
Oct. 2019
STUDY GOAL AND OBJECTIVES
This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

REPORT OBJECTIVES
◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
◆ To complement the organizations’ internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
◆ To help company to succeed in a competitive market, and

METHODOLOGY
Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES
The primary information sources include Company Reports, and National Bureau of Statistics of China etc.
Abstract

China’s AGV industry ushered in explosive growth along with new technologies and new scenarios in recent years, with its AGV sales surging to 29,600 units in 2018 from 1,260 units in 2011, showing a CAGR of up to 57.0%.

In China, AGV navigation technology has been upgraded to the third generation. The first generation technology is magnetic tape guidance, a shrinking market; the second generation technology is QR code, a market that has matured and become saturated; the third generation technology is laser + vision, which has been used and promoted by several companies. Laser + vision technology will be more promising than other AGV guidance technologies in application.

As concerns scenarios, ecommerce warehousing and smart logistics are fields for which capital and manufacturers compete over the years. They are also the moving force of growth during the AGV boom. In 2018, ecommerce and express delivery commanded over 1/3 of AGV market in China, and typical companies included Quicktron, GEEK+, HikRobot and Libiao Robotics.

Comparably, factory scenario where circumstances are complicated and technical barriers remain high, attracts powerful players in capital and technology. Examples include SIASUN Robot & Automation, an automotive AGV leader in China and Kunming Shipbuilding Equipment which sweeps 70-80% shares in tobacco industry. Manufacturing transformation and upgrading, digital factory and more flexible demand in recent years are conducive to AGV expansion. Yet, as digital factory is still a “concept” and factory scenario requires high stability robots, AGV use in the scenario still desires to be verified. By one estimate, it takes about 3 or 5 years to popularize AGV in industrial manufacturing.
In the Chinese AGV market, local companies rule the roost with a combined share of 90% or so. Among them, SIASUN, SCG, Yonegy and Jaten are first-echelon players, with annual shipment of over 1,000 units apiece. As a whole, there is still no one leading the market, so players are in a price war in perfect competition.

The severer competition in logistics/ecommerce AGV market will lead to a reshuffle in the AGV industry; AGV manufacturing market will heat up and soar in the upcoming years. The report forecasts that China’s AGV market will sustain a CAGR of roughly 40% between 2019 and 2025.

Global and China Automated Guided Vehicle (AGV) Industry Report, 2019-2025 highlights the following:

- Global AGV market (size, demand structure, competitive pattern, development in main regions, etc.);
- China AGV market (development history and model, size and concentration, structure by product/region/application, price, financing, competitive pattern by technology/product/company, development trends and forecasts);
- Core components and applied markets of AGV in China;
- 9 global and 20 Chinese AGV companies (operation, AGV products, typical application, etc.).
# Table of contents

1. **Overview**
   1.1 Definition
   1.2 Classification
   1.3 Industry Chain

2. **Global AGV Market**
   2.1 Market Size
   2.2 Demand Structure
      2.2.1 By Application
      2.2.2 By Region
   2.3 Competitive Landscape
      2.3.1 Corporate Competition
      2.3.2 AMR VS AGVs
   2.4 Regional Development
      2.4.1 Japan
      2.4.2 Europe
      2.4.3 United Sates
      2.4.4 India

3. **Chinese AGV Market**
   3.1 Status Quo
      3.1.1 Development History
      3.1.2 Development Features
      3.1.3 Development Mode
   3.2 Market Situation

4. **Upstream and Downstream Industries of AGV**
   4.1 AGV Core Parts
      4.1.1 Development Overview
      4.1.2 Drive Device System
      4.1.3 AGV On-board Control System
      4.1.4 Navigation/Guidance System
      4.1.5 AGV Battery/Energy System

