

2025

Hotstone Industrial Automation



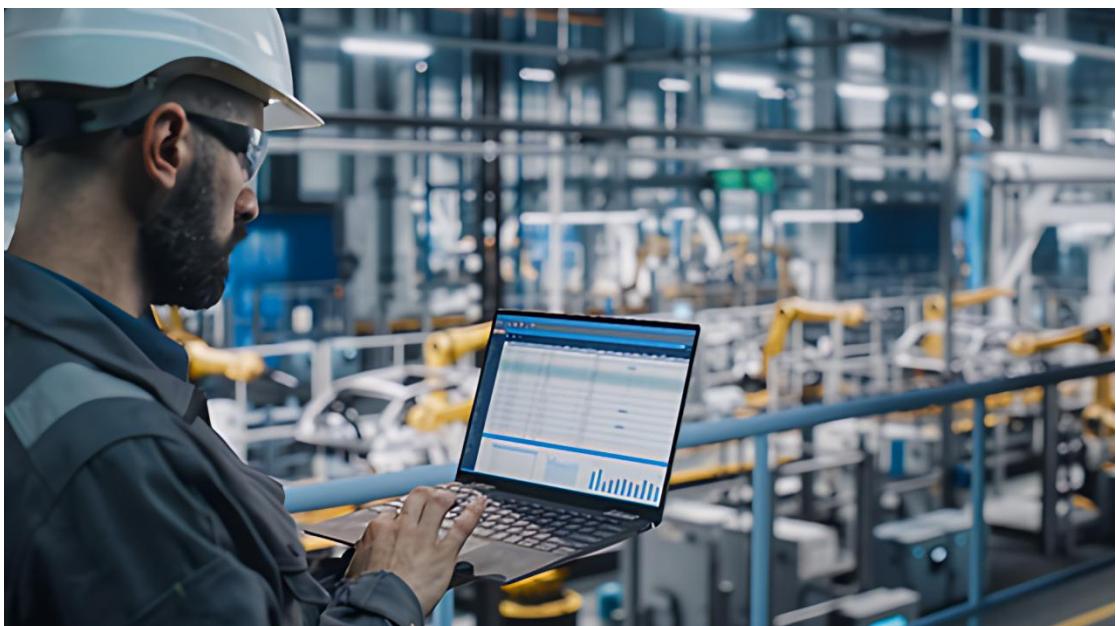
Zhou Hotstone
Hotstone Group Co.,Ltd

Leading Industrial Automation Solution Provider from China

Empowering Industry with Intelligent Automation.

一、 Company Introduction

Hotstone Group Co., Ltd. is a high-tech enterprise specializing in **industrial automation system integration** and **custom intelligent equipment development**. The company is committed to delivering end-to-end solutions for global manufacturing clients, covering everything from **smart factory planning and design** to **core equipment manufacturing and system implementation**.



Headquartered in one of China's major manufacturing hubs, Hotstone Group leverages strong R&D capabilities, advanced production resources, and extensive engineering experience to become a leading provider of intelligent manufacturing solutions.

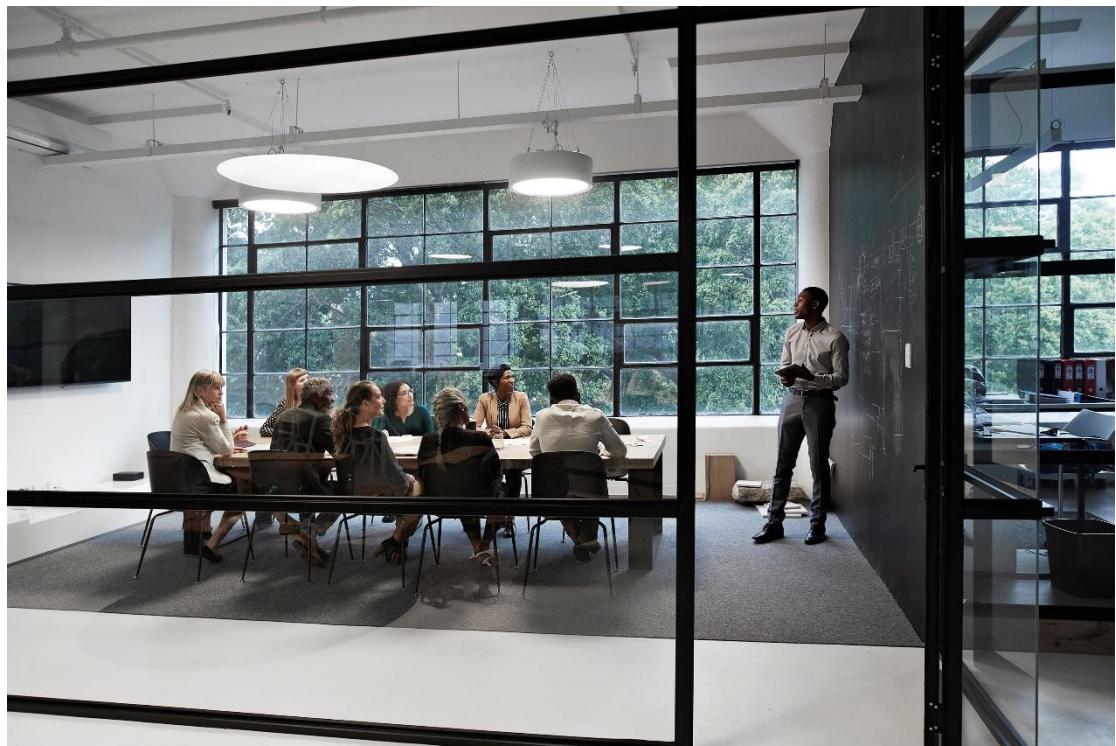
To support continuous innovation, the company has established **three specialized R&D centers** located in **Jinan, Dalian, and Shanghai**. These centers form a collaborative innovation network focused on robotics control, intelligent equipment, industrial software, and

system integration—ensuring rapid technological advancement and product evolution.

Hotstone Group was founded to meet the growing demand for automation, digitalization, and intelligent transformation in the manufacturing sector. By integrating robotics, industrial control, digital platforms, and precision manufacturing, the company provides **one-stop services** from concept design and solution planning to equipment customization, system integration, on-site commissioning, and after-sales support.



To address diverse customer needs, the company established a dedicated **Industrial Automation Division**, which focuses on **industrial automation integration and intelligent equipment building**. With the resources and experience to tackle the most demanding manufacturing challenges, the division delivers **unique and innovative robotic automation solutions** tailored to specific applications and industries.



Its team consists of professionals from automation, mechanical engineering, electronics, software, and project management, enabling strong interdisciplinary collaboration. The company also operates **advanced machining and casting centers**, equipped with high-precision CNC and inspection systems to ensure the quality and reliability of core components.

With a **production and commissioning team of over 100 specialists**, the company has extensive experience in both domestic and international project execution, ensuring efficient delivery of complex engineering systems.



In the context of global industrial transformation, **Hotstone Group Co., Ltd.** is driven by the mission of **empowering industrial upgrading through intelligent manufacturing**, continuously advancing technology and service excellence to become a trusted long-term partner and industry leader

二、 Our Powerful Ability which Guaranteed your Satisfaction

2.1 Outstanding R&D Capabilities

Leveraging the expertise of the intelligent robotics research team at Shandong University, and in collaboration with institutions such as the University of Jinan and the Institute of Automation at the Shandong Academy of Sciences, the company has established a robust, interdisciplinary innovation ecosystem that deeply integrates academic, research, and industry. It operates a dedicated “Robotics and Precision Equipment Technology R&D Center,” staffed by over 100 high-caliber professionals, including Changjiang Scholars, Taishan Industry Leading Talents, professors, and PhDs. The team possesses full-spectrum R&D capabilities, from fundamental research to engineering implementation. The company has developed a proprietary and controllable core technology system in intelligent industrial robotics and high-end intelligent equipment, encompassing mechanical design, motion control, intelligent perception, industrial

What We Expertise



Application Engineering

Experienced application engineers evaluate each project. Based on their extensive process expertise, they evaluate each application, and then the concept and quote the best robotic system to meet each customer's automation needs



Project Management

A Project Manager is assigned to every project. The Project Manager coordinates all details of a project to ensure that all needs and resources are balanced to meet the customer's schedule, delivery, and budget requirements. Our goal is always total customer satisfaction.



