

WELDING PROCEDURE SPECIFICATION

WELDING PROCEDURE SPECIFICATION No:

WPS-GASTECH-02

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SUPPORTED BY PROCEDURE QUALIFICATION RECORD No:

PQR-GASTECH-02

WELDING PARAMETERS

QW-405 Positions					Weld Layer		Root Pass	Hot Pass	Fill/Cap/Pass			
					Welding process		GTAW	GTAW	SAW			
					Welding positions		All	All	1G			
					Welding progress		Up hill for 3G	Up hill for 3G	N/A			
QW-404					Trade name		0	0	EM12K			
					Filler Metal Ø (mm)		2.4	2.4	2.4			
					Max "t" deposited		10 mm		26 mm			
QW-408 Gas					Shielding gas	Nature	Ar (min 99,99%)	Ar (min 99,99%)	N/A			
						Flow rate (l/min)	10 to 25	10 to 25	N/A			
					Backing gas	Nature	N/A	N/A	N/A			
						Flow rate (l/min)	N/A	N/A	N/A			
					Trailing	Nature	N/A	N/A	N/A			
						Flow rate (l/min)	N/A	N/A	N/A			
QW-409 Electrical Characteristics					NE	Amperes (A)	108 to 132	113 to 138	270 to 330			
						Volts (V)	11.2 to 12.8	11.6 to 13.4	26 to 30			
					SE	Welding speed (mm/min)	43 to 58	39 to 53	287 to 477			
						Energy U x I x 60 / V (kJ/mm)	1.26 to 2.39	1.48 to 2.82	0.88 to 2.06			
					NE/SE	Current or polarity	DC (-)	DC (-)	DC (+)			
						Pulsing	N/A	N/A	N/A			
					E	Transfer Mode	N/A	N/A	N/A			
						Tungsten Electrode (type)	SFA 5.12 (EWP;EWTh-2...)			N/A		
					NE	Tungsten Electrode (Ø mm)	2.4	2.4	N/A			
					QW-406 Preheat						Preheat T°: Ambient (30°C)	ISO 13916 : temperature to be measured :
Min interpass T°: Ambient	t ≤ 50 : A = 4 x t , 50 mm max.											
Maxi interpass T°: 250°C	t > 50 : A = 75 mm.											
QW-407 PWHT						Type: no PWHT						
						Holding time (min 1h)	N/A	Heating rate		N/A	After	N/A
						Hold temperature	min N/A max N/A	Cooling rate		N/A	Up to	N/A
QW-410 Technique						Welding process:	GTAW		SAW			
						String/Weave method	String & Weave		String			
						Orifice, cup or nozzle size	6		N/A			
						Method of initial and interpass cleaning	Grinding / Brushing		Grinding / Brushing			
						Method of back gouging	N/A		N/A			
						Oscillation (Machine or automatic)	N/A		N/A			
						SE	Bead Width	max 8 mm		max 22 mm		
						NE	Contact tube to work dist. (stick out)	N/A		N/A		
						NE/SE	Multiple or single pass (per side)	Multiple		Multiple		
						SE	Single to multiple electrodes	Single		Single		
						E	Vacuum chamber welding	N/A		N/A		
						NE	Manual, Automatic, Semi automatic	Manual		Mechanized		
						NE/NE	Peening/ Electrode spacing	N/A		N/A		
						E	Use of thermal processes	N/A		N/A		

Notes :

- 1/ E = Essential variable : Can not be changed / SE = Supplementary Essential variable : Can not be change on impact tested welds
NE = Non Essential Variable : Guideline, could be changed with QAQC approval, if permitted by Client Specification
- 2/ Surfaces to be cleaned on both sides of weld preparation : 15mm

Manufacturer		GTC TECHNICAL CONSULTANCY CO., LTD.	
0	8/Jan/2026	Prepared by:	Reviewed by:
			Inspector: BUI VAN THAO
Rev	Date	GTC CSWIP 3.2: 34870022 CWI: 17050871	

