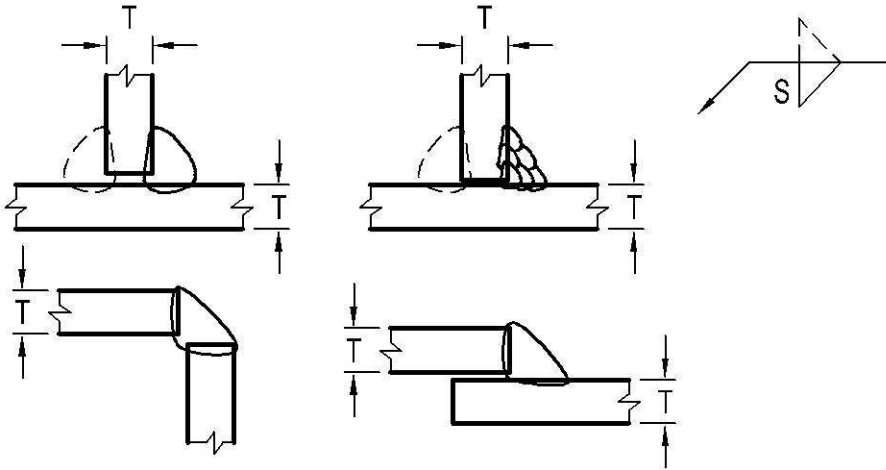


Prepared by: WPSAmerica.com		<b>WELDING PROCEDURE SPECIFICATION (WPS)</b>		Identification #	DEMO-SMAW	
Company Name: <i>www.WPSAmerica.com</i> Address: <i>info@WPSAmerica.com, Toll Free: 1 (877) WPS-WELD</i>				Ref. Code	AWS D1.1	
Process		SMAW	Process Type	Manual	Positions	Flat, Horizontal
Base Metals		Only Steels in Category A of Table 3.2 of AWS D1.1				
Filler Metals		AWS A5.1: E6010				
Preheat/ Interpass Temp., Min		Up to 20 mm (3/4): 0 °C (32 °F) ; Table 3.2 of AWS D1.1 on requirements for larger thicknesses				
Interpass Temp., Max		N/A	Current/ Polarity	DCEP		
Interpass Cleaning		Chip, File, Brush and/ or Grind	Weld Type	Fillet Weld		

Joint Details/ Joint Design Used/ Sketch:



Minimum Fillet Weld Size	
Table 5.8 of AWS D1.1	
Thickness	Weld Size, S
in	Single Pass
$T \leq \frac{1}{4}$	$\frac{1}{8}$ ( $\frac{3}{16}$ *)
$T \leq \frac{1}{2}$	$\frac{3}{16}$
$T \leq \frac{3}{4}$	$\frac{1}{4}$
$T > \frac{3}{4}$	$\frac{5}{16}$

S shall not exceed the thickness of thinner part joined.

Maximum weld size (S) shall be (a) T for  $T < \frac{1}{4}$  in, (b)  $T - \frac{1}{16}$  in for  $T \geq \frac{1}{4}$  in

\* For cyclically loaded structure

Welding Procedure:

Weld Size (S) mm (in)	Side	Weld Layers	Pass No.	Filler Diameter mm (in)	Current Amps	Alternate Filler Diameters mm (in)	Current Amps
5 mm (3/16)	1 or 2	1	1	3.2 mm (1/8)	90-140	2.4 mm (3/32)	50-85
6 mm (1/4)		1	1			4.0 mm (5/32)	120-170
8 mm (5/16)		1, 2	1-3 (2 Flat)			4.8 mm (3/16)	140-215
10 mm (3/8)		1, 2	1-3 (2 Flat)				
12 mm (1/2)		1-3	1-6 (4 Flat)				
16 mm (5/8)		1-4	1-8 (6 Flat)				
$\geq 20$ mm (3/4)		1 to 5+	1-12 (9 Flat)				

Notes, Technique or Code's rules:

- 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.