ESAB innovations for reducing welding costs

African Fusion tours the new premises of ESAB Southern Africa in the Tunney Ridge Business Park in Germiston and talks to Chris Eibl, Managing Director of ESAB South Africa, about the innovations being introduced to help local fabricators to reduce costs and improve productivity.

ESAB South Africa's MD, Chris Eibl, begins by confirming that the move into new premises in the Tunney Ridge Business Park is now complete. "Everything in our modern and brand new 5 000 m² facility is in place. We moved into the new offices in October last year; our warehouse stock moved over to the new distribution centre on this site in January; we added the Training and Demonstration Centre in February; and in April, we opened our very first walk-in ESAB Retail Centre for direct sales," he tells *African Fusion*.

"We have also opened another retail outlet in Port Elizabeth, with Cape Town and Durban following shortly. And as word-of-mouth spreads, people are coming," Eibl adds.

ESAB, being the world's leading welding brand, has a full range of equipment and consumables to suit welding and fabrication tasks from simple to advanced. "People are pretty tired of getting stuck with low cost, poor-quality products. They are increasingly realising that it actually costs more money to buy at the lowest cost than it does to buy a quality brand that is specified for exactly what the job requires," he argues, adding that ESAB's current success is directly related to this quality and performance strategy.

"We sell product combinations that offer the best possible chance of a successful outcome, " he says. "In principle, this simply comes down to the basics: having the right quality products at the right price at the right time. Local presence in South Africa is also important. We have an extensive local support network, which includes technical support for welding processes as well as comprehensive aftersales support for the equipment we offer," says Eibl.

And while the welding market in South Africa has shrunk in recent times, Eibl says ESAB continues to do well. "Consumables remain the mainstay of our turnover, and we are exporting significant quantities into sub-Saharan Africa, particularly from our stick electrode range. In South Africa, we are still finding a strong stick market, but a lot of customers are also looking at semi and fully automated welding systems. I believe we have an amazing automation range," Eibl tells *African Fusion*.

ESAB South Africa opened its first walk-in ESAB Retail Centre for direct sales in April 2023.

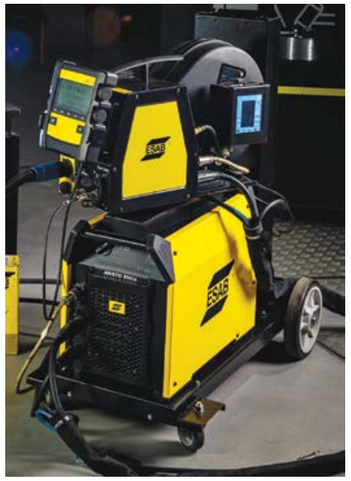
At the heart of the current automation range is the ESAB 500 ix multi-process welding power source, which is a portable, heavy industrial pulse power source with a robust and reliable mechanical design. "Together with the all-new RobustFeed U82, this is a perfect solution for demanding pulse applications," he says.

The Aristo 500ix is built tough while providing clearance and making the unit fit for use in the toughest environments. Large side panels provide easy access for service and maintenance. The 500ix also comes with a sturdy cart, dedicated crane lifting points, a torch holder and large cable holders. "For those looking to take advantage of the high productivity, quality and competitiveness that automatic robot solutions can now offer, we typically couple our Aristo 500ix with industrial or collaborative robots from Yaskawa or ABB," he says.

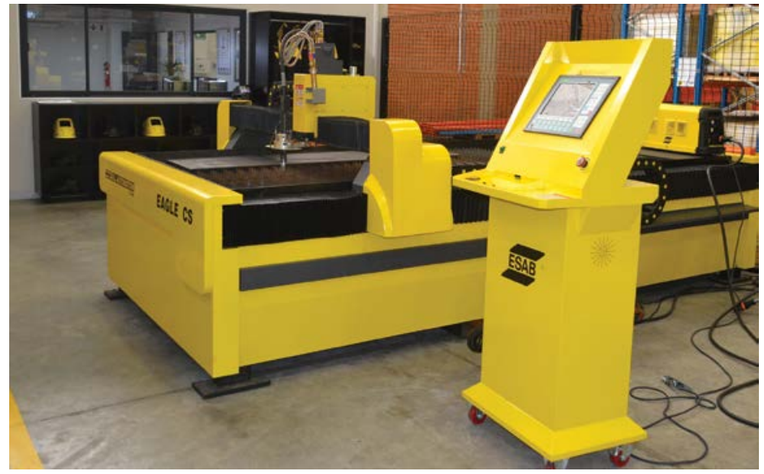
"Also on its way – from Quarter 1 of 2024 – is the Warrior 500 Edge, which will become our new flagship." Redesigned with productivity in mind, the Warrior Edge has streamlined interface suitable for welders of all skills levels. No extensive training is needed and intuitive setup makes quality welds easier than ever.