0312277663-C
GTC
TRẦN VĂN KỸ THUẬT
GTC
VĂN KỸ THUẬT
V. PHỒ CHÍ MINH
V. Van Truong
DIRECTOR

WELDING PROCEDURE SPECIFICATION

WELDING PROCEDURE SPECIFICATION No: WPS-GASTECH-02 Page 1/2

SUPPORTED BY PROCEDURE QUALIFICATION RECORD No: PQR-GASTECH-02

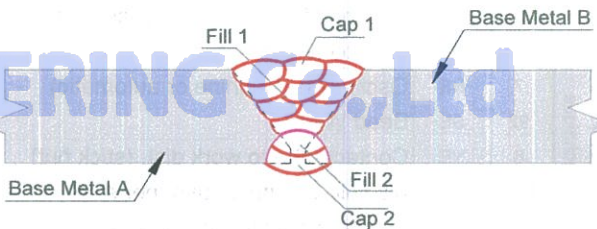
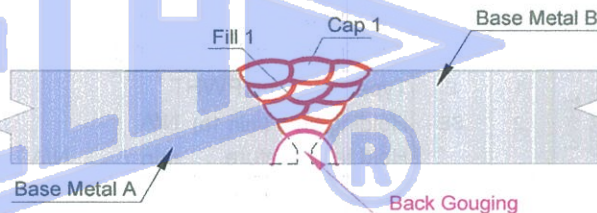
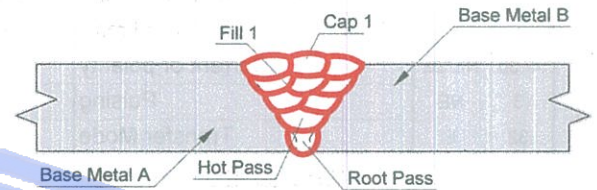
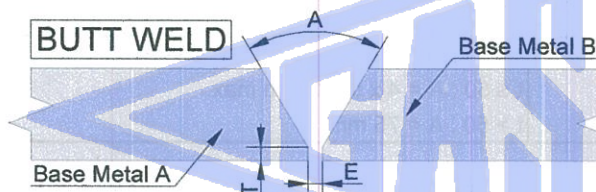
Welding process : GTAW+SAW Type : Manual/Mechanized Joint design : BW/FW

QW-403 Base Metals	NE	Base material: ASTM A516, Gr. 70 or Equivalent to ASTM A516, Gr. 70 or Equivalent			
	.11 E	P. Number	1	to	1
	.5 SE	Group Number	Any	to	Any
	.8/.6 E/SE	Thickness range	Groove 5 mm to 36 mm	Fillet	All
	.9 E	Pipe Ø range :	Groove All	Fillet	All
		Thickness range limitation (t weld > 13mm)	N/A		

QW-402 Joints	.1 NE	Groove design A=60°±10° T=0 to 1.5 mm E=4 ±1mm	Preparation method : Machining / Thermal Cutting / Grinding
	.4 NE	Deletion of Backing Not allowed	Tack welds : Process: GTAW
	.5 NE	Addition of Backing Allowed	Location: In groove or bridge
	.10 NE	Root spacing N/A	Removal method Grinding
	.11 NE	Retainers N/A	

WELD PREPARATION

WELDING SEQUENCES / PASS LOCATION



Sketches, production drawings, weld symbols, or written description should show the general arrangement of the parts to be fused. Where applicable, the details of the joint groove may be specified.

QW-404 Filler Metals	QW-404			.33/ NE	.12 SE	.4 E	.5 E	.23 E	.50 NE
	Process	Trade name	Manufacturer	Classification	AWS	F-No	A-No	Product form	Flux
	GTAW	KOVET-T50	KOVET	ER 70S-6	A5.18	6	1	Wire	N/A
	SAW	KW-3/CHF501	Kuangtai/Atlantic	EM12K	A5.17	6	1	Wire	neutral
	.14/.22	E	Welding without filler metal is not allowed			.10/.24	E	Alloy flux/Supplemental	
	.9/.27	NE	Flux-wire class/Alloy Elements			.29	NE	Flux designation	
	.35	NE	Flux-Wire class.			.34/.36	E	Flux type/Recrushed slag	

	Manufacturer : GAS TECHNICAL AND MECHANICAL ENGINEERING COMPANY LIMITED Add: 2274/9/12 NGUYEN VAN TAO ST, APT 18, HIEP PHUOC COMMUNE, HO CHI MINH CITY, VIETNAM PROCEDURE QUALIFICATION RECORD (PQR)	Carbon Steel Code : ASME IX-2025
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PROCEDURE QUALIFICATION RECORD No:	PQR-GASTECH-02	Page 2/2
SUPPORTED TO WELDING PROCEDURE SPECIFICATION No: WPS-GASTECH-02		

