

Contractor/Organization: STRUCTAL, Div. Canam
Welding process(es): SAW
Type: Semi Auto or Auto

JOINT DESIGN USED

Backing: N/A Mat'l: N/A
Root Opening: N/A Rf Dim.: N/A
Groove Angle: N/A Radius (J, U): N/A
Backgouging: N/A Method: N/A
Root Treatment: Grind or Blast to Bare Metal

BASE METALS

Material Spec: A709 Type or Grade: Gr.36, 50,
Gr.50W
Size of Groove: N/A Size of fillet: 5/16"

FILLER METALS

AWS Spec.: A5.17 AWS Class.: EM12K-H8
Manufacturer Trade Name: ESAB Spoolarc 81

SHIELDING

Flux: ESAB Mfg Trade Name: OK 10.71
Electrode Flux (Class): F7A5 Cup size: N/A
Gas composition: N/A Flow Rate: N/A

POSTWELD HEAT TREATMENT

Temperature: N/A Holding Time: N/A
Heating/Cooling rate: N/A

HEAT INPUT

Min. Heat Input: 36.7 kJ/in Max. Heat input: 56.9 kJ/in

WPS : S-1001

Revision: 0 Date: 06/25/2012 By: Tyler Gaunt

Authorized by: *Tyler Gaunt* Date: 06/25/2012

Supporting PQR: PQR Ortho 1G DCEN

POSITION

Position of Groove: N/A Fillet: 1F or 2F
Vertical progression : N/A

ELECTRICAL CHARACTERISTICS

Transfer mode: N/A Current: DCEN
ESO: 1-1/4" +/- 1/4" Other: N/A

TECHNIQUE

Stringer or Weave Bead: STRINGER
Single or multiple pass: Single
Nb of Electrodes: 1
Electrode spacing :
Longitudinal: N/A, Lateral: N/A, Angle: varies
Interpass Cleaning: REMOVE ALL CONTAMINANTS

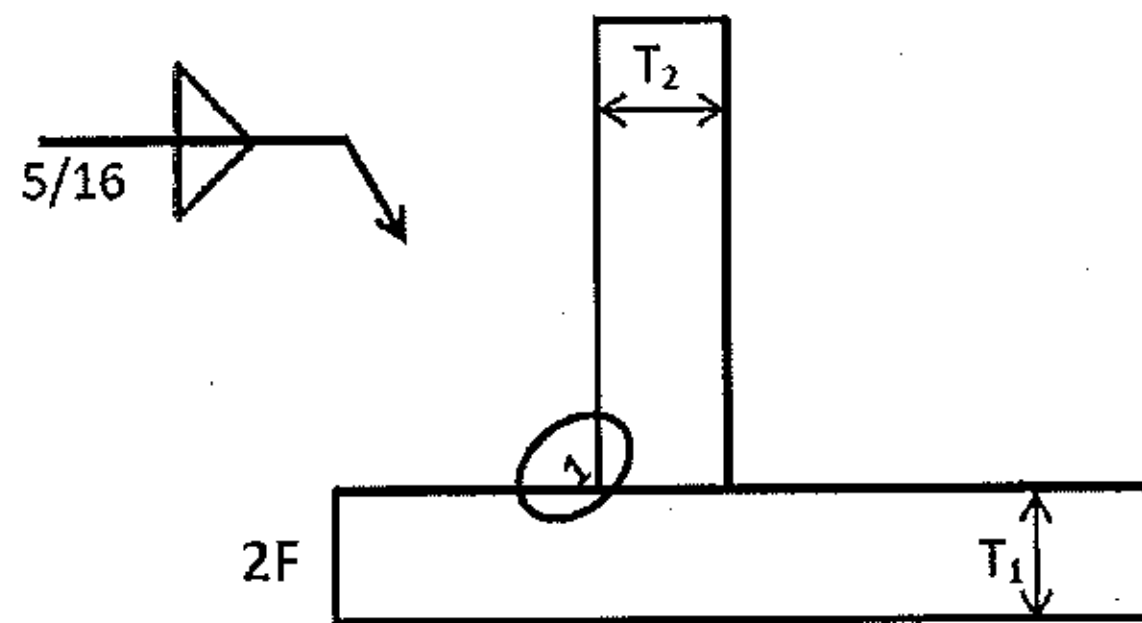
PREHEAT – Maximum interpass : N/A

MINIMUM PREHEAT & INTERPASS TEMPERATURE		
Thickness of thickest part at point of welding	FCM Application	Non FCM Application
$t \leq \frac{3}{4}$ (in.)	150 °F	50 °F
$\frac{3}{4} < t \leq 1\frac{1}{2}$ (in.)	250 °F	70 °F
$1\frac{1}{2} < t \leq 2\frac{1}{2}$ (in.)	325 °F	150 °F
$2\frac{1}{2} > t$ (in.)	350 °F	225 °F

Note1: For Fillet Welding on Main members

Note2: For Fillet Welding on Secondary members

Note3: Web to Flange fillet welds and stiffener to web fillet welds on main members shall be an automatic process

(S)	PASS	ELECT. SIZE	WELDING CURRENT		TRAVEL SPEED (IN/MIN)	JOINT DETAIL 1F or 2F (2F shown)
			AMPS	VOLTS		
5/16"	1	1/8"	590-630	32-34	24 - 25	
5/16"	1	3/32"	590-630	32-34	24 - 25	
APPROVED BY: JWC						
DATE: JUL 11 2012						
Resubmit BY: APPROVED BY: 7/20/12						

THIS PROCEDURE MAY VARY DUE TO FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC. WITHIN THE LIMITATION OF
VARIABLES GIVEN IN SECTION 5 OF AWS D1.5:2010.