

# Welding Fabrication

**CONTEST DATE & LOCATION:** Refer to the Kansas State Championship Conference Packet

**PURPOSE:** To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of welding fabrication.

**ELIGIBILITY:** Open to a team of three active SkillsUSA members enrolled in programs with welding as the occupational objective. This is a team event. Each team will be comprised of three student members from the same school and training program.

**CLOTHING REQUIREMENT:** Official SkillsUSA khaki work shirt (long sleeved) and pants (both the pants and shirt must be 100 percent cotton); black, brown or tan leather work shoes; and safety glasses with side shields or goggles. (Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.) For State Competition, students may wear the Kansas State Official T-shirt and blue jeans, unless instructed differently from the contest chair. *(See contest chair updates below)*

Official SkillsUSA attire



NOTE: The Official Kansas State T-shirt will be mailed to schools prior to the competition.

# ATTENTION!!!!

- **STRICT ENFORCEMENT** OF PERSONAL PROTECTIVE EQUIPMENT (PPE) WILL BE OBSERVED DURING THE 2020 WELDING COMPETITION
- ALL ISSUES CONCERNING INADEQUATE OR INAPPROPRIATE PPE MUST BE RESOLVED DURING THE ALLOWED CHECK-IN TIME FOR EACH STUDENT
- IF THE ISSUE CANNOT BE RESOLVED DURING THE TIME PERIOD, THE CONTESTANT WILL NOT BE ALLOWED TO COMPETE
- PLEASE REVIEW THE LIST OF PPE REQUIREMENTS FOR THIS WILL BE STRICTLY ENFORCED

**EACH TEAM WILL RECEIVE A SPECIFIC CHECK-IN TIME. THIS TIME SLOT WILL BE THE ONLY OPPORTUNITY FOR THE CONTESTANT TO ENTER THE COMPETITION.**

**PLEASE REVIEW THE GUIDELINES PROVIDED BY SKILLSUSA CONCERNING THE DRESS CODE**

COMPLIANCE WITH THIS DRESS CODE WILL BE ASSESSED IN THE FINAL SCORE FOR EACH TEAM. DENIM OR FRC PANTS WILL BE PERMITTED.

AWS SENSE WPS WILL BE USED FOR WELDING PARAMETERS. PLEASE REVIEW THESE DOCUMENTS WITH YOUR STUDENTS PRIOR TO THE WELDING COMPETITION.

## KANSAS STATE CHAMPIONSHIPS (KSC) CONTEST UPDATE



### FAB CONTEST

Torch Tips for Victor and Victor style Radnor Equipment

Oxy Start-up Guidelines:

- ✓ Inspect Equipment
- ✓ Regulator adjust screw loose
- ✓ Crack cylinder valve slowly
- ✓ Oxygen Cylinder open fully
- ✓ Open torch valve or lever
- ✓ Set line pressure on regulator with adjusting screw

Fuel Gas Start-up Guidelines

- ✓ Inspect Equipment
- ✓ Regulator adjust screw loose
- ✓ Crack cylinder valve slowly
- ✓ Acetylene Cylinder open ½ to 1 full turn
- ✓ Open torch valve
- ✓ Set line pressure on regulator with adjusting screw

Shut Down Guidelines

- ✓ Close Cylinder valve
- ✓ Open torch valve or lever, bleed the line pressure
- ✓ Loosen adjusting screw

Fuel gas line pressure 10 PSI

OXY gas line pressure 30-40 PSI

## TOOLS/SAFETY LIST

Failure by any contestant to meet minimum safety equipment requirements will result in the contestant being disqualified from the competition.

**REQUIRED:** Each contestant **MUST** have the following safety equipment:

- Eye Protection, safety glasses, (side-shields if prescription on goggles required)
- Hearing Protection, ear plugs or ear muffs
- Welding Helmet with welding lens (quick change hoods are allowed)
- Cutting Goggles/face shield #5
- Leather work shoes (no tennis shoes)
- Leather Gloves (welding and tig gloves)
- Leather or FR Coat or cape and bib

### **ALLOWABLE TOOLS:**

Each contestant is allowed 1 set of the below listed tools. All tools are to be placed into a bucket for our inspection. **DO NOT** bring any tools outside of this list.