Mechanical Engineering

WE have Mechanical Engineers who are responsible for designing, building, and implementing all of the mechanical functions related to a system. This includes overall layout, pneumatics, grippers, process equipment (excluding vision), and the mechanical aspects of safety



Controls Engineering

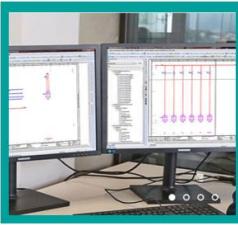
Our Controls Engineers are responsible for all aspects of integration from a software standpoint. They integrate the robot systems with PCs or PLCs, line controllers, etc., and design custom Human Machine Interfaces (HMIs).

software, and system integration—enabling rapid, customized responses to complex industry demands.

2.2 Advanced Manufacturing and Commissioning Capabilities

The company operates high-standard machining and casting centers, supporting end-to-end manufacturing from component fabrication to complete equipment assembly. This ensures exceptional precision, reliability, and consistency across its product lines. A professional team of over 100 specialists handles production and commissioning, with extensive experience in equipment assembly, system integration, on-site commissioning, and after-sales service. Notably, the team has substantial experience with international projects, adeptly managing multilingual, multi-standard, and multi-condition environments to ensure efficient global deployment and stable operation.

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2.3 Rich Intellectual Property Portfolio

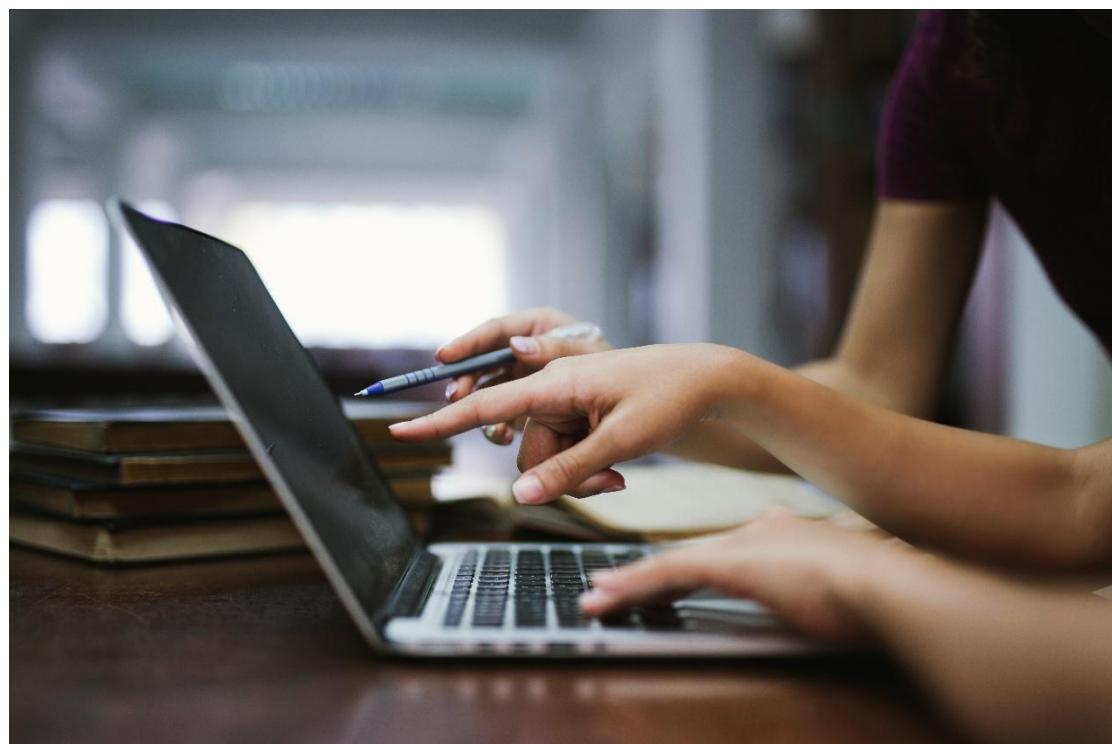
The company places strong emphasis on independent innovation and intellectual property protection. It has secured 117 proprietary IP assets, including 14 invention patents, 82 utility model patents, and 21 software copyrights. This robust IP portfolio provides a solid legal and

technological foundation for sustained innovation and competitive advantage in the intelligent manufacturing sector.

2.4 Industry-Leading System Integration and Engineering Capabilities

With comprehensive engineering capabilities spanning from standalone equipment development to full production line integration and smart factory solutions, the company delivers turnkey intelligent manufacturing upgrades. Notable achievements include the world's first "Intelligent and Digital Processing Production Line for Metallurgical Petroleum Steel Pipes," which fills a global industry gap. The company has also developed several internationally advanced intelligent machines, such as five-axis dual-channel triple-turret threading machines and flip-chuck coupling threading machines. It holds the leading market share in China for petroleum steel pipe processing equipment and has successfully exported to multiple countries.

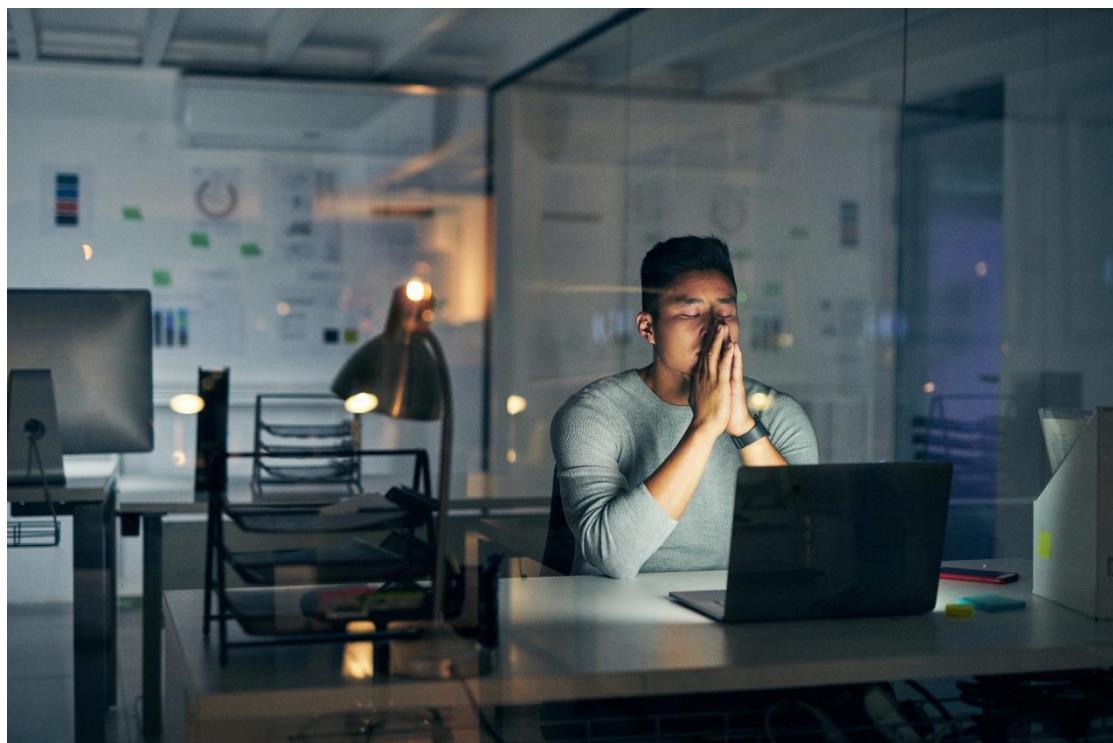
2.5 High-Level Industrial Collaboration and International Partnerships



The company has established strategic partnerships with globally renowned enterprises such as CERI, Kawasaki Heavy Industries (Japan), and ESTIC (Japan), engaging in joint R&D and

technology transfer in areas including robotic hardware, intelligent control systems, and industrial automation solutions. It also maintains long-term collaborations with top universities such as Shandong University, Beijing University of Posts and Telecommunications, and Qilu University of Technology, continuously introducing cutting-edge technologies and high-end talent to accelerate the commercialization of research outcomes.

2.6 Future-Oriented Intelligent Manufacturing Solutions



Focusing on the integration of intelligent industrial robots, high-end intelligent equipment, and digital smart factories, the company delivers comprehensive intelligent manufacturing solutions for industries such as metallurgy, petroleum, new energy, and automotive. Its offerings include multi-process robotic systems for assembly, welding, grinding, and spraying; digital twin and industrial IoT platforms; and modular, flexible smart production line design and implementation. The company is committed to leading China's intelligent manufacturing equipment sector and driving the digital, intelligent, and green transformation of traditional industries.

