



Contest Description

Edmonton Expo Centre, Edmonton

May 3 & May 4, 2023

EVENT: Welding	LEVEL: Secondary												
WORLDSKILLS TRADE #: 10	LOCATION: Hall A, Edmonton EXPO Centre, Edmonton												
DURATION: 6 Hours Over 2 Days of Competition	REGIONALIZED: Yes Students must qualify through a Regional Skills Canada Competition (RSCC) to earn a position in the Welding competition at the Provincial Skills Canada Competition (PSCC).												
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CONTEST INTRODUCTION

To enable competitors to demonstrate their knowledge & skill of welding principles.

SKILLS AND KNOWLEDGE TO BE TESTED

The competitors in this competition will need to demonstrate their knowledge & skill of Welding, Layout and Drawing Interpretation. They will be judged based on Weld Profiles, Weld Dimensions, Penetration & Tie ins and overall appearance.

PROJECT DESCRIPTION

Please see the attached dimensional prints and weld processes for this year’s Secondary competition. Please note that the attached project **may** be changed up to 30% on the day of the competition.

Provincial Skills Canada competitors should be prepared to apply their theory knowledge in layout and drawing interpretation to complete a 6 hour practical project which may include **but not limited** to the following tasks:





SMAW 1G,2G and 3G on plate. Root E6010 1/8, E4310 3.2mm. Fill and cap E7018 3/32 or 1/8, E4918 2.5mm or 3.2mm

Fillets- 2F, 3F, E7018 -1/8" and or 3/32", E6010 1/8", E4918 3.2 mm and or 2.5mm or E4310 3.2mm.

GMAW 1G,2G,3G on plate , 2F and 3F (vertical up and down)

Backing bars/plates and restraining devices

- No chill plates, ceramic backing tapes/bars or run off tabs are to be used in the Competition;
- Restraining devices shall not be used during welding of the any projects, such devices include:
 - Clamps, jigs, fixtures or steel plates.
- Only standard fixture or positioning aids (positioners), supplied by the Competition Organizer may be used.

All projects must be welded flat on welding table (cannot be flipped out of position).

Can only be moved out of the flat position for tacking of projects and cleaning of projects.

EQUIPMENT & MATERIALS

Equipment and Materials Competitors Must Supply:

Work boots (CSA leather steel toed work boots)	Welding Helmet	Appropriate Clothing (100% cotton coveralls recommended)
Side shields required for prescription eye glasses	Welding Gloves	Long sleeve denim shirt or jacket, 100% cotton

*Competitors are required to follow all industry safety standards during the competition.

* Competitors **must** bring the listed safety requirements or they will not be allowed in the competition area.

Competitor Tools will be Limited to the Following (Supplied by the competitor):

Note: No other tools than the tools listed below will be allowed into the skill area

Helmet, #10, 11 or 12 lens	Welding gauge	Wedges
Speed lenses (optional)	Dividers	Chipping hammer
Soap Stone / markers	Protractor gauge	Wrap-A-Round
Centre punch	Digital level	Hacksaw blade
12" combination square (45° / 90°)	Ball peen hammer	Trigger clamps
Scriber	All-purpose pliers / side cutters	Magnet bracket
Steel and stainless steel wire brushes	Vice grip AND C-CLAMPS	Files/ with handles
Cold chisel		



Grinders are not permitted
Grinders will be provided in a grinding booth

Equipment and Materials Supplied by the Committee:

Angle grinder 4 1/2" 10 amp'	Safety Glasses
Grinding disc 1/4", 1/8", 3/32"	Ear Plugs
Welding machines and accessories for Secondary competition: Lincoln Power Wave® 300C Advanced Process	
All equipment can be view at http://www.lincolnelectric.ca/	

JUDGING CRITERIA

GMAW fillet size-Are the GMAW fillet sizes according to prints?
GMAW porosity-Are the GMAW welds free of surface porosity?
SMAW fillet size-Are the SMAW fillet sizes according to prints?
Are the SMAW welds free of surface porosity?
GMAW penetration-Is the SMAW groove weld completely penetrated
SMAW penetration-Is the SMAW groove weld completely penetrated
GMAW reinforcement-Does the GMAW groove weld have excessive reinforcement
SMAW reinforcement-Does the SMAW groove weld have excessive reinforcement
GMAW undercut & overlap-Are the GMAW beads free of undercut & overlap?
SMAW undercut & overlap-Are the SMAW beads free of undercut & overlap?
GMAW Fillet joints are completely fused to the parent material?
SMAW Fillet joints are completely fused to the parent material?
Joints are free from Misalignment
Arc strikes-Is the project free of arc strikes?
Welding position-Are welds produced in the correct position?
Fitup-Are parts fitted as per drawing?
Weld cleaning-Is all weld spatter and slag removed?

