



HVAC/R Technology Contest Information

By Mitchell Thomas — last modified March 8, 2023

The contest is subject to a last-minute change depending upon the industry technical committee setting up each station.

The **PDP** and **HVAC** technical written test will be held ONLINE through your school's testing liaison. Students will receive an email from National Skills USA for testing.

Testing will be open beginning Monday, March 15th.

The deadline for taking the on-line tests is Friday, April 7th.

No provisions are being made for make-up testing on-site.

NO Substitutions will be allowed this year after April 7th

See the State SkillsUSA Director's Memo for the policy on substitutions and late registrations.

Contestants will NOT be allowed to use cell phones or other electronic communicating devices during the contest and will be disqualified for doing so.

Each contestant will be required to bring his or her printed **resume**. It will be presented to the judges upon entry to the contest area. A deduction will be applied to your overall score if you do not have a resume.

The contest orientation will begin at **8 a.m. SHARP**. Any contractors or industry representatives present who wish to speak to the contestant group may leave their information with the contest chair. Contestants will receive this information and have a potential employment opportunity.

The contest will follow immediately after or by 9 a.m.

Instructors will NOT be notified of winning contestants following the competition.

Contestants will NOT be permitted to leave the contest site until finished.

It is recommends bringing bottled water and snacks (energy bars, etc.) to tide contestants over until lunch

Box Lunch is included in conference registration.

INDUSTRY AWARDS

As agreed at August Conference each instructor is requested to secure a minimum of \$50.00 in prizes for each student that you bring to the State SkillsUSA Championships. Please contact your **Awards Chairman** for details and to let him know of industry awards you have secured. I know many of you have already been hard at work securing the awards. These awards should be labeled with the name, address, and contact person for the donating industry so that the contestant they are awarded to can send an appropriate expression of his or her appreciation.

TOOLS AND SUPPLIES

SUPPLIED BY THE TECHNICAL COMMITTEE:

Common HVAC/R equipment with faults inserted or assigned tasks:

- Air Conditioning Reem
- Heat Pump Carrier
- Electric Heat Lennox
- Gas Heat York
- Air Flow Measurement
- Refrigeration Johnstone Supply
- Oxy-Acetylene brazing equipment Tulsa Tech
- Pressure testing apparatus Tulsa Tech
- Static Pressure tip for airflow measurement

Judges and equipment for this year's contest are provided by:

- Johnson Controls, Inc.
- Carrier Enterprise
- Rheem
- Johnstone Supply
- Lennox Industries
- Locke Supply
- Oklahoma Construction Industries Board
- OSU-IT
- Plumbers and Pipefitters Local #344 (OKC)
- Plumbers and Pipefitters Local #430 (Tulsa)
- Shearer Supply
- PHCC and the UA
- Airco Service

THANK YOU to our judges and equipment donors!

SUPPLIED BY INSTRUCTOR FOR EACH CONTESTANT

- Clamp-on Volt-Ohm-Amp Meter
- Tool box or belt of basic hand tools for HVAC service
- Groove joint pliers (Channel Lock or equivalent)
- Flashlight
- K-Type Temperature Probe
- Torch Striker
- Acetylene bottle wrench (bone key)
- Tubing cutter
- Emery cloth or brush cleaner
- Tape measure
- Jumper leads
- Eye Protection (ANSI approved goggles or safety glasses with side shields or prescription glasses with side shields)
- Calculator (NO Mobile Phones)
- 2-#2 Lead Pencils

BRAZING MATERIALS:

- EXACTLY 24" of 3/8" Copper Tubing ACR (Hard Drawn preferred).
- 1 – 3/8" Schrader Service Valve
- 1 – 3/8" OD Copper Tee
- 4 – 3/8" OD Long Radius 90 degree ELL - Copper
- Silphos; 15% preferred, but whatever the contestant is most accustomed to brazing with.

CONTEST DESCRIPTION AND SCORING

The contest will consist of an online PDP knowledge test and an online written test covering knowledge of HVAC/R, brazing skills, and common troubleshooting/measurements in electrical, mechanical, airflow, gas supply, and refrigerant systems.

The SkillsUSA PDP is 2.5% of the contest score.

The HVAC written knowledge test is 10% of the contest score.

The technical skills portion of the contest is 87.5% of the contest score.

The above scoring is consistent with the national SkillsUSA competition.