

## Around-the-Pump Proportioning Systems

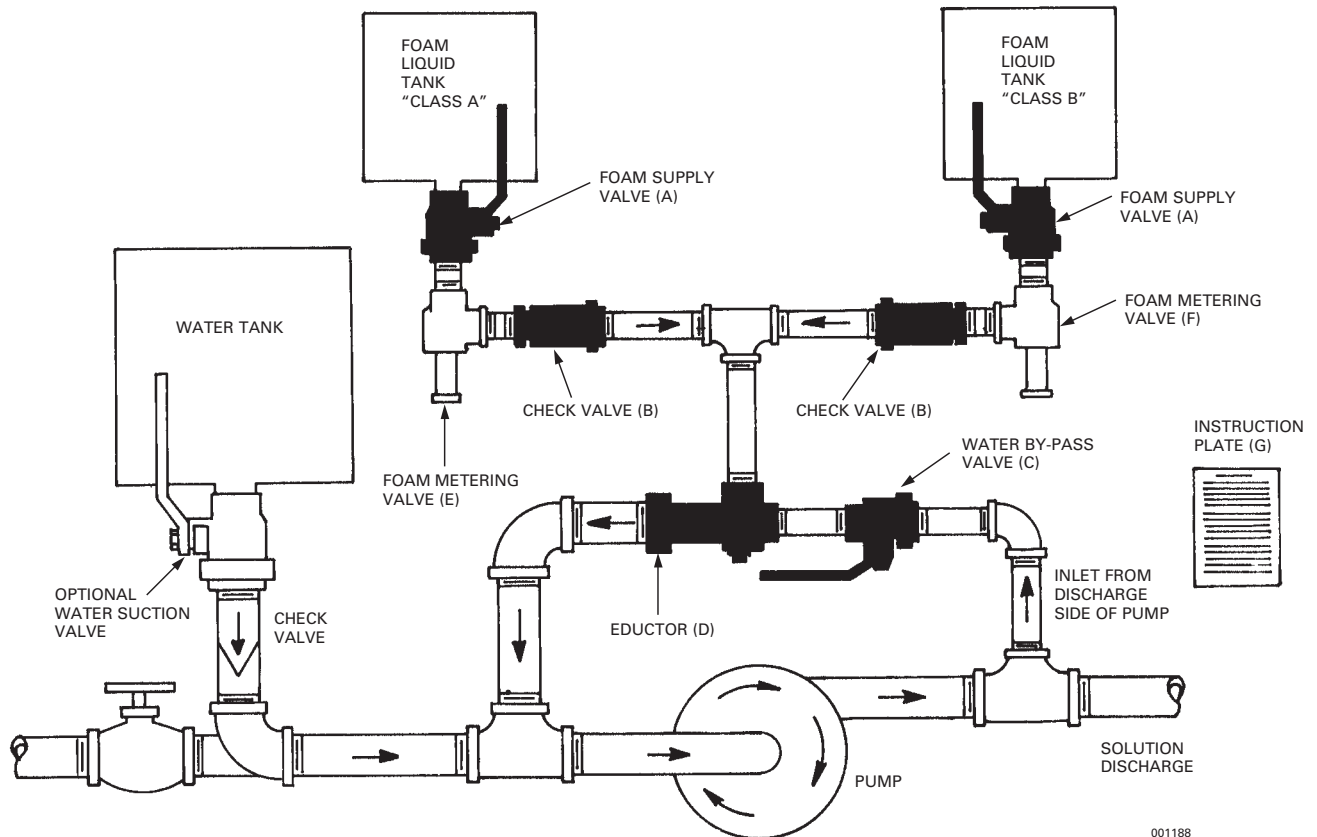
### Description

With an ANSUL® Around-The-Pump proportioning system a small portion of the discharge from the pressure side of the pump serves as a “drive motor” being recirculated through an eductor to the suction side of the pump. The eductor is a modified venturi device which creates a suction, drawing foam concentrate into it at a rich ratio. At the junction point of the piping from the eductor and the water suction line, the rich foam solution is mixed with the incoming water and is diluted to the proper foam solution concentration. After the initial cycle, the operation is continuous, with a portion of the foam solution utilized as the “drive motor.” Adjustment of a foam concentrate metering valve is initially required, but once properly set, the operation is continuous and automatic. In the event of a complete shutdown at the discharge nozzle(s), the system is check valved to prevent entry of water into the concentrate storage tank.

