



TERMINOLOGY OF FOAM

Classifications: Class A – Wood, Plastics and Rubber.
Class B – Flammable Liquids and Gasses.
Class C – Energized Electrical Equipment.
Class D – Combustible Metal.

Foam: A stable mass of small air- filled bubbles showing tenacious ability to spread across horizontal surfaces of flammable liquids.

Foam Concentrate: A concentrated liquid when mixed with water and air will form a foam blanket.

Foam Solution: A homogeneous mixture of foam concentrate and water.

0.4% - 0.4 Gallon of foam concentration + 99.6 Gallons of water = 100 Gallons of 0.4% of foam solution.
1.0% - 1.0 Gallon of foam concentration + 99.0 Gallons of water = 100 Gallons of 1.0% of foam solution.
3.0% - 3.0 Gallons of foam concentration + 97.0 Gallons of water = 100 Gallons of 3.0 % of foam solution.
6.0% - 6.0 Gallons of foam concentration + 94.0 Gallons of water = 100 Gallons of 6.0% of foam solution.

Foam Concentration: The amount of foam concentrate contained in a given amount of foam solution.

Foam Maker/Mixer: A device designed to introduce air into a pressurized foam/water solution stream.

Expansion Ratio: The ratio of volume of foam by volume of foam solution used to generate the foam.

Low Expansion:	Between	0:1 to 20:1
Medium Expansion:	Between	20:1 to 200:1
High Expansion:	Between	200:1 to 1000:1

Aspirating: A nozzle that physically draws air into the nozzle body through air inlet holes by a modified venturi process.

Self-Educting Nozzle: A nozzle containing a high efficiency eductor in the body that draws foam concentrate into the water stream.

Venturi: A constricted portion of pipe that increases water velocity and creates vacuum to draw the foam concentrate into the water stream.

Residual Pressure: The pressure existing in a line at a specific flow.

Static Pressure: The pressure existing in a line without any flow.

Pick-up Tube: A clear tube that will be used to draw the foam concentrate form the container.

Eductor: A proportioning or mixing device which uses the Venturi principle to draw the foam concentrate at a specific percentage from an atmospheric foam concentrate storage vessel.

In-Line Eductor: An eductor that will be mounted at the side of the pump, between hoses or directly at the inlet of the nozzle.

By-pass Eductor: An eductor that will be mounted at the side of the pump, between hoses or directly at the inlet of the nozzle that will allow water to flow through a by-pass device without drawing any foam concentrate form the pick-up tube.

Proportioner: A device, such as an eductor, that draws foam concentrate at the proper ratio into the fire/water stream.

Friction Loss: The amount of energy lost by water traveling through the hose. The amount is measured by the pressure difference between pump pressure and nozzle pressure.