

SHARK plasma cutting equipment introduced into SA

Argon Arc Welding Supplies, exclusive distributors for Hyundai and CEA consumables and CEA welding equipment in South Africa, is launching the CEA range of SHARK plasma cutting equipment into the local market. Andy Chrysanthou highlights some key features of the range.

“The SHARK range of plasma cutting equipment is the result of considerable capital and R&D investments,” Chrysanthou begins. “When fitted with CEA’s new technology torches, these machines offer remarkably better quality and speed in all aspects of the cutting process: neat cut lines, lack of dross, narrow heat-affected zones and much squarer edges,” he says.

SHARK plasma cutting power sources are an efficient solution for cutting metal and perforated sheet. Electronic control, coupled with inverter precision and flexibility provides the parameter accuracy and repeatability needed to obtain quality cuts for a wide variety of thicknesses and material types.

SHARK power sources feature: electronic control; high-flow air circulation; pilot arc striking; the ability to cut grates

and perforated sheets; contact cutting with currents lower than 50 A – without any guiding device; built-in air regulators and filters; highly visible and easy to read control panels; metallic main structures with shockproof fibre-

compound front frames; and electrical protection to maximise operator safety.

Lightweight and handy, the single-phase SHARK 25 has a built-in compressor, and is the ideal solution for maintenance jobs, light fabrication work, and car body and agricultural equipment repairs. The larger single-phase SHARK 45, with a cutting capacity of up to 40 A (35% duty cycle) for cutting thicknesses of up to 15 mm, includes PFC (power factor correction) technology and is the choice for car and truck body repairs, agriculture and maintenance.

Powerful and compact, the smallest three-phase SHARK 75 unit, which weighs only 23 kg, is targeted towards medium and light fabrication work. Precise cutting performance enables quality cutting to be achieved at high speeds and, if used with the SK75 HPC (high-performance cutting) technology torch, a powerful and concentrated cutting beam can be used to produce a narrower kerf and better precision. Smart start and smart end cutting functions also enable better-optimised



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initial and final cutting control.

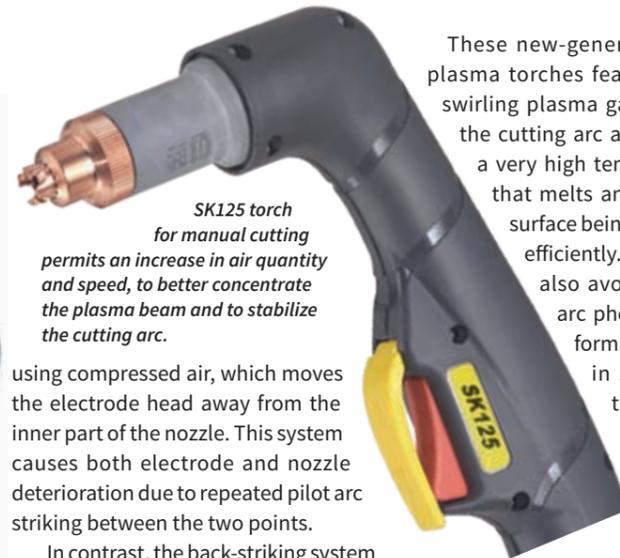
The range is completed with the larger SHARK 105 and SHARK 155 machines capable of cutting up to 35 and 50 mm plate, respectively. Robust and precise, these machines ensure very high quality cutting results on large thicknesses.

SHARK 75-M, SHARK 105-M and SHARK 155-M equipment, when fitted with one of the SMK machine torches, are also suitable for automated cutting use. These power sources can easily be connected to cutting control systems with the ability to manage the ON/OFF, cutting arc control parameters and the torch height.

SK and SKM torches

The SK and SKM torches used for SHARK equipment are the result of research carried out in the last decade to improve the performance of plasma cutting by optimising the controllability and thermal-energy concentration of the plasma stream.

SK25 to SK65, torches, used on single-phase equipment, are based on back-striking technology, which produces consistently precise arc striking leading to longer consumables life. In conventional torches without high frequency, arc striking is achieved



SK125 torch for manual cutting permits an increase in air quantity and speed, to better concentrate the plasma beam and to stabilize the cutting arc.

using compressed air, which moves the electrode head away from the inner part of the nozzle. This system causes both electrode and nozzle deterioration due to repeated pilot arc striking between the two points.

In contrast, the back-striking system takes place at the back of the electrode and nozzle, thus leaving the air flow exit area free of damage. Advantages include: longer consumables life; precise and safe striking; and slower degradation of cut quality over time.

