

# Air Liquide gas and Harris Products cutting and welding solutions:

A collaboration synonymous with quality

Michael Ashley, product manager for Hardgoods at Air Liquide in South Africa, talks about the relationship between Air Liquide and Harris Products, which is built around providing fabricators with the highest possible safety and quality levels.



“The Harris Products Group is a world leader in metal working products used in the brazing, soldering, welding, cutting and gas distribution industries. It was formed in 2006 as a result of a merger between Harris Calorific, the manufacturer of gas welding and cutting equipment and gas regulation and distribution systems, and the J.W. Harris Co, the manufacturer of brazing and soldering alloys and welding consumables,” explains Ashley.

The Harris Products Group currently operates manufacturing facilities in Mason in Ohio and Gainesville in Georgia, USA, as well as in Dzierzonow, Poland and Sao Paulo, Brazil – and all of the company’s facilities are ISO 9001 certified for quality management. “In addition, these sites are also ISO 14001 certified for environmental management systems, demonstrating commitment to the stewardship of the global environment,” he adds.

“We couple Harris’ application specific equipment

with Air Liquide packaged gases, with every combination chosen to best meet the quality required, while delivering the productivity, safety and cost effectiveness demanded from fabricators operating in these lean times. We supply an array of items predominantly to end users, catering for all their requirements, and a comprehensive range of products is available for every conceivable applications,” Ashley notes.

“When people think of gas equipment, they think predominantly about regulators, but Air Liquide stocks a full range of Harris products that also includes cutting torches, flash back arrestors, cutting nozzles, hoses, flowmeters, gas savers and a host of the other items required for our customer’s gas cutting, welding, purging and brazing needs,” he tells *African Fusion*.

With respect to oxy-acetylene hand cutting, for example, Ashley points out that Harris’ 896-1.5-AC acetylene pressure regulator and the associated 896D-10-OX oxygen pressure regulator are designed to offer safe and efficient delivery of the two cutting gases needed

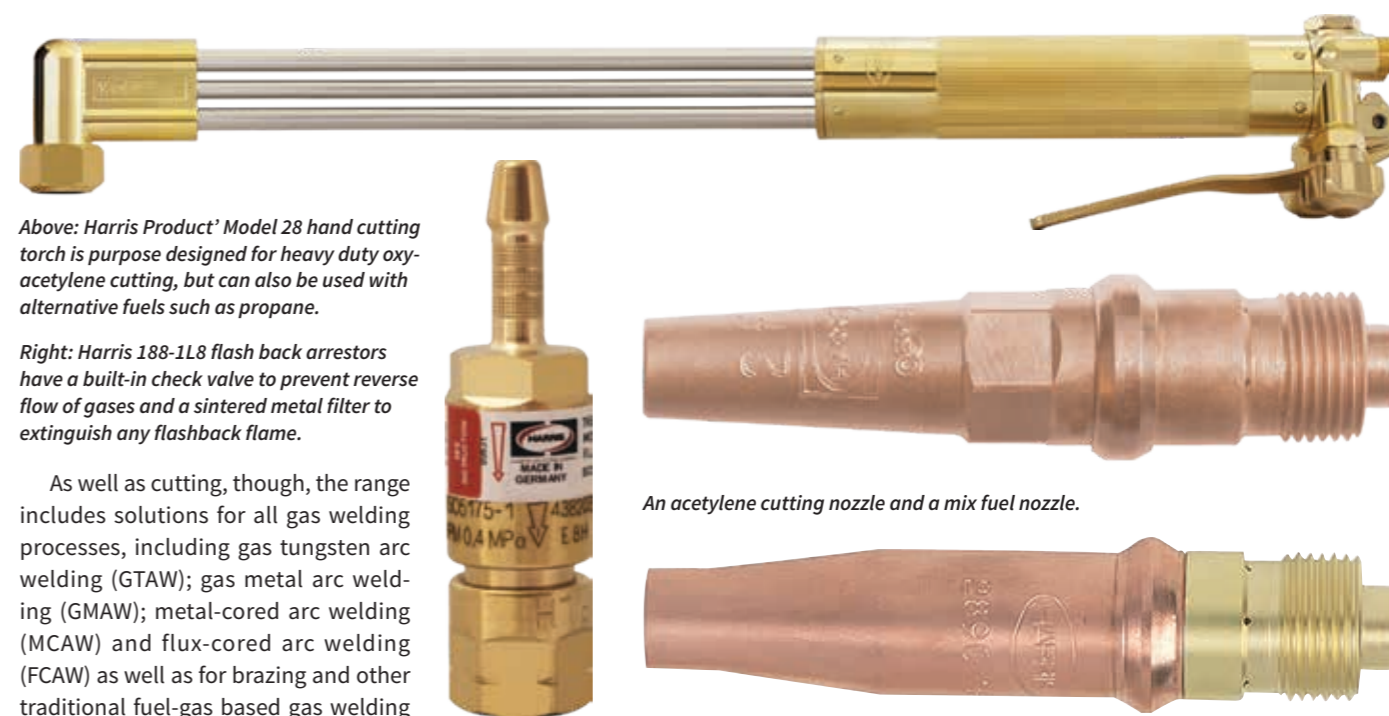
at the precise pressure needed to cut carbon based steels. “Coupled with a model 28 heavy duty cutting torch; a 188-1-L8 flash back arrestor with a check valve and a flame-extinguishing sintered metal filter; a Model 2890-F cutting nozzle for acetylene; and all of the hoses and other accessories needed, Harris has developed the complete package. All that is then needed are the two cutting gases, Air Liquide Acetylene and Industrial Oxygen, which are readily available in cylinders,” he says.

