



VMAC DTM70 – Bid Specifications

These specifications are for bid purposes only and are provided by VMAC.

All specifications are subject to change without notice.

DIRECT TRANSMISSION MOUNTED AIR COMPRESSOR, PTO, and COLD CLIMATE PROTECTION - PTO Driven, Transmission Mounted, Air Compressor System.

The air compressor will come as a complete kit with all components/functions described within. It will include the compressor, PTO, electronic components, mounting brackets, all applicable fasteners, compressor oil, hoses and installation, owner's, and illustrated parts manuals.

Air Compressor:

Air End: The air compressor must be installed on the transmission PTO port and must be direct driven from the PTO without the use of a belt. The compressor must be an oil injected, rotary screw capable of 100% duty cycle, and providing up to 70 CFM and 175 psi of air power. A high temperature cut off sensor is integrated with the compressor system. The compressor is equipped with an integrated air inlet control valve. Air compressor output will be to ASME standards.

Gear Case: The compressor must be driven by a gear case, and the gear case must be lubricated by the compressor system.

Regulator: The regulator is remote mounted and must contain the pressure sensor. It must be mounted on the vehicles firewall in the engine compartment.

Air/Oil Separator Tank : The tank is an air/oil separator. Material must be of high-grade aluminum material and contain an integrated coalescing oil separator element. It must have a lubricant sight glass no smaller than 1 1/2" in diameter. Must contain a 200 PSI high pressure relief valve. It must have a replaceable spin on 25-micron oil filter with safety bypass feature. It must contain an 8 seconds or less integral pneumatically piloted blow down valve. The tank dimension must be no larger than 6" diameter X 31" length and the weight must be no greater than 18 lb.

Heat Exchanger: The Heat Exchanger must be a liquid-to-liquid cooler that is integrated with the engine cooling system. The overall dimensions should be no greater than 4" x 3-3/4" x 9" in size and the weight must be no greater than 17 lb without fluid.

Control Box:

A 12-volt digital control box with LCD display will be included that will show system hours, service reminders and safety/functional messages. The control box will integrate with the PTO to engage and disengage the PTO when the compressor is turned on and off. Compressor over-temperature shutdown, failed temperature probe, high idle activation and error messages will all be controlled by the control box. It will store error



codes. The control box will also monitor compressor temperature and automatically start the cold climate kit if the temperature drops below -10°C (14°F).

Digital Throttle Control*:

The Digital Throttle Control must be an infinitely variable speed control and must automatically modulate engine RPM to match the air demand. If an automatic transmission vehicle is shifted into drive while the compressor is on, the Digital Throttle Control must automatically disable. It must have status LED pulses. The Digital Throttle Control must connect to OBD2 CAN bus connector.

Warranty: The Compressor Air End will include a manufacturer lifetime warranty.

Power Takeoff:

The Power Takeoff will be a Chelsea PTO, capable of at least 200-300 ft-lbs of intermittent torque.

Cold Climate Protection:

Cold climate protection will include the inverter, and 110V AC cold climate heaters that are built into the package allowing the air compressor to operate in ambient temperatures below -10°C (14°F).

Package:

Total wet weight will not exceed 150 lb.

Safety Features:

The system must include a compressor thermal protection circuit, automatic rapid blow-down valve on the tank, 200 PSI pressure relief valve, Digital Throttle Control disable protection, parking brake safety, and a PTO indicator light.

Installation:

Installation of the air compressor system must only be completed by a factory authorized distributor of the air compressor manufacturer.

*2017+ model year trucks only