



2020 Plumbing Competition FACT SHEET

Project Manager

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For questions related specifically to the plumbing competition, contact Jan Prakke, plumbing project manager, (352) 661-0356 or jprakke@gulfmc.net. For all event questions, contact Lisa Nardone, National Craft Championships director, (202) 595-1789 or nardone@abc.org.

Specific Competition Eligibility

The plumbing competition has no competition-specific eligibility requirements. Please refer to overall eligibility requirements listed in the Guidebook.

Written Exam

Important news for 2020—The written exam must be completed before competitors arrive onsite. Exceptions will be made for extreme circumstances with prior approval of the NCC director via email. If an exception is granted, the make-up exam will take place Wednesday, March 25, 8:30 a.m.-11 a.m. and be proctored onsite by NCCER. Only those competitors with prior approval from the NCC director will be allowed to exam the test onsite. All competitors must sit for the written exam or face disqualification from the NCC. The written exam continues to make up 25 percent of one's overall competition score.

Competitors will complete the written exam at a local NCCER Accredited Assessment Center prior to arriving onsite. It is the responsibility of the sponsor organization to schedule test sessions directly with NCCER by emailing a request to: NCCTest@nccer.org SUBJECT: Schedule NCC Test.

NCCER will contact the sponsoring organization to provide access to the written test in NCCER's Online Testing System. Information on accessing the Testing System will be provided including requirements for the testing proctor.

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 Contren® Learning Series Core Curriculum modules. A non-programmable calculator will be provided for the written exam, but no reference materials are permitted.

Practical Performance Test Description

Each competitor will be assembling plumbing piping systems using copper, cast iron, steel pipe, PVC and CPVC. These systems may incorporate more than one joining method for each system. Plumbing drawings will be provided along with a fixture cut sheet with rough-in dimensions. The competitor will

use the drawings to perform the tasks of assembling the plumbing piping systems with code knowledge and instructions. Systems will be tested to ensure they do not leak.

This exercise will test the ability to read simple plumbing diagrams, install rough plumbing according to the diagrams, and specifications, and cut and prepare for connection of various plumbing piping materials. The order, of the below tasks, will depend on the availability of some equipment.

Task # 1

1. Read all plumbing drawings associated with this job and understand them.
2. Install rough plumbing, both waste and water as per drawing provided and rough-in sheet. Install as shown on the simple drawing provided.
3. Show location of backing for the lavatory on the wall section provided.
4. Run the Pex piping and join
5. Solder/braze the copper and assemble the NHCI & PVC fitting.
6. Copper water piping will be tested with air pressure.
7. Install brackets provided to secure water and W&V piping.

Task # 2

1. Determine the length of pipe needed for the 45-degree offset. Then cut, ream & thread the steel pipe nipple for this offset.

Task # 3

1. Cut 3” steel pipe and roll groove both ends per requirements to make the correct joining method.
2. Take prepared groove pipe and assemble with the 90-ell provided.

Task # 4

TBD

Notes:

- Safety First - Always wear your PPE.
- Set all rough-ins to the provided rough – in sheets.
- You have six hours to complete these tasks.

General plumbing notes:

- Install all fixture rough-ins according to submittal/specifications diagrams.
- Locate backing boards on wall section where required.
- Handicap accessibility is **not** applicable.
- Cast iron no-hub waste will be assembled per manufacture requirements.
- Copper tubing lines to be soldered/brazed water tight, and will be tested. (Don't forget to cap.)
- All plumbing work to have a neat appearance, and work area to be kept safe and clean.

Materials Provided

PVC
Cast iron
Copper
PEX pipe
CPVC
Galvanized steel pipe

Knowledge and Skills Required

The knowledge and skills for this competition are based on all levels of the NCCER Contren® Learning Series Plumbing curriculum. It is strongly recommended that competitors have a working knowledge equivalent to a third-year apprentice.

Tools Required

Each competitor should bring only the tools listed below and on the following page to the competition. Tools may be examined prior to the practical performance test and additional tools will be stored until the competition has concluded. If a tool, necessary to complete the practical performance test, is not listed, the National Craft Championships Committee will provide it:

- Hammer
- Tubing cutters (1-inch copper through)
- Screwdrivers (flat and Phillips)
- Channel-lock pliers
- Torpedo level
- Tape measure
- Pencils
- PVC/CPVC cutters
- Phillips bit and holder for screw gun
- No-hub torque wrench
- 8- and 10-inch adjustable crescent wrenches
- Striker
- Non-programmable calculator
- Side shields for prescription eyewear or appropriate over-glasses protection
- Knee pads

Tools to be provided

- Torch Rig
- Drill
- Wall framing
- Pipe threading machine
- Stand vise
- Saw
- Pex Gun
- Grooving Machine

NOTE: Remove all burrs on the end of piping where press fittings or push on fittings are used to keep from damaging o-ring and failing pressure test.

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.

ABC National Craft Championships Plumbing Sample Score Sheet

Judging Criteria	Competitor Identification Numbers					
	Maximum Points					
Layout						
Rough-in						
Code/specifications						
Waste and vent						

Preparation						
Piping						
Fixtures						
Pressure test						
Use of materials						
Care and use of tools						
Proper use of fasteners						
General – ability to follow directions, quality of workmanship, neatness, best use of time and completion						
Project disassembly						
SUBTOTAL:	160					
Safety – housekeeping						
Safety Task Analysis						
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						