

# 2021 PROVINCIAL SKILLS CANADA COMPETITION



## CONTEST DESCRIPTION

<b>EVENT:</b> Welding		<b>LEVEL:</b> Secondary	
<b>COMPETITION DATE AND TIMES:</b>		<b>REGIONALIZED: YES</b>	
Live Stream Check-In- <b>Mandatory</b>	April 15 <sup>th</sup>	8:00 a.m.	
Live Stream Orientation- <b>Mandatory</b>	April 15 <sup>th</sup>	8:30 a.m.	
Competition Start	April 15 <sup>th</sup>	9:00 a.m.	
Competition End	April 15 <sup>th</sup>	3:30 p.m.	
<b>PLEASE SEE THE FULL COMPETITION SCHEDULE BELOW.</b>		If YES, to compete at the Provincial Skills Canada Competition students must qualify at their Regional Skills Canada Competition.	
<b>DURATION: 6 HRS</b>		<b>WorldSkills Trade # 10</b>	
<p><b>COMPETITION FORMAT: (VIRTUAL/ IN SCHOOL)</b></p> <p>All secondary competitors will be competing within their school environment and must arrange in advance with a teacher for a safe competition location, according to their school's Covid-19 safety policies. They will need to prepare their competition space with all of the required tools, equipment, materials, and technology that will be needed to complete the competition. Teachers and competitors will need to work together to ensure the competitor is ready for success on their competition day. <b>Project materials will be supplied and shipped to your school. Projects must be in transit to the return address to arrive by April 22<sup>nd</sup>.</b></p> <p>Competitors will join the assigned videoconference link that will be emailed to all registered competitors. <b>Competitors will need to position their camera in such a way that the judges can see their entire work area from an exterior view (exterior view of the welding booth).</b> Competitors will be expected to have their camera on for the orientation but will be able to log off once the competition has started. The meeting link will however be live IF competitors have questions and would like to log back in.</p>			

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Once a competitor has completed their assigned project by the specified competition completion time (no additional time will be permitted), competitors must submit three photographs of their project WITHIN 15 MINUTES (by 3:45 p.m.) of the contest concluding. For the photos, please submit:

1. One overhead top shot
2. One right side shot
3. One left side shot
4. One angle shot

**\*All photos MUST include a copy of a student or photo ID next to the project.**

**PHOTO PROJECT SUBMISSION** - Submissions can be uploaded to the following link:

<https://form.jotform.com/SkillsAB/2021rsc>

Multiple files can be uploaded at once, each file has a maximum size of 1G. If file sizes are larger than 1G, please follow alternate instructions through the submission link.

**ACCEPTED FILE TYPE** - Zip file. To create a zip file – Select all the files that you would like to submit and right-click your mouse, a menu will open, select Send To, and then click on Compressed (zipped) folder. A zip file will then be created containing your submission documents.

**FINAL PROJECT SUBMISSION** – Completed projects are to be shipped to the specified location that was included in the package you received your materials in. Please take note of the paid return shipping label that will be in the package. This must arrive to the specified location **NO LATER THAN end of day on April 22<sup>nd</sup>, 2021.**

## COMPETITION SCHEDULE:

Live Stream check- in – <b>Mandatory – On camera</b>	8:00 a.m.
Live Stream Orientation – <b>Mandatory – On Camera</b>	8:30 a.m.
Competition Start – Off Camera	9:00 a.m.
#1 Picture Group - tacked project submitted before welding starts	
#2 Picture Group – Project progress pics	11:30 a.m.
Competition End	3:30 p.m.
Final #3 Picture Group – Final Project - PHOTOS DUE	3:45 p.m.
*Lunch to be taken as needed. (30 min)	

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**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.

**Please note: Competitors MUST be present for the mandatory safety orientation or their projects will not be accepted.** Prior to the start of competition, competitors should familiarize themselves with the Pre-Start Checklist which can be accessed at the following link:

<https://skillsalberta.com/additional-2021-competition-resources/>

**AWARDS CEREMONY INFORMATION:** Please join us for a live virtual awards ceremony on May 13<sup>th</sup> at 6:30PM.

## 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 & knowledge in drawing interpretation of fitting, and welding.

## SKILLS AND KNOWLEDGE TO BE TESTED

The provincial skills competitors should be prepared to apply their theory knowledge in a layout and drawing interpretation to complete a 6-hour practical project which may include but not limited to the following tasks (please see the attached project drawing and weld procedures):

### Practical Tasks

- Shielded metal arc welding (SMAW, mild steel)
- Gas metal arc welding (GMAW, mild steel)

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The following types of joints and positions **may** be included.

SMAW, GMAW
Plate: 1G, 2G, 3G, Fillet Weld: 1F, 2F, 3F,4F, 5F Pipe may or may not be included

## PROJECT DESCRIPTION

Please see the attached dimensional print and weld processes. Please note that the competition plans may be changed up to 30% on the day of the competition.

Once the project is tacked, No grinding is allowed!

Pictures of the tacked project must be submitted. One overhead shot, both sides and one angle shot.

The project shall, at all times be welded 100% on the workbench. (The project must remain flat on the baseplate)

Pictures of the project must be submitted at the 2.5-hour mark of the competition. One overhead shot, both sides and one angle shot.

