

WELDING PROCEDURE SPECIFICATION (WPS)

PREQUALIFIED QUALIFICATION BY TESTING or PROCEDURE QUALIFICATION RECORDS(PQR)

AWS D1.1

Company Name: JEIL LASER Co., Ltd.	WPS No.	JL-(B-P3-GF)-2017-FCAW-01		
	Supporting PQR No.	N/A	Rev.	0

Welding Process :		FCAW			POSITION			
Type :					Position of Groove :	1G	Fillet	N/A
Manual	<input type="checkbox"/>	Semi-Automatic	<input checked="" type="checkbox"/>		Vertical Progression :	Up <input type="checkbox"/>	Down <input type="checkbox"/>	
Mechanization	<input type="checkbox"/>	Automatic	<input type="checkbox"/>		ELECTRICAL CHARACTERISTICS			
Serial	<input type="checkbox"/>	Parallel	<input type="checkbox"/>		Transfer Mode(GMAW)	Globular <input type="checkbox"/> Spray <input type="checkbox"/>		
JOINT DESIGN USED				Current				
Joint Designation :		B-P3-GF			AC <input type="checkbox"/>	DCEP <input type="checkbox"/>	DCEN <input checked="" type="checkbox"/>	Pulsed <input type="checkbox"/>
Single		Double Weld	<input type="checkbox"/>		Contact Tube to Work Distance	10~15 mm		
Backing		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Other				
Backing Material		N/A						
Root Opening :	0 mm	Root Face :	9, 12mm		TECHNIQUE			
Groove Angle	60°	Radius(J-U)	N/A		Stringer or Weave Bead	Stringer		
Back Gouging		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Multi-pass or Single Pass(per side)				
Back Gouging Method:		N/A			Multi-pass			
Root Treatment: Chipping, Grinding and Wire Brushing				Number of Electrodes				
BASE METALS				Electrode Spacing				
Material Specification:		JIS			Longitudinal	N/A	Lateral	N/A
Type or Grade:		SM490			Angle	N/A		
Thickness	Groove	7mm	Fillet	N/A	Interpass Cleaning	Chipping, Grinding and Wire Brushing		
Diameter(Pipe):		N/A			PREHEAT			
FILLER METALS				Preheat Temp.				
AWS specification:	AWS A5.20, AWS A5.36			Min.				
AWS Classification:	E71T-1C			20°C				
Manufacturer Trade Name:	HANKOOK WELDTEK Co., Ltd			Interpass Temp.				
SHIELDING				Min.				
Electrode-Flux(Class)	N/A			Interpass Temp.				
Gas Composition	CO ₂ 99.9%			Max.				
Flow Rate	20~25 L/min	Gas Cup Size	16~20 mm		POSTWELD HEAT TREATMENT			
				Temp.				
				N/A				
				Hold Time				
				N/A				
				Heating/Cooling Rate				
				N/A				
				HEAT INPUT				
				Calculated Heat Input valve:				
				kj/in <input type="checkbox"/> kj/mm <input checked="" type="checkbox"/>				
				Max, Heat Input:				
				2.05				
				Min, Heat Input:				
				1.32				

Pass or Weld Layers	Process	Filler Metals		Current		Volts	Travel Speed (cm/min)	Joint Detail
		Class	Diam.(mm)	Type & Polarity	Amps			
ALL	FCAW	E71T-1C	1.2	DC+	220 ~ 230	30 ~ 36	215~300	See sketch 1

Prepared by		MAY. 15th. 2018.
Authorized by		MAY. 19th. 2018.

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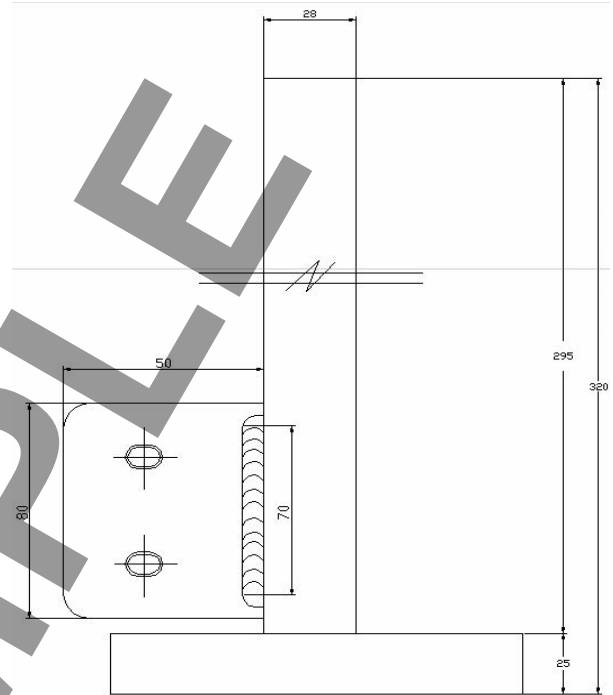
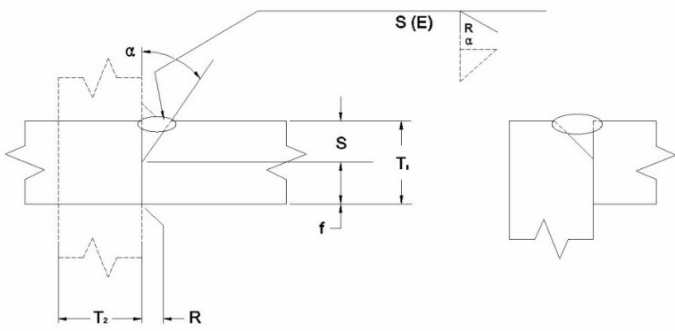
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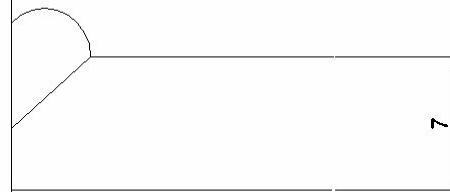
Sketch 1

BTC-P4-GF



Pass Layout

SAMPLE



Prepared by

MAY. 15th. 2018.

Authorized by

MAY. 18th. 2018.