



Guangzhou KYH Metal Co., Ltd Steel Structure Fabrication



1. 2 Lincoln Power Wave R450 GMAW Systems (USA)
2. 2 Lincoln Power Wave AC/DC 1000 SD SAW Systems (with LSO Function) USA
3. 4 FANUC Welding Robots (Japan)
4. Laser Seam Tracking System →

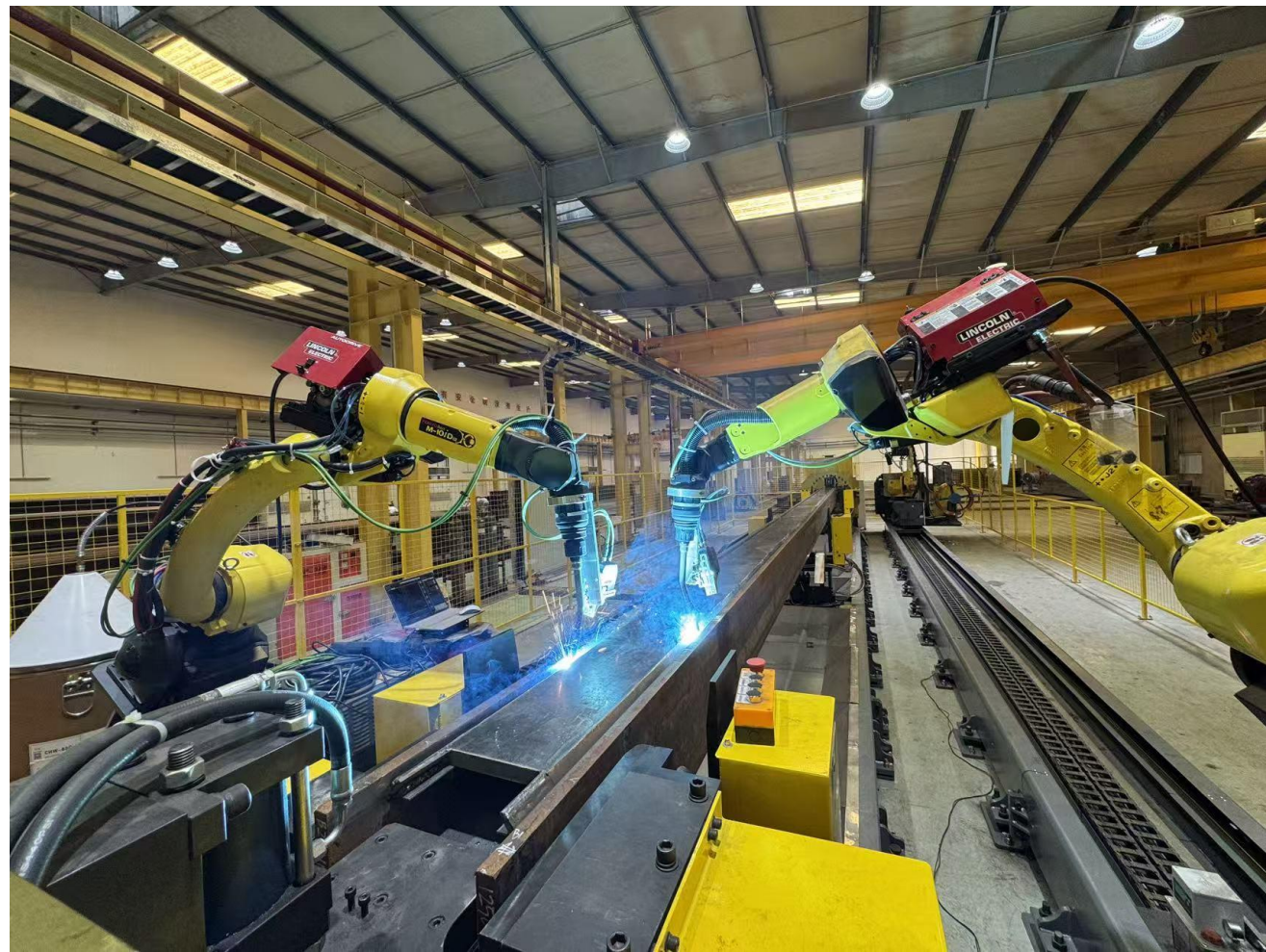


Typical Applications:

- Socketed Pile
- Fillet Welds
- Full Penetration Butt Welds



Overview



Robotic Welding Demonstration

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Click to Play →

Power Wave R450 + FANUC M-10iD

POWER WAVE® R450

The industry's most powerful 450A robot welding power source

High-Performance Welding System

- Industry-leading — fastest travel speed, lowest spatter, excellent gap-bridging capability and superior weld bead appearance
- World's fastest robot interface — ArcLink® makes the most efficient production cycle possible
- Wide material thickness range — from 0.6mm to thicker plates
- Comprehensive welding modes for carbon steel, stainless steel, low-alloy and high-alloy steel

Improve Productivity Through System Data

- Utilize Lincoln Electric CheckPoint® production monitoring solution to track welding data
- Expand networking and data access capabilities via Wi-Fi and Bluetooth
- Support traceability tools to achieve part-level and operator-level quality assurance



Rated Output

450A @ 100%, 500A @ 60%

Processes — Standard

MIG, TIG, Flux-cored

FANUC Robot M-10iD



Features

FANUC M-10iD is an intelligent robot with highly integrated welding torch cables and conduits.

