

Technical Bulletin 97

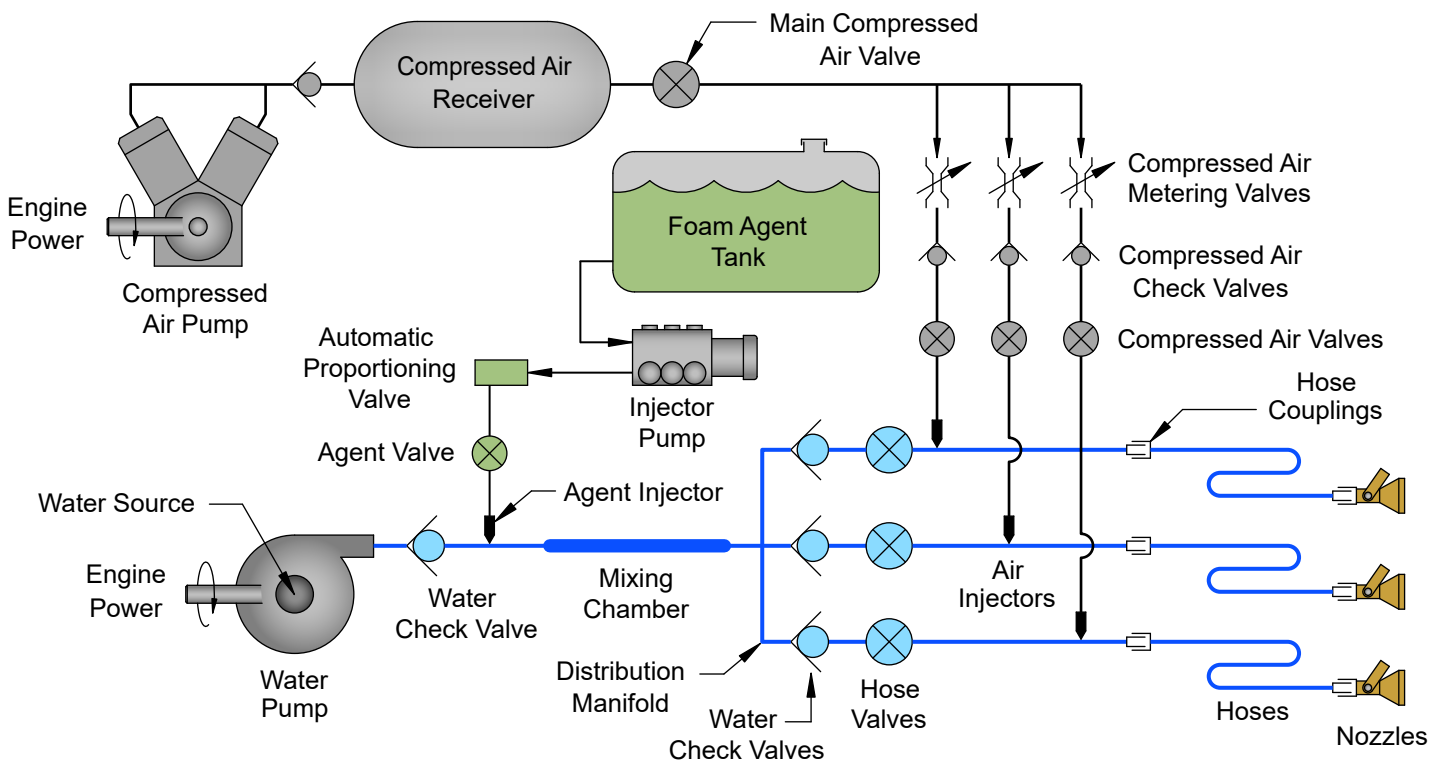
Copyright 2023 by Air Options, Inc.

Compressed Air Foam Systems (CAFS)

by Brian S. Elliott

Compressed air foam systems (CAFS) represent the cutting edge in fire suppression systems. These are standard systems on the trucks of most major fire departments throughout the nation. Generally, the idea behind these systems is to utilize water to extinguish the fire and, at the same time, smother the area with a thick blanket of foam. The foam prevents flare-ups and seals off any aromatics that may remain.

CAFS is a model of simplicity. The basic setup injects a foaming agent (essentially dishwashing liquid) into the main water stream. After passing through a mixing chamber, the water/foaming agent is directed through the distribution manifold. At this point, compressed air is injected into the flow which forces the agent to foam in the hoses. When proportioned properly, the water to foam ratio can be anywhere between 0:100% through 50:50%. When the flow is released from the hose nozzle, the foam further expands resulting in a thick blanket that seals off the burning materials from the atmosphere. Another interesting attribute of CAFS is that the hoses, at maximum, only have half of the normal quantity of water. This means that the weight of a fully charged hose is no more than half of that of a hose with water only.



Compressed Air Foam System Schematic

JTDryers.com

Air Options, Inc.
P.O. Box 35984
Houston, Texas 77235-5984
Ph.: 713-721-9619
E-Mail: Info@Air-Options.com

A complete bound copy of Air Options Technical Bulletins can be purchased on our web site at: JTDryers.com/jt-order-now



AIR-OPTIONS, INC.

Advanced Technologies for Compressed Air