



# Welding Sculpture

## ELIGIBILITY

Open to active SkillsUSA members enrolled in career and technical programs with welding or metal trades as an occupational objective. Each District may send one high school and one college/postsecondary entry.

## CLOTHING REQUIREMENTS

Please follow the SkillsUSA National Technical Standards Clothing Guidelines or your District Level Clothing Requirements. Competitors will not weld at the District or State Level; therefore, you may wear official SkillsUSA attire, or the White Polo uniform. Final decision is based on the District requirements.

## SAFETY REQUIREMENTS

The SkillsUSA Technical Committee and Judges are released from all responsibility relating to personal injury resulting from the use of the equipment. Contestants will be removed from competition if they are using the equipment in an unsafe manner.

## EQUIPMENT AND MATERIALS SUPPLIED BY HOST

1. Table to display your binder and presentation.

## EQUIPMENT AND MATERIALS SUPPLIED BY CONTESTANT

1. All students must have a one-page, typewritten resume.
2. All competitors must submit a letter in the binder from the appropriate school official (i.e., CTE administrator, principal, instructor, etc.) on school letterhead which simply states:

- a. **District Version**

“I certify that [competitor’s name] meets the safety training requirements as outlined in the national technical standards, and the District Level Progressive Content Scope for the SkillsUSA Championships Welding Sculpture competition. Both the instructor(s) and the competitor certify that [competitor’s name] has received instruction and has satisfactorily passed examination on the safe use of equipment that may be used in the competition. We understand that competitors will be removed from competition if proper training has not been provided. Signed, [school official].”

\*\*\*\*Both the instructor and the competitor certify by agreeing to enter this competition that SkillsUSA Inc. SkillsUSA Pennsylvania, and the PA District Chairperson(s) and judges are released from all responsibilities relating to personal injury resulting from their use. Competitors will be removed from competition if proper training is not provided.

- b. Competitor designed and District Level Progressive Content sculpture.



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- c. Red three-ring binder (Official SkillsUSA Binder is not required at the District Level) documenting the sculpture project and processes.

## **SCOPE OF THE CONTEST - (DEFINED BY THE NATIONAL COMPETITION REGULATIONS)**

*(District Competitions are meant to be a scaled down version of National Competition. It is important for the students to participate in a competition that will reflect a cross-section of the industry skills needed to prepare them for the state and national levels)*

1. The competition evaluates the ability of the competitor to design and produce a welding sculpture. The skill performance includes an interview for competitors to answer questions related to all aspects of their creation of the design.

## **KNOWLEDGE PERFORMANCE**

1. The contest will include a written knowledge exam that assesses the practical knowledge of welding and cutting processes. General questions about GMAW, GTAW, SMAW, PAC, and OFC will be included on the test.

## **SKILLS PERFORMANCE**

The competition consists of four parts:

### **1. Evaluation of the District Level Progressive Content sculpture: District Level Progressive Content requires the sculpture to be a minimum of 25% complete in relation to the design drawings supplied by the competitor.**

- a. The sculpture cannot exceed the maximum size of 18" tall by 12" wide by 18" long and cannot exceed a weight of 100 lbs.
  - 1.) A penalty will be deducted if the sculpture exceeds the size limits.
  - 2.) A penalty will be deducted if the sculpture exceeds the weight limit.
- b. Sculptures shall be welded, brazed or soldered, depending on the material used. The sculpture should be representative of the welder's skills and ability.
  - 1.) Materials used must be ferrous or nonferrous metals.
- c. The sculpture must be the original and creative work of the competitor.
  - 1.) All copyright laws must be followed in the creation of the design.
    - a.) A penalty will be deducted for copyright violation.
- d. The sculpture must be one continuous piece, not multiple pieces unconnected.
  - 1.) Movement is allowed but not required.
  - 2.) Moving parts are permitted provided they do not affect the size parameters or integrity of the piece or create a safety hazard.



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- e. Projects are to be left unpainted, including primers and other coatings (except for clear coating).
  - 1.) Naturally achieved patinas shall be limited to air, water or heat, or any combination thereof. (No chemically enhanced finishes are permitted).
    - a.) A penalty will be deducted for paint/finish violation.
- f. No additional appurtenances can be used (mirrors, stands, etc.).
- g. The sculpture shall stand alone. No presentation pieces are permitted

## 2. Binder documentation

- a. Red three-ring binder (Official SkillsUSA binder is not required at the District Level.) The binder must contain no more than 60 pages.

