WPS AND PQR for Site Erection

CLIENT : **PT. CITRA PALU MINERALS (CPM)**
PROJECT NAME : **POBOYA 2000 TPD EXPANSION PROJECT**
LOCATION : **PALU, SULAWESI**
CONSULTANT : **PT. COMO ENGINEERS (PT. CE)**
VENDOR : **PT. HANAZONO ENGINEERING INDONESIA**
DOCUMENT NO. : **E2502-000-PRC-016**

FOR APPROVAL

☐AP	APPROVED
☐AN	APPROVED AS NOTED
☐RE	NOT APPROVED (Re-Submit)
☐RV	REVIEWED
☐RN	REVIEWED WITH NOTES
☐NR	NOT BE RETURNED
RETURN DATE	

CPM PT Citra Palu Minerals

REV	DATE ISSUED	ISSUE PURPOSE	PREPARE	CHECKED	APPROVED	AUTHORIZED
A	March 02, 2026	Issue For Approval	Benridho	Rusnandi	Murasato	

Revision History

REV. No.	DATE	DESCRIPTION	REVISION BY
A	March 02, 2026	Issue For Approval	BR

CONTENTS

Page

1. WPS & PQR NO. 04-WPS-HEI-MIGAS-26 & 04-PQR-HEI-MIGAS-26

PT. HANAZONO Engineering Indonesia
We are always partner with you

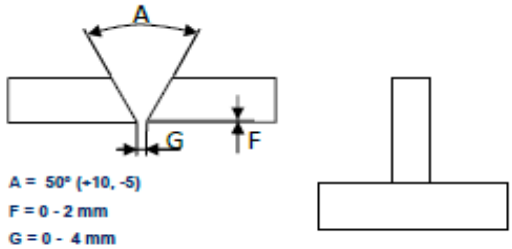
Welding Procedure Specification
(Section IX, ASME Boiler and Pressure Vessel Code, Edition 2025)

WPS NO.	: 04-WPS-HEI-MIGAS-26	Rev. :	0	Date	: February 27, 2026
Supporting PQR No.(s)	: 04-PQR-HEI-MIGAS-26				
Welding Process(es)	: SMAW	Type(s) :	MANUAL		
Applicable Code	: ASME BPVC IX 2025				

JOINTS (QW-402)

Joint Design	: See Join Detail
Root Spacing	: See Joint Detail
Backing	: ☑ Yes ☐ No
Backing Material	: Weldmetal
Other	: N/A

Joint Detail



A = 50° (+10, -5)
F = 0 - 2 mm
G = 0 - 4 mm

BASE METAL (QW-403)

P. No.	: 1	Group No.	: 1&2	to P. No.	: 1	Group No.	: 1&2
Specification Type & Grade	: A 36 or Equivalent	to	A36 or Equivalent				
Thickness Range		Groove	: 5 mm - 40 mm	Fillet	: Unlimited		
Maximum Pass Thickness ≤ 1/2 in. (13mm)			☑ Yes		☐ No		
Other			N/A				

FILLER METALS (QW-404)

Process	: SMAW
Spec No. (SFA)	: 5.1
AWS. No. (Class)	: E7018
F. No.	: 4
A. No.	: 1
Size of Filler Metals	: See Below Table
Weld Metal Thickness Range	
Groove	: Max. 40 mm
Fillet	: Unlimited
Manufacturer	: Bohler or Equivalent
Brand	: -
Other	: N/A

Approvals	Prepared By	Checked By	Approved By MIGAS
Name	ANDI ISKANDAR	RUSNANDI	
Signature			
Date	February 27, 2026	February 27, 2026	

Page 1 of 2

PT. HANAZONO Engineering Indonesia
We are always partner with you

Welding Procedure Specification
(Section IX, ASME Boiler and Pressure Vessel Code, Edition 2025)

POSITION (QW-405)

Position of Groove	:	ALL
Welding Progression	:	☑ Up ☐ Down
Position of Fillet	:	All
Other	:	N/A

POST WELD HEAT TREATMENT (QW-407)

Temperature Range	:	N/A
Time Range	:	N/A
Other	:	N/A

PREHEAT (QW-406)

Preheat		
Preheat Temp. Min.	:	10 °C
Interpass Temp. Max	:	250 °C
Preheat Maintenance	:	N/A
Other :	:	N/A

GAS (QW-408)

		Percent composition		
		Gas(es)	(Mixture)	Flowrate
Shielding	:	N/A	N/A	N/A
Trailing	:	N/A	N/A	N/A
Backing	:	N/A	N/A	N/A

ELECTRICAL CHARACTERISTICS (QW-409)

Process	:	SMAW
Current & Polarity	:	See Below Table
Amps (Range)	:	See Below Table
Vols (Range)	:	See Below Table
Tungsten Electrode Size and Type	:	N/A
Electrode Wire Feed Speec Range	:	N/A
Other	:	N/A

TECHNIQUE (QW-410)

