



Production Joint Welding Procedure Specification (D1.5-10)

Procedure No: A-(MC)G-SEALWELD-01 Date Issued: 9-29-04 Revision No: 02 Rev. Date: 10-10-14

Contractor (Fabricator) D. S. Brown Company Prepared by: Brad Streefer, Quality Assurance Manager

1. Non-Fracture Critical Fracture Critical WPS Expiration Date: 7-22-19
2. Qualified in accordance with: AWS D1.5- 2010 (5.12.1)
 Referenced PQR No(s). PQR-(MC)GMAW-01(14) , , ,
 Referenced FWST No(s). PQR-(MC)GMAW-FWST-01A(14) , PQR-(MC)GMAW-FWST-01B(14) , , ,
3. Material specification(s) ASTM A709 Gr. 36, 50, 50W For DOT Approval
4. Material Thickness (es) Unlimited
5. Welding process GMAW
6. Manual , machine , or semiautomatic
7. Position(s) of welding 1G, 2G, 1F, 2F
8. Filler metal specification AWS A5.18
9. Filler metal class and brand name E70C-6M Corex Metal-Core Maxim
10. Flux class & brand N/A , Type N/A
11. Shielding gas 75% Ar / 25% CO2 Flow rate 45 CFH
12. Single pass Or multiple pass
13. Single arc Or multiple arc
14. Welding Current DCEP
15. Polarity Reverse
16. Welding progression stringers
17. Root treatment Clean to bright sound metal or per AWS D1.5 (3.2.1 & 3.11)
18. Postheat treatment N/A
19. Calculated Heat Input (KJ/in) Min 34.77 KJ/in Max 50.07 KJ/in
20. Electrode extension (electrical stickout) 3/4"

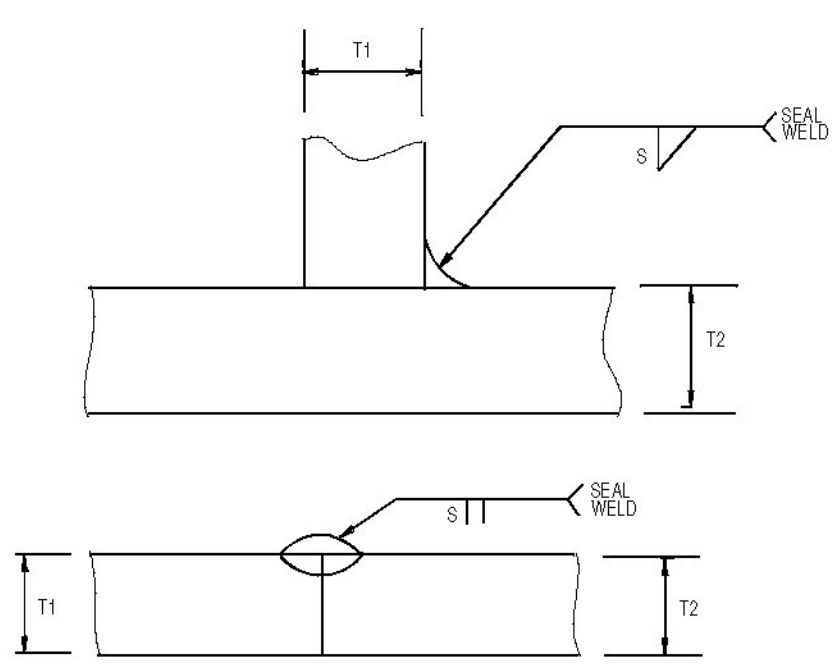
Vermont Agency of Transportation


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CK'D BY RSF OK'D BY CLB

September 19, 2017

RESUBMIT NO Approved
 BY C. CARLSON DATE 10/10/17

Weld size (in)	Pass No(s)	Electrode Size (in)	Welding Process Variables		Travel Speed (IPM)	Joint Detail (Fillet)
			AMPS	VOLTS		
**1/8"	1	.052"	270-319	27-31	11.85-13.9	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>T1 = Varies T2 = Varies S = Weld Size</p> </div> </div>
**3/16"	1	.052"	270-319	27-31	11.85-13.9	
<p>NOTE: THIS JOINT DETAIL TO BE ONLY USED FOR SEALING NON-STRUCTURAL APPLICATIONS WHERE FULL SIZED WELDMENTS ARE NOT DESIGNED, DETAILED OR ARE NOT PRACTICAL.</p>						

Prepared By:  DSB QA Manager Project: <u>VR-15A</u> DSB Job: <u>53146-1011</u>	Preheat and Interpass Temperature Chart <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="text-align: center;">Base Metal Thickness range</th> <th style="text-align: center;">Minimum Preheat (°F)</th> <th style="text-align: center;">Max Preheat & Interpass (°F)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">≤ 3/4"</td> <td style="text-align: center;">50°F</td> <td style="text-align: center;">450°F</td> </tr> <tr> <td style="text-align: center;">>3/4" to ≤1.5"</td> <td style="text-align: center;">70°F</td> <td style="text-align: center;">450°F</td> </tr> <tr> <td style="text-align: center;">>1.5" to ≤2.5"</td> <td style="text-align: center;">150°F</td> <td style="text-align: center;">450°F</td> </tr> <tr> <td style="text-align: center;">>2.5"</td> <td style="text-align: center;">225°F</td> <td style="text-align: center;">450°F</td> </tr> </tbody> </table>	Base Metal Thickness range	Minimum Preheat (°F)	Max Preheat & Interpass (°F)	≤ 3/4"	50°F	450°F	>3/4" to ≤1.5"	70°F	450°F	>1.5" to ≤2.5"	150°F	450°F	>2.5"	225°F	450°F
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Note: When this procedure is used for A709Gr50W materials, it shall be limited to 5/16" single pass or material be coated.