

DSBROWN Production Joint Welding Procedure Specification (D1.1-04)

Procedure No: A-(MC)GSB-11(AK) Date Issued: 12-7-04 Revision No: 0 Rev. Date: _____
 Contractor (Fabricator) D. S. Brown Company Prepared by: James R. Connor, Quality Assurance Manager
 1. Non-Fracture Critical Fracture Critical WPS Expiration Date: _____
 2. Qualified in accordance with: AWS D1.1-2004
 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)
 3. Material specification(s) ASTM A709 Gr. 36, 50, 50W, ASTM A500B, A53 pipe 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 D1.1
 18. Postheat treatment N/A
 19. Calculated Heat Input (KJ/in) Min 30.6 KJ/in Max 51.1 KJ/in
 20. Electrode extension (electrical stickout) 3/4"

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Stick Size (in)	PDA No(s)	Pass No(s)	Electrode Size (in)	Welding Process Variables			Travel Speed (in/d)	Joint Detail (TC-P4-GF) Show all dimensions, weld sizes, passes, and AWS symbols
				AMPS/WFS*	VOLTS	(in/d)		
1/4"	1	.052"	265-320	31-34.5	13-16			
5/16"	1	.052"	265-320	31-34.5	13-16			
3/8"	1-2	.052"	265-320	31-34.5	13-16			
1/2"	3-4	.052"	265-320	31-34.5	13-16			
5/8"	4-6	.052"	265-320	31-34.5	13-16			
3/4"	5-7	.052"	265-320	31-34.5	13-16			
7/8"	6-9	.052"	265-320	31-34.5	13-16			
1"	7-10	.052"	265-320	31-34.5	13-16			

* Wire feed speed may be used along with amperage (include chart)
 Prepared By: James R. Connor DSB QA Manager
 Project: Route No. TH 7/11, CL3
 DSB Job: 20388-1206
 Note: When this procedure is used for A709Gr50W materials, it shall be limited to 5/16" single pass or material be coated.

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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