

CONTENTS

01 Fillet Weld Series

Standard fillet weld trolley
Oscillating fillet weld trolley
Dual-gun fillet weld trolley
Side-suction fillet weld trolley
U-shaped component welding
trolley

03 Pipe series

All-around pipe welding
trolley
Trackless magnetic pipe
welding trolley
Clamping ring type all-
position pipe welding
trolley

02 Track Series

Track-mounted oscillating
welding trolley
Track-mounted welding trolley
Flexible track circumferential
welding trolley

04 Customized products

Weld seam tracker
Welding oscillator
Welding accessories
Tube sheet welding carriage
Flange welding carriage



Standard fillet welder

- 1) The KA-H1 type trolley is an automatic welding device suitable for horizontal fillet welds.
- 2) It can weld in both left and right directions. The trolley is equipped with inductive stop switches at both ends, automatically stopping the trolley after welding is complete. This allows one worker to operate multiple devices simultaneously.
- 3) It is small in size and lightweight, making it easy to move and install. Even unskilled workers can perform welding.
- 4) It is equipped with permanent magnets to prevent the trolley from detaching from the welding line.
- 5) It can be installed on a vertical surface for welding.
- 6) It is equipped with a magnetic control handle for easy operation.



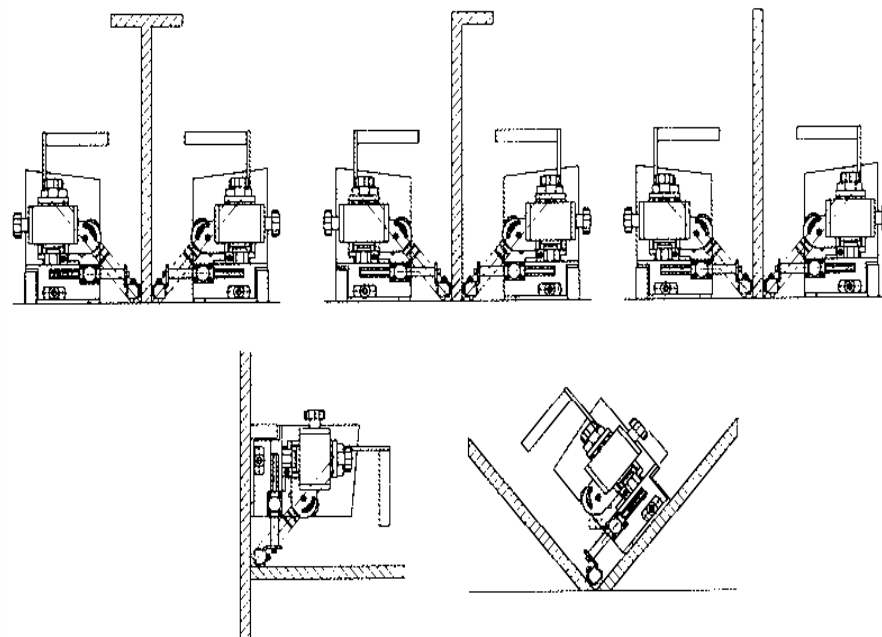
Lithium-ion battery corner welding trolley



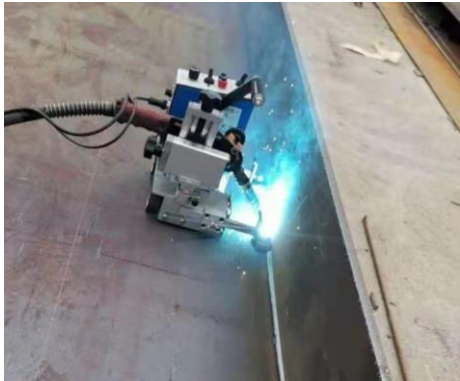
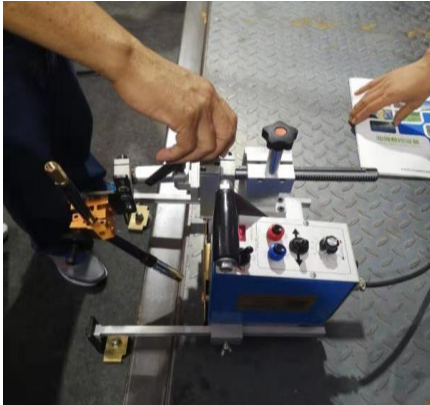
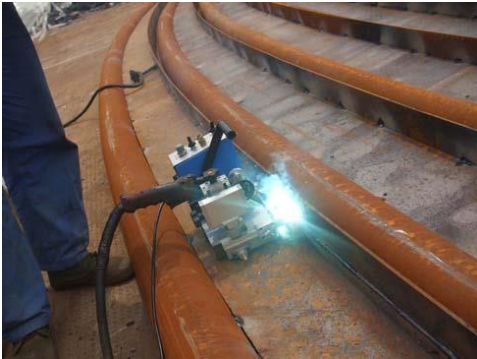
Standard fillet welder trolley

Applicable types and related parameters of fillet welding trolley

Type		Content	Remark
Small car	power supply	110V~280V or DC24V	adapter
	lithium batteries	6000mAh capacity	10 hours of continuous operation (optional)
	size	298×240×269	L×W×H
	weight	8.1 Kg	
	move	Four-wheel drive	rubber wheels
	walking speed	0~99cm/min	Marked with scale
	Welding torch adjustment range	Up and down	±20mm
		Before and after	±20mm
		Working angle adjustment range	±45°
		Adjust angle range	±10°
Control	Operation Function	LED Digital Display	
		The walk begins	
		Stop walking	
		Choose the direction of travel	Left and right
		Adjust walking speed	Marked with scale
		Select Welding/Non-Welding	



Fillet welding cart for on-site use



Set up a segmented welding carriage

The KA-H3 is an automatic welding trolley for intermittent/continuous welding, with a wide range of applications. Its outstanding features include small size, light weight, easy mobility, and simple operation, making it suitable for intermittent or continuous horizontal fillet weld structures.

2. Features:

1) The KA-H3 trolley is an automatic welding device suitable for intermittent or continuous horizontal fillet weld structures.

2) The actual distance between the welding and non-welding zones is displayed on the screen. The distance is set by adjusting a toggle switch. This distance is controlled by a motor and controller, ensuring high dimensional precision and uniform operating speed, enabling precision welding. The trolley's travel speed in non-welding mode is at its maximum value (990 mm/min).

