

stainless steel 
the journal of the southern africa stainless steel development association



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WITH PASSION**

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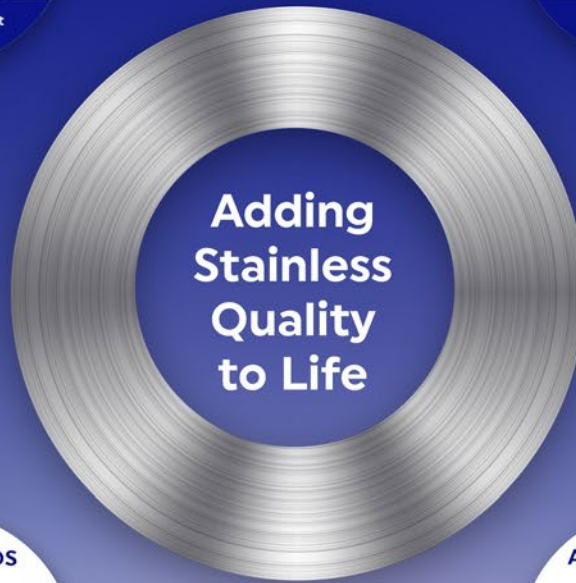


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Contact us

Tel No 011 883 0119
Email info@sassda.co.za
Website www.sassda.co.za

Sassda

MICHEL BASSON
Acting Executive Director
michel@sassda.co.za

FRANCIS LE ROUX
Head of Administration
francis@sassda.co.za

MANKABE MORE
Education & Training and Marketing
mankabe@sassda.co.za

LESLEY SQUIRES
Market Intelligence and Exports
lesley@sassda.co.za

KIM STEVENS
Events, Email Marketing and Website
kstevens@sassda.co.za

JOSE HERON
Accounts
jose@sassda.co.za

LUISE ALLEMANN
Content, Social Media and PR
luis@mediaink.co.za

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THE YEAR OF LIVING BRAVELY



The 26 March 2020 will go down in history as the day our country changed forever. This was the day an unprecedented hard lockdown ground 60-million South African lives to an instant halt and it truly felt as if life as we knew it was gone forever. The months that followed were challenging to say the least, thanks to the ever present threat of the pandemic and severely constrained business conditions, leading to lost revenue, job losses and company closures.

As we entered 2021, the Sassda Team started to seek some perspective on the previous twelve traumatic months, and we held a strategic planning session to assess the changes the previous year had wrought on our industry. As a result

of this session, we are focused on consolidating the quick adaptations we made last year and remain committed to becoming an even more flexible and agile, industry-relevant association that furthers its goal of growing stainless steel demand locally and adding value to our members' bottom line in a variety of ways.

BENEFITS YOU CAN SEE AND THOSE YOU CAN'T

That said, we know that many of our members are under severe financial pressures and we remain committed to ensuring their membership fee yields a significant return on investment. However,

one of the biggest challenges we have always, and continue to face, is to provide a clear understanding that the value we provide comes from both intangible and tangible (quantifiable) forms.

The intangible benefits we provide, are: raising awareness of stainless steel in the market via our communication and marketing activities, and our unique lobbying and networking activities. These are harder to quantify, but the pay offs of these activities are just as valuable as the more immediate ones.

The tangible benefits we supply that do add instant Rand value are: member discounted courses, free technical advice, and webinars.

WHAT WE'VE ACHIEVED THUS FAR

With that in mind we have therefore wasted no time jumping into 2021 to prove our worth and have already begun a range of initiatives in line with our five pillars. A couple of the highlights of our activities thus far are as follows:

The launch of our 60 Minutes with Stainless weekly webinars in 2020 proved highly successful and we began our 2021 series in February with excellent attendance. We have already covered a range of topics, including Africa Market focus from industry expert Africa House on key markets of Tanzania and Kenya, as well as looking at fundamental aspects of stainless steel to assist member sales teams. Most recently, we focused on key sectors that present great potential for growing local stainless steel demand, namely the use of stainless steel in water supply infrastructure and the health and safety sectors.

Our first live online Fundamentals Course for 2021 was also well attended and our new look course material proved to be

extremely popular.

We have also engaged with a variety of associations from sectors we have identified as having the greatest growth potential for the use of stainless steel. These include the Mining Equipment Manufacturers of South Africa where we have held detailed discussions on the value of lifecycle costing and the use of our world-first app to achieve meaningful calculations in this regard.

We are also in discussions with the Water Institute of Southern Africa for increased usage of stainless steel in infrastructure projects. In tandem we will be holding a number of half-day workshops outlining the benefits of stainless steel use in water supply, supported by detailed 30 year ISSF case studies proving this view.

In January, we also started lobbying with the Department of Small Business Development for assistance for our SM&E members in terms of market development and statutory compliance. The value of these members has become clear as they currently represent more than 20% of our member base. As such, we have now created a special Amethyst membership tier to cater for them so that we can add value to their business and foster their growth and the broader growth of our industry.

We have also researched and contacted the 12 regional Special Economic Zones (SEZ's) to find value for members and we are in ongoing discussions to maximise the use of local stainless steel manufacture and supply key projects, including the proposed future SA Nuclear Build Programme.

STEEL MASTER PLAN

In addition, we have also been integrally involved with the

development of the Steel Master Plan. During a feedback meeting in March 2021 with the dtic, Sassa was informed that the Steel Master Plan has been finalised and awaiting a suitable date for the physical signing by the minister. The broader details of the impact on the stainless steel industry were discussed and explained.

We will continue to work with the dtic as it seeks to establish an oversight council that aims to bring value chains together. We will also monitor implementation, implement trade measures and incentives, create opportunities to boost demand and thereby stimulate local production.

The dtic's view is that the stainless steel industry has huge potential. Sassa was told that stainless steel is as important to the growth of the steel industry as carbon steel and has immense value-added potential and international demand. The possibility of a specific sub-sector plan for the stainless industry was mentioned as a high probability and priority.

In this issue you will see more detail on the activities and initiatives we have planned for the year, as well as some interesting technical articles and more information on trade in Africa. We are also sad to say that we have lost some members to the pandemic. However, our industry still have professional experts who we feel is an excellent example of the passion so synonymous with our industry and the simply brilliant material we are all so invested in. In this edition we focus on one of those individuals.

Enjoy the read!

Michel Basson
Sassa Acting Executive Director

IT'S ALL IN THE NUMBERS

There is no denying that the previous year has left a trail of destruction in its wake with the stainless steel sector not excluded. This is apparent in the decline in industry outlook and the decrease in apparent consumption as experienced last year. In fact, the statistics for 2019 – 2020 show a drop of 26% in the apparent consumption of stainless steel which can be translated into: that more than a quarter of the stainless steel converted in 2019 has disappeared in a single year.

The situation is dire, but our sector has proven itself to be resilient and has learnt the tricks for survival during tough times.

