

WELDING PROCEDURE SPECIFICATION (WPS)
PREQUALIFIED QUALIFIED BY TESTING
or PROCEDURE QUALIFICATION RECORDS (PQR) Yes
AASHTO/AWS D1.5 Qualification Type 5.12.1 - 5.12.2 - 5.13

Contractor/
 Organization MERRIMACK SHEET METAL
 Welding Process(es) GMAW
 Type: Manual Semiautomatic
 Machine Automatic
 Tandem Parallel

Identification LA-16
 Revision 0 Date 6/1/2010 By KK
 Authorized by KK Date 6/1/2010
 Supporting PQR No.(s) PQLA1

JOINT DESIGN USED
 Single Double Weld
 Backing: Yes No Material _____
 Root Opening 0-1/8 Root Face Dimension 1/8 MIN
 Groove Angle 45 DEGREE Radius (J-U) _____
 Backgouging: Yes No Method _____
 Root Treatment CLEAN TO BRIGHT METAL

POSITION
 Position of Groove 1G Fillet 1F
 Vertical Progression: Up Down

ELECTRICAL CHARACTERISTICS
 Transfer Mode (GMAW): Globular Spray
 Current: AC DCEP DCEN Pulsed
 Electrical Stick Out 3/4
 Other _____

BASE METALS
 Material Spec. A36 ; A588 ; A709 ;
 Type or Grade G50
 Thickness: Groove 1/4 TO UNLIMITED Fillet _____
 Diameter (Pipe) NA

TECHNIQUE
 Stringer or Weave Bead STRINGER
 Multi-pass or Single Pass (per side) SINGLE
 Number of Electrodes 1
 Electrode Spacing: Longitudinal NA
 Lateral NA Angle NA
 Interpass Cleaning CLEAN WITH WIRE BRUSH

FILLER METALS
 AWS Specification A5.28
 AWS Classification ER80S-N1
 Manufacturer Trade Name LINCOLN SUPERARC LA-75

PREHEAT
 Preheat Temp., Min. 70 F
 Interpass Temp., Min. 70 F
 Interpass Temp., Max. 400 F

SHIELDING
 Flux NA Mfg. Trade Name NA
 Electrode-Flux (Class) NA
 Gas Composition 90% ARGON / 10% CO2
 Flow Rate 45 CFH Gas Cup Size 3/4

POSTWELD HEAT TREATMENT
 Temp. NA Hold Time NA
 Heating/Cooling Rate NA

HEAT INPUT
 Calculated Heat Input Value: kJ/in kJ/mm
 Max. Heat Input 35.0 Min. Heat Input 20.2

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals	Current		Volts	Travel Speed	Joint Details
		Diam.	Type & Polarity	Amps or Wire Feed Speed			
3/16	GMAW	.045	DCEP	220-250	26-28	15-17 IPM	
1/4	GMAW	.045	DCEP	220-250	26-28	14-16 IPM	
5/16	GMAW	.045	DCEP	220-250	26-28	12-14 IPM	

Form L-2

Form L-2—Sample Welding Procedure Specification