



QW - 483
PROCEDURE QUALIFICATION RECORD
(PQR)

COMPANY NAME: JG ACERO INDUSTRIES PVT.LTD.

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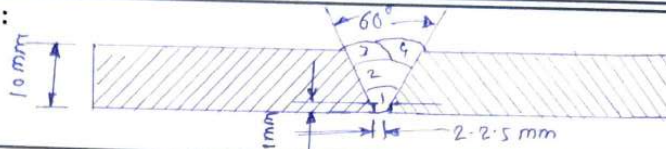
PQR NO. : JGAIPL/CS/PQR/01

Date : 07/01/2021

Welding Process(es) : GTAW + SMAW Type(s) : Manual

WPS No. : JGAIPL/CS/WPS/01 Rev.0

JOINTS : (QW - 402) :



BASE METALS (QW-403)

P. No. 1 Gr. No. 2 TO P. No. 1 Gr. No. 2
Material Specification : SA516 Gr 70
Thickness of Test coupon : Thk-10 mm

POST WELD HEATTREATMENT : (QW -407)

Temperature Range °C : Not Applicable

Time Range : Not Applicable

FILLER METAL : (QW - 404)

Process	GTAW	SMAW
SFA No.	5.18	5.1
AWS (Class)	ER70S2	E-7018
F. No.	6	4
A. No.	1	1
Size of Filler Metal (mm) dia.	2.5	3.15
Weld Metal Thk. (mm)	3 mm	7 mm
Filler Metal Product Form	Solid (Bare)	Solid
Other :	Nil	

GAS : (QW-408)

Shielding	Gas(es)	% Comp Mixture	Flow Rate (lit / min)
Trailing	Argon	99.99 %	14 LPM
Backing (Only for root pass)	None	---	---

ELECTRICAL CHARACTERISTICS (QW-409)

Type of Current : DC	Polarity : SP(Electrode -Ve)
Amps : * See Tabulation On page 2 of 2	Volts : * See Tabulation On page 2 of 2
Tungsten Electrode Size and Type	: 2.4 mm, 2% Thoriated (EWTH)
Other: - Nil	

TECHNIQUE : (QW-410)

String or Weave Bead	: String/Weave
Orifice or Gas Cup Size ϕ (mm)	: 10 mm
Initial and Inter pass Cleaning	: Wire Brush/Wire wheel
Method of Back Gouging	: Grinding
Oscillation	: Not Applicable
Contact Tube to Work distance (mm)	: Not Applicable
Multiple or single Pass per side	: Multiple
Multiple or Single Electrode	: Single
Closed to out chamber	: Not Applicable
Travel Speed (Range) mm / min	: Not Recorded
Peening	: Not Applicable

POSITION : (QW-405)

Position(s) of Groove : 3G
Weld Progression : Up Hill
Other : Nil

PREHEAT : (QW-406)

Preheat Temperature °C : 22
Inter pass Temperature °C : < 150
Preheat Maintenance : Not Applicable

Signature
7/1/2021





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Other : Weld surface cleaned by wire brush

Use of thermal processes : Not Applicable

Weld Layers	Welding Process	Filler Metal		Current		Voltage	Travel	Remark
		Class	Dia. mm	Amp Range	Type Polarity	Range	Speed Range mm/min	
Root Pass	GTAW	ER70S-2	2.4	102-103	DCSP	18-19	36.03	
Pass 1	GTAW	ER70S-2	2.4	106-107	DCSP	18-19	52.98	
Pass 2	SMAW	E-7018	3.15	80-82	DCSP	20-21	40.54	
Pass 3	SMAW	E-7018	3.15	79-80	DCRP	20-21	64.69	
Pass 4	SMAW	E-7018	3.15	79-80	DCRP	20-21	67.60	
Back Side	Root Penetration found to be proper. Bach chip Grinding not required.							

TENSILE TEST (QW-150)

Specimen No.	Gauge Width mm	Thickness Mm	Area mm ²	Ultimate Tensile Load KN	Ultimate Tensile Strength N/mm ²	Type of Failure & Location
T1	20.08	10.42	209.23	110.48	528.02	Within Base Metal
T2	20.12	10.38	210.86	110.08	527.09	Within Base Metal

GUIDED-BEND TEST (QW-160)

Figure No.	Type	Result
QW 462.3 (a)	Face Bend- 1 (Former Dia for Bend-4T)	Acceptable
QW 462.3 (a)	Face Bend- 2 (Former Dia for Bend-4T)	Acceptable
QW 462.3 (a)	Root Bend -1 (Former Dia for Bend-4T)	Acceptable
QW 462.3 (a)	Root Bend -2 (Former Dia for Bend-4T)	Acceptable

TOUGHNESS TESTS (QW-170) (Not Applicable)

Specimen No.	Notch Location	Specimen Size	Test Temp.	Impact Value		Drop Weight Break Y/ N
				Weld metal	HAZ	

Welder Name: Mr. Ranjeet Kushwah + Mehboob Raza

Welder No. : W1 + W2

Test Conducted By : VSP Testing & Calibration Laboratory , MIDC Ambad Nashik – 422 010

Laboratory Test Report No. : E-2889

Dated : 07/01/2021

We certify that the statements in these records are that the test welds were prepared, welded, and tested in accordance with the requirement of ASME Section IX Code 2019 Edition

Manufacturer: JG ACERO INDUSTRIES PVT.LTD

PREPARED BY

CERTIFIED BY:

REVIEWED BY

WELDING ENGINEER
SPM CONSULTANCY SERVICES



WELDING MANAGER
SPM CONSULTANCY SERVICES

CLIENT