



Contest Description

Edmonton Expo Centre, Edmonton

May 2, 3, & 4, 2023

EVENT: Welding	LEVEL: Post-Secondary												
WORLDSKILLS TRADE #: 10	LOCATION: Hall A, Edmonton EXPO Centre, Edmonton												
DURATION: 12 Hours Over 3 Days of Competition													
COMPETITION SCHEDULE: <div> <div> May 2: <table border="1"> <tr> <td>ORIENTATION</td><td>2:00PM-3:00PM</td></tr> <tr> <td>COMPETITION</td><td>3:00PM-6:00PM</td></tr> </table> </div> <div> May 3: <table border="1"> <tr> <td>COMPETITION</td><td>7:00AM-1:00PM</td></tr> <tr> <td>LUNCH</td><td>1:00PM</td></tr> </table> </div> </div> <div> May 4: <table border="1"> <tr> <td>COMPETITION</td><td>8:00AM-11:00AM</td></tr> <tr> <td>LUNCH</td><td>11:00AM</td></tr> </table> </div>		ORIENTATION	2:00PM-3:00PM	COMPETITION	3:00PM-6:00PM	COMPETITION	7:00AM-1:00PM	LUNCH	1:00PM	COMPETITION	8:00AM-11:00AM	LUNCH	11:00AM
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CONTEST INTRODUCTION

To enable competitors to demonstrate their knowledge & skill of welding principles. The competition will consist of a practical examination. Competitors will be expected to utilize their practical skills and knowledge in drawing interpretation, fitting and welding, SMAW, GMAW, GTAW and safety procedures will be evaluated.

PROJECT DESCRIPTION

Please Note:

Please see the attached dimensional prints and weld processes for this year's Post-Secondary competition. Contrary to previous years, a dimensional print is now released with this contest description for competitors to train and practice with prior to the competition. Please note that the attached project **may** be changed up to 30% on the day of the competition.





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Provincial Skills Canada competitors should be prepared to apply their theory knowledge in layout and drawing interpretation to complete a 12 hour practical project which may include **but not limited** to the following tasks:

- SMAW- Groove welds on Plate or Pipe, root E6010 1/8, (E4310 3.2mm) fill and cap E7018 3/32 or 1/8, (E4918 2.5mm or 3.2mm) 1G,2G,3G,4G,6G,
- Fillets 1F 2F, 3F,4F 5F E7018 3/32 or 1/8 (E4918 2.5mm or 3.2mm)
- GMAW- root down fill and cap up on Plate or Pipe Groove- 1G,2G,3G,4G,6G, & Fillet 1F,2F,3F,4F,5F
- GTAW- ER 70S 3/32 or 1/8 root/fill E7018 3/32 or 1/8 (4918 2.2mm or 3.2 mm) fill/cap 1G,2G,3G,4G,6G
- GTAW – Stainless ER 308 1/16 or 3/32 2F,3F,4F,5F
- GTAW- Aluminium ER 4043 3/32 or 1/8 2F,3F,4F,5F

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

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		
Grinding will only be permitted on Module 1 – Pressure Vessel		

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



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Welding machines and accessories for Post-Secondary competition: Lincoln Power Wave® 300C Advanced Process

All equipment can be view at <http://www.lincolnelectric.ca/>

JUDGING CRITERIA

Undercut-Are all the welds free of undercut?
Weld size-Are welds consistent in size per dwg requirement?
Crater fill-Are end craters filled in?
Weld profile-Are all weld profiles as per symbols?
Weld appearance-Are welds beads consistence in appearance?
Fitup-Are parts fitted as per drawing?
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 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
SMAW reinforcement-Does the SMAW groove weld have excessive reinforcement
GTAW fillet size-Are the GTAW fillet sizes according to prints?
Are the GTAW welds free of surface porosity?
GTAW penetration-Is the GTAW groove weld completely penetrated
Fitup-Are parts fitted as per drawing? GATW Projects
Crater fill-Are end craters filled in? (GTAW Aluminum project)
Joints are free from Misalignment
Arc strikes-Is the project free of arc strikes?
Cleanup-Is all weld spatter, fume residue and slag removed?
Overall appearance



TIE BREAKING PROCESS

In the event of a tie, the competitor with the higher mark on the carbon project will break the tie.

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](#)

Lunch

Lunch for competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps

<http://edmontonexpocentre.com/attend/parking/>

Opening Ceremonies / On-site Provincial 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



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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.

Questions?

Please contact Kennedy Mayer 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	Consultant
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