



Production Joint Welding Procedure Specification (D1.5-08)

Procedure No: B-FSB-01 Date Issued: 3-28-08 Revision No: 01 Rev. Date: 11-11-09
 Contractor (Fabricator) D. S. Brown Company Prepared by: Brad Streeter, Quality Assurance Manager

- Non-Fracture Critical Fracture Critical WPS Expiration Date: 3-6-13
- Qualified in accordance with: AWS D1.5-2008 (5.13)
 Referenced PQR No(s): PQR-FCAW-01-(08)
 Referenced FWST No(s): N/A, N/A
- Material specification(s) ASTM A709 Gr. 36, 50, 50W
- Material Thickness (es) Unlimited
- Welding process FCAW
- Manual , machine , or semiautomatic
- Position(s) of welding 1G, 2G, (1F, 2F)
- Filler metal specification AWS A5.20
- Filler metal class and brand name E71T-1CH8 (UltraCore71C)
- Flux class & brand N/A, Type N/A
- Shielding gas 100% 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 32.2 KJ/in Max 45.8 KJ/in
- Electrode extension (electrical stickout) 3/4"

For DOT Approval

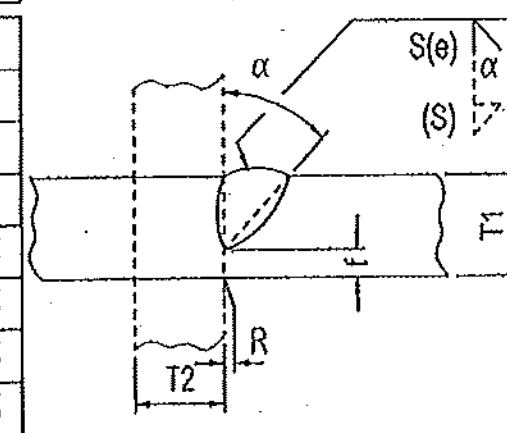
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Weld Size (in)	Pass No(s)	Electrode Size (in)	Welding Process Variables		Travel Speed (IPM)	T1 (in)	T2 (in)
			AMPS/WFS*	VOLTS			
**1/4"	1	1/16"	257-295	26.1-29.5	11.4-12.5		
5/16"	1	1/16"	257-295	26.1-29.5	11.4-12.5		
3/8"	2-3	1/16"	257-295	26.1-29.5	11.4-12.5		
1/2"	3-4	1/16"	257-295	26.1-29.5	11.4-12.5		
5/8"	4-6	1/16"	257-295	26.1-29.5	11.4-12.5		
3/4"	5-7	1/16"	257-295	26.1-29.5	11.4-12.5		
7/8"	6-8	1/16"	257-295	26.1-29.5	11.4-12.5		
1"	7-9	1/16"	257-295	26.1-29.5	11.4-12.5		

Joint Detail (TC-P4-GF)

Show all dimensions, weld sizes, passes, and AWS symbols

** T1 & T2 equal to or less than 3/4" for 1/4" welds



T1 = 1/4" min.
 T2 = Varies
 (E) = S-1/8"
 f = 1/8" min.
 R = 0
 alpha = 45°
 S = size groove
 (S) = size of reinforcing filler (if required) not to exceed 1/4" in corner & T jts.

For Butt Joints see AWS 2.14

* Wire feed speed may be used along with amperage (include chart)

Prepared By: [Signature] DSB QA Manager
 Project: _____

DSB Job: 35029-1112

Preheat and Interpass Temperature Chart		
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

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