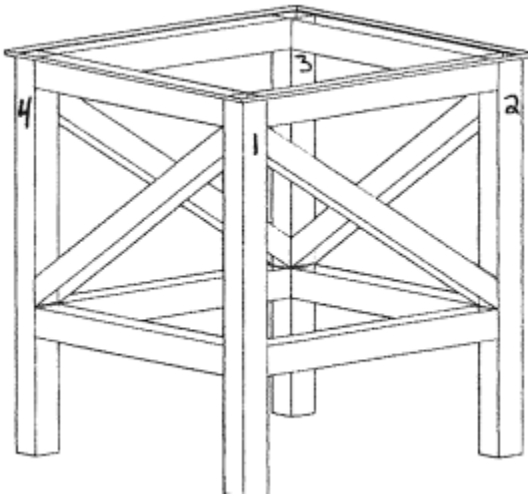


Skills USA Welding Fabrication Competition Update – 2023

Congratulations on your accomplishments thus far. Please review these guidelines for the state competition. Your team will have 6.5 hours to complete your project. Keep in mind your team & project will be judged throughout your 6.5 hours. Manage your time wisely.

- **Standard Fabrication Project:**

- Weld Table



- **Welding Consumables Supplied by Committee:**

- .035 Lincoln SuperArc L-56 GMAW Consumable (ER70S-6)
- 3/32" Lincoln ER70S-2 GTAW Filler Rods
- 3/32" Lincoln Excalibur MR (E7018) SMAW Electrodes
- 1/8" Lincoln Excalibur MR (E7018) SMAW Electrodes
- 3/32" Lincoln Fleetweld 35 610 (E6011) SMAW Electrodes
- 1/8" Lincoln Fleetweld 35 (E6011) SMAW Electrodes

- **Minimum Project Requirements:**

- 5 Individual SMAW Welds of 3" or greater (Two 3F vertical up welds required)
- 5 Individual GMAW Welds of 3" or greater (Two 3F vertical up welds required)
- 5 Individual GTAW Welds of 3" or greater (Two 3F vertical up welds required)
- 5 Individual Plasma Cuts of 5" or greater

- **Judging Overview:**

Category	Points	Judging Detail
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Safety	100	Each safety infraction will be a 5pt deduction
SMAW	100	5 required welds will be judged on joint fit-up, size, contour and appearance
GMAW	100	5 required welds will be judged on joint fit-up, size, contour and appearance
GTAW	100	5 required welds will be judged on joint fit-up, size, contour and appearance
Plasma	100	5 required cuts will be judged on angle, appearance, dimension, bottom edges slag free and cuts free of chipping marks (Cuts must be judged prior to any cleaning, grinding, etc)
TEAMWORK	100	Students will be judged on equal participation, team communication and ability to work together
FABRICATION	200	10 critical dimensions will be judged for accuracy. Overall appearance and functionality is also scored
WRITTEN TEST	100	The 3 individual test scores are averaged for your team's total score
Clothing Penalty (Deduction)	25	

- **Items that must be supplied by Teams:**

- All Personal Protective Equipment
- Hearing and/or ear protection
- Welding helmet with appropriate filter plate/lens and protective cover plate/lens in a flip or slide front. Auto darkening shields are permissible
- Spare spatter and filter lenses/plates for arc welding helmet
- Résumé
- Teams may bring any hand tools they may need such as Vice Grips, Calculators, Measuring tape etc.
 - Teams are allowed to bring up to two grinders.
 - Cutting disks are allowed
 - Please note that grinders are not to be used on welds as the welds must be judged!
 - See Welding Fabrication National Standards for more information

- **Tools Supplied by Committee to each team:**

- Welding Machines
 - Lincoln Electric PowerMig 210 MP
- Environmental Equipment
 - 1 Environmental Extraction Unit per team (Miller Electric or Lincoln Electric)
- Plasma Cutting Machine
 - Cut Master 55
- Tungsten Electrodes
- Materials from Bill of Materials

- **Safety:**

- Face shields must be worn while grinding
- Helmets or oxyacetylene goggles must be worn while cutting
- Welding jackets must be worn while welding

- **Safety glasses must be worn at all times**
- **Hearing protection must be worn at all times**
- Only one welding machine may be used at time as there is only one piece of environmental equipment. Two grinders may be used in conjunction with the use of the one welding machine.
- Grinding sparks on the welding equipment and/or other people will result in a deduction in points
- Environmental equipment must be used at all times when welding. Points will be deducted for improper use.

- **Other Information:**
 - When fabricating, sometimes parts and/or steel pieces are not supplied with the correct dimensions. If the dimensions are different than your prints, “on the job” corrections must be made. Notify the judges if materials are not the correct dimensions prior to any material prep. The judges will take that into consideration when judging.
 - The oral interview will be conducted randomly during the 6-1/2 hour fabrication part of the competition.
 - All projects will be donated to a local organization supporting a good cause.
 - **Possession or use of any electronic communication devices are not allowed in the contest area at any time.**
 - **A collection box will be available to hold cell phones labeled with painters tape and team #**
 - **Cell phones may not be substituted for calculators!**