



Contest Description

Edmonton Expo Centre, Edmonton

May 7 & 8, 2025

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| EVENT: Welding | LEVEL: Post-Secondary | | | | | | | | | | | | |
| WORLDSKILLS TRADE #: 10 | LOCATION: Hall A, Edmonton EXPO Centre, Edmonton | | | | | | | | | | | | |
| DURATION: 12 Hours Over 2 Days of Competition | | | | | | | | | | | | | |
| COMPETITION SCHEDULE: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> May 7: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">ORIENTATION</td><td style="padding: 5px;">7:30AM-8:00AM</td></tr> <tr> <td style="padding: 5px;">COMPETITION</td><td style="padding: 5px;">8:00AM-3:00PM</td></tr> <tr> <td style="padding: 5px;">LUNCH</td><td style="padding: 5px;">11:00AM -12:00PM</td></tr> </table> </div> <div style="width: 45%;"> May 8: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">ORIENTATION</td><td style="padding: 5px;">7:30AM-7:45AM</td></tr> <tr> <td style="padding: 5px;">COMPETITION</td><td style="padding: 5px;">7:45AM-2:45PM</td></tr> <tr> <td style="padding: 5px;">LUNCH</td><td style="padding: 5px;">11:00AM-12:00PM</td></tr> </table> </div> </div> | | ORIENTATION | 7:30AM-8:00AM | COMPETITION | 8:00AM-3:00PM | LUNCH | 11:00AM -12:00PM | ORIENTATION | 7:30AM-7:45AM | COMPETITION | 7:45AM-2:45PM | LUNCH | 11:00AM-12:00PM |
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Please Note: This document is subject to change as competition information is updated. Competitors are responsible for staying up to date with the most recent information. Check the footer for last updated date. Changes will be highlighted in **yellow**.

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 welding 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.



Provincial Skills Canada competitors should be prepared to apply their theory knowledge in layout and drawing interpretation to complete one 6-hour project and two 3-hour practical projects 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- Aluminum ER4043 3/32 or 1/8, 2F,3F,4F,5F

Project Cut Files

If any trainers or competitors would like access to the digital project cutting files for training purposes, please feel free to email TimC@skillsalberta.com.

EQUIPMENT & MATERIALS

Equipment and Materials Competitors Must Supply:

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| Work boots (CSA leather steel toed work boots) | Welding Helmet | Appropriate Clothing (100% cotton coveralls recommended) |
| Side shields required for prescription eyeglasses | 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 |
| | All-purpose pliers / side cutters | Magnet bracket |
| Steel and stainless-steel wire brushes | Vice grip AND C-CLAMPS | Files/ with handles |
| Cold chisel | Scriber | |
| Grinding will only be permitted on Module 1 – Pressure Vessel | | |



Equipment and Materials Supplied by the Committee:

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| Angle grinder 4 1/2" 10 amp' | Safety Glasses |
| Grinding disc 1/4", 1/8", 3/32" & wire wheels | Ear Plugs |
| Welding machines and accessories for post-secondary competition: Lincoln Power Wave® 300C Advanced Process, #8 GTAW Gas Cups will be provide. Ceriated 2.5 & 3.2mm E3 2.5 & 3.2mm Tungsten | |
| All equipment can be view at http://www.lincolnelectric.ca/ | |

JUDGING CRITERIA

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| 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 |



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| Arc strikes-Is the project free of arc strikes? |
| Cleanup-Is all weld spatter, fume residue and slag removed? |
| Overall appearance |

ADDITIONAL JUDGING CRITERIA INFORMATION

Welding of the Pressure Vessel

If any of the joint configurations on the pressure vessel i.e. butt, fillet or outside corners are welded with the incorrect process or in the incorrect position, that joint configuration shall not be visually assessed, and no marks are awarded for that type of joint configuration. If the vessel was tacked in the inside, competitor will take the vessel apart and remove those tacks. No extra time will be added.

Welding of the Aluminum or Stainless-Steel Structures

If any of the joints are welded in the incorrect position, no further inspection shall be carried out and no marks are awarded for the complete structure.

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](#)

Test Project change at the Competition

Where a Test Project has been circulated to competitors in advance, the PTC can change the project up to a maximum of 30% of the work content for the competition.

Lunch

Lunch for competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps

Parking is FREE for all attendees.

Attendees **MUST** register for FREE parking by clicking the below link. Attendees can pre-register their vehicle at anytime prior to the PSCC, or register onsite at the PSCC.

<https://www.offstreet.io/location/81V8R1Z6>

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

Opening Ceremonies / Competitor Registration

Opening Ceremonies for the PSCC will take place on Tuesday May 6, 2025, 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 Ceremonies.

Awards Ceremony

The Awards Ceremony will take place on Thursday May 8, 2025, 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 28- May 31, 2025, in Regina, SK. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at

<https://www.skillscompetencescanada.com/en/calendars/category/skills-canada-national-competition/>

During the PSCC Awards Ceremony on Thursday May 8, 2025, 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 individual 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 7, 2025.

Please prepare your students in advance to accept a position on Team Alberta and review how your school will support their participation.

Please see this link for additional Team Alberta information: <https://skillsalberta.com/team-alberta/>

Questions?

Please contact Mike Sury MikeS@SkillsAlberta.com

COMMITTEE MEMBERS

| | |
|------------------|--|
| Brad Hollman | Falcon welding |
| Brandon Whitney | Lakeland College |
| Brian Dorn | SAIT |
| Brooke Peterson | ATCO |
| Cole Lewis | Jadler Industries |
| Craig Sheppard | SAIT |
| Dan Lynge | NAIT |
| Darren Trembecky | Edwin Parr Composite High School |
| Dave Heins | Lethbridge College |
| Jared Bradley | Boilermakers Apprenticeship |
| Jeremy Lauzon | Lethbridge College |
| Justin Meldrum | Stoney Education Authority |
| Ken Heather | WorldSkills Expert |
| Ken Lodwig | Government of Alberta |
| Kevin Vadori | Lincoln Electric |
| Lee Yasinski | Red Deer Polytechnic |
| Lyle Kragnes | Lakeland College |
| Marcelo Mena | Alberta Apprenticeship & Industry Training |
| Tom Suffern | Elk Island Public Schools |