TurboDraft™
FIRE EDUCTOR
by Schutte & Koerting

TurboDraft™ Fire Eductor 4” LDH vs 5” LDH

Many departments have asked the following question regarding supply hose diameter.

Q:“We only have 4” LDH, will that work with the 5” TurboDraft™ Fire Eductor?”

A:Yes, however there are many benefits to utilizing 5” LDH over 4” LDH. The following information briefly explains these benefits.

The TurboDraft™ Fire Eductor is a maintenance free and portable piece of fire equipment, designed to deliver large volumes of water from various static water sources. Utilizing proven eductor technology, the TurboDraft™ can achieve usable flows of up to 670 gpm or more. The unit requires a 2½” hose line delivering 200 gpm @150 psi. as its supply or “motive”. This flow creates the Venturi effect needed to “educt” the static water supply and push it back on the return line. The discharge pressure from the device is approximately 20 psi @ the 5” Storz fitting. The TurboDraft™ is now moving a total of 870 gpm.

GPM from the pump to the TurboDraft™		200 GPM
GPM educted from the static source	+	670 GPM
Total Flow		870 GPM

Hose friction loss comparison when flowing 870 GPM (approx.)

100’ of 5” LDH = 5 PSI Friction Loss
100’ of 4” LDH = 14 PSI Friction Loss

When backpressure or resistance is added to the discharge side of the TurboDraft™ it will reduce the efficiency of the unit. This backpressure is the direct result of the hose friction loss as well as elevation change. The elevation effect is equal for both sizes of hose. The friction loss of the 4” hose will reduce the available flow by approximately 200 GPM over the 100’ distance. Departments currently utilizing 4” LDH are encouraged to acquire a few section of 5” LDH for use with the TurboDraft™ Fire Eductor to maximize the capacity of the tool.

The recommended compliment as a minimum provides the best flexibility for multiple access points.

One 25’ Section 5” LDH
Two 50’ Sections 5” LDH

The listed lengths allow for the following configurations.

25’, 50’, 75’, 100’, 125’

*Always use the shortest configuration possible to reduce the friction loss and maximize the available flow.

June, 2010

022111

ISO 9001:2008 Certified

2510 Metropolitan Drive, Trevose, PA 19053 • tel: 215-639-0900 • fax: 215-639-1597 • turbodraft@s-k.com