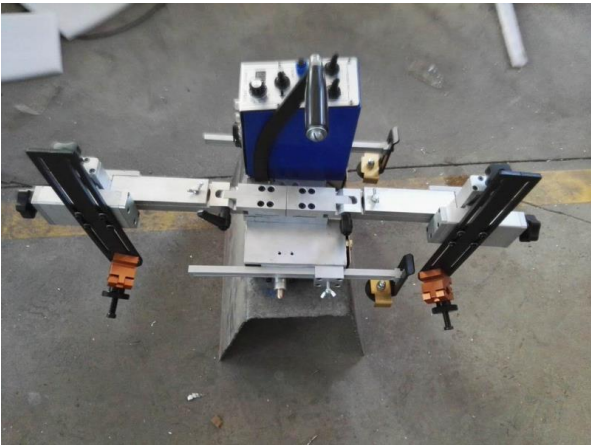
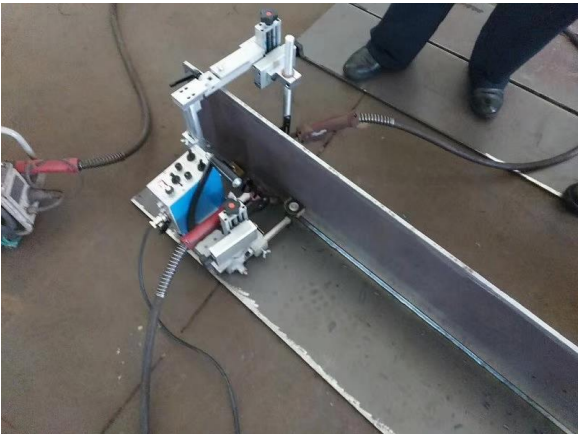


Double-sided fillet welding simultaneously welding carriage

The KA-H4 double-sided fillet welding trolley is designed for simultaneous double-sided welding. It can perform double-sided welding on the same weld seam, or symmetrical welding simultaneously to reduce workpiece deformation.

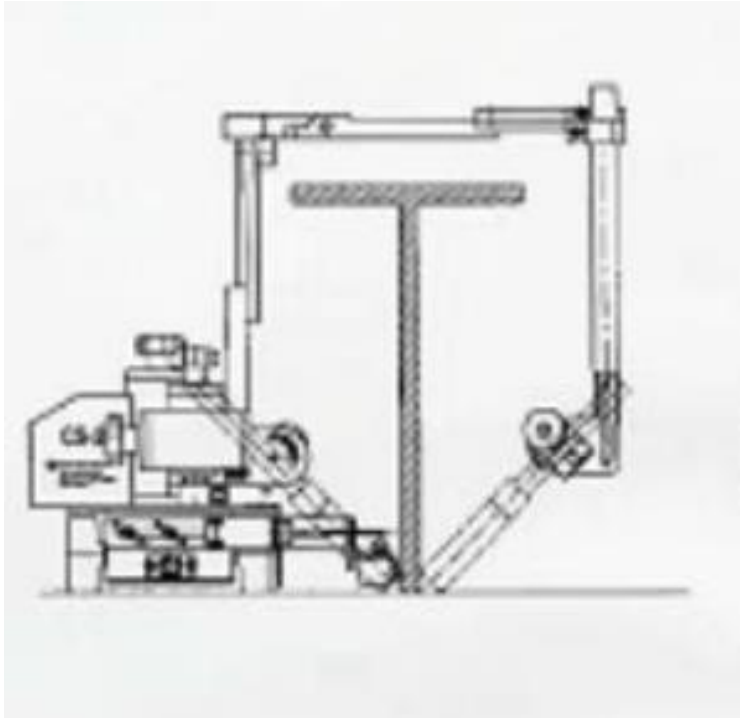
2. Features

- (1) The KA-H4 is an automatic horizontal double-sided fillet welding device.
- (2) Automatic stop sensors are installed on both sides of the trolley, automatically stopping after welding is completed.
- (3) It can perform single-sided or double-sided welding, and the height of the trolley's mounting bracket can be adjusted according to the workpiece height, making it widely applicable.
- (4) Using the KA-H4 for simultaneous double-sided welding avoids the deformation common in single-sided welding.
- (5) It is easy to move and operate, and even unskilled workers can perform welding.



Technical parameters

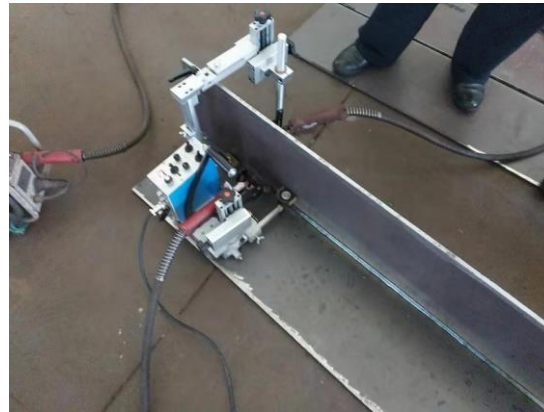
Project		Contents	Remarks
Car	Power Supply	24~220V	AC
	Size	340×460×290	LXWXH
	Weight	11Kg	
	Drive	Four-wheel drive	Rubber Wheels
	Traveling speed	0~960 mm/min	Scale markings
	Welding torch adjustment range	Up/Down	40mm
		Front/Back	40mm
		Working angle adjustment range	±45°
		Infeed angle adjustment range	360°
Control Box	Operating Functions	Power Indicator	
		Start Walking	
		Stop Walking	
		Walking Direction Selection	Left or Right
		Walking Speed Adjustment	Clockwise Increment
		No.1 Welding/Non-Welding Selection	
		No.2 Welding/Non-Welding Selection	



**U-shaped double-gun
welding carriage
KA-U**



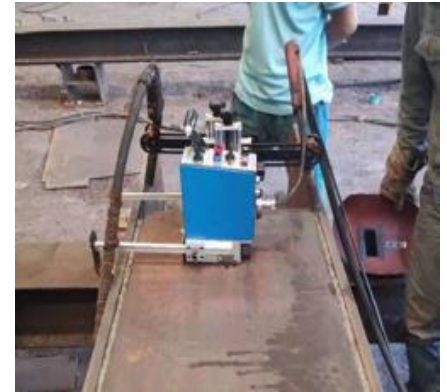
Dual-gun welding trolley is suitable for welding I-beams, T-beams, U-shaped parts, box beams, and similar materials.



**T-shaped part double-gun
fillet welding carriage
KA-H4**



**Box Girder Double-Gun
Fillet Welding Trolley
KA-H1-2**



Side-suction welding trolley

- (1) The KA-H5 is a permanent magnet side-suction automatic horizontal fillet welding device.
- (2) A swing mechanism can be added, and the swing speed, swing amplitude, center position, and left and right dwell time can all be adjusted, suitable for various weld specifications.
- (3) Equipped with a permanent strong magnet and an electromagnet, it prevents the carriage from falling off during welding. The permanent strong magnet also prevents the carriage from falling and being damaged due to the electromagnet losing its function during power outages.
- (4) Suitable for fillet welding of box beams, it is small in size, lightweight, trackless, and easy to move. Furthermore, it can move on inclined surfaces and in narrow spaces.
- (5) The drive wheels are designed to face the welding area, and the bottom of the carriage is equipped with friction limit wheels to better ensure that the carriage moves along the welding line. The side-suction installation method is suitable for certain special welding methods.



