



Casco Bay Steel Structures
 One Wallace Ave, South Portland ME 04106
AWS - Prequalified Welding Procedure Specification (pWPS)
 WeldOffice WPS

Company name	Casco Bay Steel Structures
Welding process	SMAW
Process type	Manual

Joint design used	
Joint type	T - T joint
Joint design	Fillet Weld
Backing	No
Backing material	Not Applicable
Root opening (R)* (in.)	
Root face (f)* (in.)	
Groove angle (a)* (deg.)	
Radius (J - U)* (deg.)	
Back gouging	No
Back gouging method	None

Base metals <small>* Datum, As Detailed (As Fit-Up)</small>	
Spec. type or grade	Gr 50
Thickness: Groove (in.)	
Fillet (in.)	1/8" and above
Diameter (Pipe) (in.)	Unlimited

Filler metals	
AWS Specification	A5.1
AWS Classification	E-7018 H4R

Shielding	
Flux	-
Electrode-flux (class)	-
Gas composition	-
Gas flow rate (cfh)	-
Gas cup size (in.)	-

Layer	Pass	Process	Filler metal class	Filler metal diameter (in.)	Current type / polarity	Amps	Wire feed speed (in./min)	Volts	Travel speed (in./min)	Joint details
1	All	SMAW	E-7018 H4R	1/8	DCEP	90-160	-	n/a	varies	
1	All	SMAW	E-7018 H4R	1/8	AC	100-160	-	n/a	varies	
1	All	SMAW	E-7018 H4R	5/32	DCEP	130-210	-	n/a	varies	
1	All	SMAW	E-7018 H4R	5/32	AC	140-210	-	n/a	varies	
1	All	SMAW	E-7018 H4R	3/16	DCEP	180-300	-	n/a	varies	
1	All	SMAW	E-7018 H4R	3/16	AC	200-300	-	n/a	varies	

Not allowed for Vertical or Overhead welds

Identification #	470	Rev.	
Originated by	Matthew Cote	Date	7/21/2014
Authorized by	Matthew J Cote	Date	7/21/2014

Position	
Welding position:	Groove Fillet All
Vertical progression	Up

Electrical characteristics	
Transfer mode (GMAW)	N/A
Current type	Other
Other	DC+ and AC

Technique	
Stringer or weave bead	Stringer or Weave
Multi/single pass (per side)	Single or Multiple
Number of electrodes	Varies
Spacing: Longitudinal (in.)	-
Lateral (in.)	-
Angle (deg.)	-
Contact tube to work (in.)	-
Peening	Not permitted
Interpass cleaning	Brushing or grinding

Preheat	
Preheat temp.: Min. (°F)	See notes
Interpass temp.: Min. (°F)	See notes
Max. (°F)	450

Post weld heat treatment	
Temperature (°F)	None
Time (hrs)	-

Notes
 LINCOLN ELECTRIC EXCALIBUR 7018 MR
 TACKING ONLY ON GR50W MATERIAL
 CBSS 696 RT 110 over 1st Branch White River
 Br #9 Proj BHF 0169 (9)
 CBSS 697 RT 110 over South Washington Brook
 Br #11 Proj BHF 169 (10)
 Chelsea, VT



Signature 1		Signature 2	
Name	Signature	Name	Signature
Mathew J Cote			
Date	7/21/14	Date	
Signature 3		Signature 4	
Name	Signature	Name	Signature
Date		Date	

March 8, 2017
 RESUBMIT No Approved AsNoted
 BY Kristin Higgins DATE 3/10/2017