- 4 ½ in Angle Grinder with guard attached
- Spare welding lens
- Lead pencil for written test
- Soap Stone with holder or other metal marking pencil
- Combo Square set
- Steel measuring tape (standard and metric)
- Fillet Weld Gauge
- Ball Peen Hammer
- Vice Grip Pliers (no more than 2)
- Side Cutter Pliers (Welpers, or Needle Nose are allowed)
- Chipping Hammer
- Wire Brush
- Striker for cutting torch
- Steel file for dressing cut edges
- Compass
- Chisel
- Adjustable wrench
- Center punch

***All tools are to be placed into a bucket for our inspection, and only the tools listed above are approved for the contest.***

***No copies of the Pre-Test or outside notes are allowed.***

## KANSAS STATE CHAMPIONSHIPS (KSC) CONTEST UPDATE



*Each contestant will be given a set of Welding/Cutting prints and welding procedures before the start of the competition.*

**INSTRUCTIONS:** Each contestant will be expected to demonstrate the following processes:

\*Students may be welding in the following positions

Vertical and overhead welds must be witnessed and the print initialed by a judge. Failure to do this will result in a point deduction penalty being assessed.

<u>PROCESS</u>	<u>POSITION</u>
GTAW	2F, 3F, 1G, 2G
SMAW	2F, 3F, 4F, 1G, 2G
GMAW-S	2F, 3F, 4F, 1G, 2G

Potential Equipment for use:

- Miller Syncrowave 200
- Miller Syncrowave 180SD
- Lincoln Powermig 350P
- Miller 350P

Blueprint Reading

Layout Skills Tolerance will be +-1/16

General Knowledge

### **IMPORTANT:**

There will be **NO** communication devices allowed in the contestant's possession after the contestant checks in. Simply put, if you are caught, you are **DISQUALIFIED**.

Teachers or coaches will not have any contact with the competitors during the competition.

Participating teams will be expected to make a plan during their print review with some idea of tasks, operation steps and assignments. The plan doesn't have to be strictly followed but students will need to be able to explain why adjustments were made.

Tape measures will be used to check some measurements!

Make sure to read the Technical Standards for further guidelines in preparing for the State competitions. Good luck!

## KANSAS STATE CHAMPIONSHIPS (KSC) CONTEST UPDATE



### Welding Fabrication Schedule

7:15 AM	Check-In	All Teams	
7:30 AM	Orientation	All Teams	
7:45 AM	PDP TEST	All Teams	
8:00 AM	Written Test	All Teams	
8:30 AM	Classroom Tool Check-In	Group A	(Advisors Allowed)
8:45 AM	Blueprint Review/ Booth Assignment	Group A	(No Advisors)
9:00 AM	Welding Starts	Group A	
12:00 PM	Welding Stops/ Clean Area/Lunch	Group A	
12:30 PM	Contestants released through rear shop	Group A	
12:30 PM	Classroom Tool Check-In	Group B	(Advisors Allowed)
12:45 PM	Blueprint Review/ Booth Assignment	Group B	(No Advisors)
1:00 PM	Welding Begins	Group B	
4:00 PM	Welding ends/clean-up/Welders are Released	Group B	

### **\*\*NOTE\*\***

Advisors will be allowed to enter shop area from rear of shop after welding begins at 9AM and 1 PM.

### **Group A (Postsecondary)**

### **Group B (High School)**

*To be determined after KSC registration closes.*

## KANSAS STATE CHAMPIONSHIPS (KSC) CONTEST UPDATE



### INTRODUCTION LETTER:

Christopher Parsons  
Skills USA Welding Competition Chairperson  
[chris@mwtrailerrepair.com](mailto:chris@mwtrailerrepair.com)  
(620) 727-0578

Dear Instructor/Sponsor,

As the Skills USA Welding Competition approaches, I wanted to take a moment and not only introduce myself, but also forward some information about the competition.

A little about me. My wife and I own Midwest Trailer Repair, LLC, a small repair and manufacturing business located in So. Hutchinson, as well as a separate fabrication/job shop.

I had been helping Dana Tobias, the former chairperson, as a judge for the past 4 years. Last year, I was asked to co-chair with Dana. This year, it will just be me. We had a great group of judges last year, all of whom I'm hoping will be able to return this year. They range from business owners to welders who have specialized in the field. Everybody brings not only a wealth of knowledge to the table, but a desire to see the next generation succeed in our chosen field.

