

DATE	LOCATION
Wednesday, May 5, 2021	NSCC Akerley Campus

## 1. Schedule

Time	Task
7:30 am – 8:00 am	Orientation
8:00 am – 9:30 am	Competition
9:30 am – 9:45 am	Coffee break
9:45 am – 11:30 am	Competition
11:30 am – 12:30 pm	Lunch (provided)
12:30 pm – 2:00 pm	Competition
2:00 pm	Competition ends – final marking

## 2. Purpose of the Contest

Assess the contestant's ability in the field of welding. Contestants must demonstrate their knowledge reading plans and interpreting welding symbols, and mastery of the main welding and fabrication procedures used in the industry.

## 3. Criteria

## 4. Number of Stations / Allocations

There will be twelve (12) stations.

## 5. Skills & Knowledge to be Tested

Based on technical drawings and welding procedures, contestants will be assessed on the assembly and welding of a project as well as safe working practices.

## 6. Prerequisites

### *Contest-Specific Prerequisites*

Contestants must be enrolled in the welding apprenticeship program as a student and/or apprentice.

### *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**

Welding processes and consumables used:

- GMAW - 035 ER702-6, 75 - 25 Shielding gas
- SMAW-E48018, 1/8" or 3/32"
- SMAW - E6011 , 1/8" or 3/32" ,
- GTAW - Electrode 3/32" or 1/8" – tungsten electrodes
- GTAW - Filler Rod – ER 316 – Shielding Gas Argon

### **b) What Competitors Must Supply**

- Measuring tape
- Square
- Welding apron
- Soap stone
- Center punch
- Wire brush (stainless and mild steel)
- Chipping hammer
- Ball peen hammer
- Welding Shield
- Fillet gauges
- Safety glasses
- Mask, adhering to NS public health guidelines
- Welding jacket

- Welding gloves
- CSA approved steel toed boots
- Vice clamps or pliers (for picking up hot metal only)
- Coveralls (optional)

## **8. Evaluation & Judging Criteria**

Carbon Steel Project - 70%  
Stainless Steel Project - 30%

Only welding will be evaluated on this competition.

Welds will be marked out of a possible 10 points each. They will be evaluated on the following:

- Is there under cut present?
- Are there slag inclusions present?
- Is the weld of the correct size and location (as per weld symbol)?
- Is there cold lap present?
- Is there porosity present?
- Penetration of weld bead (open root);
- Overall quality of the weld.

### ***Competition Rules:***

- CSA approved steel toed work boots and safety glasses must be worn in the shop at all times;
- Competitors are only allowed to discuss the project with the judges;
- All other people entering the shop must have safety glasses on and CSA approved steel toed boots on and address proper personnel before entering;
- No grinders or grinding of welds or of the project are allowed;
- All competitors must exit the shop on lunch and coffee breaks;
- Extra time will be given if the competitor has problems with equipment (if it is an equipment problem);
- No magnetic squares or clamping devices are to be used on the project

## **9. Additional Information**

- There will be extra materials (already prepped) available at the competition for running practice beads;
- All materials will be inspected before the competition starts;

- Industry professionals will complete drawings and judging.

#### **10. PTC Contact Information**

Stephen Stewart (Chair): [steve.stewart@nsc.ca](mailto:steve.stewart@nsc.ca)