3.2.1 Market Size
3.2.2 Sales Volume
3.2.3 Ownership
3.2.4 Industrial Concentration
3.3 Market Structure
3.3.1 By Navigation Technology
3.3.2 By Product
3.3.3 By Application
3.4 Price
3.5 Competitive Pattern
3.5.1 By Type of Enterprise
3.5.2 Market Shares of Enterprises
3.5.3 M&A
3.6 Fundraising
3.7 Development Trend
3.7.1 Market Trend
3.7.2 Technology Trend
4.1.6 AGV Master Control System
4.2 Downstream Industries of AGV
4.2.1 Automobile Manufacturing
4.2.2 Parking
4.2.3 Power Patrol Inspection
4.2.4 Tobacco Logistics
4.2.5 Heavy Load

5. Major Global AGV Players
5.1 JBT
5.1.1 Profile
5.1.2 Operation
5.1.3 AGV Business
5.1.4 Presence in China
5.2 Daifuku
5.2.1 Profile
5.2.2 Operation
5.2.3 AGV Business
5.2.4 Presence in China
5.3 Dematic
5.3.1 Profile
5.3.2 Operation
5.3.3 AGV Business
5.3.4 Presence in China
5.4 Swisslog
5.4.1 Profile
5.4.2 Operation
5.4.3 AGV Business
5.4.4 Presence in China
5.5 Meidensha
5.5.1 Profile
5.5.2 Operation
5.5.3 AGV Business
5.5.4 Presence in China
5.6 Oceaneering AGV Systems
5.6.1 Profile
5.6.2 Operation
5.6.3 AGV Business
5.7 Grenzebach Corporation
5.7.1 Operation
5.7.2 AGV Business
5.7.3 Presence in China
5.8 Elettric 80
5.8.1 Profile
5.8.2 Operation
5.9 Rocla
5.9.1 Profile
5.9.2 Operation
6. Key Chinese AGV Companies

6.1 Shenyang Siasun Robot & Automation Co., Ltd. (300024)
   6.1.1 Profile
   6.1.2 Operation
   6.1.3 AGV Robot Business
   6.1.4 Development Strategy

6.2 Yunnan KSEC Intelligent Equipment Co., Ltd.
   6.2.1 Profile
   6.2.2 Operation
   6.2.3 Typical Cases

6.3 Machinery Technology Development Co. Ltd.
   6.3.1 Profile
   6.3.2 Operation
   6.3.3 AGV Business

6.4 CSG Smart Science & Technology Co., Ltd.
   6.4.1 Profile
   6.4.2 Operation
   6.4.3 AGV Business

6.5 Guangdong Jaten Robot & Automation Co., Ltd.
   6.5.1 Profile
   6.5.2 Operation
   6.5.3 AGV Business
   6.5.4 Main Cases

6.6 Greek
   6.6.1 Profile

6.7 Quicktron
   6.7.1 Profile
   6.7.2 Operation
   6.7.3 Applied Cases

6.8 Zhejiang LiBiao Robot Co., Ltd.
   6.8.1 Profile

6.9 Hangzhou Hikrobot Technology Co., Ltd.
   6.9.1 Profile
   6.9.2 AGV Business

6.10 Yoney Logistics Automation Technology Co., Ltd.
   6.10.1 Profile
   6.10.2 Operation

6.11 Zhejiang Noblelift Equipment Joint Stock Co., Ltd.
   6.12 Guangzhou Jingyuan Mechano-Electric Equipment Co., Ltd.
   6.13 Shanghai Triowin Automation Machinery Co., Ltd.

6.14 Shenzhen Casun Intelligent Robot Co., Ltd.
   6.15 Guangzhou Sinorobot Technology Co., Ltd.
   6.16 Shenzhen OKAGV Co., Ltd.
   6.17 Guozi Robot
   6.18 CIZON

