

INDUSTRY OVERVIEW

OVERVIEW OF INDUSTRIAL ROBOTIC SOLUTIONS MARKET IN CHINESE MAINLAND

Automated manufacturing equipment refers to equipment integrated with software featuring data collection, data analysis, data feedback automated manufacturing equipment, execution and control functions. Compared with traditional equipment, features higher levels of digitization and automation via embedded software rather than relying on mechanics or manual intervention. Automated manufacturing equipment is widely used across various industries with high demands for manufacturing precision, efficiency, and production flexibility, such as new energy, automotive manufacturing, and consumer electronics. In 2025, the market size of automated manufacturing equipment market in Chinese Mainland has reached RMB1,197.7 billion. Specifically, industrial robotic solutions market, injection molding equipment market, CNC machining center market, and intelligent energy and environmental management system market accounted for 7.7%, 3.3%, 10.9%, and 2.2% of the market, respectively. Other categories primarily included core industrial control components, automated warehousing and logistics systems, and various types of custom automated assembly and inspection equipment. As the industrial manufacturing sector undergoes a transition toward full-line intelligent upgrades, industrial robots, injection molding equipment, and CNC machining centers — as highly versatile and integrated production units — are being deeply embedded into various complex automated production systems. Looking ahead, the market size is projected to expand to 2,427.3 billion, with a CAGR of 15.2% from 2025 to 2030. Categorized by different product types, automated manufacturing equipment primarily includes core automation devices such as industrial robots, injection molding machines, and CNC machining centers.

Among various types of automated manufacturing equipment, industrial robots serve as one of the representative automated manufacturing equipment products characterized by high technological integration and widespread application. An industrial robot is an automatically controlled, reprogrammable multipurpose manipulator, programmable in three or more axis, which can be either fixed in place or fixed to a mobile platform for use in automation applications in an industrial environment. Industrial robots possess a high degree of flexibility and programmability, enabling them to handle more complex, variable, and non-standardized production tasks. Industrial robotic solutions refer to automated production systems comprising industrial robot and automation systems, such as intelligent control systems and ancillary equipment. They are designed to minimize manual intervention and improve production efficiency and automation levels in specific industrial application scenarios. Industrial robotic solutions cover hardware, software and system integration services, and can be customized according to the process requirements of different industries.

Based on different motion coordinate systems and structural types, industrial robots can be classified into Cartesian robots, 4-axis robots (SCARA robots), 6-axis robots, and others.

- **Cartesian robot:** manipulator which has three prismatic joints, whose axes form a Cartesian coordinate system. Cartesian robots primarily consist of linear motion units, drive motors, control systems, and end effectors.
- **4-axis robot (SCARA robot):** manipulator which has two parallel rotary joints to provide compliance in a selected plane. 4-axis robot can move freely in the horizontal plane and move up and down in the vertical plane or rotate around its own axis.
- **6-axis robot:** manipulator which has six rotational joints (degrees of freedom), mimicking a human arm to offer maximum flexibility for complex tasks like welding, assembly, and palletizing.

Comparative Analysis of Industrial Robots by Structural Type

	Cartesian robot	4-axis robot	6-axis robot
<i>Degrees of freedom</i>	Medium	Relatively High	High
<i>Precision</i>	Extremely High	High	High
<i>Compatibility</i>	Suitable for tasks involving simple linear or vertical paths, as well as movement within a two-dimensional plane	Suitable for assembly line operations on a two-dimensional horizontal plane	Capable of handling complex curved surfaces and adapting to the flexible requirements of diverse working conditions

Source: Frost & Sullivan

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Based on payload capacity, industrial robots can be typically classified into light-payload, medium-payload, and heavy-payload industrial robots. Light-payload industrial robots refer to those with a load capacity of less than 10 kilograms. Light-payload industrial robots typically feature lightweight design, high operating speed, and high repeat positioning accuracy. They are primarily used in industries including consumer electronics and plastics and chemical industries. Medium-payload industrial robots refer to those with a load capacity ranging from 10 kilograms to 100 kilograms. Medium-payload industrial robots are mainly used in industries including food, metal and machinery. Heavy-payload industrial robots refer to those with a load capacity exceeding 100 kilograms. They are predominantly used in industries with high load-bearing requirements, for instance, automotive vehicle manufacturing and lithium battery production.