String or Weave Bead	:	Both
Orifice, Nozzle, or Gas Cup Size	:	N/A
Initial & Interpass Cleaning	:	Wire Brush & Grinding
Method of Back Gouging	:	Air Arc Gouging or Grinding if required
Oscillation	:	N/A
Contact Tube to Work Distance	:	N/A
Multiple or single Pass	:	☑ MULTI ☐ SINGLE
Multiple or single Electrodes	:	☐ MULTI ☑ SINGLE
Peening	:	N/A
Other	:	N/A

Weld Pass(es)	Process	Filler Metal		Current Type and Polarity	Amps (Range)	Wire Feed Speed (Range)	Volts (Range)	Travel Speed (Range) cm/min	Remarks
		Classification	Dia. (mm)						
As Req'd	SMAW	E7018	2.6, 3.2, 4.0	DCEP	80-150	N/A	20 - 30	3 - 8	

Remarks :

Approvals	Prepared By	Checked By	Approved By MIGAS
Name	Andi Iskandar	Rusnandi	
Signature		Rusnandi	
Date	February 27, 2026	February 27, 2026	

PT. HANAZONO Engineering Indonesia
We are always partner with you

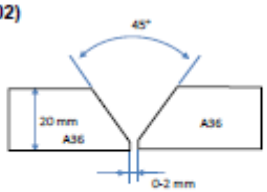
Head Office : Jl. Raya Bojonegara-Serdang No. 44 RT. 001/RW.001
Desa Kertasana, Kecamatan Bojonegara, Kabupaten Serang
Banten, Indonesia (42414)
Telp : +62-254-7850344/45/46/47
e-mail : project@hanazono.co.id

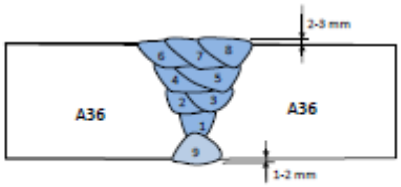
PROCEDURE QUALIFICATION RECORDS (PQR)

(See QW-200.1 Section IX, ASME Boiler and Pressure Vessel Code, Edition 2025)

Company Name: PT. HANAZONO ENGINEERING INDONESIA — Sub Contractor Name: -
Procedure Qualification Record No.: 04-PQR-HEI-MIGAS-26 — Date: February 27, 2026
WPS No.: 04-WPS-HEI-MIGAS-26 — Date: February 27, 2026
Welding Process (es): SMAW
Types (Manual, Automatic, Semi-Auto): Manual

JOINTS (QW-402)





(For combination qualifications, the deposited weld metal thickness shall be recorded for each filler metal and process used)

BASE METALS (QW-403)

Material Spec.	A 36
Type/Grade, or UNS Number	-
P. No. 1 Group No. 1 to P-No. 1 Group No. 1	
Thickness of Test Coupon	20 mm
Diameter of Test Coupon	None
Maximum Pass Thickness	2 mm
Other	

POSTWELD HEAT TREATMENT (QW-407)

Temperature	NA
Time	NA
Other	NA

GAS (QW-408)

	Percent Composition Gas (es)	(Mixture)	Flow Rate
Shielding	NA		
Trailing	NA		
Backing	NA		
Other	NA		

FILLER METALS (QW-404) — SMAW

SFA Specification	5.1
AWS Classification	E7018
Filler Metal F- No.	4
Weld Metal Analisys A-No.	1
Size of Filler Metal	See Table
Filler Metal Product Form	N/A
Supplemental Filler Metal	NA
Electrode Flux Classification	NA
Flux Type	NA
Flux Trade Name	NA
Weld Metal Thickness	20 mm
Other	

ELECTRICAL CHARACTERISTICS (QW-409)

Current	DC
Polarity	EP
Amps.	See table — Volts: See Table
Tungsten Electrode Size	N/A
Mode of Metal Transfer for GMAW (FCAW)	NA
Heat Input	NA
Other	NA

POSITION (QW-405)

Position of Groove	3G
Weld Progression (Uphill, Downhill)	Uphill
Other	NA

TECHNIQUE (QW-410)

Travel Speed	See Table
String or Weave Bead	Weave
Oscillation	NA
Multipass or Single Pass (per side)	Multiple
Single or Multiple Electrodes	Single
Other	NA

PREHEAT (QW-406)

Preheat Temp.	33 °C
Interpass Temp.	202 °C
Other	NA

PT. HANAZONO Engineering Indonesia
We are always partner with you

Head Office : Jl. Raya Bojonegara-Serdang No. 44 RT. 001/RW.001
Desa Kertasana, Kecamatan Bojonegara, Kabupaten Serang
Banten, Indonesia (42414)
Telp : +62-254-7850344/45/46/47
e-mail : project@hanazono.co.id

PQR No. 04-PQR-HEI-MIGAS-28

Welding Parameter

Weld Layers	Process	Filler Metal		Current		Voltage (V)	Travel Speed (mm/min)	Heat Input (KJ/mm)
		Class	Dia. (mm)	Polarity	Ampere (A)			
1	SMAW	E7018	3.2	DCEP	100	20	37,36	3,21
2	SMAW	E7018	3.2	DCEP	120	22	52,36	3,03
2	SMAW	E7018	3.2	DCEP	120	22	43,60	3,63
2	SMAW	E7018	3.2	DCEP	124	25	55,05	3,38
2	SMAW	E7018	3.2	DCEP	124	25	64,10	2,90
3	SMAW	E7018	3.2	DCEP	122	24	58,82	2,99
4	SMAW	E7018	3.2	DCEP	122	24	68,97	2,55
5	SMAW	E7018	3.2	DCEP	122	24	65,22	2,69
6	SMAW	E7018	3.2	DCEP	120	24	69,44	2,49

