

1. Purpose of the Contest (2021)

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

2. Criteria

3. Number of Stations / Allocations

There will be a maximum of five (5) stations.

4. Skills & Knowledge to be Tested

- Applying mathematical concepts involving planning, measuring and layout of a piping system;
- Interpretation and application of blueprint specifications;
- Assembling and fabricating a piping system:
 - Measure, cut, bevel and fabricate steel pipe and fittings;
 - Use fabrication tools & equipment to join pipe and fittings;
 - Applying safe work practices;
- Assemble and fabricate a copper piping system:
 - Measure, cut, braze and install a copper piping loop
 - Apply safe work practices.
- Assemble and fabricate a steel piping system
 - Measure, cut, thread, and install steel piping loop
 - Apply safe work practices.
- Utilize tube bending techniques to install a tubing system:
 - Measure, cut, bent and install steel tube to desired locations
 - Apply safe work practices

SAFETY AWARENESS / REQUIREMENTS WILL BE MAINTAINED TO MINIMUM INDUSTRY STANDARDS AT ALL TIMES.

Tasks that may be performed during the contest:

- Applying mathematical concepts involving offsets;
- Interpreting and applying the blueprint specifications;
- Assembly of various pipe and fittings:
 - Carbon steel threaded / welded / bolted
 - Copper /brazing
 - Tube bending
 - Pipe fabrication

- Apply safe work practices;
- All dimensions shall be in imperial;
- All dimensions will be taken from the designated centerline or benchmarks unless directed otherwise;
- Tool inspection will be ongoing;
- There will not be any onsite pipe joinery technique instruction;
- Proper insertion for all pipe joints are mandatory;
- It is to be understood that throughout the competition, safety and project judging will be ongoing;
- No project specific aids, tools or jigs allowed;
- Dimensions may be modified before competition.

5. Duration of the Contest (Schedule)

Time	Task
7:30 am – 8:00 am	Orientation
8:00 am – 9:30 am	Competition
9:30 am – 9:45 am	Break
9:45 am – 12:00 pm	Competition
12:00 pm – 12:30 pm	Lunch (provided)
12:30 pm – 2:30 pm	Competition
2:30 pm – 2:45 pm	Break
2:45 pm – 4:00 pm	Competition
4:00 pm	Competition ends / judging

6. Prerequisites

Contest-Specific Prerequisites

- Competitors must be registered Steamfitter – Pipefitter apprentices or attending a pre-employment program for this trade.

SCNS Prerequisites

- Enrolled in a community college, university or private school OR be registered as an apprentice with the Department of Labour and Advanced Education;
- Registered as a competitor with Skills Canada – Nova Scotia (SCNS);
- The competitor cannot be a certified journey-person;
- The competitor must possess a Canadian citizenship or landed immigrant status and be a resident of Nova Scotia. Competitors are responsible for verifying this information if requested;

- Have been earning post-secondary credits any time during the academic school year (September to June);
- All competitors must be able to show either current apprenticeship status and/or proof of enrollment in a post-secondary institution upon request of the Provincial Technical Committee (PTC) or SCNS.

7. Equipment & Clothing

a) What Will Be Supplied

- 2- 14" Pipe wrenches
- 2-12" Pipe wrenches
- 1-12" Adjustable wrench
- 1-10" Adjustable wrench
- 2-8" Adjustable wrenches
- 2- 1 1/16" wrenches
- 1-Metric & Standard tape measures
- 1-#15 Tube cutter
- 1-Torpedo level
- 1-24" level
- 1-24" square
- 1-Wrap around
- 1-Tri square
- 1-Grinder
- 1-Pencil grinder (wrenches)
- 1-Steel fitters wedge
- 1-Ball pen hammer
- 1-Center punch
- 1-Burr
- 1-1/4" grinding disc
- 1-Zipcut disc
- 1-Flap wheel
- 1-Set flange pins
- 1-half round file
- 25' heavy duty extension cord
- 1-Oxy-acetylene cutting gear (striker, oo tip)
- 1-Welding machine, related equipment and consumables
- 1-Acetylene B-tank
- 1-Turbo Torch with S-6 tip

- Brazing Rod
- Sand cloth
- 1-Power vice 1/2" – 3/4" dies (1-per 2 apprentices)
- 2-Pipe stands
- 1-Tripod
- 2-Rags
- 1-thread sealant
- 3-Teflon tape
- 1-Pencil, pen and sharpie
- 1-Soapstone
- 3-Gloves (hyflex, fitters & burning)
- 1-Safety glasses
- 1-Clear shield
- 1-Cutting shield
- Ear plugs
- 1-Dust mask
- 1-Respirator with filters
- 1-Welding jacket

Note: No other tools than the tools listed ABOVE will be allowed into competition area.

b) What Competitors Must Supply

- Coveralls / overalls allowed, if sleeves used;
- CSA approved safety boots & hard hat;
- No jewellery;
- Long hair must be tied back and concealed;
- No cell phones or electronic devices allowed.

8. Additional Information

- No ties are permitted. In the event of a tie, the winner will be determined by the shortest completion of all the projects combined.

9. PTC Contact Information

- Greg Pope: training@local56.ca
- Bob Langdon: bob.langdon@nsc.ca
- David Pearson: david.pearson@nsc.ca