



HERON

DIGITAL RESISTANCE
WELDING

COMPANY PROFILE

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01 **Company Overview**

02 **Our Competitive Advantages**

03 **Standard Products**

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HERON

Expert In Resistance
Welding • Clinch



■ PART 1

Company Overview



Company Overview

HERON

- Founded in Guangzhou in **1991**
- More than 300 employees
- Factory with **54,000m²**
- More than **20 global customers**
- Full range of **resistance welding** products
- **Tog-L-Loc** and **FSPR** equipment
- With **automation production lines** in with appliance, compressor, low-voltage electrical manufacturing industries
- Heron manufacture our own controllers and transformers
- Full range of machine shop



Company Philosophy

VISION

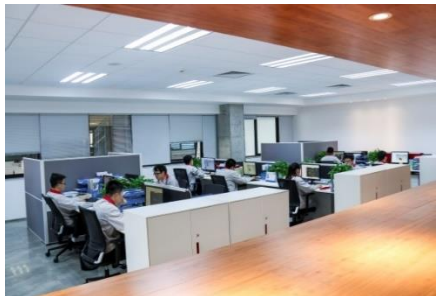
Become an internationally renowned brand in the resistance welding field.

VALUES

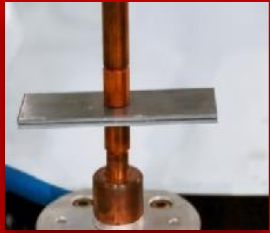
Growing together with our partners based on innovation and win-win cooperation.

MISSION

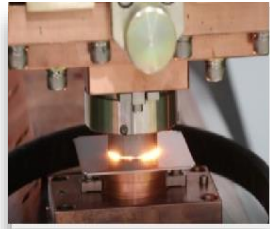
Innovate new technical processes to create value for our partners.



Resistance Welding and Clinch Technology



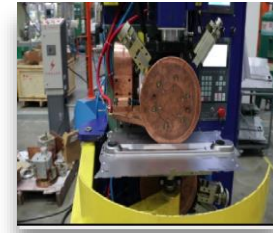
Spot Welding



Press Welding



Butt Welding



Seam Welding



**Resistance Diffusion
Welding**



**Resistance
Brazing**



FSPR



**Tog-L-Loc
Lance-L-Loc**



**Energy Storage
Blast Welding**

■ PART 2

Our Competitive Advantages



Brief

TECHNOLOGY

92 patents;

Invented industry-leading technology and process:

- MFDC
- CDW
- FSPR
- Reservoir Resistance Welding Process
- Brake Air Chamber Resistance Welding Process
- ...

MFDC inverter controller, welding transformer, current sensor.

QUALITY

- **ISO9001 Certificate;**
- Complete modern management system;
- Customer service system from pre-sales to after-sales .



TEAM

- Nearly 100 senior professional engineers;
- With over 60% employee working at Heron for 10 years or more

EXPERIENCE

- Founded in **1991**;
- **30+** years of welding experience;
- **6000+** cases;
- **10+** countries/regions.

Our Team

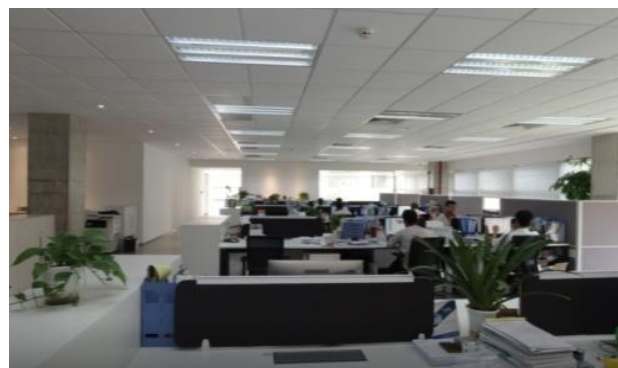


Bill Zou
Founder & Chairman

- ❑ Graduated from Harbin Institute of Technology majoring in welding in 1988;
- ❑ Member of Guangzhou Welding Expert Library
- ❑ Member of RWMA
- ❑ Executive Director of the Welding Society of the Automotive Engineering Association



R&D Team



Management Team



Sales Service Team

Technical advantage #1



Type H
220-880KVA

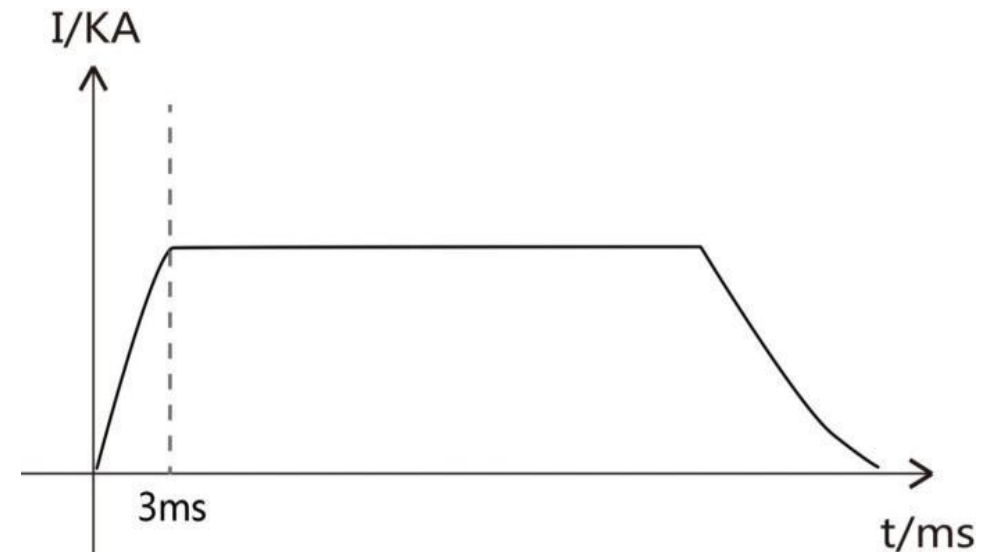


Type L
25-440KVA



1250-2500KVA

MFDC Resistance Welding Technology
—The maximum short-circuit current reaches 250KA!