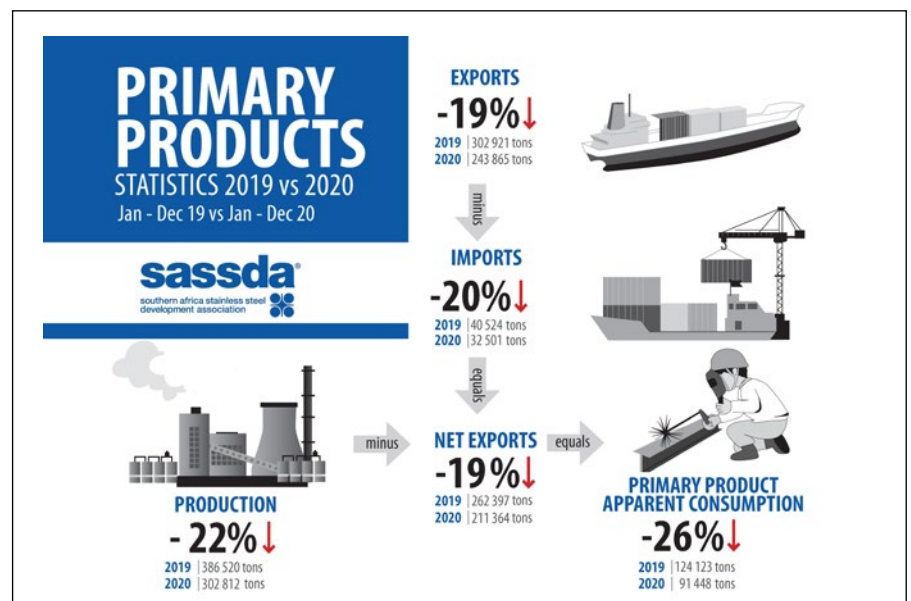
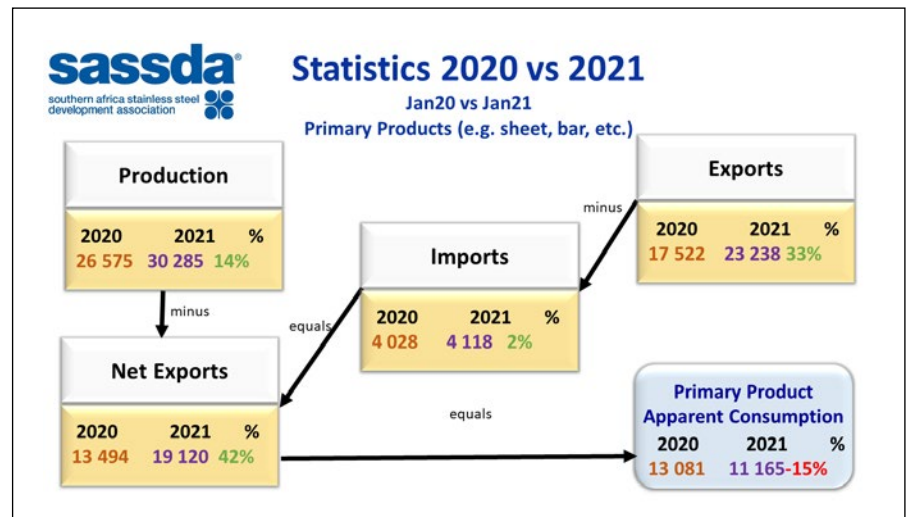
The year on year comparison for January 2021 shows a positive turn in these numbers. Latest statistics show that in all contributing areas for calculating the nett apparent consumption, there is an improvement on the figures from the previous year. Considering that the pandemic did not influence the January 2020 statistics, this is a positive start to the year.

It is also reported that some sectors within the stainless steel industry have excellent order books and that certain niche markets experienced little impact on normal business. The environment for general fabrication remains fragile. The domestic and residential market for stainless steel appliances and products also cooled down. The

global forecast for stainless steel consumption and demand looks positive.

Reflecting on this, we can summarise by agreeing on the state of the national economy not making life easy for the industry.

We trust that strong political will and certain key moments forced upon us by the pandemic will allow the necessary action to grow our industry as a major contributor to value adding, job creation and earning foreign income.





**When it comes to the ins and
outs of stainless steel,
we deliver solutions**



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THE BEST OF THE GPS E-NEWSLETTERS

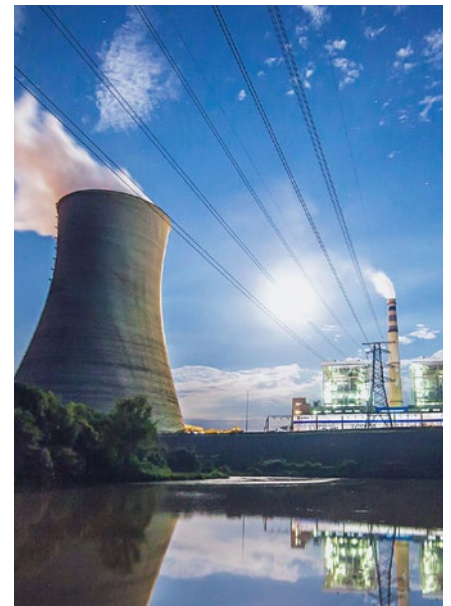
Each month Sassda rounds up a selection of global and local market intelligence articles that are sent to our members in an easy to read package of content. They're designed to highlight pockets of potential growth in demand for stainless steel. Here are some of the best articles from the last few issues...



SIX NEW PROJECTS WILL CREATE MORE THAN 5 000 JOBS IN SOUTH AFRICA

Deputy Minister of Trade, Industry and Competition Nomalungelo Gina has announced that government's Special Economic Zones (SEZ) programme has continued to prove successful with several developments expected to create more than 5 000 jobs in the country. In a statement, the deputy minister said the programme has managed to attract a significant number of investors. "This has seen the value of operational investments increasing from R17.7 billion by the end of the third quarter of the 2019-2020 financial year to R19.5 billion by the end of the third quarter of 2020-2021 financial year," she reported.

[READ MORE](#)



NATIONAL TREASURY PUBLISHES PLAN THAT AIMS TO BOOST THE ECONOMY AFTER COVID-19

National Treasury has published its updated 'Operation Vulindlela' plan, detailing the government's strategy to boost the economy after the Covid-19 pandemic. It is a government-wide approach through which ministers, departments and entities implement structural reforms amidst key sectors such as electricity, transport communications visas. It aims to fast-track the implementation of high-impact reforms, addressing obstacles or delays to ensure the execution of policy commitments.

[READ MORE](#)

HAVE YOU CONSIDERED THE POWER OF DIGITAL ‘WORD OF MOUTH’ IN SELLING STAINLESS STEEL?

In a digitally connected world, positive customer opinions and recommendations can tilt scales in the favour of a particular project, product or service and consequently increase participation, adoption, uptake or sales. However, when recommendation or peer-to-peer marketing isn't prioritised, and companies ignore what can clearly swing brand perception or sentiment, the result can be catastrophic for the project or business. [READ MORE](#)



INNOVATIVE THINKING NEEDED TO KICKSTART INFRASTRUCTURE DEVELOPMENT

Writing in BizCommunity Africa, Aecom MD Darrin Green said in a recent article the biggest opportunities in terms of infrastructure in Africa at the moment are energy (particularly renewables such as hydro, wind and solar power), environment, social and governance (ESG), digital-related infrastructure such as data centres, and basic infrastructure, especially in terms of water management, reuse and sustainability. [READ MORE](#)

TSINGSHAN TO BREAK GROUND FOR IRON MINE & STEEL PLANT IN ZIMBABWE

The world's top producer of nickel and stainless steel, Tsingshan Holdings Group Co's local unit Afrochine will start construction on an iron ore mine, a carbon steel plant in Zimbabwe in May 2021 and a fluorite and limestone production plant will also soon be set up. Zimbabwe's Information Minister Ms Monica Mutsvangwa said "The ground-breaking ceremony for the iron ore mine and carbon steel plant is scheduled for May 2021 at Manhize in Mvuma, south of Harare." Afrochine signed a \$1-billion agreement in June 2018 to build the plant with a capacity for 2 million tonnes of steel annually. It currently produces ferrochrome after building furnaces in 2020 and plans to construct additional furnaces in May 2021. [READ MORE](#)



INDUSTRIAL SECTOR CAN NO LONGER AFFORD TO DELAY THE ADOPTION OF TECHNOLOGY

If there is one lesson to be learned from the events of 2020, it is that the industry can no longer afford to delay the adoption of technology, both on and off the construction sites.

In South Africa, the pandemic exacted a heavy toll on the construction industry, leading to severe financial hardship and even closure for many companies. Those businesses that survived were forced to drastically change the way they operate to overcome the devastating effects of a stringent five-week lockdown. [READ MORE](#)

TANZANIA - BUYING INTO THE BIGGER PICTURE



Reflecting strong income growth over the past decade, on July 1, 2020, the World Bank announced that Tanzania's gross national income per capita increased from \$1 020 in 2018 to \$1 080 in 2019, exceeding the threshold for lower-middle income status.

Tanzania has fared relatively well compared to its regional peers, but economic growth has slowed significantly. The real gross domestic product (GDP) growth rate fell from 5.8% in 2019 to an estimated 2.0% in 2020, and

per capita growth turned negative for the first time in more than 25 years due in part to the Covid epidemic.

The global economic slowdown has also adversely affected export-oriented industries, especially tourism and traditional exports, and caused a drop in foreign investment. Gold has been the sole export to benefit from the crisis, as international gold prices rose sharply between 2019 and 2020. Although the government did not impose stringent mobility restrictions, the pandemic

prompted firms and consumers to adopt precautionary behaviours, hindering domestic economic activity.

Meanwhile, steep declines in production, consumption, and imports have significantly reduced fiscal revenue. The pandemic has also compounded pre-existing challenges in the financial sector, and the share of nonperforming loans on bank balance sheets continues to be high, while the growth of credit to the private sector has slowed.

New president, new politics?

The sudden death of Tanzania's President John Pombe Magufuli in March 2021 has thrown the East African nation into a period of political uncertainty. Vice-president, Samia Suluhu Hassan has been sworn in as his successor, making her Tanzania's first female president. An immediate concern is what steps she will take to curb the pandemic.