Welding process :				GTAW	SAW
QW-410 Technique	.1	NE	String/Weave method	String & Weave	String
	.3	NE	Orifice, cup or nozzle size	6	N/A
	.5	NE	Method of initial and interpass cleaning	Grinding / Brushing	Grinding / Brushing
	.6	NE	Method of back gouging	N/A	N/A
	.7	NE	Oscillation (Machine or automatic)	N/A	N/A
	.92	SE	Bead Width	max 8 mm	max 22 mm
	.8	NE	Contact tube to work dist. (stick out)	N/A	N/A
	.9/87	NE/SE	Multiple or single pass (per side)	Multiple	Multiple
	.10	SE	Single to multiple electrodes	Single	Single
	.11	E	Vacuum chamber welding	N/A	N/A
	.25	NE	Manual, Automatic, Semi automatic	Manual	Mechanized
	.26/15	NE/NE	Peening/ Electrode spacing	N/A	N/A
	.64	E	Use of thermal processes	N/A	N/A

Welding process				GTAW/SAW					
QW-409 Electrical Characteristics	.4/.30	NE	Current or polarity	DC (-)/DC (+)	QW-409 Electrical Characteristics	.8	NE	Amperes (A)	See Welding monitoring report
	.3	NE	Pulsing	N/A				Volts (V)	
	.12	NE	Tungsten Electrode (type)	Lanthanated 2%				Welding speed (cm/min)	
			Tungsten Electrode (Ø mm)	2.4		.1	SE	Energy UxIx60/V (kJ/cm)	

TENSILE TESTS (QW-150), Report No: 05/01/26-02-./KQTN						
Specimen No.	Width (mm)	Thickness (mm)	Area (mm2)	Ultimate Total Load (KN)	Stress (N/mm2)	Failure and Location
TS1	25.41	18	457.4	226.7	496	Ductile/Base Metal
TS2	25.16	18	452.9	225.1	497	

Type and Figure No.			Thickness x Width (mm)	Result
Side Bend 1			18x10.45	Acceptable (no crack)
Side Bend 2			18x10.32	Acceptable (no crack)
Side Bend 3			18x10.29	Acceptable (no crack)
Side Bend 4			18x10.35	Acceptable (no crack)

TOUGHNESS TESTS (QW-170) Report No.: N/A

FILLET WELD TEST (QW-180) Ref. Report No.: N/A

Visual Examination : Acceptable , Report: N/A

Radiographic or Ultrasonic Examination: : Acceptable , Report:

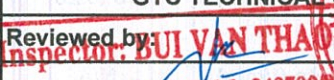
Deposit Analysis

Other:

CERTIFICATE OF COMPLIANCE			
Laboratory Agency name:	HOA BINH LAB	Date Test:	5/Jan/2026

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

- Notes :**
- 1/ E = Essential variable : Can not be changed / SE = Supplementary Essential variable : Can not be change on impact tested welds
 NE = Non Essential Variable : Guideline, could be changed with QAQC approval, if permitted by Client Specification
- 2/ Surfaces to be cleaned on both sides of weld preparation : Steels = 15mm

	8/Jan/2026	Manufacturer GTC TECHNICAL CONSULTANCY CO., LTD.	Reviewed by:  Inspector: BUI VAN THAO
		Prepared by:	Approved by:  Ho Van Truong
Rev	Date		

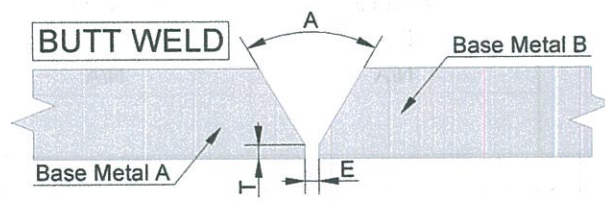
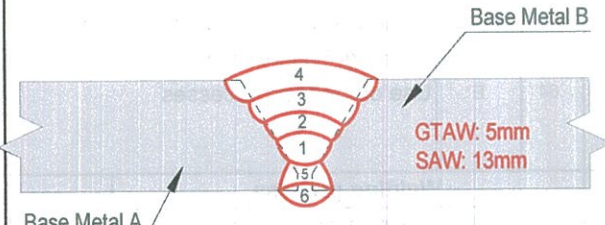
DIRECTOR