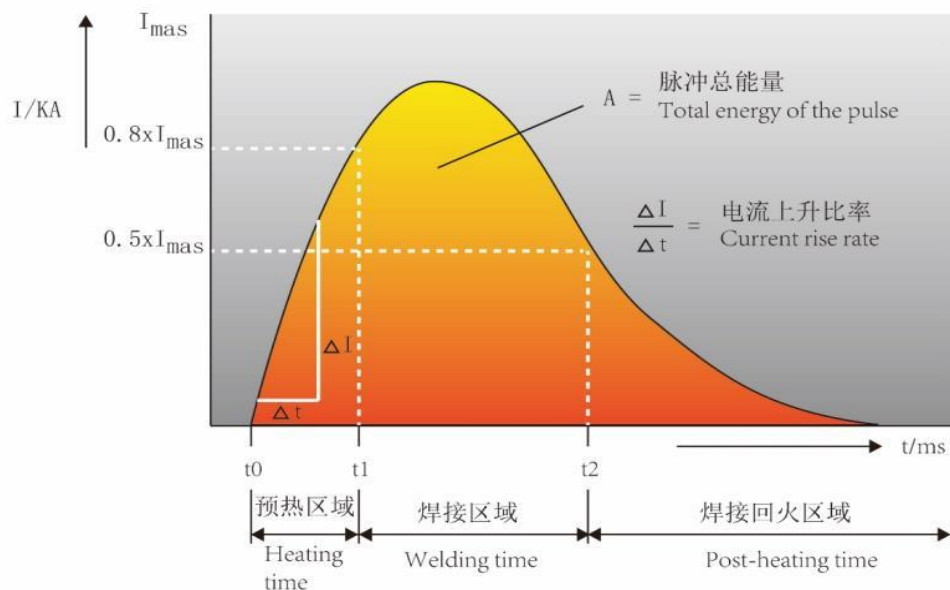


The current curve during discharging

Technical advantage #2

CDW Resistance Welding Technology

—The maximum short-circuit current reaches 1000KA!



The current curve during discharging



Type H

6-40KJ



Type L
3-6KJ



80KJ-150KJ

Technical advantage #3

FSPR Self-piercing Riveting

—A New Process For Join Aluminium To Hot Stamping Steel

Workpiece Pressing

The release machine prepresses the workpiece while the FSPR punch nails are fed into the punch down channel !

Punching Nail Embedding

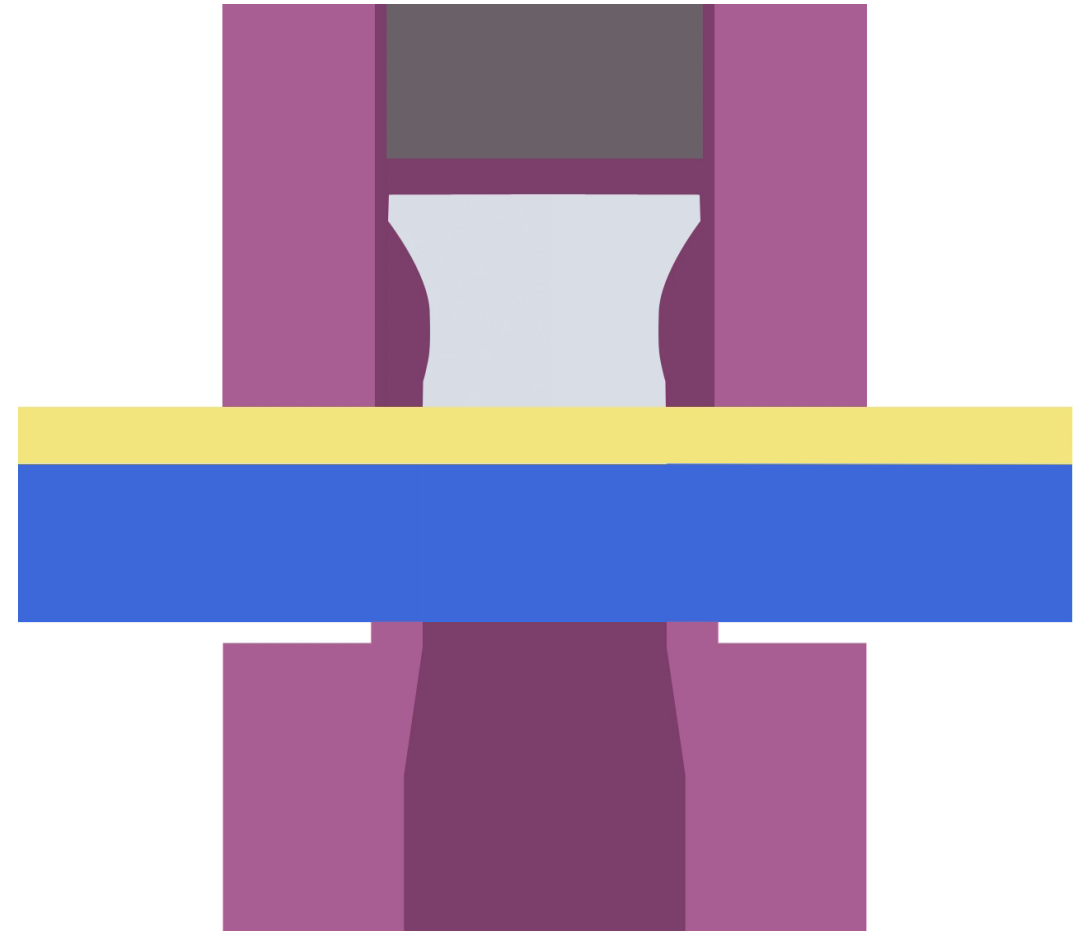
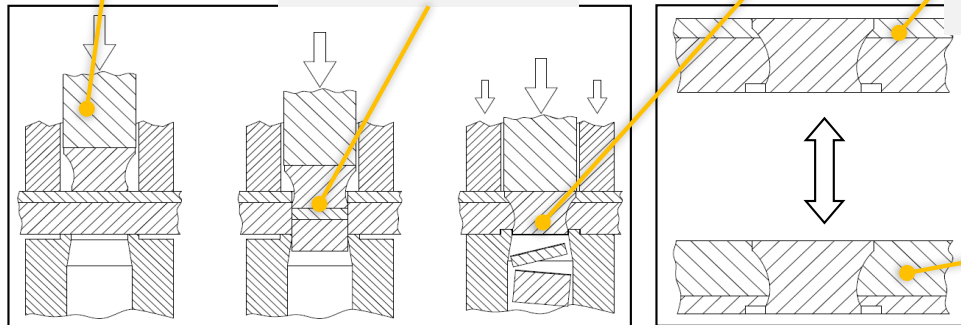
The punch is pressurized downwards, and the FSPR punching nails are simultaneously embedded in the workpiece.

