

## Contest Description

Edmonton Expo Centre, Edmonton

May 6 & 7, 2026

<b>EVENT:</b> Sheet Metal Work	<b>LEVEL:</b> Post-Secondary																				
<b>WORLDSKILLS TRADE:</b> 14	<b>LOCATION:</b> Hall A, Edmonton Expo Centre, Edmonton																				
<b>DURATION:</b> 10 Hrs. (Two Days)																					
<b>COMPETITION SCHEDULE:</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <b>May 6:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><i>ORIENTATION/ COMPETITION</i></td><td>8:00AM 8:30AM</td></tr> <tr> <td>BREAK</td><td>10:15AM-10:30AM</td></tr> <tr> <td>LUNCH</td><td>11:30AM-12:00 NOON</td></tr> <tr> <td>COMPETITION</td><td>12:00 NOON-2:00PM</td></tr> <tr> <td>BREAK</td><td>2:00PM-2:15PM</td></tr> <tr> <td>COMPETITION</td><td>2:15PM-3:30PM</td></tr> </table> </div> <div style="width: 48%;"> <b>May 7:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td><i>ORIENTATION/ COMPETITION</i></td><td>8:00AM 8:30AM</td></tr> <tr> <td>BREAK</td><td>10:15AM-10:30AM</td></tr> <tr> <td>LUNCH</td><td>11:30AM-12:00 NOON</td></tr> <tr> <td>COMPETITION</td><td>12:00 NOON-1:15PM</td></tr> </table> </div> </div>		<i>ORIENTATION/ COMPETITION</i>	8:00AM 8:30AM	BREAK	10:15AM-10:30AM	LUNCH	11:30AM-12:00 NOON	COMPETITION	12:00 NOON-2:00PM	BREAK	2:00PM-2:15PM	COMPETITION	2:15PM-3:30PM	<i>ORIENTATION/ COMPETITION</i>	8:00AM 8:30AM	BREAK	10:15AM-10:30AM	LUNCH	11:30AM-12:00 NOON	COMPETITION	12:00 NOON-1:15PM
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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

Workers in the Sheet Metal trade fabricate and install a wide variety of construction related items using sheet metal or plastic material components. The heating, ventilation and air-conditioning systems (HVAC) that control the temperature, humidity and total air quality in residential, commercial, and industrial buildings by precisely following blueprints, design specifications and manufacturer's instructions. A Sheet Metal worker requires highly specialized and up to date skills to accomplish the various tasks involved in the trade.

In Sheet Metal, technicians work with a variety of precision measuring tools to manipulate conditions such as pressures in air flow in duct systems. Voltmeters, pressure gauges, manometers and other testing devices are used in analyzing system performance. When servicing equipment, they must use

extreme care in working with the different components of the HVAC systems because of some of the intricate systems.

## TRAITS & TALENTS

For a successful career in Sheet Metal, you should have an aptitude for electronics and a curiosity about how things work. You must be courteous and tactful and have good communication and listening skills for dealing with customer's needs in heating, ventilation, air conditioning problems, custom work, air balancing and small welding jobs. Good math skills and computer and problem-solving skills are important assets for working in this profession. It is also necessary to be physically fit as lifting and moving heavy equipment is sometimes required.

## THE WORKPLACE

Sheet Metal workers apply their trade in commercial, industrial and residential buildings – anywhere that you would find HVAC and commercial stainless-steel kitchen equipment. They are employed by heating and ventilation contractors. Their skills are in demand in all sectors, and they are learning constantly since the technology involved is always changing. They often work indoors in fabrication shops and large commercial buildings, as well as outdoors in Industrial applications.

## RELATED OCCUPATIONS:

- Boilermaker
- Refrigeration & Air Conditioning
- Steel Fabricators
- Roofing
- Gas Fitter B
- Welder

## SKILLS AND KNOWLEDGE TO BE TESTED

Sheet metal layout and fabrication skills.

## PROJECT DESCRIPTION

The project will be in Imperial & SI units and may include, but not necessarily all the following skills.

- Interpreting Isometric drawings
- Fabricate projects from isometric drawings

### Layout Skills

- Simple layout from plan view of a rectangular change fitting.
- Any of the following rectangular fittings (All changes in size must occur on the cheeks)
  - Offsets
  - Elbows
  - Y-Branches

- Take-offs
- Simple layout

## Methods of Fastening and Joining

- Rivets
  - Pop
  - Solid
- Sheet metal screws
- Welding
  - MIG
  - Spot (Resistance)
- Wired edges
- Single and double seams
- Lap and spot
- Hammerlock (Round or rectangular)
- Pittsburgh (Irish) lock
- Slip and drive, groove seam, wired edge, elbow seam

## EQUIPMENT & MATERIALS

### Equipment and Materials Competitors Must Supply:

The following hand tools are recommended as a basic set to be supplied by the competitor. This list may be augmented by the competitor, but certain specialized tools may be subject to approval by the committee.