Whatever she does, the health emergency and associated economic crisis could define the economic trajectory of the African region in years to come. Magufuli ruled through an economic boom period when commodity prices were high and access to international finance was fairly easy. This provided the latitude to choose between various development approaches.

PROJECTS WITH POTENTIAL

The Board of Directors of the African Development Bank have approved a US\$120-million loan to fund the construction of a 50MW hydropower plant in Western Tanzania that will provide reliable renewable energy to households, schools, clinics and small and medium-sized enterprises in the Kigoma Region. The Malagarasi Hydropower project has several components: a run-of-the-river hydropower plant facility; a 54-km, 132 kV transmission line that will connect to Tanzania's national grid; a distribution network expansion operation that includes rural electrification and last-mile connections; project management and contract administration support; and compensation and resettlement of affected persons.

The project's overall cost is estimated at US\$144-million. The bulk of the funding (US\$120 million) will be sourced from the Bank Group's sovereign window, with an additional US\$20-million contributed by the Africa Growing Together Fund – a co-financing fund with resources from the government of the People's Republic of China that is administered by the Bank. The government of Tanzania will provide the remaining US\$4.14-million. The hydropower plant's expected average annual output of 181 GWh will meet the electricity needs of as many as 133649 Kigoma households, bringing the region's electrification rate more closely in line with the rest of the country.

MAKING TRACKS

The Government of Tanzania's Ministry of Finance has signed a

facility agreement with Standard Chartered Tanzania for a US\$1.46-billion term loan financing to fund the construction of the Standard Gauge Railway (SGR) project from Dar es Salaam to Makutupora. Running approximately 550 kilometres long, the SGR project is one of the country's biggest projects connecting Dodoma to Dar es Salaam via Morogoro and Makutupora. Once complete, the SGR Rail project will provide a safe and reliable means for efficiently transporting people and cargo to and from the existing Dar es Salaam Port.

According to the Tanzania Railways Corporation, it is expected that the railway will address current congestion challenges and decrease freight service charges by 40%, as the railway will be able to haul up to 10 000 tons of freight, equivalent to 500 lorries, per trip. It will also connect Tanzania to Burundi, Rwanda and The Democratic Republic of Congo (DRC), thereby playing a key role in enhancing regional trade. The project has already created more than 8000 new direct employment opportunities for Tanzanians and has opened up opportunities for local communities surrounding the project area to access social services such as shelter and food.

The oil & gas industry is a booming industry and the sector is already seeing the entry of large international players paying dividends through the recent discoveries of gas reserves. Electricity prices are a different story. Prices can reach 27 to 29 cents per kilowatt-hour during peak hours in the capital Dar es Salaam, however, independent contractors produce great returns in a starving

energy environment. Prices will drop and even at half their price today, they will be attractive to international investors, says a former Blackstone executive but energy always involves politics in or outside of Africa.

FOOD SECURITY

Food consumption in Tanzania is a disturbing story but it does point to the great potential for the agribusiness sector. According to the United Nations Food & Agriculture Organisation (FAO), 70% of calorific intake requirements of low and middle-income households, are met by street food. As incomes increase and education improves, there will be a change in the diets of Tanzanians with growing demand for vegetables, meat and dairy.

Unfortunately, Tanzania's commercial-scale farming cannot keep up with growing demand. Tanzania is blessed with diverse climate zones, fertile land, and water to support its agriculture. Yet the number of commercial-scale farms producing revenues greater than \$200 000 in South Africa, is approximately 500 times the amount found in Tanzania.

Chicken, at three times the price in the United States, provides a great opportunity, especially as Tanzanians demand more white protein. Dairy consumption at 42 litres per capita is far below the recommended 200 litres per year as it is not a staple in the Tanzanian diet. Distribution of all these products should also improve with the arrival of Africa's larger supermarket chains.

A lot in Tanzania, in the end, is about potential. But investing in Africa, in general, is about buying into the big picture.

RWANDA BECKONS



Knowledge of potential export markets for South African stainless steel is key for business growth in 2021. This month one of our country profiles is Rwanda, the second fastest growing economy in Africa which has averaged robust annual GDP growth of 7.5% for the past decade.

The population of Rwanda is approximately 12.6-million and education is a key focus of the country, and particularly tertiary education, with a literacy level of 75% and an unemployment figure of 15%. In terms of language use, most of the population speak English and French and in terms of age profile, 70% of the

population is under the age of 30. The split in terms of the economic business sector is: Services (49%), Agriculture and Agro-Processing (24%), Industrial (18%), and Other (7%)

EXPORT OPPORTUNITIES

Currently, the largest exporters into the country are Uganda, Kenya and Tanzania, with China and India also present but not dominant. South African exports to Rwanda have grown steadily over the past decade from R181-million in 2010 to R450-million in 2019.

The major export sectors are:

- Chemicals;

- Vehicles, aircraft and vessels (including parts thereof); Note VW has a manufacturing operation in Rwanda and many of the parts come from SA.

- Machinery

Most exports currently enter the country via the ports of Dar es Salaam (Tanzania) and Mombasa (Kenya) ports, and proposed upgrades to the harbour in Mpulungu (Zambia) should be finished by next year, greatly improving logistics within the country.

PROJECTS WITH POTENTIAL

There are currently 85 active

projects happening in Rwanda with a total value of US\$20-billion, amongst the following sectors:

- 9% Water, sanitation and dams
- 25% Transport, logistics and infrastructure, ports
- 15% Power
- 29% Agriculture and Agro-processing.

The government has also committed US\$440-million over the next three years for further developments in water, sanitation and dams.

There is also a strong commitment from the government to encourage the participation of foreign-owned companies and investors in the country, with a capital gains exemption on the sale or transfer of shares. A foreign country can register as either a Rwandan company, subsidiary of an overseas company, a joint venture or online and receive their certificate via email. There is also no need for a resident foreign owner or partner and no restriction on repatriation of funds.

In addition, a Visa is not

required by any African citizen and an automatic 30-day visa is issued on arrival in the country, free of charge. Land ownership by foreigners is also allowed, with a 49-year maximum leasehold, depending on the use of the land.

REGIONAL OUTLOOK

With the regional economic context, Rwanda is a signatory to Africa Growth and Opportunity Act, and part of the Common Market for Eastern and Southern Africa and the East African Community. It has also signed and ratified the Africa Continental Free Trade Area (AfCFTA). Its full support of the AfCFTA is no surprise given its strategic location, with easy access to DRC, Uganda, Tanzania and Burundi. It also has various Special Economic Zones (SEZ's) close to its borders with these countries with the largest, the Kigali SEZ located just outside Kigali and close to the

international airport.

Interestingly, unlike many countries on the African continent, Rwanda has a surplus of power and is encouraging industries that use power in high quantities to set up industries in the country to absorb its excess power supply.

If you are interested in investigating business and export opportunities to Rwanda further, Sassda has a close working relationship with the Rwandan Development Board and we would be happy to help our members set up suitable meetings. In addition, South Africa's Ambassador to Rwanda, HE Mandisi Mphatla, has worked with Sassda for some years, including during his previous stint as Mozambican Ambassador.

For more information and or for any assistance you might require please email Sassda Market Intelligence Specialist Lesley Squires lesley@sassda.co.za





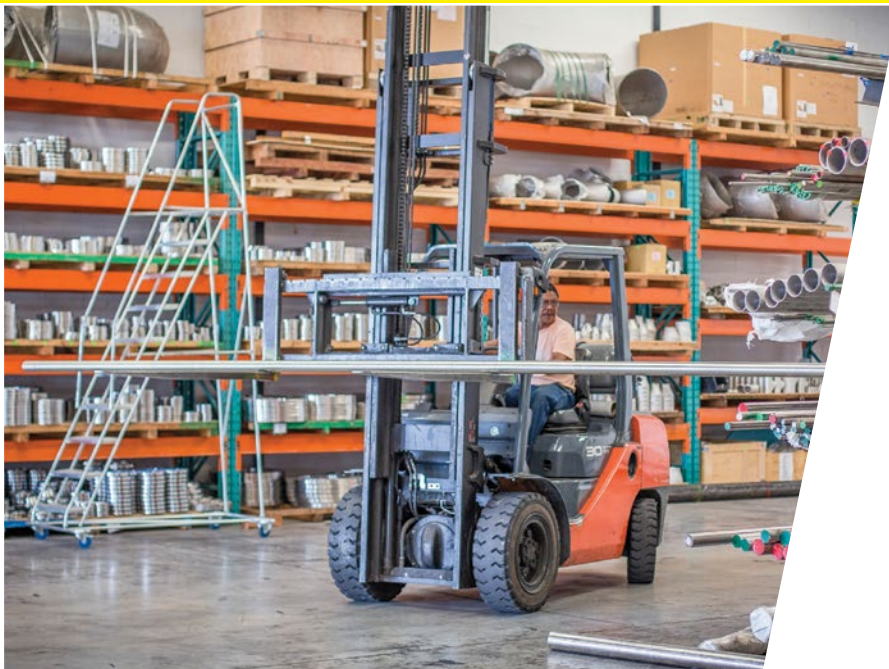
COMBINING AS THE ULTIMATE ONE-STOP SUPPLIER OF ALLOYS, STAINLESS STEEL AND VALVES



EMVAfrica is proud to expand its offering to include that of Multi Alloys - the market leaders in special alloys. As a specialist division within the group, Multi Alloys brings a highly skilled team, extensive stock holding, and ability to source precisely what is required from our global supply partners. As one unified company, we build on three decades of experience and our unique industry knowledge to support our customers: offering full solutions from contracts to logistics, and the widest range of superior quality special alloys, stainless steel and valves.

