

# TOTAL WELDING AND CUTTING SOLUTIONS

## RI PORTABLE WELDING COBOT CELL



# ABOUT US



## Our Mission

With a presence on 2 continents, consisting of manufacturing capabilities in Asia and Engineering and R&D in both Asia and Europe, our mission is to support partners and end customers with advanced robotics solutions that help optimize operations and of costs, increasing productivity and eliminating risks of accidents and repetitive tasks for the human resource, the most valuable resource for any company.



## Our Vision

Robot Industries International strives to be a reliable partner for small and medium-sized companies but also for brands with global reach. Whether it is industrial or collaborative robots, robots in cleaning or retail applications, intralogistics or disinfection applications, all these directions are already open doors for Robot Industries.

# #RI SOLUTIONS



Industrial  
Robots



Collaborative  
Robots



Intralogistic  
Robots



Cleaning  
Robots



Smart  
Service  
Robots



AI  
Vision

## ● RI WELDING COBOT CELL

- Master welding system controller
- 6-Axis cobot
- Portable permanent magnet base
- Specialized welding torch
- Welding power supply
- Wire feeder (with 5 meters cable)
- Specialized controller board

## ● APPLICATIONS

- Branch welding line of steel structure light steel production line
- Laminated welding for bridge steel structure
- All kinds of application scene, multi welding procedure



**OPTIONAL  
POWER  
SUPPLY**



**PULSE MIG**



**MIG/MAG[GMAW]**



**TIG/MAG[GTAW]**



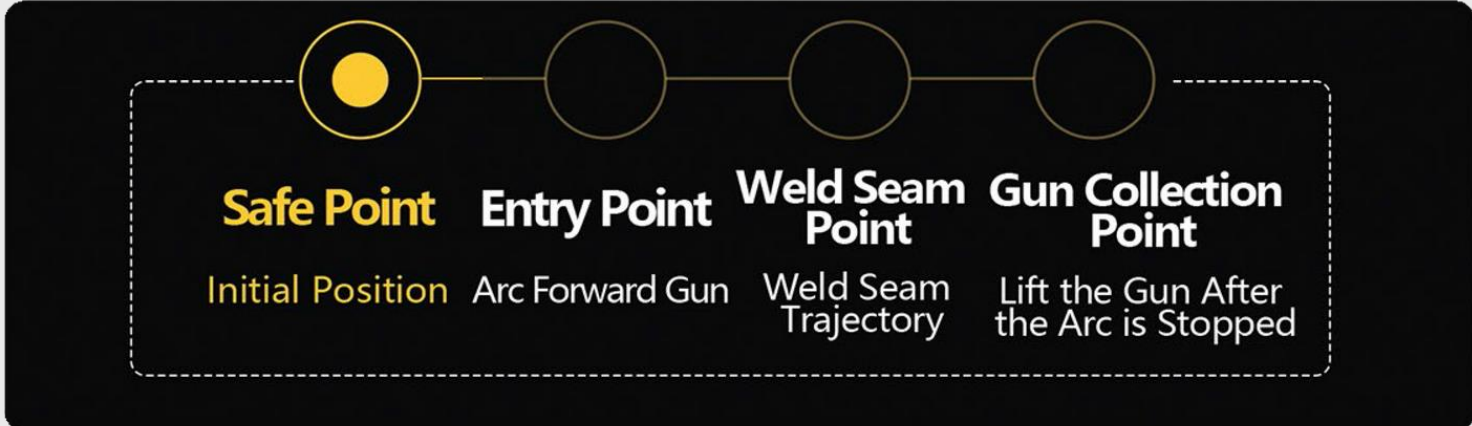
**PLASMA CUTTERS**



**LASER WELDING**

The RI Welding Cobot Cell enables flexible, high-efficiency welding. It can be easily repositioned within the work area, ready for the next task.

It supports various welding techniques, including electric arc, TIG, MIG, laser, plasma, ultrasonic, spot welding, and brazing.



### OPERATION TIPS

Record Safety Points:

1. The initial position of the robot after starting/ending a single weld seam
2. There should be no obstacles on the straight path between the safety point and the entry and exit points of the gun

**RECORD THE LOCATION**

BACK

EMPTY

SAVE

### WELDING TECHNOLOGY

Select Process  Set as Default

Current(A): 240 ^ v  Straight Weld **Device Reconnection**

Voltage(V): 24.0 ^ v  Enable swing welding **Clear Exceptions**

Speed(mm/s): 7 ^ v  Disable multiple channels **Manual Wire Feeding**

STATUS	WELD TYPE	CURRENT	VOLTAGE	SPEED	SWING WELDING	OPERATE	
1	Waiting For Welding	Straight Weld	240.0	25.0	5	N	🗑️ DELETE
2	Waiting For Welding	Circular Weld	220.0	21.0	4	N	🗑️ DELETE
3	Waiting For Welding	Straight Weld	240.0	24.0	7	Y	🗑️ DELETE