Comparative Analysis of Industrial Robots by Payload

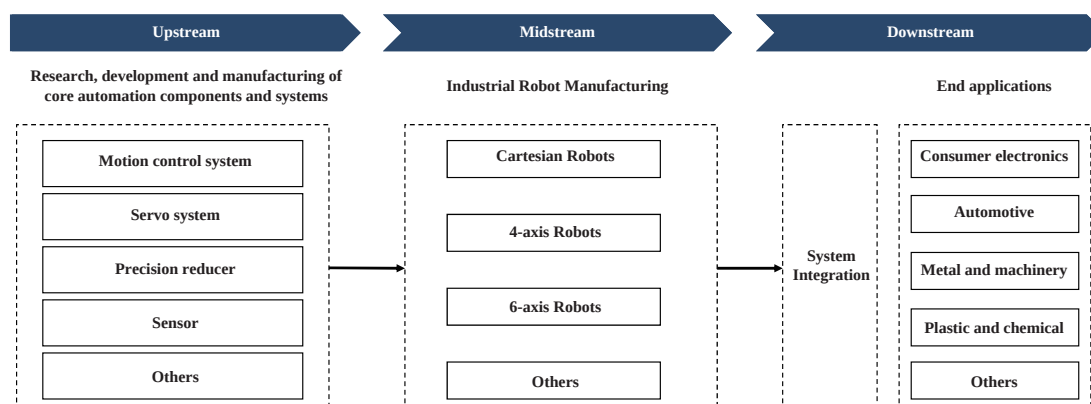
	Light-payload type	Medium-payload type	Heavy-payload type
Core Features	High precision, high degree of flexibility	Balanced load capacity and precision	High load capacity, large working range
Deployment Flexibility	High, with multiple deployment options	Medium, capable of deployment on the ground and in orbit	Low, difficult to move or relocate
Typical Application Scenarios	Consumer electronics, plastics and chemical	Metal and machinery, food	Automotive, lithium battery

Source: Frost & Sullivan

Value Chain Analysis of Industrial Robotic Solutions Market in Chinese Mainland

The upstream of the industrial robotic solution industry involves the research, development and manufacturing of core automation components and motion control systems, such as motion control systems, servo systems, precision reducers, and sensors. The midstream focuses on the production of industrial robots, which include various types such as Cartesian robots, 4-axis robots, 6-axis robots and others. Industrial robotic solutions are deployed across diverse industries, including consumer electronics, automotive, metal and machinery, plastic and chemical, and others.

Value Chain of Industrial Robotic Solutions Market



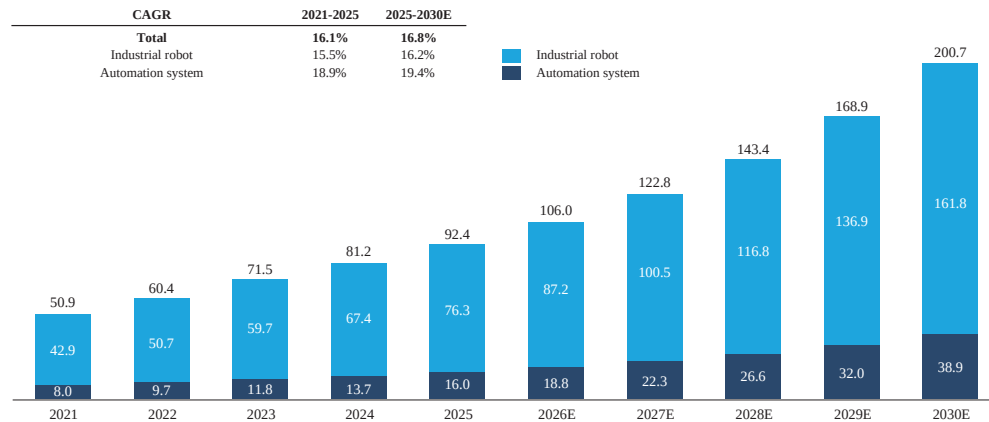
Source: Frost & Sullivan

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Market Size of Industrial Robotic Solutions Market in Chinese Mainland

The market size of industrial robotic solutions market in Chinese Mainland has increased from RMB50.9 billion in 2021 to RMB92.4 billion in 2025, achieving a CAGR of 16.1% from 2021 to 2025. Looking ahead, the market size is projected to further expand to RMB200.7 billion by 2030, with a CAGR of 16.8% from 2025 to 2030.

Market Size of Industrial Robotic Solutions Market in Chinese Mainland, in terms of Revenue (RMB billion, 2021-2030E)



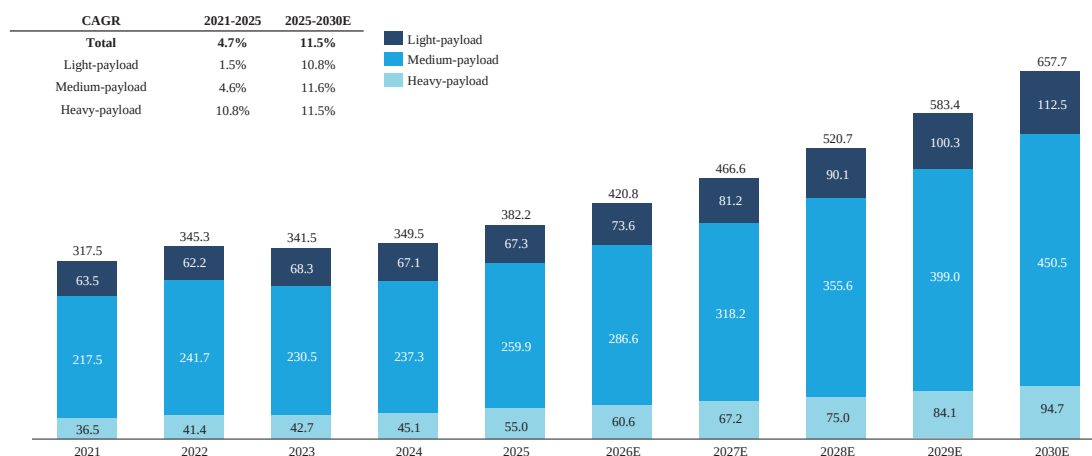
Source: Frost & Sullivan

Note: The measurement scope for the market size of industrial robotic solutions in Chinese Mainland encompasses both the sales revenue of industrial robot products in Chinese Mainland and the revenue from system integration related to industrial robots. The industrial robot products include both general-purpose industrial robot products, such as 4-axis robots (SCARA robots), 6-axis robots, and parallel robots, as well as specialized industrial robot products for specific industry sectors, such as Cartesian robots.