6.19 Standard Robots
   6.20 Suzhou AGV Robot
Architecture Diagram of AGV
Composition of AGV System
Operating Scene and Communication Mode of AGV
Classification of AGV
Structure of AGV Software
AGV Industry Chain
AGV Production Line VS Traditional Production Line
Global AGV Sales Volume and YoY Growth, 2014-2025E
Global AGV Market Size and YoY Growth, 2014-2025F
Global AGV Market share by Application, 2018
Growth Rate of Global Demand for AGV, 2019-2024E
Financing and M&As of Major Global AGV Companies, 2016-2018
Competition Pattern of AGV Companies Worldwide
World-renowned AGV Companies and Their Fundraising Investments
Global Mobile Robot (AGV & AMR) Sales (by Products), 2017-2018
Global AMR Sales, 2017-2018
Global Mobile Robot (AGV & AMR) Sales Growth Rate (by Regions), 2018
AMR Investment, 2016-2018
AGVS/AGV Sales Volume in Japan, 2012-2018
AGVS Sales Structure in Japan by Category, 2014-2025F
AGV Demand Structure in Japan, 2017-2018
European AGV Market Size, 2017-2023E
American AGV Manufacturers
AGV (by Type) Market Size in India, 2014-2025E
Development History of AGV in China
Selected Charts

- Development Model of Major AGV Producers in China, 2019
- AGV Market Size and YoY Growth in China, 2014-2025E
- AGV Sales Volume and YoY Growth in China, 2011-2019
- AGV Ownership and YoY Growth in China, 2015-2025E
- Concentration Ratio of Chinese AGV Industry, 2018
- AGV Structure in China by Navigation Mode, 2018
- Chinese AGV LiDAR Companies
- Difference between AGV and AGC
- AGV Sales Structure in China by Product, 2015-2025E
- Major Global and Chinese AGC Producers, 2018
- AGV Demand Structure in China by Sector, 2018
- Average Price of AGV in China, 2016-2025
- AGV Price of Major Global and Chinese Producers in China, 2018
- Market Share of Major Global AGV Producers in China, 2017-2018
- Market Share of Major Global AGV Producers in China, 2016
- Financing and M&As of Major AGV Producers in China, 2014-2019
- Financing in Chinese AGV Industry, 2018-2019
- AGV Sales Volume and YoY Growth in China, 2018-2025E
- Application of Trackless Navigation AGV in China
- Development Trends of AGV
- Number of Motors, Drivers and Speed Reducers of Per Unit AGV Drive System by Drive Mode
- New Demand for AGV Motors in China, 2016-2025E
- New Demand for AGV Speed Reducers in China, 2016-2025E
- Composition of Laser Guided AGV On-board Control System
Selected Charts

- New Demand for AGV On-board Controllers in China, 2016-2025E
- Major Chinese Controller Producers, 2018
- Classification of AGV Navigation Modes and Core Components
- New Demand for AGV Laser Scanners in China, 2016-2025E
- Main AGV Obstacle Avoidance Sensors in China
- Major Chinese AGV Sensor Companies, 2018
- Operating Principle of Magnetic Navigation Sensor for AGV System
- Cycles of AGV Batteries
- Contactless Power Supply AGV System
- Supercapacitor Power Supply AGV System
- Batteries as a Percentage of AGV Projects in Europe, 2015
- Structure of AGV Batteries in China by Product, 2015
- Main Charging Methods of AGV Batteries
- Classification of Global AGV Software Systems
- AGV Software Systems Used by Global and Chinese AGV Producers
- China’s Automobile Ownership, 2014-2025E
- China’s Automobile Output and Sales Volume, 2014-2025E
- Features and Configurations of AGV Systems for Car Production Lines
- Density of Use of Car AGVs in Major Countries
- Major Car AGV Producers in China
- Car AGV Sales Volume in China, 2017-2025E
- Global and Chinese AGV Products for Parking
- Global and Chinese AGV for Parking Projects, 2018
- Merits of Patrol Robot
Power Industry’s Demand for AGVs in China, 2017-2025E
Acquisition Mode of Power Patrol Robots in China, 2015-2017
State Grid’s Tenders for Intelligent Patrol Robot in Recent Years
Performance Comparison of Products of Key Chinese Producers of Power Patrol Robot
Development History of Tobacco Logistics in China, 2003-2019
Competitive Pattern of AGV for Tobacco Logistics
Siasun’s Intelligent Logistics System for Tobacco Industry
Use of AGVs in Some Tobacco Factories in China
Heavy Load AGV Producers by Purpose
Businesses of JBT
Subsidiaries of JBT, 2019
Revenue and Net Income of JBT, 2013-2019
Order Backlog of JBT by Product, 2013-2019
Revenue Breakdown of JBT by Product, 2013-2019
Revenue Breakdown of JBT by Region, 2012-2018
Revenue Structure of JBT by Region, 2018
AGV Locations of JBT
JBT’s Subsidiaries in China, 2019
Global Network of Daifuku
Business Structure of Daifuku
Net Sales and Net Income of Daifuku, FY2013-FY2019
Order Intake of Daifuku, FY2015-FY2019
Sales Structure of Daifuku by Business, FY2014-FY2018
Sales Structure of Daifuku by Sector, FY2014-FY2018
Sales Structure of Daifuku by Region, FY2018
Selected Charts

