

HAZ-MAT SURVIVAL TIP 3

Foam Producing Appliances

Foam producing appliances include in-line eductors and nozzles. Two characteristics of in-line eductors often overlooked by first responders is this device most often has a *required minimum inlet pressure* as well as a *maximum length of hose* that can be used. If your apparatus is equipped with an in-line eductor, do you know what these figures are?

Remember that the decision for maximum hose length takes into consideration friction loss, so that this length will change based upon the diameter of the hose used, with the maximum length for 1¾-inch diameter hose generally longer than that for 1½-inch hose. For some in-line eductors, this maximum length may range from 500 to 700 feet when using 1¾-inch hose. The manufacturer of this appliance will provide first responders with the necessary inlet pressures and maximum hose lengths to be used.

Another appliance important to the production of foam is the nozzle. Remember that the nozzle not only provides for an effective pattern, but is also responsible for mixing the foam solution with air to produce the desired expansion ratio. Depending upon the type of foam concentrate, use of a standard fog nozzle may work, while other types of concentrates may require use of a special foam nozzle. You should also remember that the gallon-per-minute flow rate of the nozzle may need to match the flow rate of the in-line eductor used.

Before purchasing foam appliances, always check with the manufacturers of in-line eductors and nozzles, along with those who manufacturer the foam concentrate to be used to ensure that all equipment is compatible and capable of producing desired results.