



HVACR COMPETITION
2023 State Fair
 Updated 7/1/2023

DATE: Tuesday, September 26, 2023

TIME: 10:00 a.m. Registration
 11:00 a.m. Contest
 3:00 p.m. Awards

PLACE: State Fairgrounds at The Meadows in Doswell, Va., Caroline County

CONTEST CHAIRMEN:

SKILLSUSA COORDINATOR:

SCOPE OF THE COMPETITION: The time allotted is 12 minutes per station, with a three minute break/rotation. All teams from the same school will be competing together at the same time. Judges lunch break at approximately 12:00 p.m.

The stations will be as follows:

- Station 1 – Identify Refrigeration System Components
- Station 2 – “Troubleshooting” - A/C Window unit
- Station 3 – Refrigeration System Servicing - Practical and Q&A.
- Station 4 – “Troubleshooting” - Refrigeration System
- Station 5 – “Troubleshooting” - Split System
- Station 6 - Teamwork Copper Project (see ** below)**

JUDGING CRITERIA: * for stations 2, 4 & 5

Items Evaluated	Possible Points
Did contestants wear safety glasses?	10
Did contestants work safely?	10
Did contestants use tools and test equipment properly?	15
Did contestants locate problems correctly?	25
Did contestants explain findings/procedures to judge properly?	25
Did contestants work as a team (teamwork)?	15
TOTAL POINTS	100

**** Station 6-Copper Project –**

Judging Criteria: Accuracy, Appearance, Leak Test and TEAMWORK=10 Points each
 (Total points= 40)

Allotted Time = 15 Minutes

(AGAIN THIS YEAR) Practice Flaring and Swaging before the contest.**

Using 3/8” and 1/2” soft copper tubing

Practice materials will not be provided.

TOOLS AND MATERIALS REQUIRED BY CONTESTANTS:

Safety Glasses with side shields for each contestant
Leather Gloves
Two (2) Digital Thermometers
Compound Manifold Gauge Set with low-loss hoses
Volt-Amp-Ohm (Multimeter)

Tool Box including Basic Hand Tools:

1 - #2 Phillips screwdriver
1 - Straight blade screwdriver
1 - 1/4" nutdriver
1 - 5/16" nutdriver
1 - 8" adjustable wrench (** AGAIN THIS YEAR)
1 - Slip joint pliers
1 - needle-nose pliers
1 - channel-lock pliers
1 - Linesman's side cutting pliers
1 - Flashlight
1 - Refrigeration reversible ratchet wrench
1 - Allen wrench set

** Copper Project Tools:

2 - tubing cutters
2 - deburring/reamer tools
2 - measuring tapes/rulers
2 - Sharpie markers
2 - Flaring and Swaging Kits

TOOL DROP OFF: Tools boxes maybe dropped off near the contest site. Walk to will call to pick up and pay for preordered fair tickets.

DEBRIEFING: To take place directly after the conclusion of the contest. Judges at each event station will provide contest information to teams dealing with items including; troubleshooting problems, technical tips, advise, concerns and positive feed back.

AWARDS: Awards will be presented at the Contest Area.

NUMBER OF CONTESTANTS: Each school can enter up to three (3) - teams of two.
Max of 18 teams for this event.

DEADLINE: Schools must register the number of teams by September 15, 2023. Contestant names must be submitted to the State SkillsUSA Specialist by September 15, 2023. Substitutions may be made the day of the competition.

ENTRY FEE: \$40.00 per team entering the competition. The registration must be accompanied by a check. Please register on-line at www.skillsusava.org, go to Event, State Fair and then to Competitions.

- *Participants must have a Student Competition Ticket to enter the Fairgrounds unless they are already at the Fair for another competition.*
- *Teachers are responsible for ordering tickets online by September 20, 2023 directly from the State Fair Ticket Office using a State Fair Student Competition Ticket Order link, which can be found on-line at www.skillsusava.org under 'State Fair'*
- *Tool drop off, schools must have a 30 min. drop pass for vehicle entry, or contestants will have to carry in their tool boxes to the contest area. Passes maybe ordered when ordering State Fair tickets.*

Safety Notice: Each contestant is responsible for bringing the proper PPE to wear while participation in the contest. Also, each contestant must turn in a signed SkillsUSA Safety Form to the competition chairman on the day of the competition.

SkillsUSA Virginia
Safety Form for Tools and Materials
State Fair SkillsUSA Virginia/HVACR Competition



The SkillsUSA Virginia HVACR Competition will involve the use of a power tools, equipment and materials in completing the task within the competition. It is absolutely necessary that complete operating instructions and safety for the use of power tools, equipment and materials have been given to the contestant in his/her training program in the local school division as stated in the National SkillsUSA National Standards before he competes. This includes the proper safety instruction in the use of the tools listed in the scope of the contest and the use of protective equipment while using the tools and materials. Safety glasses are required.

By the affixing of my signature below, I certify that my student, who is entering the HVACR Competition at the State Fair, has had proper operating and safety instruction in the use of the power tools, equipment and materials.

(Signature of Instructor/Advisor)

(SkillsUSA Virginia Chapter)

By the affixing of my signature below, I certify that I have used the power tools, equipment and materials to be used in the State Fair HVACR Competition and that I understand the correct operating procedures and safety precautions for the use of this power tool, equipment and materials.

(Signature of Student)

(Date)

THIS FORM MUST BE SIGNED AND TURNED IN TO THE COMPETITION CHAIRMAN ON THE DAY OF THE COMPETITION. FAILURE TO TURN IN THIS FORM WILL RESULT IN THE STUDENT NOT BEING ALLOWED TO COMPETE.