



QW - 482
WELDING PROCEDURE SPECIFICATION
(ASME SECTION IX 2019 EDITION)

Company Name: JG ACERO INDUSTRIES PVT.LTD.

Page 1 of 2

Welding Procedure Specification No. : JGAIPL/SS/WPS/01 Rev: 1

Date : 07/01/2021

Welding Process(es) : GTAW + SMAW

Type(s) : Manual

PQR NO. : JGAIPL/SS/PQR/01

JOINTS : (QW – 402)

- Groove Design (Root face, Root spacing, Incl. angle)	As per applicable Manufacturing Drawing as referenced in Weld Plan
- Backing : Yes / No (Refers to both Backing & Retainer)	With backing or without backing as per applicable Manufacturing Drawing as referenced in Weld Plan Retainers not used.
- Backing Material (Type) <input checked="" type="checkbox"/> Metal <input type="checkbox"/> Nonmetallic <input type="checkbox"/> Nonfusing Metal <input type="checkbox"/> Others	Metal /Weld Metal

BASE METALS : (QW – 403)

P. No. 8 Gr. No. 1 TO P. No. 8 Gr. No. 1

OR

Specification Type & Grade. ----

TO

Specification Type & Grade. ----

OR

Chemical Analysis
& Mechanical Properties TO

Chemical Analysis
& Mechanical Properties

FILLER METAL : (QW – 404)

Process	GTAW	SMAW
SFA No.	5.9	5.4
AWS (Class)	ER308L	E 308 L
F. No.	6	4
A. No.	8	8
Size of Filler Metal (mm) dia	1.6 , 2.0 , 2.4	3.15 , 4.0
Filler metal product form	Bare (Solid)	Solid
Flux Trade Name/Designation	Not Applicable	Not Applicable
Consumable Insert	None	None
Range of Deposited Weld metal Thk. (mm)	Groove	10 Max.
	Fillet	Any
Thk. Per pass Max t pass > ½ in (13 mm)	No.	No
Flux Type	Not Applicable	Not Applicable

Others:-
T/t Limits> 200mm: Not Applicable
P. No. 5,9,10: Not Applicable

Others:-
With/Without filler, Flux: With filler / Without Flux
Change in Alloy Flux/Alloy Elements in flux: None
Supplemental Filler: None
t Limits(S. Cir. arc): Not Applicable

POSITION : (QW – 405)

Position(s) of Groove : Any

Weld Progression : Any

Position(s) of fillet : Any

PREHEAT : (QW – 406)

Preheat Temperature (Min.) °C : N.A

Inter pass Temperature (Max.) °C : 200

Preheat Maintenance : None





QW - 482
WELDING PROCEDURE SPECIFICATION
 (ASME SECTION IX 2019 EDITION)

Company Name: JG ACERO INDUSTRIES PVT.LTD.

Page 2 of 2

Welding Procedure Specification No. : JGAIP/SS/WPS/01 Rev: 1

Date : 07/01/2021

Welding Process(es) : GTAW + SMAW

Type(s) : Manual

PQR NO. : JGAIP/SS/PQR/01

POST WELD HEAT TREATMENT(QW-407)

Type : None
 Temperature Range °C : Not Applicable
 Time Range : Not Applicable

GAS : (QW-408)

	Gas(es)	% Comp Mixture	Flow Rate (lit /min)
Shielding	Argon	99.99%	10 -12
Trailing	None	----	----
Backing (For root pass of groove)	None	----	----

ELECTRICAL CHARACTERISTICS : (QW-409)

Type of Current : DC	Polarity : GTAW- SP (Ele.- Ve), SMAW- RP (Ele.+ Ve)
Amps(Range) : 105 A to 144 A	Volts : GTAW- 12V to 14V, SMAW – 28V to 34V
Tungsten Electrode Size and Type: 2.0,2.4,3.0,4.0mm,2% Thoriated (EWTH) for GTAW	Heat Input : * See Tabulation On page 2 of 2
Mode of Metal transfer : Not Applicable	Pulsing Current : With or Without

TECHNIQUE : (QW-410)

Manual/Automatic : Manual	Contact Tube to work distance (mm): Not Applicable.
String or Weave Bead : String / Weave	Multiple or single Pass per side : Multiple/Single
Orifice or Gas Cup Size ϕ (mm) : 6 to 10	Multiple or Single Electrode : Single
Initial and Inter pass Cleaning :Grinding / Wire Brush	Travel Speed (Range) mm/ min : 50 To 150 mm/min
Method of Back Gouging : Grinding	Peening : None
Closed to out of chamber : Not Applicable	Electrode Spacing : Not Applicable
Oscillation : Not Applicable	Use of thermal processes : Not Applicable

Others: 1) Surface to be welded shall be free from Grease, Oil Scale & Rust. Cleaning shall be done with wire brush/wheel.

Weld Layers	Process /es	Filler Metal		Current (A)		Voltage Range (V)	Travel Speed Range mm/min	Heat Input KJ/mm	Remarks
		Class	Dia. mm	Amp Range	Type Polarity				
Root Pass Side 1	GTAW	ER308 L	2.0	120 to 180	DCEN	12 to 14	50 to 60	Not Recorded	
Rest Passes of Side 1 & Side 2	SMAW	E 308 L	3.1 54. 0	140 to 160	DCEP	28 to 34	145 to 150	Not Recorded	

PREPARED BY

APPROVED BY

REVIEWED BY

WELDING ENGINEER

SPM CONSULTANCY SERVICES

WELDING MANAGER

SPM CONSULTANCY SERVICES

CLIENT / TPI