



2025 Fire Sprinkler Competition

FACT SHEET

Project Manager:

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For questions related specifically to the fire sprinkler competition, contact David Victor at dbvictor@vscfs.com. For all event questions, contact Jarrell Jackson, National Craft Championships director, at (202) 595-1789 or jackson@abc.org.

Specific Competition Eligibility

The fire sprinkler competition has no competition-specific eligibility requirements. Please refer to overall eligibility requirements of 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 2025 NCC Guidebook for more details.*

Practical Performance Test Description

The practical portion of the fire sprinkler competition will consist of installing a 2½-inch butterfly valve, a 2½-inch alarm check valve and three sprinkler heads. The three sprinkler heads shall consist of an upright, a pendent and a sidewall. This will all be piped from 2½-inch schedule 10 pipe. The competitor will be given drawings with various views of the riser and sprinklers as well as the manufacturer data sheet showing the arrangement of the valve trim. A loose assortment of steel pipe and cast-iron fittings will be given to the competitors to complete the task. After the riser assembly and sprinklers are complete, they will be connected to a water source and checked for leaks. When the project is **leak free**, the judges will ask a series of questions regarding the operation of the valve and its trim.

Each question session will take place in the order the competitors complete their project. No competitor will be allowed to leave the competition area until the question session by the judges is complete. When the horn blows at 3 p.m., all work shall stop. If there are competitors that have **leak-free** projects, but have not been questioned by the judges, all remaining competitors will remain in the competition area until all of the competitors that have **leak-free** projects have been questioned by the judges. At 4 p.m., all competitors shall return to the competition area to completely break down and clean the competition area.

Knowledge and Skills Required

The knowledge and skills for this competition are based on all levels of the NCCER sprinkler

fitting curriculum. It is strongly recommended that competitors have a working knowledge equivalent to a third-year apprentice. It is also recommended that each competitor works with his/her employer and/or instructor on the assembly of alarm valve trim. The competitor will be judged on all aspects of installation with a strong emphasis on safety and procedure.

Tools Provided

Each competitor should bring only the tools listed below to the competition. Tools may be examined prior to the practical performance test and additional tools will be stored until the competition has concluded.

- 10-inch crescent wrench
- 8- or 10-inch pipe wrench
- 12- or 18-inch pipe wrench
- Torpedo level
- File, to clean pipe ends
- 420 Channellock pliers
- 25-foot tape measure
- Socket set with deep set sockets and ratchet
- 10-inch channel locks
- Hacksaw with new blade

The afternoon prior to the competition each competitor will be given the opportunity to use the 2 1/2" pipe hand cutters, threading machine and groover provided by Wheeler-Rex. **Refer to the safety scope for proper power tool usage.**

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 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.**

**ABC National Craft Championships
Fire Sprinkler Sample Score Sheet**

Judging Criteria	Competitor Identification Numbers				
	Maximum				
Plan preparation					
Fabrication procedure					
Material organization					
Proper pipe location					
Proper sprinkler location					
Proper hangers					
Appearance					
Leaks					
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					
Tie Breaker #3					
Tie Breaker #4					