三、The Intelligent Service Solution We Provide

3.1 Digital Engineering Solutions



We provide a comprehensive suite of **Digital Engineering Services** designed to support the full lifecycle of intelligent manufacturing systems. Our solutions help clients reduce development costs, accelerate deployment, and enhance operational reliability through advanced virtual technologies and simulation-driven engineering.

We do for our customers the following solutions to solve their problem

- **3D Simulation & Digital Twin Development**

We build high-fidelity 3D models and real-time digital twins of equipment, production lines, and entire facilities. These virtual environments enable predictive analysis, performance optimization, and real-time monitoring, supporting smarter decision-making and lifecycle management.

- **Digital Process Verification**

Our team conducts virtual validation of manufacturing processes before physical implementation. This service helps identify design flaws early, reduce commissioning time, and ensure process stability and efficiency.

- **Virtual Operator & Maintenance Training**

We deliver immersive training programs using virtual reality and simulation platforms. Operators and maintenance personnel can safely practice procedures in a digital environment, improving skill levels, reducing training costs, and minimizing operational risks.

- **Logic Verification & Virtual Commissioning**

We offer early-stage logic testing and virtual commissioning of PLC and automation systems. This ensures that control logic is fully validated before on-site deployment, reducing integration time and avoiding costly downtime.

- **3D Cable Layout & Routing**

Our 3D cable layout service provides accurate design and visualization of electrical and communication cabling. This improves installation efficiency, reduces errors, and ensures optimal space utilization in complex equipment and facility environments.

3.2 Smart Factory & Industry 4.0 Solutions

We provide a comprehensive suite of **Smart Factory and Industry 4.0 services** designed to help manufacturers achieve digital transformation, operational transparency, and intelligent decision-making. Our solutions integrate automation, data analytics, and system connectivity to build agile, efficient, and future-ready production environments.



Our Services Include:

- SCADA & MES Solutions**

We deliver customized SCADA (Supervisory Control and Data Acquisition) and MES (Manufacturing Execution System) platforms to enable real-time production monitoring, data collection, quality tracking, and process control—enhancing visibility and execution efficiency on the shop floor.

- ERP Integration**

Seamless integration between MES and ERP systems ensures end-to-end data flow across planning, procurement, inventory, production, and finance—enabling unified business operations and improved resource coordination.

- Downtime Tracking & Analysis**

Our solutions monitor equipment status in real time, capturing downtime events and root

causes. This enables data-driven maintenance strategies and improved equipment utilization.

- **Production Scheduling & Optimization**

We offer intelligent scheduling systems that dynamically allocate resources based on orders, capacity, materials, and constraints—improving delivery performance and production flexibility.

- **Scrap Management & Traceability**

We implement systems to track and analyze scrap and defects throughout the production process, enabling root cause analysis, quality improvement, and cost reduction.

- **Remote Monitoring & Access**

Secure remote access capabilities allow for real-time monitoring, diagnostics, and support from anywhere—enhancing responsiveness and reducing operational downtime.

- **Existing Systems Integration and retrofitting**

We provide digital retrofitting and integration services for legacy equipment and systems, extending asset life and enabling compatibility with modern smart factory platforms.

3.3 Industrial Programming & Automation Services

We offer end-to-end **industrial programming and automation services** that support the full lifecycle of smart manufacturing systems—from offline simulation and code development to on-site deployment and optimization. Our expertise spans PLC, HMI, DCS, and robotic systems, ensuring seamless integration, high performance, and compliance with global standards.



Our Services Include:

- PLC & HMI Programming**

Development and implementation of control logic and user interfaces using industry-standard platforms (Siemens, Rockwell, Omron, etc.), fully compliant with IEC 61131-3 programming languages.

- Robot Programming**

Comprehensive robot programming services for material handling, welding, sealant application, and assembly. We support major brands such as FANUC, ABB, KUKA, and Yaskawa.

- Offline Simulations & Reach Studies**

Conducting offline simulations and reachability studies to validate robot paths, cycle times,

and workspace feasibility before deployment—reducing commissioning time and risk.

- **Pre-Site Code Development & Virtual Testing**

Development and virtual validation of control code prior to site deployment, including safety PLC integration and logic verification.

- **Out-of-the-Box Setup & Testing**

Initial setup, configuration, and functional testing of automation systems before shipment, ensuring smooth on-site installation.

- **On-Site Programming & Teaching**

Deployment of experienced engineers for on-site robot teaching, PLC tuning, and system optimization to ensure efficient and safe operation.

- **DCS Configuration & Programming**

Design and implementation of Distributed Control Systems (DCS) for process industries, including batch control, alarm management, and system redundancy.

- **Custom Scripting & Integration**

Development of custom scripts in Python, VB, and C# for data processing, system integration, and automation of complex workflows.

- **Vision System Integration**

Integration of industrial vision systems for inspection, guidance, and quality control, enhancing automation intelligence and precision.

- **System Upgrades & Modernization**

Retrofitting and upgrading of existing systems and equipment to meet modern automation standards, improve performance, and extend asset life.

3.4 Electrical & Fluid Design Services

We specialize in delivering comprehensive and professional design solutions tailored to

industrial and commercial automation systems.



Electrical Design

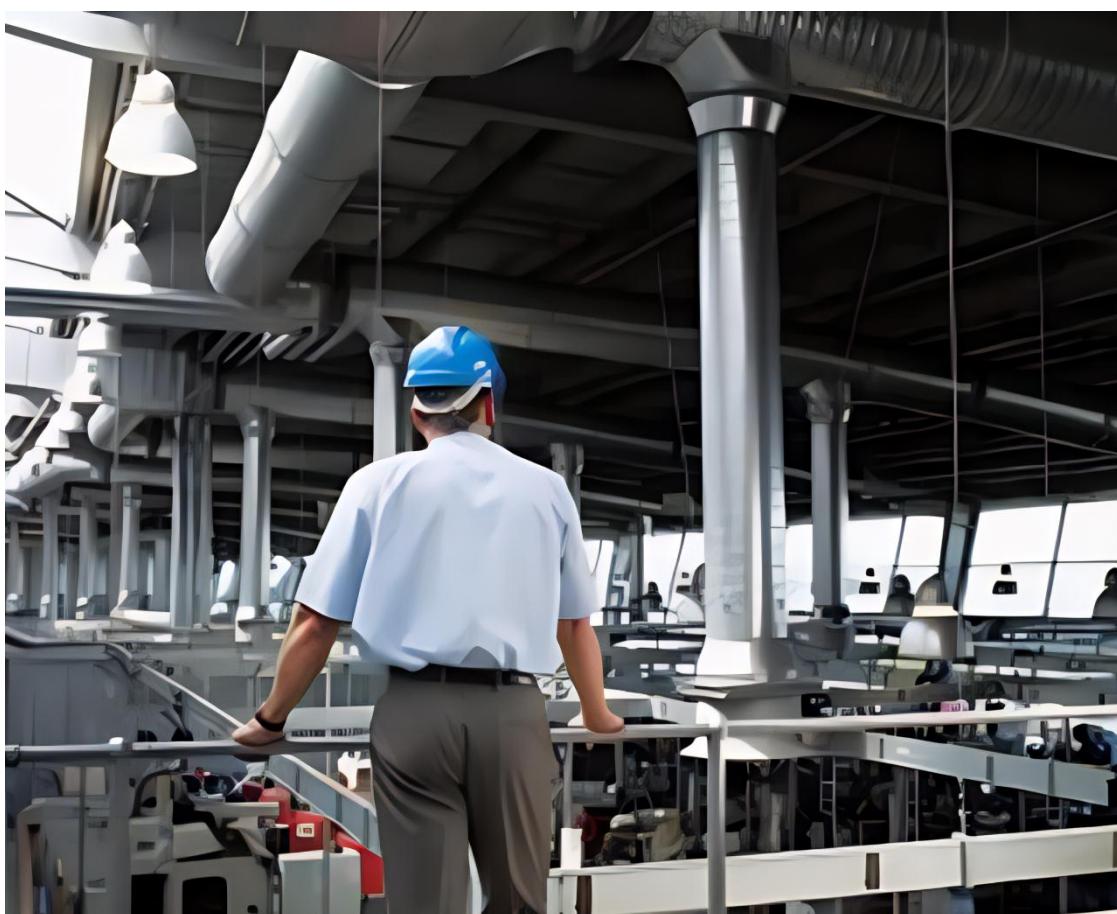
- **Power Distribution Systems:** Efficient and safe power layout planning.
- **Wiring Diagrams & I/O Schematics:** Clear, detailed documentation for seamless integration and troubleshooting.
- **Panel Layouts & 3D Panel Design:** Optimized space utilization and visualization using advanced 3D modeling tools.
- **Safety System Design:** Compliance-focused solutions for both hardwired and controller-based safety systems.
- **Hazardous Location & Explosion-Proof Designs:** Certified designs for high-risk environments, ensuring safety and regulatory compliance.

