



Fire Protection Training

Procedures Handbook 4300

HOSE

TOPIC: Selection Of Soft Or Hard Suction Hose

TIME FRAME: 30 Minutes

LEVEL OF INSTRUCTION:

BEHAVIORAL OBJECTIVE:

Condition: A written quiz

Behavior: The student will list and describe the proper use of suction hose.

Standard: With a minimum of 70% accuracy

MATERIALS NEEDED:

- Chalkboard
- Chalk
- Appropriate visual aids
- Audio visual equipment

REFERENCES:

- IFSTA, Essentials of Fire Fighting, 2nd Edition, Chapter 10

PREPARATION: The scenarios which cause the engine operator to pump from the water source are many and varied, but there is at least one constant. There must be a suction hose that meets fire flow and water availability needs. Selection of the proper hose can make the difference between success and failure.



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SELECTION OF SOFT OR
HARD SUCTION HOSE
APPLICATION

PRESENTATION

I. TYPES OF SUCTION HOSES

A. Soft Suction Hose

1. Generally Woven Jacket Hose
2. Common Sizes
 - a. 2 1/2"
 - b. 3"
 - c. 4"
 - d. 4 1/2"
 - e. 5"
 - f. 6"
3. Easier to connect to hydrant

B. Hard Suction Hose

1. Rubber lined hose
 - a. Constructed with high carbon flat-wound wire
 - b. Impossible to collapse with vacuum generated on fire engine
2. Common sizes
 - a. 2 1/2"
 - b. 3"

(1) CDF Models 1, 5, 10, 12

What is a benefit of soft suction hose?



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SELECTION OF SOFT OR HARD SUCTION HOSE APPLICATION

PRESENTATION	APPLICATION
<ul style="list-style-type: none">c. 4"(1) CDF Models 9, 11d. 4 1/2"e. 5"f. 6"3. Difficult to connect; requires 2 people minimum	
<p>II. USES OF SUCTION HOSE</p> <p>A. Soft Suction</p> <ul style="list-style-type: none">1. Pumping from pressurized water source2. Large diameter increases fire flow<ul style="list-style-type: none">a. 2 1/2" < 500 GPMb. 3" < 1000 GPM3. Will collapse under vacuum or negative pressure <p>B. Hard Suction</p> <ul style="list-style-type: none">1. Used primarily for drafting2. Can be used on hydrant but will collapse water system if water supply is exceeded<ul style="list-style-type: none">a. Maintain at least 10 P.S.I. on the compound gauge (gauges are not always accurate) to avoid this problem	<p>Why is a soft suction preferred over a hard suction for pumping from a fire hydrant?</p>



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SELECTION OF SOFT OR
HARD SUCTION HOSE

SUMMARY:

Improper selection of suction hose can damage equipment and water systems in addition to interrupting fireground activities.

EVALUATION:

A written quiz.

ASSIGNMENT:

To be determined by instructor(s).