



SPECIFICATIONS – AIR COMPRESSOR MODULES: 500-80-P

Performance Enhancing Integrated Pump/Compressor Systems

PTO-driven, integrated water pump / air compressor designed specifically for installation in fire apparatus. 500-80-P develops a minimum of 160 GPM of water at 125 PSIG (600 L/min @ 8.6 bar) and 80 CFM of air at 125 PSIG (2.3 m³/min @ 8.6 bar) simultaneously. The 500-80-P is also backed by an exclusive five-year warranty.

With the air compressor in the “Unload” mode, the unit can achieve the following performance ratings:

- 500 GPM @ 150 psig / 1900 l/min @ 10.3 bar
- 350 GPM @ 200 psig / 1325 l/min @ 13.8 bar
- 250 GPM @ 250 psig / 946 l/min @ 17.2 bar



Pump Specifications:

Waterous CLVK centrifugal fire pump. CLVK utilizes a high-tensile gray iron body, bronze impeller, replaceable wear rings and maintenance-free mechanical seals.

Intake and Discharge:

4 inch Victaulic[®] intake, 3 inch NPT discharge

Pressure Relief:

An optional pressure relief system is available to comply with NFPA 1906 standards.

Priming System (Optional):

Waterous VPOS Oil-free primer. Rotating parts in the VPOS are made of corrosion-resistant, anodized aluminum, stainless steel and composite materials.

Air Compressor Specifications:

The air compressor is an oil-flooded, rotary screw type, sized to supply a minimum of 100 scfm (2.83 m³/min) of usable air.

Pneumatic Modulating Inlet Valve:

The air compressor is controlled by the pneumatic modulation inlet valve mounted on the air end. The pneumatic modulation inlet valve controls air delivery while maintaining constant pressure.

Auto Sync Balancing System:

Automatically maintains the air pressure within +/- 5% of the water pump pressure throughout the pressure range. The Auto Sync Balancing System is located on the operator's panel and allows for the following modes:

- Automatic - Air pressure matched to water pressure
- Fixed - Air pressure defaults to manual setting on compressor mounted control valve.
- Unload - Air pressure reduced to 40 psig (2.8 bar) for standby operations
- Run - Air compressor in run operation. Air pressure determined by Auto or Fixed setting.

Air Compressor Oil System:

A spin-on, full-flow, hydraulic oil filter module with readily available replacement cartridge. All lines are routed in braided hose conforming to SAE 100R1 standards for hydraulic hose.

Modular Air/Oil Separator:

Replacement elements for the oil filter and separator are available.

Air Compressor Cooling System:

The air compressor is cooled by the unit's water pump, utilizing a copper and brass shell and tube heat exchanger. When the fire pump is operating, water flows through the heat exchanger while an in-line removable strainer, on the water inlet side, prevents clogging. The system maintains recommended operating temperatures throughout the full operational range in ambient temperatures up to 115°F (46.1° C).

Air Compressor Transmission:

Poly Chain drive with an manual tensioner and 8mm pitch sprockets.

Panel Mounted Instruments:

The following items and controls are provided for installation on the pump operator's panel:

- Air compressor PTO engagement switch (OEM provided)
- AutoSync compressor controls w/engraved instruction plate
- Air compressor oil temp. gauge w/warning light and alarm
- CAF system air pressure gauge
- Air flow meter (optional)
- An air valve for each compressed air foam discharge.

Optional Foam Systems:

Aquis™ Foam Foam System

Industry-Leading Sales and Support

When you purchase Waterous equipment, not only do you get quality products, you get quality service. Our expert service technicians are the best in the business and they are always happy to answer any service questions you might have.

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