WELDING PROCEDURE DATA SHEET (WPDS)

RC Technical Services
512 MacDougall Road
MacDougall Settlement, N.B.

WPDS No.:	252-S-F1
Rev:	0
Date:	July 02, 2019
Ref. WPS:	SMAW-CS
Ref. Standards:	CSA W47.1, CSA W59
Prequalified joint no. / PQR no.:	CSA W59, clause 10.1.3.3

Base Metal:

CSA W59, Table 11.1, GROUPS 1, 2, 3
ASTM A252 Gr. 1, 2, 3 (See remarks below)

Thickness: 3mm (1/8") to 19mm (3/4")

Filler Metal / Classification

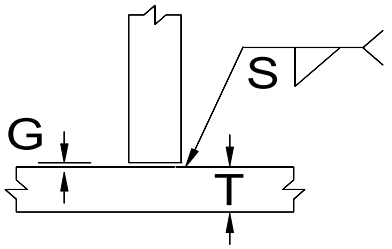
CSA W48: E4918-H8 or -H4, E4918-1-H8 or -H4,
AWS A5.1: E7018-H8 or -H4, E7018-1-H8 or -H4

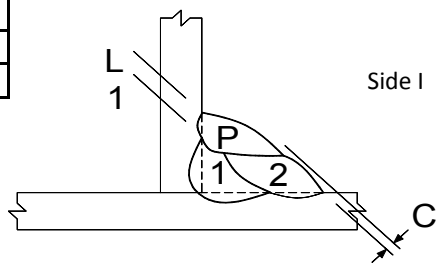
Process: **SMAW**

Shielding:	N/A
Gas Flow Rate:	N/A
Metal Transfer Mode:	N/A
Process Mode:	MANUAL
Position:	F, H, V-up, OH
Joint Type:	LAP, CORNER, TEE
Weld Type:	FILLET
Penetration:	N/A
Electrode Stickout:	N/A
Eff. Throat Thickness:	ETT = .7S
Preheating Temp.	10°C & Table 5.3 W59
Interpass Temp.:	260ºC (500ºF) MAX
Backgouging Method:	N/A
Backgouging Depth:	N/A
Backing Material:	N/A
Backing Thickness:	N/A

Min. Single Pass Fillet Size	
T mm	S minimum
T ≤ 6	3mm (1/8")
6 < T ≤ 12	5mm (3/16")
12 < T ≤ 20	6mm (1/4")
20 < T	8mm (5/16")

Max. Single Pass Fillet Size	
Position	S Max.
Flat	10mm (3/8")
Horizontal	8mm (5/16")
Vertical - up	12mm (1/2")
Overhead	8mm (5/16")





G = 0 to 1mm
C = as per CSA W59
L = add more weld layers as required.
P = add more weld passes as required.
See CSA W59 table 4.4 for min. single pass fillet size.
See CSA W59 table 10.1 for maximum criteria.

Welding Parameters:

Weld Size, S mm	Weld Size, S in	Side	Layer	Pass	Electrode Diameter inch	Current Polarity	Amperes Min	Amperes Max	WFS inch / min. Min	WFS inch / min. Max	Volts Min	Volts Max	Arc Travel in/min Min	Arc Travel in/min Max
5	3/16	I	1	1	1/8	DCRP	90	160						
6	1/4	I	1	1	1/8	DCRP	90	160						
8	5/16	I	1 - 2	1 - 3	1/8	DCRP	90	160						
Unlimited		I	1 - L	1 - P	5/32	DCRP	110	200						

Remarks:

ASTM A252 limitations:
a) S ≤ 0.05 and P ≤ 0.04 and
b) Carbon equivalent (C.E.) of the material shall be less than 0.50 using:

$$C.E. = C + \left(\frac{Mn + Si}{6}\right) + \left(\frac{Cr + Mo + V}{5}\right) + \left(\frac{Ni + Cu}{15}\right)$$

CWB Approval:

Questions? email: raycormier@rogers.com

Company's Approval: