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TOPIC #13: 2.5" NOZZLES

Figure 1

PLAY PIPES:

Play pipes (see figure 1) are 2-1/2" pipes with 2-1/2" CS threads on the female end and 1-1/2" NS threads on the male. Play-pipes are equipped with dual semi-circular handles. A play-pipe is used in conjunction with a 2-1/2" nozzle to form a water distribution tool that requires a 2-1/2" line. The Play pipe should be used with a shut-off, and one of three large nozzles. These attachments will be explained in this topic.



CFD Play-pipe

OLD
PLAYPIPE

THE SHUT-OFF:

A one and one half inch shut-off can be placed on the male end of the play-pipe. Shut-offs are equipped with both male and female 1-1/2" NS threads. The shut-off allows you to control the water flow at the nozzle. A shut-off is required to enable flow control at the nozzle without relying on the FAO.

PRECAUTION: Never use a play-pipe without a shut-off.



NEW CFD PLAYPIPE
WITH SHUT-OFF INTEGRATED

EACH ENGINE SHOULD HAVE 2 OF THESE

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SMOOTH BORE TIPS:

Figure 2



Smooth bore tips (see figure 2) come in four sizes, 7/8", 1", 1-1/8" and 1-1/4". These tips are for use with 2-1/2" play pipe and a shut-off. (Although the 7/8" tip can be used with an 1-3/4" shut-off)

Since smooth bore tips on 2-1/2" fire lines are used for large volumes of fire. **The largest tip available should be carried on the play-pipe and used at all times unless otherwise directed by a commanding officer.**

NOZZLE PRESSURE:

50-PSI NP provides a good combination of flow, handling and resistance to kinking in common situations

GPM:

With enough manpower, 300 to 400 GPM can be delivered through a play pipe and 2-1/2" line.

APPLICATION:

The smooth bore tips and play pipe can only be used with 2-1/2" line, although the 7/8" smooth bore tips can be used with the shut-off from a TFT on a 1-3/4" line.

STREAM:

Solid stream only.

FLUSH:

Not applicable.

PUMPING GUIDELINES:

Refer to Pump Chart

FOAM:

Not to be used for foam operations.

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NEW PLAYPIPE WITH SHUTOFF

1-1/4 AND 1-1/8" COMBO TIPS



NEW PLAYPIPE WITH SHUTOFF

1-3/8" DEFENSIVE OPERATIONS TIP

TO BE USED IN STATIONARY DEFENSIVE OPS
FOR UP TO 500 GPM

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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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VINDICATOR "HEAVY ATTACK" NOZZLE
(see figure #4):

As described in the 1-3/4" nozzle section, the Vindicator can be placed on a playpipe to provide maximum flow at a lower pull back pressure.



Figure 4

NOZZLE PRESSURE: 50-PSI NP provides a good combination of flow, handling and resistance to kinking in common situations

GPM: When pumping through 2-1/2" this nozzle is capable of producing between 300 and 400 g.p.m. without excessive nozzle or pull back pressure.

APPLICATION: Can be placed on a 2-1/2" playpipe for operation on 2-1/2" lines.

STREAM: Broken, aspirated nozzle stream. Breaks the water into large droplets for improved heat absorption and extinguishing capability. Its function is similar to the function of a smooth bore nozzle.

FLUSH: No need to flush.

**PUMPING
GUIDELINES:** See Pump Chart

FOAM: Works well with foam discharged from foam pumper. No special attachments needed to make foam. Due to its increased GPM delivery, the Vindicator will not work with portable in-line eductors.

NOTES: See notes in Topic 13 – 1.75" nozzles

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THE CHIEF NOZZLE 250/50

The Chief Nozzle (see figure 3) is our only variable stream fog nozzle that can be used with a Playpipe and a 2-1/2" attack line. The spring in these nozzles allows more water to pass and it is designed not to shut off at low pressure.

The Chief Nozzle, because of its variable stream, will allow you to get the kind of large flow we want from a 2-1/2" line, provide protection from radiant heat and allow for protection of exposures.

The Chief Nozzle will have the numbers "250/50" stamped in the center of the nozzle head. It can be differentiated from the 200/75 Chief nozzle by the orange bumper.

- | | |
|----------------------------|---|
| NOZZLE PRESSURE: | 50 psi |
| GPM: | This Chief Nozzle can deliver 300 or more g.p.m. |
| APPLICATION: | This nozzle is to be used with a 2-1/2" Playpipe for 2-1/2" lines only. |
| STREAM: | The Chief is a variable stream nozzle. It can be used as a fog stream or a straight stream nozzle. |
| FLUSH: | The Chief nozzle can be manually flushed, while in operation, by opening the nozzle to a full vapor pattern. This is done by turning the nozzle control all the way to the left (counterclockwise). |
| PUMPING GUIDELINES: | See Pump Chart |

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TWO different series of stacked tips exist for the CFD playpipes.

This includes (3) tips: 1", 1-1/8" and 1-1/4".

Use the biggest tip possible taking into account reach!

DIFFERENT STACKED TIPS IN THE CFD



TWO different series of stacked tips exist for the CFD playpipes.

This includes (2) tips: 1-1/8" and 1-1/4".

Use the biggest tip possible taking into account reach!