+357 96 030922
info@marketpublishers.com

Automotive Gigacasting Market Forecasts to 2032 – Global Analysis By Vehicle Type (Passenger Cars, Commercial Vehicles, Electric Vehicles (EVs), Internal Combustion Engine (ICE) Vehicles, and Other Vehicle Types), Component, Material Type, Technology, Application and By Geography

https://marketpublishers.com/r/AA25BEC19432EN.html
Date: April 2025
Pages: 150
Price: US$ 4,150.00 (Single User License)
ID: AA25BEC19432EN

Abstracts

According to Stratistics MRC, the Global Automotive Gigacasting Market is accounted for $156.40 million in 2025 and is expected to reach $2409.81 million by 2032 growing at a CAGR of 47.8% during the forecast period. Automotive gigacasting is the process of using high-pressure die-casting technology to produce vehicle parts on a huge scale. It entails casting large items, including structural elements or automobile body sections, in a single piece. This process significantly reduces the number of parts in a vehicle, lowering manufacturing complexity and costs. Gigacasting enables better structural integrity and faster assembly, while also contributing to lighter, more sustainable vehicle designs. It is an innovation in automotive manufacturing, enhancing efficiency and performance in modern cars.

Market Dynamics:

Driver:

Rising Demand for Electric Vehicles

EVs are quickly becoming more and more popular among environmentally aware consumers as governments around the world work to promote sustainability. By increasing the production efficiency of EV components, gigacasting technology lowers

+357 96 030922
info@marketpublishers.com

prices and raises vehicle quality. The use of this technology is consistent with the automobile sector's transition to scalable manufacturing and lightweight materials. Growth is also being accelerated by programs like incentives and subsidies for EV manufacturers.

Restraint:

Complexity of large-scale machines

Gigacasting machines, designed to produce large, single-piece components, require significant investment in infrastructure and skilled labor. Maintenance of such machines is another challenge, as downtime can lead to substantial production losses. Additionally, the integration of gigacasting with existing production lines can be technically demanding, causing delays. Manufacturers must also address concerns related to machine durability and power consumption. Overcoming these technical and financial barriers is crucial for the widespread adoption of gigacasting.

Opportunity:

Technological advancements in casting

Innovations in material science and 3D printing are enabling the production of highly precise, lightweight, and durable automotive components. These advancements streamline production, reduce waste, and enhance vehicle performance. The use of gigacasting technology is particularly attractive for electric vehicles, where reducing weight and maximizing efficiency are key goals. Furthermore, developments in automation and AI-driven casting techniques promise to revolutionize the manufacturing process. Companies investing in research and development will likely gain a competitive edge in this market.

Threat:

Limited design flexibility

Gigacasting machines excel at producing large, single-piece components but struggle with complex, intricate designs. Automotive manufacturers require adaptable solutions to meet diverse and evolving design requirements. Additionally, the reliance on specific alloys and materials for gigacasting can limit experimentation with new designs. These constraints may hinder the adoption of gigacasting technology across diverse vehicle

+357 96 030922
info@marketpublishers.com

models.

Covid-19 Impact:

The COVID-19 pandemic had a mixed impact on the Automotive Gigacasting Market. While supply chain disruptions and factory closures initially slowed the adoption of gigacasting, the pandemic highlighted the need for cost-efficient and scalable production methods. Post-pandemic, the surge in electric vehicle demand has further accelerated the adoption of this technology. Companies are now focusing on resilient manufacturing strategies, leveraging gigacasting to meet future disruptions. Overall, the pandemic underscored the importance of innovative manufacturing solutions like gigacasting.

The passenger cars segment is expected to be the largest during the forecast period

The passenger cars segment is expected to account for the largest market share during the forecast period, owing to growing consumer demand for electric vehicles is driving the adoption of gigacasting for lightweight and efficient car components. By integrating gigacasting, manufacturers can produce parts at a lower cost and with greater precision. Features like enhanced safety and durability further attract passenger car manufacturers to this technology.