The shipment volume of industrial robots in Chinese Mainland increased from 317.5 thousand in 2021 to 382.2 thousand in 2025, achieving a CAGR of 4.7% from 2021 to 2025. Looking ahead, the shipment volume of industrial robots in Chinese Mainland is projected to further grow to 657.7 thousand by 2030, with a CAGR of 11.5% from 2025 to 2030.

In 2025, the shipment volume for light-payload, medium-payload, and heavy-payload industrial robots in Chinese Mainland were 67.3 thousand, 259.9 thousand and 55.0 thousand, respectively. Their CAGRs from 2021 to 2025 were 1.5%, 4.6%, and 10.8% respectively. The projected shipment volume for 2030 are expected to reach 112.5 thousand, 450.5 thousand and 94.7 thousand, respectively, with CAGRs from 2025 to 2030 expected to be 10.8%, 11.6%, and 11.5%, respectively.

Shipment Volume of Industrial Robots in Chinese Mainland, Categorized by Payload (Thousand, 2021-2030E)



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Source: Frost & Sullivan

Note: The measurement scope for the shipment volume of industrial robots in Chinese Mainland encompasses both general-purpose industrial robot products, such as 4-axis robots (SCARA robots), 6-axis robots, and parallel robots, as well as specialized industrial robot products for specific industry sectors, such as Cartesian robots.

Market Drivers of Industrial Robotic Solutions Market in Chinese Mainland

- **Rising labor costs:** The accelerating trend of population aging in Chinese Mainland has led to a decline in the working-age population. This demographic pressure compels enterprises to accelerate industrial upgrading. Industrial robotic solutions are able to execute repetitive, high-precision tasks uninterruptedly, boosting efficiency, shortening production cycles, and ensuring consistent quality. This directly addresses rising labor costs, recruitment issues, and manual errors, enabling high-quality mass production while optimizing labor structures.
- **Advancement and innovation of embodied AI technology:** The integration of embodied AI technology into industrial robotic solutions makes them more intelligent, flexible, and efficient, significantly broadening their range of applications and potential uses. This further drives the increasing demand for industrial robotic solutions from manufacturing enterprises. Embodied AI technology enables industrial robots to execute more than just pre-programmed tasks, allowing them to even understand and execute more complex instructions to a certain extent. Continued advancements in embodied AI technology will drive further expansion of the industrial robotic solutions market.

Development Trends of Industrial Robotic Solutions Market in Chinese Mainland

- **Vertical integration throughout the value chain:** Facing intensified competition and growing customer demands for customization, efficiency, and cost control, industrial robotic solution providers are pursuing vertical integration across the value chain. This involves actively expanding into upstream operations by internally conducting research, and production of core automation components. Concurrently, they are enhancing downstream system integration capabilities, offering in depth, differentiated customized services. This comprehensive vertical integration enables providers to deliver more cost-effective and technically advantageous industrial robotic solutions.
- **Global deployment:** Industrial robotic solution providers are establishing global production facilities, supply chains, and strengthening service, R&D, and delivery capabilities worldwide. By leveraging regional advantages, they aim to enhance operational efficiency and expand market share. Driven by a maturing domestic market and accumulated expertise, industrial robotic solution providers in Chinese Mainland are actively expanding overseas, leveraging their validated technologies and cost advantages to meet global client needs and gain international market experience to further upgrade their domestic offerings.

Competitive Landscape of Industrial Robotic Solutions Market in Chinese Mainland

The competitive landscape of industrial robotic solutions market in Chinese Mainland is intensely competitive and relatively fragmented. In terms of revenue of industrial robotic solutions in 2025, our Company ranked tenth among all players in Chinese Mainland, and ranked fourth among domestic providers in the industrial robotic solutions market in Chinese Mainland, with a market share of 0.7%.