As far as the competition is concerned, it has tentatively been set for April 30, 2020 at Hutchinson Career Technical Education Academy in Hutchinson, KS. There are a few items I want to address up front, which I hope will streamline the process and provide a positive atmosphere for the contestants. The following are based on past issues and policies that have been set based on the recommendations of the judges and chairpersons involved.

-Special needs students. There are accommodations available for students who may need them. PLEASE, check the box on the application form and I will get back to you to discuss how we can help. Last year we were informed 5 minutes prior to the written test, there was a need. It was embarrassing for the student and delayed the start of the test while someone was located to assist them.

-Cell phones. I am asking that competitors leave cell phones with their sponsors, or do not bring them at all. There were some issues during the last written test with phones. The penalties for cell phone possession, after check-in, are severe and not flexible.

-Tools. I am enclosing a list of allowable tools. We are allowing 3 sets of tools from the list. Please have competitors bring only what is on the list. This will speed up the tool check in, as well as reduce the risk of lost or stolen tools that must be left in the classroom.

-Tardiness. Bona fide reasons will be handled on a case by case basis. Mechanical breakdown would be considered a bona fide reason. 2 teams, needing to be in 2 separate locations, with only 1 sponsor is not.

-Resume's. Resume's should be printed prior to arrival at the competition. There is no guarantee computers and/or printing equipment will be made available by the host facility. Resume's must be turned in prior to the start of the written test. Late resume's will not be accepted.

The following is the list of skills that will be judged.

- SMAW, GTAW, GMAW processes, including machine setup and weld quality.
- Oxy/fuel process, including torch setup and cut quality.
- Weld positions, any fillet or groove position may be tested.
- Safety, all aspects will be judged.
- Finished product, based on amount completed, quality of work and likeness to blueprint.

With this in mind, we are judging based on an entry level skillset.

I'm looking forward to competition. If you have any questions, comments or concerns, please contact me.

Sincerely,  
Christopher Parsons  
[chris@mwtrailerrepair.com](mailto:chris@mwtrailerrepair.com)  
(620) 727-0578

Updated 4/2020

**Skills USA Welding/Fabrication Quick Notes**

**Instructor/Sponsor Responsibilities**

- It is YOUR responsibility to have your team at the appropriate test site on time. Bona fide reasons for being late will be handled on a case by case basis. 2 teams, needing to be in 2 different locations, with only 1 sponsor is not a bona fide reason.
- You will receive a tool list prior to arriving at the competition, these are the only tools allowed. Each contestant will be allowed 1 set of tools. Please have your team members leave tools not listed out of their tool caches. This will speed up the check-in process as well as reduce the risk of lost or stolen tools.
- If you have a team member who needs accommodations, please check the appropriate box on the application form. Test time is not the appropriate time to let somebody know a team member needs accommodation. It will not only save testing delays, which affects everybody, but will help reduce embarrassment for the team member.
- Have student resume's printed prior to their arrival at the competition site. There is no guarantee printing equipment will be available for this. Resume's must be turned in PRIOR to the start of the written test. Late resume's will not be accepted.

**PENALTY ACTS**

- Unauthorized tools being used in the hands-on portion will result in a 50% score reduction, per tool.
- Unsafe acts such as disabling guards on equipment, not using personal protective equipment, misuse of equipment, horseplay, etc. will result in a 50% score reduction, per violation.
- Any other act, as deemed by a consensus of the judges, to be detrimental to the spirit of the competition.
- Not having vertical or overhead welds witnessed and the corresponding weld on the print initialed by a judge. A 10-point penalty will be assessed per violation.

**DISQUALIFYING ACTS**

- Communication devices in any contestant's possession after check-in will result in the contestant being disqualified.
- Tampering with, or in any way hindering another teams progress.
- Cheating by any team member.
- Any other act, as deemed by a consensus of the judges, to be detrimental to the spirit of the competition.
- Penalties will be decided by a consensus of the judges and are binding. If there are any questions from the judges, the Chairperson shall have the final say, and that decision is binding.

**Contest Chair contact information:**

Christopher Parsons  
[chris@mwtrailerrepair.com](mailto:chris@mwtrailerrepair.com)  
620-727-0578