



# **State Firemen's and Fire Marshals' Association of Texas**

4450 Frontier Trail ♦ Austin, Texas 78745-1514 ♦ (512) 454-3473

www.sffma.org ♦ (800) 580-7336

## **PERFORMANCE STANDARDS**

### **FIRE SERVICE WATER SUPPLIES # 4**

Using a Pitot-Tube Gauge

#### **PERFORMANCE STANDARD**

#### **Section 12-3.2**

#### **NFPA 1001 4-5.4**

#### **Advanced**

#### **OBJECTIVE**

The firefighter, given the necessary equipment, shall read and record the flow pressures to determine the discharge in gallons per minute.

#### **INSTRUCTIONS: Procedures for achieving the objectives**

Given all of the necessary equipment, you shall record the flow pressures from three different-sized orifices. The examiner shall verify the readings. You shall then use the chart provided and locate the pressure for each orifice. The examiner will indicate the pressure and the GPM indicated by you on the bottom of this performance standard form. You will begin on my instruction to start. The skill will end when you state to me that you have completed all of the identified steps. Do you understand these instructions?

#### **EXAMINERS NOTE:**

Orifice size may be changed by utilizing solid bore nozzle.

The firefighter will not be allowed to review the performance steps at the time of testing.

#### **PREPARATION & EQUIPMENT:**

Pitot tube and gauge

Conversion chart

Hydrant

Nozzle or 2 ½" to 1 ½" reducer

The firefighter shall accomplish the skills wearing gloves, trousers, and boots.

#### **REFERENCE SOURCE:**

IFSTA, Essentials of Fire Fighting, 4<sup>th</sup> Edition, page 394



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Firefighter: \_\_\_\_\_

Notes: \_\_\_\_\_

Dept: \_\_\_\_\_

School: \_\_\_\_\_

Test Site: \_\_\_\_\_

Evaluator: \_\_\_\_\_

**If the firefighter:**

**(No Partial points given)**

#### ORIFICE # 1:

- |  |     |       |
|--|-----|-------|
| a. Opens the hydrant fully   | 1.0 | _____ |
| b. Opens the petcock on the pitot tube to drain all the water from the chamber   | 1.0 | _____ |
| c. Closes the petcock  | 1.0 | _____ |
| d. Places the blade opening of the pitot tube in the corner of the stream and at a distance approximately half the diameter of the orifice | 1.0 | _____ |
| e. Places the pitot tube parallel to opening   | 1.0 | _____ |
| f. Records the pressure from the gauge   | 1.0 | _____ |
| g. Properly locates the pressure for each orifice on the chart   | 1.0 | _____ |

**PRESSURE INDICATED BY FIREFIGHTER**

**GPM INDICATED BY FIREFIGHTER**

#### ORIFICE # 2:

- |  |     |       |
|--|-----|-------|
| a. Opens the hydrant fully   | 1.0 | _____ |
| b. Opens the petcock on the pitot tube to drain all the water from the chamber   | 1.0 | _____ |
| c. Closes the petcock  | 1.0 | _____ |
| d. Places the blade opening of the pitot tube in the corner of the stream and at a distance approximately half the diameter of the orifice | 1.0 | _____ |
| e. Places the pitot tube parallel to opening   | 1.0 | _____ |
| f. Records the pressure from the gauge   | 1.0 | _____ |
| g. Properly locates the pressure for each orifice on the chart   | 1.0 | _____ |

**PRESSURE INDICATED BY FIREFIGHTER**

**GPM INDICATED BY FIREFIGHTER**



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#### **ORIFICE # 3:**

- |  |     |       |
|--|-----|-------|
| a. Opens the hydrant fully   | 1.0 | _____ |
| b. Opens the petcock on the pitot tube to drain all the water from the chamber   | 1.0 | _____ |
| c. Closes the petcock  | 1.0 | _____ |
| d. Places the blade opening of the pitot tube in the corner of the stream and at a distance approximately half the diameter of the orifice | 1.0 | _____ |
| e. Places the pitot tube parallel to opening   | 1.0 | _____ |
| f. Records the pressure from the gauge   | 1.0 | _____ |
| g. Properly locates the pressure for each orifice on the chart   | 1.0 | _____ |

**PRESSURE INDICATED BY FIREFIGHTER** \_\_\_\_\_

**GPM INDICATED BY FIREFIGHTER** \_\_\_\_\_

Total points possible: 21

Total points needed to pass: 15

Total points scored by this firefighter: \_\_\_\_\_

Performance rating of firefighter on this skill: PASS \_\_\_\_\_ FAIL \_\_\_\_\_

Circle One: First Attempt Retest



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