### Application

The ANSUL Around-The-Pump proportioning systems provide a simple and effective means to introduce a foam concentrate at the desired percentage to the water being discharged in a fire pump system. The number of different foam concentrates is only limited by available space as each foam concentrate would require its own separate tank. The types of foam concentrates might typically include ANSULITE AFFF of either 1%, 3%, or 6%; ANSULITE AR-AFFF of either 3X3 LV or ARC types; or SILV-EX Class A foam concentrate. A fire truck pumper system may therefore have a dual proportioning system with one tank having a Class B foam concentrate for flammable liquid fires and a second tank having Class A foam concentrate for structural fire attack or other ordinary combustible fire materials.

Besides applications for fire pumper trucks, an around-the-pump proportioning system can be used aboard various shipboard applications where the addition of foam to water is desired to enhance the fire fighting operations. Only a fire pump with the inlet pressure to the pump not exceeding 10 psi (0.7 bar) is required for proper operation. The sole limitations are that the flow rate is within the around-the-pump proportioning system range with the type of foam concentrate selected.



## Technical Information

### Dual B-2 Package – Part No. 420011

Flow Rate*	Type of Foam Concentrate	A	B	C	D	E	F	G
20-400 gpm (75-1514 Lpm)	Class A and B	(2) 1 in. Supply Valves Part No. 420081	(2) 1 in. Check Valves Part No. 420783	3/4 in. By-Pass Valve Part No. 420080	Eductor Part No. 420016 3/4 in. water inlet 1 in. foam concentrate inlet 1 1/2 in. foam solution outlet	Class A 1 in. Foam Metering Valve Part No. 420018	Class B 1 in. Foam Metering Valve Part No. 420017	Instruction Plate Part No. 420792

### B-2 Package – Part No. 420012

20-400 gpm (75-1514 Lpm)	Class B	1 in. Supply Valve Part No. 420081	1 in. Check Valve Part No. 420783	3/4 in. By-Pass Valve Part No. 420080	Eductor Part No. 420016 3/4 in. water inlet 1 in. foam concentrate inlet 1 1/2 in. foam solution outlet	—	Class B 1 in Foam Metering Valve Part No. 420017	Instruction Plate Part No. 420792
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### W-2 Package – Part No. 420013

20-400 gpm (75-1514 Lpm)	Class A	1 in. Supply Valve Part No. 420081	1 in. Check Valve Part No. 420783	3/4 in. By-Pass Valve Part No. 420080	Eductor Part No. 420016 3/4 in. water inlet 1 in. foam concentrate inlet 1 1/2 in. foam solution outlet	Class A 1 in. Foam Metering Valve Part No. 420018	—	Instruction Plate Part No. 420792
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### 1200 Package – Part No. 420014

60-1200 gpm (227-4543 Lpm)	Class B	1 in. Supply Valve Part No. 420081	1 in. Check Valve Part No. 420783	3/4 in. By-Pass Valve Part No. 420080	Eductor Part No. 420795 3/4 in. water inlet 1 in. foam concentrate inlet 1 1/2 in. foam solution outlet	—	Class B 1 in. Foam Metering Valve Part No. 420019	Instruction Plate Part No. 420800
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### 1600 Package – Part No. 420015

150-1600 gpm (568-6057 Lpm)	Class B	1 1/2 in. Supply Valve Part No. 420083	1 1/2 in. Check Valve Part No. 420831	1 1/2 in. By-Pass Valve Part No. 420083	Eductor Part No. 420801 2 in. water inlet 2 in. water foam concentrate inlet 2 in. foam solution outlet Valve	—	Class B 1 1/2 in. Foam Metering Valve Part No. 420808	Instruction Plate Part No. 420832
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## Ordering Information

Part No.	Description	Approximate Shipping Weight	
		lb	(kg)
420011	ATP, Model Dual B-2 Package (20-400 gpm) Class A and B (76-1,515 Lpm)	60	(27)
420012	ATP, Model Dual B-2 Package (20-400 gpm) Class B (76-1,515 Lpm)	50	(23)
420013	ATP, Model W-2 Package (20-400 gpm) Class A (76-1,515 Lpm)	50	(23)
420014	ATP, Model 1200 Package (60-1,200 gpm) Class B (227 – 4,543 Lpm)	75	(34)
420015	ATP, Model 1600 Package (150-1600 gpm) Class A and B (227 – 4,543 Lpm)	75	(34)

**Note:** The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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