



FOAM SYSTEMS

CAFSystems™

FIRE PUMPS

INTEGRATED PUMP/COMPRESSOR SYSTEMS

500-80/120/150-P

BENEFITS OF COMPRESSED AIR FOAM

- 80% of water content in the foam is effectively used for fire fighting
 - Improved firefighting safety
 - Faster knockdown time
 - Less property damage
 - Less water used



Waterous offers several models of PTO-driven integrated water pump / air compressor systems designed specifically for installation in fire apparatus. These units are capacity power take-off CAFSystem™ pumps designed to discharge water, foam solution or compressed air foam with the performance you demand.

PERFORMANCE

500-80-P

- 500 GPM @150 PSI
- 2000 l/min @ 10 bar
- 80 SCFM @ 125 PSI
- 2.3 M³/min @ 8.6 bar

500-120-P

- 500 GPM @150 PSI
- 2000 l/min @ 10 bar
- 120 SCFM @ 125 PSI
- 3.4 M³/min @ 8.6 bar

500-150-P

- 500 GPM @150 PSI
- 2000 l/min @ 10 bar
- 150 SCFM @ 125 PSI
- 4.25 M³/min @ 8.6 bar

SPECIFICATIONS – AIR COMPRESSOR MODULES: 500-80, 120, 150-P

Performance Enhancing Integrated Pump/Compressor Systems

Pump Specification:

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:

The air compressor is an oil-flooded, rotary screw type, sized to supply a minimum of 150 scfm (4.2 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 oil filter unit and a thermostatic valve are all part of the system to control oil flow to the cooler. 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 Transmission:

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

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).

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.

Foam Systems (Optional):

- Aquis™ Foam Proportioner with operator interface terminal (OIT), pump module with electric motor/motor driver and microcontroller unit, foam concentrate strainer, shielded electrical cables for connection of all electronic components, foam inject check valve, WYE Strainer and flowmeter and tee.

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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