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Ranking of Top Ten Industrial Robotic Solution Providers in Chinese Mainland, in terms of Revenue in 2025

Ranking	Providers	Revenue (RMB billion)	Market Share (%)
1	Company H	6.4	7.0%
2	Company I	5.2	5.7%
3	Company F	4.0	4.3%
4	Company J	3.6	3.8%
5	Company K	2.6	2.8%
6	Company A	2.4	2.6%
7	Company B	1.8	1.9%
8	Company D	0.9	1.0%
9	Company L	0.7	0.7%
10	The Company	0.6	0.7%

Source: Public fillings, websites of market players, expert interview, Frost & Sullivan

Notes:

- (1) Company A is a public company founded in 1993 and listed on the Shenzhen Stock Exchange, headquartered in Nanjing China, committed to providing core automation components and industrial robots.
- (2) Company B is a public company founded in 2003 and listed on the Shenzhen Stock Exchange, headquartered in Shenzhen, China, committed to providing frequency converter, servo system, industrial robot, industrial vision and other industrial automation products and solutions.
- (3) Company H is a public company founded in 1972 and listed on the Tokyo Stock Exchange, headquartered in Japan. It focuses on the research, development and manufacture of CNC systems, industrial robots and other industrial automation equipment.
- (4) Company D is a public company founded in 2007 and listed on the Shanghai Stock Exchange, headquartered in Anhui, China, committed to providing research and development, production and sales business of core components, industrial robots and system integration.
- (5) Company I is a public company founded in 1898 and listed on the Frankfurt Stock Exchange, headquartered in Germany. It is a wholly-owned subsidiary of a technology group and is committed to developing and producing industrial robots and helping corporate customers to realize factory automation.
- (6) Company F is a public company founded in 1988 and listed on the SIX Swiss Exchange, Stockholm Stock Exchange, New York Stock Exchange, London Stock Exchange and Frankfurt Stock Exchange, headquartered in Switzerland, committed to providing products and services related to electrification and automation.
- (7) Company J is a public company founded in 1915 and listed on the Tokyo Stock Exchange, Osaka Stock Exchange and Fukuoka Stock Exchange, headquartered in Japan. It focuses on development and production of servo motors, inverters, industrial robots and other industrial automation equipment.
- (8) Company K is a public company founded in 1878 and listed on the Tokyo Stock Exchange, headquartered in Japan. It focuses on the production of construction machinery, industrial equipment and marine hydraulic machinery.
- (9) Company L is a public company founded in 1928 and listed on the Tokyo Stock Exchange, headquartered in Tokyo, Japan. It focuses on the research, development and manufacture of cutting tools, bearings, hydraulic equipment, industrial robots, machine tools, and special steels.

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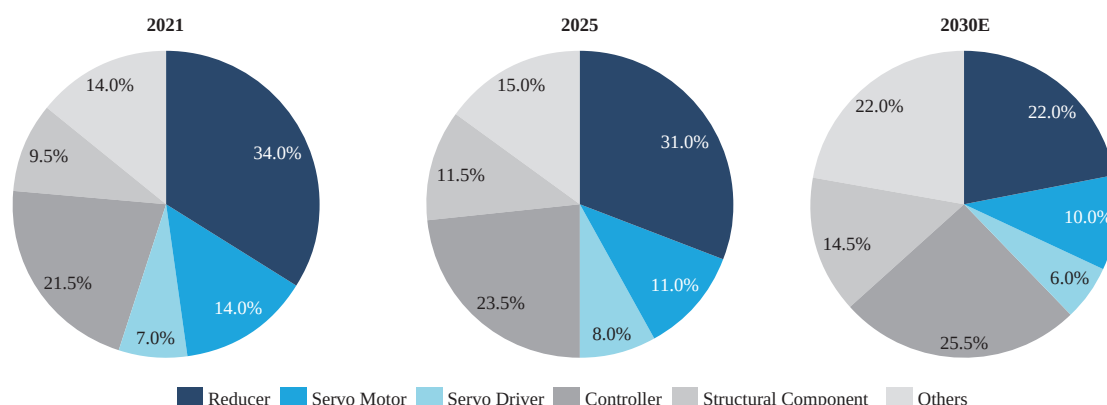
Key Success Factors and Entry Barriers of Industrial Robotic Solutions Market in Chinese Mainland

- Technological innovation:** The industrial robotic solutions market is characterized by its highly technology-intensive nature and significant technical barriers. The development of industrial robotic solutions requires extensive experience and technological accumulations. Moreover, downstream customer demands that manufacturers possess extensive cross-sector experience and a deep understanding of customer-specific processing technologies to address diverse and highly specialized needs.
- Customer resource:** Downstream manufacturing enterprises typically integrate robotic systems into their core production lines, imposing strict requirements on equipment stability, reliability, and after-sales service response times. Customers tend to favor suppliers with a wealth of application cases and a foundation of long-term cooperation. New entrants struggle to establish a comprehensive customer service network and a track record of successful applications in the short term, lacking the foundation to build customer trust.
- Brand recognition:** The industry reputation of solution providers is an essential consideration in long-term supplier selection. A strong brand signifies product reliability, technological innovation, quality assurance, robust technical support, and strict adherence to industry standards. For new entrants, overcoming the dominance of established brands and building recognition and trust requires a prolonged period of sustained effort.

Cost Analysis of Industrial Robots

The cost structure of industrial robot components is shifting as mechanical parts gradually decline in cost while intelligent components account for a growing share of total value. In 2021, reducers and servo systems together represented a large portion of costs, reflecting reliance on imported components and high technical barriers. By 2025, domestic substitution and scale effects had reduced the cost share of key mechanical components, while lightweight design requirements increased the share of structural parts. Looking ahead to 2030, further modularization and manufacturing optimization are expected to lower mechanical component costs, while controllers and advanced structural components will account for a higher share, reflecting continued progress in intelligence, sensing, and materials technologies.