Fluid Power Design

- **Hydraulic & Pneumatic Systems:** Custom fluid power solutions for motion control, automation, and energy efficiency.

3.5 Site Commissioning & Testing Services

We provide end-to-end support for the successful deployment and validation of industrial automation systems. Our commissioning services ensure that every component functions as intended, delivering reliable performance from day one.



Core Services Include:

- **Network Configuration & Testing**

Setup and validation of industrial communication networks for seamless data flow and system integration.

- **Field Checks & I/O Verification**

On-site inspection and testing of field devices and I/O points to ensure accurate signal mapping and functionality.

- **Electrical System Debugging**

Troubleshooting and resolution of electrical issues to ensure safe and efficient operation.

- **Software Setup & Troubleshooting**

Installation, configuration, and debugging of control software, HMIs, and PLCs for optimal system performance.

- **Vision Inspection Systems**

Integration and calibration of machine vision systems for quality control and automated inspection.

- **Instrumentation Setup & Calibration**

Precision setup and calibration of sensors, transmitters, and control instruments to meet process requirements.

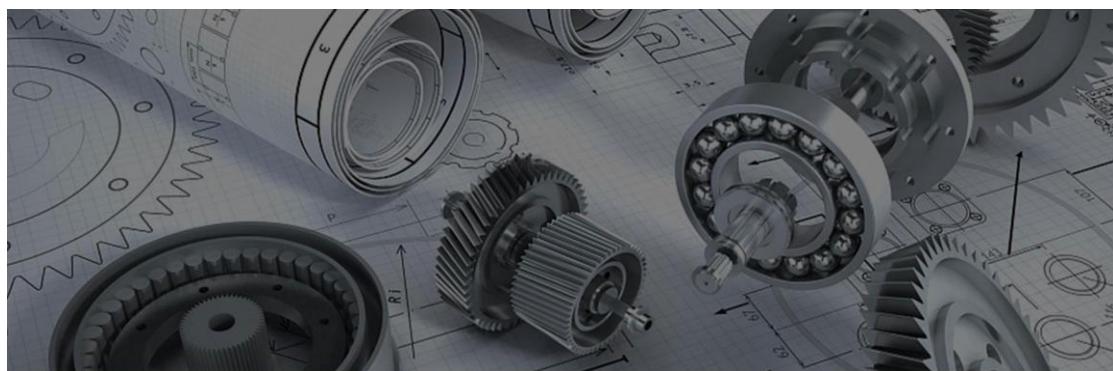
- **Machine Operator Training Programs**

Hands-on training for operators to ensure safe, efficient, and confident machine operation.

- **Maintenance Training Programs**

Customized training for maintenance personnel to support long-term system reliability and uptime.

四、Mechanical Parts Engineering and Fabrication



Supported by our modernized workshops, a team of highly skilled engineers, reliable equipment,

and advanced manufacturing technologies, we are dedicated to the design, engineering, and production of high-quality industrial products tailored to our clients' specific needs.

With deep-rooted expertise in both precision machining and investment casting, our capabilities span a wide range of manufacturing processes, including lost wax casting, shell molding, sand casting, forging, CNC machining, surface finishing, welding, sheet metal fabrication, and mechanical assembly. This comprehensive experience enables us to deliver integrated solutions and consistent quality across every stage of production. We are eager to share our knowledge and craftsmanship, and to become a trusted partner in your supply chain.

Industrial Machining Service



Designing & Engineering

Our technical team provides design, consulting, and technical support

CNC & VMC Machining

Our team helps the client in conceptualizing the project to ensure that your ideas are interpreted the way you see

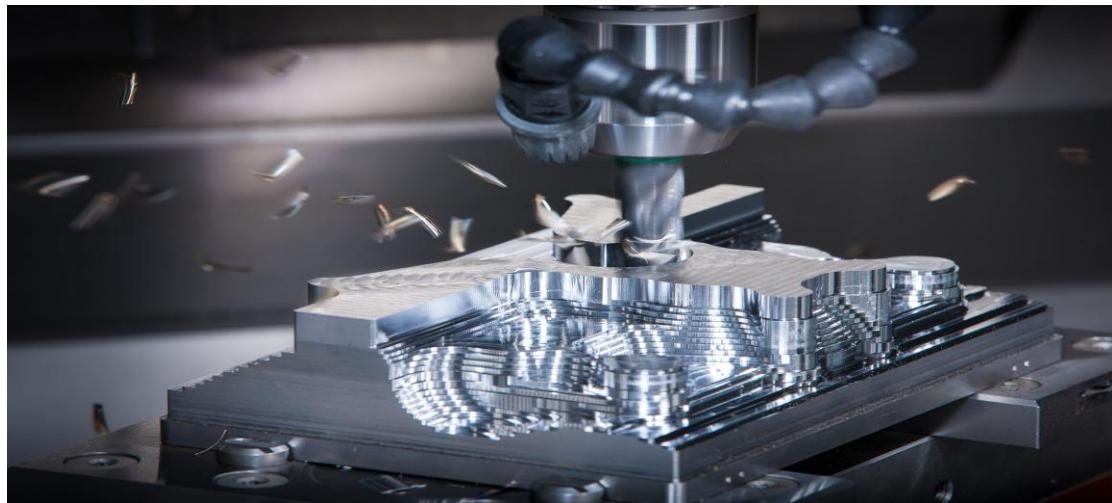
Fabrication & Welding

We are able to provide the highest quality service, provide pretty much all the services

Laser Cutting & Shears

With the most advanced laser sheet and tube-cutting machine, we can handle all the precision sheet and tube cutting, Piercing, Marking, and beveling .

4.1 Precise Machining Service



Our in-house machining center is equipped to deliver high-precision mechanical components tailored to the specific requirements of each project. By integrating machine capabilities directly within our production workflow, we help streamline the supply chain, reduce lead times, and ensure seamless project execution. This not only enhances overall efficiency but also provides our clients with greater flexibility and reliability throughout the manufacturing process.



Assembly

The Assembly service we offer to our customers is of a high quality level, enabling them to complete all their tasks in one convenient location..



CNC Milling

The CNC Milling service we offer to our customers is of a high quality level, enabling them to complete all their tasks in one convenient location..



CNC Turning

The Turning service we offer to our customers is of a high quality level, enabling them to complete all their tasks in one convenient location..

4.2 Investment Casting Service



Our casting center is equipped to handle a wide range of processes, including lost wax casting, shell molding, sand casting, and forging. In addition to casting, we offer integrated services such as precision machining, surface treatment, welding, sheet metal fabrication, and final assembly. This comprehensive capability allows us to deliver high-quality, ready-to-use components while ensuring consistency, efficiency, and reduced lead times. We are committed to sharing our expertise and becoming a reliable partner in your manufacturing supply chain.



Loswax Casting

Lost-wax casting is a process for creating objects, from simple to complex, in a variety of metals (such as gold, silver, brass, or bronze) by casting an original model or pattern.



Shell Moulding

Shell moulding, also known as shell-mould casting, is an expendable mold casting process that uses a resin-coated sand to form the mold.



Sand Casting

According to the design, the melt liquid to inject into the mold pre-designed, so that when the liquid being cooled, we can get the original form.



Forging

This According to requirement to the parts, forging can effectively upgrading the component Quality.



Heat Treating

This According to requirement to the parts, Heat treating can effectively upgrading the component Quality.



Precision Machining

The parts should be further machined according to the requirements in order to achieve high tolerance levels.



Surface Treating

According to customer's detailed requirement to make special surface treatment.



