

# **Autonomous Forklift Market by Tonnage (10), Navigation (Laser, Vision, Optical Tape, Magnetic, SLAM, Inductive Guidance, Others), Sales Channel, Application, End-use Industry, Forklift Type, Propulsion and Region - Global Forecast to 2028**

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## **Abstracts**

The autonomous forklift market is projected to grow from USD 4.6 billion in 2023 to USD 8.8 billion by 2028, at a CAGR of 13.8% from 2023 to 2028. Growth in end-use industries and the adoption of automated material handling systems to improve material handling and logistics in Asia-Pacific are projected to lead the autonomous forklift market.

The widening gap between supply and demand is driving up real estate prices in many developed nations. In Europe, the warehouse land is almost exhausted, but demand is still growing. Maximizing space utilization in other developed nations in North America and Asia Pacific is important. This has become essential considering the rising population and consumer demand. Using an autonomous forklift helps maximize space utilization while cutting labor costs.

“Growth of e-commerce, Logistics, and Warehousing Sector to trigger the adoption for autonomous forklifts.”

Low cost of capital, fast return on investment (ROI), and a high degree of possibility of customization encourage manufacturing companies to invest more in factory automation and automated warehouses. Increasing demand for business-to-consumer (B2C), and business-to-business (B2B) products, due to which the e-commerce industry has resulted in tight deadlines and the need to procure and deliver a huge number of goods without errors. Thus, e-commerce companies have increased the adoption of

automation in their facilities. The advantages of autonomous forklifts over conventional forklifts, such as reduced production time, fewer human errors, increased safety, high-volume production, and increased accuracy and repeatability, have spurred the adoption in e-commerce and other logistics hubs.

Warehouse automation allows for increased throughput, better resource utilization, reduced labor, less operational costs, decreased handling and storage costs, less human error, increased productivity, and efficiency. Hence, the warehouse automation market is growing.

“The Indoor Type segment of autonomous forklift is expected to hold a dominant share throughout the forecast period as they are fast improving their ability to operate without human interventions.”

The indoor segment is expected to hold a significant market share during the forecast period due to its application in the fast-moving goods industry. Indoor autonomous forklifts are swift and precise in order picking and storage, allowing their increased utilization in warehousing operations. They have enabled speedy response to the customization of orders, which was time-consuming with traditional forklifts.

E-commerce sales in the Asia Pacific region are increasing rapidly due to the growth of online shoppers driven by the rising adoption of the internet and smartphones. Increased growth of e-commerce in Asia Pacific resulted in the rising adoption of automated material handling equipment like autonomous forklifts by big e-commerce companies. The big e-commerce companies in the Asia Pacific region prefer indoor autonomous forklifts to transport a pallet of 1.5 to 3 tons within the warehouse. Further, below 5-ton autonomous forklifts for indoor applications are the most efficient, compact material handling equipment in warehouses with a racking height of 10 meters or lower. Further, with increasing demand for faster and more efficient order fulfillment, as well as the need to reduce labor costs and improve warehouse safety, the majority of e-commerce companies forming supply agreements with forklift manufacturers for autonomous forklifts. For instance, in 2019, Amazon entered a 7-year agreement with French company Baylo to supply autonomous forklifts at its facility centers.

Asia-Pacific is estimated to lead the autonomous forklift market in 2022.

Currently, Asia-Pacific contributes a share of approximately >45% to the overall market. It is the largest market since high population growth and economic development with increasing domestic consumption have intensified the need for efficient logistics and

warehousing. The Asia Pacific region is anticipated to lead the autonomous forklift market during the forecast period due to an increase in the adoption of automation technology for increased work efficiency. Further, the growth of autonomous forklifts in the region can be attributed to growing exports of FMCG, automotive, food & beverages, and pharmaceutical industries. Rising consumption and product differentiation of consumer goods in China, South Korea, and India contribute to the growing use of automated intralogistics systems in the local e-commerce industry. China and India have robust export-oriented manufacturing industry and growing consumerism, which require them to consider automation to improve efficiency. A shortage of labor and space drives the autonomous forklift market in Japan. South Korea's growing electronics and e-commerce industry has been investing in automated material handling systems. The region is expected to hold a dominant share in the autonomous forklift market for the forecast period.

In-depth interviews were conducted with CXOs, VPs, directors from business development, marketing, product development/innovation teams, independent consultants, and executives from various key organizations operating in this market.

By Stakeholder Type: OEM- 80%, End-Users– 20%

By Designation: Directors/ Vice Presidents - 30%, C Level Executives - 10%, and Others - 60%

By Region: Asia Pacific - 60%, Europe - 25%, and North America - 10%

The autonomous forklift market comprises prominent players such as Toyota Industries Corporation (Japan), Kion Group AG (Germany), Mitsubishi Logisnext Co Ltd (France), Jungheinrich AG (Germany), and Hyster-Yale Materials Handling (US).

#### Research Coverage:

The study segments the autonomous forklift market and forecasts the market size based on Tonnage Capacity (10), Navigation Technology (Laser, Vision, Optical Tape, Magnetic, Inductive Guidance), Sales Channel (In-house Purchase, Lease), Application, End-Use Industry, Type (Indoor, Outdoor), Forklift Type (Pallet Jacks, and Pallet Stackers), Paper and Pulp by Tonnage Capacity, Propulsion and Region (North America, Europe, Asia Pacific, and Rest of the World).

The study also includes an in-depth competitive analysis of the key players in the market, along with their company profiles, key observations related to product and business offerings, recent developments, and key market strategies.

#### Key Benefits of Buying the Report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall autonomous forklift market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Need for autonomous forklifts for the various industries for different applications, growth of e-commerce, logistics, and warehousing), Restraints (High integration and switching cost due to AI and WMS), Opportunities (Development of IOT integrated autonomous forklifts and usage of 5G connectivity in future for warehouse operations), Challenges (Challenges related to the failure of sensing elements).

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product & service launches in the Autonomous Forklift market.

Market Development: Comprehensive information about lucrative markets – the report analyses the autonomous forklift market across different regions.

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the autonomous forklift market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like Toyota Industries Corporation (Japan), Kion Group AG (Germany), Mitsubishi Logisnext Co Ltd (France), Jungheinrich AG (Germany), and Hyster-Yale Materials Handling (US) among others in the autonomous forklift market



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