POK

FIREFIGHTING EQUIPMENT

POK FOAM EDUCTOR INSTRUCTIONS

This instruction manual is indispensable for a thorough understating for the use of all POK portable by-pass or inline foam eductors.

Eductors are pre-engineered systems that are tested at a specific inlet pressure for operation; 200 PSI is the testing pressure. The reason that the inlet pressure is higher than at normal testing pressure of 100 PSI, is typically the loss in creating the vacuum necessary to pull the agent concentrate into the metering valve. The pressure at the outlet of the eductor is called the backpressure. The actual backpressure at the eductor is the combination of the friction loss in the hose, the nozzle pressure and perhaps the elevation loss. **POK** is the only manufacturer that provides a range of eductors with the pressure drop as low as 20%. This will minimize the backpressure of your eductor, which allows you to work at a much lower pressure. Please contact us for more information on these products.

The following table indicates the time to empty a 5 Gallon container of the most commonly used agent at various concentrations with specific flow rates.

60 GPM @ 200 PSI

Setting	Time
1%	8 min. 20 sec.
3%	2 min. 47 sec.
6%	1 min. 23 sec.

125 GPM @ 200 PSI

Setting	Time
1%	4 min. 0 sec.
3%	1 min. 20 sec.
6%	- 40 sec.

95 GPM @ 200 PSI

Setting	Time
1%	5 min. 16 sec.
3%	1 min. 45 sec.
6%	- 53 sec.

250 GPM @ 200 PSI

Setting	Time
1%	2 min. 0 sec.
3%	- 40 sec.
6%	- 20 sec.

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BEFORE YOU EXECUTE YOUR LAYOUT WITH YOUR FOAM EDUCTOR:

1. Ensure that your inlet and outlet coupling at the eductor are of the same thread.
2. Ensure that the eductor is free of any debris in the waterway.
3. Ensure that the check valve at the inlet of the pick up tube is free. If it is stuck to the wall, it might require that you rinse it with fresh water.
4. Ensure that your nozzle or your specific foam nozzle is of the same GPM as your eductor.

NOTE: The nozzle must be of equal or higher GPM:

5. Ensure that the arrow on the eductor is pointed in the right direction of the flow prior to attaching your hoses.
6. Ensure that the gasket between the pick-up tube and the eductor is properly in place and secure. If there is any suction of air, the agent concentration will be unbalanced.
7. Ensure that the diameter of the hose between the eductor and the nozzle are of the same diameter or greater. The typical maximum distance allowed is 200 feet. It is extremely important to run a test if you require greater distance. The actual backpressure at the eductor is the combination of the friction loss in the hose, the nozzle pressure and perhaps the elevation. This will vary greatly based on the manufacturer of the hose and/or the nozzle and the elevation.
8. Couple your hose layout from your water supply to the eductor.
9. Couple your hose to your nozzle.
10. Set the desired concentration % at the eductor. Consult the specification of the manufacturer of the agent.
11. Open the water supply and verify that you have the proper pressure and the reach that you want to achieve
12. Ensure that the pick-up tube is suctioning properly by momentarily placing it in the agent container.
13. Place the pick up tube in the agent container when you are ready to produce foam.

AFTER YOU EXECUTE YOUR LAYOUT WITH YOUR FOAM EDUCTOR:

1. Be sure that you follow the agent manufacturer recommendations for cleaning up.
2. Ensure that you rinse the nozzle through with fresh water, your hose, your foam eductor, the check valve and the pick-up tube prior to storage.
3. Ensure that you follow any other storage procedures and recommendations from the agent manufacturer.

ADDITIONAL INFORMATION FOR MAKING BETTER FOAM:

The expansion ratio is the amount of the finished foam produced compared to the volume of concentrate and water mixture. Typically a 10:1 expansion ratio will produce 950 GPM of finished foam from 95 GPM nozzle/eductor layout and so on.

Non-aspirating nozzle can produce expansion ratios up to 8:1 without any air aspirating attachment. More air pulled into the stream at the time when the agent and the water is mix, will better increase the ratio and the quality of the foam that will be produced.

For the best results, it is recommended to use an air aspirating foam tube nozzle. As a second option, use a nozzle with a medium or a low foam air aspirating attachment.
All of the above nozzles and attachments are readily available at POK with a wide range of option, ratios and combinations.

For sales and service in North America please contact:

POK of North America Inc.

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