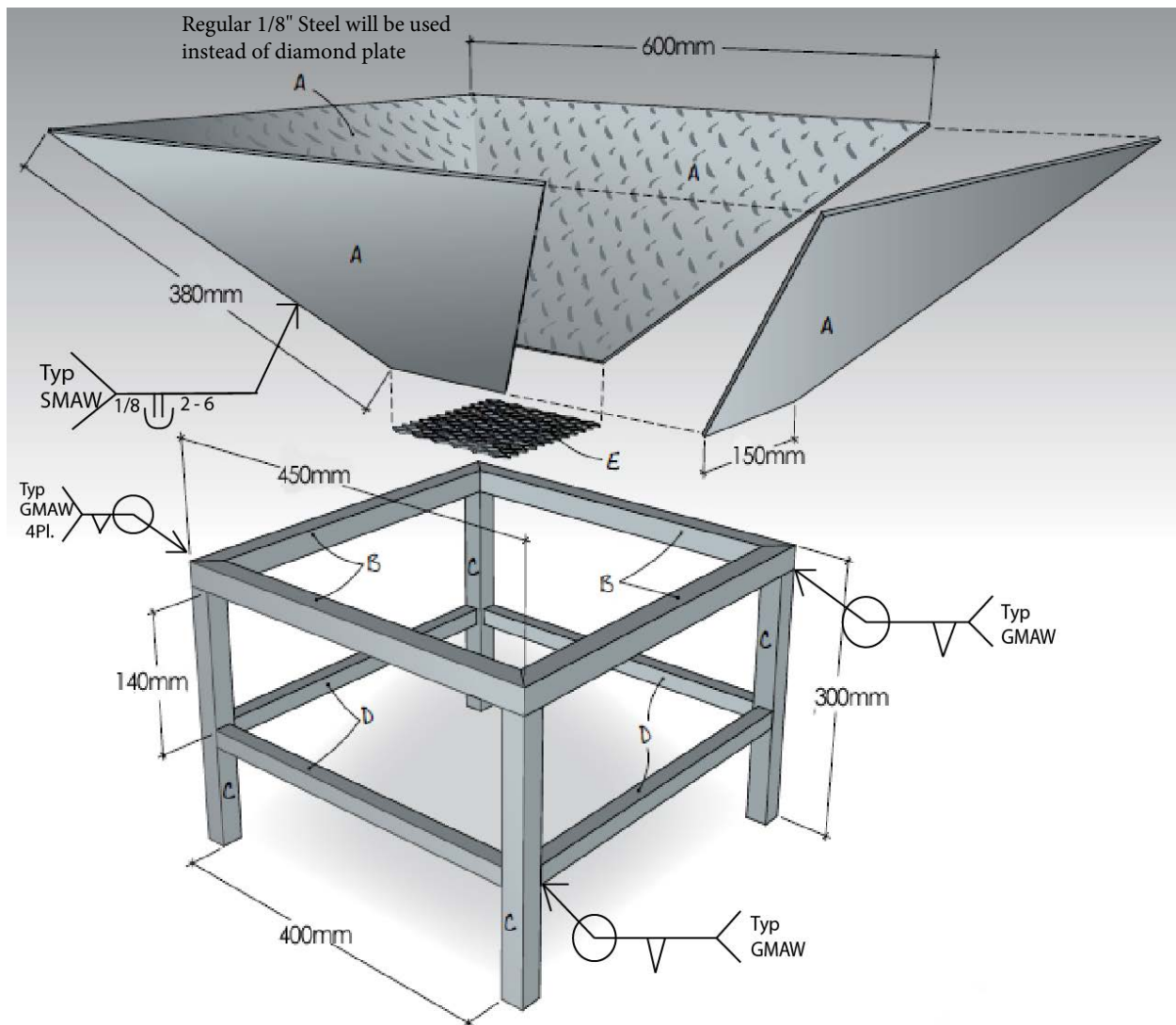


# Welding Fab Contest

The 2019 SkillsUSA Welding Fab Contest will test the ability for students to take a company blueprint and create a complete product. The customer has ordered a fire pit. The blueprint provided will indicate metric dimensions. Students will be required to convert the measurements to US standard or utilize metric measuring devices.

Students should use the blueprint provided and the following pages to identify the bill of materials, welding process to be used, and tools allowed in the contest.

All building materials will be provided for the schools at the contest site this year.



# Welding Fab Contest

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## Bill of Materials:

- #4 – 600mm X 150mm X 380mm x 380mm 1/8" Steel Plate (this will be precut for you)
- #4 – 1"X 1" 14 gauge Square Tubing 450mm in length with mitered corners (this will be precut for you)
- #1 – 1"X 1"X 60" 14 gauge Square Tubing
- #1 – 3/4"X 3/4"X 72" 14 gauge Square Tubing

## Components:

	QTY	SIZE	ITEM
A	4	600mm X 380mm	Bowl Sides – Tread Plate
B	4	25mm X 25mm X 450mm	Bowl Cradle Top – (14ga) Square Tubing
C	4	25mm X 25mm X 300mm	Legs – (14ga) Square Tubing
D	4	19mm X 19mm X 400mm	Horizontal Supports – (14ga) Square Tubing
E	1	162mm X 162mm	Mesh Grate

## Tools Allowed:

- Oxy-Fuel Cutting Torch (provided)
- Hand Grinder
- Clamps
- Metal Marking Pen or Soap Stone
- Measuring Tape
- PPE
- Compass
- Straight Edge (For Marking)
- Square
- Mobile Phone, Tablet, or Metric/US Standard Conversion Chart for converting or calculating metric to US standard conversions

## Processes:

### Welding:

Fabricators will use the welding symbols to identify the welding process for welding. All SMAW welding will be with 7018 3/32".

### Cutting:

All metal cutting will be performed with hand held oxy-fuel cutting torches. The straight edge can only be used in the marking of the material. NO edge guides will be used in the cutting of materials. A score of zero will be assigned to the OFG portion of the scoring rubric if a guide is used.

### Grinding:

Grinding will only be allowed to clean oxy-fuel slag. Judges will deduct points for excessive grinding if they feel the grinding played a major role in the fit-up.