Suction-type oscillating fillet weld



Side-suction fillet welding trolley

Applicable Forms and On-site Applications of Side-Suction Carts



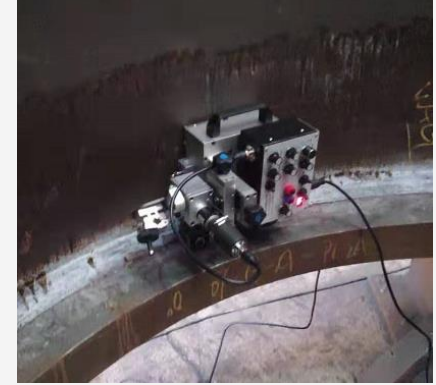
Hanging side-suction single gun, suitable for welding H-beams, I-beams, I-beam curved beams, and box beams.



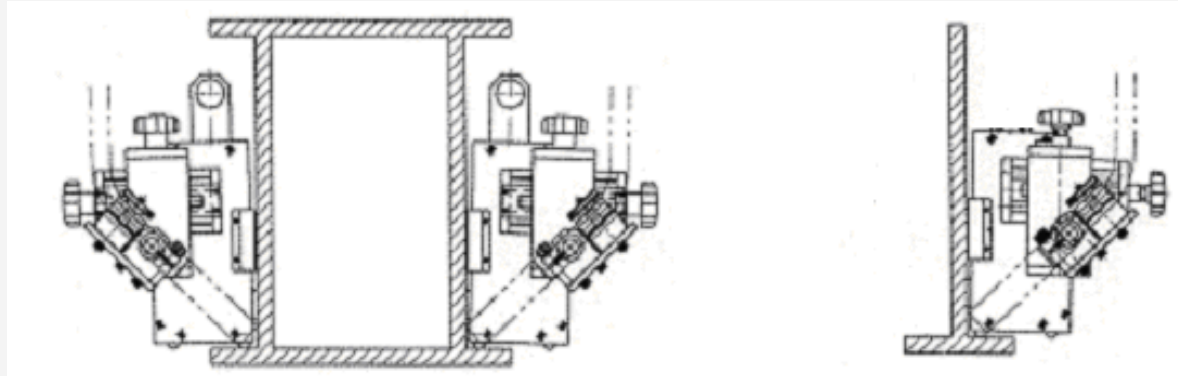
Hanging swing
trolley



Box girder
welding



Side suction oscillating
fillet weld



Corner Welding Oscillating Integrated Machine

1) The KA-HE9 is an oscillating automatic welding device that can produce a wide weld in a single pass. It is suitable for horizontal and vertical fillet welds.

(2) The oscillation speed, amplitude, center position, and dwell time are all adjustable, making it suitable for various weld sizes.

(3) Equipped with a magnetic handle for easy installation and alignment.

(4) Equipped with a sensor-activated stop switch that automatically stops welding at the end of the workpiece, allowing one person to operate multiple devices.

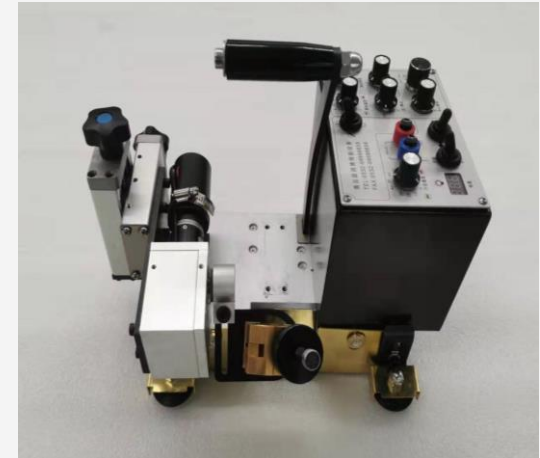
(5) Small size and light weight, easy to install and move, even for unskilled workers.

(6) Equipped with a permanent magnet to prevent weld line detachment during welding.

(7) The control device can be detached and used as a remote control. It is magnetic and can be placed on various workpieces for convenient use.

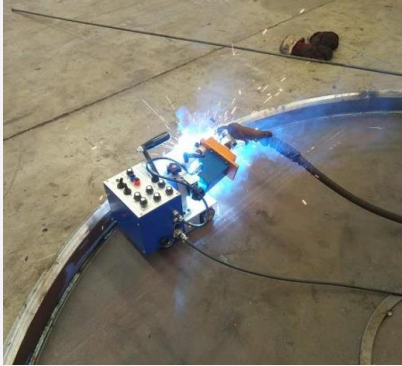


Lithium-ion battery
power supply

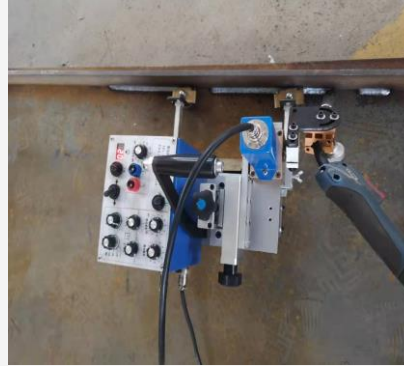


Customizable
dual pistols

Oscillating fillet welding machine



**Horizontal circumferential
fillet weld**



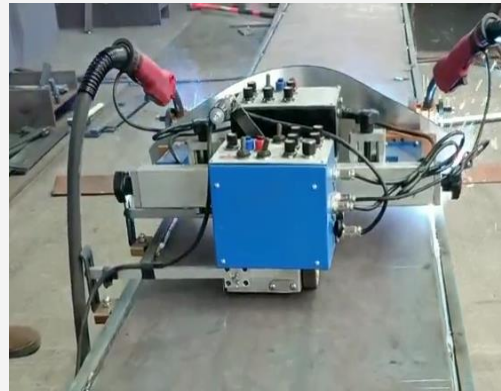
**Horizontal fillet
weld**



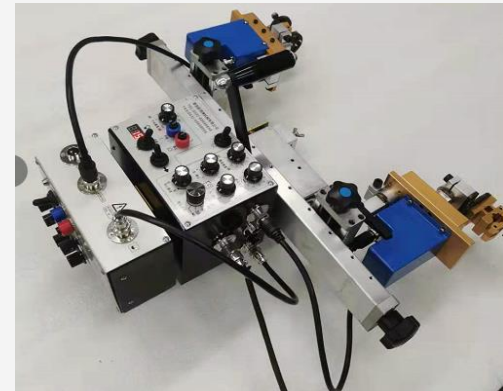
**Box girder
welding**



**vertical
fillet weld**



**Dual-gun oscillating
welding**



**Dual-gun welding
oscillation**

Rail-mounted butt welding trolley

The KA-C1 is a horizontally track-based welding machine driven by a rack and pinion mechanism, widely used for butt and fillet welding. By adjusting the welding torch clamp and angle, other welding methods, such as horizontal and vertical downward welding, can also be performed. The trolley body and control panel are integrated, allowing welding while moving along the track. The track is magnetically attached to the workpiece, making installation and disassembly convenient. It is small, lightweight, and very easy to move and use.