ADDING VALUE THROUGH EXPERIENCE

 **MULTIAlloys**



MERGING OF MULTI ALLOYS OPERATIONS WITH EMVAFRICA GIVES RISE TO END-TO-END SPECIALISED ALLOY AND STAINLESS STEEL SOLUTIONS UNDER ONE UMBRELLA

Multi Alloys, the leading stockholder and supplier of special alloys in South Africa, is proud to announce that its business shall merge with EMVAfrica as from 1st May 2021. EMVAfrica has been a major shareholder in Multi Alloys and the two businesses have worked in close association since 1997.

As from May 2021 Multi Alloys shall become a specialised and focused division of EMVAfrica with the firm objective of continuing to develop and enhance the special alloy offering to Southern Africa. The emphasis shall remain focused on supplying solutions for our customers with quality corrosion and heat resistant metal alloys; this by providing locally available stock in addition to our strong worldwide supply links that are well established.

Our entire sales force shall remain unchanged lead by Terry Larney with the assistance of an experienced team. Ken Perel, the founding shareholder and director of Multi Alloys, shall remain and be part of the executive team to oversee the seamless transition to EMVAfrica.

Ken, a metallurgist by profession who started his career in the metals supply industry in 1981, has focused the business on providing solutions and on ensuring technical integrity and customer service.

These good qualities shall be taken forward into the new Multi Alloys division of EMVAfrica.

The merged businesses now give EMVAfrica a widened and enhanced range of long products, from the ferritic and austenitic stainless now to include the Duplex range of stainless steels, nickel based alloys, titanium based alloys and some copper based alloys. Multi Alloys also provides a range of stock plate products with pre-cut sizes available and some which can be cut to specific sizes to meet customer requirements. They also supply castings in the alloys listed with centrifugal castings a further strength.

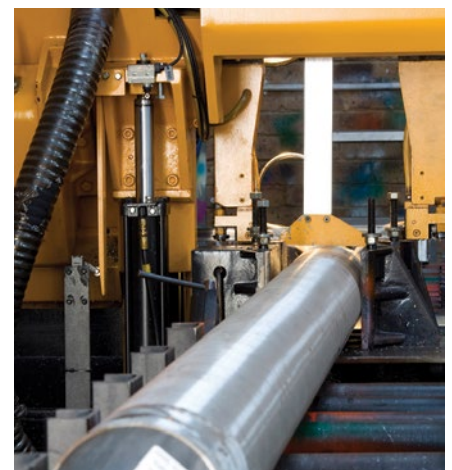
This wider range of products added to the already strong foothold that EMVAfrica has in the valve market gives the business an enhanced offering to our many customers. The aim is to offer comprehensive industrial supply solutions. The addition of Multi Alloys provides a further progressive step down this road.

The directors of EMVAfrica remain as they are: Hugh and Graham Whitty and Fiona Jacobs, with Graham in the position of CEO.

Our enhanced business shall provide opportunities for us to have a stronger presence in the South African market

continuing with our 3S approach: Stock, Service and Solutions; this will ensure we are at the forefront of customer service.

EMVAfrica's main operation is in Kyalami, Midrand, with a well-established branch in Belville, Cape Town. Our business attracts a very wide range of industrial customers throughout Southern Africa, from small business entrepreneurs to large corporates and project houses. **Please visit our website at www.emv africa.co.za.**



SASSDA profile

LERATO MASHIGO



The greatest strength of the South African stainless steel sector is undoubtedly its people who believe in the material's ability to enhance and sustain the South African economy no matter how onerous the challenges it faces. For this reason, we have decided to launch a profile series on passionate stainless professionals who embody the bold spirit and forward-thinking who will shape our industry for many years to come. In this issue, we speak to Columbus Stainless Manager: Market Development, Lerato Mashiga...

“There are so many benefits (of stainless steel); with the most important one being Life Cycle Costing. It’s so amazing how this becomes a game changer once the differences between stainless steel and competing metals are highlighted...”

Why did you decide to study a Bachelor of Engineering specialising in metallurgy – what is it about the discipline that attracted you to this field of study?

To be honest, I had no idea what Metallurgy was all about when I applied for the course. I was attracted to the engineering field because of the challenge of breaking into a male-dominated industry. I enjoyed Maths and Science in school, so at the time I figured any field in engineering would be worth my while. In retrospect, it has been a perfect fit.

If I had to choose all over again knowing what I know now, I would choose Metallurgy. I love the fact that the field in itself is not rigid – one is not limited to a specific industry or a specific department. The knowledge is so diverse that I feel you can do everything with it.

How did the first years of your career build on what you learnt at university but in a more practical setting? What were the key lessons you learnt during this time?

At the core of our university training is the concept of problem-solving and strategic thinking.

No matter what the topic or course content, this was the fundamental/key lesson learnt

During practical vacation work, while still in university, the exposure to the industry involved applying practical knowledge to the theory learnt that year.

As a “physical metallurgist in training”, this entailed work at the lab, learning how to do routine lab testing (tensile test, chemical analysis – and on rare occasions, being exposed to more sophisticated equipment and analyses like the scanning electron microscope).

My first few years out of varsity were different; call it a wake-up call. The technical knowledge was in place; however, implementing wider strategic thinking became critical.

I remember one of my first big projects was being involved in a “troubleshooting” group for the plant – trying to sort out excessive yield losses through one of their continuous lines.

I remember going back to my books, trying to see if there is anything “metallurgical” I could have missed.

Long story short, I eventually found the cause of the defect – and it was far from what I could have imagined.

What I eventually learnt from that experience was to think outside the box. Sometimes the culprit for defect or failures or any situation in life is not cut and dry.

You have to be open to other possibilities– not dismissing them too quickly because they don’t fit the mould. I continue to keep this lesson.

How would you describe a typical day in your current position?

My current position is in market development. The objective is to find opportunities for stainless steel usage.

My typical day entails researching various sectors to find a gap where stainless steel would be a perfect fit; liaising with customers or potential stainless steel users on grades that can be used for their specific applications, looking at various operating factors while balancing this with what they need to achieve.

At the heart of this lies assisting and educating willing participants on the benefits of stainless steel.

There are so many benefits; with the most important one being Life Cycle Costing. It’s so amazing how this becomes a game changer once the differences between stainless steel and competing metals are highlighted.

Why do you feel that stainless steel has such an important role to play in getting South Africa’s economy back on track following the COVID-19 pandemic?

My opinion is two-fold:

- a) One has to look at the benefits of stainless steel to see that its hygienic properties and sterilisation capabilities are an essential characteristic going forward, especially in the medical and food industries. This is due to the ability to resist rust and corrosion due to the passive, tenacious and thin oxide film that forms on the stainless steel surface.

“The increasing need for sterile surfaces and components in various sectors I believe will drive the demand for stainless steel, and manufacturing in general – stimulating economic growth”

For this reason, stainless steel is easy to clean, wash and sanitize – an important and desired characteristic going forward to reduce the spread of germs and diseases. The increasing need for sterile surfaces and components in various sectors I believe, will drive the demand for stainless steel, and manufacturing in general – stimulating economic growth.

- b) With the current financial constraints, new projects and expansions have become scarce. I believe material specification should be done right from the get-go. Stainless steel, in most instances, becomes the most cost-efficient material of choice. This means that over the lifespan of the equipment project, the eventual cost savings and extended service lifespan are beneficial, not only for the financial attributes but also to reduce the resultant carbon footprint manufacturing imparts on our environment. As an added benefit, stainless steel production contributes significantly in terms of sustainability, being 100% recyclable and also using recycled materials as part of the manufacturing process.