Welding

The welding service we offer to our customers is of a high quality level, enabling them to complete all their tasks in one convenient location.



Metal Working

The metal working service we offer to our customers is of a high quality level, enabling them to complete all their tasks in one convenient location.

五、Robot Arms Select and Sourcing Service

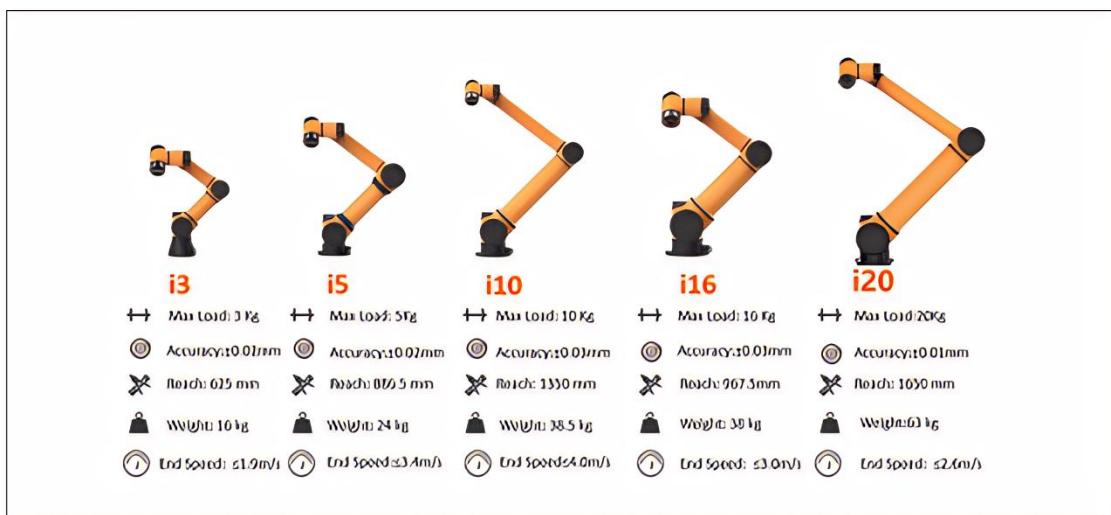
We maintain strong and long-standing partnerships with the world's leading industrial robotics manufacturers. As an authorized distributor for **Fanuc**, **KUKA**, **ABB**, and **Yaskawa**, we

provide our clients with access to cutting-edge robotic technologies. Additionally, we collaborate with **Hyundai Robotics** to co-develop and manufacture high-performance heavy-duty robotic arms, tailored for demanding industrial applications.

In the field of collaborative robots, we have also established close partnerships with several globally recognized brands, ensuring we stay at the forefront of innovation in smart automation.

Our engineering team possesses deep expertise in robotic systems and integration. We are committed to understanding each client's unique application needs and delivering the **most suitable and cost-effective robotic solutions**. Our goal is to help clients **optimize functionality, efficiency, and cost**, ultimately enhancing their automation capabilities and competitive edge.





六、Industrial Equipment Manufacturer

As a leading manufacturer in China's high-end intelligent manufacturing sector, we specialize in the research, development, and production of laser cutting systems, laser welding equipment, pipe processing machinery, and CNC machining centers. We are committed to delivering efficient, reliable, and integrated metal processing solutions to clients worldwide.

Our product portfolio includes high-power laser plate cutting machines, laser tube cutting machines, OCTG pipe threading systems, coupling threading machines, steel pipe cutting

equipment, billet saws, pipe saws, bundle saws, and pipe-end beveling and facing machines. These solutions are widely applied across industries such as energy, machinery, automotive, shipbuilding, and structural engineering.

We have independently developed and patented a pipe cutting technology featuring a stationary pipe with a rotating tool—an innovation that significantly enhances cutting precision and operational efficiency, setting a new benchmark in the industry.

Our pipe threading and coupling threading machines hold a prominent position in the global market, ranking just behind PMC in terms of technical capability and market influence.

Driven by deep engineering expertise and extensive industry experience, we **offer fully customized equipment and system integration services tailored to the specific needs** of each project. This enables our clients to achieve flexible, intelligent, and highly efficient production.