Features:

- 1) The KA-C1 is an automatic welding device suitable for flat and horizontal welding.
- 2) Utilizing a track-based system, it can weld on box-shaped surfaces.
- 3) Small size, lightweight, easy to move and install, allowing even unskilled workers to perform welding.
- 4) The trolley track uses magnetic attachment, preventing the trolley from detaching from the welding line, and the track is easy to use. Its basic length is 1.5m, which can be extended according to user needs.



Applicable Environments: Flat welding, vertical welding, horizontal welding, straight seam welding

Rail-mounted welding trolley and its application site



Horizontal docking



Horizontal fillet weld



Longitudinal joint of pipe



Container thin plate straight seam vertical welding



Straight seam horizontal welding



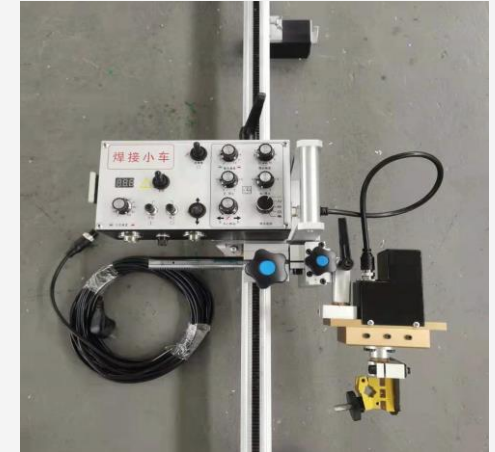
Straight seam double gun welding



Straight seam corner welding

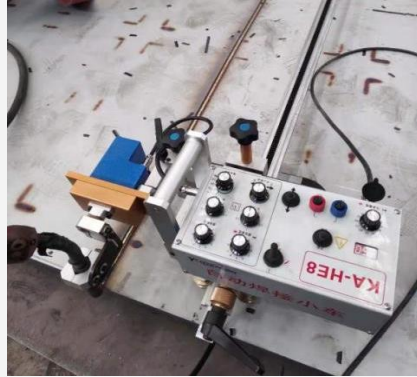
Track-mounted oscillating welding trolley

- 1) The KA-HE8 is a welding equipment driven by a rack and pinion mechanism, moving along a track. It is widely used for horizontal and vertical butt welding, and is particularly suitable for welding medium and thick plates. By adjusting the position and angle of the welding torch, it can also perform fillet welding, horizontal welding, and overhead welding. The carriage body, oscillation device, and control panel are integrated into one unit, allowing welding while moving along the track. The track is attached to the workpiece with a strong magnet, making installation and disassembly convenient.
- 2) It features linear oscillation. Various oscillation parameters, such as oscillation mode, oscillation amplitude, oscillation speed, oscillation center position, and left and right dwell times, are adjustable.
- 3) The carriage speed is displayed digitally.
- 4) To prevent undercut and insufficient weld during oscillation welding, a left and right oscillation stop time adjustment function is provided.
- 5) When welding stops, the welding torch automatically returns to the weld center position.
- 6) It has an automatic arc-extinguishing function.
- 7) It has a fast return function.
- 8) The standard configuration includes a 1.5m long track. The track is compact, lightweight, and easy to move; it can also be extended for use by connecting it.



Lithium battery powered

Track-mounted oscillating welding trolley is suitable for on-site applications



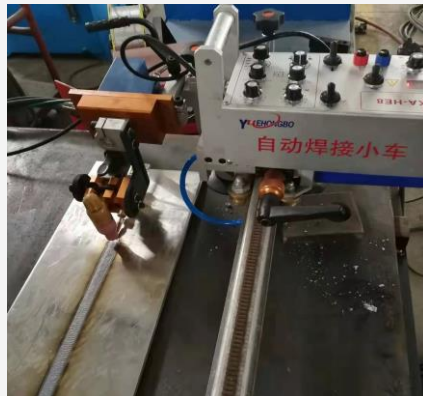
Horizontal docking



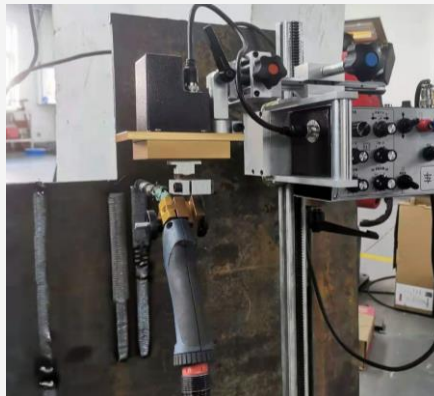
Horizontal fillet weld



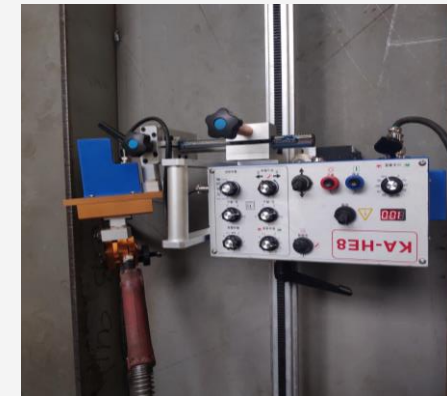
Longitudinal joint of pipe



**Argon arc welding
filler wire**



**Vertical butt
welding**

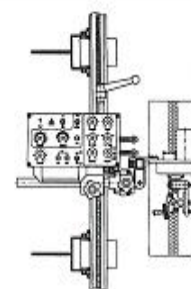


**Vertical corner
weld**

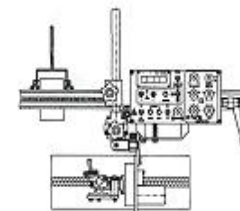
Technical parameters

project		content	Remark
standard	power supply	AC 220V, 50/60Hz	
Lithium battery parameters	lithium batteries	AC24V, Number of battery cells 6/12	capacity: 9000maM
	Operating temperature: -10 degrees Celsius to +65 degrees Celsius	Continuous current 4A, maximum current 10A, 3 hours of charging time, 10 hours of working time.	Standard 24V, fully charged 25.2V, fully discharged cutoff voltage 18V.
	External dimensions	500 x355 x 243	W×L×H
	weight	10.6Kg	
	driving method	rack and pinion drive	
	walking speed	0~1040mm/min	Digital display
	Welding torch adjustment range	up and down	± 20mm
		front and back	± 20mm
		Operating angle	360°
		Angle of action	± 90°
track	Installation method	Magnetic detachable	
	External dimensions	42 × 29.3 × 1500	W×H×L
	Material	Aluminum	
	weight	6Kg	Including magnets

