

Current: N/A and N/A **Tungsten Type:** N/A **Transfer Mode:** N/A
Ranges: Amps 0 to 0 **Tungsten Dia.:** 0 **Pulsing Cycle:** N/A to N/A
Volts 0 to 0 **Background Current:** N/A
Fuel Gas: N/A **Flame:** N/A **Braze temp. °F** 0 to 0

WELDING TECHNIQUE: For fabrication specific requirements such as fittup, cleaning, grinding, PWHT and inspection criteria refer to Volume 2, Welding Fabrication Procedures

Technique: Automatic Machine **Cleaning Method:** Abrasive cloth/alcohol
Single Pass or Multi Pass: S **Stringer or Weave bead (S/W):** S or **Oscillation:** N/A
GMAW Gun Angle °: 0 to 0 **Forehand or Backhand for GMAW (F/B):** N/A
No Pass >1/2": N/A **GMAW/FCAW Tube to work distance:** N/A
Maximum K/J Heat Input: N/A **Travel speed:** N/A **Gas Cup Size:** N/A

PROCEDURE QUALIFIED FOR:

Charpy "V" Notch: N/A **Nil-Ductil Transition Temperature:** N/A **Dynamic Tear:** N/A

Comments: Use piping manufacturer heating and joining equipment or a manufacturer approved equivalent. Heating, pressure, holding, and time @ temperature shall be in accordance with manufacturers and consensus standards, (ANSI/ASME/ASTM, etc.) WPS Data Sheets will be added for each type of plastic pipe, (i.e. PP/PE/PPE/PVDF/HDPE/etc.) that fall within the jurisdiction of ANSI/ASME B31.3 Chap. VII and are performed within the manufacturers instructions/requirements.
 Bonding must be done with clean, dry pipe above 40° F.

Weld Layer	Manual Process	Filler Metals	Size	Amp Range	Volt Range	Travel/ipm	Nozzle Angle	Other
1	TF	N/A	0	0 to 0	0 to 0	0 to 0	0 to 0	
2	TF	N/A	0	0 to 0	0 to 0	0 to 0		
3	TF	N/A	0	0 to 0	0 to 0	0 to 0		
4	TF	N/A	0	0 to 0	0 to 0	0 to 0		
5	TF	N/A	0	0 to 0	0 to 0	0 to 0		

REM. * Weld layers are representative only - actual number of passes and layer sequence may vary due to variations in joint design, thickness and fitup.

Use of LANL Welding Procedures and Welder Qualifications for non-LANL work shall be at the sole risk and responsibility of the Subcontractor, and the Subcontractor shall indemnify and save LANL and the Government harmless from any and all claims, demands, actions or causes of action, and for any expense or loss by reason of Subcontractor's and their employees possession and use of LANL procedures and qualifications.