

**Casco Bay Steel Structures, Inc.**

75 Spring Hill Road  
Saco, Maine 04072

Phone: (207) 282-7360

Fax: (207) 282-1179

WELDING PROCEDURE SPECIFICATION

Material specification ASTM A709/A709M - Grade 36(250) 50(345) 50W(345W)  
 Welding process Flux Cored Arc welding (FCAW)  
 Manual or machine Semi Auto  
 Position of welding Flat (1G) Horizontal (2G)  
 Filler metal specification AWS A5.20  
 Filler metal classification E71T-1  
 Flux NA  
 Shielding gas 75% Ar 25% CO2 Flow rate 40 CFH ± 5  
 Single or multiple pass Single and Multiple - Electrode Extension 3/8" ± 4 (5.875 ± 6.35)  
 Single or multiple arc Single  
 Welding current DC  
 Polarity Reverse  
 Welding progression See Joint Detail  
 Root treatment Remove AWS specification  
 Preheat and interpass temperature 230 (19.50(10) - 34(4) to 1 1/2(68) - 1 1/2(68) to 2 1/4(13) 150(65)  
 Postheat temperature NA  
 Heat input Min \_\_\_\_\_ Max \_\_\_\_\_

(METRIC) WELDING PROCEDURE

| Pass no. | Electrode size | Welding current |       | Travel speed |
|----------|----------------|-----------------|-------|--------------|
|          |                | Amperes         | Volts |              |
| 1/16     | 1/16           | 27.5            | 28.8  | 11.6         |
|          |                | 247.5           | 26.8  | 10.4         |
|          |                | TO              | TO    | TO           |
|          |                | 302.5           | 30.8  | 12.8         |
| 1.6      | 1.6            | 27.5            | 28.8  | 294.6        |
|          |                | 247.5           | 26.8  | 264.2        |
|          |                | TO              | TO    | TO           |
|          |                | 302.5           | 30.8  | 325.12       |

Joint detail: AWS D1.5 Joint detail: FC P4-F

NOTE: GRIND FLOSH AS REQ

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 103 Contractor Casco Bay Steel  
 Revision no. \_\_\_\_\_ Authorized By P.O. Hood  
 Form III-2 Date 3/23/00