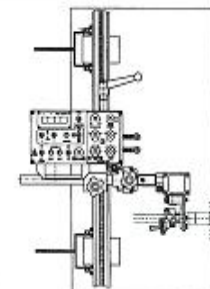
Swing parameters	Swinging pattern	
	Swing speed	0-1520mm/min
	Swing amplitude	± 20mm
	Dwell time on the left and right	0-2s
	Central position	± 5mm



Vertical Welding



Horizontal Welding



Vertical Fillet Weld

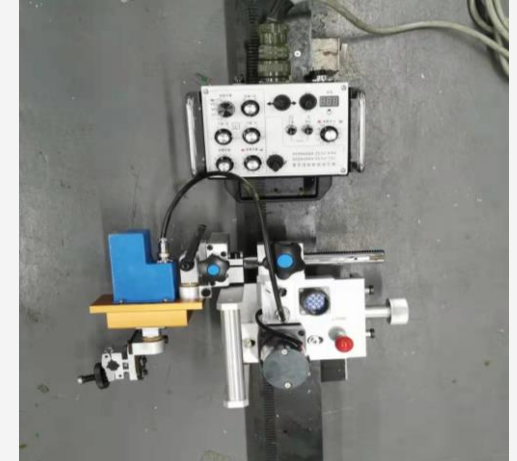
Applicable Environments

Generally used for regular vertical butt welds and horizontal butt welds. By adjusting the position and angle of the welding torch, it can also be used for fillet welds and horizontal welds.

Flexible track-type circumferential seam welding trolley

The KA-H10 is a welding equipment driven by a rack and pinion mechanism, moving along a track. It is widely used for horizontal and vertical butt welding, and is particularly suitable for welding medium and thick plates and large pipe circumferential welds. By adjusting the position and angle of the welding torch, it can also perform fillet welding, horizontal welding, overhead welding, and arc welding. The carriage body, oscillation device, and control panel are separate units, allowing welding while moving along the track. The track is attached to the workpiece with a strong magnet, making installation and disassembly convenient.

- 1) The KA-H10 can perform welding in various positions, including vertical welding, horizontal welding, circumferential welding, and horizontal welding.
- 2) It has a linear oscillation function. Various oscillation parameters, such as oscillation mode, oscillation amplitude, oscillation speed, oscillation center position, and left and right dwell times, are adjustable.
- 3) The carriage speed is displayed digitally.
- 4) To prevent undercut and insufficient weld during oscillation welding, a left and right oscillation stop time adjustment function is provided.
- 5) When welding stops, the welding torch automatically returns to the weld center position.
- 6) It has an automatic arc termination function.
- 7) Features current and voltage adjustment and jog wire feeding.
- 8) Features fast return function.
- 9) Standard configuration includes a 1.8m long track. The track is compact, lightweight, and easy to move; it can also be extended by connecting it.



Flexible track welding trolley in use



Transverse straight seam/circumferential weld welding



Circumferential welder



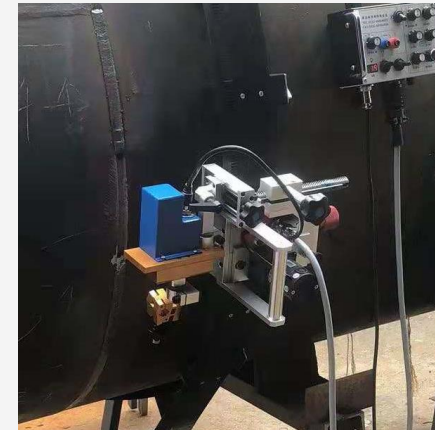
Inner circumferential seam welding



Vertical weld seam welding



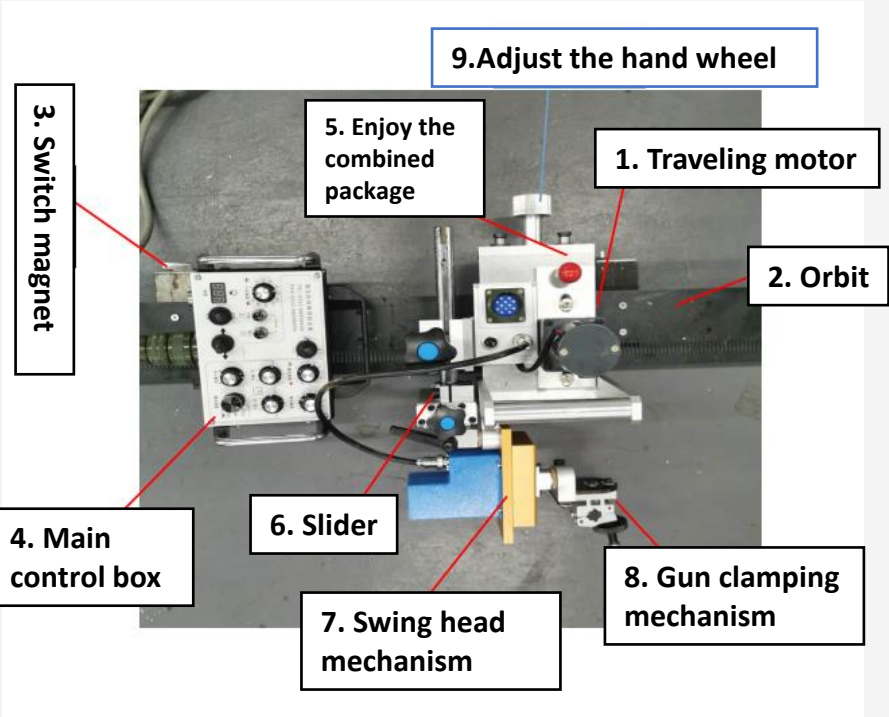
transverse circumferential weld



Circumferential welder

Technical Specifications

Project		Content	Remark
Small car	power supply	AC 220V, 50/60Hz	
	lithium batteries	AC24V, 6/12 battery cells	Capacity: 9000mAh (optional)
	External dimensions	450 x355 x 243	W×L×H
	weight	10.6Kg	
	driving method	Gear drive	
	walking speed	0~1040mm/min	Digital display
	Welding torch adjustment range	up and down	± 20mm
		front and back	± 20mm
		Operating angle	360°
		Angle of action	± 90°
Track	Installation method	Magnetic detachable	
	External dimensions	1800×110 ×1.8	Length * Width * Height (mm)
	Material	elastic steel strip	1.8 meters * 2
	weight	20Kg	Including magnets
Swing parameters	Swinging pattern		
	Swing speed	0-1520mm/min	
	Swing amplitude	± 20mm	
	Dwell time on the left and right	0-2s	
	Central position	± 5mm	



Applicable Environment

It is generally used for circumferential welding of pipes or tanks, including transverse circumferential welds, and can also be used for flat and vertical welding. It is a multi-functional welding machine suitable for pipe diameters of 900mm and above.