Cost Analysis of Industrial Robots, 2021, 2025, 2030E



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OVERVIEW OF EMBODIED AI ROBOT MARKET IN CHINESE MAINLAND

Embodied AI robots refer to robotic entities with physical bodies that are integrated with artificial intelligence (AI), allowing them to perceive, learn, and dynamically interact with their physical environment in a manner similar to humans. This integration enables the robots to exhibit intelligent and adaptive behaviors. Unlike traditional AI robots, which primarily processes data, performs inference, and makes decisions within the digital world (such as computer vision software, conversational AI), embodied AI robots emphasize the interaction between AI and the real, physical world. The robotic body allows the AI to perceive its surroundings through various senses (such as vision, tactility, sound, and force), understand problems, make decisions, and take actions.

Core Distinction Between Embodied AI Robots and Industrial Robots

Industrial robots are designed to perform precise, repetitive, pre-programed tasks in closed, structured environments. In contrast, an embodied AI robot is an intelligent agent that integrates an AI-based decision-making system with a robotic body, enabling it to autonomously perceive, understand, learn, make decisions, and act in open, dynamic environments. The core differences between embodied AI robots and industrial robots are as follows:

Comparative Analysis of Embodied AI Robots and Industrial Robots

	Embodied AI Robot	Industrial Robot
<i>Interaction with the Physical World</i>	<ul style="list-style-type: none">Actively and dynamically interacts with the environment, using its body as a medium to acquire information and learn	<ul style="list-style-type: none">Perception capabilities are typically limited and interactions with the environment are mostly passive
<i>Programming and Deployment</i>	<ul style="list-style-type: none">Can learn and be deployed through natural language instructions	<ul style="list-style-type: none">Deployment and programming require complex programming or coding by robotics engineers
<i>Learning Mechanism</i>	<ul style="list-style-type: none">Adopts a data-driven learning paradigm, integrating various AI technologies	<ul style="list-style-type: none">Primarily relies on control algorithms and interpreted code, with a relatively simple or limited learning mechanism
<i>Generalization and Task Versatility</i>	<ul style="list-style-type: none">Aims for general intelligence, capable of learning and performing various tasks, and can transfer knowledge between different tasks and environments	<ul style="list-style-type: none">Usually specialized tools designed for specific tasks and scenarios, lacking the ability to generalize across different tasks or scenarios

Source: Frost & Sullivan

Market Size of Global Embodied AI Robot Market

With the deep integration of large models and embodied AI technology, and breakthroughs in core technologies, the perception, decision-making, and execution capabilities of embodied AI robots have been significantly enhanced. The embodied AI market is gradually moving towards a stage of large-scale commercial application. The global market size for embodied AI robots is projected to increase from RMB94.9 billion in 2025 to RMB408.4 billion in 2030, representing a CAGR of 33.9% from 2025 to 2030. In particular, the embodied AI robot market in Chinese Mainland is expected to reach RMB151.1 billion by 2030, accounting for 37.0% of the global market, with a CAGR of 34.5% from 2025 to 2030.

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Market Drivers and Development Trends of Embodied AI Robot Market in Chinese Mainland

- **Application and development of large model technology.** The application of large model technology has driven breakthroughs in cross-modal perception and reasoning for embodied AI robots. This enables embodied AI robots to process multi-modal input information including text and images, thereby understanding complex instructions and autonomously reasoning and planning task execution strategies.
- **Rapid expansion of applications from industrial into multiple fields.** The application scenarios for embodied AI robots are rapidly expanding from traditional, structured industrial settings into broader, unstructured application domains. The continuous expansion of application scenarios provides enormous new market space for embodied AI robots, driving the sustained growth of the overall market size.

OVERVIEW OF INJECTION MOLDING EQUIPMENT MARKET IN CHINESE MAINLAND

An injection molding machine is a manufacturing device that produces plastic parts of various shapes by injecting thermoplastic or thermosetting plastics into plastic molds. Injection molding machines have the capability to produce a vast range of high-quality, complex plastic parts with precision and efficiency. Based on different drive methods, injection molding machines can be classified into hydraulic injection molding machines and electric injection molding machines.

Comparative Analysis of Injection Molding Machines by Drive Type

	Hydraulic Injection Molding Machine	Electric Injection Molding Machine
<i>Drive Type</i>	Hydraulic pump	Servo motor
<i>Energy Consumption</i>	High	Moderate to low
<i>Operation Speed & Control Precision</i>	Medium	High
<i>Cleanliness</i>	Low, with risk of oil leakage	High, free of oil contamination
<i>Applications</i>	General plastic products, daily necessities, and consumer goods	Medical consumables, precision components and other products

Source: Frost & Sullivan

Injection molding equipment refers to an automated, integrated production system encompassing the injection molding machine, auxiliary equipment, as well as automated systems for material feeding, water, electricity, and gas. It is designed to provide enterprise customers with a one-stop, customized, and complete automated injection molding production lines. Specifically, auxiliary equipment refers to various devices that work in coordination with the injection molding machine to assist in the production of plastic products, mainly including dehumidifiers, dryers, material loaders, mold temperature controllers, industrial chillers, and others.