- This robot expands the reachable range for various postures.
- Its unique mechanical structure design not only enables built-in installation of welding torch cables, but also allows internal routing of sensors and other cables.
- The overall structure of the intelligent robot is more compact. Welding cables are directly connected to the J1 axis for wire feeder installation, simplifying the setup.
- The highly rigid arm achieves high speed and high precision in robot motion, improving overall system productivity.
- ROBOGUIDE offline programming significantly reduces teaching time.
- It can be equipped with the latest intelligent function iRvision (integrated vision) and coordinate with peripheral equipment.

Lincoln LSO (Long Stick Out) - Up to Twice the Deposition Rate



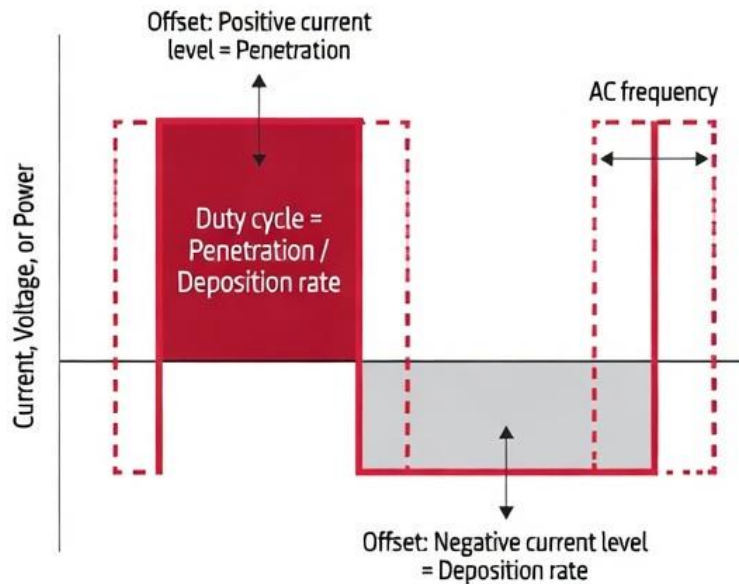
32mm Stick-out → **155mm Stick-out**

- Apply the K148 welding gun to consistently maintain the optimal conductive contact between the welding wire and the contact tip.
- Using 4.0mm welding wire, the stick-out can reach up to 155mm. The welding wire is guided through an extended guide rod designed for long stick-out.
- The extended welding wire stick-out utilizes I^2R resistance heating to preheat the welding wire.
- Under the same current density, the preheated welding wire melts more easily, thereby significantly increasing the deposition rate.



Power Wave AC/DC 1000SD

POWER WAVE® AC/DC 1000® Inverter Waveform Control Technology

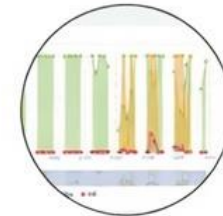


Data Monitoring Information-driven Solutions



Alerts

Receive email notifications based on equipment status and wire usage conditions.



Production Monitoring

View real-time status of f each welder and weld seam details.



Traceability

Meet reporting requirements by collecting and auditing weld data.

Socketed Steel H-Pile with Strengthening Steel Plate



Shear Stud Welding

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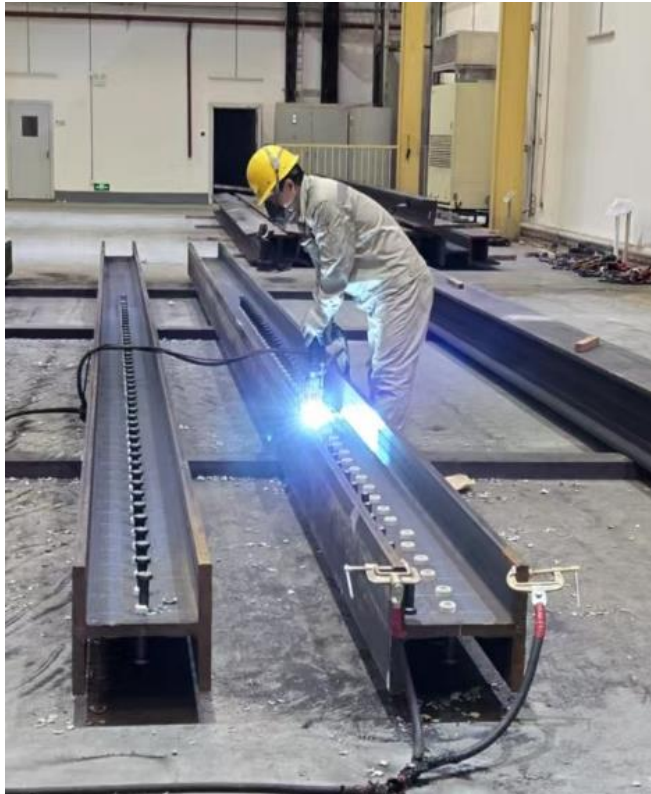
2 units of Nelson Nelweld 6000 weld machine + NS20 heavy-duty welding guns, Using genuine Nelson shear studs to ensure welding quality.



