

WELDING PROCEDURE SPECIFICATION

Material specification ASTM-A709 Gr 50
Welding process Flux Cored Arc Welding
Manual or machine Semi Auto
Position of welding Flat - Horizontal
Filler metal specification A5-20
Filler metal classification E71-1H8 - Lincoln Ultracore 71A75 Dual
Flux NA
Shielding gas 75%Ar - 25%CO2 Flow rate 35 CFH TB-4
Single or multiple pass Both
Single or multiple arc Single
Welding current DC
Polarity DC E/P
Welding progression See Joint
Root treatment Area To be Free of Rust - Seal - Slag and Rust - Moisture
Preheat and interpass temperature See Table
Postheat temperature NA
Heat Input Min 27.1 kJ/in Max 41.5 kJ/in P.Q.R. FC-12-39.7 kJ/in

Minimum Preheat and Interpass Temperature, °C (°F)

Welding Process (Base Metal)	Thickness of Thickest Part of Joint of Welding, mm (in)		
	Over 20 mm (3/4 in) to 40 mm (1-1/2 in) Incl.	Over 40 mm (1-1/2 in) to 65 mm (2-1/2 in) Incl.	Over 65 mm (2-1/2 in) and over
SAW; SMAW; FCAW; SAW (M270M (M270))	10 (50)	20 (70)	65 (150)
SAW; SMAW; FCAW; SAW (M270M (M270))	10 (50)	20 (70)	110 (225)

WELDING PROCEDURE

ST of VTAOT
 BY NO. 14 1/8-16 1/2
 Enter State 91
 CBSS 484

Pass no.	Electrode size	Welding current		Travel speed	Joint detail	Horizontal
		Amperes	Volts			
AS REQ	1/16	292	20	13		
		263	26	12		
		To 321	To 30	To 14		
5-13 01-5 5/16 To 3/8 5/16 Max Interpass Temp 450°F						

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 ST of VT
 Revision no. 1-8-13-10

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6-28-10



Putney IM 091-1(60)
 VTrans Structures' Section
 Jan 26, 2011

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 QC1 EXP. 10/01/10