Tensile Test (QW-150)

Specimen No.	Width (mm)	Thickness (mm)	Area (mm^2)	Ultimate Total Load (kN)	Ultimate Unit Stress (N/mm^2)	Type of Failure and Location
T1	19,49	19,54	380,83	193,77	509	Ductile (Base Metal)
T2	19,45	19,56	380,46	192,54	506	Ductile (Base Metal)

Guided - Bend Test (QW-160)

Type and Figure No.	Result
Side Bend (SB1)	No Open Discontinuity was observed
Side Bend (SB2)	No Open Discontinuity was observed
Side Bend (SB3)	No Open Discontinuity was observed
Side Bend (SB4)	No Open Discontinuity was observed

Toughness Tests (QW-170)

Specimen No.	Notch Location	Specimen Size	Test Temperature	Impact Values			Drop Weight Break (Y/N)
				ft-lb or J	% Shear	Mils (in.) or mm	

Comments : NA

Fillet - Weld Test (QW-180)

Result - Satisfactory : Yes NA No. NA Penetration into parent metal : Yes NA No. NA

Macro - Result NA

Other Tests

Type of test NA

Deposit Analysis NA

Radiographic Result Accepted Report No. 01/RT/RPD/II/26

Other NA

Welder's Name : SAHRUL Clock No. - Stamp No. SR-0904

Test conducted by : PT. HI-Test Laboratory Test No. HT/JKT/0226/0245

Date February 23, 2026

We certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of Section IX of the ASME Boiler and Pressure Vessel Code.

Prepared By,	Reviewed By,	Approved By, MIGAS
Andi Iskandar	Rusnandi	
Date : February 27, 2026	Date : February 27, 2026	Date :

PT. RETSA PUTRA DYME

NDT TECHNICAL & INSPECTION SERVICE

Head Office : Jl. Moch Ramdhan No.117 Desa Sitiwinangun, Kecamatan Jamblang, Cirebon–Jawa Barat 45157
Operasional Workshop : Link. Nyi Kambang RT.02/03 No.22 Sukmajaya Kecamatan Jombang, Cilegon – Banten
Email : retsaputradyme@gmail.com Mobile : 081298473433

RADIOGRAPHIC EXAMINATION REPORT

Client	: PT HANAZONO ENGINEERING INDONESIA		Report No.	: 01/RT/RPD/II/26.	Radiographic Technique Sketch
Project	: POR.		Date	: 09-02-26.	
Location	:		Procedure No.	:	
Job / Contract No.	:		Accept. Code	: ASME IX.	
Type Material	: A36.	Radiation	: Ir.192.	Penetrameter	: ASTM 1B.
Thickness Mat'l	: 20 mm	Focal Spot	: 2x3 mm.	Density	: 2 – 4.
Pipe ☐ Plate ☑	: in/mm	Activity	: 20 ci	Un. Geometry	: 0.5
Weld Process	: ☑ SMAW ☐ GTAW	SFD	: 15.	Sensitivity	: 2%
	☐ SAW ☐ FCAW	Exposure Time	: 2.10.	Screen Type	: PB.0,125
	☐ GMAW ☐ Other	Placement IQI	: S/S.	Film Type	: D7

Film Identification	No. Joint	Location	Welder Stamp	Type of Discontinuity: Burn Through	Crack	Excessive Reinforcement	Tungsten Inclusions	Slag Inclusions	Incomplete fusion	Incomplete Penetration	Misalignment / Hi-Lo	Porosity	Root Concavity	Undercut	Film: Film 4" X 10"	Film 4" X 15"	Result	Remarks
04/POR/HEI/MIGAS/26.																		
SAHRUL.	36.	A – B.														1	PASS.	
TOTAL WELD :															TOTAL OF FILM USED :		1	

Radiographer	QC/QA Inspector	Client Representative	Third Party
ARI YANTO			
Date : 10-02-2026.	Date :	Date :	Date :

HI-TEST LAB

PRELIMINARY TESTING REPORT

Report No : HT/JKT/0226/0245
Date Issued : N/A
Page : 1 of 3

CUSTOMER : PT. Hanazono Engineering Indonesia
ADDRESS : Jl. Raya Bojonegara - Serdang No. 44 RT. 001/RW. 001, Desa Kertasan, Kecamatan Bojonegara, Kab. Serang
REFERENCE CODE : ASME BPVC. IX - 2025

Sample description and object to be tested (As Received / the Customer states):

Plate, Size : Thickness Plate 20 mm, Material spec : ASTM A36, WPS No: 04-WPS-HEI-MIGAS-26, PQR No: 04-PQR-HEI-MIGAS-26, Welding Process: SMAW, Welding Position: 3G, for Welding Procedure Specification Test.