Shear Stud Welding

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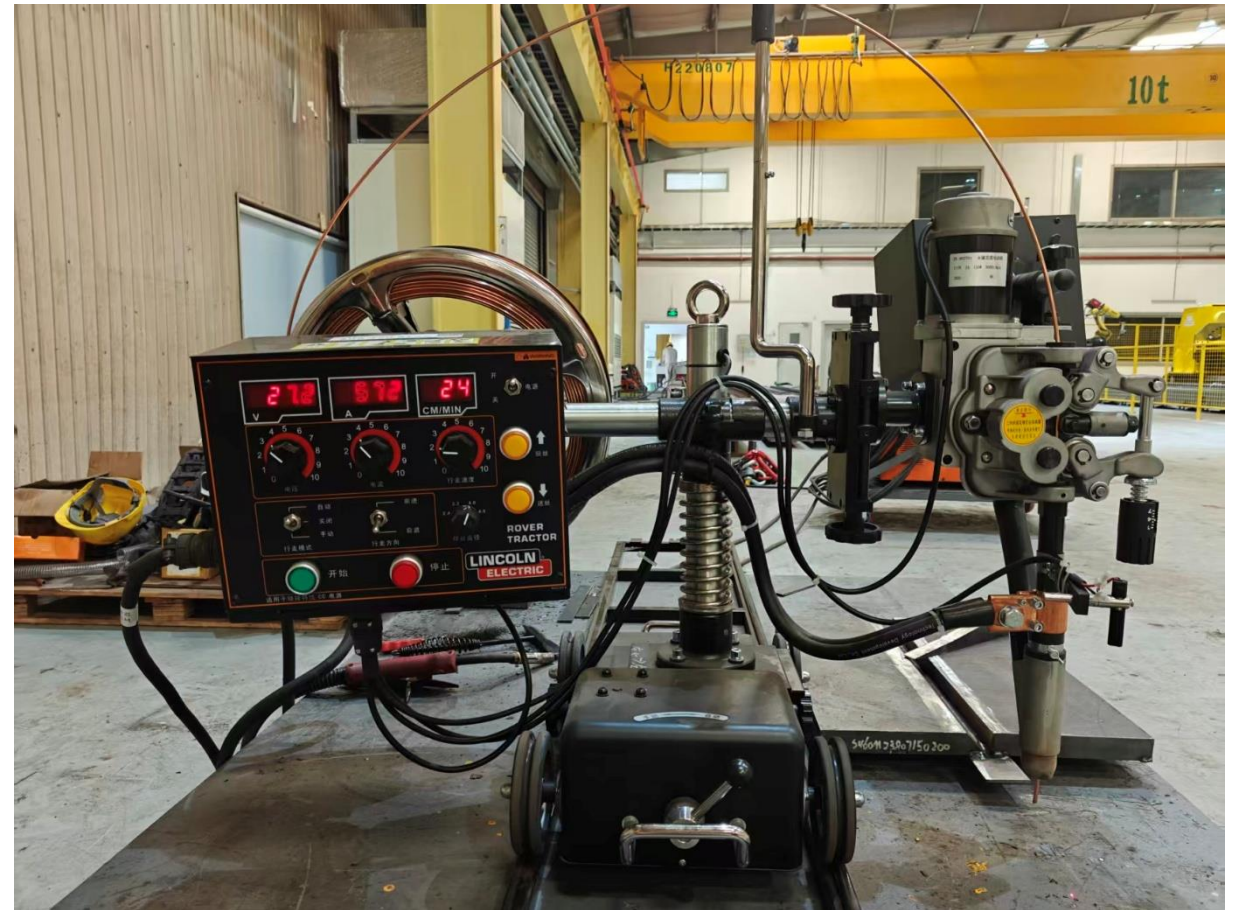
- All welders are qualified in accordance with ISO 9606 and certified by HOKLAS, an accredited third-party. Robotic welding operators are certified to ISO 14732 and also hold ISO 9606 welder qualifications.