It is also smart: It can memorise jobs for repeat use; and it incorporates a Smartcard login system to lock the machine onto specific welding procedure settings, for example. In addition, the new Warrior Edge range comes with ESAB's WeldCloud capability built in.

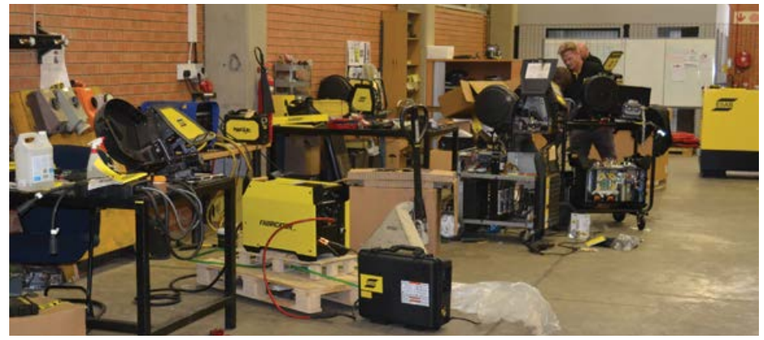
"Fabricators are increasingly under pressure to raise productivity levels and cut costs. We've recently done several demonstrations on the benefits of our InduSuite



At the heart of EASB's current automation range is the ESAB 500 ix multi-process welding power source, with the all-new RobustFeed U82.



An ESAB Eagle CS cutting system in the Training and Demonstration Centre of RESAB South Africa's new Tunney Ridge Head office and distribution centre.



ESAB offers extensive local support for South Africa, which includes technical support for welding processes as well as comprehensive aftersales support for the equipment on offer.

range of digital solutions, which can help organisations to better understand their true welding productivity levels. We have found that when people think they are achieving 25 to 30% arc-on time from their welding operations, analysis reveals that they are actually running at under 10%. That is scary. And doubling or tripling up on productivity, even from a low base, can have a profound effect on welding costs.

"Using this data-driven approach, one can start to understand where the bottlenecks are and the issues that need to be addressed to overcome them. But if you don't have the data, you can't make informed decisions. Looking forward, we need to keep migrating the South African market into the digital age of welding, which the rest of the world is adopting quite rapidly," Eibl points out.

From a cost perspective, he says that ESAB is offering a R3 000 per month rent-to-own option on InduSuite system hardware, which, he estimates, is less than most people spend on a monthly cellphone contract. And improved productivity and lower costs of a welding operation will very quickly cover the monthly costs of deploying this system," he assures, adding that after 36 months, the hardware becomes wholly owned by the user, who then only needs pay an annual subscription fee for the WeldCloud software packages – WeldCloud Productivity and WeldCloud Fleet#, for example.

Another key feature of modern ESAB welding equipment is Eco Power technology, which minimises energy losses during welding and while idling: "ESAB spends millions of euros in R&D to get its facilities and its welding equipment operating at optimal energy efficiency. All our new machines now include Eco Power technology, which improves the energy efficiency of welding by a minimum of 20% compared to traditional inverter technology. Further, if you compare this saving to older generation transformer-type machines, 50 to 70% energy savings can be achieved.

"If this technology were adopted by the whole of the South African welding market, imagine the electricity savings. We could literally drop one or two loadshedding stages, just because of reduced demand from welding machines," he says, adding that on one trial using a Warrior 750i, ESAB's Eco Power unit was 27% more energy efficient than a competitor on a like-for-like welding procedure. "If you calculated the savings based on reduced energy use alone, the payback period on a machine can be between six months and a year, while it will also contribute to reducing demand for electricity and carbon emissions," Eibl adds.

Another innovation embedded into ESAB's modern wire feeders is TrueFlow, which automatically optimises the gas flow through the welding torch. TrueFlow prevents unnecessarily high or dangerously low gas flow rates and optimises consumption during arc starts and during welding. "Savings of 20% on shielding gas bills are being achieved," Eibl suggests, with typical use cases amounting to US$600 to $1 200 per year.

"Innovation and change is happening, predominantly from Europe and America. We are fortunate to be able offer to our customers the benefits of these modern solutions. We believe that using the best, and most efficient welding equipment and consumables will deliver the best results and the highest productivity, which will ultimately deliver the lowest total unit costs for any welding operation," says Chris Eibl.

"It is not what a solution costs that matters most, it is what welding it can do, what productivity it can deliver, and how much it can reduce the costs of each weld seam," he concludes.

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