Overall reduction in costs and improved sustainability are key drivers to ensure sustainable and continued growth in the manufacturing sector. Stainless steel plays an important role in achieving these objectives.

3CR12 is a local ‘invention’ – why do you feel this particular grade was so significant in the evolution and awareness of stainless steel in the market and why is it so important to the growth of certain sectors now i.e. key applications where it’s the ideal choice?

3CR12 is a proudly Columbus Stainless product. It was designed to bridge the gap between traditional “expensive” stainless steel grades and mild steel.

The benefits achieved I believe were more than what was bargained for. 3CR12 exhibits excellent wet abrasion resistance – which is beneficial in materials handling equipment; good weldability even in thick sections – which is the Achilles heel for most ferritic stainless steel grades; and high strength – matching most structural steels.

With 3CR12 being so versatile, the end uses are endless. Even though 3CR12 discolour (forms a brown patina) when exposed to certain environments, it still maintains its corrosion resistance and structural integrity.

The popular illustrations made are the electrification masts erected over 30 years ago in Port Elizabeth. Even exposed to direct sea washing, the resultant metal loss over the years is considered negligible.

One has to be mindful though

to specify the correct metal for each application...but overall, 3CR12 has proven to be the most cost-effective and diverse metal to be used. It has realised great success in the coal handling and transportation industries, and even in the food industry, like the sugar processing sector for various components. This is key to developments and growth in any sector.

What do you consider as the most exciting innovations/product developments happening in stainless steel right now and what sectors hold the greatest potential for the use of stainless steel in the future, e.g., aerospace, etc.

The exciting developments happening in the USA with Elon Musk’s SpaceX projects shows there are endless potentials for stainless steel in man’s quest of space exploration.

Sustainability of our environment is also stimulating great innovations in the stainless steel industry. Inventions ranging from simplistic solutions like stainless steel drinking straws to complicated systems such as in the medical field (e.g. artificial coronary valves), shows stainless steel to be able to withstand the test of time with prolonged service lives.

The material is thus suitably positioned to reduce our carbon footprint to sustain our planet for future generations. I believe this will continue to be a driving force for more innovations as the benefits of stainless steel in sustainability become more apparent.



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MYTH OR TRUTH: MAGNETIC STAINLESS STEEL IS LESS CORROSION RESISTANT THAN NON-MAGNETIC GRADES?

All stainless steel grades are usually in a clean and shiny condition in a warehouse and once they are mixed up, it becomes hard to identify them as individual grades.



One of the basic tests would be to test for magnetism. The magnetic grades would likely be ferritic grades with a magnetic crystal structure. The others might be the non-magnetic austenitic grades due to the nickel content.

The lack of magnetism in certain grades would normally

be caused by nickel content that is added to the alloy to make the material more workable. However, some people would also like to contribute certain levels of corrosion resistance to the specific grades based on the material's level of magnetism.

And then there's the old saying that if it is magnetic, it is not

suitable for corrosive conditions. This is false, but also true. There is no correlation between magnetic permeability and resistance to corrosion, but there is a sound reason for this mistake. The magnetism/corrosion myth is based on the fact the less noble ferritic (magnetic) grades of stainless steel, such as grades 409 and 430, do not resist corrosion as well as the nobler and nickel-containing austenitic (non-magnetic grades) such as 304 and 316.

Stainless steel is an alloy of iron and chrome. At least 50% iron is required to make the mixture

steel and at least 10.5% chrome is required to make it stainless. The ferritic grades have a chrome content between 10.5% and 16% and, as such, will have magnetic properties and display moderate to good corrosion resistance. These grades are also called plain chromium grades and do not respond well to welding in thicker sections. To address the weldability and formability issues of the ferritic grades, nickel is added to the mix. The crystal structure changes from ferritic to austenitic and this crystal is non-magnetic. This also improves the mechanical properties of the austenitic grades in terms of ductility and weldability. These grades normally also contain higher chromium levels than the ferritic grades and, as such, are more corrosion resistant. This explains why certain grades are magnetic and that it has very little to do with corrosion resistance.

Chromium, molybdenum and nitrogen enhance the passive layer and add to corrosion resistance, however, these elements have no influence on the magnetic permeability of the material.

To make things even more complicated, it is even debatable if “non-magnetic” stainless steel remains non-magnetic. Austenitic materials will be low in magnetic permeability when it arrives at your stores after annealing and packaging. During rolling, bending and other forming operations some parts of the material will revert to a magnetic structure. This is due to intensive mechanical work that is done when forming, for example, a pot or other deep drawn items. In simplistic terms, the material crystals slip back to the ferritic form under the mechanical action.



The level to which the magnetic effect will return depends on the level of deformation the material was exposed to. On a deep-drawn item, the magnetism will be highest at the areas of most deformation such as the bottom edge and the top lip.

Stainless steel fasteners and threaded rods are made by cold forging the head, and cold rolling or machining the thread. Due to all the mechanical deformation, these items are usually strongly magnetic. Castings made from austenitic grades are likely to crack in the casting process if the alloy is not formulated to be slightly magnetic and therefore some ferritic material is required in the mix. For the same reasons, we require a level of ferritic material when designing a weld. This means that casting and stainless steel welding will usually be of some level of magnetism.

After this discussion, it is clear that the two issues of magnetism and corrosion are not related. More than 75% of global fabrication of stainless steel makes use of the austenitic (non-magnetic) grades. This isn't because of its so-called non-magnetic properties, but rather the fact that they are easy to form, weld and manufacture with.

The addition of nickel indeed changes the material's workability in terms of mechanical properties,

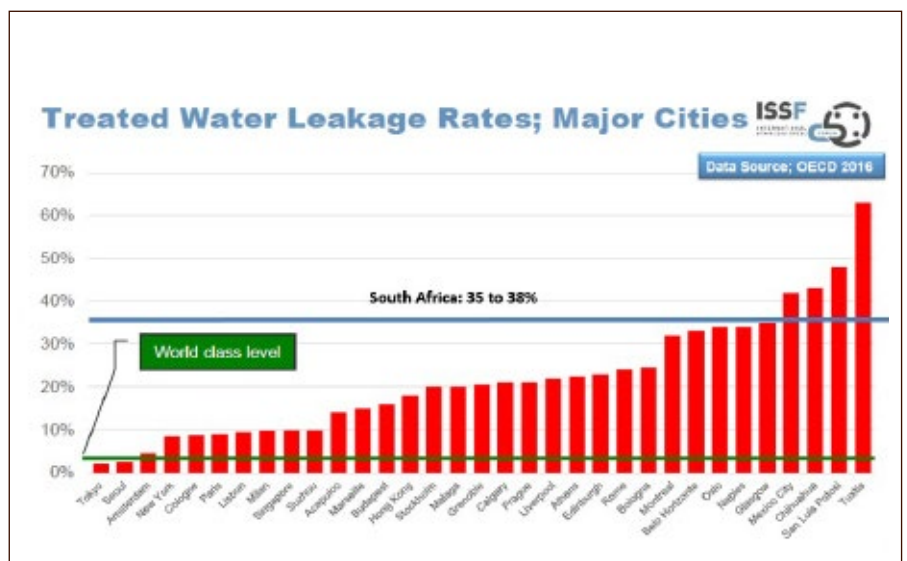


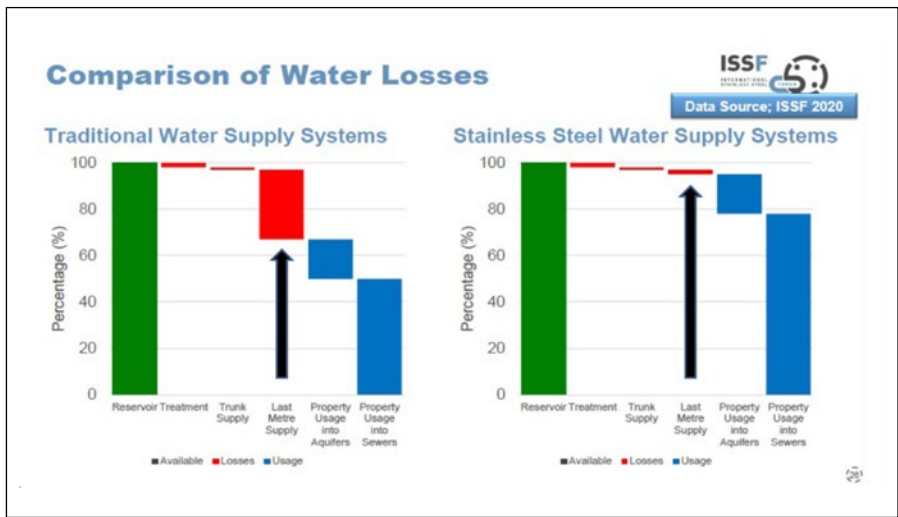
and its level of magnetism. But in reality magnetism, except in the case of special applications, is not important. Rather stainless steel is chosen for durability, hygiene, and its superior Life Cycle Costing and this is all based on its resistance to corrosion. Time would be better spent by evaluating the environment and functional requirements to determine the levels of chrome, molybdenum and nitrogen required to deliver to the specifications. It is these elements that render the material stainless and make it Simply Brilliant.

