

# Swift-Cut Pro: for best-in-class CNC plasma cutting

With advanced industry-leading features as standard, combined with easy-to-use and intuitive software, ESAB's Swift-Cut Pro range is a high-end cutting solution at an "amazingly" low price. Willie Burger, product manager for Mechanised Cutting, PPE and Gas Equipment at ESAB South Africa, explains.

**"T**he Swift-Cut Pro is our baby machine," begins Willie Burger, ESAB South Africa's Mechanised Cutting, PPE and Gas Equipment product manager. This because ESAB also offers a wide range of large and very large cutting solutions, such as the Combirex™ PRO, which combines plasma and oxyfuel cutting heads on a large gantry; and the Suprrex HDX, a heavy duty, high-performance cutting machine that can be customised to use up to four plasma torches at the same time.

"The Swift-Cut Pro system is our everyday plasma cutting solution, which comes in four different sizes to meet the cutting requirements and budgets of small and larger fabricators," Burger tells AF.

"It's an awesome little machine at an amazingly low price for what you get, especially for those that have tended to farm out their cutting work because they couldn't justify the expense based on in-house volumes. The Swift-Cut Pro is an affordable solution; it is simple to install and use and it delivers excellent cut quality, which makes

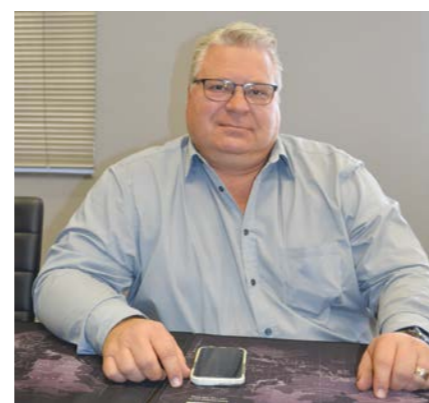
it a viable option for anyone contracting out their cutting work," he argues.

## Numerous features

Highlighting some of the notable features, Burger first lifts out the system's Intelligent Torch Height Control: "There is no need to manually set the torch height, this is done automatically through voltage sensing. This means the plasma arc is always at the optimum height for the cut, which both improves the cut quality and extends consumable life compared to conventional torch control systems," he explains.

A laser crosshair is used to accurately find the torch start position. In addition, if the plate is not 100% flat or sitting slightly skewed on the table, this laser-based referencing and aligning system will map out the exact positions and heights of reference points across the plate to correct for any inaccuracies. So the cut quality will not be affected if the plate is skewed, and no parts being cut will fall off the edge of the plate.

"As well as for cutting and piecing, the Swift-Cut Pro also has engraving or mark-



ing options. This enables part numbers to be etched onto each component, and bending or joining lines to be marked to make downstream forming and assembly processes easier," says Burger.

To suit the widest possible range of general cutting needs, the system is available with four different table sizes: the Pro 1250 (1 250×1 250 mm), the Pro 2500 (2 500×1 250 mm), the Pro 3000 (3 000×1 500 mm) and the Pro 4000 (4 000×2 000 mm).

The plasma power unit supplied with all of these Swift-Cut Pro tables is ESAB's Cutmaster A120, which offers 120 A of plasma cutting power at a 60% duty cycle and 100 A at 100% duty cycle. The A120, weighs only 28 kg and provides more than enough power for general CNC cutting tasks on a machine bed, which is limited to a thickness of 25 mm. The system also needs clean and dry compressed air at between 7.0 and 7.5 bar and delivering flow rates of around 300 l/min.

## SwiftCAM and SwiftCNC software

Easy-to-use SwiftCAM software is designed to enable anyone with a basic knowledge of computers to operate a Swift-Cut Pro CNC plasma cutting system. Minimal training means that a system can be productive almost immediately, maximising the investment value from the start, notes Burger.

Almost any CAD drawing format can be accommodated: DXF and DWG files can be directly imported and even JPG images can be converted for cutting. The software automatically applies lead-in/lead-out for quicker programming, and automatic nesting of parts is available to maximise sheet usage. Part-in-part nesting is also incorporated, where parts are nested in the scrap areas of other parts to fully utilise sheet material.

An Advanced Drawing Importer makes it easier to clean, scale or delete items within problematic drawings, and a parametric shape library of 89 configurable shapes is included.



The ESAB Cutmaster weighs only 28 kg and offers 120 A of plasma cutting power at a 60% duty cycle and 100 A at 100% duty cycle.

On the CNC side, a G-Code Browser allows the operator to start cutting from any individual profile within the G-code, while a cut recovery function allows the user to start from any position along the cut path to maintain cut accuracy and reduce waste.

## After-sales service and personnel

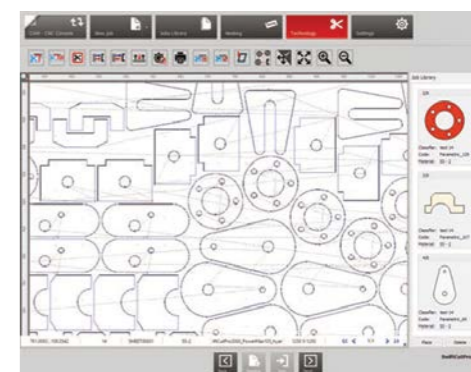
"We also take pride in helping our customers to succeed after making a sale, by helping them to get the absolute best results from their Swift-Cut Pro. Whether a customer needs remote assistance, advice or an engineer's visit, we've got very capable people to support them," Willie Burger assures, adding that this is mostly about



The Swift-Cut system features Intelligent Torch Height Control. The torch height is set automatically through voltage sensing, so the plasma arc is always at the optimum height for the cut.

support, not just maintenance and repair. "We can help with programming, nesting and optimising the machine's performance and cut quality, for example," he says.

The Swift-Cut Pro system, he says, is ideal for jobbing shops across Africa that service the needs of local manufacturers and suppliers for steel-plate products such as control cabinets, ducting, chutes



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and signage. "In many places in Africa and South Africa, there may not be an easily accessible cutting service or profile shop. The Swift-Cut Pro enables fabricators with low-level needs to invest in an in-house solution, which can then become an additional income-generating service for other workshops in the area," he suggests.

"In-house work can be done more quickly and without delivery delays. And getting these machines up and running is easier than ever, making returns on investment very quick, even if the machine isn't fully loaded," he concludes.



A Swift-Cut Pro 3000 is on show and available for demonstrations at ESAB South Africa's premises in Elandsfontein, Germiston.

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