



## Gas Metal Arc Welding (Flat and Horizontal)

### *Project 3 – Specification and Print*

<b>Weld Type</b>	Fillet Weld
<b>Welding Process</b>	GMAW
<b>Position</b>	Horizontal
<b>Material</b>	1/4" Steel
<b>Joint Type</b>	Tee
<b>Backing Option</b>	
<b>Backing Material</b>	

<b>Polarity</b>	DC+
<b>Electrode</b>	ER70s-6
<b>Transfer Mode</b>	Short Circuit Transfer
<b>Tungsten Electrode</b>	
<b>Shielding Gas</b>	75% Argon/25% CO2
<b>Flow Rate</b>	25 cfh
<b>Cup Size</b>	

<b>Welding Procedure</b>									
<b>Weld Layers</b>	<b>Pass No.</b>	<b>Process</b>	<b>Filler Metal Classification</b>	<b>Filler Metal Diameter in (mm)</b>	<b>Current Amps</b>	<b>Current Type and Polarity</b>	<b>Wire Feed Speed</b>	<b>Volts</b>	<b>Remarks</b>
Weave	Tee	GMAW	ER-70s-6	.035"		DC+	50	6.5	





---

## **Gas Metal Arc Welding (Flat and Horizontal)**

### *Project 3 – Specification and Print*

---

#### **Heat Treatment:**

**Preheat Temperature:**

**Post Heat Temperature:**

**Interpass Temperature:** Quench between passes

**Stress Relieving:**

**Technique:** Tee Joint use weave bead

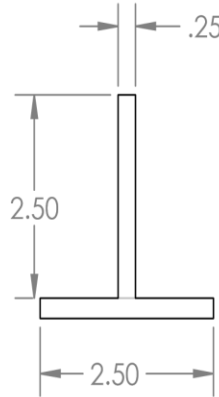
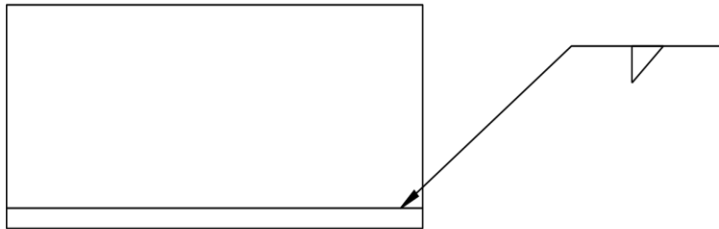
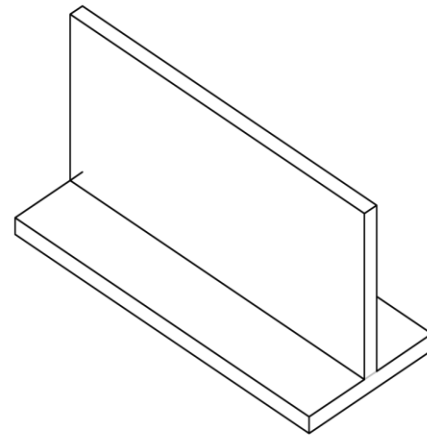
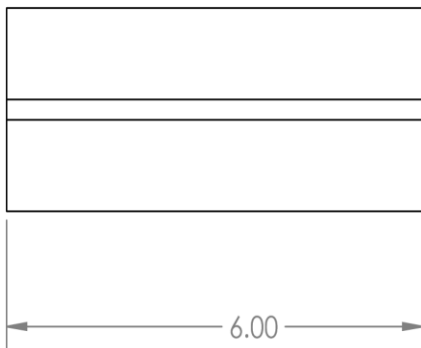
**Additional Notes:** Show instructor progress every 30 minutes minimum.





## Gas Metal Arc Welding (Flat and Horizontal)

### Project 3 – Specification and Print



**NOTE:** SHEAR CUT  
TACK WITH GMAW  
WELDED IN MODULE  
YOU ARE PARTICIPATING IN NEXT

**PROPRIETARY AND CONFIDENTIAL**  
THE INFORMATION CONTAINED IN THIS  
DRAWING IS THE PROPERTY OF  
<INSERT COMPANY NAME HERE>. ANY  
REPRODUCTION OR TRANSMISSION OF  
THIS INFORMATION WITHOUT THE WRITTEN PERMISSION OF  
<INSERT COMPANY NAME HERE> IS  
PROHIBITED.

**SolidWorks Student Edition.  
For Academic Use Only.**

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	TITLE: <b>CIMWD 130 Project 3</b>
		DIMENSIONS ARE IN INCHES		DRAWN	J.SIBERT 2/19/2015	
		TOLERANCES:		CHECKED		
		FRACTIONAL ±		ENG APPR.		
		ANGULAR: MACH ± BEND ±		MFG APPR.		
		TWO PLACE DECIMAL ±		Q.A.		SIZE DWG. NO. REV
		THREE PLACE DECIMAL ±		COMMENTS:		<b>A PART 8 0</b>
		INTERPRET GEOMETRIC TOLERANCING PER:				SCALE: 1:2 WEIGHT: SHEET 1 OF 1
		MATERIAL				
		FINISH				
5	4	3	2	1		
APPLICATION		DO NOT SCALE DRAWING				





---

## **Gas Metal Arc Welding (Flat and Horizontal)**

### *Project 3 – 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>.

