

US DOL SPONSORED TAACCCT GRANT: TC23767

RELEASE DATE 10/07/2015

VERSION

v 001 1 of 4

PAGE

# Pipe Welding (2G and 5G Welding)

PRIMARY DEVELOPER: Kevin Ridge, Welding Instructor, Henry Ford College

Project 2 – Specification and Print

Weld Type	CJP Groove
Welding Process	SMAW or GTAW
Position	5G
Material	3" Sch. 80 Pipe
Joint Type	Vee Butt
Backing Option	No Backer
Backing Material	

Polarity	DC+					
Electrode	E6010 3/32, E7018 3/32					
Transfer Mode						
Tungsten Electrode	Or 2% Ceriated					
Shielding Gas	100% Argon					
Flow Rate	25cfh					
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			
Stringer	root	SMAW	E6010	3/32	50a	DC+						
	fill	u u	E7018	3/32	75a	u .						
	cover	u u	E7018	3/32	75a	"						
Stringer	Root & Fill	GTAW	ER70s-6	1/16 or 3/32	120a	u						





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VERSION PAGE v 001

2 of 4

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**Heat Treatment:** 

**Preheat Temperature:** 

**Post Heat Temperature:** 

**Interpass Temperature:** Quench between passes

**Stress Relieving:** 

Technique: SMAW- Root Pass performed with E6010 3/32 for CJP. Fill and Cover Passes performed

with E7018 3/32.

GTAW- Root/Fill/Cover use ER70s-6 1/16" or 3/32" filler metal

Initial/Interpass Cleaning- Chip and Brush

Number of Electrodes-

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





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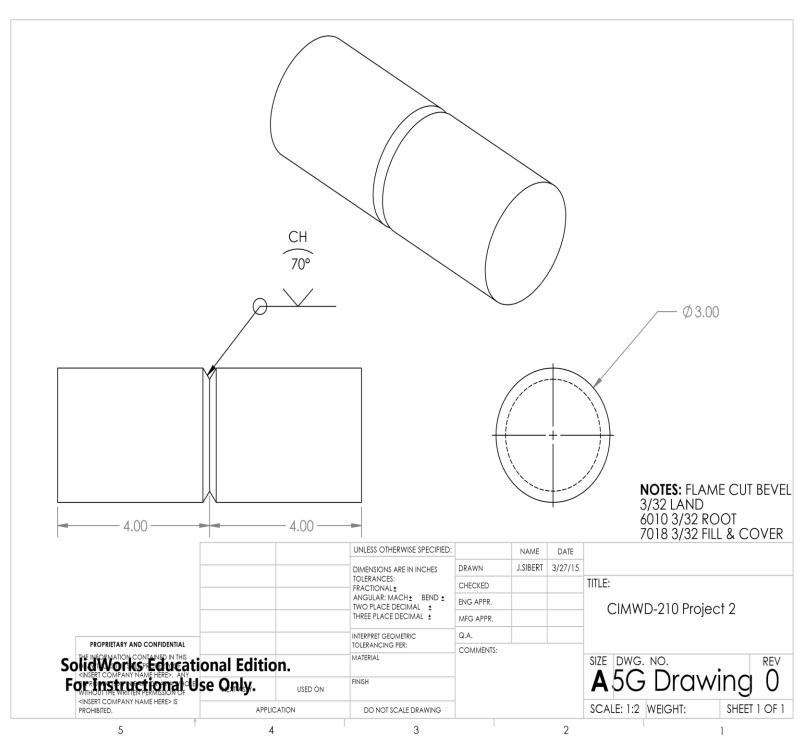
**PAGE** 

3 of 4

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**PAGE** 4 of 4

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