

CONTEST DESCRIPTION (SCOPE) DOCUMENT

10 - WELDING - Secondary

(NOTE: Scope may change without notice)

PURPOSE OF THE CHALLENGE

DURATION: 6 HOURS

1. To evaluate each contestant's preparation for employment and to acknowledge outstanding.
2. Prepare students for excellence and professionalism in the occupation of welding.
3. To enable students to demonstrate their knowledge of Design layout and Shielded Metal Arc Welding and Gas.

SKILLS AND KNOWLEDGE TO BE TESTED

Metal Arc Welding Principals

Students will be expected to:

- Check that the dimensions of the materials are in accordance with the material list and the print/drawings.
- Assemble the materials in accordance with the prints/drawings provided.
- Utilize their practical skills in prints/drawings interpretation, layout.
- Demonstrate an ability to read Basic blueprints and interpret welding symbols.
- Have a working knowledge of electrode classification and identification.

SAFETY REQUIREMENTS

Safety awareness/requirements will be maintained within minimum industry standards at all times. A contestant will not be allowed to compete without the safety equipment noted on this scope document. Any student enrolled in a secondary institution can compete in the Welding competition.

EQUIPMENT, TOOLS, SUPPLIES, AND CLOTHING

Note: The equipment/tools listed below are those identified by the project designer. Since these projects may be used at different competitions, Skills Canada cannot ensure the items listed as those supplied by the school committee will be the same for each region. Please

refer to your registration confirmation for any possible changes to items listed as supplied by the contestant.

Supplied by School Committee:

- All equipment, materials and consumables.
- All instructions and procedure sheets with drawings.

Clothing Requirements:

- Protective welder's clothing including:
 - Hat, coveralls, leather gauntlet welding gloves, fitters gloves,
 - CSA approved steel-toed boots,
 - Welding Helmet
 - Leather aprons

DISTRIBUTION OF MARKS /100

Layout: 14%.

- Sequence of steps followed as per instructions.
- Proper tools used for layout.
- Measurements meet prints/drawings specs.

Accuracy of Assembly: 10%

- Holes at proper locations as per drawing.
- Finished dimensions accurate.

Quality of: Shielded Metal Arc Welding 40%

Gas Metal Arc Welding:

- Are weld sizes as per drawing?
- Are welds correctly located?
- Is there visible undercut.
- Is all spatters removed.
- Is good fusion evident?
- Is welding consistent.
- Conforms to drawings.

General Workmanship: 16%

- Has proper cleaning been done?
- Is distortion evident?
- Has presetting been done.

Safety – Evaluated before, during, and after work: 10%

Does the student:

- Wear suitable clothing.

- Have personal safety equipment...
- Wear eye protection at all times.
- Wear ear protection when required.
- Employ safe layout practices.
- Employ safe arc welding practices.

Professionalism: 10%

- Is sequence of steps followed?
- Is job planning evident.
- Are good layout techniques evident?
- Is finishing work done on projects?

Other information:

- Latecomers will not be allowed to enter the competition.
- No butane lighters or matches allowed in the welding area.
- No talking to other students that may be in or watching the competition.
- Lunch will be delivered to the shop.

TECHNICAL COMMITTEE MEMBERS - JUDGES

Technical Chair, Jason Coakwell

Aurora Ford, Hay River

jcoakwell@auroraford.ca

Judge, Craig King

Judge, Zach Bonnetrouge