Workpiece Material Extrusion

The punch continues to be pressurized, while the demoulder is pressurized and the FSPR punching nails are fully embedded into the workpiece, while the workpiece material is extruded to the "dovetail" area in the middle of the FSPR punching nail.

The thinner layer of workpieces is on the upper layer.

The thicker layer of workpieces is on the punch side.



Technical advantage #4

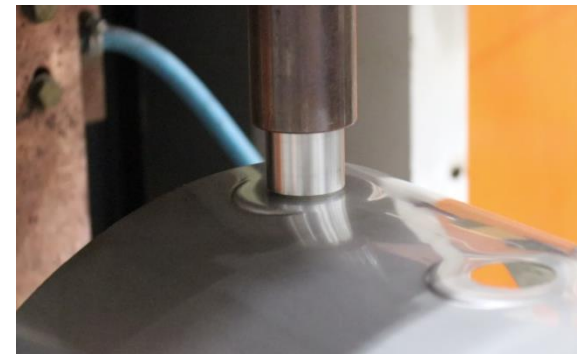
Keep Innovating New Process Technology

- Resistance welding process for the connection of silver and copper tubes and steel shells
- Resistance welding process for reservoir
- Resistance welding process for brake gas chamber
- Resistance welding process for The connection of silver and copper
- Resistance welding process for air conditioning compressor upper and lower cover
- Resistance welding process for stainless steel bucket inlet and outlet

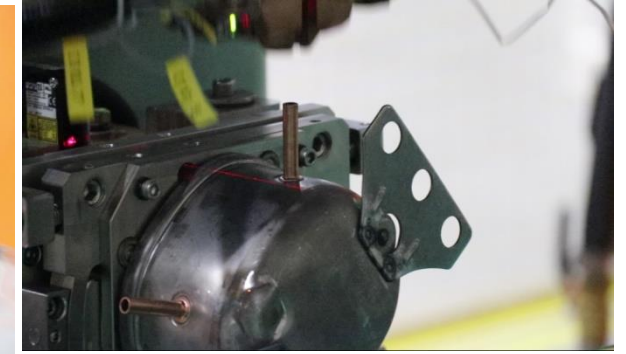
Resistance welding process for brake gas chamber



Resistance welding process for The connection of silver and copper



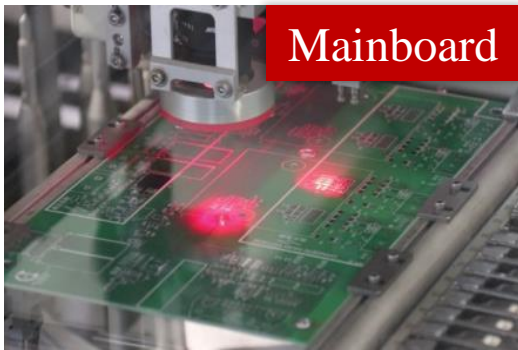
Resistance welding process for stainless steel bucket inlet and outlet