Semi-automatic Welding Machine

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Lincoln Power Plus 1000HD Semi-Automatic SAW System + wire feeder + welding trolley



Lincoln OPTIMARC CV/CC 505 multi-function gas shielded welding machine

Applications :

- Assembly welding
- Tack welding
- Repair welding



NDT: Ultrasonic Test

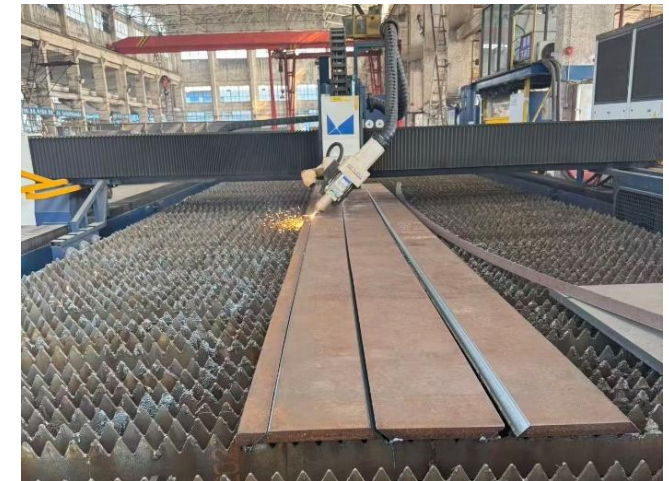
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SIUI Ultrasonic Testing (UT) Equipment Used for in-house inspection of internal weld defects and continuous improvement of welding quality.



Main Equipment and Capabilities for Thermal Cutting

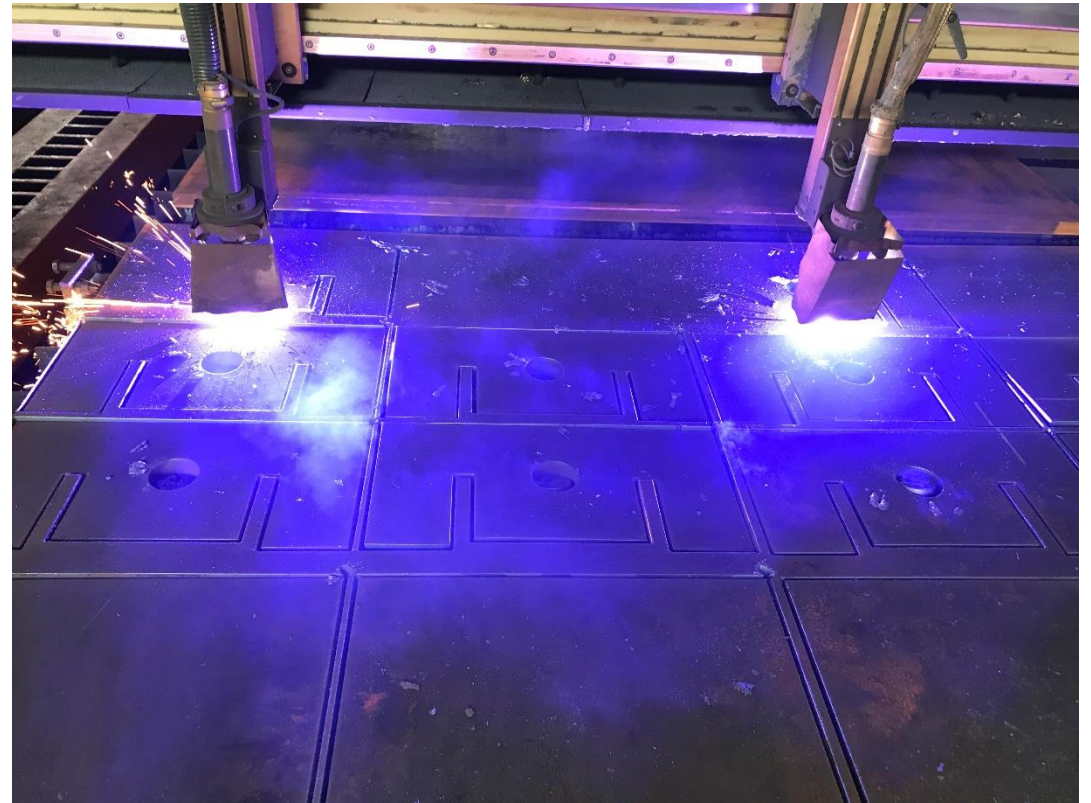
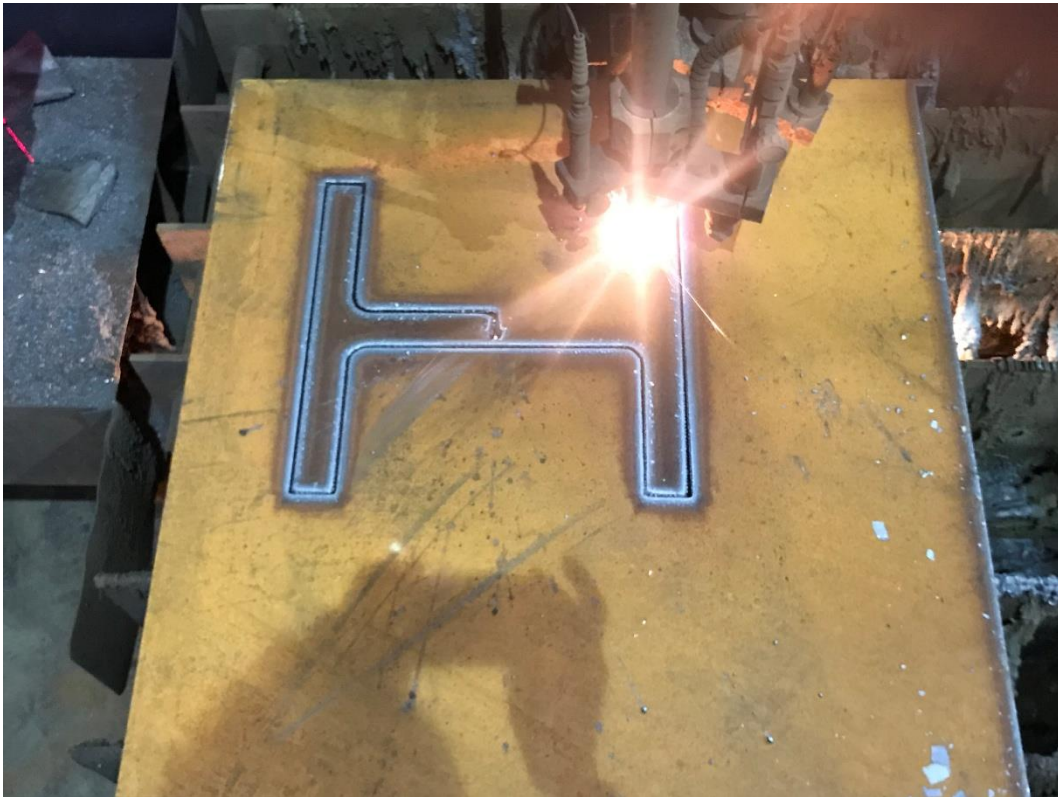
Torch	Quantity	Type/Power	Max/Recommended Cutting Thickness	Equipment Manufacturer
Flame	3+5	Oxy-acetylene	130mm/100mm	Messer
Plasma	3	Hypertherm XPR300+XPR400	40mm	Messer
Laser (360° bevel cut)	1	60,000W	80mm/60mm	Han's Laser