PROCEDURE QUALIFICATION RECORD No: **PQR-GASTECH-02** Page 1/2

SUPPORTED TO WELDING PROCEDURE SPECIFICATION No: **WPS-GASTECH-02**

Welding process : **GTAW+SAW** Type : **Manual/Mechanized** Joint design : **BW**

QW-402 Joints	.1	NE	Groove design A=60° T=0.5 mm E=3.5 mm		Preparation method : Machining / Grinding		
	.5	NE	Addition of Backing	N/A		Process:	GTAW
	.10	NE	Root spacing	N/A		Location:	bridge
	.11	NE	Retainers	N/A		Removal method :	Grinding

Weld	WELD PREPARATION				WELDING SEQUENCES / PASS LOCATION			
								

QW-403 Base Metals		NE	Base material: ASTM A516, Gr. 70			to ASTM A516, Gr. 70			
	.5	SE	Group Number	2	to	2	Min. Impact Test applications :		N/A
	.11	E	P-No. Qualified	1	to	1	SE Variable applicable :		N/A
	.6	SE	T Limits	Groove		18	Fillet	N/A	
	.8	E	T Qualified	Groove		18	Fillet	N/A	
			Pipe Ø range :	Groove		N/A			

	QW-404				.33/ NE	.12 SE	.4 E	.5 E	.23 E	.50						
QW-404 Filler Metals	Process		Trade name		Manufacturer		Classification		AWS	F-No	A-No	Product form		Flux		
	GTAW		KOVET-T50		KOVET		ER 70S-6		A5.18	6	1	Wire		N/A		
	SAW		KW-3/CHF501		Kuangtai/Atlantic		EM12K		A5.17	6	1	Wire		agglomerated		
	Welding process				GTAW		SAW		QW-404 Filler Metals			.14	E	Welding without filler metal is not allowed		
			Filler Metal	Trade name		KOVET-T50		KW-3/CHF501								
	.3	NE		Ø (mm)		2.4		2.4								
.30	E	Max "t" deposited		5		13										
												.22	E	No Consumable insert		

QW-405 Positions	.1	NE	Welding positions		1G	1G				
	.3	NE	Welding progress		N/A	N/A				

QW-406 Preheat	.1	E	Preheat T°:	Ambient (30°C)		ISO 13916 : temperature to be measured :				
	.2	NE	Min interpass T°:	Ambient (30°C)		t ≤ 50 : A = 4 x t , 50 mm max.				
	.3	SE	Maxi interpass T°:	130°C		t > 50 : A = 75 mm.				

QW-407 PWHT	.1	E	Type:	N/A						
	.2	SE	Holding time (min 1h) :	N/A		Heating rate	N/A	After	N/A	
			Hold temperature min	N/A	max	N/A	Cooling rate	N/A	Up to	N/A

QW-408 Gas			Welding process:		GTAW	QW-404 Filler Metals				
	.2	E	Shielding	Nature	Ar (99.99%)	.14/.22	E	Welding without filler metal is not allowed		
	.3	NE	gas	Flow rate (l/min)	15 to 20	.9/.27	NE	Flux-wire class/Alloy Elements		-
	.9	E	Backing	Nature	N/A	.35	NE	Flux-Wire class. -		-
	.5	NE	gas	Flow rate (l/min)	N/A	.10/.24	E	Alloy flux/Supplemental		-
	.10	E	Trailing	Nature	N/A	.29	NE	Flux designation		-
	.11	NE		Flow rate (l/mn)	N/A	.34/.36	E	Flux type/Recrushed slag		-



WELDER, WELDING OPERATOR QUALIFICATION TEST CERTIFICATE

Applicable Code/Standard: **ASME Section IX, 2025 Edition**WPQ Certificate number: **WE-GT-26-04**Employer's name: **GAS TECHNICAL AND MECHANICAL
ENGINEERING COMPANY LIMITED**Welder name: **NGUYEN CONG LUC (GT-02)**Address: **274/9/12 NGUYEN VAN TAO ST, APT 18, HIEP
PHUOC COMMUNE, HO CHI MINH CITY, VIETNAM**Identification number: **086025010253**Test date: **29-Dec-2025**

Test Description

Identification of PQR followed: **PQR-GASTECH-02**Revision No.: **0**☒ Test coupon ☐ Production weldSpecification and type/grade or UNS Number of base material(s): **ASTM A516, Gr. 70**Thickness: **18 mm**