6.1 Laser Cutting Machine Series



Power From 1000W to 40000W High Powerful Laser Plate Cutting Machine



Power From 1000W to 40000W High Powerful Laser Tube Cutting Machine



Power From 1000W to 6000W High Powerful Laser Welding Machine

6.2 CNC Billet Cutting Saw Series



6.3 CNC Pipe Threading Machine Series



6.4 Coupling Threading Machine Series

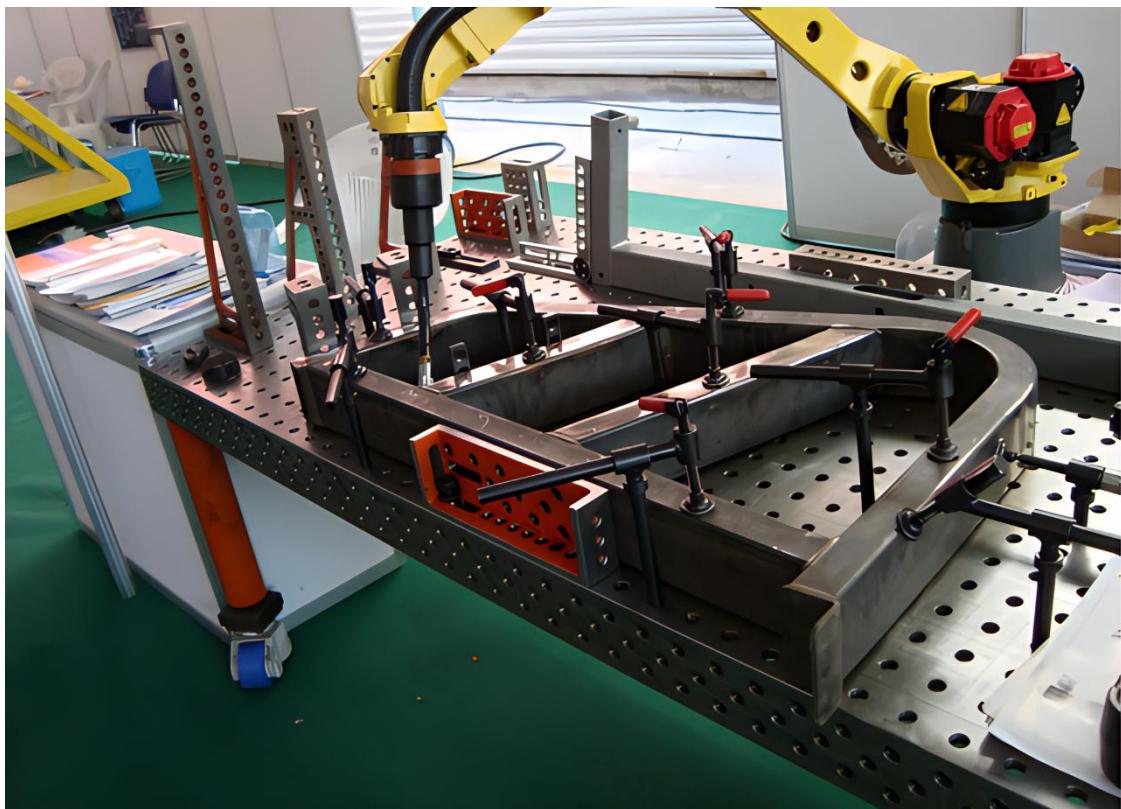


6.5 Pipe Cutting Machine Series



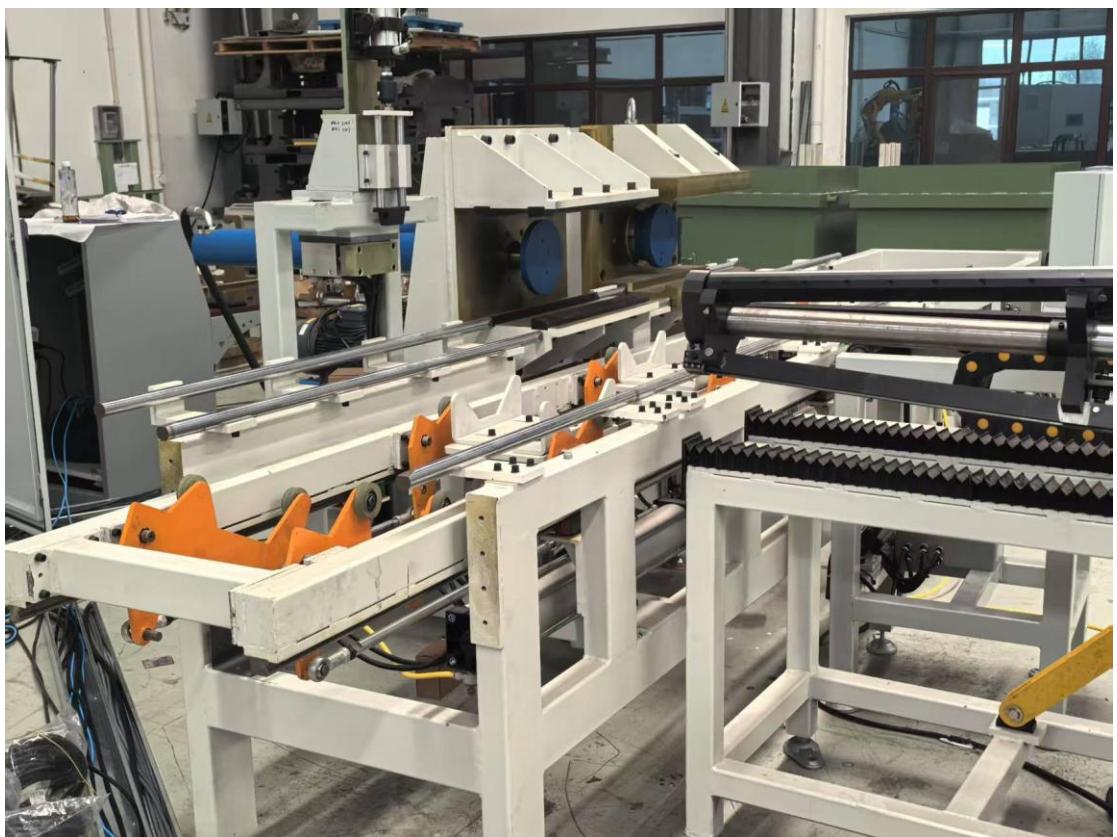
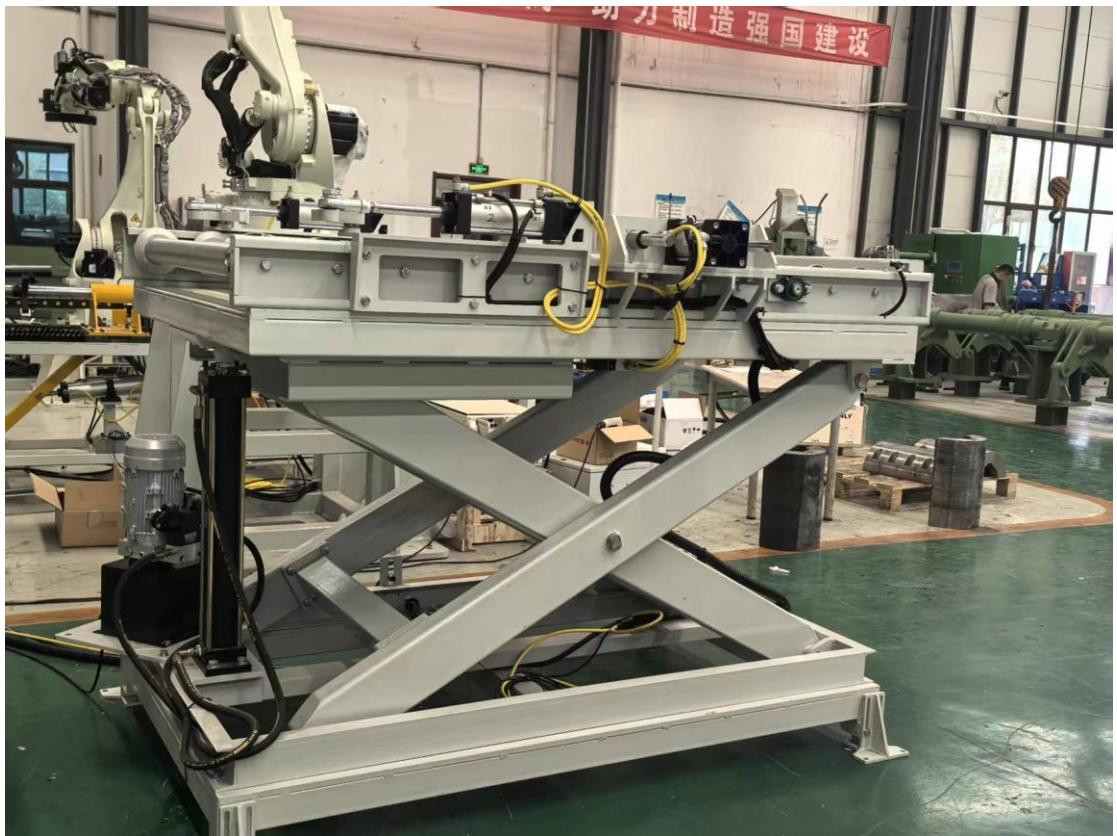
七、 Detailed Device Design , Engineering and Fabrication

7.1 Fixture and Jigs



7.2 Online Motor Device





7.3 We Design and Engineers For Your Demand



Our highly skilled engineering design team specializes in developing customized tools and functional systems tailored to meet the unique requirements of each client project. Whether the need is for specialized equipment or innovative solutions, we transform your ideas into reality. With our expertise and commitment to excellence, we ensure the smooth and successful execution of your project—no matter the complexity.

Dream Together, Success Together



From Your Ideas to Real-World Impact — Together We Create

八、Onsite Installation , Commission and Training

Our professional team is responsible for on-site installation and commissioning, backed by strong technical expertise and a high standard of professionalism. With certified qualifications and extensive experience in overseas installations, we are fully capable of managing the entire process—from equipment leveling and alignment to final installation and operational readiness.

In addition to installation services, we provide comprehensive training programs tailored to our clients' needs. These programs ensure that local operators and maintenance personnel are fully equipped with the knowledge and skills required to operate and maintain the equipment efficiently and safely. Our training covers system functionality, troubleshooting, routine maintenance, and safety protocols, enabling a smooth handover and long-term operational success.



九、Industry Case Studies (Ctr+Click To Check The Video)