Resistance welding process for copper tubes and steel shells

Technical advantage #5

Manufacture Inverter



Mainboard



Inverter Controller



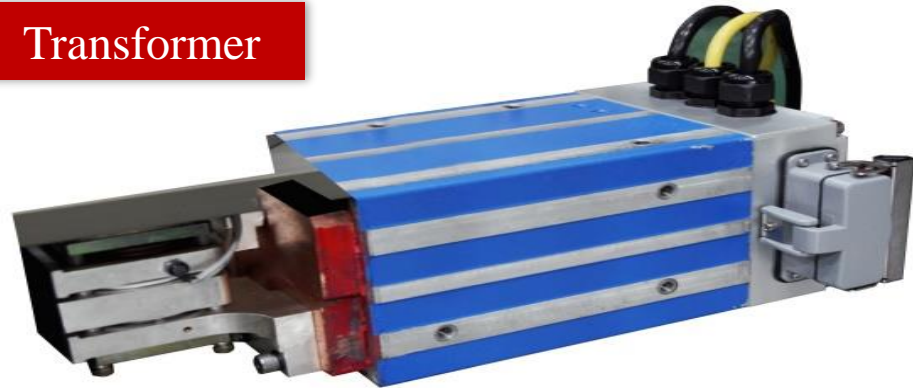
Maual WeldingGun Controller

Technical advantage #6

Manufacture Transformer



Transformer



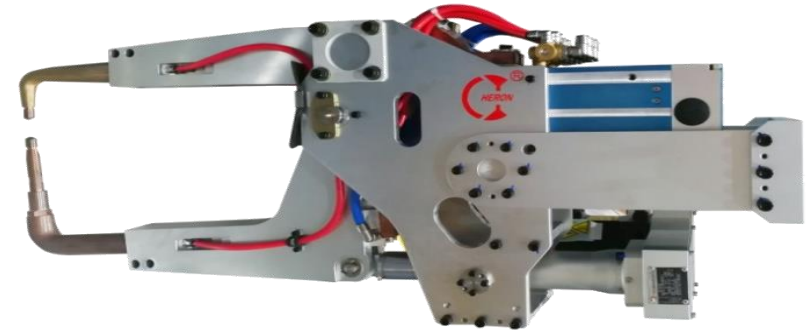
55KVA/75KVA/110KVA/165KVA/220KVA/250KVA

Assembly

Inspect



Welding Gun

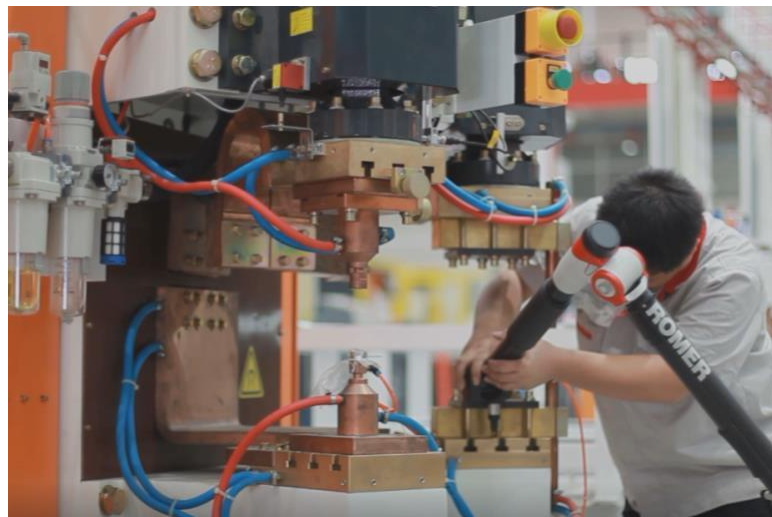


Self Manufacture Welding Gun

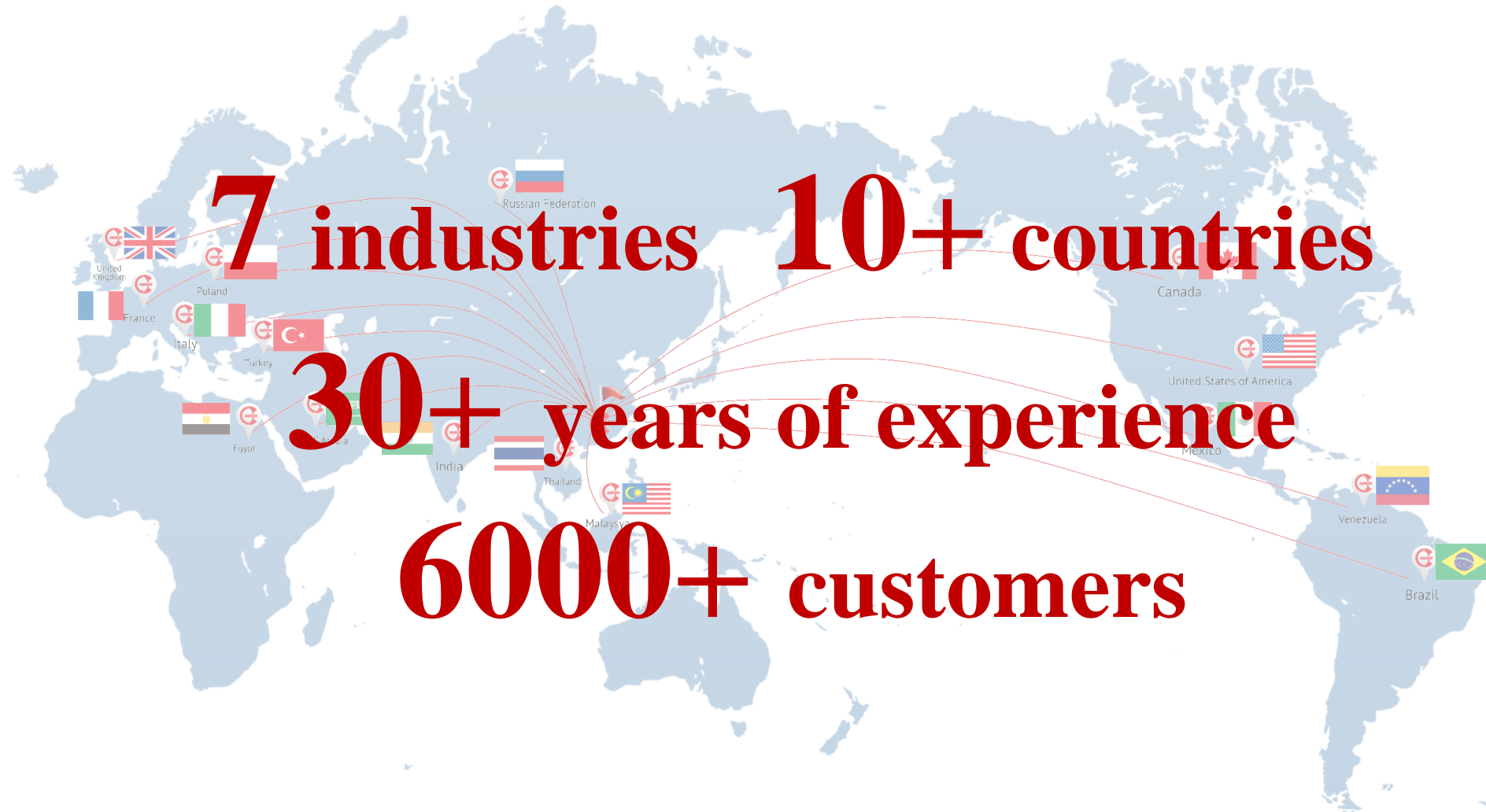
Quality Assurance



ISO9001 Certification



We Are Experienced!



Our Customers



COOPERATIVE PARTNER

Heron's products have been widely used in the automotive industry for many years. And we have long-term stable cooperation with the customers in more than ten countries around the world, with mature technology and rich experience.

AUTOMOTIVE INDUSTRY							 比亚迪汽车			 广汽集团 GAG GROUP	 CHERY		 五菱汽车
							 东风汽车	 Mercedes-Benz	 福田汽车 FODAY AUTO	 DAEWOO BUS		 江铃汽车	
							 奇瑞汽车	 北汽集团 BAK MOTOR	 众泰汽车 ZOTYE AUTO	 广汽日野	 福田汽车 FOTON		
AUTO PARTS INDUSTRY							 延锋江森 Valeo 法雷奥	 faurecia	 SUSPA	 LEAR CORPORATION	 Webasto Feel the drive	 交通集团	 Hapm
								 inalfa roof systems	 INTIER Automotive	 豪斯特 MAGNA	 Gestamp	 MINTH	
							 Valeo 法雷奥	 华域汽车 HUA YU AUTOMOTIVE SYSTEMS	 BENTLEER	 MAGNA			

