

FoamPro 3012 DETAILED SPECIFICATIONS

Special Note: When preparing specifications for your new foam proportioning system, assure the use of a FoamPro by incorporating these specifications as written. No competitive foam proportioning system can match FoamPro performance.

The apparatus shall be equipped with an electronic, fully automatic, variable speed, direct injection, discharge side foam proportioning system. The system shall be capable of handling current Class A and Class B foam concentrate. The foam proportioning operation shall be based on direct measurement of water flows, and remain consistent within the specified flows and pressures. System must be capable of delivering accuracy to within 3% of calibrated settings over the advertised operation range when installed according to factory standards. The system shall be equipped with a digital electronic control display suitable for installation on the pump panel. Incorporated within the control display shall be a microprocessor that receives input from the system flowmeter(s), while also monitoring foam concentrate that the operator preset proportional amount of foam concentrate is injected into the discharge side of the fire pump. All wetted components to be made of corrosion resistant materials.

To eliminate water flow restrictions, paddlewheel-type flowmeter(s) shall be installed in the manifold supplying discharges specified to be "foam capable." Flowmeter shall provide maximum accuracy up to 2000 gpm and operate up to 2400 gpm. If higher flows are required, the optional electronic interface MultiFlo module will total two or more flowmeters to achieve greater flows.

The digital computer control display shall enable the pump operator to perform the following control and operation functions for the foam proportioning system:

Provide push-button control of foam proportioning rates from 0.1% to 9.9%, in 0.1% increments

Show current flow-per-minute of water

Show total volume of water discharged during and after foam operations are completed

Show total amount of foam concentrate consumed

Simulate flow rates for manual operation

Perform setup and diagnostic functions for the computer control microprocessor

Flash a "low concentrate" warning when the foam concentrate tank(s) runs low

Flash a "non concentrate" warning and shut the foam concentrate pump off, preventing damage to the pump, should the foam tank(s) empty

A hydraulic motor driven positive displacement foam concentrate pump, rated at 12 gpm (45.4 L/min) with maximum operating pressure of 400 psi (27.6 BAR), shall be installed in a suitable accessible location. Pump shall include three plungers to maintain an even consistent flow across the full performance range. Pump vacuum characteristics allow off-board pick-up of foam. An electronically-operated valve shall receive signals from the computer control display to control the flow of hydraulic oil to the hydraulic motor coupled to the concentrate pump. The concentrate pump turns at a variable speed to ensure that the correct proportion of concentrate selected by the pump operator is injected into the fire pump discharge stream.

When two types of foam concentrates are to be used, a dual tank switch over system consisting of the following options will be installed to provide rapid changeover of foam concentrate reservoirs. The digital computer control display shall interface with the options listed, provide dual foam calibration, and display separate totals for each foam concentrate used.

An electronic dual tank system providing dual foam tank switching via a switch located on the pump operator's panel. The dual tank switch will also provide a clean water flush of the foam concentrate pump. The system shall automatically read the low tank sensor for whichever foam tank is in use. The valves shall be capable of operating pressures to 500 psi (34.5 BAR).

Or

A manual dual tank system providing dual foam tank switching via a manual valve located on the pump operator's panel. The dual tank valve will provide a clean water flush of the foam concentrate pump. The system shall automatically read the low tank sensor for whichever foam tank is in use. The valve shall be capable of operating pressures to 500 psi (34.5 BAR).

When two types of foam concentrates are to be used, two foam concentrate tanks shall be installed and piped to the foam concentrate pump via the electric dual tank valve or the manual dual tank valve. (The user shall determine the tank capacities.)

Full flow check valve shall be provided to prevent foam contamination of fire pump and water tank or water contamination of foam tank.

A hydraulic oil supply shall be provided that is capable of providing 2500 psi (172.4 BAR) of hydraulic oil at a minimum flow of 12 gpm (45.4 L/min). A separate hydraulic pump must be provided. The hydraulic system must comply with all applicable SAE and DOT standards. The hydraulic system shall contain an oil cooler and an appropriately sized hydraulic reservoir to maintain the temperature of the hydraulic oil at or below 180 degrees. An oil to air cooler mounted in front of the apparatus engine radiator will provide adequate cooling.

Components of the complete proportioning system shall include:

- Operator control/microprocessor and display
- Paddlewheel flowmeter(s)
- Triplex concentrate pump and motor driver
- Hydraulic motor
- Variable displacement hydraulic pump
- Wiring harnesses
- Low-level tank switch
- MultiFlo electronic module (if more than one flowmeter is used)
- Foam tank(s)
- Electronic dual tank valve or manual dual tank valve (If required)
- Foam injection check valve
- Main waterway check valve

An installation and operation manual shall be provided for the unit, along with a one-year limited warranty by the manufacturer. The system must be installed and calibrated by a Certified FoamPro Dealer.

The system design shall have passed environmental testing which simulates heavy use on off-road mobile apparatus. Testing shall have been conducted in accordance to SAE standards. Third party testing shall also certify compliance with RFI/EMI emissions per MIL-STD 461E.

(Note: Clarify discharges to be supplied with foam solution by specifying size and location)

Hypro cannot assume responsibility for product failure resulting from improper maintenance or operation. Hypro is responsible only to the limits stated in the product warranty. Product specifications contained in this material are subject to change without notice.

***Standard System Specs**

Maximum foam output 12 gpm (45.4 l/min)

Maximum operating pressure 400 psi (27.6 BAR)

Hydraulic supply pressure 2500 psi (172.4 BAR)

Hydraulic supply flow 12 gpm (45.4 l/min)