FIGURE 1.1 WELDING PROCEDURE SPECIFICATION (WPS)

Company Name: VRTEX® VRAW™

Identification #: VRTEX® GMAW # 60
Revision: ____ Date: ____ by: ____
Authorized by: ____ Date: ____

Welding Process: **GMAW**
Type: Manual ☐ Semi-Automatic ☒
Machine ☐ Automatic ☐

Supporting PQR No.(s): PQR VRTEX® 60

JOINT DESIGN USED

Type:
Lap ☐ Tee ☒ Butt ☐
Corner ☐ Edge ☐

Single Weld ☒ Double Weld ☐
Backing: YES ☐ NO ☒
Root Opening: N/A Root Face Dimension: N/A
Groove Angle: N/A
Back Gouging: Yes ☐ NO ☒ Method: N/A

POSITION

Groove: N/A Fillet: ***2F*** Flat Surfacing: ☐

Vertical Progression: Up ☐ Down ☐

ELECTRICAL CHARACTERISTICS

Transfer Mode: Short Circuit ☐ Globular ☐ Spray ☒
Pulse ☐
Other: *N/A*
Current: AC ☐ DCEP ☒ DCEN ☐
Power Source: CC ☐ ☒
Tungsten Electrode (GTAW)
Size: N/A
Type: N/A

BASE MATERIAL

Material Spec.: ASTM A36
Type or Grade: *N/A*
Thickness: Groove N/A Fillet ***3/8" (9.6 mm)***

TECHNIQUE

Stringer, Weave Bead, Other: *Stringer*
Multi-pass or Single Pass (per side): *Multi-pass*
Number of Electrodes: Single
Contact Tip to Work Distance: *1/2"*
Peening: Yes ☐ NO ☒
Interpass Cleaning: YES ☐ NO ☒
Cleaning Method: None

FILLER METALS

AWS Specification: *A5.18*
AWS Classification: ***E70S-6***

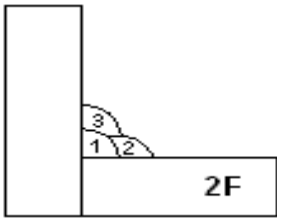
PREHEAT

Preheat Temp.: Min. N/A Max N/A
Interpass Temp.: Min. N/A Max N/A

SHIELDING

Electrode Flux (Class): N/A
Flux: N/A
Gas: Argon/Co2
Composition: *90/10*
Flow Rate: *25-40cfh (12-19 l/min)*
Gas Cup Size: N/A

WELDING PROCEDURE

Pass or Weld Layer(s)	Technique	Filler Metals		Current		Volts / Trim	Travel Speed	Joint Details
		Class	Diameter	Type & Polarity	Wire Feed Speed			
1	Stringer	E70S-6	.045" (1.1 mm)	DC+	375 (9.5 m/min)	26.5	20 ipm (.51 m/min)	
2	Stringer	E70S-6	.045" (1.1 mm)	DC+	375 (9.5 m/min)	26.5	24 ipm (.61 m/min)	
3	Stringer	E70S-6	.045" (1.1 mm)	DC+	375 (9.5 m/min)	26.5	18.4 ipm (.47 m/min)	

Sample Lesson

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