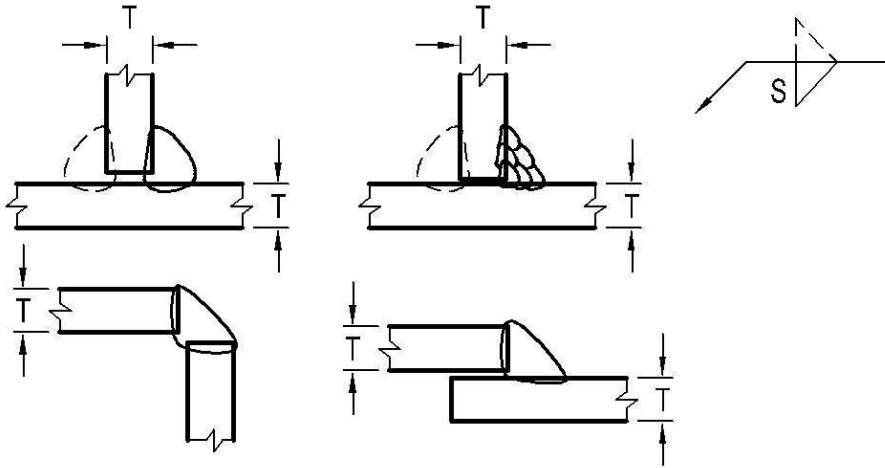


Prepared by: Entec Consultants, Inc		WELDING PROCEDURE SPECIFICATION (WPS)		Identification #	FCAW3143
Company Name: <i>Reo Welding Inc.</i>				Ref. Code	AWS D1.1
Address: <i>5 New Cortland Street, Cohoes, New York, 12047,</i>		PQR No.	PREQUALIFIED		
Process	FCAW	Process Type	Semi-Automatic	Position	F, H, V (up), OH
Base Metals		Steels in Groups I and II of Table 3.1 of AWS D1.1			
Filler Metals		AWS A5.20: E71T-1C, E71T-1C H4, E71T-1C H8 (Or) E71T-1M, E71T-1M H4, E71T-1M H8			
Shielding Gas Flux (SAW)		100% CO2 for -1C Wire ; Ar+ 20 to 25% CO2 for -1M Wire	Flow Rate	35-45 CFH	
			Nozzle Dia.	5/8 in	
Current Type/ Polarity		DCEP	Weld Type	Fillet Weld	
Electrical Stick Out ESO (in)		5/8 to 3/4	Preheat/ Interpass Temp., Min	Up to 20 mm (3/4): 0 C (32 F); Table 3.2-AWS D1.1 for more	

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 Metal Diameter mm (in)	Current Amps	Volts	Wire Feed Speed (IPM)	Travel Speed (IPM)
5 mm (3/16)	1 or 2	1	1	1.1/ 1.2 mm (0.045)	180-200	26-27	270-310	8 to 15
6 mm (1/4)		1	1					
8 mm (5/16)		1	1		220-240	27-29	350-400	
10 mm (3/8)		2	3					
12 mm (1/2)		2	3		250-290	29-31	420-500	
16 mm (5/8)		3	5					
≥ 20 mm (3/4)	4+	7+						

Notes, Technique or Code's rules:

- If using Ar+20-25% CO2, voltages may be reduced by approximately 1 to 2 volts.
- Depending upon welding position, weld type, surface condition or other factors, voltage and/or wire feed speed may need to be adjusted.
- Shielding gases shall conform to AWS A5.32/A5.32M
- The end of contact tube recommended to be recessed in the cup nozzle at least 6 mm (1/4).

Originated by:

Entec Consultants Inc.

Date: 01, 28, 2010 Revision (1)

Authorized by:

Reo Welding Co, Inc.

Date: 01, 28, 2010

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.