PT Hi-Test Sample Marking : 2. HEI 1
Date of Received : 21/02/2026
Date Tested : 23/02/2026
Testing Result : Please refer to the following page (s)
Test Conducted By : - M. Anjar Rizki, ST (Tensile Welding Transverse)
- Fikri Taufik Iskandar., ST (Bending)
Witnessed By :

Approved Signatory
Laboratory Manager
PT Hi Test

Suhadi, ST

Term & Conditions

The Report is prepared for the sole use of the Client and is prepared based upon the item submitted, the Services required by the Client and the conditions under which the Services are performed by PT. Hi-Test. The Report is not intended to be representative of similar or equivalent Services on similar or equivalent Items. The Report does not constitute an endorsement by PT. Hi-Test of the Item. PT. Hi-Test agrees to use reasonable diligence in the performance of the Services but no warranties are given and none may be implied directly or indirectly relating to the Services, the Report or the facilities of PT. Hi-Test. This report shall not be reproduced except in full unless permission for the reproduction of an approved abstract has been obtained in writing from PT. Hi-Test. PT. Hi-Test shall under no circumstances be liable to the Client or its agents, servants or representatives, in contract, tort (including negligence or breach of statutory duty) or otherwise for any direct or indirect loss or damage suffered by the Client, its agents, servants or representatives shows ever arising or whether connected with the Services provided by PT. Hi-Test herein.

PT Hi-Test
Taman Tekno Block A2 No. 49
Bumi Serpong Damai (BSD),
Tangerang – Indonesia.
Telp: +62 21 75RR1884
E-mail: hi-test@hitestlab.com

HI-TEST LAB

Taman Tekno Block A2 No. 49
Bumi Serpong Damai (BSD),
Tangerang - Indonesia
Telp: +62 21 75881884
E-mail: hitest@hitestlab.com

TESTING REPORT

(This Report is issued to the terms & conditions set out below)

Customer	: PT. Hanazono Engineering Indonesia	Job No.	: B26144
Address	: Jl. Raya Bojonegara - Serdang No. 44 RT. 001/RW. 001, Desa Kertasan, Kecamatan Bojonegara, Kab. Serang	Report No.	: HT/JKT/0226/0245
		Date Tested	: 23 February 2026
		Test Method	: ASTM E8/E8M - 25
Reference Code	: ASME BPVC. IX - 2025	Direction	: Butt Weld
Sample Marking	: 2. HEI 1	Page	: 2 of 3
Type of Test	: Tensile Welding Transverse		
Temperature	: 25.4 °C		

Specimen No		T1	T2
Thickness	(mm)	19.54	19.56
Width	(mm)	19.49	19.45
Area	(mm^2)	380.83	380.46
Force at Tensile Strength	(kN)	193.77	192.54
Tensile Stress at Tensile Strength	(MPa)	509	506
Location Failure		Base Metal	Base Metal
Type of Failure		Ductile	Ductile

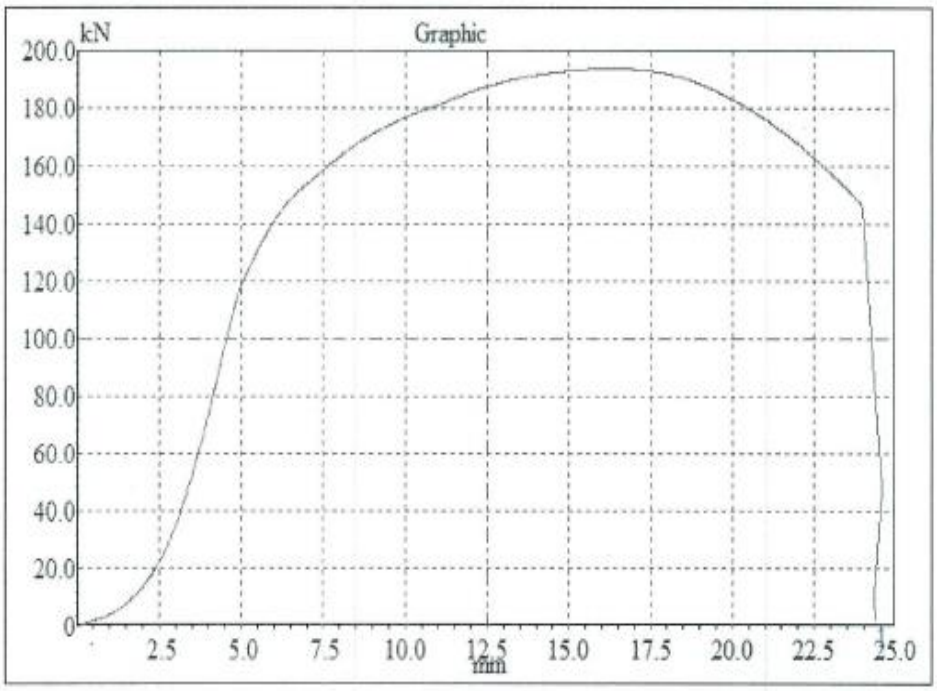
Testing Machine	GOTECH COMPUTERISED UNIVERSAL TESTING MACHINE, Model : GT-7001-LS 50, S/N : TC0900251, Capacity : 500 kN
Test Conducted	M. Anjar Rizki, ST