Testing Variables and Qualification Limits

Welding Variables (QW-403)	Actual Values	Range Qualified
Welding process (es)	GTAW+ SAW	GTAW/SAW
Type (i.e.; manual, semi-automatic) used	Manual/Mechanized	Manual/Mechanized
Backing (with/ without)	With	With (for CJP)
☒ Plate ☐ Pipe (enter diameter if pipe or tube)		Plate and Pipe
Base metal P-Number to P-Number	P-No.1 to P-No.1	P-No.1 through P-No.15F
Filler metal or electrode specification(s) (SFA) (info. only)	A5.18/A5.17	All class
Filler metal or electrode classification(s) (info. only)	ER 70S-6/EM12K	
Filler metal F-Number(s)	6	
Consumable insert (GTAW or PAW)	N/A	N/A
Filler Metal Product Form (solid/metal or flux-cored/powder)	-	-
Deposit thickness for each process	-	-
Process 1 GTAW 3 layers minimum ☐ Yes ☒ No	5 mm	Max: 10 mm
Process 2 SAW 3 layers minimum ☒ Yes ☐ No	13 mm	Max: 26 mm
Position qualified (2G, 6G, 3F, etc.) (Table QW-461.9)	1G	Groove: F for Plate & Pipe (OD ≥ 73 mm). Fillet: F; H for Plate and Pipe
Vertical progression (uphill or downhill)	N/A	N/A
Type of fuel gas (OFW)	N/A	N/A
Inert gas backing (GTAW, PAW, GMAW)	N/A	N/A
Transfer mode (Spray/globular or pulse to short circuit-GMAW)	N/A	N/A
GTAW Welding current type/polarity (AC, DCEP, DCEN)	DCEN	DCEN

RESULTS

Visual examination of the completed weld (QW-302.4): **ACCEPTED**☐ Transverse face and root bends [QW-462.3(a)]☒ Side bends (QW-462.2) , Report: **05/01/26-02./KQTN**☐ Pipe bend specimen, corrosion-resistant overlay [QW-462.5(c)]☐ Plate bend specimen, corrosion-resistant overlay [QW-462.5(d)]☐ Pipe specimen, macro test for fusion [QW-462.5(b)]☐ Plate specimen, macro test for fusion [QW-462.5(e)]

Type	Result	Type	Result	Type	Result	Type	Result
-	-	-	-	-	-	-	-

Alternative volumetric examination results (QW-191): RT ☐ or UT ☒Report No.: **GTC- GT/WPS - UT - 002**Fillet weld – fracture test (QW-181.2): **N/A**Length and percent of defects: **N/A**☐ Fillet welds in plate [QW-462.4(b)] Report:☐ Fillet welds in pipe [QW-462.4(c)]Other tests: **N/A**Film or specimens evaluated by: **N/A**Company: **N/A**Mechanical tests conducted by: **Nguyen Trong Thai**Laboratory test no.: **HOA BINH LAB (LAS-XD 265)**Welding supervised by: **Nguyen Dac**

We, the undersigned, 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.

**GAS TECHNICAL AND MECHANICAL ENGINEERING
COMPANY LIMITED****GTC TECHNICAL CONSULTANCY CO., LTD.**

Verified by:

Approved by:

Full Name:

Signature:

Date: **14- Jan- 2026**

Inspector: BUI VAN THAO
GTC CSWIP 3.2: 348700/2
CWJ: 17050871
Date: **14- Jan- 2026**