■ PART 3

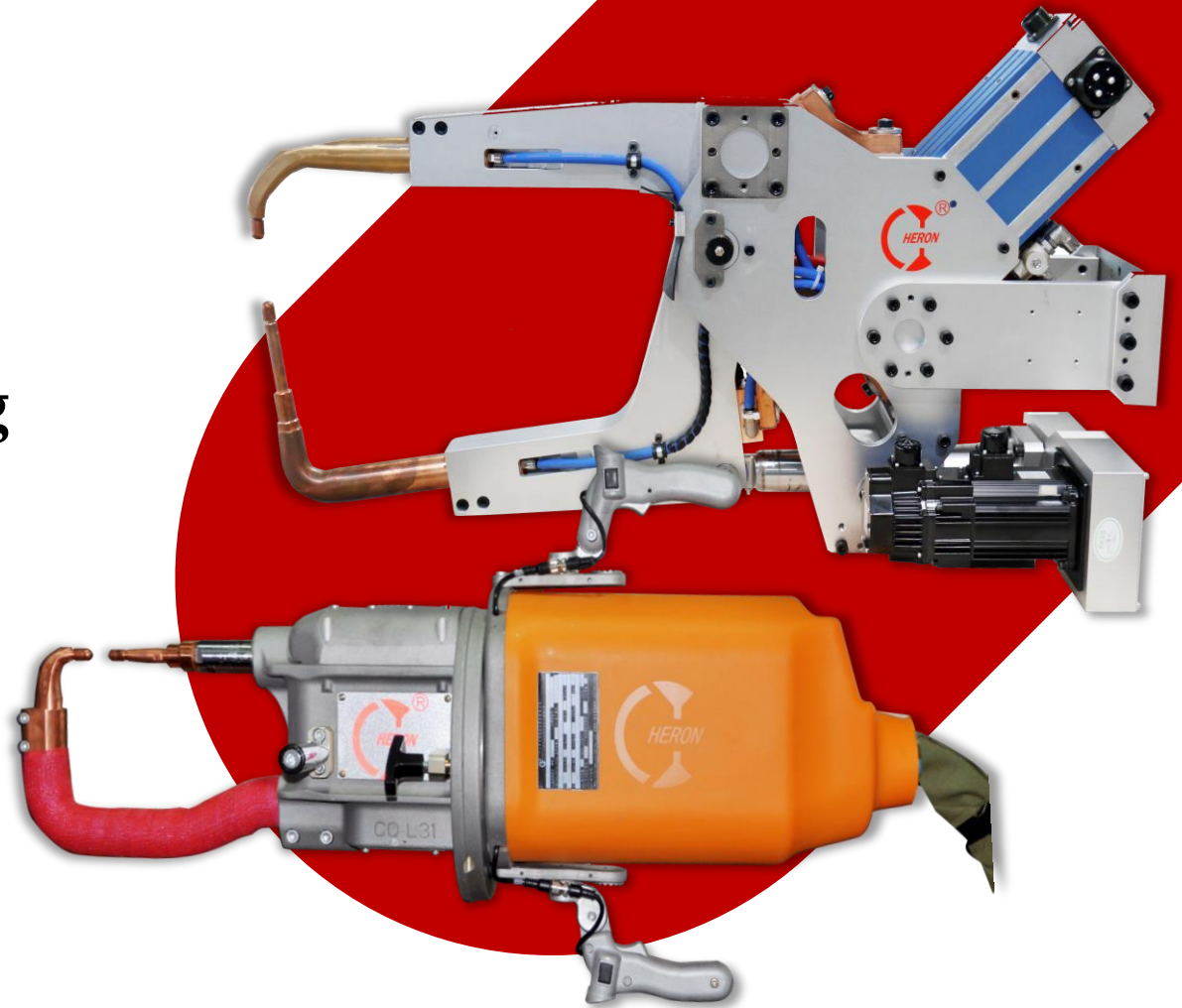
Standard Products



Product 1 • Welding Guns

Heron specialize in the production of **integrated manual and robotic welding guns** for more than **20 years**.

With over **300 models gun types**



Product 1 • Welding Guns Series



Product 1 · Robotic Welding Guns Application

OUR
CUSTOMER



广汽集团
GAC GROUP



小鹏汽车
XPENG MOTORS



北汽汽车
BAIC MOTOR



北汽汽车



福迪汽车
FODAYAUTO



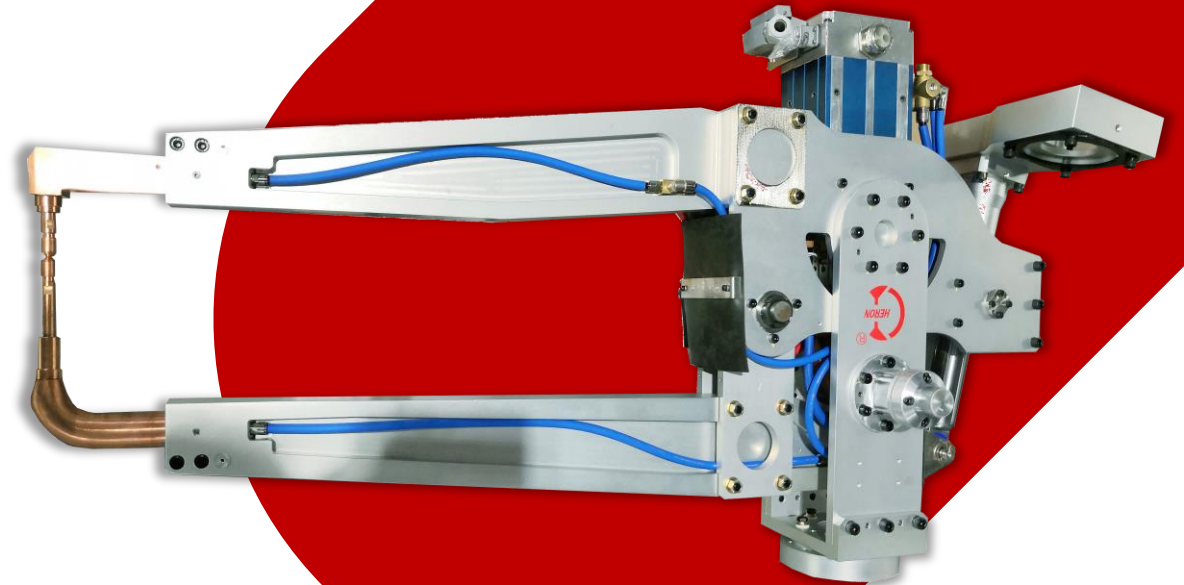
Volkswagen



Product 2 · Aluminum Alloy Welding Guns

Aluminum alloy welding

- welding pressure up to 8000N;
- current output up to 55KA;
- Duty cycle up to 20%;
- Long electrode life;
- High degree of modularity design.



Product 3 · FSPR Equipment

- Can clinch **different materials** (such as high-strength aluminum alloy, hot stamping steel, carbon fiber, galvanized sheet).
- Can achieve **multi-layer riveting**, the maximum thickness can reach **9.1mm**.
- The finishing is perfect to maximize outer appearance. The rivet head can be pre-painted or electroplated, and there is no convex coating after riveting.
- The punching and riveting are done in **one go** without the need for pre-punching riveting holes.
- Can feed fastener automatically.
- **Strong shear and tensile force.**
- **Strong anti-rust ability.** It can pass the salt spray test for up to 480 hours, and the special rivets can extend the rust resistance according to the actual needs.



