

# Sprinklerfitting Scope Document

## *Sprinklerfitting (Post Secondary) 2019*

**Contest Length: 6 hrs**

**Check in time: 7:30 am**  
**Contest Start: 8:00 am**

**Contest Sponsors: UAPICBC**

### **Technical Committee**

Rob Dhensaw

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### **Purpose of the Challenge:**

To assess the contestant's knowledge and skills in the layout and fabrication of a piping system and components, with high regard to the aspects of quality, workmanship and accuracy of work.

### **Eligibility:**

Contestants must have completed a college level sprinklerfitting foundations program or their Level 1 sprinklerfitting apprenticeship technical training, and be between the ages of 19 and 28 inclusive.

### **Skills & Knowledge to be tested:**

- Application of Mathematical concepts involving piping and piping layouts
- Reading and interpreting diagrams and specifications
- Assembling and fabricating a piping system
  1. measure, cut and fabricate steel pipe and fittings
  2. use fabrication tools & equipment to join pipe and fittings by means of threading and grooving.
  3. applying safe work practices

## Equipment / Tools / Materials

### Supplied by Committee:

- 1-Ridgid 300 machine and oiler, allen key
- 1-Chain vise and pipe stand
- 1-Hand set hand cutters and Hydraulic Groover
- 2 - 18" pipe wrenches
- 1 - 1/2" Drive socket set, deep socket, Imperial.
- 1 - Tape measurer
- 1 - Paint marker
- 1/2" Corded drill or cordless
- 1 - Hacksaw with new blade
- 1 - Hole saw arbor
- 2 - Pilot bits
- 1 - 2" hole saw
- 1 - 1-3/4" hole saw
- 1 - 1-1/4" hole saw
- 1 - Victaulic pie tape.
- 1-Center Punch
- 1 - Half round file
- 1 - Extension cord.
- 2 - Rags.
- 1 – Tube Victaulic grease.
- 2 - Rolls of Teflon tape.
- 1 - Torpedo level
- 1 - Square
- 1 - 8" Crescent wrench
- 3/8" Driver
- 1- Hammer/ allen keys/ multi screw driver/ exacto knife.

### Supplied by Contestant:

- Steel toe boots and appropriate work clothing

## Safety

It is mandatory for all competitors to wear CSA approved eyewear (including side shields for prescription eyewear).

It is mandatory for all competitors to wear CSA approved footwear

Jewelry such as rings, bracelets and necklaces or any items deemed unsafe by the Judges shall be removed.

Proper shop attire is to be worn (no loose straps, baggy sleeves). Any attire that is deemed unsafe by the Judges will not be permitted. Long sleeves mandatory for all hot work.

Care to be given to spectators

Competition Judges will have final authority over matters of safety.

## Judging Criteria

**Scoring will be based on the following categories:**

1. Measurements
  2. Accuracy of layout
  3. Workmanship
  4. Hydrostatic Test
  5. Safety
- All dimensions to be in inches
  - Full marks for dimensions within +/- 1/8"
  - One mark off for each additional 1/8"
  - Point deducted per additional material request – 10 points from total score
  - Safety glasses to be worn at all times when in the work area. There will be **five** points deducted from the safety score for not wearing glasses at any time.
  - All unsafe work practices will result in a **five** point deduction to the safety score.
  - All projects will be pressure tested and must hold a 50psi test for 5mins.
  - In the event of a tie the competitor using the least amount of time will be declared the winner.

## Materials

- 10' - 3" schedule 10 pipe
- 5' - 2" schedule 40 pipe
- 10' - 1-1/4" schedule 40 pipe
- 10' - 1" schedule 40 pipe
- 1 - 3" x 1-1/4" TMT
- 1 - 3" x 1" TMT
- 3 - 3" grooved 90 elbows
- 2 - 3" grooved 45 elbows
- 9 - 3" 0 flex Victaulic couplings
- 2 - 3" x 2" Victaulic reducing couplings
- 1 - 2 x 1-1/4" TMT
- 1 - 2 x 1 TMT
- 2 - 1-1/4" cast iron 90 elbow
- 1 - 1" cast iron tee
- 2 - 1" cast iron 90
- 2 - 1" cast iron 45
- 2 - 1-1/4" cast iron 45
- 1 - 1" union
- 1 - 1-1/4" union
- 5 - 3" riser clamps
- 35 - 3/8" washers
- 25 - 3/8" Nuts
- 12' - Unistrut with mounting screws
- platform

## Competition Area Supervisor

Rob Dhensaw

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