

Cosmo Group introduces CNC LINC-CUT® plasma

Petrus Pretorius, general manager at Cosmo Industrial, introduces the LINC-CUT® S 1530w plasma cutting system from Lincoln Electric that uses the FLEXCUT™ 125 CE plasma cutting power source.

“The LINC-CUT S 1530w is a plasma cutting solution that is quick to implement, simple to use and a very affordable investment,” begins Pretorius.

The machine frame consists of a steel bed incorporating cutter bars to support the sheets to be cut. The bed contains water mixed with purpose-developed Plasma Green liquid to capture dust and fumes generated during cutting. This liquid enables residual escaping fume gases to be kept below exposure limit values under typical conditions of use, that is, where the machine is installed in a workshop with sufficient dimensions for air renewal and use is limited to two hours of actual cutting per day.

“The touch screen and an intuitive man-machine interface with a library of integrated shapes allows users to begin to do simple cutting immediately. In addition, a software package is provided to enable users to draw, import, vectorise and nest cutting patterns, either manually or automatically, with programs being loaded into the system via USB sticks. There is also a networking option, although this is not included as standard.

“While advanced, the machine is simple to use and maintain and fully guaranteed for two years,” Pretorius tells *African Fusion*.

“Also, thanks to Lincoln Electric’s FLEXCUT 125 CE technology, the machine produces excellent cut quality with compressed air on carbon steel and stainless steel, with good cost effectiveness, long service life, a reduction of finishing operations, less dross and better angular quality,” he continues.

The ACCUMOVE VMD user interface

To simplify controlling the machine, the VMD user interface is installed on an easy-to-use 16:9 multi-touch screen and incorporates all the essential functions for plasma cutting. Notable feature include:

- User-friendly and intuitive human-machine interface (HMI).
- Choice of material, thickness and intensity to automatically adjust the cycle parameters.
- Multi-directional JOGs allow a user to move the machine (linear or incremental).
- A sheet alignment function simplifies set up.

Other features include: a cut function for scraps or skeletons; test mode and cutting mode; a large graphical ‘twin’ follows the progress of the program in real time; program recovery functions cover the event of an incident; a striking/start number counter enables easier management of consumables; and NC programs can be imported via USB – or a network option if preferred.

VMD advanced cutting cycle functions include: height regulation by arc voltage; cycle initiation by electrical detection of the sheet; automatic compensation for consumable wear; intelligent sheet detection management; speed management via F-code to optimise quality on small internal profiles; and resume cut functions

In addition, VMD also controls a laser pointer as a positioning and sheet alignment aid, and a multidirectional torch shock detector to protect the plasma cutting tool.

The machine is also supplied with the LINC-CUT CAD/CAM soft-



The VMD user interface allows you to control the machine and is installed on an easy-to-use 16/9 multi-touch screen

ware suite for installation on a PC. The CAD/CAM offers:

- Drawing according to plans with a complete and efficient industrial drawing module.
- Creating text using a multitude of pre-installed fonts.
- An extensive library of parametric shapes to assist with designing.
- Importing most standard drawing formats, including .dxf, .dwg, .pdf vector

The software can also vectorise images, nest parts, create the toolpath and generate the machine program required for a cutting. “LINC-CUT CAD/CAM manages up to four cutting qualities that adapt to the geometry of the part being cut, making quick contour cuts with little or no dross, cuts for bolt passages and quality lettering.

The Lincoln Electric FLEXCUT 125 CE

The 125 A that is generally shipped with the LINC-CUT CNC cutting table is a plasma cutter with a 100% duty cycle at 125 A. “The FLEXCUT 125 ensures up to six times longer consumable life than competitors and maintains faster cut speeds. The completed cut is virtually dross-free, which means less secondary processing.

“Whether being used for piercing a 25 mm mild steel in a mechanised cutting application or cutting expanded metal, users can count on less edge bevel and superior edge quality compared to competing cutting systems,” Pretorius assures, adding that the system can be operational in a very short time and controls are simple, enabling a consistent and reliable arc plasma cutting arc to be produced without the need for high frequency arc ignition.

“We at Cosmo are able to offer fast delivery, installation and set-up of these units, along with training on the easy to learn software. The LINC-CUT plasma system with its FLEXCUT 125 power unit is ideal for sheet metalwork, locksmithing, artists and hobbyists, prototyping, education, the motor racing industry and repair shops. It offers improved cycle times with industry leading technical support at minimal investment costs,” Pretorius concludes. ■