Product 3 · FSPR Equipment Series



Vertical equipment

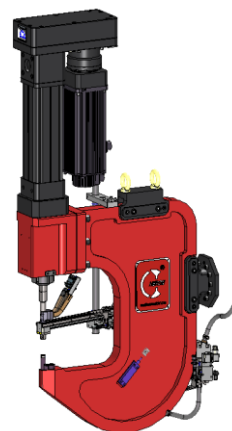
ZMY-008-1T1A



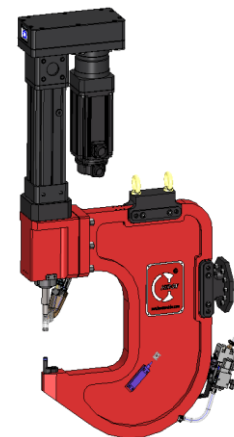
Vertical equipment

ZMY-008-1T1B

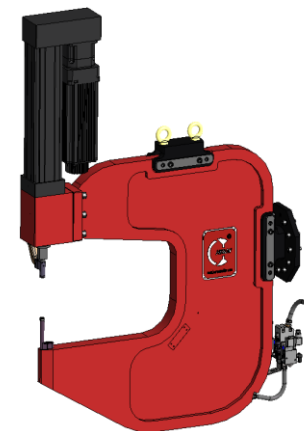
FSPR Gun 300



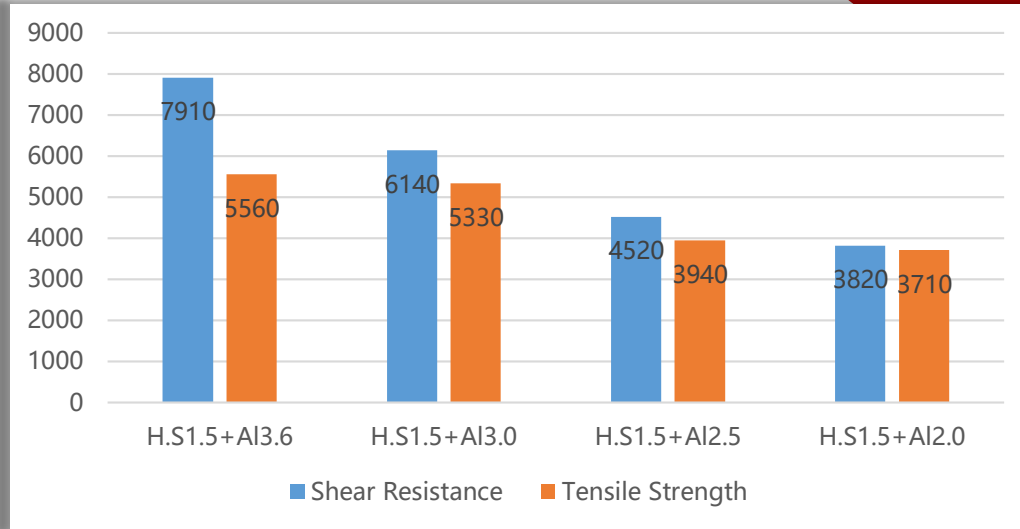
FSPR Gun 400



FSPR Gun 500

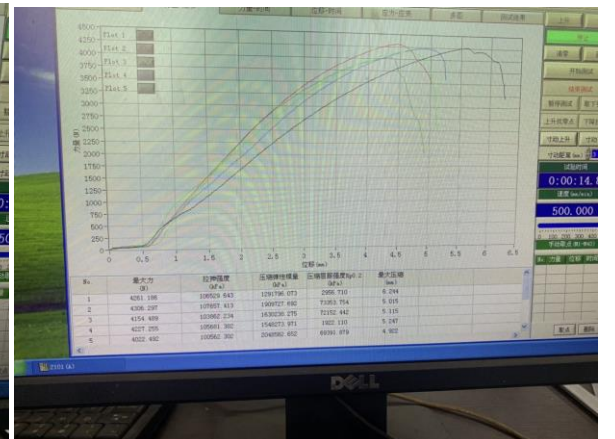
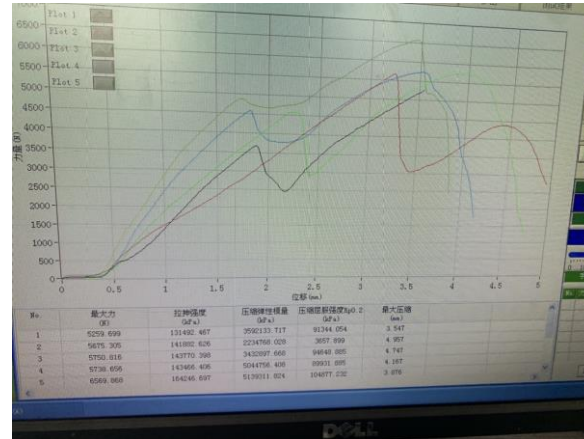


Hot Stamping Steel & Cold Roll Aluminum Sheet



FSPR Rivet Model	Concave Die Specifications	Hot Stamping Steel/mm	Rolled Aluminum Sheet/mm	Shear Resistance /N	Tensile Strength /N
11HBZ-B	AO-060-R11	t=1.5	3.6	7,910	5,560
9HZ-B	AO-060-R09	t=1.5	3.0	6,140	5,330
6DHBZ-B	AO-060-R06	t=1.5	2.5	4,520	3,940
6DHBZ-B	AO-060-R06	t=1.5	2.0	3,820	3,710
6DHBZ-B	AO-060-R06	t=1.5	2.0	3,810	3,680

Hot Stamping Steel & Casting Aluminum Sheet



Product 4 • Capacitor Discharge Welding (CDW) Equipment

- Stable welding quality for projection welding.
- Small heat affected zone, lower energy consumption, electrode loss, cost saving.
- When welding galvanized parts, the galvanized layer in the non-welding area can not be damaged, no grinding and post-treatment is required.
- The welding process is not affected by grid fluctuations, especially when the nut convex welding of high-strength and thermoformed steels is very stable.