Approved Signatory
Laboratory Manager
PT Hi Test

Suhadi, ST

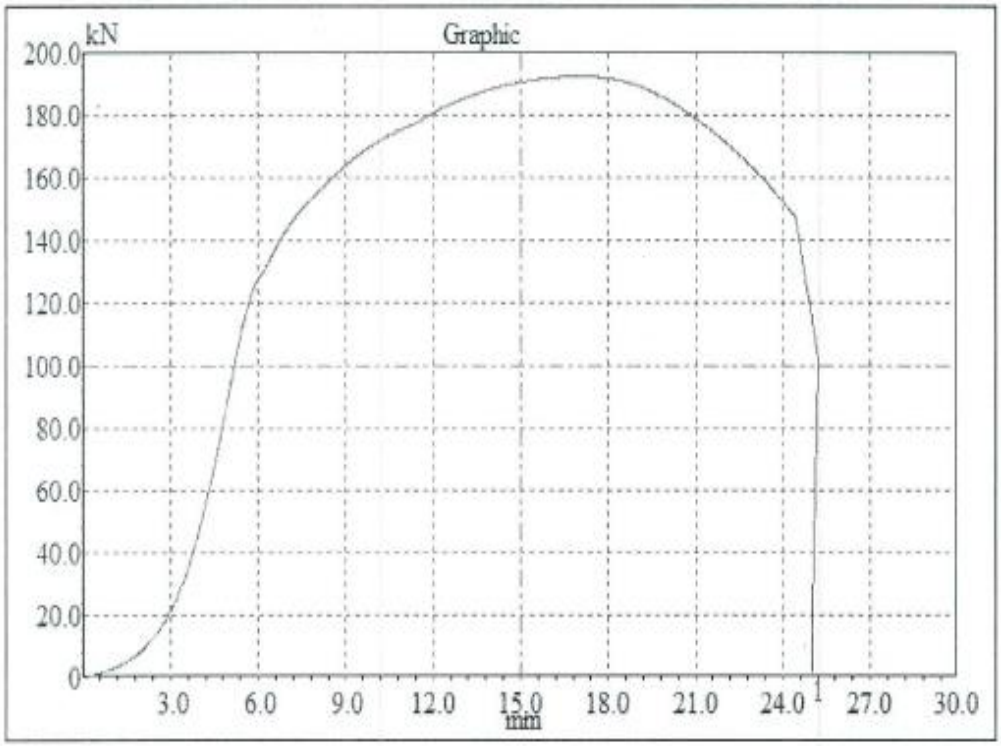
Test date	ReportNo	Sample
23-02-2026	HT/JKT/0226/0245	2. HEI 1 - T1

No.	Thickness mm	Width mm	Area mm^2	Max. Load kN	UTS N/mm^2
1	19.54	19.49	380.83	193.77	509



Test date	ReportNo	Sample
23-02-2026	HT/JKT/0226/0245	2. HEI 1 - T2

No.	Thickness mm	Width mm	Area mm^2	Max. Load kN	UTS N/mm^2
1	19.56	19.45	380.46	192.54	506



HI-TEST LAB

Taman Tekno Block A2 No. 49
Bumi Serpong Damai (BSD),
Tangerang – Indonesia
Telp: +62 21 75881884
E-mail: hi-test@hitestlab.com

TESTING REPORT

(This Report is issued to the terms & conditions set out below)

Customer : PT. Hanazono Engineering Indonesia
Address : Jl. Raya Bojonegara - Serdang No. 44 RT. 001/RW. 001, Desa Kertasan, Kecamatan Bojonegara, Kab. Serang
Reference Code : ASME BPVC. IX - 2025
Sample Marking : 2. HEI 1
Type of Test : Bending
Temperature : 25.1 °C

Job No. : B26144
Report No. : HT/JKT/0226/0245
Date Tested : 23 February 2026
Test Method : ASTM E190-21
Direction : Transverse Weld
Page : 3 of 3

Bending Test	Transversal Specimen
Test Specimen Width	10 mm
Test Specimen Thickness	20 mm
Former Diameter	40 mm
Shoulder Distance	63 mm
Bend Angle	180°

Sample Identification	Type of Bend	Observation	Result
SB1	Side Bend	No Discontinuities	Accepted
SB2	Side Bend	No Discontinuities	Accepted
SB3	Side Bend	No Discontinuities	Accepted
SB4	Side Bend	No Discontinuities	Accepted

Testing Machine	MOTOR PUMP BENDING TEST MACHINE, Model : Daventry England, S/N : DG 8881, Capacity : 700 Bar
Test Conducted	Fikri Taufik Iskandar., ST

Approved Signatory
Laboratory Manager
PT Hi Test

Suhadi, ST

PT. voestalpine Böhler Welding Asia Pacific

PT. voestalpine Böhler Welding Asia Pacific
Jl. Industri Selatan 2 Blok JJ NO. 7-10
Kawasan Industri Jababeka, Cikarang, Bekasi
17530 Indonesia
www.voestalpine.com/welding

