

Safety is at the heart of Afrox's 360-degree Solutions initiative, particularly when it comes to welding and cutting in difficult to reach places on site and at height. Afrox's Business Manager for Manufacturing Industries, Johann Pieterse describes how Afrox's full Safety Solutions Programme (SSP) has been incorporated into its 360° Solutions offering.

**SSP: an integral part of Afrox's 360-degree solutions**

As an industry leading manufacturer and distributor of gases and related safety and gas distribution equipment, Afrox plays a leading role in ensuring safety in industry.

Afrox compressed gases that use mixtures of argon, helium, CO<sub>2</sub> and oxygen are widely used for welding processes such as gas metal arc (GMAW), gas tungsten arc (GTAW) and flux cored arc welding (FCAW). In addition, Afrox's fuel gases, oxygen, acetylene and compressed natural gas, are typically used for gas welding, cutting, heating, straightening, and descaling. Modern plasma and laser cutting machines also use a range of gases to achieve the cut speeds and qualities required.

"While the equipment used is generally well understood by industry, sometimes people forget about the dangers. Many people are injured each year by the incorrect or careless use of oxy/fuel gas equipment, for example," notes Afrox's Johann Pieterse.

Potential hazards include: fire caused by heat, sparks, molten metal or direct contact with the flame; explosions when cutting or repairing tanks or drums that may have contained flammable materials; fire or explosion caused by gas leaks and flashbacks from the welding or cutting gases being used; fumes created during welding or cutting; fires resulting from leaks or misuse of oxygen; burns from contact with the flame or hot metal; and impact injuries from handling and transporting cylinders.

Years of experience at Afrox has resulted in the introduction of the Afrox Safety Solutions Programme (SSP). "SSP is an integral part of our 360-degree Solutions initiative, which strives to take a holistic view of a customer's operation, which includes the onsite conditions and hazards; the equipment choices, conformance and condition; as well as employee skills and knowledge," says Pieterse.

The Afrox 360-degree Integrated Customer Application Solutions Programme strives to overcome all the challenges facing South African energy, transport, mining and fabrication industries. "Companies are looking for innovative solutions to stay abreast of global technology and competition, solutions that enable them to deliver on-time

quality at the lowest possible cost in a highly safe environment. With SSP embedded, the implementation of a 360-degree programme offers a comprehensive solution from start to finish, whether the application involves a locomotive, pressure vessel, tanker, wind tower, a shut-down at a petrochemical plant or any other application,” he adds.

“Safety should be about much more than just training,” continues Pieterse. “SSP ensures customers follow the safest and most efficient operating procedures for their equipment. We support customers with detailed site and equipment surveys, followed by a detailed report that assists in rectifying the findings – and this can embrace safety as well as fabrication efficiency issues.

“Skills audits are part of this survey process and, once done, training needs are identified, which can be done by Afrox either onsite or in one of its training schools – and our customer’s employees all receive Chieta accredited training,” Pieterse assures.

Pieterse highlights a recent SSP implementation as a result of a shortage of dissolved acetylene. “We were asked to assist a customer to convert from oxy/acetylene to LPG and to recommend the correct equipment for the new process,” Pieterse relates. “Then we established a safe working environment to use the new gas, which presents different characteristics and safety risks. Finally, we retrained the staff in the safe operation and effective use of the new processes.”

Summarising the key objectives of SSP, he says promoting the safe use of welding and cutting gases and related equipment is the central goal. “At the starting point is to ensure that the required equipment is fit for purpose and that it conforms to industry norms and standards,” he says.

From a training perspective, it is vital that the operator has a sound understanding and knowledge of how to use gas welding and cutting equipment safely and, while applying safety requirements, that the surrounding environment is also kept safe for other employees in the immediate vicinity.

“Safety as our number one priority within all spheres of South African manufacturing and Afrox’s SSP is now being rolled across the petrochemical; power generation; shipbuilding; general fabrication and manufacturing sectors.

“With SSP embedded, Afrox is extending its 360-degree capability to customers across South Africa, identifying opportunities to implement complete quality solutions that are safe and efficient, while providing full back-up and support,” concludes Pieterse.

Issued by: Serendipity Events, Promotions & Exhibitions

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Date: 8 July 2019