Main AGV Clients of Daifuku
AGV Systems of Daifuku
Daifuku’s Sales in China, FY2013-FY2019
M&As of Dematic, 2010-2019
Revenue of Dematic, 2014-2018
Advantages and Application of Dematic’s AGV System
Dematic’s AGV Series
Typical Clients of Dematic in China
Milestones of Dematic's Suzhou Plant
Businesses and Products of Swisslog
Operation Data of Swisslog, 2015-2018
Revenue and Order Structure of KUKA Group, 2017-2018
AGVs of Swisslog
Customers of AGVs of Swisslog
Companies of Swisslog in China
Business Structure of Meidensha
Net Sales and Net Income of Meidensha, FY2014-FY2018
Net Sales Structure of Meidensha by Business, FY2017-2018
FY2019 Results Forecasts of Meidensha by Business
Main Products and Clients of Meidensha’s Industrial Systems
Meidensha’s Industrial Systems Business Plan, FY2018-FY2020
AGV Products and Features of Meidensha
Transport Weight and Applicable AGV Model of Meidensha
Guidance Systems of Meidensha
Selected Charts

Meidensha’s Subsidiaries in Mainland China, 2019
Business Segments of Oceaneering
Revenue and Net Income of Oceaneering, 2016-2019
Revenue Structure of Oceaneering by Business, 2016-2018
Revenue Structure of Oceaneering by Region, 2017-2018
AGVs of Oceaneering AGV Systems
Grenzebach’s Facts, 2018
Business Members of Grenzebach
Grenzebach’s Subsidiaries by Country/Region
AGV Products of Grenzebach
Partner and References of AGV Business of Grenzebach
Elettric 80’s Fact, 2019
Products of Elettric 80
Development Course of Rocla
Rocla’s AGV Series
Applied Cases of Rocla’s AGV
Revenue and Net Income of Shenyang Siasun Robot & Automation, 2015-2019
Operating Revenue Structure of Shenyang Siasun Robot & Automation by Product, 2017-2019
Gross Margin of Shenyang Siasun Robot & Automation by Product, 2015-2019
AGVs of Shenyang Siasun Robot & Automation
Main Partners of Shenyang Siasun Robot & Automation
AGV Development History of Yunnan KSEC Intelligent Equipment
AGVs of Yunnan KSEC Intelligent Equipment
Revenue and Net Income of Machinery Technology Development, 2013-2019
Operating Revenue Structure of Machinery Technology Development by Business, 2017-2018
Selected Charts