Product 4 · CDW Equipment Series



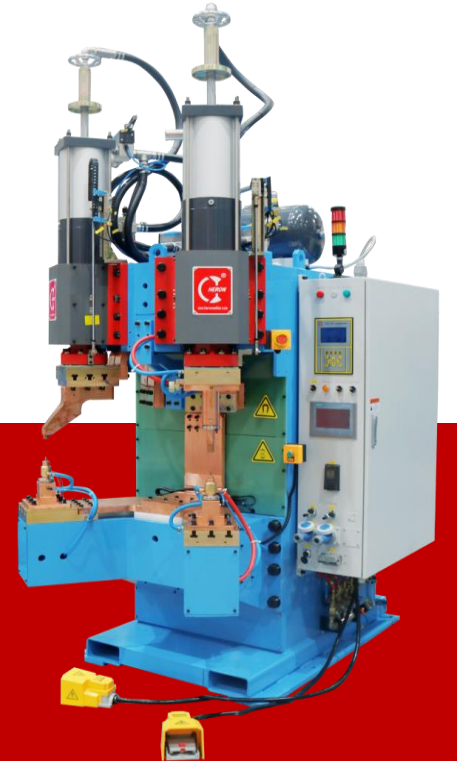
Type L
3-6KJ



Type H
10-40KJ



Type H
10-40KJ



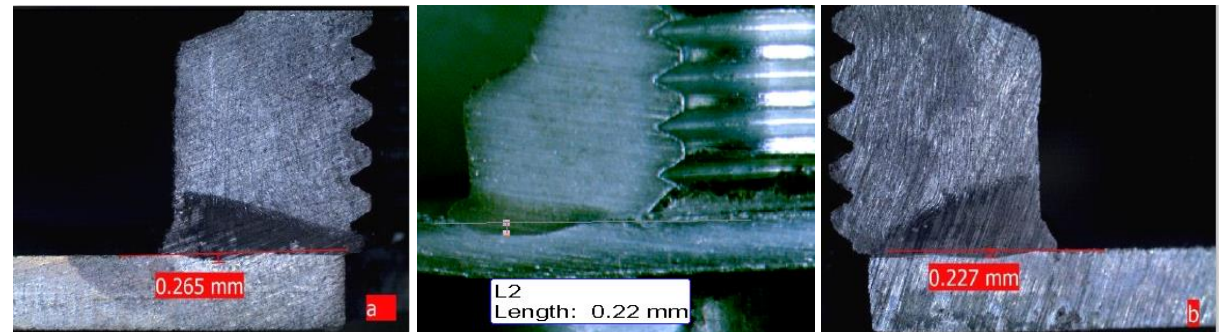
**Double Head
CDW Equipment**
10-40KJ

Product 4 • CDW Welding Sample



High strength steel, thermoformed steel nuts, studs convex

- The heat affected zone of the nut after welding is small, and the thread is not deformed.
- The galvanized layer of the thread and plate can be completely left intact.
- The galvanized layer is not destroyed and no filament is required.
- The molten core has a penetration depth greater than 0.2MM.



Product 4 · CDW Equipment Application

OUR
CUSTOMER



 **Ling Yun Industrial Corporation Limited**

Gestamp  **Gestamp**

Product 5 · Inverter Controller

- Modular design and high maintainability.
- Excellent compatibility: the mainboard is compatible with robotic spot welding, vertical welding, suspension welding, seam welding, convex welding and other applications.
- 1000-4000Hz output frequency switching.
- It can support up to 960 groups of welding specifications to meet the application scenarios of one solder joint and one set of welding specifications.
- Free firmware upgrade, customers can enjoy the the latest technological achievements all the time.
- The current rise speed is fast and the control accuracy is high.
- With welding data monitoring function, can trigger all kinds of alarms.
- With a welding joint counter, it can control the number of welding joint.
- Rich communication interface.
- Air-cooled/water-cooled is optional.
- Special function customization development is available.