9.1 Automotive Industry / Truck Base Welding



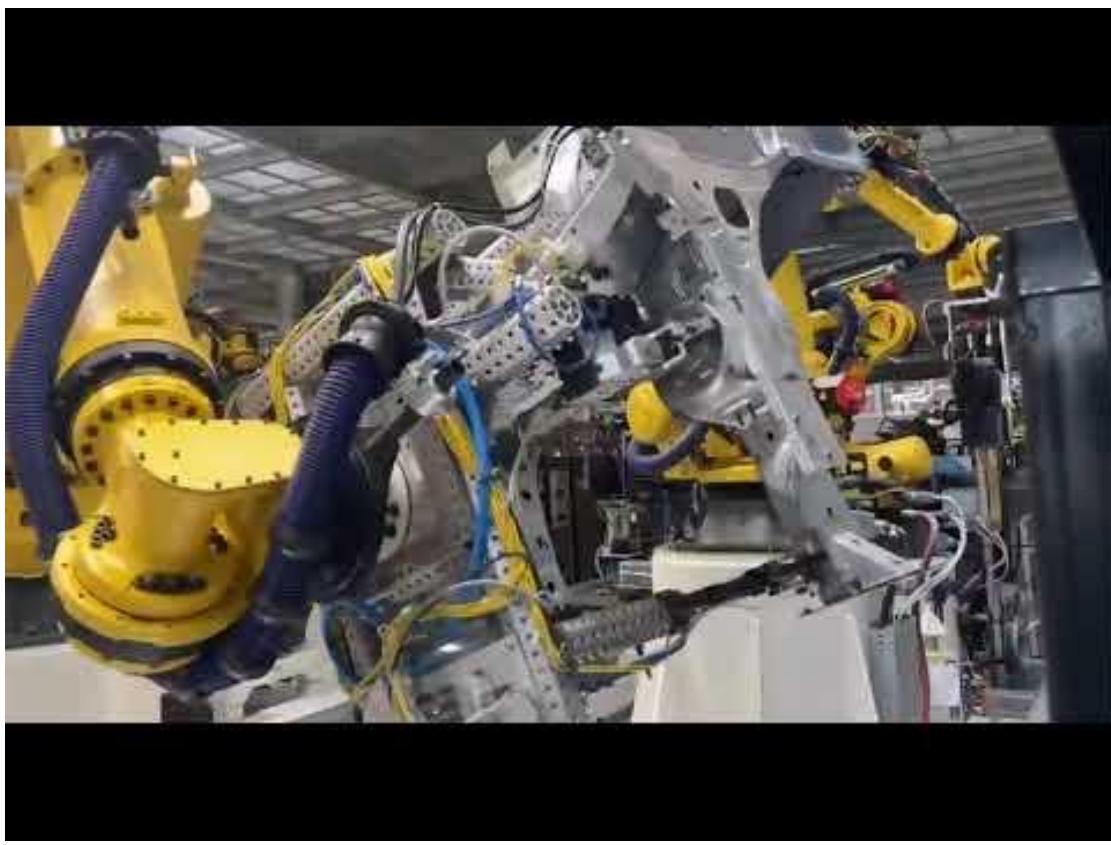
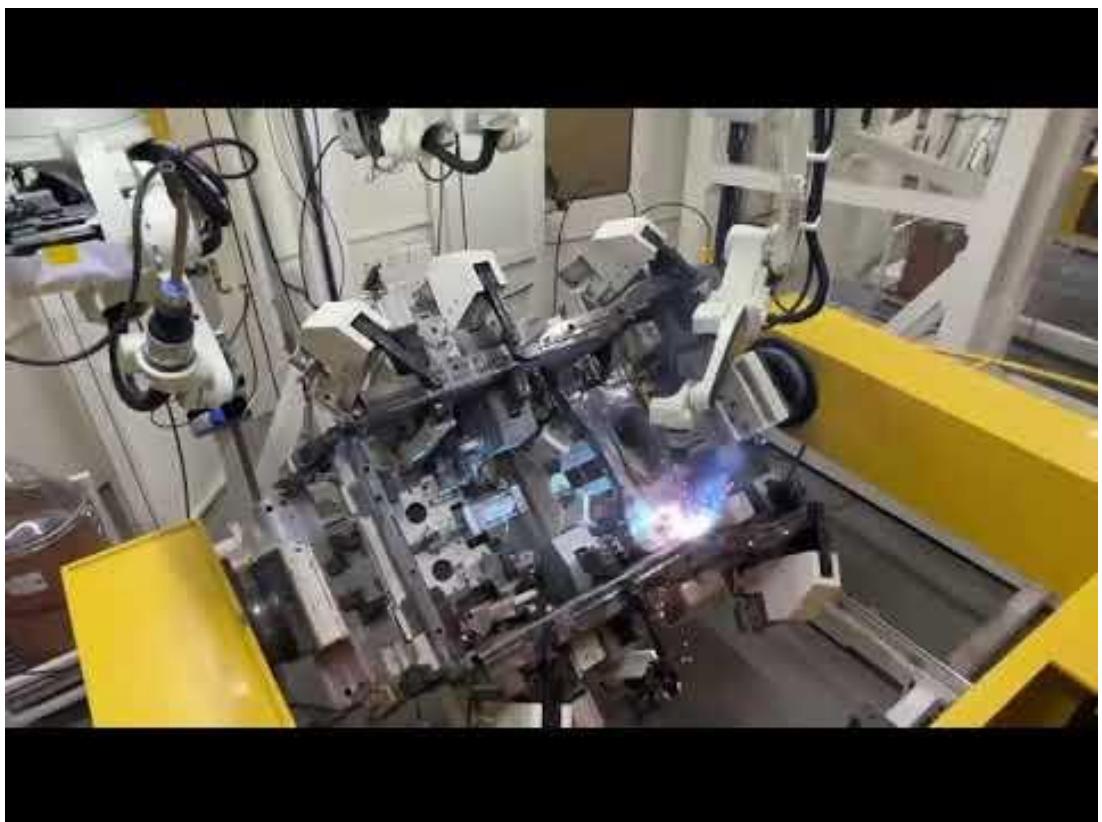
The differential automatic assembly line is a fully automated, flexible production system equipped with six-axis robots and both 2D and 3D vision systems. It enables high-precision shaft-to-hole assembly with minimal clearance and supports multiple specifications, allowing for the efficient and flexible assembly of heavy truck differentials.

9.2 Automotive Industry / Ev Vehicle Battery Production Line

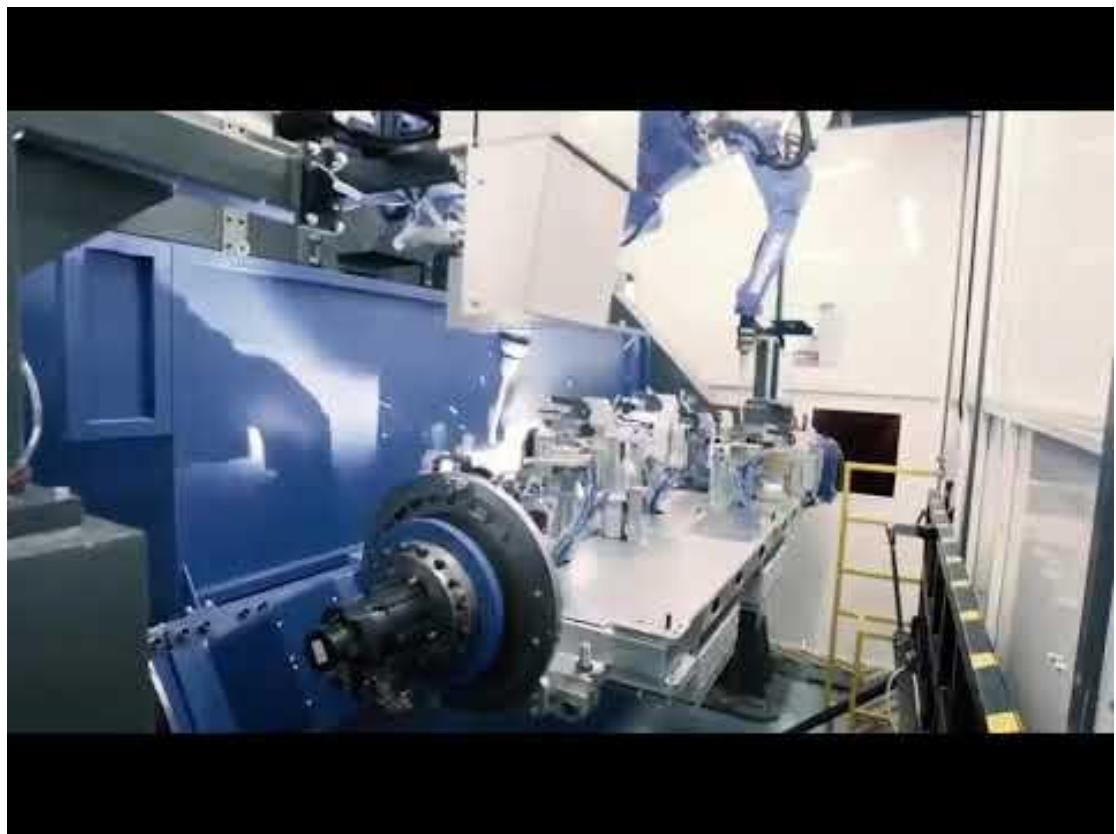
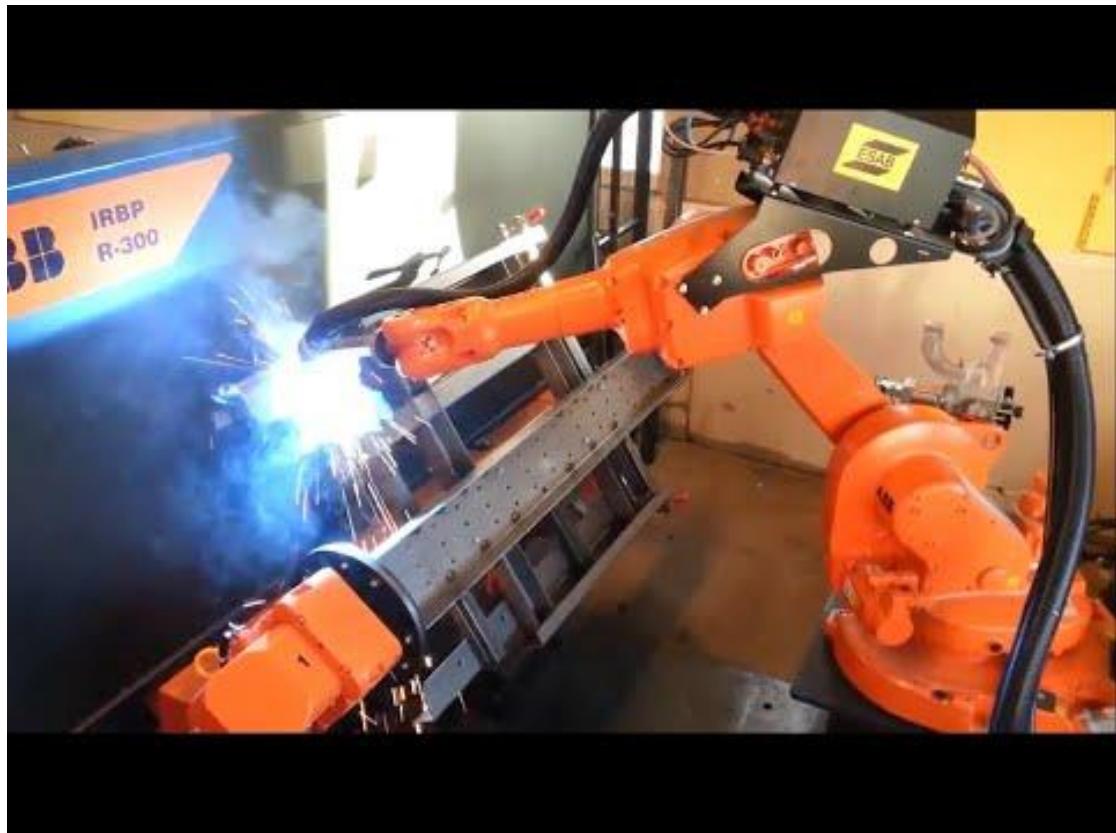