Date: **14- Jan- 2026****DIRECTOR**



WELDING MONITORING REPORT

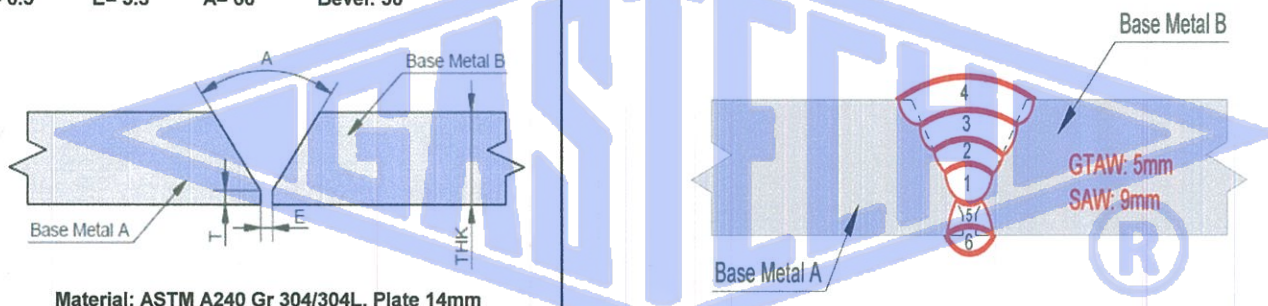
ASME IX-2025

GAS TECHNICAL AND MECHANICAL ENGINEERING COMPANY LIMITED

Add: 274/9/12 NGUYEN VAN TAO ST, APT 18, HIEP PHUOC COMMUNE, HO CHI MINH CITY, VIETNAM

PQR no: PQR-GASTECH-02	Welding Process: GTAW + SAW	Welder Name: NGUYEN CONG LUC	Welder Stamp : 086025010253
Support for WPS: WPS-GASTECH-02			
Clampmeter No. (calibrated machine) Kyoritsu KEW 2055	Thermometer No. FLUKE 62 MAX	Oxygenmeter N° : N/A	Weld Machine S/N°. WSE-400 (GTAW) MZ1000 (SAW)
Shielding Gas: Argon	Backing Gas: N/A	Shield. Gas Flow Rate: 15-20 (l/min)	Backing Gas Flow Rate: N/A
			Welding Position: 1G
Monitored by: GTC TECHNICAL CONSULTANCY CO., LTD.	Position : TPI INSPECTOR	Name : NGUYEN DAC	Signature : Monitoring Date: 30-Dec-2025

T= 0.5 E= 3.5 A= 60 Bevel: 30



Material: ASTM A240 Gr 304/304L, Plate 14mm

Weld preparation

Welding Sequence

Travel Speed= Length(cm) / Time(min)

Arc Energy= 0,06xVolts(V)xAmps(A) / Travel Speed (mm/min)

Layer / Pass n°	Filler Metal		Interpass Temp. (°C)	Amps (A)	Volts (V)	Weld Length (mm)	Welding Arc Time (min)		Travel Speed (mm/min)	Heat Input (kJ/cm)	Bead Width (mm)	Remark
	AWS Class	Diameter (mm)					Minutes	Second				

Side 1:

1	ER 70S-6	2.4		120	12.0	450	8	58	50	1.72	6	
2	ER 70S-6	2.4	90	125	12.5	450	9	53	46	2.06	8	
3	EM12K	2.4	110	300	28.0	450	1	20	338	1.49	16	
4	EM12K	2.4	130	300	28.0	450	1	15	360	1.40	22	

Side 2: after backgouging & grinding

5	EM12K	2.4	130	300	28.0	450	1	5	415	1.21	12	
6	EM12K	2.4	120	300	28.0	450	1	15	360	1.40	15	

Comments: Consummable, GTAW :
SAW

KOVET-T308
ER308L (TIEN TAI) TW-308L/TFS300



CÔNG TY CỔ PHẦN TƯ VẤN THIẾT KẾ KIỂM ĐỊNH XÂY DỰNG HÒA BÌNH
Địa chỉ: Số 964/1 Đường Lò Gốm, Phường Bình Tiên, Tp. Hồ Chí Minh
PHÒNG THÍ NGHIỆM VẬT LIỆU VÀ KIỂM ĐỊNH CÔNG TRÌNH XÂY DỰNG LAS-XD 265
Địa chỉ: 161B/81/2A Lạc Long Quân, Phường Bình Thới, Tp. Hồ Chí Minh
Email: Las265.hoabinh@gmail.com - Hotline: 0937836265 - 0962109262