- Major AGV Products of Machinery Technology Development
- Revenue and Net Income of CSG Smart Science & Technology, 2013-2019
- Revenue Structure of CSG Smart Science & Technology by Product, 2017-2019
- AGVs of Huaxiao Precision (Suzhou)
- Revenue and Net Income of Huaxiao Precision (Suzhou), 2016-2019
- Development History of Guangdong Jaten Robot & Automation
- Operation of Guangdong Jaten Robot & Automation, 2016-2019
- Typical Self-developed AGVs by Guangdong Jaten Robot & Automation
- Financing of Geek+
- Development History of Quicktron
- Major Products of Quicktron
- Service Network of Zhejiang LiBiao Robot Co., Ltd. in China
- Mobile Robot Series of Hangzhou Hikrobot Technology
- Development History of Yonegy Logistics Automation Technology
- AGV Products of Yonegy Logistics Automation Technology
- Main Clients of Yonegy Logistics Automation Technology
- Revenue and Net Income of Zhejiang Noblelift Equipment, 2011-2019
- Operating Revenue Breakdown of Zhejiang Noblelift Equipment by Product, 2013-2018
- Operating Revenue Breakdown of Zhejiang Noblelift Equipment by Region, 2013-2018
- Gross Margin of Zhejiang Noblelift Equipment by Product, 2013-2018
- Milestones in AGV-related Business of Zhejiang Noblelift Equipment, 2015-2019
- Capacity, Output and Sales Volume of Zhejiang Noblelift Equipment by Product, 2013-2018
- Revenue and Net Income of Shanghai Triowin Automation Machinery, 2012-2019
- Revenue Structure of Shanghai Triowin Automation Machinery by Product, 2015-2018
Revenue Breakdown of Shanghai Triowin Automation Machinery by Region, 2012-2018
Applications of Shanghai Triowin Automation Machinery’s AGV Robots and Main Clients
Revenue and Net Income of Shenzhen Casun Intelligent Robot, 2013-2019
Revenue Structure of Shenzhen Casun Intelligent Robot by Product, 2016-2018
Gross Margin of Shenzhen Casun Intelligent Robot by Product, 2013-2018
Applications of Shenzhen Casun Intelligent Robot’s AGVs and Main Clients
Main Automotive Clients of Shenzhen Casun Intelligent Robot
Main Clients of Shenzhen Casun Intelligent Robot in Electronic and Home Appliances Industries
AGV Series of Shenzhen OKAGV Robotics
Typical Application of OKAGV’s AGV
Revenue and Net Income of Zhejiang Guozi Robotics, 2014-2019
Characteristics of Zhejiang Guozi Robotics’ AGV Systems
Applied Cases of CIZON’s AGV
Major Products of Standard Robots
Non-reflector Laser Navigation Forktype AGV of Suzhou AGV Robot
Partners of Suzhou AGV Robot
You can place your order in the following alternative ways:

1. Order online at www.researchinchina.com
2. Fax order sheet to us at fax number: +86 10 82601570
3. Email your order to: report@researchinchina.com
4. Phone us at +86 10 82600828

Choose type of format
- PDF (Single user license) ............. 3,000 USD
- Hard copy .................................. 3,200 USD
- PDF (Enterprisewide license)......... 4,500 USD

※ Reports will be dispatched immediately once full payment has been received.
Payment may be made by wire transfer or credit card via PayPal.

<table>
<thead>
<tr>
<th>Title</th>
<th>Format</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total

Party A:
Name: 
Address: 
Contact Person: Tel 
E-mail: Fax 

Party B:
Name: Beijing Waterwood Technologies Co., Ltd (ResearchInChina)
Address: Room 2-626, 6th Floor, No.1, Shanyuan Street, Haidian District, Beijing, 100080
Contact Person: Liao Yan Phone: 86-10-82600828
E-mail: report@researchinchina.com Fax: 86-10-82601570
Bank details:
Beneficial Name: Beijing Waterwood Technologies Co., Ltd
Bank Name: Bank of Communications, Beijing Branch
Bank Address: NO.1 jinxiyuan shijicheng, Landianchang, Haidian District, Beijing
Bank Account No #: 110060668012015061217
Routing No #: 332906
Bank SWIFT Code: COMMCNBJG
About ResearchInChina

ResearchInChina (www.researchinchina.com) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

Our Major Activities

- **Multi-users market reports**
- **Database-RICDB**
- **Custom Research**
- **Company Search**

RICDB (http://www.researchinchina.com/data/database.html), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at www.researchinchina.com

For any problems, please contact our service team at:

Room 801, B1, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080
Phone: +86 10 82600828 ● Fax: +86 10 82601570 ● www.researchinchina.com ● report@researchinchina.com