

Central Joint Fire District

Standard Operating Procedure



Central Joint Fire District

SUBJECT: Hose: Sizes & Uses

SOP Number: 321A
Effective Date: 5/2/93
Revised Date:
Approved:

PURPOSE: The purpose of this standard is to define the size and purpose for which all fire hose shall be used.

SCOPE: This standard applies to all fire hose in service with the Central Joint Fire District.

ENFORCEMENT: Enforcement of this standard rests with the Fire Chief.

DEFINITION:

Fire Attack Line - hose lines used to apply water directly or indirectly onto a burning material.

Fire Supply Line - soft hose lines used to supply water directly or indirectly to a fire pump.

Fire Suction Line - hard rubber covered, rubber lined, reinforced, hose used to draft water from static sources. **This hose is not intended for use with pressurized water sources.**

LDH - Large Diameter Hose. 4"-5" in diameter.

N.S.T. - National Standard Thread

3/4" - 1"	= 8 threads per inch
1-1/2"	= 9 threads per inch
2-1/2"	= 7-1/2" threads per inch
4" +	= 9 threads per inch

N.S. - National Standard

APPLICATION:

321A.1 Size

The Central Joint Fire District uses the following types of hose for fire attack lines:

<u>Hose Size</u>	<u>Coupling Size & Thread</u>	<u>Length</u>
1-1/2"	1-1/2" N.S.T.	50'
1-3/4"	1-1/2" N.S.T.	100'
2-1/2"	2-1/2" N.S.T.	50'
5"	5" Stortz	100'

The Central Joint Fire District uses the following types of hose for fire supply lines:

<u>Hose Size</u>	<u>Coupling Size & Thread</u>	<u>Length</u>
2-1/2"	2-1/2" N.S.T.	50'
5"	5" Stortz	50' & 100'

The Central Joint Fire District uses the following types of hose for fire suction lines:

<u>Hose Size</u>	<u>Coupling Size & Thread</u>	<u>Length</u>
2-1/2"	2-1/2" N.S.T.	10'
3"	2-1/2" N.S.T.	10'
4"	4" N.S.T.	10'
4-1/2"	4-1/2" N.S.T.	10'
6"	6" N.S.T.	10'

321A.2 Uses

1-1/2"

1-1/2" double jacketed, rubber lined hose with 1-1/2" diameter couplings and 1-1/2" N.S. thread, is used on units in conjunction with a fire pump. Due to the intermediate diameter of the hose lines, volumes of water below 125 gpm may be pumped through these lines. These hose lines are recommended for brush fire applications, vehicle fires, dumpster fires, and structure fires. 1-1/2" hose lines can be used to support or initiate cautious interior fire attack and/or search and rescue operations. Where water supplies permit, 1-1/2" hose lines can be used for hydraulic ventilation of combustion by products. Additionally, 1-1/2" hose lines can be used to support exterior fire attack.

1-3/4"

1-3/4" double jacketed, rubber lined hose with 1-3/4" diameter couplings and 1-1/2" N.S. thread, is used on units in conjunction with a fire pump. Due to the larger diameter of the hose lines, volumes of water below 200 gpm may be pumped through these lines. These hose lines are recommended for brush fire applications, vehicle fires, dumpster fires, and structure fires. 1-3/4" hose lines can be used to support or initiate aggressive interior fire attack and/or search and rescue operations. Where water supplies permit, 1-3/4" hose lines can be used for hydraulic ventilation of combustion by products. Additionally, 1-3/4" hose lines can be used to sustain or support exterior fire attack.

2-1/2"

2-1/2" double jacketed, rubber lined hose with 2-1/2" diameter couplings and 2-1/2" N.S. thread, is used on units in conjunction with a fire pump. Due to the larger diameter of the hose lines, volumes of water below 250 gpm may be pumped through these lines. These hose lines are recommended for some vehicle fires, dumpster fires, and structure fires. 2-1/2" hose lines can be used to support or initiate aggressive interior fire attack and/or search and rescue operations. 2-1/2" hose lines can be used to sustain or support exterior fire attack either as handlines or in supply of master stream appliances.

2-1/2" hose may be used to supply water from a water supply to a fire pump. However, the relatively small diameter of the 2-1/2" hose makes this option impractical and should only be used when sufficient quantities of LDH are not available.

5"

5" rubber covered, rubber lined, reinforced hose with 5" diameter quick connect, quarter turn "Stortz" couplings, is used on units in conjunction with a fire pump. Due to the large diameter of the hose lines, volumes of water easily exceeding 120 gpm may be pumped or supplied through these lines. These hose lines are primarily recommended as supply lines for some vehicle fires and any structure fires where water is supplied from a remote location through hose lines. 5" hose lines can be used to support or initiate aggressive interior fire attack and/or search and rescue operations by supplying large volumes of water to smaller more maneuverable hose lines. 5" hose lines can be used to sustain or support exterior fire attack either by supplying large volumes of water to smaller more maneuverable hose lines or in supply of master stream appliances.

5" hose may be used at hazardous material operations to form decontamination pools. By utilizing a manifold, we can set up lengths of hose filled with water in such a position as to form the sides of a decontamination pool over which salvage covers or plastic can be laid.

3" & 2-1/2" Hard Suction

2-1/2" rubber lined, rubber covered, reinforced hose with 2-1/2" & 3" diameter couplings and 2-1/2" N.S. thread, is available for use in conjunction with a fire pump for drafting purposes from static water supply sources. In some cases, where insufficient water volumes are available at a hydrant, this hose may be used to "draft" water from a hydrant. Keep in mind this operation may exceed the supply of a particular hydrant and may ultimately lead to water being drawn from other critical areas.

4" Hard Suction

4" rubber lined, rubber covered, reinforced hose with 4" diameter couplings and 4" N.S. thread, is available for use in conjunction with a fire pump for drafting purposes from static water supply sources.

4-1/2" Hard Suction

4-1/2" rubber lined, rubber covered, reinforced hose with 4-1/2" diameter couplings and 4-1/2" N.S. thread, is available for use in conjunction with fire pump for drafting purposes from static water supply sources. In some cases, where insufficient water volumes

are available at a hydrant, this hose may be used to "draft" water from a hydrant. Keep in mind this operation may exceed the supply of a particular hydrant and may ultimately lead to water being drawn from other critical areas.

6" Hard Suction

6" rubber lined, rubber covered, reinforced hose with 6" diameter couplings and 6" N.S. thread, is available for use in conjunction with fire pump for drafting purposes from static water supply sources.