Market Size of Injection Molding Equipment Market in Chinese Mainland

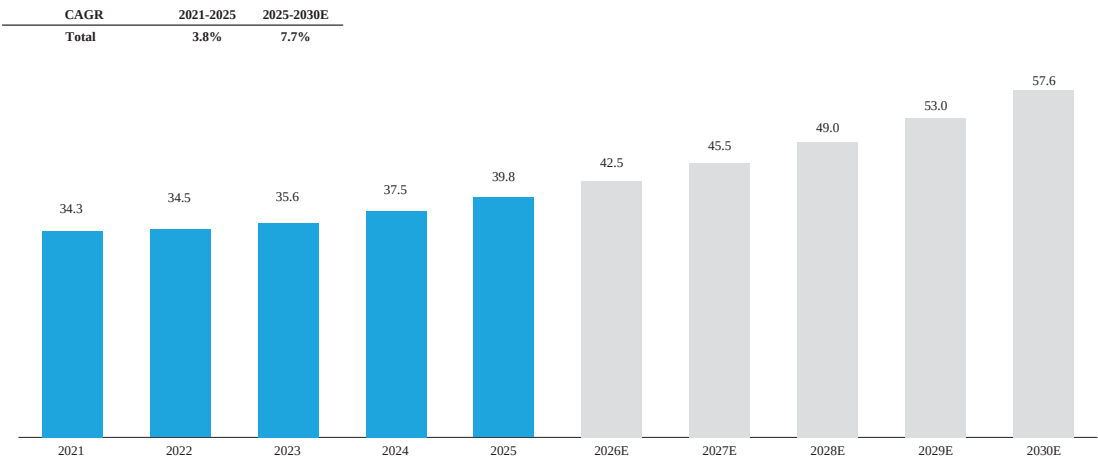
Expanding applications for plastic products and sustained growth in output volume provide continuous momentum for the development of injection molding equipments. The market size of the injection molding equipment market in Chinese Mainland grew from RMB34.3 billion in 2021 to RMB39.8 billion in 2025, achieving a CAGR of 3.8% from 2021 to 2025. The market size of the injection molding equipment market in Chinese Mainland is

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further projected to increase to RMB57.6 billion by 2030, with a CAGR of 7.7% from 2025 to 2030, as the penetration rate of electric injection molding machines continues to increase.

Injection molding machines and auxiliary equipment are the core components of injection molding equipment. The injection molding machine is the key equipment for plastic product molding, serving as the primary host machine responsible for plastic melting, injection, and shaping. Auxiliary equipment, on the other hand, comprises essential supporting devices that work in coordination with the injection molding machine to ensure stable production. In 2025, the shipment volume of injection molding machines and auxiliary equipment in Chinese Mainland has reached 97 thousand and 331 thousand, respectively.

Market Size of Injection Molding Equipment Market in Chinese Mainland, in terms of Revenue (RMB billion, 2021-2030E)



Source: Frost & Sullivan

Market Drivers and Development Trends of Injection Molding Equipment Market in Chinese Mainland

- **Increased penetration rate of electric injection molding machines:** As manufacturing enterprises continuously raise their requirements for product quality, energy efficiency, and environmental cleanliness, electric injection molding machines are accelerating the replacement of hydraulic injection molding machines. With the widespread adoption of high-precision components and the further reduction in the manufacturing costs of electric injection molding machines, the market size of electric injection molding machines are expected to continue expanding in the future.
- **Continued expansion of overseas business:** The accelerated development of manufacturing industries in emerging markets such as Southeast Asia and the Middle East has driven these regions to take on an increasing number of manufacturing relocation projects in sectors like automotive components, home appliances, and consumer electronics. This has led to a sustained rise in demand for injection molding equipments in emerging markets, providing broad growth opportunities for the injection molding equipment market. Concurrently, as the technical capabilities of domestic injection molding equipment suppliers continue to improve, the products and services offered by an increasing number of manufacturers have gradually reached international standards, and they are actively expanding their overseas operations. The ongoing expansion of overseas business provides injection molding equipment suppliers with greater market space and a significant enhancement in international competitiveness.

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Competitive Landscape of Injection Molding Equipment Market in Chinese Mainland

The injection molding equipment market in Chinese Mainland is highly competitive and the competitive landscape is relatively fragmented. There were over 2,000 injection molding equipment providers in Chinese Mainland in 2025. In terms of the revenue in 2025, our Company ranked ninth in the injection molding equipment market in Chinese Mainland, with a market share of 1.3%. In terms of the revenue of auxiliary equipment in 2025, our Company ranked first in the injection molding equipment market in Chinese Mainland.

Cost Analysis of Injection Molding Machine

Main raw material and components of injection molding machine include controllers, electrical component, drive system, structural component and other core automation components. Structural components dominated the cost structure with a 50%-60% share. Drive system with high technical components accounted for 20%-30% of total cost. Electrical components and controller separately accounted for 10%-15% of the total cost. In the future, As domestically produced electric injection molding machines increasingly become the mainstream, the proportion attributable to the electronics components will gradually decline; however, the overall share of total cost is not expected to change significantly.