PT Bhinneka Bajanas
JL. Karang Bolong Raya No. 5
14430 Jakarta
Indonesia

Inspection certificate 3.1

as per : EN 10204
No. : 2025-2047022863-20-A102856-025
Rev. 0 Page 1 of 1

PO no.	PO.BB-BOHLER.VIII.2025.055	of	11.09.2025
Order no.	1042009318		
Delivery note/pos./split	2047022863/000000/000020	of	30.09.2025
Product	covered electrode		
Trade name	**BÖHLER FOX S EV 50**		
Standard designation	EN ISO 2560-B - E 49 18 A U H5 EN ISO 2560-A - E 42 3 B 42 H5 AWS A5.1/ASME SFA-5.1: E7018-H4R		
Dimension	SMAW 3,25 x 350 mm		
Lot no.	A102856		
Quantity	1980,0 KG		

Chemical composition in % of the weld metal

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu	Nb				
0,08	0,55	1,24	0,028	0,013	0,039	0,001	0,013	0,002	0,020	0,003				

Mechanical properties **ASME II C; Sch F**

Tensile test — according to : ASTM E8
Specimen preparation — according to : AWS B4.0

T	ReL / Rp 0,2	Rp 1,0	Rm	A (Lo = 4d)	Z	WBH	Remarks
	MPa	MPa	MPa	%	%	PWHT	
25°C	490		560	30		AW	

Impact test — according to : ASTM E23
Specimen preparation — according to : AWS B4.0

T	Impact energy	Average	Lateral expansion	Shear fracture	WBH	Remarks
	KV / J	KV / J	mm	%	PWHT	
-40°C		55			AW	

The product BÖHLER FOX S EV 50 meets the requirements of the filler metal specification ASME sec II, part C, AWS A5.1/ ASME SFA-5.1: E7018-H4R when tested in accordance with that specification.

TRUE COPY
SURAT INI HANYA BERLAKU UNTUK DO NO : BB/DO/25/11/00594
CLG/12/11/2025
PT. BHINNEKA BAJANAS

Town: Bekasi
Date: 07.10.2025
This certificate was issued by DP-equipment and does not require signature.
Authorized representative: Miftah Farid

voestalpine
ONE STEP AHEAD.

PT. GUNAWAN DIANJAYA STEEL Tbk.

Surabaya - Indonesia

Head Office :
Jl. Margomulyo No. 29A
Tambak Sarioso - Asemrowo - Surabaya 60184
Phone : +62-31-7406598 (Hunting)
Fax : +62-31-7406581
e-mail : quality@gunawansteel.com
Website : www.gunawansteel.com

Page : 1 of 2

MILL TEST CERTIFICATE
ACC. TO EN10204 : 2004 3.1

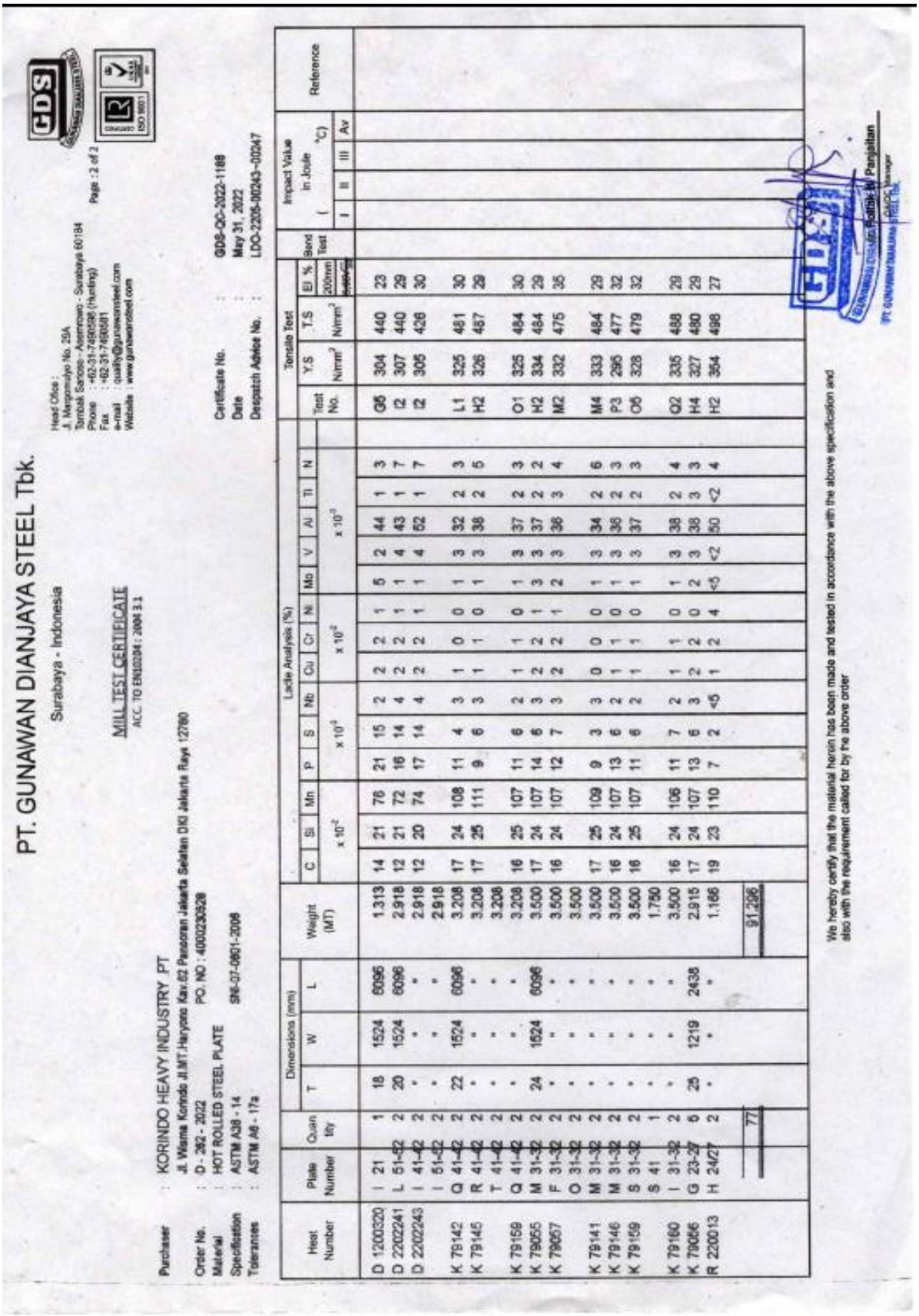
Purchaser : KORINDO HEAVY INDUSTRY .PT
Jl. Wisma Korindo Jl.MT.Haryono Kav.62 Pancoran Jakarta Selatan DKI Jakarta Raya 12780
Order No. : D - 282 - 2022 P.O. NO : 4000230528
Material : HOT ROLLED STEEL PLATE
Specification : ASTM A36 - 14 SNI-07-0601-2006
Tolerances : ASTM A6 - 17a

