



**WELDING PROCEDURE
SPECIFICATION**

WPS- 1000-1/5	REV. NO.: 0	DATE: 9/1/2004	**APPLICABILITY**
WELDING PROCESS/ES SMAW- and SMAW-		ASME: X	AWS:
SUPPORTING PQ 100-5	100-1/5		OTHER: N/

JOINT This WPS shall be used in conjunction with the General Welding Standards (GWS) and Welding Fabrication Procedure (WFP) sections and criteria for joint details, repairs, NDE, inspection etc.

Weld Joint Type Butt/Fillet	Class:	Full or Partial Penetration
See GWS 1-06 for details	Preparation:	Thermal/Mechanical
Root Opening: 1/8 - 1/4	Backing:	Metal
Backgrind root: on double sided joints	Backing Mat.:	A-36
Bkgrd Method: Grind or carbon arc	GTAW Flux: N/A	Backing Retainer: N/A

FILLER METALS:	Class: E9018 and E10018
A No: 4 SFA Class: 5.5 and 0. F No: 4 and 0 Size: 3/32 1/8 5/32	
Insert: N Insert Desc.: N/A	Weld Metal Thickness Range:
Flux: Type: N/A Size: 0	AWS: 0.000 thru 0.000
Filler Metal Note:	ASME: 0.187 thru 8.000

BASE MATERIAL	P No. 1 Gr No. All to: P No. 5 Gr No. All
Spec. ASTM A-516	Grade: All to: Spec. ASTM A-387 Grade: All
Pipe Dia Range: Groove > 0	
Thickness Range: Groove :	AWS: 0.000 thru 0.000 ASME: 0.187 thru 8.000

QUALIFIED POSITIONS All	Vertical Progression: Up
Preheat Min. Temp.: 300 F	GAS: Shielding: N/A or N/A
Interpass Max. Temp. 500 F	Gas Composition: 0 % 0 % 0 %
Preheat Maintenance: 300 F	Gas Flow Rate cfh 0 to 0
	Backing Gas/Comp: N/A 0 %
PWHT: Time @ F Temp.	Backing Gas Flow cfh 0 to 0
Temp. Range: F to F	Trailing Gas/Comp: N/A %

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Signature on file at FWO-DECS	

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Note: For SC/SS/ML-1/ML-2 work, this WPS requires independent review.

WELDING CHARACTERISTICS:

Current: DCEP and NA Tungsten type: N/A Transfer Mode: N/A
 Ranges: Amps 75 to 200 Pulsing Cycle: 0 to 0
 Volts 14 to 24 Background Current: 0
 Fuel Gas: N/A Flame: N/A Braze temp. F to

WELDING TECHNIQUE: For cleaning, grinding, and inspection criteria refer to Volume 2, Welding Fabrication Procedures

Technique: Manual Cleaning Method: Wire Brush, File, Grind, Chip
 Single Pass of Multi Pass: M Striker or Weave bead (S/W): S Oscillation: N
 GMAW Gun Angle °: 0 to 0 Forehand or Backhand for GMAW (F/B): N/A
 Maximum K/J Heat Input Travel speed/ipm: 0 - 0 Gas Cup Size: N/A

PROCEDURE QUALIFIED FOR:

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

Comments:

Weld Layer	Manual Process	Filler Metals	Size	Amp Range	Volt Range	Travel ipm	Nozzel Angle	Other
1	SMAW-	E9018	3/32	75 160	14 22	0 0	0	
2	SMAW-	E10018	1/8	90 200	14 24	0 0	0	
3			5/32					
4								
5								
6								
7								
8								

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