*Note:* A sheet of paper has two sides. Each side is considered one page. Therefore, a single sheet of unfolded paper is two pages.

  - 1.) A penalty will be assessed for each page beyond the limit.
  - 2.) If sheet protectors are used, two sheets of paper can be placed back-to-back, creating a front and back page. This would be considered two pages.
  - 3. Unused sheet protectors will count as pages, as will any additional documents (such as extra resumes) placed in the binder.
  - 4.) Any pages contained in a pocket, folded page, or similar features will be counted as additional pages and will be subject to penalty
- b. Binders are not considered presentation pieces and are required to be placed with the sculpture prior to judging.
- c. The following binder components must be clearly labeled, tabbed, and in the stated order.
  - 1.) Table of contents
    - a.) Must be the first page.
  - 2.) A verification letter, on school letterhead, signed by an administrator, that
    - a.) Identifies the school, city, state and local advisor.
    - b.) Indicates the competitor and the division (high school or college/postsecondary).
    - c.) Verifies the sculpture was designed and constructed by the competitor
    - d.) List approximate time in each process thus far for the District Level Content Progress
    - e.) Include an estimate for the total itemized list of expenses when sculpture is completed



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- 3.) Photographs with captions (minimum 3)
  - a.) Photos must include the competitor, who must be identifiable working on the sculpture throughout various stages of construction; captions must depict the process demonstrated.
  - b.) If welds are ground or removed, photo documentation of original welds must be provided.
- 4.) Drawings
  - a.) Concept drawing(s)
  - b.) Drawings with approximate dimensions
- 5.) Supporting documents
  - a.) Examples: additional photos of process, design, cutting, welding, forming, explanation of creative use of process, etc.

### 3. Interview

- a. All competitors will be asked the same questions
- b. The competitor will participate in a five-to-seven-minute interview.
  - 1.) Questions from the judges will be related (but not limited to) sculpture, creation, inspiration, materials, processes, and workmanship.

### 4. Competitors will be assigned presentation times by the District Chair.

### Welding Sculpture Rubric

Item Name	Description	Possible Points
<b>Sculpture</b>		<b>220</b>
Metalworking Skills	Minimum 25% complete	20
Welding	Fit up, function of welds, number of welds, quality of welds	20 per description
Cutting	Functions of cuts, quality of cuts, (NOTE: no extra credit or deductions for CNC but no points give no cuts	20 per description
Design/Creativity	Level of difficulty, creative use of material/process, creativity, original design	20 per description



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<b>Notebook/Binder</b>		<b>120</b>
Table of Contents		20
Verification letter	School letterhead signed by administrator, advisor name and constructed statement, itemized list of estimated expenses for final sculpture, list of approximate time in each process	20
Itemized list of Purchased parts	With receipts	20
List of approximate time	In each process	20
Photographs (Min. 3)	Photos must include student, who must be identifiable working on the sculpture throughout various stages of construction, captions must depict the process demonstrated, if welds are ground or removed, photo documentation of original weld must be provided	20
Drawings	Concept drawing, drawings with approximate dimensions	20
<b>Interview</b>		<b>160</b>
Supporting Documents	Additional photos, design, cutting, explanation of creative process, inspiration	20
Greeting and Closing		20
Eye Contact		20
Knowledge/Explanation of project		20
Complete answers		20
Level of detail		20
Professionalism		20
Employability		20
<b>Written Test</b>	20 questions	<b>20</b>



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	Subtotal =	520
Safety	(Deduction)	-10
Clothing Penalty	(Deduction)	-5
No resume	(Deduction)	-10
	Total =	

*Note: No cell phones or other electronic devices may be used at any time during a competition; this includes using a calculator function on a cell phone for competitions in which calculators are permitted. This includes restrooms and competition holding areas.*

***Penalties for Prohibited Devices:*** *If a competitor's electronic device makes noise or if the competitor is seen using it at any time during the competition, an official report will be documented for review by the SkillsUSA Pennsylvania Championships director. If confirmed that the competitor used the device in a manner which compromised the integrity of the competition, the competitor's scores may be canceled.*

*Note: Scorecards should only be used as guidance. Changes may occur.*