which they meant strange wild animals like giraffes and zebras. Today the same thing might be said of California.

There are two main reasons. The first is that California has a great climate – far better than the wet, windy and sometimes freezing east coast of North America. This doesn’t explain why California seems to have a disproportionate share of strange cults like Scientology as well as fake castles, and has produced geniuses such as Howard Hughes and Steve Jobs.

The second reason for California’s attraction explains why. It is because rebels, eccentrics, entrepreneurs and adventurers throughout USA history have constantly moved westwards to escape the settled, conservative eastern states.

When these misfits got to the Pacific Ocean, there was nowhere else to move to so the eccentrics, adventurers (and now climate alarmists) settled down, and built up Los Angeles, San Francisco (both won from the Spanish) and later Hollywood.

The most recent manifestation of this process is Silicon Valley, the home and birthplace of Apple and Microsoft and all things digital from cell phones to smart fridges – and lately, Uber.

Everyone knows Uber is built on the idea of using cell phones to connect people

THE OTHER SIDE OF THE COIN

.....
Keith Bryer
.....

who need a lift with those willing to give one. It is highly successful, makes money by providing a service that is cheaper than conventional taxis – and consequently is loathed by them.

Uber is also hated by government (more correctly by bureaucrats) especially tax collectors.

Recently another bright and successful idea has incurred the disapproval of these non-elected people. Once again California is the source. The idea is a way of getting around a city, faster than walking and cheaper by far than taxis, Uber or conventional metered ones.

It allows people to hire an electric scooter, make a longish or short journey, and then dump the scooter for someone else to pick up and use. Each journey is paid for by putting money through a slot in the handle bars -- rather like paying for parking.

There are some drawbacks. Scooters are not so good in rain. But that does not seem to put off customers. The idea is flying.

According to the *Wall Street Journal*, investors are pouring money into shared electric scooter companies at an unprec-

Continued on P31

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