Thermal Cutting

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CNC thermal cutting systems are capable of cutting complex profiles and customized shapes.



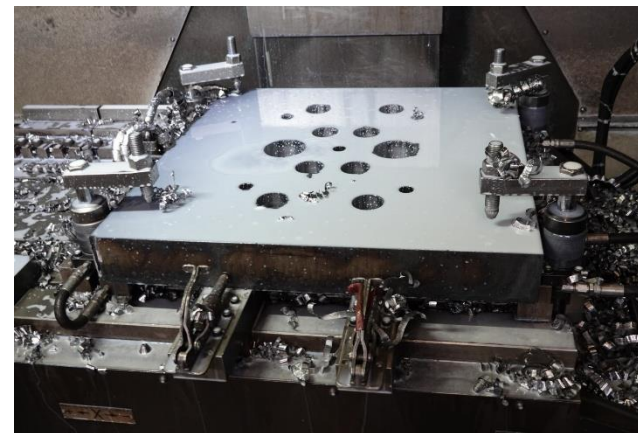
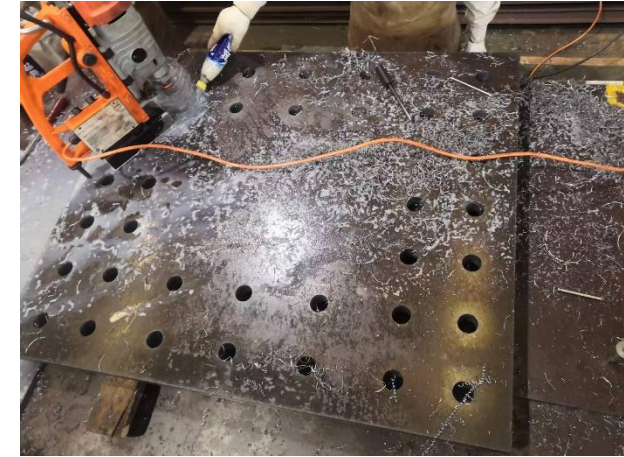
Drilling
Hole Machining
Chamfering

Drilling

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CNC vertical machining center(Doosan /Korea)
For steel capping plate drilling,
hole breaking,
beveling;