STAINLESS STEEL IS KEY TO SOUTH AFRICA'S WATER INFRASTRUCTURE RECOVERY

In our Sector Focus Feature, Sassta Acting Executive Director Michel Basson looks at how stainless steel can help solve the growing water scarcity crisis through its use in bulk water supply, components like supply line valves and flanges as well as water treatment applications; all of which can create sustainable water supply solutions and drive demand for stainless steel in the local market...

The onslaught of South Africa's load shedding crisis during the last five years has clearly shown the devastating effects of the lack of sufficient power infrastructure planning in the preceding decade. But electricity is certainly not the only essential resource under pressure when one considers that South Africa is expected to face a water deficit of 17% by 2030 based on the current usage trends, and this shortage will only be worsened by climate change.





water resources as is the case with the major geographical surface of our country.

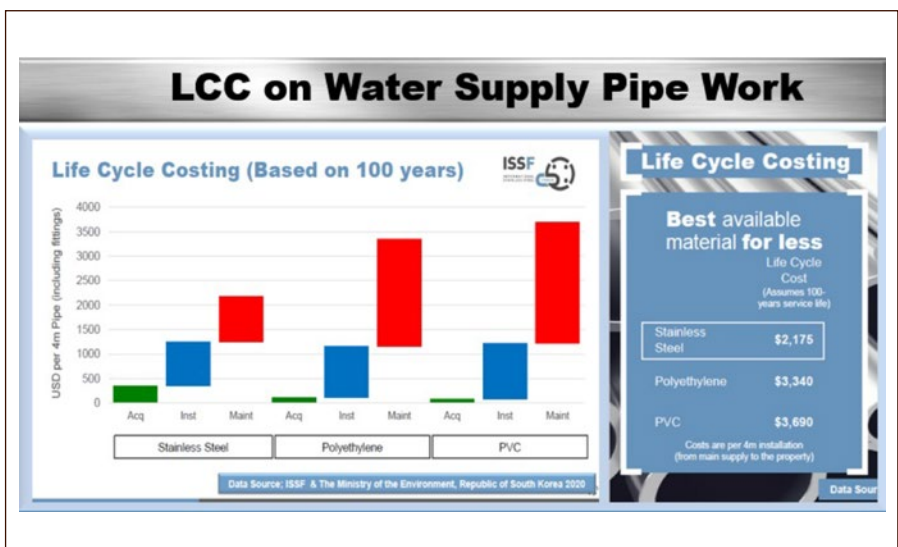
The detection of leaks is complicated by the fact that most of the supply infrastructure is underground or under structures. The ISSF study highlights the fact that most leakages occur at joints and points where other components are connected to the network. It is estimated that more than 890% of leaks occur at joints. Bulk supply lines are usually from plastic due to cost considerations, but the ISSF found that after 15 years these materials show visible material degradation. The use of other metallic materials such as copper, aluminium and galvanised pipework is losing ground to costs, theft, and corrosion.

STAINLESS TO THE RESCUE

A good place to start with upgrading water supply networks to a more sustainable material, such as stainless steel, would be in the so-called last meter supply. This refers to the last supply line from the bulk supply to the property where the water will be consumed. This was the area in the water supply that showed the highest potential for leaks.

As indicated by the two scenarios above, the traditional supply network fails in this last meter of supply amounting to around 30%. Should this problem be rectified by stainless steel solutions, this can be reduced drastically as shown on the left.

To summarise leakages in the water supply of drink water we can comment that current water supply systems are not sustainable and will fail. These failures can lead to serious health, economic and socio-economic



However, it is important to realise that water scarcity is not a local problem and has already had a significant global impact on areas with high population densities and low natural water resources. Given the fact that water is increasingly known as the 'new gold', any loss of this precious resource, therefore, needs to be mitigated by the largest degree possible.

Even though studies by the International Stainless Steel Forum (ISSF) indicate that a so-called world-class level for water loss due to leakage should be in the order of 10% of the supply volumes, it is estimated that in South Africa the average loss of

drinkable water through leakage is in the order of 35 to 38%.

This not only leads to the loss of a scarce resource but given that it refers to treated water, it also amounts to wastage in terms of infrastructure and other resources. The leakage of treated water can be regarded as a potential income loss for municipalities and water regulators. A loss rate of 30% and higher is unacceptable and is unsustainable.

The graphic above depicts how South Africa compares to global statistics from cities audited across the world. The situation is even worse than depicted since cities like Oslo and Glasgow does not have the same lack of natural

fallout. Leakages can be because of poor workmanship or installation practices, but poor design and lack of long-term thinking are also to blame.

Generally, the best material for the pipework and fittings is not selected, because the final decision is largely guided by material acquisition costs and not total lifespan costs. The current choice of polymers brings hidden problems in the form of micro-particulate contaminants in the system and is porous to hydrocarbons like diesel and oil. A recent study from North West University on the contamination of drinking water by micro-plastics is disturbing.

Stainless steel is the only sustainable solution, but as mentioned, the initial procurement and installation of stainless steel equipment remain a major hurdle in implementing this solution. When analysing water systems and the materials involved using Life Cycle Costing (LCC) analysis the position becomes clear on the potential real future saving.

INTERNATIONAL EVIDENCE

In Tokyo and Seoul, authorities were able to reduce leakages to less than 3% by converting to stainless steel. Repairs in Tokyo dropped from 70 000 to less than 10 000 per year. This translates to a move from 190 repairs a day to only 25 repairs a day.

Seoul showed the same trend with an additional 40% reduction in the requirement for water treatment plants. However, patience is required and full implementation for the two cities spanned over two decades. It was also shown by the ISSF study that cost saving can be achieved after a 45% conversion point. This can be



regarded as the break-even point for this type of project.

Sassda's studies show that in terms of LCC, 3CR12 will usually be at 50% of the lifespan cost compared to coated (painted or galvanised) carbon steel. Over a life span, even the more costly duplex materials show to be around 70% less costly to operate than coated mild steel.

HOW DOES STAINLESS STEEL COMPARE TO POLYMERS IN THE CASE OF WATER SUPPLY?

How does stainless steel compare to polymers in the case of water supply?

The comparison in the graphic above clearly indicates the perceived high input costs for stainless steel in water systems. The real test lies in the maintenance over the lifespan. Stainless steel

requires virtually no maintenance and as such turns out to be the more cost-effective solution.

This has been proven locally by the Drakenstein Municipality that has been able to reduce losses of drink water from above 30% to below 10% in 14 years. This was achieved by a strategy of combining polymer bulk water supply lines with stainless steel joints, fittings, and equipment. This illustrates that this type of critical intervention is possible in South Africa.

Stainless steel is durable, hygienic and will outlast competitor materials and is therefore extremely suitable for drink water infrastructure. However, we must accept that the initial capital outlay may be more for stainless steel. With LCC stainless steel shows itself in most cases to be a very cost-effective solution, especially in water supply networks.

COALITION ENGINEERING SUPPLIES – Making customers efficient since 2004



Jimmy Bischoff, having been in the industry for 25 years, founded Coalition Engineering Supplies in 2004. Since then, Coalition Engineering Supplies has established itself as a trusted provider of the best quality products for the automotive, freight rail and HVAC industries in the greater Cape Town area, and across South Africa. Coalition is for many the preferred supplier of welding torches and consumables, spot welding equipment and various nozzle cleaning and related maintenance products for the welding industry. Marco and Wes Bischoff mention that “Together with our courier & freight partners, we are able to deliver to all centres within South Africa. Above all, we strive to

always provide the best products and service, at reasonable prices.”

Coalition Engineering Supplies is very excited about a new product in their extensive range. It is called the GasIQ Optimator®. Most companies and individuals working with MIG/MAG and TIG welding processes know very well the price of welding wire per kilogram. It is interesting that the actual cost of the shielding gas per welding meter is at least as high as the wire cost per weld meter. This unfortunately escapes a large part of customers when trying to optimise welding costs.

GasIQ Optimator® is designed for one sole purpose, to reduce the consumption of expensive gas. The aim is a reduction of gas consumption to 30% in general cases. Under normal conditions a welding shop should break even on procurement cost within a few months.