Standard model of trackless magnetic pipe welding trolley

Pipeline welding trolleys are widely used in various industries such as petroleum, petrochemical, chemical, heating, natural gas, marine engineering, and municipal water supply. Models are available in track-mounted and trackless versions. Trackless trolleys use magnetic attraction to the pipeline and automatically crawl along the weld line during welding, making installation, use, and disassembly quick and convenient. Track-mounted trolleys are mainly used for welding stainless steel or pipelines that cannot be magnetically attracted; track specifications are customized according to welding needs.

The welding trolley is magnetically attached to the pipeline. Preset parameters are used, and a handheld wired controller fine-tunes the welding parameters to control the trolley's automatic welding on the pipeline.

Equipment Features: Achieves fully automatic pipeline welding by fixing the pipe and having the welding trolley move. The welding process uses high-efficiency, low-cost carbon dioxide gas or mixed gas protection (80% argon + 20% carbon dioxide).

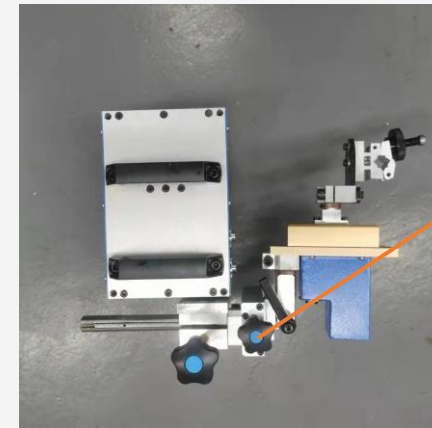
Performance Advantages:

Applicable Working Conditions: Suitable for on-site welding of various long-distance pipelines, heating pipelines, buried pipelines, or process pipelines.

- Welding materials: Carbon steel, stainless steel, alloy steel, low-temperature steel, etc.
- Applicable welds: Suitable for pipes with a diameter of $\Phi 150\text{mm}$ or more and a wall thickness greater than 5mm. Thick-walled pipes can be welded using multi-layer, multi-pass techniques.
- Welding carriage: Lightweight and easy to carry, using permanent magnet adsorption, especially suitable for all-position pipe welding on construction sites.



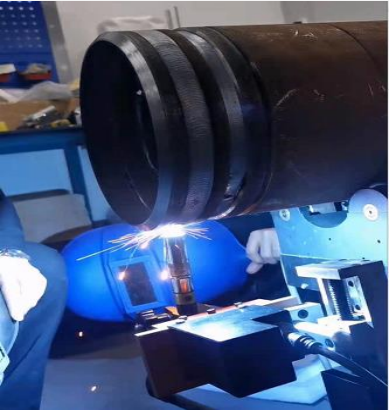
Electric adjustment for welding torch fine adjustment



Welding torch fine-tuning manual fine-tuning

Technical Specifications

Project	Content	Remark
External power supply	AC 220V 50/60Hz	Three holes
Working power supply	AC 220V	For each drive of the trolley
Overall dimensions	440mm*360mm*225mm	W*L*H
weight	14kg	Excludes control and cables
Drive mode	mag wheel drive	permanent magnet
Welding speed	0-999mm/min	digital display
The thinnest adsorption plate thickness	3 mm	Magnetic metal
minimum diameter	150mm	Magnetic metal
Welding gun adjustment range	up and down	60mm
	about	236mm
	Swing angle	±60°
	Progress angle	±20°
	swing form	Stop left, stop right
Operation function	swing speed	0-100
	left and right dwell time	0-2.5S
	swing width	±15mm
	center move	±15mm



High-end model of all-position pipe welding carriage

Pipeline welding trolleys are widely used in various industries such as petroleum, petrochemical, chemical, heating, natural gas, marine engineering, and municipal water supply. Models are available in track-mounted and trackless versions. Trackless trolleys use magnetic attraction to the pipeline and automatically crawl along the weld line during welding, making installation, use, and disassembly quick and convenient. Track-mounted trolleys are mainly used for welding stainless steel or pipelines that cannot be magnetically attracted; track specifications are customized according to welding needs.

The welding trolley is magnetically attached to the pipeline. Preset parameters are used, and a handheld wired controller fine-tunes the welding parameters to control the trolley's automatic welding on the pipeline.

Equipment Features: Utilizes a fixed pipe and a moving welding trolley to achieve fully automated pipeline welding. The welding process employs high-efficiency, low-cost carbon dioxide gas or a mixed gas shield (80% argon + 20% carbon dioxide).

Performance Advantages:

Applicable Working Conditions: Suitable for on-site welding of various long-distance pipelines, heating pipelines, buried pipelines, or process pipelines.

- **Welding materials:** Carbon steel, stainless steel, alloy steel, low-temperature steel, etc.
- **Applicable welds:** Suitable for pipes with a diameter of $\Phi 150\text{mm}$ or more and a wall thickness greater than 5mm. Thick-walled pipes can be welded using multi-layer, multi-pass techniques.
- **Welding carriage:** Lightweight and easy to carry, using permanent magnet adsorption, especially suitable for all-position pipe welding on construction sites.

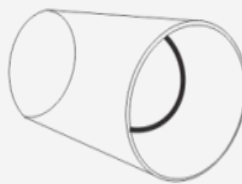
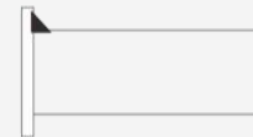
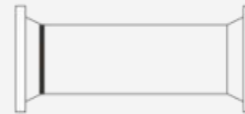


The welding carriage magnetically attaches to the pipe. Using preset parameters, a handheld remote control fine-tunes the welding parameters, controlling the carriage to automatically weld on the pipe.

Advantages of all-position pipe welding: Wireless remote control; the program can be preset or welding parameters can be set on the remote control at any time and then stored for later recall. During welding, the machine automatically identifies the welding position; the equipment itself has an orientation sensor that automatically identifies the welding angle. Between 1 o'clock and 12 o'clock, the machine can match appropriate current, voltage, and movement or oscillation parameters according to different positions. Simple operation.



Weldable types: pipe-to-pipe circumferential welds (internal and external), pipe-to-elbows, pipe-to-flanges, horizontal and vertical welds on tanks, horizontal welds on pipe piles, etc.