Screwdrivers (Standard and Robertson)	Combination snips	Aviation snips (left and right cutting)
Standard vise grips (2 sets)	Hacksaw	Flat File
C-clamp vise grips (2 sets)	Hand Seamers	Half Round File
Combination Square	Adjustable Wrench	12" and 36" rulers
Tee square	Tape Measure & Pee Wee Tape	Center Punch
Framing Square	Protractor	Scratch Awl
Dividers (2 sets)	Marking Gauge	Mallet (wood)
Trammel Points	Tinners Hammer	Body Hammer

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## Equipment and Materials Supplied by Committee:

Flat Metal Table for Welding and Grinding (1 For All Comp.)	Hand Groovers / Rivet Set
MIG Welder's C/W 030" Wire	4' X 8' Work Surface (1 Per Comp.)
Welding Helmets	Stool (1 Per Comp.)
Face Shields	110V Power Bar (1 Per Competitor)
Standard Hand Brake – 16-Gauge Min. (1 For All Comp.)	Box And Pan Brake – 16-Gauge Min. (1 For All Comp.)
Bench Vise (1 For 2 Comp.)	30" Bar Folders (2 For All Comp.)
3' Foot Shear – 16-Gauge Min. (2 For All Comp.)	Stake Holders (2 For All Comp.)
Unishears Or Equivalent – 16-Gauge CRS Cap. (3 For All Comp.)	4 ½ "Angle Grinders C/W Flexible Pads and Discs (3 For All Comp.)
Hatchet (Knife) Stakes (2 For All Comp.)	Funnel (Blowhorn) Stakes (2 For All Competitors)
Bevel Edge Square Stakes (2 For All Comp.)	Electric Hand Drills C/W Drill Bits (3 For All Comp.)
Hollow Mandrel Stakes (4 For All Comp.)	Scrap Metal Bin
Deep Throat Comb.	Brooms (2)
Rotary Machine C/W Wheels (1 For 4 Comp.)	#8 X ½" And #10 X ¾" TEK Screws
2" X 36" Rolls (2 For All Comp.)	Pop Rivets (Copper) & Solid Rivets
Glass	20 To 26-Gauge Galvanized Iron
16-Gauge CRS	24-Gauge Brass Sheets
	16 – 20 -Ounce Copper Sheets

## 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.

### Safety Requirements Supplied by the Competitor

- CSA approved Steel Toed footwear
- Safety glasses
- Welding gloves

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

\*Competitors will not be allowed into the competition area without the required safety equipment.

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## Competition Specific Rules

The following Competition Specific rules along with SCA's overall Policies and Procedures provide specific details in competition areas that may vary from one another. Any additional contest rules will be reviewed during the Competitor Orientation.

Topic/Task	Contest Specific Rule
Use of Technology	Competitors are <b>not allowed</b> laptops, tablets, cameras, cell phones, ear buds, calculators or other personal electronics in the competition area unless specified by the committee for certain tasks.
Use of Artificial Intelligence (AI)	Competitors <b>cannot</b> use AI to develop/generate any of the submitted work for any aspects of the competition.

## JUDGING CRITERIA:

Objective		Subjective	
Critical Dimensions	20%	Seams, Edges and Fasteners	20%
Secondary Dimensions	10%	Fit and Forming	20%
Square and Parallel	5%	MIG Welding	5%
Material Usage	5%	Overall Appearance	15%
<b>Objective Total</b>	<b>40%</b>	<b>Subjective Total</b>	<b>60%</b>

The judging is divided into two categories, objective and subjective. The objective marking is done as a group for every competitor and every judge for every competitor does the subjective marking. All subjective marks are out of 10 points and are weighted accordingly in the final calculation. Subjective marks must not have a range of more than 3 points between judges. All dimensions are outside unless otherwise noted.

## ADDITIONAL INFORMATION

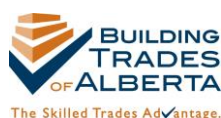
### Skills Canada Alberta Regional and Provincial Rules and Regulations

[Regional and Provincial Rules and Regulations](#)

### Skillz & Thrillz Podcast

Check out our podcast – Skillz & Thrillz: Alberta's Trade & Tech Youth Podcast. Our talented alumni share tips and tricks on how to succeed in competitions and your career! Their insights can help you prepare for your Skills journey, and who knows, you might just be a future guest!

<https://skillsalberta.com/student-resources/skillz-thrillz-albertas-trade-tech-youth-podcast/>



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# Provincial Skills Canada Competition

## 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/events/CBLHM7U1>

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

## Opening Ceremonies / Competitor Onsite Registration

Opening Ceremonies for the PSCC will take place on Tuesday May 5, 2026, 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 7, 2026, 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/>

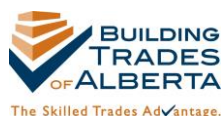
## Team Alberta Information

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 27- May 30, 2026, in Toronto, Ont. It is recommended that competitors review and become familiar with the SCNC contest description and project at <https://www.skillscompetencescanada.com/en/event/skills-canada-national-competition-2026/>

During the PSCC Awards Ceremony on Thursday May 7, 2026, 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 highest-ranking individual will be asked to participate. If a student is not able to attend the Awards Ceremony an email confirming the student's interest in Team Alberta participation must be emailed to [javierad@skillsalberta.com](mailto:javierad@skillsalberta.com) prior to the start of competition on May 6, 2026.

**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/>



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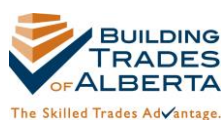


### Questions?

Please contact Mike Sury [MikeS@SkillsAlberta.com](mailto:MikeS@SkillsAlberta.com)

### COMMITTEE MEMBERS

Darryl Ficht	Travis Wylie
Cory Wilson	Brent Rogoski
Jim Fehr	Heath Foster
Brian A McBride	Wayne Richardson
Joe Kubiski	Chris Taylor
Wilma Agnew	Steven Rusnak



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