OVERVIEW OF CNC MACHINING CENTER MARKET IN CHINESE MAINLAND

CNC (Computer Numerical Control) machining center refers to automated machine tool equipped with a program control system. By logically processing pre-programmed instructions, CNC machining tools can automatically and precisely perform various processes such as cutting, milling, boring, grinding, drilling, and shearing on complex-shaped metal parts and other materials. Based on different levels of technical sophistication, CNC machining centers can be classified into 5-axis linkage CNC machining centers and non-5-axis linkage CNC machining centers.

Comparative Analysis of by technical sophistication

	5-axis Linkage CNC Machining Center	Non-5-axis Linkage CNC Machining Centers
Multi-axis simultaneous control	5-axis simultaneous control	2/3-axis simultaneous control
Feed rate (m/min)	24-100	8-24
Central Processing Unit	32-bit or 64-bit	8-bit or 32-bit
Intelligent functions	Equipped with intelligent features such as smart perception, adaptive control, and precision self-calibration.	Has fewer intelligent features; a limited number may be equipped with basic intelligent functions like tool breakage detection and spindle thermal compensation.
Number of setups	Single setup	Multiple setup
Machining efficiency	High, process simplification	Medium, Short process cycle, Extensive manual intervention
Machining quality	High	Medium
Process requirements	Reduced polishing needs and EDM process	Certain features still need EDM as a supplementary process

Source: Frost & Sullivan

Market Size of CNC Machining Center Market in Chinese Mainland

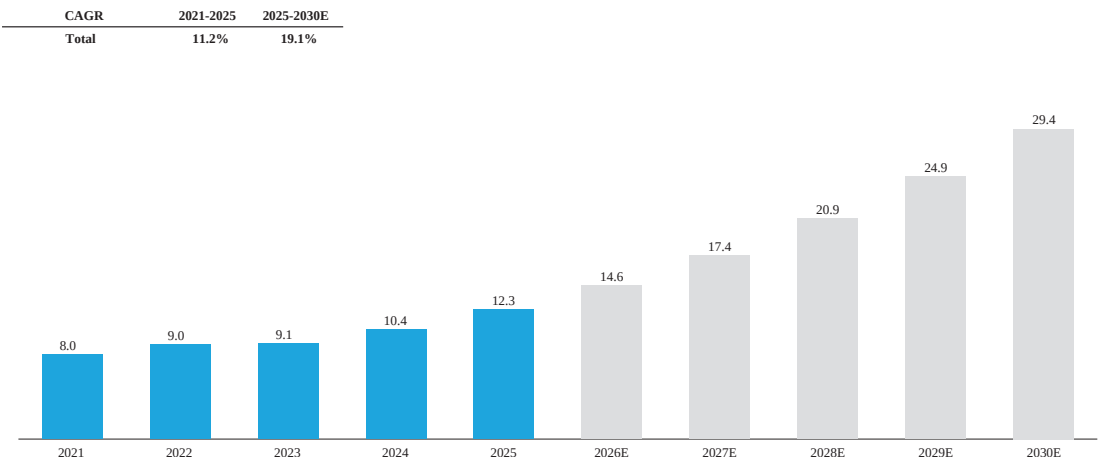
Benefiting from rising demand from downstream enterprises and the continuous improvement of technological capabilities among domestic manufacturers, the CNC machining center industry in Chinese Mainland has experienced steady market expansion. The market size for CNC machining centers in Chinese Mainland has increased from RMB122.3 billion in 2021 to RMB130.3 billion in 2025, and is expected to further increase to RMB177.6 billion by 2030.

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In recent years, 5-axis linkage CNC machining centers have seen increasingly widespread application across various sectors. Due to their high efficiency and accuracy advantages in machining complex curved surfaces and irregular structural components, 5-axis linkage CNC machining centers have become critical equipment for process breakthroughs in high-end manufacturing enterprises, such as those in aerospace and automotive precision manufacturing.

The market size of 5-axis linkage CNC machining centers in Chinese Mainland increased from RMB8.0 billion in 2021 to RMB12.3 billion in 2025, with a CAGR of 11.2% from 2021 to 2025. The proportion of 5-axis linkage CNC machining centers within the overall CNC machining center market in Chinese Mainland has increased from 6.6% in 2021 to 9.4% in 2025. Looking ahead, as demand for 5-axis CNC machine tools continues to grow in high-end sectors such as embodied AI robots, the market size of 5-axis linkage CNC machining centers market in Chinese Mainland is expected to further expand to RMB29.4 billion by 2030, accounting for 16.5% of the total CNC machining center market, with a CAGR of 19.1% from 2025 to 2030.

