



Fabrication development initiatives for sustainable growth

African Fusion accompanies SAIW executive director, John Tarboton, on a visit to the facilities of the Mpumalanga Stainless Initiative (MSI) in Middelburg to talk to the Centre Manager, Hector Makgato and Bheki Mkhabela from Mpumalanga's Department of Economic Development and Tourism (DEDT), about their training and business incubation initiatives for the region's SMMEs and fabrication industries.

The purpose of the Mpumalanga Stainless initiative (MSI) is to incubate and nurture the sustainable development of small and medium businesses (SMMEs), artisans, aspired entrepreneurs and unemployed youth, with a core focus on steel fabrication including stainless steel because of the key role that Columbus Stainless plays in the local economy," begins Hector Makgato, director of the MSI training and fabricator facilities in Middelburg.

"Steelwork makes up most of the economic activity around Middelburg and in the surrounding communities. We have a current mandate to support 25 SMMEs on the programme, but this is set to double to 50 during 2022," he notes

At an early stage of the development of a business, MSI funds are directed towards

training our clients in basic welding and metal fabrication, business management, health and safety and other compliance matters. "We have also established a fabrication facility on this site, where we offer cutting, bending and grinding facilities for the use of companies on our programme, with in-house support from our staff," he notes. "We believe this is a market changer because it enables small companies to access the expensive machines they need for processing steel, stainless steel, aluminium or any other material needed to service their customers," Makgato says.

With regard to welding skills, similar services are being offered offsite, but the plan is to add, through the SAIW, a number of fully equipped welding bays to complete the fabrication offering at the facility. "Welder training is critical if SMMEs are to



Hector Makgato, Centre Manager for the Mpumalanga Stainless Initiative (MSI).

become successful and sustainable fabrication businesses," notes John Tarboton.

"In cooperation with the MSI, we hope to move some of our regional SAIW Training activities into this facility. If funding can be secured, we are happy to be the welding service providers for SMMEs on the programme, delivering the training necessary to certify welders in the processes their jobs require.

"Also, however, we hope to establish a full QCTO Welder Training facility here to train welding apprentices for the local community. If we can secure funding from a small number of established local fabricators to support 8 to 10 apprentices on a QCTO course, we can justify funding the establishment of an SAIW welding school in Middelburg," he says.

The MSI has established a steel plate processing facility for use by SMMEs on MSI programmes. A: EUROMAC CNC punching machine. B: 3.0 bending press brake. C: Hydraulic cutting shear/guillotine.



Apprenticeships key to overcoming skills and employment crisis

To solve South Africa's skills crisis and the lack of suitably qualified welders, the SAIW is seeking to partner with companies who want to produce artisan welders to the correct standard and with the necessary skill levels. This can take place via the government approved QCTO – Registered National Occupational Qualification (Welder) 3-year Apprenticeship scheme.

As an Approved Training Body (ATB) under the IIW and a QCTO accredited training institute, the SAIW is in a prime position to assist companies with the selection of candidates for its three-year apprenticeship training scheme, which offers both QCTO and IIW Diplomas – the latter being recognised in 60 countries.

The SAIW's training methodology utilises both theoretical in-depth knowledge and practical real world skills. "There is a reason our QCTO programme takes three years, not three weeks as in many other institutions where training is rushed and based on the easiest methods of welding

to ensure sufficient pass rates," says John Tarboton, the SAIW's executive director.

"We are not focused on ticking off a list of training modules as quickly as possible, with little regard as to whether the required technique has been mastered and sufficiently practised. Our training culminates in a test based on objective criteria according to ISO 3834 standards where the actual quality of a weld, including its height and thickness, for example, is assessed, not just the act of having completed a weld."

Business benefits

The apprenticeship scheme is also not just a 'nice to have'. It has tangible commercial benefits for companies, enabling them to:

- Recruit and develop a highly-skilled workforce that helps grow their business.
- Improve productivity, profitability and their bottom line.
- Create flexible training options that ensure staff develop the right skills.

- Minimise liability costs through appropriate training of workers.
- Access SETA grants, SARS tax benefits and BBBEE scorecard points for skills development.

The apprenticeship scheme has also been proven to reduce training and recruitment costs. Once the training programme is complete, business's gain skilled employees who are trained to industry standards and familiar with a company's operations and culture. This provides a lower-risk, lower-cost style of recruitment and enhanced employee retention.

To promote the use of this scheme, the SAIW is offering QCTO apprenticeship courses at its Johannesburg Headquarters with the potential for a satellite school in the Highveld Industrial Park in Emalahleni and a second potential site in Middelburg, Mpumalanga, in collaboration with the Department of Economic Development and Tourism.

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QCTO apprenticeships require the students to be signed up by their employers for three years, but only half of that time is spent at the training school. "The system works with about six months at the school and the other six months at the workplace, and not necessarily in continuous blocks. This means that employers will start to be able to benefit from their employees' skills long before they are fully qualified," Tarboton notes, adding that nobody can learn how to weld at the high levels required by those fabricating pressure vessels, tanks, piping and structures in four weeks. "For any high integrity welding work, we need to be developing artisan welders," he notes.

"For specific jobs, however, shorter welding courses are often relevant and sufficient. The SAIW regularly takes on customised welder training to equip and

certify welders with the immediate skills needed to complete a job," he adds.

A Centre of Excellence for SMMEs

Bheki Mkhabela from DEDT says that the Mpumalanga Provincial Government has also secured a substantial piece of land for a new business park in Middelburg. "We have funds and the land for a new facility for a number of different companies undergoing incubation. We see this as a Future Production Technologies hub, where different SMMEs are incubated on the site, while collaborating with each other," explains Mkhabela.

"We have identified a range of typical products that can be manufactured here, such as corrugated stainless steel piping, guttering, door and window frames, exhaust boxes, catalytic converters and

a number of other products that could be manufactured locally for markets in Gauteng and other regions," he notes. "We envisage a Centre-of-Excellence (CoE) consisting of self-sustaining units that use advanced technologies to deliver key products for the South African market," he tells *African Fusion*.

As part of the CoE, Makgato suggests that the MSI will operate a research unit to explore both the market needs and the integration necessary to meet these needs. "The MSI sees a need to assist individual SMMEs with the challenges they are facing, finding solutions to their most pressing problems and fostering a cooperative approach," he adds.

He hopes that four to five new companies can be incubated every year, and expects it to take three or so years to get each company to the point of sustainability. "As well as the equipment resources and technical skills, business and financial skills are also vital for sustainability and success. There are no fast ways to make SMMEs self-sustaining," Makgato argues.

"This region is a manufacturing hub for Mpumalanga, because of the many steel, petrochemical and mining sites in the area. The manufacturing sector contributes 17.2% to the GDP of the local municipality, which is significantly higher than South Africa's overall GDP. We are determined to foster this growth and to expand the opportunities available to our local communities," Bheki Mkhabela concludes. ■