The steel segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the steel segment is predicted to witness the highest growth rate, due to its versatility, strength, and cost-effectiveness make it a preferred material for gigacasting applications. As EV manufacturers seek lightweight yet durable components, steel's properties align well with their requirements. The development of advanced steel alloys further enhances its appeal for automotive applications. Additionally, gigacasting enables efficient utilization of steel, reducing material waste during production.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, driven by the region's dominance can be attributed to its booming automotive industry and the rising demand for EVs. Strong government initiatives promoting sustainability and investments in advanced manufacturing technologies are further driving growth. Countries like China, Japan, and South Korea are at the forefront of

+357 96 030922
info@marketpublishers.com

gigacasting innovation. Additionally, the presence of leading automotive manufacturers and suppliers in the region ensures a robust supply chain.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, fuelled by the region's advanced automotive manufacturing infrastructure and significant investments in EV production. The United States, in particular, is seeing an upsurge in gigacasting adoption among EV manufacturers like Tesla. Furthermore, supportive government policies and funding for research in casting technologies bolster market growth.

Key players in the market

Some of the key players in Automotive Gigacasting Market include Idra S.r.l., L.K. Technology Holdings Limited, Buhler AG, Haitian Die Casting, Handtmann Holding GmbH & Co. KG, Birch Machinery Company Ltd., Colosio Srl, UBE Machinery Inc., Yizumi Holdings Co., Ltd., Oskar Frech GmbH + Co. KG, Guangdong Hongtu Technology (Holdings) Co. Ltd., Tesla, Inc., Volvo Cars, Toyota Motor Corporation, and Hyundai Motor Company.

Key Developments:

In September 2024, AV Birch and Triweco announce exciting partnership, AV Birch has proudly been at the forefront of the manufacturing and engineering industry for forty years, leading the way in terms of design and innovation.

In February 2024, Handtmann Group of Companies is pleased to announce the successful closing of the acquisition of Kegelmann Technik GmbH and Kegelmann Tooling GmbH & Co. KG, based in Rodgau-Jugesheim in southern Hesse. Kegelmann counts among the pioneers in plastics engineering with genuine expertise in additive manufacturing and the prototyping of injection moulding tools as well as small and special series production.

Vehicle Types Covered:

- Passenger Cars
- Commercial Vehicles

+357 96 030922
info@marketpublishers.com

Electric Vehicles (EVs)

Internal Combustion Engine (ICE) Vehicles

Other Vehicle Types

Component Covered:

Battery Enclosures

Chassis

Body Panels

Suspension Components

Other Components

Material Types Covered:

Magnesium

Aluminum

Zinc

Steel

Other Material Types

Technologies Covered:

High-Pressure Die Casting (HPDC)

Low-Pressure Die Casting (LPDC)

+357 96 030922
info@marketpublishers.com

- Gravity Die Casting (GDC)

Applications Covered:

- Body Assemblies
- Engine Parts
- Transmission Parts
- Other Applications

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK
  - Italy
  - France
  - Spain
  - Rest of Europe

+357 96 030922
info@marketpublishers.com

- Asia Pacific
  - Japan
  - China
  - India
  - Australia
  - New Zealand
  - South Korea
  - Rest of Asia Pacific
- South America
  - Argentina
  - Brazil
  - Chile
  - Rest of South America
- Middle East & Africa
  - Saudi Arabia
  - UAE
  - Qatar
  - South Africa
  - Rest of Middle East & Africa

+357 96 030922
info@marketpublishers.com

What our report offers:
- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

10 GLOBAL AUTOMOTIVE GIGACASTING MARKET, BY GEOGRAPHY

11 KEY DEVELOPMENTS

+357 96 030922
info@marketpublishers.com

12 COMPANY PROFILING

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Automotive Gigacasting Market Forecasts to 2032 – Global Analysis By Vehicle Type (Passenger Cars, Commercial Vehicles, Electric Vehicles (EVs), Internal Combustion Engine (ICE) Vehicles, and Other Vehicle Types), Component, Material Type, Technology, Application and By Geography

Product link: https://marketpublishers.com/r/AA25BEC19432EN.html

Price: US$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/AA25BEC19432EN.html