**START WELDING**

**TRAJECTORY SIMULATION**

PAUSE/RESET

ROBOT:  CONNECTED

WELDING POWER SOURCE:  CONNECTED

### OPERATION MONITORING

2024/07/16 08:00

Robot has been connected



MODEL	RI WD-ZU5	RI WD-ZU12	RI WD-PR016
Arm Weight	23 kg	41 kg	74 kg
Working Radius	≤ <b>954</b> mm	≤ <b>1327</b> mm	≤ <b>1713</b> mm
Maximum Load Capacity (KG)	5 kg	12 kg	16 kg
Repeat Positioning Accuracy	±0.02mm	±0.02mm	±0.02mm
Basic Functions	Autonomous Planning; Arc Tracking; Circumferential Welding; Pendulum Welding; Intermittent Welding; Fillet Welding; Multi-layer Multi-pass Welding		
Power Supply	100-240V 50/60HZ	100-240V 50/60HZ	100-240V 50/60HZ
Optional Teaching-Free Model	Module Import & Non-Module Import		
Optional Power	MIG:INVERMIG 350UR/500UR; SUPERMATRIX 270UR/350UR/500UR; CEA 5000 TIG:PROTIG 400UR/500UR; WAVE 315UR; SUPERWAVE 400UR/500UR PLASMA CUTTERS:PLASMAX 120;LASER WELDING:HGLW 1500BR/2000BR/3000BR/6000BR		



- **Friendly interface, Simple programming, Operation with high efficiency**

The RI WD Series collaborative robots offer a user-friendly interface and an optimized operating process, making them easy to use without requiring professional programming skills. This significantly enhances work efficiency and provides robust support for professional welding operations.



- **Precises welding by manual positioning, multi-welding is under control**

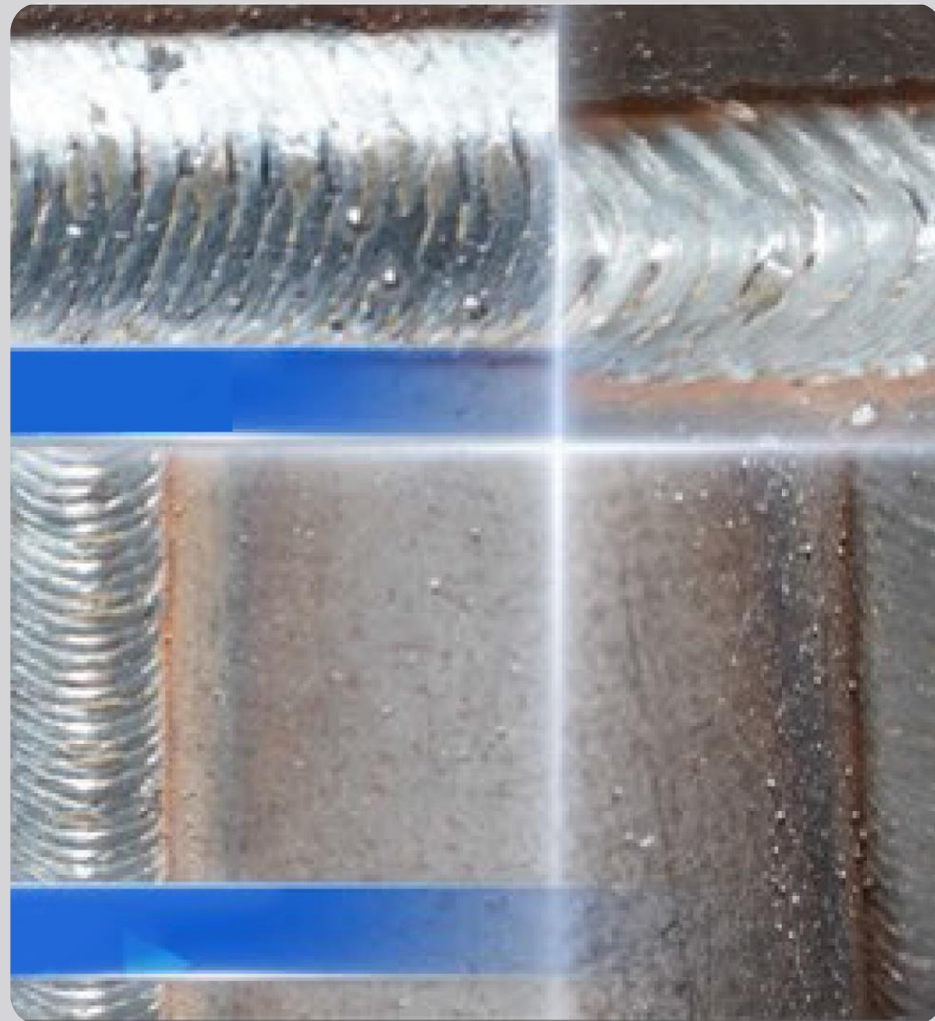
Equipped with advanced visual manual positioning technology, the RI WD Series accurately locks onto the welding area and simulates the welding path in real time, streamlining preparation procedures. Its human-machine collaboration mode simplifies complex multi-welding tasks, ensuring precision and ease of use.