Số: 05/01/26-05 ./KQTN

PHIẾU KẾT QUẢ THÍ NGHIỆM

Trang: 1/2

Số PYC: 050126-05

PHIẾU KẾT QUẢ THÍ NGHIỆM / TEST REPORT

XÁC ĐỊNH CƠ LÝ VẬT LIỆU THÉP / DETERMINING MECHANICAL OF STEEL MATERIAL

- Đơn vị yêu cầu / Client : GASTECHNICAL AND MECHANICAL ENGINEERING COMPANY LIMITED
- Địa điểm / Location : 274/9/12 NGUYEN VAN TAO, St, APT 18, HIEP PHUOC COMMUNE, HO CHI MINH CITY, VIET NAM
- P. Pháp thử / Test method : TCVN 197-2014, TCVN 198-2008, ASME IX_2025
- Thiết bị TN / Test Equipment : Máy kéo - nén - uốn thép WA-1000B, thước lá, cân kỹ thuật, một số dụng cụ khác...
- Ngày nhận mẫu / Recrived : 05/01/2026
- Ngày thí nghiệm / Tested : 05/01/2026
- Tên mẫu / Name of sample : MỐI HÀN THÉP TẮM / WELDING STEEL PLATE
: MẪU QUY TRÌNH HÀN / PQR NO : PQR-GASTECH-02
: TÊN THỢ HÀN / WELDER NAME : NGUYEN CONG LUC
: MÃ SỐ THỢ HÀN / WELDER ID : 086095010253
: PHƯƠNG PHÁP HÀN / WELDING PROCESS : GTAW+SAW
: VẬT LIỆU / MATERIAL : A516 Gr.70
: VỊ TRÍ HÀN / WELDING POSITION : 1G
: CHIỀU DÀY / THICKNESS : 18 mm
- Số lượng / Quantity (mẫu) : 01 (Thép tấm : 450x400X18 mm)

Kết quả thí nghiệm xem trang sau / experimental results see next page:

TP. Hồ Chí Minh, ngày 05 tháng 01 năm 2026

CÔNG TY CP TV TK KIỂM ĐỊNH XÂY DỰNG HOÀ BÌNH

ĐD thí nghiệm

T. Phòng Thí Nghiệm

Tổng Giám Đốc

Tested by

Laboratory


Nguyễn Trọng Thái


KS. Nguyễn Ngọc Linh


Nguyễn Việt Chánh

Ghi chú / Notice

: 1. Mẫu do khách hàng cung cấp, kết quả chỉ có giá trị trên mẫu thử /

Specimens were supplied by client, test result is valid namely submitted specimens only

2 Các thông tin về mẫu, tên công trình, tên khách hàng, hạng mục do khách hàng cung cấp /

Information of specimens, project, client, item, were supplied by client

Số/Ref:...../KQTN		PHIẾU KẾT QUẢ THÍ NGHIỆM TEST REPORT				Trang/Page:.....	
II. KẾT QUẢ THÍ NGHIỆM/ TEST RESULTS (tt):							
STT	Mẫu thép Test Specimen	Mặt cắt ngang	Lực kéo chảy	Giới hạn chảy	Lực kéo đứt	Giới hạn bền	Vị trí bị đứt
No	(Bề dày) x (C. rộng Thick x Width)	Cross Section	Force at yield point	Yield Strength	Maximum force	Tensile Strength	Notice
	mm x mm	(mm ²)	(kN)	(N/mm ²)	(kN)	(N/mm ²)	
1	18.00 x 25.41	457.4	155.32	340	226.7	496	(3)
2	18.00 x 25.16	452.9	157.14	347	225.1	497	(3)

Ghi chú/ Notice: Mẫu được thử nghiệm với sự chứng kiến của các bên liên quan/ Test was witnessed in the presence of Concerned Parties.

(1) :Đứt tại mối hàn/ Weld Metal

(2) :Đứt ở vùng ảnh hưởng nhiệt/ Fractured at heat affected zone

(3) Đứt tại vật liệu cơ bản/ Base Metal

load of total extension

load at (0.0,0.0) extension

Displacement (mm)

II. KẾT QUẢ THỬ UỐN NGUỘI / TEST RESULT OF BEND :							
Stt/	Mẫu thử/ Specimens			Số lượng	Góc uốn	Đường kính gối uốn	Kết quả thử uốn nguội
No	Ký hiệu mẫu	Dày	Rộng	Quantity	Bending angle	Diameter of angle	Test Result of bend
	Sample ID	Thickness	width	Thanh/ Bars	(Độ/ Degree)	(mm)	
1	Side bend	18.00	10.45	1	180°	40	Không Nứt / No Crack
2	Side bend	18.00	10.32	1	180°	40	Không Nứt / No Crack
3	Side bend	18.00	10.29	1	180°	40	Không Nứt / No Crack
4	Side bend	18.00	10.35	1	180°	40	Không Nứt / No Crack