



2026 HVAC Competition

FACT SHEET

Project Manager

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For questions related specifically to the HVAC competition, contact Sam Burnett at burnett@pljmech.com. For all event questions, contact Jarrell Jackson, National Craft Championships director, at (202) 595-1789 or jackson@abc.org.

Specific Competition Eligibility

This competition requires you to have an EPA 608 type 2 certification. Please refer to the overall eligibility and additional requirements listed in the guidebook.

Online Exam

Competitors will have one (1) hour to complete the 50-question exam. Every competitor should thoroughly understand the craft in which he/she is registered. All exams/tests are based on the standardized craft training process. In addition to the knowledge and skills required for each competition, all competitors should have completed the NCCER Core Curriculum modules. All competitors must sit for the exam or face disqualification from the NCC. The written exam makes up 25% of one's overall competition score. ABC will provide pencils, scratch paper, and a calculator for mathematical problems (if necessary). Scientific/graphing calculators and loose notes are prohibited. No reference materials are permitted. *Please refer to the 2026 NCC Guidebook for more details.*

Practical Performance Test Description

The practical performance test involves the reading and interpretation of blueprints, recovery, evacuation, leak test and recharge refrigerant of air conditioning equipment. Competitors must perform soldering and brazing techniques on a specific application, wire high- and low-voltage power supplies and perform electrical troubleshooting techniques. All competitors should possess basic blueprint reading skills, air conditioning and heating systems experience, including startup and commissioning of air conditioning systems, as well as knowledge of programmable thermostats, and perform some pipe threading exercises.

Knowledge and Skills Required

The knowledge and skills for this competition are based on all levels of the HVAC curriculum, with particular emphasis on the following modules:

- Introduction to HVAC
- Tools of the Trade
- Copper and Plastic Piping Practices
- Soldering and Brazing
- Basic Electricity
- Introduction to Cooling
- Introduction to Heating
- Introduction to Control Circuit
- Troubleshooting
- Accessories and Optional Equipment
- Leak Detection, Evacuation, Recovery and Charging
- Troubleshooting Electric Heating
- Troubleshooting Cooling
- Troubleshooting Accessories
- Troubleshooting Electronic Controls
- System Startup and Shutdown
- Pipe Threading Process

Tools Required

Each competitor must bring the tools listed below to the competition. Tools may be examined prior to the practical performance test below.

- Digital thermometer
- Swedging tool (3/8-inch)
- Striker
- Electrical Multimeter
- Electrical tape

Tools and equipment supplied by ABC onsite:

- Turbo torch kit
- Vacuum pump
- Flaring tool
- Recovery machine with a bottle
- Refrigerant scales
- Threading machine
- Pipe vise
- Pipe cutter
- Cordless drill gun with assorted bits
- Tubing cutter and tubing reamer
- Needle-nose pliers
- Level
- Channellock pliers
- Screwdrivers (Phillips and Straight)
- Nut runners (1/4-5/16-inch)
- Tape measure
- Allen wrenches
- Adjustable wrenches
- Wire strippers
- Utility knife

Sample Score Sheet

The following sample score sheet is provided to give competitors an example of the criteria that may be included in the practical performance test. **However, this score sheet is only a sample and not intended to act as a study guide in preparation or to imply specific criteria that will be judged during the actual practical performance test.**

Continued on next page

**ABC National Craft Championships
HVAC Sample Score Sheet**

Judging Criteria	Competitor Identification Numbers				
	Maximum Points				
Soldering and brazing					
Layout of work					
Leak check					
System components					
Diagram accuracy					
Troubleshooting					
System recovery, evacuation and recharge					
Sequence of work					
Care and use of tools					
General—ability to follow directions, quality of workmanship, neatness, best use of time and completion					
Project disassembly					
SUBTOTAL:	160				
Safety—housekeeping					
Use of hard hat					
Use of safety glasses					
Use of power tools					
Proper footwear					
SUBTOTAL:	40				
GRAND TOTAL:	200				
Tie Breaker #1					
Tie Breaker #2					