

## **Automated Storage and Retrieval System Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)**

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### **Report description:**

The Automated Storage and Retrieval System (ASRS) Market is expected to grow at a CAGR of 10.1% over the forecast period. Enterprises are increasingly focusing on adopting diverse technologies to reduce their overall costs and gain a competitive advantage over their rivals. Vendors of material handling solutions have gradually veered toward the modern approach of helping end-users focus on the space and time utility of their operations by manufacturing flexible systems that can seamlessly integrate with other systems as a part of the overall material handling plan.

### **Key Highlights**

For instance, AS/RS have emerged as one of the most dynamic solutions in material handling equipment and are mainly deployed in warehouses and distribution centers. Despite gaining initial traction in the manufacturing sector, other sectors, such as food & beverage, life sciences, etc., have gradually realized the benefits of using AS/RS across various phases in the supply chain, ranging from mundane to complex tasks.

Moreover, material handling is complete with efficient storage systems. Automated storage systems enhance the efficacy of an organization by providing users with increased inventory control and tracking and greater flexibility to address changing business conditions. These systems also help reduce labor costs and workforce requirements and increase workplace safety.

With increasing manufacturing activities and expanding the transportation and logistics industry globally, companies are adopting advanced manufacturing techniques. Firms also want to expand and upgrade their factories, warehouses, and existing facilities, which drives the adoption of new AS/RS to improve productivity and efficiency and reduce labor costs. Vendors aim to design advanced control systems that interface AS/RS equipment and higher-level software applications.

This interface facilitates exchanging information and data between various supporting equipment, such as conveyors, data-rich software, and warehouse management systems. Depending on the type of products to handle and the physical environment, vendors offer numerous AS/RS with different configurations.

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Further, the need for skilled operators to enable the proper functioning and maintenance of AS/RS systems could be a significant impediment in emerging countries. However, AS/RS vendors have been trying to offset this issue by offering periodic maintenance. In addition to high initial costs, the need for skilled workers to perform various activities throughout the vehicles' shelf life is widely considered a significant concern in this market.

Companies may wait to shift to automation at the cost of the labor force, owing to the high initial costs involved. Labor costs are more competitive than the investment and returns attached to automation, especially in some emerging markets such as India. Although labor costs and wages are expected to rise and drive the automation market, it will only happen gradually. Many companies are looking to go for short-term returns rather than long-term returns that might serve as a backlog for the growth of this market.

During the initial phase, the COVID-19 outbreak and lockdown restrictions across the globe affected industrial activities worldwide. Due to lockdowns worldwide, supply chain disruptions, a lack of availability of raw materials used in the manufacturing process, labor shortages, and fluctuating prices. But as the lockdown restrictions were over, things started improving as the market found its stability with the retail business, airport, etc., returning to its increasing capacity as it expected to grow.

## Automated Storage & Retrieval System Market Trends

### Retail Industry is Expected to Hold Significant Market Share

The retail industry has undergone drastic changes, with many countries witnessing a considerable growth rate. The competition faced by companies has made the initiatives to improve their processes and become more efficient to cater to the customers' needs.

Moreover, the purchasing pattern is shifting toward online shopping. Faster delivery channels and the strategic locations of distribution centres and warehouses are now necessities rather than an option. Given the trend of e-commerce globally, the demand for ASRS is expected to increase in the retail industry during the forecast period.

Further, the growing retail industry across the globe is giving rise to the installation of warehouses and their management in multiple regions. For instance, Costco Wholesale Corporation has installed its warehouses every year with consistent growth of around 3-5%.

Increased real estate cost around the existing facilities is a stimulus for the sectors to opt for these systems, as ASRS offers additional benefits, like optimum space utilization and increased control over inventory.

Moreover, the US warehouses face 600,000 unfilled jobs and a 25% turnover rate, as per Honeywell Intelligrated. Finding and training replacement costs the warehouse owners much more in terms of lost productivity, stress, training time, and reduced efficiency. Recently, Vanderlande has deployed its ADAPTO, a 3D shuttle-based AS/RS system, to Udea Wholesaler, who chose to automate its processes at a single, omnichannel food distribution center. Moreover, Kubota Canada's automated parts distribution center increased productivity and recovered 83% of floor space by employing six horizontal carousels and 4 VLMs.

### Asia-Pacific is Expected to Account For Significant Market Share

By adopting automation in manufacturing, China is expected to cut manufacturing costs by 30% by 2025. The shortage of skilled labour, complicated by the one-child policy and an ageing workforce, requires job activities to be eased to maintain work productivity.

Moreover, startups, such as Syrius Robotics, based out of Shenzhen, are building autonomous mobile robots to integrate them into two model warehouses of JD Logistics for further testing and optimization for last-mile deliveries. AMH systems are expected to experience demand from the manufacturing industries, with increased throughput, warehouses, and distribution centers. Any

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segment directly or indirectly affected by the spike in demand in the e-commerce and retail markets is expected to escalate the need for AMH in the country. Automation in other sectors is increasing productivity.

Further, the government's increased infrastructure investment and investments from industries coupled with the 'Make in India' initiative are expected to drive AMH systems' demand.

Moreover, according to IBEF, India has the potential to become the global manufacturing hub, and by 2030 the country can add more than USD 500 billion annually to the global economy.

According to the Department for Promotion of Industry and Internal Trade (DPIIT), India received a total FDI of USD 58.77 billion in FY 2021-22. In addition, the Government of India also laid the foundation stone for the Uttar Pradesh Defence Industrial Corridor project worth USD 53.73 million in Jhansi in November 2021.?

## Automated Storage & Retrieval System Market Competitor Analysis

The automated storage and retrieval system market is competitive and covered by many significant players. Moreover, vendors provide a deep product portfolio catering to the customer's needs in the region. Key players include Daifuku Co. Ltd, SSI Schaefer AG, Dematic Group - KION Group AG, Murata Machinery Ltd, Mecalux SA, etc. Some of the recent developments in the market are -

March 2022 - Honeywell Intelligated, Inc. introduced its strategic collaboration with OTTO Motors. According to the company, this collaboration enables its customers to increase efficiency, reduce errors, and improve safety by deploying OTTO's autonomous mobile robots (AMRs) in their facilities. These AMRs can deliver significant productivity benefits by automating the movement of pallets and order-picking carts and can travel over any floor surface smoothly enough to handle a traditional cart pushed by a worker. Instead of spending more than half the day walking, workers can park carts or pallets in designated locations throughout the facility and call robots to retrieve them.

October 2022 - Daifuku announced its new manufacturing plant in Boyne City, Michigan, USA. The company invested USD 26 million to build the 225,000 sq. ft. manufacturing facility. It is located on 22 acres of land at 300 M-75 South in Boyne City. The manufacturing plant is operated by Jervis B. Webb Company, the company's North American subsidiary.

### Additional Benefits:

The market estimate (ME) sheet in Excel format  
3 months of analyst support

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