

| Form No. | Issue Date | Rev. Date |
|----------|------------|-----------|
| F-2608 | 06/14/07 | 04/30/08 |



Description

The Waterous 120-60-DS is a slide-in modular compressed air foam unit designed and constructed to discharge water, foam solution or compressed air foam. The consistency of the compressed air foam from each discharge is individually adjustable.

The 120-60-DS develops a minimum of 120 gpm of water at 100 psig (450 l/min @ 7 bar) and 60 cfm of air at 100 psig (1.7 m³/min @ 7 bar) simultaneously. The unit also can pump water or air independently. With the air compressor in the "Unload" mode, the unit can achieve the following performance ratings:

- 250 gpm @ 150 psig / 946 l/min @ 10.3 bar
- 125 gpm @ 250 psig / 473 l/min @ 17.2 bar

The air compressor system is capable of producing a minimum of 60 cfm of air @ 125 psig (1.7 m³/min @ 9.5 bar) independently.

Pump Specifications:

Pump:

Hypro Model 9205 centrifugal fire pump. Model 9205 utilizes a close-grained iron case, reinforced nylon impeller, stainless steel shaft, front and rear wear rings and maintenance-free mechanical seal.

Intake and Discharge:

2 inch intake, 1-1/2 inch discharge

Priming:

Pneumatic oil-free primer capable of priming the water pump through 20 feet (6 m) of 2-1/2 inch (63.5 mm) hard intake hose with a 10 foot (3 m) lift. Controls are mounted on the operator's panel.

Transmission:

"Poly Chain" drive with 8mm pitch sprockets.

Pump Operator's Panel:

- Shielded pump panel light cluster and switch
- Water and air pressure gauges
- Air compressor temperature switch, gauge and alarm
- Engine oil pressure warning light and alarm
- Engine temperature warning light and alarm
- Engine ignition and start button
- Priming system controls and instruction plate
- Foam proportioner control and instruction plate
- Auxiliary compressed air outlet and valve control
- Auto Sync compressor controls and instruction plate
- IC water tank level display
- Chrome-plated push-pull discharge valve controls
- 1-1/2 in. M-NST chrome-plated discharge outlets
- 1/4 turn compressed air discharge control for each CAFS discharge
- Chrome-plated push-pull tank to pump valve control
- Chrome-plated push-pull tank fill valve control
- Pump inlet valve with 1-1/2 in. M-NST connection and swing control

Engine Specifications:

Kubota V1903-E four-cylinder, air/oil cooled, delivering a maximum of 39 horsepower (29.3 kW), 1.86L displacement, four-cycle, diesel fueled.

Fuel System:

The engine draws fuel from the chassis fuel tank.

Lubrication:

Pressure lubrication system with oil pressure warning light and spin-on oil filter. An extension hose is installed on the engine oil drain with a valve located at the oil pan and a plug installed in the end of the hose to facilitate oil changes.

Electrical:

12-volt electric with 60A alternator, electric start.

Exhaust:

Heavy-duty exhaust muffler

Frame:

A steel skid weldment provides support and encloses the entire CAFS module. Constructed of 3/16" wall steel square tubing. The sub-frame is made of steel tubing sufficient to support the weight of the module while in the apparatus and during loading and unloading.

All steel structural members are sand blasted to remove rust, scale and surface impurities. A zinc phosphate pretreatment is applied to prepare surfaces for a primer coat. Corvel zinc rich gray powder coat primer is electrostatically applied to the frame and heat cured. This provides optimal corrosion resistance and improved overall appearance. The primed frame is then finished with a scratch resistant medium gloss black urethane powder coat which is electrostatically applied and heat cured.

Specifications subject to change without notice

Air Compressor:

The air compressor is an oil-flooded, rotary screw type, sized to supply a minimum of 60 scfm (1.7 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

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 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).

Tanks

Booster:

200 gallon (757 liter), 1/2" polypropylene construction is standard.

Foam:

10 gallon (34.9 liter), polypropylene construction

Water Level Gauge

A water level gauge is mounted into the tank. An indicator panel is mounted on the operator's panel and features 14 high intensity LED's showing FULL, 3/4, 1/2, 1/4 and REFILL levels.

Air Lines:

All air lines are rated to a minimum of 250 psig. (17.2 bar). Air line fittings are constructed of brass, bronze or steel. Stainless steel or brass check valves are provided at all air injection points to prevent water back-flow into the air lines. All hoses shall be secured to the frame with insulating clamps and located away from any heat sources.

Plumbing:

Inlet:

Inlet piping is 2" stainless steel pipe with a 2" tank to pump valve controlled at the pump panel. A 2" valve with integral bleeder valve is provided for overboard pump inlet with a 1.5" M-NST connection. Victaulic-type couplings are utilized in the pump inlet for flexibility and improved serviceability.

Discharge:

Plumbing to two panel mounted 1.5" discharge outlets incorporate a stainless steel manifold, welded stainless steel pipe and/or Class 1 high-pressure hydraulic hose with stainless steel fittings. A 1" tank fill provision with 1" valve is provided. Victaulic-type couplings are utilized in the discharge plumbing for flexibility and serviceability. All discharge plumbing is designed and tested to a minimum of 500 psig (34.5 bar) burst pressure.

Drains:

Panel mounted drain valves are provided to drain water from the water pump, discharge manifold and compressor cooler.

Foam Proportioner:

A FoamPro System 1601 automatic foam proportioner (Class A foam only) is provided to inject foam concentrate into all discharges. The proportioner automatically meters the correct percentage of foam concentrate into the water stream by a 1.0" paddlewheel sensor with 1.5" thread.

On-Site Delivery Instruction (Optional):

Contact factory for pricing.