



Shielded Metal Arc Welding – Overhead Welding

Project 1 – Specification and Print

| | |
|-------------------------|----------------|
| Weld Type | 4 Fillet Welds |
| Welding Process | SMAW |
| Position | Overhead |
| Material | 1/4 " Steel |
| Joint Type | Tee |
| Backing Option | |
| Backing Material | |

| | |
|---------------------------|------------|
| Polarity | DC+ |
| Electrode | E7018 3/32 |
| Transfer Mode | |
| Tungsten Electrode | |
| Shielding Gas | |
| Flow Rate | |
| Cup Size | |

| Welding Procedure | | | | | | | | | |
|-------------------|----------|---------|-----------------------------|-------------------------------|--------------|---------------------------|-----------------|-------|---------|
| Weld Layers | Pass No. | Process | Filler Metal Classification | Filler Metal Diameter in (mm) | Current Amps | Current Type and Polarity | Wire Feed Speed | Volts | Remarks |
| Slight Weave | | SMAW | E7018 | 3/32 | 80 | DC+ | | | |
| | | | | | | | | | |
| | | | | | | | | | |





Shielded Metal Arc Welding – Overhead Welding

Project 1 – Specification and Print

Heat Treatment:

Preheat Temperature:

Post Heat Temperature:

Interpass Temperature: Quench between passes

Stress Relieving:

Technique: Tee Fillet weld in overhead position using a slight weave technique.

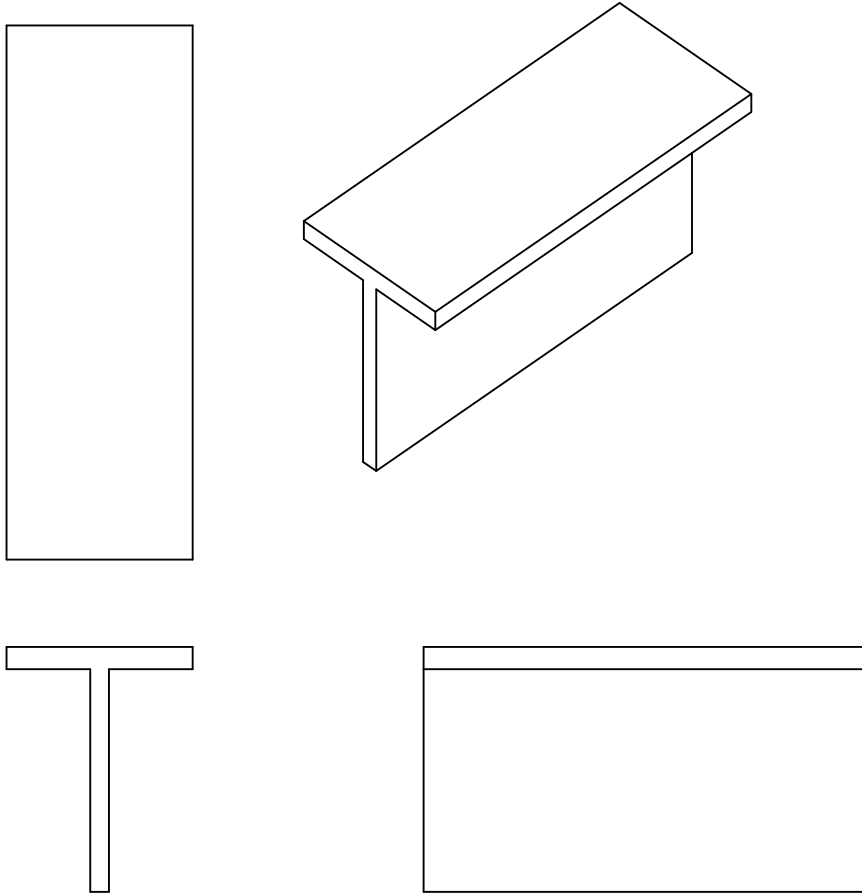
Number of Electrodes:

Additional Notes: Show instructor progress every 30 minutes, minimum.





Shielded Metal Arc Welding – Overhead Welding
Project 1 – Specification and Print



SolidWorks Student Edition.
For Academic Use Only.

PROPRIETARY AND
THE INFORMATION CONTAINED IN
THIS DOCUMENT IS THE SOLE PROPERTY
OF SIEMENS. ALL RIGHTS RESERVED.
REPRODUCTION IN PART OR AS A
WHOLE WITHOUT THE WRITTEN
<INSERT COMPANY NAME HERE>
PROHIBITED

| | | | | | |
|--|-------------|-----------------------------|-----------|------|--|
| | | UNLESS OTHERWISE SPECIFIED: | NAME | DATE | |
| | | DIMENSIONS ARE IN INCHES | DRAWN | | |
| | | TOLERANCES: | CHECKED | | |
| | | FRACTIONAL | ENG APPR. | | |
| | | ANGULAR: MATCH BEND | MFG APPR. | | |
| | | TWO PLACE DECIMAL | Q.A. | | |
| | | THREE PLACE DECIMAL | COMMENTS: | | |
| | | INTERPRET TOLERANCING | | | |
| | | MATERIA | | | |
| | | FINIS | | | |
| | | DO NOT SCALE DRAWING | | | |
| | ASSY | USED ON | | | |
| | APPLICATION | | | | |

TITLE:
CIMWD-112 Project 1

SIZE DWG. NO. REV
A Part 8

SCALE: 1:1 WEIGHT: SHEET 1 OF 1

5

4

3

2

1





Shielded Metal Arc Welding – Overhead Welding

Project 1 – Specification and Print

SAFETY DISCLAIMER:

M-SAMC educational resources are in no way meant to be a substitute for occupational safety and health standards. No guarantee is made to resource thoroughness, statutory or regulatory compliance, and related media may depict situations that are not in compliance with OSHA and other safety requirements. It is the responsibility of educators/employers and their students/employees, or anybody using our resources, to comply fully with all pertinent OSHA, and any other, rules and regulations in any jurisdiction in which they learn/work. M-SAMC will not be liable for any damages or other claims and demands arising out of the use of these educational resources. By using these resources, the user releases the Multi-State Advanced Manufacturing Consortium and participating educational institutions and their respective Boards, individual trustees, employees, contractors, and sub-contractors from any liability for injuries resulting from the use of the educational resources.

DOL DISCLAIMER:

This product was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

RELEVANCY REMINDER:

M-SAMC resources reflect a shared understanding of grant partners at the time of development. In keeping with our industry and college partner requirements, our products are continuously improved. Updated versions of our work can be found here: <http://www.msamc.org/resources.html>.

