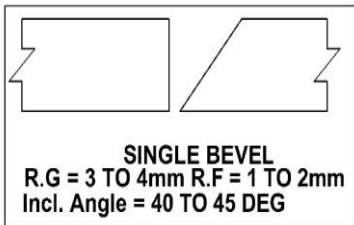
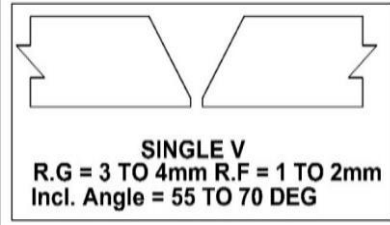




VISHAL ENTERPRISE & VRISHAL ENGINEERING PVT.LTD. GROUP OF COMPANIES

WELDING PROCEDURE SPECIFICATION

(As per AWS D1.1)

WELDING PROCEDURE SPEC. NO. : VEPL/WPS/006				REV NO. 00		DATE : 08.09.2022									
SUPPORTING PQR NO.: VEPL/PQR/006				REV NO. 00		DATE : 08.09.2022									
WELDING PROCESS: FCAW				TYPE: SEMI-AUTOMATIC											
JOINT DESIGN				<div><p>SINGLE BEVEL R.G = 3 TO 4mm R.F = 1 TO 2mm Incl. Angle = 40 TO 45 DEG</p></div> <div><p>SINGLE V R.G = 3 TO 4mm R.F = 1 TO 2mm Incl. Angle = 55 TO 70 DEG</p></div>											
GROOVE DESIGN		AS PER FIGURE (For PQR : Single V)													
BACKING		NO FOR ROOT / YES FOR REST													
BACKING MATERIAL		BASE / WELD METAL													
ROOT SPACING		3 - 4 mm													
ROOT FACE		1-2 mm													
GROOVE ANGLE		AS PER FIGURE													
BASE METALS															
MATERIAL SPEC. & GROUP		IS2062 E350 Gr.C / E250 B0/BR/A, or Equivalent (Group -II to II)													
TEST PLATE THICKNESS		25 mm													
QUALIFIED THICKNESS		3 mm to Unlimited													
FILLET		Any													
FILLER METALS				POSITION											
AWS SPECIFICATIONS		SFA 5.20		TEST PLATE POSITION			2G,3G & 4G								
AWS CLASSIFICATION		E71T-1C		QUALIFIED POSITION FOR GROOVE			ALL								
				VERTICAL PROGRESSION			UPHILL								
POST WELD HEAT TREATMENT				PREHEAT/INTERPASS TEMPERATURE (As per table 5.8 of AWS D1.1)			PREHEAT METHOD								
NA				THICKNESS		≤ 38	>38 to 65	PREHEAT SHALL BE CHECKED AT A DISTANCE OF 3" OR 3 TIMES THE THICKNESS WHICHEVER IS GREATER FROM THE WELD TOE AND THROUGH THE THICKNESS							
				PREHEAT TEMPERATURE		10°C	65°C								
SHIELDING GAS				INTERPASS TEMPERATURE, Max.		250°C									
TYPE OF GAS		CO2													
COMPOSITION		100%													
FLOW RATE (LPM)				STRING OR WEAVE BEAD			STRING / WEAVING								
GAS CUP SIZE		NA		MULTIPASS OR SINGLE PASS			MULTIPASS								
ELECTRICAL CHARACTERISTICS				NUMBER OF ELECTRODE			SIGNLE								
TRANSFER MODE(GMAW)		NA		CONTACT TUBE TO WORK DISTANCE			15-25 mm								
SHORT CIRCUITING		NA		PEENING			NA								
CURRENT		DC		INTERPASS CLEANING			GRIND / WIRE BRUSHING								
POLARITY		DCEP		TACK WELD TECHNIQUE			SAME AS WITH ROOT PASS								
OTHER		NA		TACK LENGTH			REFER NOTE 1								
PASS OR WELD LAYER	WELDING PROCESS	FILLER METALS		CURRENT		VOLTS (V)	ELECTRODE RUNOUT LENGTH MINIMUM (mm)	TRAVEL SPEED mm/min (Min.)	HEAT INPUT kJ / mm (Max.)						
		CLASS	DIA. mm	TYPE OF POLARITY	AMPS										
		ROOT PASS	FCAW	E71T-1C	1.20					DCEP	130-200	20-30	50	100-180	2.5
		HOT PASS	FCAW	E71T-1C	1.20					DCEP	130-200	20-30	50	100-180	2.5
		FILL UP	FCAW	E71T-1C	1.20					DCEP	130-220	20-30	50	120-180	2.5
CAPPING	FCAW	E71T-1C	1.20	DCEP	130-220	20-30	50	120-180	2.5						

- NOTE :
- 1) 50 mm OR 4 times the thickness whichever is less, with a min. throat size of 6mm - 2 Pass maximum
 - 2) Pre-heating shall be strictly followed for tacking also
 - 3) Weaving should not exceed 2.5 times of electrode

PREPARED BY		APPROVED BY	
NAME	Y. BAIRAGI	NAME	HARDI PRAKAPATI
SIGNATURE		SIGNATURE	
DATE	08.09.2022	DATE	08.09.2022

