



Production Joint Welding Procedure Specification (D1.5-02)

Procedure No: A-(MC)G-SEALWELD-01 Date Issued: 9-29-04 Revision No: 0 Rev. Date: _____

Contractor (Fabricator) D. S. Brown Company Prepared by: James R. Connor, Quality Assurance Manager

- Non-Fracture Critical Fracture Critical WPS Expiration Date: _____
- Qualified in accordance with: AWS D1.5-2002 (5.12.1)
Referenced PQR No(s): PQR-(MC)GMAW-01(04)
Referenced FWST No(s): PQR-(MC)GMAW-FWST-01A(04), PQR-(MC)GMAW-FWST-01B(04)
- Material specification(s) ASTM A709 Gr. 36, 50, 50W For DOT Approval
- Material Thickness (es) Unlimited
- Welding process GMAW
- Manual , machine , or semiautomatic
- Position(s) of welding 1G, 2G, 1F, 2F
- Filler metal specification AWS A5.18
- Filler metal class and brand name E70C-6M Corex Metal-Core Maxim
- Flux class & brand N/A, Type N/A
- Shielding gas 75% Ar / 25% CO2 Flow rate 45 CFH
- Single pass Or multiple pass
- Single arc Or multiple arc
- Welding Current DCEP
- Polarity Reverse
- Welding progression stringers
- Root treatment Clean to bright sound metal or per AWS D1.5 (3.2.1 & 3.11)
- Postheat treatment N/A
- Calculated Heat Input (KJ/in) Min 30.6 KJ/in Max 51.1 KJ/in
- Electrode extension (electrical stickout) 3/4"

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Weld Size (in)	Pass No(s)	Electrode Size (in)	Welding Process Variables		Travel Speed (in/min)	Joint Detail (Fillet)
			AMPS	VOLTS		
**1/8"	1	.052"	265-320	31-34.5	13-16	<p>T1 = Varies T2 = Varies S = Weld Size</p>
**3/16"	1	.052"	265-320	31-34.5	13-16	
NOTE: THIS JOINT DETAIL TO BE ONLY USED FOR SEALING NON-STRUCTURAL APPLICATIONS WHERE FULL SIZED WELDEMENTS ARE NOT DESIGNED, DETAILED OR ARE NOT PRACTICAL.						

Prepared By: <u>James R. Connor</u> DSB QA Manager	Preheat and Interpass Temperature Chart		
	Base Metal Thickness range	Minimum Preheat (°F)	Max Preheat & Interpass (°F)
Project: <u>U.S. RTE. 5 OVER LULLS BROOK</u>	≤ 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

Note: When this procedure is used for A709Gr50W materials, it shall be limited to 5/16" single pass or material be coated.