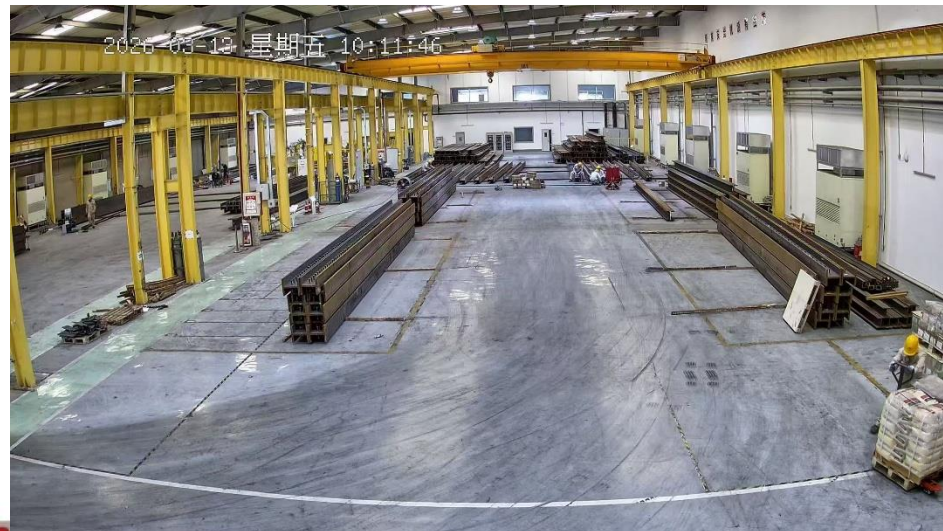
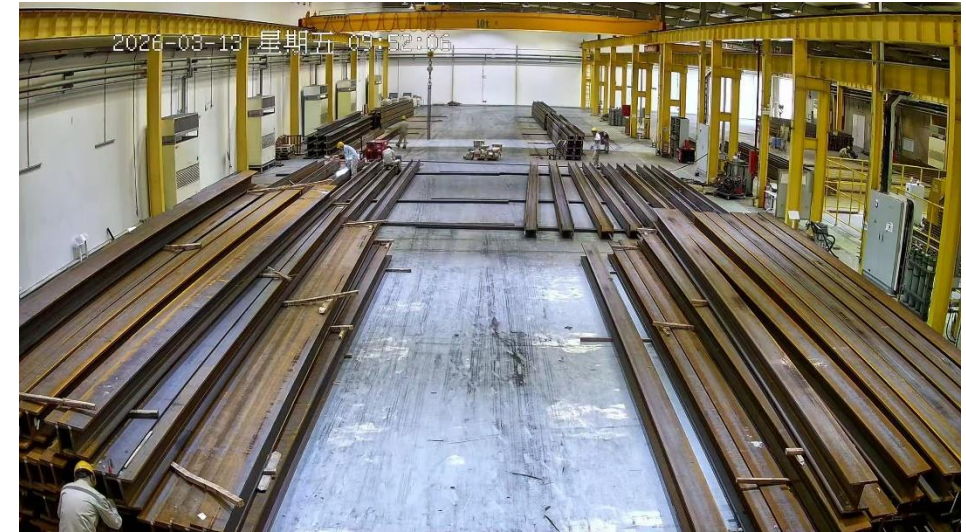
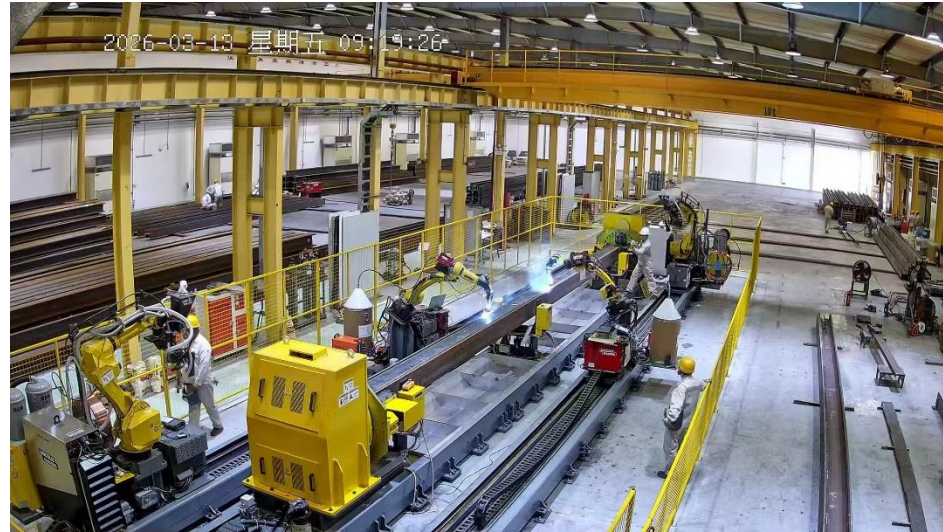
Magnetic drill (ALFRA/Germany);
Manual drilling for large steel plates



Production & Security Monitoring

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24-hour on-site
CCTV monitoring
To ensure material
and product security.



