

Intro GMAW Tee joint 1/4" & 3/8" Fillet welds

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Date 12/12/2016 Certified Welding Inspector

Welding Process GMAW Welding Method Semiautomatic

**Joint Design Used**  
Weld Type Fillet welds  
Fillet Type T-joint  
Double Welded No  
Backing Yes Material Base Metal  
Root Opening 0 in. Root Face N/A  
Groove Angle N/A Radius N/A  
Back Gouging No Method N/A  
1/4" Fillet on one side and a 3/8" Fillet on the other side

**Base Metals**  
Base Metal ASTM A 36  
Thickness: Groove N/A  
Thickness: Fillet 3/8 in.  
Pipe Diameter N/A  
Remove mill scale

**Filler Metals**  
AWS Specification 5.18  
AWS Classification ER70S-6  
Trade Name Solid wire  
Weld Size 0.035 in.

**Shielding**  
Gas 75% Argon, 25% CO2 Flow Rate 35 CFH  
Gas Cup Size 3/8  
Electrode-Flux (Class) N/A  
Flux Trade Name N/A

**Preheat**  
Preheat Temperature, Min. 32°F  
Interpass Temperature, Min. 32°F Max. 350°F

**Joint Detail**

**Position**  
Weld Position: Groove N/A  
Weld Position: Fillet Horizontal only  
Vertical Progression N/A

**Electrical Characteristics**  
Power Source Miller XMT 350  
Output Constant Voltage  
Current / Polarity DCEP (reverse)  
Transfer Mode Globular arc  
Tungsten Electrode: Type N/A Size N/A  
Heat Input 31000 J/in

**Technique**  
Stringer or Weave Bead Stringer bead  
Multi-pass or Single Pass (per side) Single and multipass  
Number of Electrodes N/A  
Electrode Spacing: Longitudinal N/A  
Lateral N/A Angle N/A  
Contact Tube to Work Distance 1/2  
Peening N/A  
Interpass Cleaning Chipping hammer / Wire brush

**Postweld Heat Treatment**  
Temperature None  
Time (hr.) None

Welding Procedure

Pass or Weld Layer(s)	Process	Filler Metal		Current		Wire Feed Speed (in/min)	Volts	Travel Speed (in/min)
		AWS Classification	Size (in.)	Type & Polarity	Amps			
1 - 3	GMAW	ER70S-6	0.035	DCEP (reverse)	N/A	480 - 520	24 - 25	10 - 14

