

Automated Guided Vehicle Market by Type (Tow Vehicles, Unit Load Carriers, Forklift Trucks, Assembly Line Vehicles, Pallet Trucks), Navigation Technology (Laser Guidance, Magnetic Guidance, Vision Guidance), Industry, Region - Global Forecast to 2028

<https://marketpublishers.com/r/AD57879A4AC8EN.html>

Date: July 2023

Pages: 240

Price: US\$ 4,950.00 (Single User License)

ID: AD57879A4AC8EN

Abstracts

The automated guided vehicle market is expected to reach USD 3.3 billion by 2028 from USD 2.4 billion in 2023, at a CAGR of 6.9% from 2023–2028. The growth of this market is attributed to the rising demand for automation solution in a variety of industries such as automotive, healthcare, e-commerce, food & beverages, logistics, and manufacturing industries, increases focus on enhancing workplace safety and marked shift to mass customization to mass production.

“Tow vehicle segment to dominate the automated guided vehicle market in 2023.”

Tow vehicles, also known as tuggers, pull non-powered carts carrying huge loads. This is the most productive type of AGV used for towing and tugging as it can move heavier load with multiple trailers than a single fork truck. Tow vehicles are widely utilized in warehouses and distribution centers to transport goods, pallets, or containers. They assist in moving inventory within the facility, including loading and unloading trucks, replenishing picking areas, and transferring products between storage areas. The automotive industry extensively relies on tow vehicles for material handling tasks. They are used to transport car parts, assemblies, and sub-assemblies within automotive manufacturing facilities.

“Laser Guidance segment to contribute the largest share of the market during the

forecast period.”

Laser guided AGVs work through laser positioning systems. Laser guided AGVs are accurate (positioning accuracy of +/- 5mm) in their functioning. A laser guidance system does not have any device associated physically with the route, such as magnetic strips, wires, or paint strips on the floor, and the route can be easily modified by software. This assures a high level of flexibility in adopting the changes in the route of AGVs within the plant. Laser guided systems are best suited for rack warehousing applications, thus commonly used in automatic forklift trucks.

“Asia Pacific is anticipated to grow at the highest CAGR during the forecast period.”

Asia Pacific consists of some of the fastest-growing economies—such as China, Japan, and India. The market in Asia Pacific is propelled by factors such as rapid industrialization, the substantial growth of e-commerce, rising labor costs, technological advancements in warehouses, progressing logistics and warehousing sectors, and the extensive focus on Industry 4.0. Moreover, the strong economic growth in this region is attracting further investments from AGV suppliers for establishing sales and support facilities.

The break-up of the profiles of primary participants:

By Company Type – Tier 1 – 45%, Tier 2 – 30%, and Tier 3 – 25%

By Designation – C-level Executives – 35%, Directors – 45%, and Others – 20%

By Region – North America - 30%, Europe – 25%, Asia Pacific – 35%, and Rest of the World – 10%

Major players in the automated guided vehicle market include Daifuku (Japan), JBT (US), KION (Germany), Toyota Industries (Japan), KUKA (Germany) and others.

Research Coverage

The report segments the automated guided vehicle market by Type, Navigation Technology, Industry, and Region. The report also comprehensively reviews drivers, restraints, opportunities, and challenges influencing market growth. The report also covers qualitative aspects in addition to the quantitative aspects of the market.

Reasons to buy the report:

The report will help the market leaders/new entrants with information on the closest approximate revenues for the overall automated guided vehicle market and related segments. This report will help stakeholders understand the competitive landscape and gain more insights to strengthen their position in the market and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Analysis of critical drivers (Rising demand for automation solution in a variety of industries, increased focus on enhancing workplace safety, and marked shift to mass customization from mass production), restraints (High installation, maintenance, and switching costs associated with AGV, The retail and e-commerce industry is increasingly favoring mobile robots over AGVs, lack of flexibility and obstacle resistance in AGVs), opportunities (there is a growing implementation of industry 4.0 technologies in the warehouse industry, SMEs are increasingly embracing industrial automation, substantial growth of industrial sector in emerging economies, presence of huge intralogistics sector in Southeast Asia), and challenges (Low labor costs restraining adoption of AGVs in emerging economies, technical challenges related to sensing elements) influencing the growth of the automated guided vehicle market.

Product Development/Innovation: Detailed insights on upcoming technologies, research and development activities, and new product launches in the automated guided vehicle market.

Market Development: Comprehensive information about lucrative markets – the report analyses the automated guided vehicle market across various regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the automated guided vehicle market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like Daifuku (Japan), JBT (US), KION (Germany), Toyota Industries (Japan), KUKA (Germany).

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