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Advanced AEO Certificate issued by China Customs

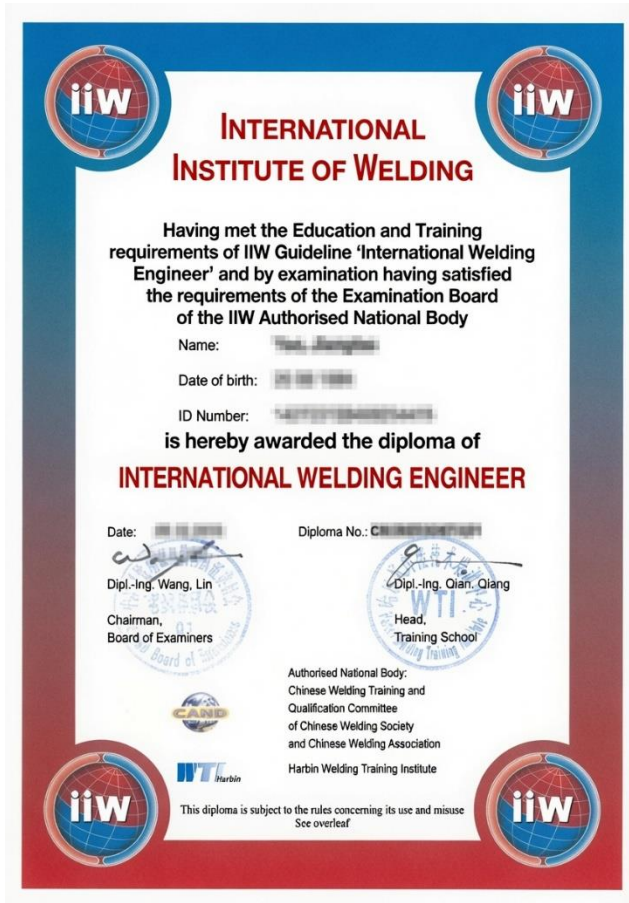
- 1) Facilitates efficient customs clearance for cross-border shipments between Mainland China, Hong Kong and Macao.
- 2) Enhances supply chain security and logistics efficiency.



System, Personnel & Qualifications

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In-house Welding Coordinator certified as International Welding Engineer (IWE).
Welding Quality Supervisor certified as Certified Welding Inspector (CWI).



System, Personnel & Qualifications

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Qualified Welding Procedure Specifications (WPS) and Welding Procedure Qualification Tests (WPQT) certified by HOKLAS-accredited third-party.

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Guangzhou KYH Metal Co.,Ltd

Composite beams Welding Procedure Specification Lsit_焊接工艺规程矩阵表
Guangzhou KYH Metal Co.,Ltd

Item No. 序号	WPS No.	WPQR No. 支撑的WPQR	Wedling Process 焊接方法	Material Grade 材料级别	Range of Thickness (mm) 厚度范围	Type of Joint 接头类型	Welding Position 焊接位置	Testing Standard 应用标准	Remark 备注
1	KYH-WPS-001	WIA50294	783	S460M and lower	≥4.75	Stud welidng	PA	ISO14555:2017	For Ø19mm stud welding.
2	KYH-WPS-002	WIA50299	783	S460M and lower	≥6.25	Stud welidng	PA	ISO14555:2017	For Ø25mm stud welding.
3	KYH-WPS-003	WIA50304	135 (semi-auto.)	S460M and lower	Plate: ≥5 Stud dia.: ≥19	FW	PB	ISO15613:2004	Could be used for Stud seam repair.
4	KYH-WPS-004	WIA50306	135 (semi-auto.)	S460M and lower	Plate: ≥5 Stud dia.: ≥25	FW	PB	ISO15613:2004	Could be used for Stud seam repair.
5	KYH-WPS-005	WIA50294 WIA50299	783	S460M and lower	≥5.5	Stud welidng	PA	ISO14555:2017	For Ø22mm stud welding.
6	KYH-WPS-006	WIA60059	135 (semi-auto.)	S460M and lower	t≥5	FW	PB	BS EN ISO 15614-1-2017	
7	KYH-WPS-007	WIA60064	135 (Mechanical)	S460M and lower	t≥5	FW	PB	BS EN ISO 15614-1-2017	
8	KYH-WPS-008	WIA60066	135 (auto.)	S460M and lower	t≥5	FW	PB	BS EN ISO 15614-1-2017	
9	KYH-WPS-009	WIA60069	121(auto.)	S460M and lower	t≥5	FW	PA	BS EN ISO 15614-1-2017	
10	KYH-WPS-010	WIA60072	136 (semi-auto.)	S460M and lower	15≤t≤60	BW	PA	BS EN ISO 15614-1-2017	
11	KYH-WPS-011	WIA60077	136 (Mechanical)	S460M and lower	15≤t≤60	BW	PA	BS EN ISO 15614-1-2017	
12	KYH-WPS-012	WIA60080	135 (auto.)+ 121(auto.)	S460M and lower	135: t≤20 121: t≤40	BW	PA	BS EN ISO 15614-1-2017	
13	KYH-WPS-013	WIA60083	136 (semi-auto.)+ 121(Mechanical)	S460M and lower	136: t≤20 121: t≤40	BW	PA	BS EN ISO 15614-1-2017	
14	KYH-WPS-014	WIA60088	135 (semi-auto.)	S460M+ B500B and lower	Rebar: dia.3~40 15≤t≤60	Flare+Fillet	PB	ISO15613:2004	Rebar longitudinal seam welding.
Abbrev.									
			121	=	Submerged arc welding with solid wire electrode				
			135	=	Metal active gas welding with solid wire electrode				
			136	=	Metal active gas welding with flux cored electrode				
			783	=	Drawn arc stud welding with ceramic ferrule				