Specialized equipment for all-position pipe welding with clamp rings

The KA-HG is a welding equipment driven by a rack and pinion mechanism, moving along a circular track. It is widely used for butt welding of pipe circumferential seams. By adjusting the position and angle of the welding torch, welding can be performed while the equipment is moving along the track. Installation and disassembly are very convenient.

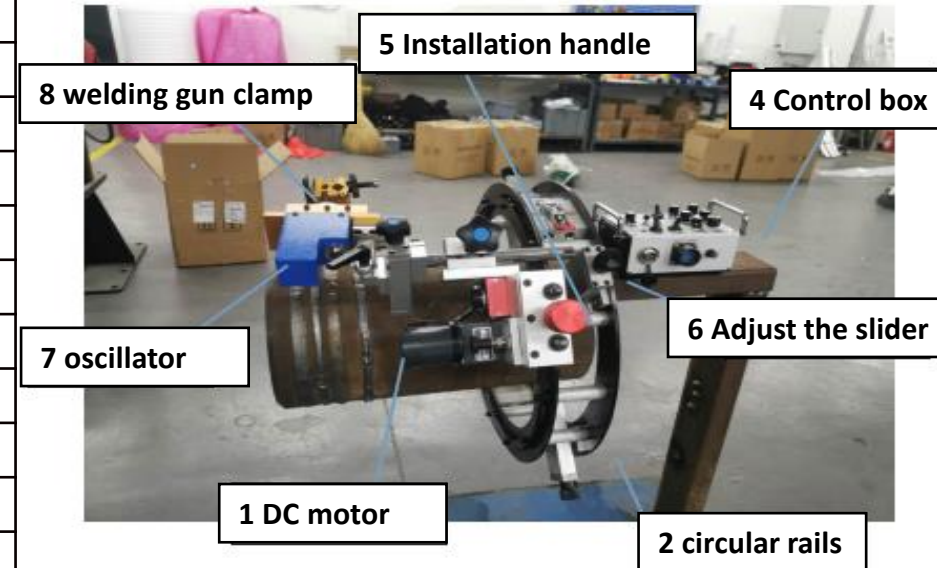
Equipment Features:

- Linear oscillation function. Various oscillation parameters, such as oscillation mode, oscillation amplitude, oscillation speed, oscillation center position, and left and right dwell times, are adjustable.
- Digital display of carriage speed.
- To prevent undercut and insufficient weld during oscillation welding, a left and right oscillation stop time adjustment function is included.
- The welding torch automatically returns to the weld center position when welding stops.
- Automatic arc termination function.
- Rapid return function.



Technical Specifications

Project		Content	Remark
car	power supply	AC 220V, 50/60Hz	
	External dimensions	450 x355 x 243	W×L×H
	weight	10.6Kg	
	driving method	Gear drive	
	walking speed	0~1040mm/min	Digital display
	Welding torch adjustment range	up and down	$\pm 20\text{mm}$
		before and after	$\pm 20\text{mm}$
		operating angle	360°
		Angle of action	$\pm 90^\circ$
track	Installation method	Detachable	
	External dimensions	custom made	
	Material	Steel ring rack	
	weight	20Kg	
Swing parameters	Swinging pattern		
	Swing speed	0-1520mm/min	
	Swing amplitude	$\pm 20\text{mm}$	
	Dwell time on the left and right	0-2s	
	central location	$\pm 5\text{mm}$	



Handheld tube-sheet welding special equipment

Tube sheet welding fixtures are available in two models.

One model is suitable for inner diameters of 22-28mm. Another model is suitable for inner diameters of 28-38mm, and yet another model is suitable for inner diameters of 40mm and above. Each positioning jaw has a 10mm adjustment range, and positioning clamps are purchased according to the diameter. For diameters of 80-90mm, two sets of positioning clamps are available: one for inner diameters of 80mm (applicable to inner diameters of 75-85mm) and another for inner diameters of 90mm (applicable to inner diameters of 85-95mm). The rotation speed can be set from 0-1000mm as needed.

Features

The PLC-GB type gas metal arc welding machine is a new type of mechatronics product, mainly used for the automatic welding of boiler tube sheets, tube box tube sheets, air preheater tube sheets, and various heat exchanger tube sheets. It can automatically weld both fillet welds (tube extension) and butt welds (tube flush).

The YHB-GB1 type gas metal arc welding machine uses a programmable logic controller (PLC) with a user-friendly Chinese interface, offering intuitive operation, high reliability, and strong expandability. Compared to traditional manual arc welding, it reduces operator workload, improves welding efficiency, ensures product welding quality, and saves production costs.



Pipe welding trolleys are widely used in various industries such as petroleum, petrochemicals, chemicals, thermal power, natural gas, offshore engineering, municipal water pipe heating, etc. The models are divided into rail types. The rail type is mainly used for the welding of stainless steel or pipes that cannot be magnetically adsorbed. The rail specifications can be customized according to the pipe diameter welding needs.





Welding oscillator

- Product performance features:
- 1. Using a text display as the human-computer interface, the parameters are easy to set and the human-computer interaction is good.
- 2. The effective stroke of this oscillator is 100mm, the maximum settable swing amplitude is 100mm, and the fastest swing speed can reach more than 2500mm/min.
- 3. The swing amplitude, swing speed, swing left stop, swing middle stop and swing right stop can be set independently.
- 4. You can work alone or online. This oscillator has input and output interfaces. The input interface can control the start and stop of the oscillation, and the output interface can control the start and stop of the welding machine and other welding auxiliary equipment.
- 5. During the swing process, each swing parameter can be changed in real time, and the swing center position can be adjusted in real time according to the site conditions without stopping the machine.
- 6. Integrated manual and automatic. When not used as an oscillator, it can be used as a manual carriage.
- 7. Equipped with various clamping blocks and mounting blocks to facilitate installation.
- 8. If necessary, up and down electric adjustments can be added at the same time.



Welding oscillator

1. Features

- 1) The welding oscillator is a linear reciprocating oscillating device specifically designed for welding.
- 2) Miniaturized, lightweight, easy to transport and operate, and not limited by site conditions.
- 3) Digitally adjustable oscillation amplitude, center position movement, left and right stop times, and oscillation speed.
- 4) Automatic return of the welding torch to its center position upon stopping.
- 5) Equipped with a switching power supply, eliminating the need for a transformer, thus improving the stability of the operating voltage (95V-250V) and making the oscillator unaffected by external input voltage.

