



Fire Protection Training

Procedures Handbook 4300

PUMPING

TOPIC: Fire Service Pump Ratings

TIME FRAME: 15 Minutes

LEVEL OF INSTRUCTION:

BEHAVIORAL OBJECTIVE:

Condition: A written quiz

Behavior: Student will list and describe the percentages, capacities and pressures that are used to evaluate fire service pumps.

Standard: With a minimum of 70% accuracy

MATERIALS NEEDED:

- Appropriate visual aids
- Audio visual equipment

REFERENCES:

- NFPA, Fire Department Pumping Apparatus, 7th Edition, Chapter 8
- NFPA, Standard 1901

PREPARATION: A standardized rating system has been established to ensure that rated fire service pumps meet specific job criteria. As an operator of such a piece of equipment it is extremely important that you know the limitations and capabilities of this apparatus. The welfare of an entire crew may depend on your knowledge.



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FIRE SERVICE PUMP RATINGS

PRESENTATION	APPLICATION
<p>I. PRESSURES AND PERCENTAGES</p> <p>A. In Order to be Rated as a Fire Service Pump, a Pump Must be Capable of:</p> <ol style="list-style-type: none">1. Delivering 100% of rated capacity at 150 P.S.I. net pump pressure and2. Delivering 70% of rated capacity at 200 P.S.I. net pump pressure and3. Delivering 50% of rated capacity at 250 P.S.I. net pump pressure <p>Example: A 1250 GPM Rated Fire Service Pump Must Deliver.</p> <p>1250 GPM (100%) at 150 P.S.I.</p> <p>875 GPM (70%) at 200 P.S.I.</p> <p>625 GPM (50%) at 250 P.S.I.</p> <p>B. Net Pump Pressure is a Reflection of Total Work Done by the Pump</p> <ol style="list-style-type: none">1. If discharge pressure is 150 P.S.I. and intake pressure is 50 P.S.I. net pump pressure = 100 P.S.I.2. Allowances for friction loss in intake hose and for height of lift must be made <p>II. STANDARD CAPACITIES OF FIRE SERVICE PUMPS</p> <p>A. Begin at 750 GPM and Increase in 250 GPM Increments Up To 2500 GPM.</p>	



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SUMMARY:

In order to provide standardization for fire service pumps criteria have been established in relation to size and work capacity.

EVALUATION:

A written quiz.

ASSIGNMENT:

To be determined by instructor(s).