Press Release:

Making Welding a Breeze: Gasless 'Innershield' Welding Machines from Renttech bring multiple benefits to the user

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When undertaking MIG welding outside, such as on a construction site or farm, exposing the weld to the weather may hamper progress and compromise the quality of the final result. Effects of wind, or even just a breeze, during the welding process can be a serious problem. Put simply, valuable shielding gas can all too easily get blown away: resulting in porosity, excessive spatter and inferior weld quality.

A simple solution is gasless flux cored welding using a Lincoln Innershield wire, a process that was originally designed to replace stick or 'arc' welding. As the name suggests, Innershield wires produce their own shielding gas to protect the weld from the atmosphere. This process is perfectly suited for outdoor use – particularly in extreme operating conditions in industries such as agriculture, construction, shipbuilding, mining, and wherever maintenance is required.

"Changing to gasless wires brings many benefits, especially in areas where wind can be a problem – they eliminate the inconvenience and expense of shielding gases being blown away, as is often the case with traditional MIG welding. In addition, they make it easy to weld out of position, including vertical up, vertical down, overhead and horizontally. Gasless wires are also easy to use on both thin and thick gauge material; and fill gaps effectively, without burning through your plate or tubing. Welders who weld 1.6mm tubing using stick electrodes will know exactly what we are referring to," says Johan Bester, Welding Sales Manager at Renttech South Africa.

"In the case of gasless flux cored welding, the filler metal for the weld is basically an arcwelding electrode turned inside out," Bester explains. "This mild steel tube or sheath becomes the main filler metal to the arc and the flux inside becomes a light slag deposited on top of the weld." He adds that the flux shapes the weld, while protecting it against the atmosphere throughout the solidification period. It also aids in removing impurities in the base material.

The resulting slag keeps the weld from sagging or falling out when welding out of position; and is easily removed with a steel brush or chipping hammer after the weld has solidified.

"Gasless wires are also known for being able to weld over painted, rusted or galvanised surfaces - making this a favourable welding process for maintenance, repairs or modifications on 'used steel'."

Bester however emphasises that good welding practice should always include removing as much of the coating, dirt or rust as possible.

"Our UniArc Mag200 MC is a multi-process inverter that is especially versatile, offering not only gasless flux-core welding but also able to be used in MIG welding, stick welding, and TIG welding," says Bester.

"This single phase 200 amp 230V machine can take either a 5kg or 15 kg spool and has a dry weight of 22kgs."

"If you already have a MIG (CO₂) machine that can change polarity, you can easily convert to Innershield wires," he notes. "All you need are the correct drive rolls, a gasless welding torch and a spool of Innershield wire, and you are good to go."

"The Uniarc Mag200MC is a great tool to own," adds Bester. "Combine this with the Lincoln Innershield wire and it is now much easier to produce quality welds."

Renttech South Africa specialises in the rental and sales of a wide range of industrial equipment, and has the largest fleet of rental welding equipment in the country. Its UniArc welding machines range from single phase 220V machines to 380V/525V three-phase machines, and are generator-compatible if access to electricity is a problem.

"We are extremely pleased to bring such a handy, multi-purpose machine such as the UniArc Mag200MC to our customers working in industry, construction and agriculture. It offers new levels of convenience for the user, especially in a windy, outdoor context. This machine is now available at all our branches with our technical staff ready to introduce customers to the world of flux cored gasless welding" says Gerrit van Zyl, Managing Director of Renttech South Africa.

Ends

(684 words)

Note to Editors

About Renttech South Africa (Pty) Ltd:

Renttech South Africa (Pty) Ltd, a company within the Brandcorp Group, has a solid background in the rental and sales of 22 recognised brands of welding, power generation, lifting, rigging and construction-related equipment. The company's successful growth can be attributed to the adoption of the highest levels of integrity, performance and customer service.

Industries addressed by Renttech South Africa include petrochemical, power generation, construction and civils, fabrication/manufacturing, pulp and paper, offshore oil and gas, shipbuilding and marine maintenance, mining, road and rail equipment fabrication and maintenance, and engineering.

The company has the largest fleet of rental welding equipment in Southern Africa. In addition, SA Welding (SAW) provides a range of specialised welding consumables and KLS Lifting Services (KLS) manufactures and distributes rigging and lifting equipment, including nylon web slings and endless round polyester slings.

Quality levels are measured through the internationally-recognised ISO 9001-2008 standards.

Renttech South Africa is an active member in a number of industry-relevant Associations: SA Oil and Gas Association (SAGOA); Lifting Equipment Association of South Africa (LEASA); South African Institute of Welding (SAIW); Local Economic Development (LED); as well as the Shutdown National Forum (SNF).

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