All Harris regulators are designed and manufactured according to the most recent international standards, namely ISO 2503 (cylinder pressure and flow control regulators) and ISO 5171 (pressure and flow gauges) – and all carry a seven-year warranty. “The Harris products supplied by Air Liquide can withstand industrial

applications in the toughest working conditions, while on the other end of the spectrum, high accuracy, high quality specialty gas regulators are also available for precision laboratory type work,” he adds.



Harris’ 896-1.5-AC acetylene pressure regulator and the associated 896D-10-OX oxygen pressure regulator are designed to offer safe and efficient delivery of the gases needed for oxy-acetylene cutting at the precise pressures needed.



Above: Harris Product’ Model 28 hand cutting torch is purpose designed for heavy duty oxy-acetylene cutting, but can also be used with alternative fuels such as propane.

Right: Harris 188-1L8 flash back arrestors have a built-in check valve to prevent reverse flow of gases and a sintered metal filter to extinguish any flashback flame.

An acetylene cutting nozzle and a mix fuel nozzle.

As well as cutting, though, the range includes solutions for all gas welding processes, including gas tungsten arc welding (GTAW); gas metal arc welding (GMAW); metal-cored arc welding (MCAW) and flux-cored arc welding (FCAW) as well as for brazing and other traditional fuel-gas based gas welding processes.

“Our ARCAL™ Prime argon gas with Harris regulators, flowmeters and gas savers make an ideal combination for gas shielding and purging in critical applications such as the GTAW welding of stainless steel tubing used for hygienic applications in the food and beverage industries.

“We have also seen an increasing need for laser cutting gases. We have, therefore, developed a custom range of high purity gases that, with Harris’ high-flow pressure and pipeline regulators, we can offer to the local laser cutting industry to best suit the machines, processes and materials they are dealing with,” says Ashley.

An industry leader in the supply of packaged gases, Air Liquide’s gases coupled with the robust, competitively priced range of Harris gas equipment feature throughout industry. The recent introduction of Harris’ specialty gas regulator range further enhances this coupling and an easy reference table for welding or cutting process is available that recommends the ideal match between the gas equipment, gas type and gas supply modes required.

Harris Product’s gas cutting equipment has featured in the Air Liquide sales portfolio since 2012. Previously sold through Weld-Cut, the wholly-owned Air Liquide subsidiary, Harris products are now available directly from Air Liquide branches throughout South Africa.

“The relationship is certainly synonymous with quality,” assures Ashley. ■

Process	Base material	Harris equipment	Air Liquide gas	Gas supply mode	
				Cyl	Bulk
Oxy-fuel gas cutting	C-Mn steel & Low alloy steel	Pressure regulator	Acetylene	✓	
			Propane	✓	
			Industrial Oxygen	✓	
		Pipeline regulator	Acetylene		✓
			Propane		✓
			Industrial Oxygen		✓
Cutting torch	Oxy-fuel	✓			
GTAW (TIG)	Al alloys C-Mn Cu alloys Low alloy Ni alloys Stainless Titanium	Flowmeter regulator	ARCAL™ Prime	✓	
GMAW (MIG)	Al alloys Cu alloys Ni alloys Titanium			✓	
GMAW (MAG)	Stainless steel		ARCAL™ Chrome	✓	
	C-Mn & Low alloy		ARCAL™ Speed ARCAL™ Force	✓	
MCAW	Stainless steel		ARCAL™ Prime ARCAL™ Chrome	✓	
	C-Mn & Low alloy		Inarc 25 Carbon Dioxide	✓	
FCAW	C-Mn Low alloy Stainless	ARCAL™ Force Inarc 25 Carbon Dioxide	✓		
Gas welding processes	Al alloys C-Mn & Low alloy Cu alloys Ni alloys Stainless Titanium	Pipeline regulator	All gases		✓
		Flowmeter + Gas saver			✓
		Shielding Gas Saver		✓	

A summary of Harris Products and Air Liquide’s easy reference table for welding and cutting equipment and gas combinations.