Certificate No. : GDS-QC-2022-1188
Date : May 31, 2022
Despatch Advice No. : LDO-2205-00243-00247

Heat Number	Plate Number	Quantity	Dimensions (mm) T	W	L	Weight (MT)	Ladle Analysis (%) C	Si	Mn	P	S	Nb	Cu	Cr	Ni	Mo	V	Al	Ti	N	Test No.	Tensile Test Y.S N/mm²	T.S N/mm²	El % 200mm	Bend Test	Impact Value in Joule (°C) I	II	III	Av	Reference
D 2201870	O 54	1	9	1524	6096	0.656	14	22	79	24	14	3	2	2	2	3	4	43	1	9	P6	337	453	22						
D 2202246	H 54	1	"	"	"	0.656	12	19	77	27	17	4	2	2	2	1	6	48	1	7	N3	331	442	29						
K 79132	P 42-45	4	10	1524	6096	2.918	16	18	68	11	10	2	1	0	0	1	2	41	2	3	K4	336	442	25						
D 2202241	L 21-23	3	"	"	"	2.187	12	21	72	16	14	4	2	2	1	1	4	43	1	7	M2	326	446	27						
	L 31-34	4	"	"	"	2.916																								
	L 41-44	4	"	"	"	2.916																								
D 1200259	G 21-22	2	13	1524	6096	1.896	12	22	77	24	11	3	2	2	1	5	2	50	2	6	N2	316	443	23						
D 1200291	F 21-22	2	"	"	"	1.896	14	26	80	20	8	2	3	2	4	6	2	31	1	3	O2	329	463	28						
D 1200275	G 41	1	14	1524	6096	1.021	14	21	76	29	13	2	2	3	1	3	2	43	1	3	G3	315	445	27						
D 1200277	M 41	1	"	"	"	1.021	14	21	75	21	12	2	2	3	1	3	2	50	1	3	L3	311	447	30						
D 1200307	O 41	1	"	"	"	1.021	11	23	77	21	12	4	3	5	2	5	3	55	1	2	M4	289	420	25						
D 1200322	G 41	1	"	"	"	1.021	13	24	74	18	14	2	2	2	1	4	2	52	1	3	H1	297	436	25						
D 1200227	M 41	1	16	1524	6096	1.167	14	22	68	12	12	3	2	2	1	4	1	49	1	5	I3	365	459	26						
D 1200301	H 21	1	"	"	"	1.167	13	21	69	22	16	2	3	1	1	4	2	56	1	3	F4	290	424	24						
D 1202632	J 21	1	"	"	"	1.167	14	21	77	24	12	3	2	2	2	2	3	41	1	0.1	M2	310	455	30						
	J 31	1	"	"	"	1.167																								
D 2200202	N 41-42	2	"	"	"	2.334	13	22	71	12	7	1	3	1	1	5	2	49	1	7	L2	292	431	32						
D 2200261	F 41	1	"	"	"	1.167	13	21	76	18	13	3	2	2	1	4	2	36	1	3	F4	291	424	34						
D 2200278	M 41	1	"	"	"	1.167	13	22	74	18	10	3	3	3	2	5	2	31	1	3	N4	300	444	28						
D 2202240	O 32	1	"	"	"	1.167	14	20	77	20	22	5	2	2	2	2	3	64	1	9	F5	329	439	23						
D 2202243	I 31-33	3	"	"	"	3.501	12	20	74	17	14	4	2	2	1	1	4	52	1	7	I1	300	421	28						
D 1200273	H 21	1	18	1524	6096	1.313	13	22	74	20	14	2	3	3	1	3	2	46	1	3	H2	318	437	25						
D 1200308	I 32-33	2	"	"	"	2.626	13	22	74	20	12	3	2	3	2	5	3	54	1	3	F3	305	427	28						

