



## Tool and Die Welding (SMAW)

### *Project 3 – Specification and Print*

<b>Weld Type</b>	Knife Edge Build-Up
<b>Welding Process</b>	SMAW
<b>Position</b>	Flat and Horizontal
<b>Material</b>	1/4" Steel
<b>Joint Type</b>	
<b>Backing Option</b>	
<b>Backing Material</b>	

<b>Polarity</b>	DC+
<b>Electrode</b>	E7018 3/32
<b>Transfer Mode</b>	
<b>Tungsten Electrode</b>	
<b>Shielding Gas</b>	
<b>Flow Rate</b>	
<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>
Pad		SMAW	E7018	3/32"	75a	DC+			





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#### **Heat Treatment:**

**Preheat Temperature:**

**Post Heat Temperature:**

**Interpass Temperature:** Quench every 2-3 passes

#### **Stress Relieving:**

**Technique:** A knife edge build up using stringer beads. Looking for bead quality and bead placement

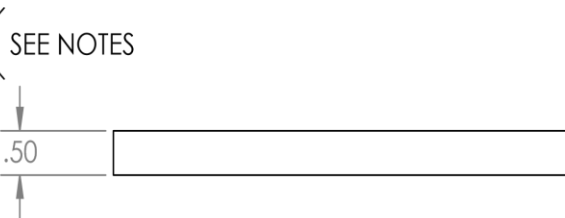
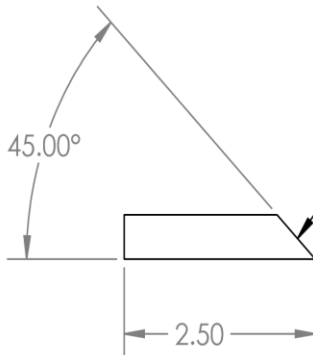
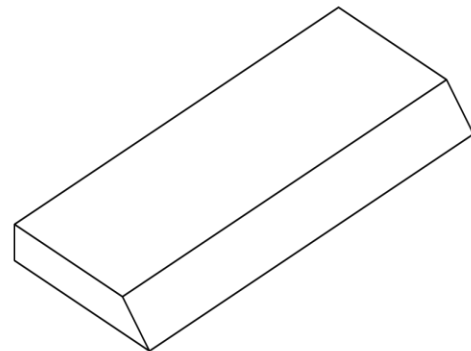
**Additional Notes:** Show instructor progress every 30 minutes minimum.





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**NOTES:**  
 KKNIFE EDGE BUILD-UP  
 SQUARE OFF READY  
 TO BE MACHINED  
 Z TO BE MADE  
 UTILIZING GTAW &  
 SMAW PROCESSES

		UNLESS OTHERWISE SPECIFIED:	NAME	DATE		
		DIMENSIONS ARE IN INCHES	DRAWN	J.SIBERT	5/5/2015	TITLE:  CIMWD-222 Project 3
		TOLERANCES:	CHECKED			
		FRACTIONAL ±	ENG APPR.			
		ANGULAR: MACH ± BEND ±	MFG APPR.			
		TWO PLACE DECIMAL ±	Q.A.			
		THREE PLACE DECIMAL ±	COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:				
		MATERIAL				
		FINISH				
		USED ON				
		APPLICATION				
		DO NOT SCALE DRAWING				
SIZE	DWG. NO.	REV				
<b>A</b>	<b>TOOL &amp; DIE</b>					
SCALE: 1:2	WEIGHT:	SHEET 1 OF 1				

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