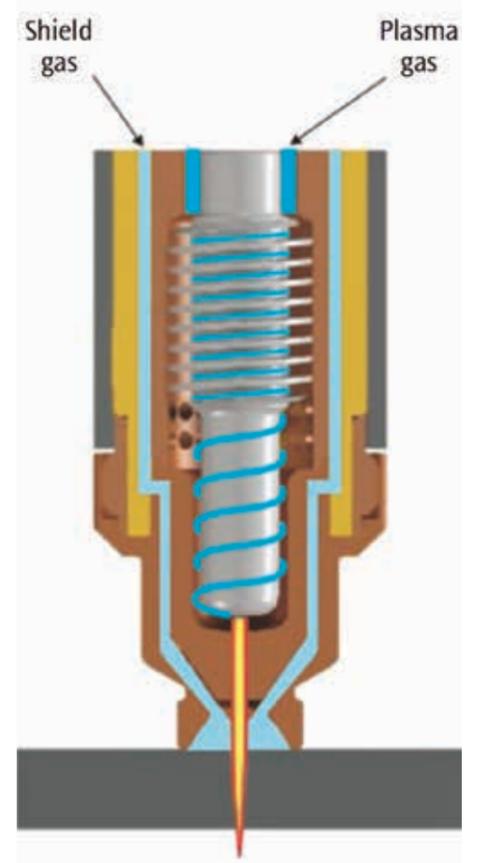
SK75, SK125 and SK165 torches for manual cutting and SKM75, SKM125 and SKM165 machine torches for mechanised cutting are characterised by HPC (high performance cutting) technology. This gives: high cutting speed; optimal quality and cleanliness of the cut surfaces; a concentrated plasma cutting beam; lack of dross; a smaller heat-affected zone; longer life of the consumables; and lamination piercing in shorter times.

These new-generation CEA HPC plasma torches feature radial and swirling plasma gas flows around the cutting arc axis. This creates a very high temperature beam that melts and vaporises the surface being cut much more efficiently. The technology also avoids the double-arc phenomenon – the formation of two arcs in series between the cathode and the workpiece surface – which is the main reason for arc instability and damage to the nozzle.

All SK and SKM torches are also fitted with a coaxial cable that combines flexibility with robustness and resistance to crushing.

From a local service perspective, Chrysanthou says that Argon Arc welding technicians routinely attend courses at CEA’s International headquarters in Italy. “Our knowledge has enabled us to specialise in the support, operation and repair of all CEA welding and cutting equipment.

“Our highly trained sales staff can also assist in sales of welding consumables, gas cutting equipment, welding equipment and safety equipment – and we remain strong on the manufacture of



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custom-built column and boom, gantries, rotators and other mechanised and automated systems,” he concludes. ■



SKM75, SKM125 and SKM165 machine torches for mechanised cutting are characterised by HPC (high performance cutting) technology.

Robotic Welding Centre opens in India

Kemppi has opened up a robotic welding application centre in Pune, India, to respond to the increasing needs for welding automation. The centre provides complete and innovative solutions and services to the integrators and end users.

Kemppi’s experienced welding engineers help the customers to optimise their welding applications, and offer comprehensive training covering all aspects of welding.

“This robotic welding application centre helps to speed up our growth in Asia, which is one of Kemppi’s strategic target areas. Kemppi India Private Ltd started its operations in Chennai in 2011, and the new application centre is a natural next step in the market where the accelerating automation increases the popularity of robotic welding,” says Ville Vuori, CEO, Kemppi Oy. “The centre gives insight to increase customer understanding and helps in serving the important markets in

India even better. Local expertise is a key business factor for Kemppi,” he continues.

The Pune centre is equipped with Kemppi’s state-of-the-art A7 MIG Welder and KempArc robotic welding systems integrated with robots from well-known robot manufacturers. The systems are presented in action to demonstrate the efficiency and quality that can be reached with Kemppi’s Wise optimised welding processes.

Visitors can also try the A7 MIG Welder’s unique web browser-based interface in practice and experience its ease of use and how much time it saves in system setup.

The robotic welding application centre is located at Kemppi India’s new subsidiary facilities in Pune. A similar centre was opened in Beijing, China in December 2017.

Headquartered in Lahti, Finland, Kemppi’s offering includes welding

solutions – intelligent equipment, welding management software and expert services for both demanding industrial applications and ready-to-weld needs.

Local expertise is available via its global partner network covering over 60 countries. In South Africa, the brand is represented by AR Industrial Supplies.

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