

	Cincinnati Fire Department Fire Training Supplement DRILL BOOK	SECTION #3 Engine Company Operations
Date: May 2018 Section #: 3	TOPIC TITLE: Standpipe Equipment	Total # of Pages: 6 Topic #: 33

TOPIC #33 – STANDPIPE EQUIPMENT

HOSE

Each engine company should have 200' of lightweight 2-1/2" hose designed for standpipe operations. Companies with known situations in buildings may have more hose to allow for longer stretches in larger buildings or those with poor access to all areas from a standpipe riser.

Hose should be carried to allow for easy transport by fire fighters that may have to walk multiple floors while carrying the hose, ideally over the shoulder or SCBA (preferred to keep hands free).

PACKING THE HOSE

- Mark hose at 32" from the female coupling
- Fold in horseshoe shape starting at the female coupling to the 32" mark, ensuring your folds don't extend past the female coupling
- Finish hose off with 3 or 4 straps and if possible partially couple male and female couplings to protect from damage
- In this fold, hose easily stacks in the compartment and also allows for rapid deployment (which will be discussed in *TOPIC #34 – STANDPIPE OPERATIONS*.



Use 3 or 4 straps. Attach nozzle to lead section of hose to eliminate one step during fire attack

**FOR UNIFORMITY
AND
CONSISTENCY IN
OPERATIONS
FOLD HOSE IN
THIS MANNER**



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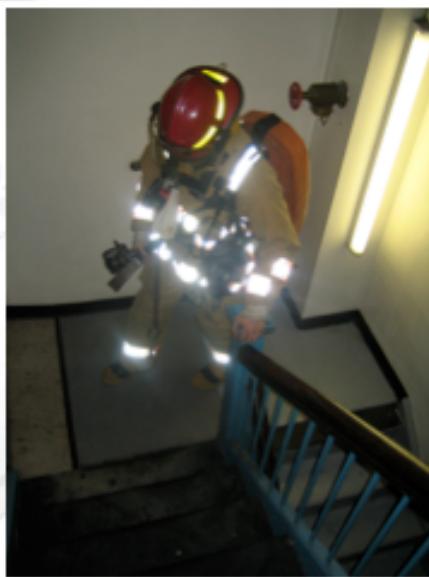
FOLD AT 32" MARK (above) and when finished connect couplings to protect from damage. If folded correctly, the couplings should come out on the bottom next to each other (right)

CARRYING THE HOSE

NOZZLES

Carry the 1-1/8" or the 1-1/4" Smooth Bore or Vindicator Nozzles on the lead section of 2-1/2" standpipe hose. Ideal GPM is between 250 and 350 gpm from these nozzles. See Section 3, Topic 12 and Topic 13 for nozzles.

**IDEALLY CARRY ON SCBA FOR HANDS FREE CLIMB
AND TO DISTRIBUTE LOAD OVER SCBA HARNESS
“OR” CARRY OVER SHOULDER IF NEEDED**



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Nozzles



1-1/8" or 1-1/4"
Smooth Bore
Low Pressure –
High Flow

Vindicator

Low Pressure – High
Flow

NO AUTOMATIC FOG NOZZLES



STANDPIPE KIT – 2-1/2" SHUTOFF

CAN ALSO BE USED ON 2-1/2" PRECONNECT
ON REAR OF ENGINE



STANDPIPE KIT – 2-1/2" SHUTOFF

1-1/4" TIP CONNECTED

USE BIGGEST TIP ON STANDPIPE KITS

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STANDPIPE EQUIPMENT BAG AND TOOLS

Carry all the following in the equipment bag provided.

PRESSURE GAUGE

- Allows pressure to be read at the discharge. Flow pressure is the most important reading.
- Indicates to the engine company the amount of water available for fire fighting
- ***MOST IMPORTANT ITEM*** – the engine company crew doesn't know the pressure coming from a riser and valve without a gauge. Its impossible to know flow problems due to PRV or PRD valves, system flaws, debris in the pipes or valves or other issues without the gauge. Just like the FAO uses gauges on the engine company to determine flow, the FF at the standpipe valve needs the gauge to adjust flow.
- ***Ideally 75 to 100psi is wanted on 4 sections of 2-1/2" hose.***
 - 1-1/4" and Vindicator Flows
 - 65 psi = 250 gpm
 - 90 psi = 350 gpm
 - 125 psi = 450 gpm



ELBOW

- Each company should have a single 30-degree elbow to allow a smooth transition from the standard standpipe outlet to the ground to avoid kinking the hose.
- The use of the elbow isn't mandatory on a standard valve
- For valves that come out of the riser at an angle other than straight down or straight out the use of an elbow is necessary to eliminate kinks

NOTE: It's recommended that you always use the elbow in conjunction with the gauge.



The elbow allows a smooth angle to the ground that will assist in eliminating kinks

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Some valves might require 2 elbows to eliminate kinks



WRENCHES

Each standpipe kit should have 3 wrenches to assist in overcoming problems associated with standard standpipe valves or pressure regulating valves. They are the Pipe Wrench, Channel Locks and 2 sets of Allen wrenches.

Wrenches

- **Wrenches**
 - **Pipe Wrench**
 - To open / close valves that are difficult to open or remove PRD
 - **Channel Locks**
 - Misc. uses
 - Adjusting valves
 - Opening broken valves
 - **Allen Wrench Sets**
 - Adjusting or removing PRD / PRV devices



Torx Wrench Set for Elkhart PRV



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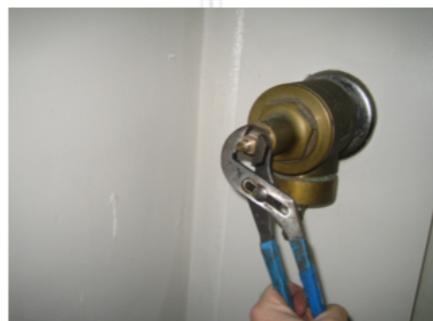
If the valves handle is broken it can be opened with the channel lock or pipe wrench.



18" Pipe Wrench



Channel Lock Pliers



The 18" Pipe Wrench can also be used to remove stuck caps and to open a stuck or hard to turn valve wheel.

18" Pipe Wrench



18" Pipe Wrench



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MISC TOOLS

- The standpipe kit should also include the following equipment:
 - Spare control wheel for replacing broken or missing control wheels
 - Chocks for holding open doors on the fire floor and floor below to ensure the stretch is without kinks or water interruption
 - Wire Brush to clean threads covered with dirt or paint
 - Adapters
 - 1-1/2" Female to 2-1/2" Male CST for connecting to a 1-1/2" thread in a Class 3 system when you cannot get the reducer off or to extend a hose line by removing the tip and screwing the adapter on the 1-1/2" threads and then extending the line. Note: you will need another nozzle tip and shut-off to make this work (see picture below)
 - NST female to CST male for standpipe outlets that are not CST threads

1-1/2" Female to 2-1/2" Male Adapter

USE & OPERATION

- Shut off nozzle
- Disconnect Tip
- Attach adapter
- Attach more hose
- Add another nozzle & shut-off to new hose
- Re-open the original nozzle shut-off

