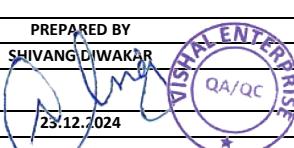
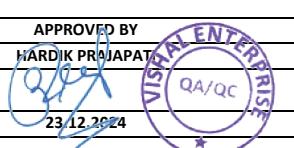




VISHAL ENTERPRISE & VRISHAL ENGINEERING PVT.LTD. GROUP OF COMPANIES

WELDING PROCEDURE SPECIFICATION

(As per AWS D1.1)

WELDING PROCEDURE SPEC. NO. : VEPL/WPS/005		REV NO. 01	DATE : 23.12.2024						
SUPPORTING PQR NO.: VEPL/PQR/005		REV NO. 00	DATE : 08.09.2022						
WELDING PROCESS: SMAW		TYPE: MANUAL							
JOINT DESIGN									
GROOVE DESIGN	AS PER APPROVED AFC DRAWING (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 APPROVED DRAWING / WELD BOOK								
BASE METALS									
MATERIAL SPEC. & GROUP	IS2062 E350 Gr.BR/C or IS2062 E250 Gr.BR/B0/A or Equivalent								
TEST PLATE THICKNESS	25 mm								
QUALIFIED THICKNESS	3 mm to Unlimited								
FILLET	Any								
FILLER METALS		POSITION							
AWS SPECIFICATIONS	SMAW:SFA 5.1		PQR TEST PLATE POSITION	2G,3G & 4G					
AWS CLASSIFICATION	E 7018		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	$>38 \text{ to } 65$	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	NA				TECHNIQUE				
COMPOSITION	NA				STRING / WEAVING				
FLOW RATE (LPM)	NA				MULTIPASS OR SINGLE PASS				
GAS CUP SIZE	NA				SIGNLE				
ELECTRICAL CHARACTERISTICS		NUMBER OF ELECTRODE							
TRANSFER MODE(GMAW)	NA		CONTACT TUBE TO WORK DISTANCE		NA				
SHORT CIRCUITING	NA		PEENING		NA				
CURRENT	DC		INTERPASS CLEANING		GRIND / WIRE BRUSHING				
POLARITY	DCEP		TACK WELD TECHNIQUE		NA				
OTHER	NA		TACK LENGTH		REFER NOTE 1				
PASS OR WELD LAYER	WELDING PROCESS	FILLER METALS		CURRENT AMPS	VOLTS (V)	ELECTRODE RUNOUT LENGTH MINIMUM (mm)	TRAVEL SPEED mm/min (Min.)	HEAT INPUT kJ / mm (Max.)	
		CLASS	DIA. mm						TYPE OF POLARITY
ROOT PASS / BACK CHIP	SMAW	E 7018	2.5 / 3.15	DCEP	70-120	21-27	50	71-130	2.5
HOT PASS	SMAW	E 7018	2.5 / 3.15	DCEP	70-120	21-26	50	71-130	2.5
FILL UP	SMAW	E 7018	3.15 / 4.0	DCEP	90-170	22-28	50	100-150	2.5
CAPPING	SMAW	E 7018	3.15 / 4.0	DCEP	90-170	22-28	50	100-150	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									
NAME	PREPARED BY SHIVANG DIWAKAR				APPROVED BY HARDIK PRAJAPATI				
SIGNATURE	 QA/QC				 QA/QC				
DATE	23.12.2024				23.12.2024				