- **Overcoming welding issues at special position**

Designed to tackle welding challenges in specialized positions, the RI WD Series excels in operations requiring deep access to narrow spaces, seamless welding on intricate curved surfaces, and high-precision welding at complex angles.





### ● Integrated design, flexible application

The highly integrated design features a compact, elegant structure that optimizes space while enhancing machine stability and reliability. Its user-friendly maintenance reduces costs and ensures long-term, dependable performance for professional welding applications.

### ● Customize welding technology with perfect welding seam

Operators can manually customize welding parameters, store additional beam settings, and adjust positioning for various welding requirements, including straight, corner, and diagonal welding. The system's flexibility accommodates a wide range of welding applications across industries.

### ● Widely compatibility to satisfied varied requirement

A comprehensive one-stop solution, the RI WD Series supports diverse industry needs with optional professional welding equipment for TIG, MIG, and laser welding.





- **Intelligent characteristic– Intelligent welding, feel at ease**

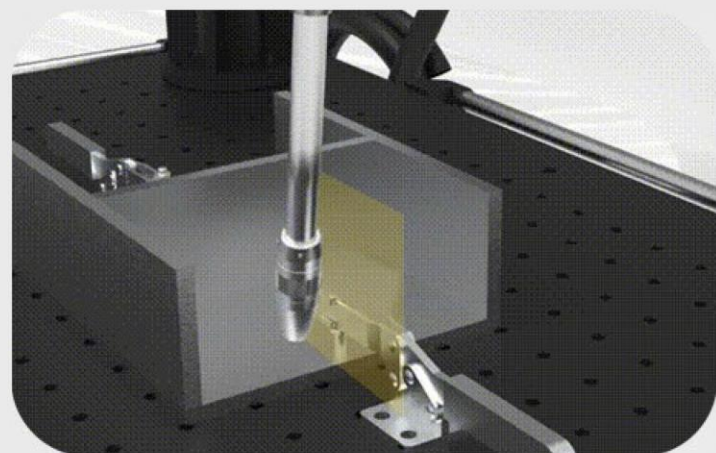
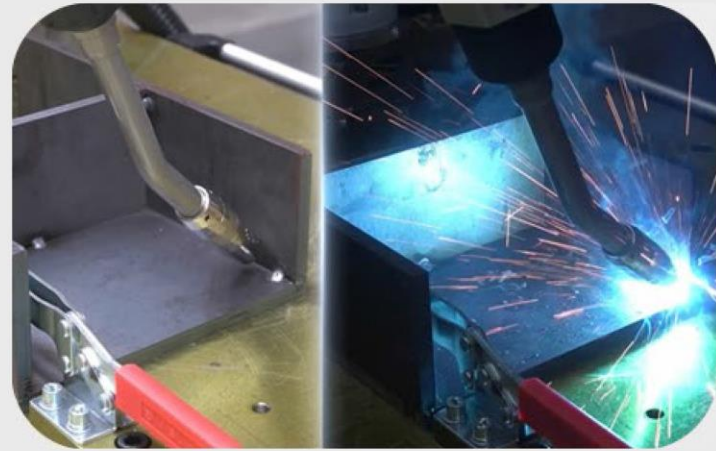
Its intelligent swing welding function improves both welding quality and efficiency by enabling multiple swing welding techniques.

- **Intelligent welding help function, feel at ease**

Safety and reliability are ensured throughout the welding process with a built-in self-checking system and real-time monitoring of equipment status.

- **Longest fault free operation, keep continuous production**

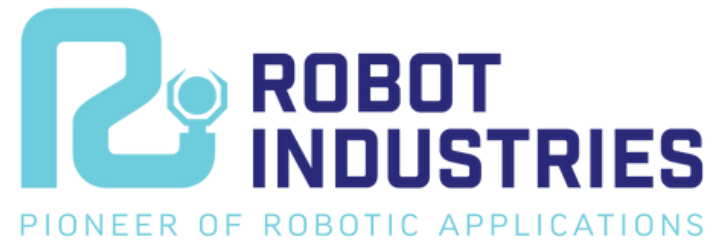
Renowned for its exceptional stability and reliability, the RI WD Series boasts an impressive 48,000-hour fault-free operational record. By minimizing downtime and maximizing productivity, it provides uninterrupted support for professional welding applications, ensuring seamless enterprise operations.



## ● Intelligent protection at any time

The system features a cutting-edge "intelligent sensing unit" equipped with advanced perception capabilities and certified safety mechanisms.

Utilizing integrated laser radar, infrared, and high-precision force sensors, it continuously monitors its environment, detecting potential collisions in real time. Upon encountering an obstacle, it autonomously adjusts its path through an automatic rebound mechanism and, in critical situations, executes an immediate stop to ensure safety. Its innovative "automatic rebound" technology enables seamless trajectory correction to prevent collisions, while the "instant stop" function provides an added layer of protection by halting operations when necessary.



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