System, Personnel & Qualifications

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All welders are qualified in accordance with ISO 9606 and certified by HOKLAS-accredited third-party. Robotic welding operators are certified to ISO 14732 and also hold ISO 9606 welder qualifications.

 **東業德勤測試顧問有限公司**
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HKAS
HOKLAS

Form ETS/RV1 Issue 4 (1/4) [01/25]

Certificate of Welder Qualification Test
BS EN ISO 9606-1 : 2017

*Information Provided by Customer

Customer* : Guangzhou KYH Metal Co Ltd

Address* : 16 Lianyun Road, Guangzhou Economic & Technological Development District East Area, China (Zip:510760)

Project* : General Projects

Lab Information

Report No. : WIA50307

Issue Date : 10 November 2025

W. I. No. : IN/5/10/7

ETL Lab. No. : IN/5/0226/12 ~ 14

Page : 1 of 4

Inspection Manual : INS/019/W
BS EN ISO 9606-1 : 2017

Subject : Welder Qualification Test (WQT) to
BS EN ISO 9606-1 : 2017

Designation of Welder Qualification : N/A

Customer pWPS No. : FW/25-072, rev. 1

ETL's WPQT Report No. : WIA50306

Overall Result : Pass

Welder Name : 雷文博

Marking : 1035

 **東業德勤測試顧問有限公司**
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HOKLAS

Form ETS/RV15 Issue 2 (1/4) [12/23]

Certificate of Weld Operator Qualification Test
BS EN ISO 14732 : 2013

*Information Provided by Customer

Customer* : Guangzhou KYH Metal Co Ltd

Address* : 16 Lianyun Road, Guangzhou Economic & Technological Development District East Area, China (Zip:510760)

Project* : General Projects

Lab Information

Report No. : WIA60067

Issue Date : 11 February 2026

W. I. No. : IN/6/1/11

ETL Lab. No. : IN/6/0011/17

Page : 1 of 4

Inspection Manual : N/A
(Testing standard) BS EN ISO 14732 : 2013

Subject : Weld Operator Qualification Test (WOQT) to
BS EN ISO 14732 : 2013

Designation of Welder Qualification : N/A

Customer pWPS No. : FW/26-003 rev.0

ETL's WPQT Report No. : WIA60066

Overall Result : Pass

Welder Name : 王岗

Marking : 1006

Job Reference

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Job reference for Universal Bearing Pile with Nelson shear stud

Delivery period	Project	Client	Quantity (MT)
August 2025 - March 2026	KIL Lot No.11273, Sai Yee Street, Mongkok	Tysan Foundation Building Ltd.	730
October 2025 - February 2026	Asia World Expo Phase 2	Vibro (HK) Ltd	1,500
October 2025 - April 2026	Yew Wah School of Hong Kong, Wetland Park Road, Tin Shui Wai	Tysan Foundation Ltd.	578
October 2025 - April 2026	Innovative Technology Research Center at Tseung Kwan O Innopark	China State Foundation Engineering Limited	1,707
December 2025 - April 2026	The Proposed Residential Redevelopment Tai Po Town Lot No.246, Shuen Wan, Ting Kok, Tai Po	Hop Kee Construction Co Ltd	709

Job reference for Universal Bearing Pile with stiffening plates

Delivery period	Project	Client	Quantity (MT)
August 2025 - April 2026	KIL Lot No.11273, Sai Yee Street, Mongkok	Tysan Foundation Building Ltd.	1,700
December 2025 - April 2026	Proposed Residential Redevelopment at 8 Ka Shue Road, Sai Kung	Gold Rich Construction Engineering Limited	110

Job reference for Universal Bearing Pile with rebar

Delivery period	Project	Client	Quantity (MT)
December 2025 - April 2026	Proposed Residential Redevelopment at 8 Ka Shue Road, Sai Kung	Gold Rich Construction Engineering Limited	147

16/3/2026

Thank you !