Market Size of 5-axis Linkage CNC Machining Center Market in Chinese Mainland, in terms of Revenue (RMB billion, 2021-2030E)



Source: Frost & Sullivan

Market Drivers and Development Trends of CNC Machining Center Market in Chinese Mainland

- **Rising demand from high-end manufacturing enterprises:** With the rapid development of Chinese Mainland’s high-end manufacturing sectors, enterprise customers in these downstream industries have exhibited continuously growing demand for the processing of precise and complex components. To meet the challenges of high-flexibility manufacturing posed by complex surface forming and rapid product iteration, high-end manufacturing enterprises are increasingly procuring high-performance CNC equipment. This drives the expansion of the overall CNC machining center market and significantly propels the structural upgrade of Chinese Mainland’s CNC machining center industry towards a greater focus on high-end products like 5-axis linkage CNC machining centers.
- **Enhanced capabilities in independent R&D of core functional components:** In recent years, domestic CNC machining center suppliers have gradually achieved breakthroughs in the technological research and development of core functional components. The independent R&D of core technologies related to CNC machining centers helps domestic manufacturers reduce production costs and improve product cost-effectiveness. The improvement in independent R&D capabilities for core functional components has effectively strengthened the market competitiveness of domestic high-end CNC machining center manufacturers.

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Competitive Landscape of CNC Machining Center Market in Chinese Mainland

The CNC machining center market in Chinese Mainland is highly competitive and the competitive landscape is relatively fragmented. There were over 2,000 CNC machining center providers in Chinese Mainland in 2025. In terms of revenue of 5-axis linkage CNC machining centers in 2025, our Company ranked ninth among all providers in the CNC machining center market in Chinese Mainland, and ranked seventh among domestic providers in the CNC machining center market in Chinese Mainland, with a market share of 2.6%.

Cost Analysis of CNC Machining Center

The cost structure of CNC machine tools mainly consists of the control system, drive system, transmission system, structural components, and others. Among these, the control system accounts for approximately 30-40%, the drive system accounts for 10-15%, the transmission system accounts for 20-25%, structural components account for 35-40%, and others account for around 5%. Looking ahead, as the localization rate of CNC machine tools continues to increase, the overall price of CNC machine tools is expected to show a stable downward trend. The cost of hardware components may decline slightly; however, as CNC machine tools become increasingly intelligent, the proportion of the control system within the overall cost structure is expected to increase correspondingly.

OVERVIEW OF INTELLIGENT ENERGY AND ENVIRONMENTAL MANAGEMENT SYSTEM MARKET IN CHINESE MAINLAND

Intelligent energy and environmental management systems refer to systems that utilize digital technologies to collect, process, and analyze real-time data on energy and environmental parameters such as water, electricity, and gas, including ventilation and exhaust systems, process piping systems, cleanroom construction, large-scale electromechanical installations and others, aimed at optimizing the manufacturing environment and improving energy utilization efficiency. In 2025, the market size for intelligent energy and environmental management system in Chinese Mainland has reached RMB26.3 billion.

Market Drivers and Development Trends of Intelligent Energy and Environmental Management System Market in Chinese Mainland

- **Growing demand for cost reduction.** Cost reduction and efficiency enhancement have become critical strategies for enterprises’ sustainable development. Intelligent energy and environmental management systems help corporate clients identify abnormal energy consumption in their production processes, enabling them to effectively reduce unnecessary energy expenditures, thus reduce operational costs while ensuring production quality.
- **Technological innovation and advancement.** Advancements and innovations in technologies such as big data and artificial intelligence drive the intelligent upgrade of integrated energy and environmental management systems. In the future, with the continuous advancement of cutting-edge technologies, intelligent energy and environmental management systems will be equipped with enhanced autonomous predictive and decision-making capabilities, further driving the sustained expansion of the intelligent energy and environmental management systems market.

SOURCE OF INFORMATION

We commissioned Frost & Sullivan, an independent global consulting firm that offers industry research and market strategies and provides growth consulting and corporate training to conduct a detailed research on and analysis of the industrial robotic solutions market in Chinese Mainland, the embodied AI robot market in Chinese Mainland, the injection molding equipment market in Chinese Mainland and the intelligent energy and environmental management system market in Chinese Mainland. We have agreed to pay a fee of RMB700,000 to Frost & Sullivan in connection with the preparation of the Frost & Sullivan Report. We have extracted certain information from the Frost & Sullivan Report in this section, as well as in “Summary,” “Business,” “Financial Information,” and elsewhere in

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this document to provide our [REDACTED] with a more comprehensive presentation of the industries where we operate. During the preparation of the Frost & Sullivan Report, Frost & Sullivan performed both primary and secondary research, and obtained knowledge, statistics, information, and industry insights on the industry trends of the target research markets. Primary research involved discussing the status of the market with leading industry participants and industry experts. Secondary research involved reviewing company reports, independent research reports and data based on Frost & Sullivan’s own database. Frost & Sullivan has independently verified the information, but the accuracy of the conclusions of its review largely relies on the accuracy of the information collected. Frost & Sullivan’s research may be affected by the accuracy of assumptions used and the choice of primary and secondary sources.

The Frost & Sullivan Report was compiled based on the following assumptions: (i) the economy of Chinese Mainland and the global economy are likely to maintain steady growth in the near future; and (ii) the social, economic, and political environment of Chinese Mainland and the world is likely to remain stable from 2024 to 2029.

Our Directors confirm that, after making reasonable enquiries, there is no adverse change in the market information since the date of the Frost & Sullivan Report that may qualify, contradict or have a material impact on the information.