VERSATILE TOOL

Lincoln Electric keeps VMAC, Deutz in new welders. By **Chad Elmore**

This year, Lincoln Electric is adding its new CrossLinc technology to its line of Vantage engine-driven welders. Models that get the system as standard equipment — which the company said permits users to "walk less, weld more" — will pick up an "X" after their name. The engine-driven Air Vantage 566 welders have been renamed 566X, for example. While CrossLinc and the "X" are new, inside the enclosure of those machines is an air compressor brand that has been a constant since the first one was installed in a Lincoln Electric welder in 2002: VMAC.

"Lincoln and VMAC have had a business relationship for almost 20 years," said Nicholas Winarski, product manager, Industrial Engine Drives, Lincoln Electric, Cleveland, Ohio. "They have been our go-to manufacturer for air compressors on our Air Vantage models, and we have worked with them to integrate a system that is specific to our products. It's all about making sure we have quality that's going to stand up over time. Making sure we have good relationships with our vendors is very important to ensure a quality product."

Welding specialist Lincoln Electric and air compressor specialist VMAC have had a business relationship for almost 20 years. Here, a VMAC compressor is shown installed on a Deutz diesel engine.

NEW TECHNOLOGY, PROVEN PRODUCT

CrossLinc technology permits communication through a standard weld cable to enable voltage or current control at the arc without a separate control cable. By giving the operator more control and eliminating an extra control cable, Lincoln said jobsites can reduce clutter and eliminate extra movements of personnel back to the power source to make setting adjustments or correct unintended adjustments by helpers or other operators. Overall, the new system can help improve safety, quality and productivity on the worksite.

The new Lincoln Electric Air Vantage 566X uses new CrossLinc technology to improve work site efficiency, safety.

Those benefits are especially important on the company's Air Vantage 566X and 566X Hydraulic welders, which are typically installed on service truck bodies used on construction sites or to make repairs in the field.

Air Vantage 566X uses a Deutz TD2.9L4 diesel engine rated 65.7 hp that is U.S. EPA Tier 4 final compliant. The engine powers a 575 amp welder, 20 kW generator and 60 cfm air compressor.

The latter component is a VMAC S700162 belt-driven rotary screw air compressor that can deliver 60 cfm at 100 psi at high idle (1800 rpm).

Air Vantage 566X Hydraulic uses the same Deutz diesel engine and VMAC air compressor but adds a 10 gpm Casappa PHP20.16 belt-driven gear pump to become a four-in-one machine. In addition to being a welder, generator and air compressor, the 566X Hydraulic can also run industrial tools or a hydraulic crane without running the truck's engine.

"With our Air Vantage products, we tend to focus on the work truck industry and that can reach a lot of different applications, such as mining, railroad maintenance-of-way and big pipeline service trucks," said Winarski. "They are designed for big, heavy-duty applications. Partnering with VMAC gives the customer the best of both worlds. Customers get a high-end compressor combined with high-end welding technology from our side."

One common job for the combined air compressor and welder set, said Winarski, is air carbon arc gouging. The process uses the intense heat of the arc to cut and melt the work piece, such as when removing old welds to repair a mining shovel.

"With this unit, customers don't have to bring along a cylinder of compressed air or run a separate compressor," said Winarski. "They can do it all right there in the machine." Other applications include pneumatic tools, such as a chipping hammer.

The Lincoln Electric Air Vantage 566X Hydraulic uses CrossLinc technology and a VMAC air compressor. It adds a hydraulic pump to enhance its versatility on a service truck.

OEM SUPPORT

Based in Nanaimo, B.C., Canada, VMAC has a catalog of air compressor units designed for service trucks and other applications. Through its OEM Division, VMAC also supports manufacturers that need a rotary screw air compressor for their own unique applications.

For the welding specialist, said Rick Duifhuis, OEM Division manager, that meant providing a direct contact for engineering and product support and annual in-person meetings. Early in the relationship, VMAC also expanded the warranty term it offered with its air compressor to support Lincoln Electric and its customers. VMAC now offers a limited lifetime warranty on its air end, which was offered to the OEM.

"We've worked with Lincoln Electric to develop five complete systems in roughly 20 years," said Duifhuis. "They don't make a lot of changes compared to our UnderHood air compressor applications that go in service trucks. Sometimes service trucks engines will change every year, or if we're lucky we'll get a three- or four-year run with no engine changes, which means we have to adapt. Lincoln Electric's welders have been a lot more stable in terms of product design.

There are opportunities for custom solutions on Lincoln Electric's side, too. The company sells its Air Vantage welders through various channel partners to integrate the machines onto service trucks.

"In some of those applications, we get involved at the design stage of the service truck to make sure that they have the right welder solution in place," said Winarski. "For example, in addition to buying our standard product, we can evaluate additional accessories, such as rope heaters, to help customers find the best solution to fit their needs. By having a relationship with the end user, regardless of the sales channel, we can always ensure they have the right solution for their niche. We have a specials process in place to help facilitate that.

"Having that flexibility is pretty important. No two customers are the same. They all seem to do their work a little differently." ■

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