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirement called for by the above order

Ir. Poltak P. Panjaitan
General Manager
PT. GUNAWAN DIANJAYA STEEL Tbk



PT. GUNAWAN DIANJAYA STEEL Tbk.

Surabaya - Indonesia

Head Office : Jl. Margomulyo No. 29A Tambak Sarioso - Asemrowo - Surabaya 60184
Phone : +62-31-7460598 (Hunting)
Fax : +62-31-7460581
e-mail : quality@gunawansteel.com
Website : www.gunawansteel.com

Page : 2 of 2

MILL TEST CERTIFICATE
ACC. TO EN10204 : 2004 3.1

Purchaser : KORINDO HEAVY INDUSTRY PT
Jl. Wisma Korindo Jl.MT.Haryono Kav.62 Pancoran Jakarta Selatan DKI Jakarta Raya 12760
Order No. : D - 282 - 2022 PO. NO : 4000230328
Material : HOT ROLLED STEEL PLATE
Specification : ASTM A36 - 14 SNI-07-0601-2006
Tolerances : ASTM A6 - 17a

Certificate No. : GDS-QC-2022-1188
Date : May 31, 2022
Despatch Advice No. : LDO-2205-00243-00247

Heat Number	Plate Number	Quantity	Dimensions (mm) T	W	L	Weight (MT)	Ladle Analysis (%) C	Si	Mn	P	S	Nb	Cu	Cr	Ni	Mo	V	Al	Ti	N	Test No.	Tensile Test Y.S N/mm²	T.S N/mm²	El % 200mm	Bend Test	Impact Value In Joule (°C) I	II	III	Av	Reference
							x 10⁻²			x 10⁻³			x 10⁻²				x 10⁻³													
D 1200320	I 21	1	18	1524	6096	1.313	14	21	76	21	15	2	2	2	1	5	2	44	1	3	Q5	304	440	23						
D 2202241	L 51-52	2	20	1524	6096	2.918	12	21	72	16	14	4	2	2	1	1	4	43	1	7	I2	307	440	29						
D 2202243	I 41-42	2	"	"	"	2.918	12	20	74	17	14	4	2	2	1	1	4	52	1	7	I2	305	426	30						
	I 51-52	2	"	"	"	2.918																								
K 79142	Q 41-42	2	22	1524	6096	3.208	17	24	108	11	4	3	1	0	0	1	3	32	2	3	L1	325	481	30						
K 79145	R 41-42	2	"	"	"	3.208	17	25	111	9	6	3	1	1	0	1	3	38	2	5	H2	326	487	29						
	T 41-42	2	"	"	"	3.208																								
K 79159	Q 41-42	2	"	"	"	3.208	16	25	107	11	6	2	1	1	0	1	3	37	2	3	O1	325	484	30						
K 79055	M 31-32	2	24	1524	6096	3.500	17	24	107	14	6	3	2	2	1	3	3	37	2	2	H2	334	484	29						
K 79057	F 31-32	2	"	"	"	3.500	16	24	107	12	7	3	2	2	1	2	3	38	3	4	M2	332	475	35						
	O 31-32	2	"	"	"	3.500																								
K 79141	M 31-32	2	"	"	"	3.500	17	25	109	9	3	3	0	0	0	1	3	34	2	6	M4	333	484	29						
K 79146	M 31-32	2	"	"	"	3.500	16	24	107	13	6	2	1	1	0	1	3	36	2	3	P3	295	477	32						
K 79159	S 31-32	2	"	"	"	3.500	16	25	107	11	6	2	1	1	0	1	3	37	2	3	O6	328	479	32						
	S 41	1	"	"	"	1.750																								
K 79160	I 31-32	2	"	"	"	3.500	16	24	106	11	7	2	1	1	0	1	3	38	2	4	Q2	335	488	29						
K 79066	G 23-27	6	25	1219	2438	2.915	17	24	107	13	6	3	2	2	0	2	3	38	3	3	H4	327	480	29						
R 220013	H 24/27	2	"	"	"	1.166	19	23	110	7	2	<5	1	2	4	<5	<2	50	<2	4	H2	354	498	27						
		77				91.286																								

We hereby certify that the material herein has been made and tested in accordance with the above specification and also with the requirement called for by the above order

PT GUNAWAN DIANJAYA STEEL Tbk. Rofik N. Panjaitan QA/QC Manager

1.1