9.3 Automotive Industry For BIW Welding





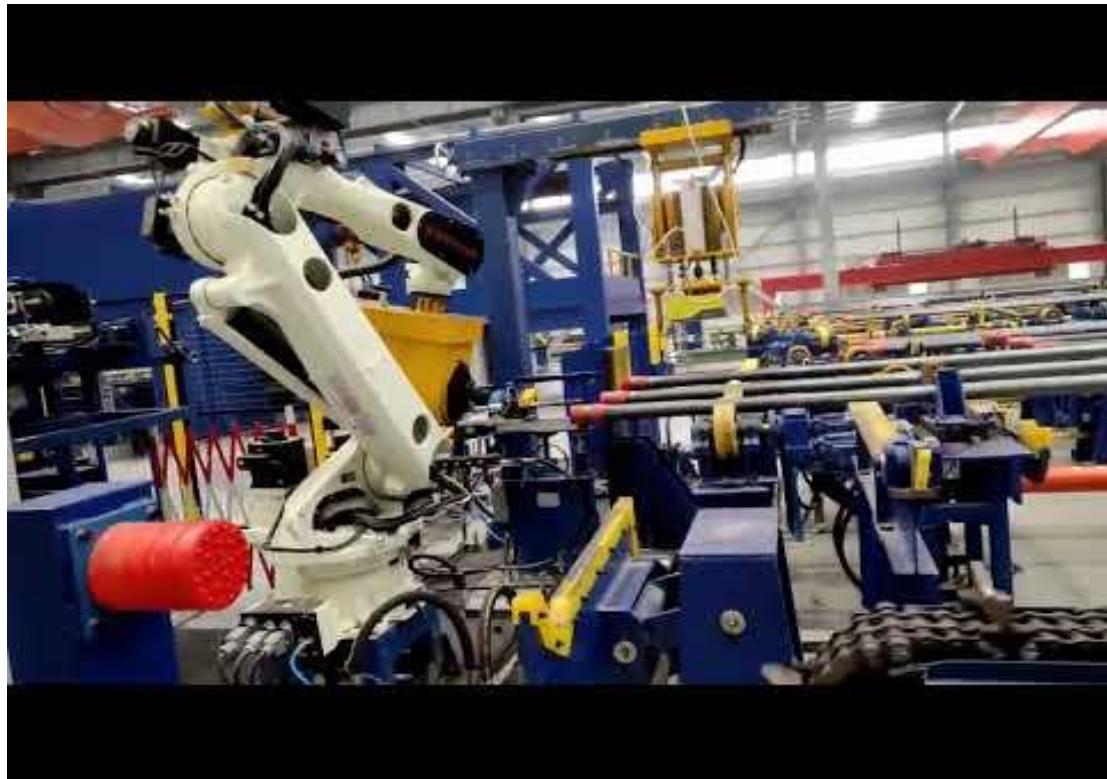
9.4 Metal Working Industry / Automatic Welding



9.5 Construction Steel Industry / Construction Steel Welding



9.6 Pipe Production Industry / Automatic Coupling Starter system



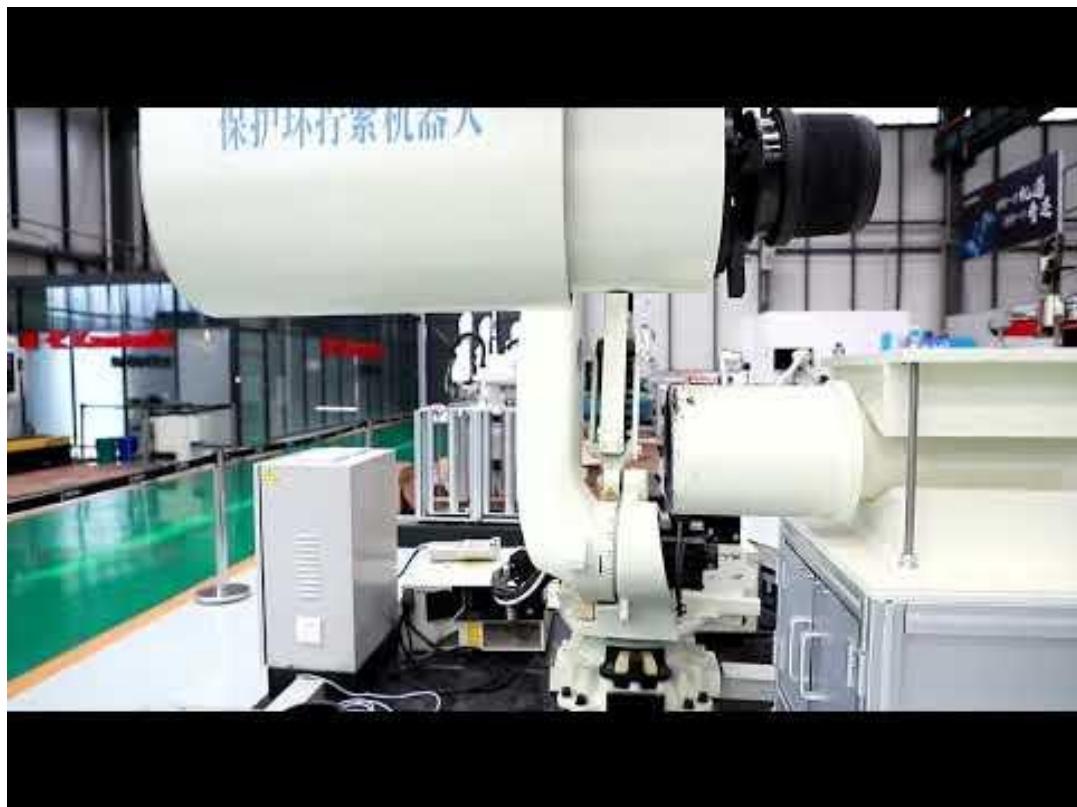
9.7 Pipe Production Industry / Coupling Handling System



9.8 Pipe Production Industry / Coupling Loading and Unloading System



9.9 Pipe Production Industry / Coupling Pre-Crewing on System



9.10 Pipe Production Industry / Robotic Protector Application System



9.11 Metallurgical Industry / Steel Coil Band Removal System



9.12 Metallurgical Industry / Hot Billet Labeling System



9.13 Metallurgical Industry / Rebar Label Welding System



9.14 Metallurgical Industry / Steel Coil Labeling System



9.15 Metallurgical Industry /pipe Code Spraying System



十、Contact US



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