Manual wire brushing may be used on all weld surfaces. (No grinding or filing)

All measurements are in millimeters.

## EQUIPMENT & MATERIALS

### Equipment and Materials Supplied by the Committee to the Competitor:

Each competitor will receive one (1) project kit that contains the required materials to build project.

### Equipment and Materials Competitors must supply:

Work Boots (CSA Approved steel toe work boots)	Welding Helmet
Side shields required for prescription glasses	Safety Glasses
Appropriate clothing (100% cotton coveralls recommended)	Welding Gloves
Long Sleeve Denim Shirt or Jacket - 100% cotton	Ear Plugs

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## Competitors tools will be limited to the following:

Pipe liner files	Wire Brush	Vice Grips/Pliers
Magnets	Tri Square	Imperial/Metric Tape Measure
Centre Punch	Hammer	Cold Chisel
Soap Stone		

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

## Equipment and Materials Provided by Skills Canada Alberta:

1 Roll of .035 GMAW Wire E70S-6 (49S-6)	1 Box of E6010 (E4310) 1/8 Rod	1 Box of E7018 (E4918) 3/32 Rod
1 Box of E7018 (E4918) 1/8 Rod	Project Material	

\*Competitors and schools will need to work together to arrange for the tools, equipment, and materials provided by the competitor. If a competitor and/or school is not able to procure a certain item, please contact [mikes@skillsalberta.com](mailto:mikes@skillsalberta.com) to inquire if additional arrangements can be made.

## VIRTUAL COMPETITION RESOURCE SUPPORT FORM

A \$40 competition resource subsidy is available to all competitors. It is intended for items that were purchased to support competitors (e.g. food supplies, materials, technical equipment, tools, etc.). The form can be accessed at the following link: <https://skillsalberta.com/additional-2021-competition-resources/>

## SHIPPING INFORMATION

Any tools and equipment provided by Skills Canada Alberta will be shipped to your school prior to the competition. If you do not receive your shipment, please contact: [whitneyk@skillsalberta.com](mailto:whitneyk@skillsalberta.com).

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## 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

The competitor that has the highest mark on ALL groove welds will be considered the winner.



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## CLOTHING REQUIREMENT

Appropriate work clothing must be worn to compete. All clothing must be neat and clean, and free of rips and tears. Casual wear such as shorts and open toed shoes/sandals will not be permitted. No loose-fitting clothes or jewelry.

## RELATED CAREER AND TECHNOLOGY STUDIES COURSES

Descriptions of all modules are located at the following website:

[https://education.alberta.ca/media/160533/fab\\_course\\_summaries\\_old.pdf](https://education.alberta.ca/media/160533/fab_course_summaries_old.pdf)

FAB 1040	FAB 2020	FAB 3048	101B	102A	103A
FAB 1048	FAB 2030	FAB 3050	101C	102B	103B
FAB 1050	FAB 2040	FAB 3060	101G	102C	103C
	FAB 2048	FAB 3170	101	102D	103D
	FAB 2050	FAB 2060	101F	103F,G&H	
	FAB 2070				

## ADDITIONAL INFORMATION

**Skills Canada Alberta Regional and Provincial Rules and Regulations**  
[Regional and Provincial Rules and Regulations](#)

### Competitor Registration

Competition Registration will open online at <https://portal.skillsalberta.com/> on January 12, 2021 at 8:30AM for the Regional Skills Canada Competition and on January 14, 2021 at 8:30 AM for the Provincial Skills Canada Competition (PSCC)

### Lunch

Lunch will be provided by Skills Canada Alberta

### Virtual Awards Ceremony

The Virtual Awards Ceremony will take place **Thursday, May 13<sup>th</sup> at 6:30PM**. A link will be made available on the website with additional information.

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## Team Alberta Information

Team Alberta will be selected from competition Gold medalists who will then be eligible to participate at the Skills Canada National Competition (SCNC) in a virtual format May 25-30, 2021. 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/>.

## Ethical Conduct

We recognize that participants will be competing individually in their own unique environments. We expect all competitors to compete fairly, respecting and abiding by the established rules in the true spirit of Skills Canada Alberta.

## Letter of Participation

Competitors who participate in the 2021 Provincial Skills Canada Competition are eligible for a Letter of Participation that can be downloaded on the Registration Portal after the competition ends.

## COMMITTEE MEMBERS

Ken Heather	Brad Hollman	Kevin Vadori
Dan Lynge	Brent Melnyk	Ken Mcken
Dave Heins	Doug Sontag	Lyle Kragnes
Julia Penner	Jethro Ulrich	

## CONTEST DESCRIPTION CHECK LIST

- Read Contest Description
- Open Project Box, ensure all materials are included – KEEP BOX for return shipping
- Check internet and camera view
- Ensure you have your student picture ID for competition day
- Reference the above noted safety Pre-start Checklist
- Not the start time for the competition
- #1 – Picture group - tacked project submitted before welding starts (top, right side, left side and angle view – 4 pictures total)
- #2 - Picture group – progress pics sent in at 11:30 a.m. (top, right side, left side and angle view – 4 pictures total)
- #3 Picture group - final project with Student ID, (top, right side, left side and angle view – 4 pictures total)
- Send project back to the Skills Canada Alberta Address (return label included with original package)

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