

TECHNICAL DRAFTING COMPETITION

PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of technical drafting.

ELIGIBILITY

Open to active SkillsUSA members enrolled in programs with technical drafting as the occupational objective.

CONTEST GUIDELINES

1. For Part 1 of the contest, drafters will demonstrate their knowledge by answering a series of questions. These questions will cover topics including but not limited to:
 - ANSI Paper Sizes
 - Geometric Symbols
 - Finish Symbols
 - Identify parts and descriptions of machine thread screws and/or bolts
2. For Part 2 of the contest, drafters will demonstrate their knowledge of ANSI Dimensioning rules by dimensioning an orthographic drawing by hand. Each contestant will be provided with a ruler by the contest judge. Drafters will use a technical pencil or equivalent for this part of the contest.
3. For Part 3 of the contest, drafters will demonstrate their Computer Aided Drafting (CAD) skills. Contestants will create working drawing(s) of mechanical part(s). The final product to be graded will be an orthographic drawing that should communicate all required dimensions to reproduce that part.
4. During the contest, the contestants will work independently. No assistance will be given by other contestants, instructors or observers. Limited technical assistance for computer or software malfunction may be given.
5. Contestants will each be given the same amount of time to accomplish the problem. Everyone will begin at the same time and take the required lunch break, and no one will be allowed to work past the contest conclusion. Note: An exception may be granted at the discretion of the technical committee in an instance where a computer/software malfunction causes a significant time loss that impacts all contestants' performance.

EQUIPMENT

1. Supplied by the technical committee:

- a. The technical drafting workstation will be equipped with a flat table with space for a personal computer, textbooks, and a chair
- b. 110-volt electric outlet

2. Supplied by the contestant:

- a. A personal computer, monitor and input devices or a laptop computer
- b. Technical software of choice
- c. **USB drive (thumb drive)** to be used to transfer files from you to the judge.
- d. **On CAD, a completed border and title block (before the competition date) according to the border and title block specifications** [see attached file]
- e. Published computer-aided drafting reference books, Machinery Handbook, software manuals, published technical drafting reference books, tables and calculators of your choice. Reference materials may not take up more than 1 cubic foot of space and may not be shared by contestants

COMPUTER/SOFTWARE REQUIREMENTS

Please have installed and/or set when you arrive at the contest:

- 1. **All computers should be able to print as an Adobe (.pdf) document.**
- 2. The Adobe (.pdf) document will be saved to a USB Drive (thumb drive) and transferred to a computer of the judge for grading purposes. All file names must include your competitor number.
- 3. It is advisable to bring your system software and the software you will be using for the contest in case you have setup trouble. There may not be technicians on the floor the day of setup to assist you if you need help.

Scoring Rubric

[see attached file]