TIE BREAKING PROCESS





In the event of a tie, the competitor that has the overall highest mark in the correct process in the project will determine the tie breaker.

RELATED CAREER AND TECHNOLOGY STUDIES COURSES

Descriptions of all modules are located at the following website: <https://education.alberta.ca/career-and-technology-studies/programs-of-study/?searchMode=3>

FAB 1040	FAB 2030	FAB 2070
FAB 1048	FAB 2048	101B
FAB 1050	FAB 2050	101C
FAB 2020	FAB 2060	101G
102C	102A	101I
102D	102B	101F
103A	103B	103C
103D		

SAFETY

The health, safety and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

ADDITIONAL INFORMATION

Skills Canada Alberta Regional and Provincial Rules and Regulations

[Regional and Provincial Rules and Regulations](#)

Competitor Registration



Registration for regionalized/Qualifier events will open online at on January 11, 2023 @ 8:30 AM. Please refer to this competitions event page for additional registration and competition information:
<https://skillsalberta.com/competition/>

Lunch

Lunch for accredited competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps: <http://edmontonexpocentre.com/attend/parking/>

Opening Ceremonies / Competitor Registration

Opening Ceremonies for the PSCC will take place on Tuesday May 2, 2023 at 6:00 pm in Hall D of the Edmonton EXPO Centre. Admission is free, and everyone is welcome to attend. It is important to note that competitor registration will open immediately following the Opening Ceremony.

Awards Ceremony

The Awards Ceremony will take place on Thursday May 4, 2023 at 6:30 pm in Hall D of the Edmonton EXPO Centre. Admission is free and everyone is welcome to attend. The Awards Ceremony will be shown live at <http://skillsalberta.com/>

Team Alberta Information

Team Alberta will be selected at the PSCC Awards Ceremony. Gold medalists will then be eligible to participate at the Skills Canada National Competition (SCNC) on May 24- 27, 2023 in Winnipeg MB. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at <http://www.skillscanada.com/>.

During the PSCC Awards Ceremony on Thursday May 4, 2023 gold medalists will be given their Team Alberta information package and will confirm their participation in the SCNC. Students must be present at the Awards Ceremony to claim their position on Team Alberta. If the Gold medalist is not able to attend SCNC, the next top ranking individuals will be asked to participate. If a student is not able to attend the Awards Ceremony a letter confirming the student's interest in Team Alberta participation must be emailed to javierad@skillsalberta.com prior to the start of competition on May 3, 2023.

Please prepare your students in advance to accept a position on Team Alberta and outline how your school will support their participation. Furthermore, it is very important that all fieldtrip/travel information for potential Team AB members is organized and completed prior to the selection of Team AB.

Questions?



Please contact Kennedy Mayer at kennedym@skillsalberta.com if you have any questions regarding the Contest Description.

COMMITTEE MEMBERS

Brent Melnyk	Government of Alberta
Brad Hollman	Falcon Welding
Dan Lynge	Northern Alberta Institute of Technology
Ken Heather	Consultant
Kevin Vadori	Lincoln Electric
Ken McKen	Canadian Welding Bureau
Julia Penner	Advanced Education
Doug Sontag	Southern Alberta Institute of Technology
Dave Heins	Lethbridge College
Jethro Ulrich	St. Joseph High School
Jared Bradley	Boilermakers Apprenticeship
Jeremy Lauzon	Lethbridge College
Ken Ludwig	Government of Alberta
Lyle Kragnes	Lakeland College
Nigel Peters	SAIT
Tom Suffern	Elk Island Public Schools
Landon Paquet	Landon’s inspection services