

VMAC comes out from under the hood With the introduction of the...

PREDATAIR⁶⁰
HYDRAULIC AIR COMPRESSORS



Shown here with
Top & Front Cover Off

SPECIFICATIONS AT A GLANCE

Hydraulic Above Deck Air Compressor	-	Direct Gear Drive
Up to 60cfm	-	Integral Hydraulic Oil Cooler
Up to 175psi	-	16.25" w x 24.00" l x 18.00" h
100% Duty Cycle	-	165lbs (Dry Weight)

The Past and The Future

VMAC's latest revolutionary product is the PREDATAIR60. Building on past experience, engineering expertise and customer input, VMAC is going to once again "shake-up" the air compressor industry by engineering this brand new hydraulic above deck compressor and launching it at CONEXPO and the NTEA Work Truck Show in March.

While VMAC's original Underhood Air Compressor System continues to amaze everyone who hasn't seen it and continues to grow as a market, the company made a commitment to evaluate the current business strategy. Over the last 2 years VMAC has made huge strides in quality, turn around times and delivery. With the foundation now laid, VMAC is ready to take on some different product lines and enter new markets. The hydraulic above deck compressor was an easy choice. VMAC competes against this product daily and understands the strengths and weaknesses of competitors units currently in the market.

VMAC has focused development into features that customers demand from their current hydraulic compressors. Some of the main requirements include addressing cooling issues, reducing size, ease of installation and making maintenance easier. Knowing exactly what the market is after has allowed VMAC to focus on providing a product that will be a good fit for the majority of applications.

The Underhood compressor line has been a very good learning environment that can be used for this project. As truck engine compartments have gotten smaller over the years, VMAC has adapted and been able to fit compressors in smaller and smaller compartments. Cooling issues with the higher ambient temperatures under the hood have created a challenge to study cooling and how it affects VMAC compressors. The Engineering Department has taken this issue from being just a problem into major criteria before releasing a system. All cooling issues are solved before a system is released from the engineering department. The same principle is being used with the PREDATAIR60.

Size

Size is definitely a feature that buyers look at. Trucks are used for more diverse applications and often have more than one function that means payload space is used for toolboxes, cranes, welders and other equipment. Limiting the size of an above deck compressor means more room for all the other pieces fleet managers require.

The PREDATAIR60 takes advantage of the compact VMAC VR70 compressor. The VR70 offers a large amount of air in a very small package. Coupled with other parts chosen for durability and size, the PREDATAIR60 is very small indeed. The compressor is mounted horizontally above the tank and is direct coupled to the hydraulic motor. A common bracket holds these components and maintains a rigid structure. The absence of a belt keeps the package free of any externally moving parts. Assembly of the components is designed to be as compact as possible without taking away from performance.

By keeping to the base VR70 compressor, VMAC is not limited to existing, bulkier encapsulated compressors. The PREDATAIR60 will produce 60CFM in a package sized smaller than most 35-40 CFM products currently available. Length and width are 3 inches less than the closest competitor's 40CFM unit. The major obstacle to any further size reduction in the overall package is the cooler itself.

Cooling

Cooling issues plague hydraulic above deck compressors and cause compressor shut-downs on a regular basis. Most hydraulic driven air compressors need large hydraulic reservoirs to help disperse heat from the hydraulic oil and sacrifice hydraulic cooling for increased air compressor cooling.

The VMAC VR70 compressor is more than capable of operating at temperatures up to 270 degrees F. In underhood applications the compressor shuts down when the compressor temperature reaches 280 degrees F. VMAC anticipates that the PREDATAIR60 compressor will run hotter than competitors' products that use encapsulated third party units that have temperature shut-offs near 180 degrees F. By operating the compressor in a higher temperature range, more cooling can be dedicated to the hydraulic oil. Given that all hydraulic pumps in the market run at different efficiencies and possibly have years of wear, the PREDATAIR60 is designed to handle 100% duty cycle and keep both hydraulic and compressor oil within temperature specifications. The ultimate goal is to work harder at cooling the hydraulics and limiting the size of the reservoir that may be required. To VMAC, anything required for operation of the PREDATAIR60 must remain as small as possible to meet demands of customers and keep payload usage to a minimum.

Maintenance

Maintenance is also a major concern. VMAC has strived to make routine maintenance as easy as possible. Every filter, the oil drain and oil fill as well as the air pressure regulator on the compressor are accessible without removing a cover. This will mean less time spent on maintaining the unit. As well, general maintenance items are common with VR Underhood compressors. Existing dealers won't have to stock different filters or oil when they choose the Predatair to complement the Underhood system in their product line.

Unlike most competitors, the PREDATAIR60 will not have a belt to maintain. The direct drive technology used on the Lincoln AirVantage 500's compressor built by VMAC is the same technology used in the PREDATAIR60. Lincoln recognized the benefits of direct drive and the durability of this technology. The gear cover will be a standard SAE B 2-Bolt flange face that will accept a standard hydraulic motor. The compressor will couple direct to the hydraulic motor.

Although an SAE A Port would have made for a smaller package, the B Port adds strength and longevity. In case of an unlikely failure to the hydraulic motor, an off-the-shelf unit can be easily used for a replacement.

The Launch

VMAC is confident that the PREDATAIR60 will make an immediate and lasting impact on the market by designing it a little differently. They're used to designing and producing eye opening products such as the first 70 and 150 CFM Underhood rotary screw compressor systems, and the direct drive 60 CFM unit found on the Lincoln AirVantage 500.

Come and see the PREDATAIR60 in action at ConExpo (Booth# S-640) in Las Vegas or get the first view of it at the NTEA Work Truck Show (Booth# 5501) in Indianapolis. VMAC is sure you'll be impressed.



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