The Optimator® produces an optimised shielding gas flow from the very first second of the welding process. Any traditional regulator will not control the initial flow surge, which is usually unnecessarily high, and a very expensive waste. In worst cases this excessive surge can represent up to 50% of total shielding gas consumption. The higher the frequency of weld starts; the more gas is wasted. Coalition Engineering supplies believes that users of the GasiQ Optimator® can earn more money when they change to the GasiQ Optimator®.

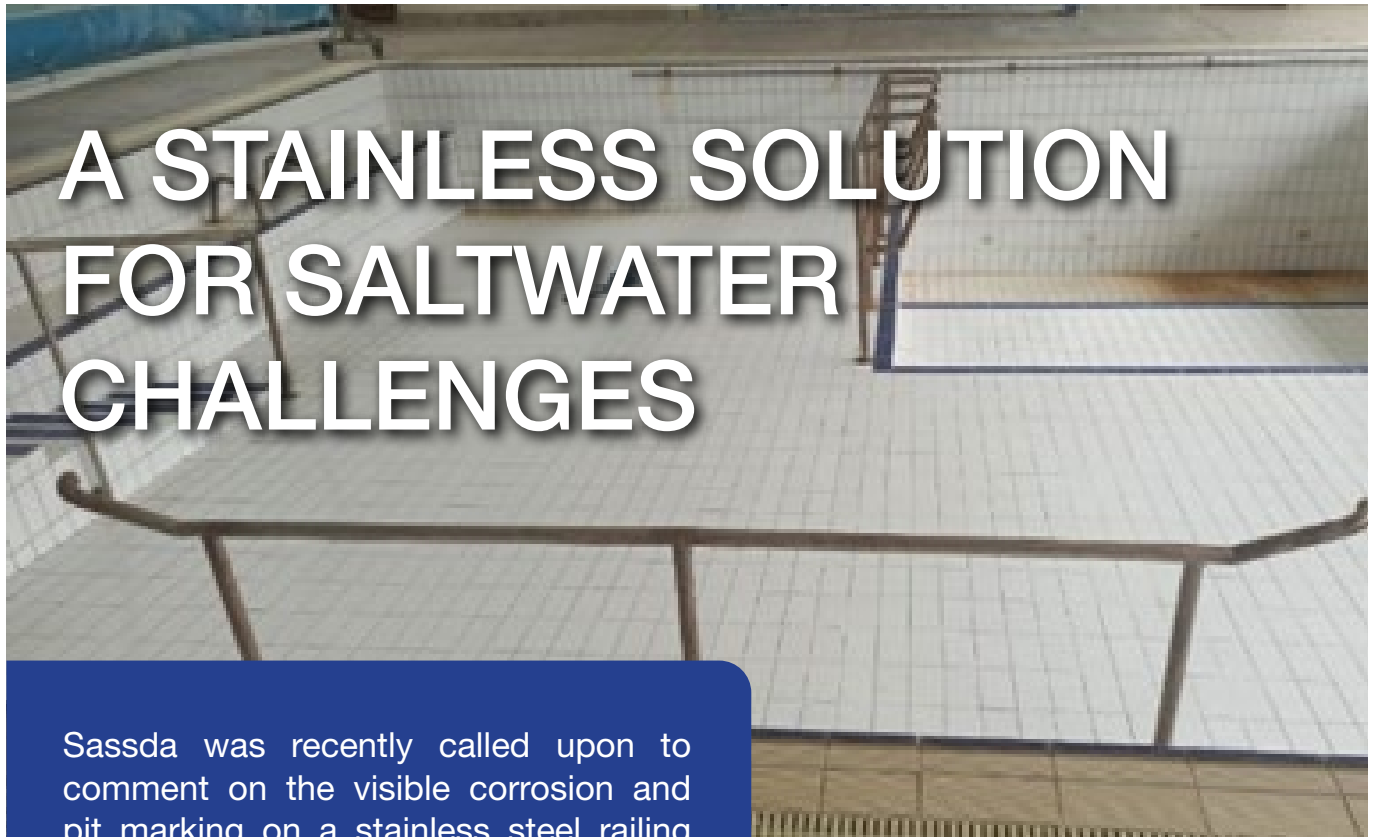


The Optimator® provides optimal start flow that is approx. 25% of the initial flow of a conventional regulator. The smooth initial flow, in addition, enables higher quality of welds since you minimize the turbulence that often influences your welding process.

Wes Bischoff states: “Since we are talking about quality, it is important that you should know that the Optimator® can be equipped with a lockable gas flow control. This is an advantage when you need to meet the highest welding quality demands, for instance ISO 9000 certification.” He added “ We, at Coalition Engineering Supplies, are the agents in SA for GasiQ Sweden. We recently supplied 300 units to Bell Equipment in Richards Bay, and the feedback from the customer is very positive and that substantial savings are already noted.”



For more information
visit the website
www.coalitioncape.co.za



A STAINLESS SOLUTION FOR SALTWATER CHALLENGES

Sassda was recently called upon to comment on the visible corrosion and pit marking on a stainless steel railing system as is installed in a biokinetics pool. The handrailing used for assisting in stabilising and support users once in the water for treatment. Within 6 month of the pool being in use after the installation, the first signs of visible corrosion and even pitting became apparent. The pool was filled with a saltwater solution within chloride and chlorine levels range of grade 316L material in terms of adequate corrosion protection. The pool temperature is maintained between 32 – 34 degrees Celsius. The pool is in an enclosed environment, but with a high roof allowing humidity levels to stay low. The grade of stainless steel used was confirmed by spectrometer testing to be the specified austenitic grade 316L.

As seen from the picture on the right, the components are submerged in the saltwater solution, it is never cleaned. However, the components are exposed to water being constantly circulated and therefore not oxygen deficient or stagnant. The interesting part to this investigation is the fact that the grade 3126 railing system was installed to replace a grade 304 system that was in use for 4 years before the first signs of discoloration and possible corrosion. The redundant equipment was still available and spectrometer test confirmed the old set to be grade 304 stainless steel.

The picture on the left shows the damage to the material surface caused by pitting corrosion. At the lower right, the very rough surface finish is visible.

On the right, the mounting to the pool structure indicates crevice corrosion activity. Note the unsealed crevices, lack of post-weld

treatment and incorrect grain direction in the tube surface finish.

Failure of components are not usually caused by one incident or reason only. It is common for failure to be attributed to a series of smaller and less critical factors. It is therefore important to discuss the following aspects.

MATERIAL GRADE

It was mentioned that the previous installation was manufactured from grade 304 stainless steel and the new installation was manufactured in grade 316. The owners of the pool report a good lifespan and performance from the original 304 stainless steel, but that the 316 grade installation showed signs of pitting as early as 6 months since starting operation. This should not be the case since grade 316 contains molybdenum making it especially protected in high chloride environments such as this. It is expected that 316 would perform better in this type of application. It is noteworthy that technically the original grade 304 would not be suitable for the application since it lacks the specific protection against pitting corrosion offered by the molybdenum content in grade 316. However, the installation shows the opposite with the 316 underperforming.

MATERIAL SURFACE FINISH

It would normally be required in this application to make use of very highly polished surfaces. Sassda normally would not advice using any surface finish less than #600 grid in this scenario. Judging from the visual evidence, the finish is not up to requirement and it can be as rough as the



equivalent of #180 grid. It is also noticed that the finish was done with a circumferential grain direction. This means that when the components are installed horizontally, the grain direction would point vertically, and water (and possible contaminants) can drain off. However, if the component is installed vertically the grain direction becomes horizontal and the small ridges impede the washing off to remove any contaminants or chloride deposits in this case. The visual evidence also points to the fact that welding was not properly smoothed down as expected for this type of application. Explained in very simplistic terms: the equipment should have had at least the same shiny surface smoothness as the handrailing and similar structures that we find at airports and public places.

EXPOSURE TO SALT OR HARMFUL CHEMICALS

It was already commented on the fact that the choice of grade 316 stainless steel was correct. It was



also established that the surface finish was not to the required standard. This would potentially limit the performance of the stainless steel and the evidence points to this fact. Even with the occasional spike in chloride and chlorine levels in the pool water, it would not be expected that 316 would deteriorate at this rate. The risk of pitting is also addressed by the fact that the water circulating in the pool will prevent stagnant conditions. Thus, there will be adequate oxygen levels in the water to maintain the protective chrome-oxide layer on the material

surface. During the investigation no other chemical or forms of pollution could be identified as a contributing factor.