2. Main Technical Parameters

	Linear oscillator
power supply	AC220~250V, 50HZ, 1 phase
Control box (W x L x H)	120x175 x75
Weight (Kg)	2.9Kg
driving method	Gear and rack drive
speed	0 - 2300mm/Min
Center movement	±5mm
Swing amplitude	±15mm
Stop left and right	0 - 3s

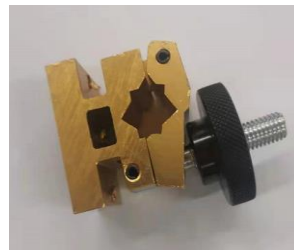
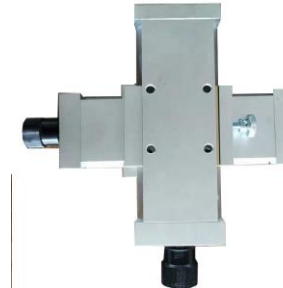


Linear oscillator



Angle oscillator

Welding components



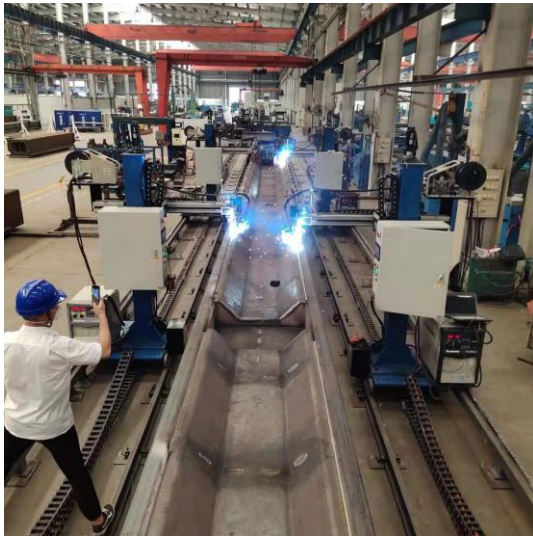
Welding of corrugated plates and straight seam splicing plates for State Grid distribution box outer shell

Equipment usage site



Sunward Intelligent Equipment

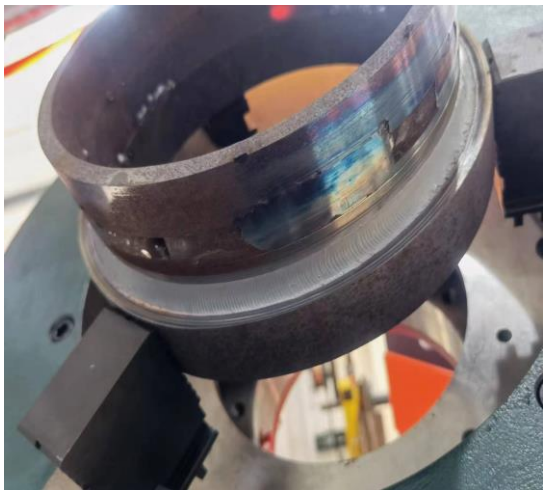
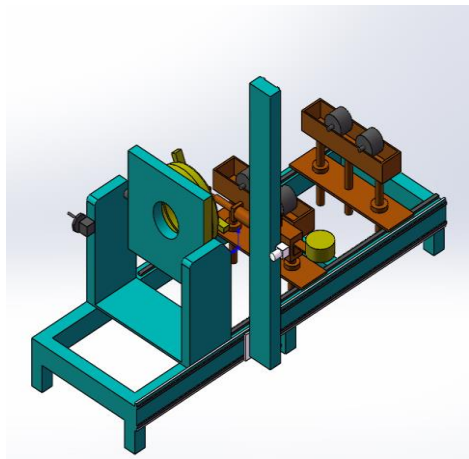
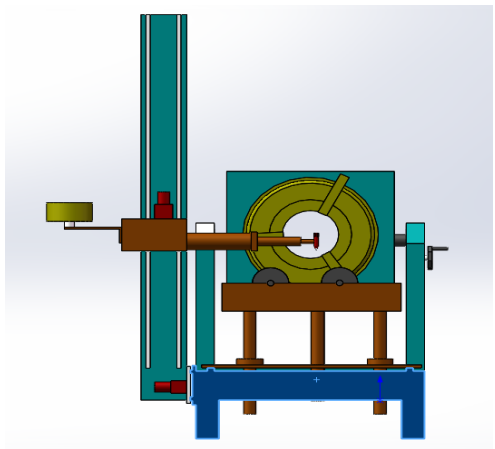
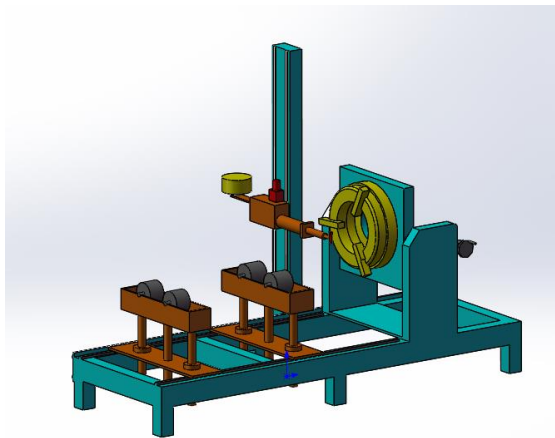
Drill Mast Welding



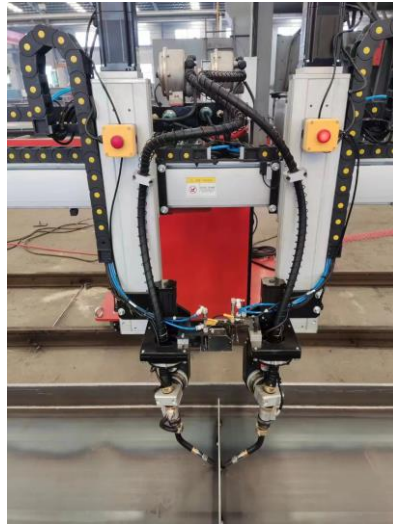
Specialized welding equipment for the lower side door of the Xi'an East Rolling Stock Depot, operated by China Railway 11th Bureau and Jinan Railway Bureau.



Circular/Straight Sewing Machine



Double-gun welding machine for steel structure crane beams

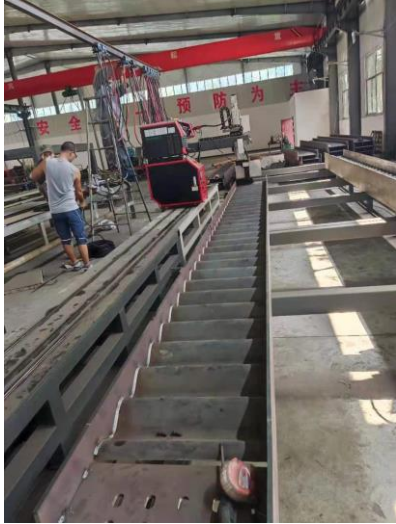


Nanjing CRRC High-Speed Railway Shell

Special Equipment Application Site



Corrugated board application sites under different user working conditions



Straight seam panel welding site



Corrugated board application sites under different user working conditions

