Gas Metal Arc Welding (Flat and Horizontal)

Project 1 – Specification and Print

Weld Type	2 Fillet and 1 PJP Groove
Welding Process	GMAW
Position	Horizontal
Material	1/8" Steel
Joint Type	Tee, Lap, and Butt
Backing Option	
Backing Material	

Polarity	DC+
Electrode	ER70s-6
Transfer Mode	Short Circuit Transfer
Tungsten Electrode	
Shielding Gas	75% Argon/25% CO2
Flow Rate	25 cfh
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**
Weave	Tee	GMAW	ER-70s-6	.035"		DC+	50	6	
Stringer	Lap	"	ER-70s-6	.035"		"	45	5.5	
Stringer	Butt	"	ER-70s-6	.035"		"	45	5.5	

Gas Metal Arc Welding (Flat and Horizontal)

Project 1 – Specification and Print

Heat Treatment:

Preheat Temperature:

Post Heat Temperature:

Interpass Temperature: Quench between passes

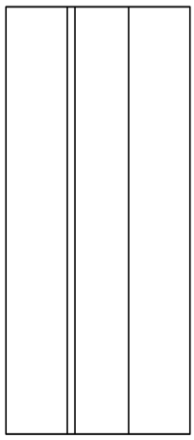
Stress Relieving:

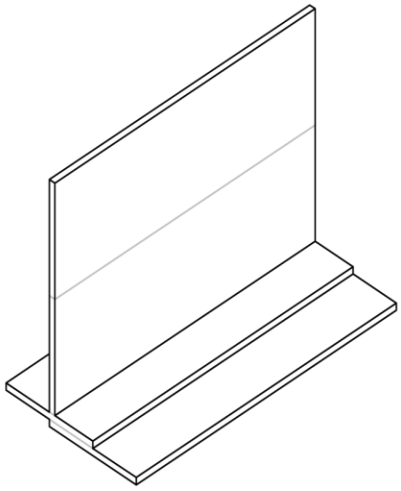
Technique: Tee Joint use weave bead
Lap Joint use stringer bead
Butt Joint use stringer bead

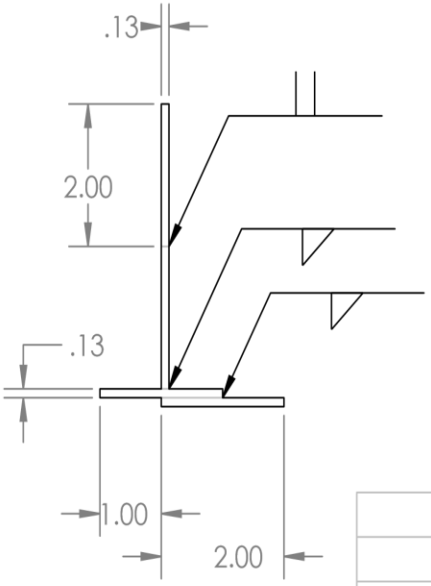
Additional Notes: Show instructor progress every 30 minutes minimum.

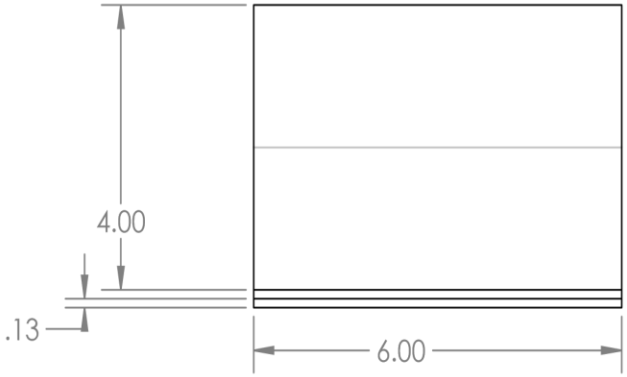
Gas Metal Arc Welding (Flat and Horizontal)

Project 1 – Specification and Print









NOTES:
CUT ON SHEAR
TACK USING GMAW
WELD UTILIZING
PROCESS IN MODULE

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	J.SIBERT	5/5/15	TITLE: CIMWD-130 Project 1
			CHECKED			
			ENG APPR.			
			MFG APPR.			
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			
		MATERIAL	COMMENTS:			SIZE A / DWG. NO. PART 16 D .125 / REV
		FINISH				
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:4 / WEIGHT: / SHEET 1 OF 1

5 4 3 2 1

Gas Metal Arc Welding (Flat and Horizontal)

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.