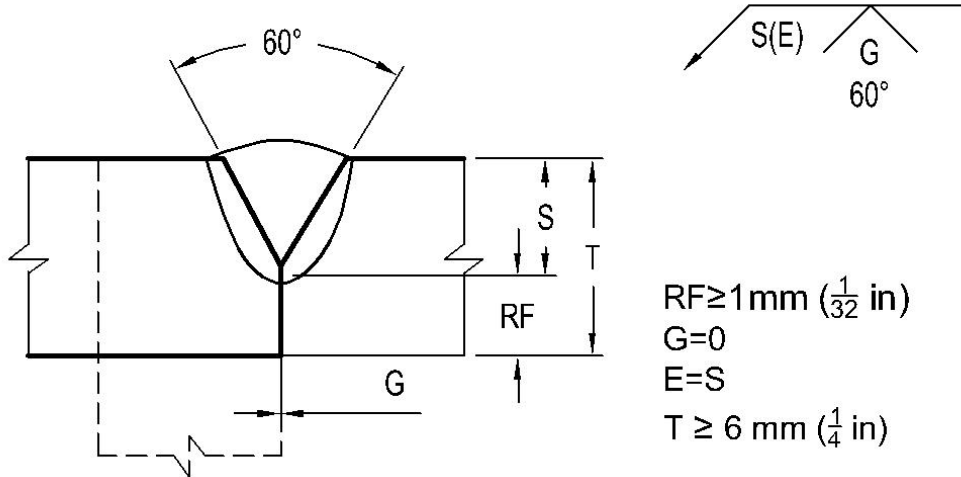


Prepared by: WPSAmerica.com		<b>WELDING PROCEDURE SPECIFICATION (WPS)</b>		Identification #	DEMO-SMAW	
Company Name: <i>www.WPSAmerica.com</i> Address: <i>info@WPSAmerica.com, Toll Free: 1 (877) WPS-WELD</i>				Ref. Code	AWS D1.1	
Process		SMAW	Process Type	Manual	Positions	F, H, V (up), OH
Base Metals		Weathering Steels, ASTM A 588 (Cor-Ten B) or Steels in Group III of Table 3.1 of AWS D1.1				
Filler Metals		AWS A5.5: E8018-C1, E8018-C1 H4R				
Preheat/ Interpass Temp., Min		Up to 20 mm (3/4): 10 °C (50 °F) ; Table 3.2 of AWS D1.1 on requirements for larger thicknesses				
Interpass Temp., Max		N/A	Current/ Polarity	DCEP or AC		
Interpass Cleaning		Chip, File, Brush and/ or Grind	Weld Type	Partial Joint Penetration Groove Weld		

Joint Details/ Joint Design Used/ Sketch:



BC-P2

Table 3.4 of AWS D1.1		
T	S	E min
in	in	in
$T = \frac{1}{4}$	As specified in the drawing	$\frac{1}{8}$
$T \leq \frac{1}{2}$		$\frac{3}{16}$
$T \leq \frac{3}{4}$		$\frac{1}{4}$
$T \leq 1 - \frac{1}{2}$		$\frac{5}{16}$
$T \leq 2 - \frac{1}{4}$		$\frac{3}{8}$

Welding Procedure:

Thickness (T) mm (in)	Weld Size ETT (E)	Side	Weld Layers	Pass No.	Filler Diameter mm (in)	Current Amps	Alternate Filler Diameters mm (in)	Current Amps
$T \geq 6$ mm (1/4)	S	1	As Required, see notes	As Required, see notes	3.2 mm (1/8)	100-150	2.4 mm (3/32)	80-110
							4.0 mm (5/32)	140-200
							4.8 mm (3/16)	200-270 (Except OH & V)

Notes, Technique or Code's rules:

- Number of passes varies based on joint configuration, position, electrode size, travel speed, and weld technique.
- First pass should be large enough to minimize the possibility of cracking.
- F=Flat, H=Horizontal, V=Vertical, OH=Overhead
- Maximum thickness of layers is 6 mm (1/4) for root pass and 5 mm (3/16) for subsequent layers.
- The groove in a joint may be reversed where more practical or necessary.
- Larger size electrodes may be used for fill and/ or cap passes of the thicker material.
- Smaller size electrodes usually applicable for root passes and/ or for thinner material.

Originated by:

John Smith, Welding Engineer

Date: 04, 29, 2005 Revision (1)

Authorized by:

Jim Clark, Quality Manager

Date: 04, 29, 2005

Caution Note: Use of prequalified joint is not intended as a substitute for engineering judgment in the suitability of application to a welded assembly or connection.