■ PART 4

Industry
Applications



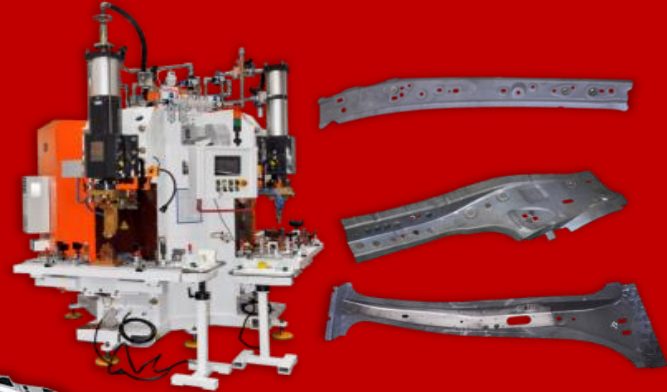
In The Automotive Industry



Sunroof Riveting Equipment



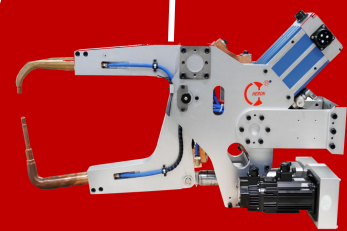
Anti-collision Bumper Welding Equipment



ABC Pillar Welding Equipment

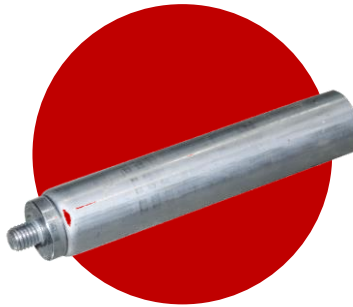


Door Frame BC Pillar Welding Equipment



Robot Welding Gun for Car Body

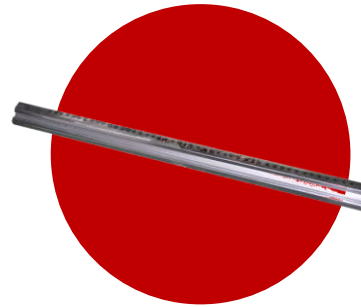
In The Automotive Industry



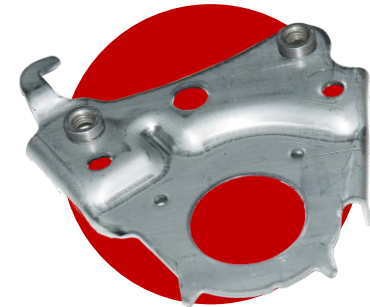
**Gas Spring
CDW Welder**



**Shock Absorber
CDW Welder**



**Auto Door Frame
Roller Welder**



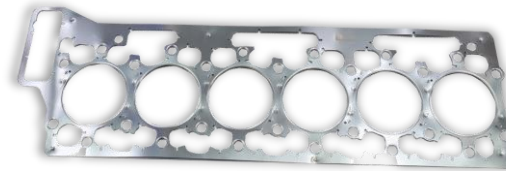
**Angle Adjustment
CDW Welder**

In The Automotive Industry



**Exhaust Muffler
Welder**

Brake Chamber



Engine Head Gasket

Seat Rails Welder



In The Automotive Industry



**(Mid-sized Stamping Part)
Projection Welding Station**



**(Small-sized Stamping Part)
Projection Welding Station**

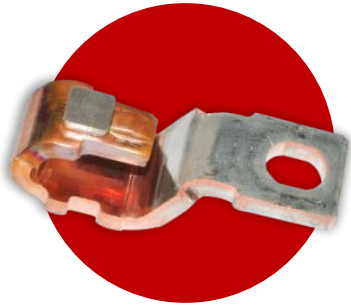


**(Large-sized Stamping Part)
Projection Welding Station**

In The Lower Voltage Electrical Industry



**Dynamic Contact Assembly
Welding Equipment**



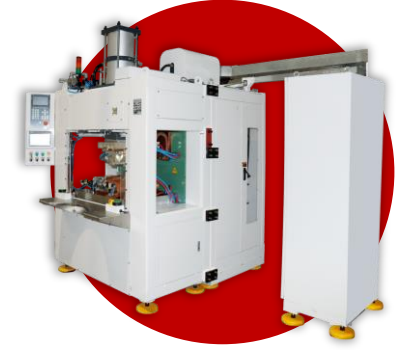
**Static Contact
Welding Machines**



**Magnetic Decoupling
Welding Equipment**



**Dynamic Contact Assembly
Welding Equipment**

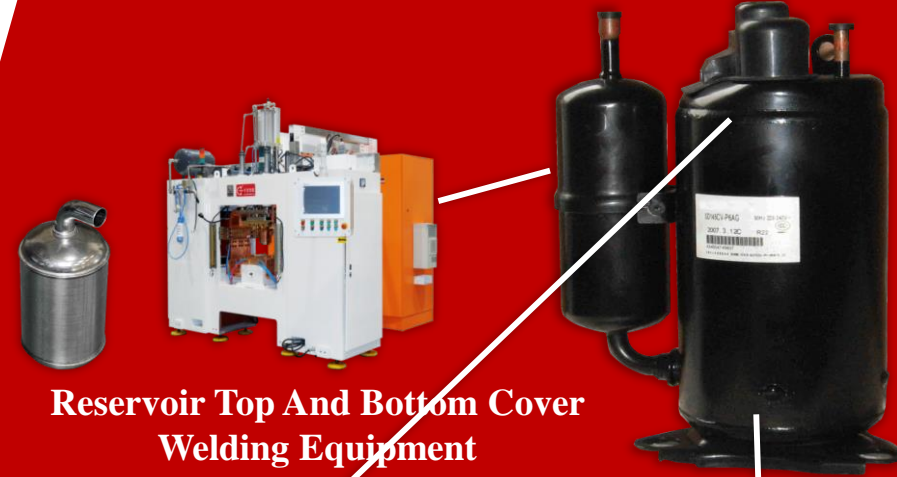


**Conductive Busbar
Welding Equipment**

In The Refrigeration Compressor Industry



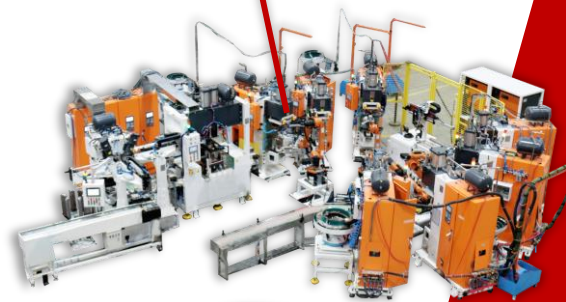
**Circumferential Arc
Welding Equipment**



**Reservoir Top And Bottom Cover
Welding Equipment**



**Upper Casing
Automatic Welding Equipment**



**Lower Casing Automatic
Production Line**

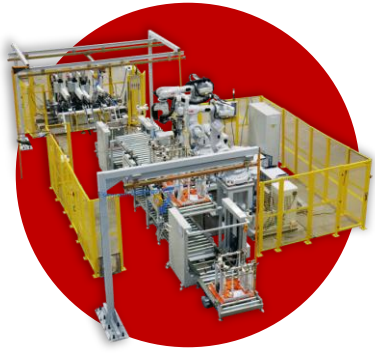


**Upper Casing Automatic
Production Line**

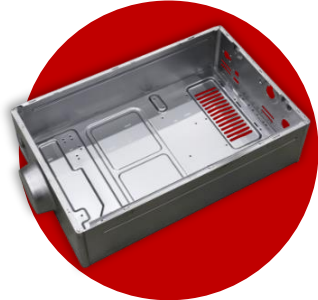


**Lower Casing Automatic
Production Line**

In The Appliance Industry



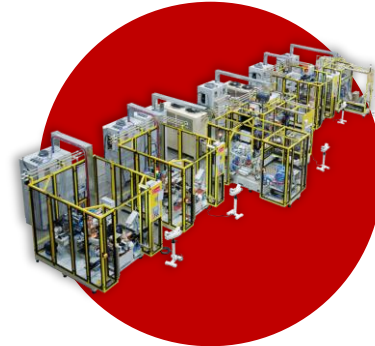
**Washing Machine Case
Production Line**



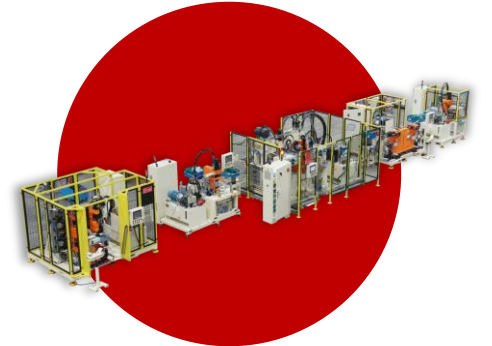
**Water Heater Box
Production Line**



**Electric Water Heater
Inlet And Outlet Pipes
Welding Equipment**



**Oven Case
Production Lines**



**Dishwasher Case
Production Line**



HERON IS ALWAYS HERE FOR YOU !
LET'S TALK MORE!



**EXPERT IN
RESISTANCE WELDING · CLINCH**



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