CLEANING FREQUENCY AND METHOD

It was mentioned in the initial observations that the equipment remains submerged and would therefore not have a standard cleaning regime. Any chloride build up will be washed away during use and the circulating water. No additional cleaning regime is in place or chemicals are used. Maintenance, or the lack thereof, cannot be a contributing factor in this case.

FABRICATION

Several fabrications and design issues came to the fore. The following issues stand out as part of the investigation:

- Inadequate surface finish as explained earlier. This should not be a real fabrication issue since the tube can be bought from distributors in the required finish. This might be a case of ignorance regarding forms and finishes available.
- The weakest points in any assembly to be used in corrosive condition are always the joints, whether bolted, welded or otherwise. In the joint areas (as visible in Figure 3) the risk for crevice corrosion is elevated when joints and seams are not completely sealed off. The water in the crevice will be stagnant and the passive layer in this localised area will be impeded. Further to this, a secondary galvanic effect will happen in the crevice when hydrogen breaks away from the water molecule, binding with chloride ions to form hydrochloric acid in the crevice. That is why the corrosive byproducts are so abundant at the joining points at the floor and wall. Welded joints are also

risk points since the metallurgy of the weld will differ from the parent material. Welds should preferably be purged welds to ensure maximum weld integrity.

- As mentioned, welding on this product seems to be done with an electrode. This gives rise to excessive heat in the welded area which will also impact negatively on the weld metallurgy as described earlier. Welds for this type of application should be much more elegant to control heat input and to protect the metallurgy of the joint.
- Some of the components have been exposed to extreme forms of corrosive attack over large continuous areas. The corrosion patterns indicate the possibility of ferrous contamination that usually occurs in fabrication areas when workers either grind mild steel close to stainless steel or use the same abrasives for both stainless steel and other metals.
- Post-weld treatment and post-fabrication restoration of the surface integrity was either not done or not done properly.

POSSIBLE CAUSE

There usually is no one single factor that would be the lone culprit when it comes to the failure of stainless steel products. It is rather a case of several small things going wrong. In this case we can confirm a good material choice, a non-problematic design and an installation environment that remains stable within the design parameters. We do find some serious flaws in the fabrication process that detracted from the materials ability to render proper service in these conditions. It is our opinion that that should the same material be used with the correct surface finish and fabricated to acceptable manufacturing standards, the

items will give a cost-effective service life of possibly decades.

SUMMARY AND RECOMMENDATIONS

Ferrous contamination in a high chloride environment support by rough surface finishes will lead to a serious pitting attack as experienced in this installation. Pitting is unpredictable and some pits form lateral cavities in the material, and it can spread over significant parts of the equipment. This type of metal degradation is not visible and, as such, very dangerous with unexpected early failure. We would therefore recommend that all the existing material be scrapped to ensure that there is no risk of hidden pitting in salvaged material. The manufacturer of the components should be given a full brief in terms of fabrication standards and requirements (Sassda can assist with this). In critical or special applications, it is advisable to only make use of fabricators and installers with a good track record with this type of work. Stainless steel is costly in terms of initial material cost, but Life Cycle Costing proves it to be unsurpassed as cost-effective solution. It is therefore important that the material is handled by knowledgeable and skilled persons.

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AIR PRODUCTS WELDING

Focus on the Gas Metal Arc Welding (GMAW) process

Air Products prides on outstanding customer service, innovation and a secure supply of industrial gases, but more importantly, is the technical expertise provided to customers in terms of the application of the range of gases supplied.

The welding fabrication process takes place when two or more parts of material are fused together by using pressure, heat, or both. Creating a weldment (completed weld joint) requires specialised skills.

Welding Specialist, Sean Young, is known in the industry for his knowledge and expertise in terms of welding processes and available to assist distributors and customers with technical matters.

In this video, Sean Young shares insight on the Gas Metal Arc Welding (GMAW) process with specific focus on the Metal Inert Gas (MIG) and Metal Active Gas (MAG) welding processes. He further highlights their most important uses and benefits as well as how this specific type of welding compares to others.

Click on the following link to view the video:

<https://youtu.be/CdBudZdstVA>

For more information on Air Products, visit www.airproducts.co.za



ABOUT AIR PRODUCTS SOUTH AFRICA

Air Products South Africa (Pty) Limited manufactures, supplies and distributes a diverse portfolio of atmospheric gases, specialty gases, equipment and services to the Southern African region.

Air Products touches the lives of consumers in positive ways every day, and serves customers across a wide range of industries from food and beverage, mining and petrochemicals, primary metal and steel manufacturers, welding and cutting applications to laboratory applications.

Founded in 1969, Air Products South Africa has built a reputation for its innovative culture, operational excellence and commitment to safety, quality and the environment. In addition the company aims to continue its growth and market position in the Southern African region.

JOHN EDWARD VAN DUYN



*"I first met John in the mid-1990s, when we were localising supply into the tank container industry through SATCA, the South African Tank Container Association. I was amazed, given his non-technical background, that he had such a lot of knowledge on the pickling and passivation of stainless steels. But he would never hesitate to phone me up when he needed some technical advice or wanted to mull a new idea and I think this thirst to learn more is what drove his success. On the social front, I remember the first time I travelled to Germany with him in 1997 to attend the tank container show, MariChem – John certainly embraced the mantra, "work hard, play hard". He was a thoroughly likeable, approachable and gregarious person who enriched the lives of all who met him." **John Tarboton, Executive Director, SAIW***

John Edward van Duyn was born in Klerksdorp on 5 June 1955 and attended primary school and high school there. After matric John was conscripted to the army, where he spent two years and rose to the rank of Lieutenant.

John then attended The University of Witwatersrand where he began studying for a BCom. He dove headfirst into the social and sport aspects of varsity life, getting involved in hockey, Rag Royalty and residence administration. All this to the detriment of his studies, and John left the university after just two years. It was then that John started his first and only job for an employer. Said employer was IBM, the computer giants. John fitted in well and was well regarded in the workplace.

In 1983, after seven years with IBM, John left to begin his own business, Duva Chemicals (Pty) Ltd. He rented premises in Wynberg, bought a few formulas, and started mixing household cleaning products. It wasn't long

before John realised that the quantities one needed to make and store and the marketing of said products were a greater task than he had bargained for. There were too many competitors and it was too hard to get them into the big supermarket chains.

At this point, John "fell" into the stainless steel treatment game after he was approached by someone with a problem that needed solving. John did some investigation and the Duva Chemicals we all know today evolved. In early 1992, John bought a property in Chloorkop, Kempton Park, where the company is still located today. Duva grew in leaps and bounds. John started building automated plants for customers in the Tank Container Industry in Cape Town and Port Elizabeth. He followed that with automated plants in Ireland and England and later China and Germany.

John's name, and that of Duva Chemicals, became synonymous with the treatment of stainless steel. Every aspect of Pickling and

Passivation and Electropolishing was what he knew best. People from all over the country and around the world would call John for advice or talk through a problem they were having. He was generous with his vast knowledge and always happy to assist where he could.

John married Janine in 1992 and they were blessed with three children, Caitlin, Jonathan and Kimberlin. He was immensely proud of his children and his first love – Duva Chemicals. Sadly, John was diagnosed with colon cancer in November 2017. Unfortunately, neither surgeries nor chemo-therapies proved successful and after a nearly three year battle, John succumbed to the awful illness that cancer is, on 19 August 2020.

John's wife Janine has taken over as Managing Director of Duva Chemicals (Pty) Ltd, and together with knowledgeable and loyal staff they continue the legacy that John built. MHDSRIP.

Sassda webinars



Sassda pioneered its weekly 60Minutes with Stainless webinars in 2020 as a means to communicate key insight and information via an easily accessible digital channel amidst the business restrictions of the COVID-19 lockdown. The webinars have since become a popular weekly fixture in many professionals' diaries as they use these sessions to beef up their knowledge of stainless steel and gain additional market intelligence across a variety of key demand sectors and Sub-Saharan markets.

To date topics have included the Fundamentals of Stainless covering key aspects such as grade selection and lifecycle costing, corrosion, hygiene and water applications, and key African Market Intelligence - with project highlights from countries like Kenya, Tanzania and Mozambique.

The good news is there are a host of new webinars planned for the rest of the year including the following sessions in May and June 2021.

- Material Certification for Stainless Steel
- Rwanda – The Trade Environment and doing business
- Mechanical Surface Finishes on Stainless Steel
- Syspro – Management systems making for Competitive Manufacturing
- Post Weld Treatment of Stainless Steel
- Stainless Steel Fasteners

The webinars are free for Sassda members and R300 (incl VAT) for Non-Members

To find out more or book your spot [CLICK HERE](#)