

Global Metal Casting Market Report 2025: Size Projected USD 325.69 Billion, CAGR of 6.94% by 2033.

Global metal casting market set to reach USD 325.69 billion by 2033, driven by a strong 6.94% CAGR amid rising demand across automotive and industrial sectors.

NEW YORK, NY, UNITED STATES, June 25, 2025 /EINPresswire.com/ --According to the latest report by IMARC Group, titled "Metal Casting Market Size, Share, Trends and Forecast by Process, Material Type, End Use, Components, Vehicle Type, Electric and Hybrid Type, Application, and Region,



2025-2033", offers a comprehensive analysis of the industry, which comprises insights on the global metal casting market. The report also includes competitor and regional analysis, and contemporary advancements in the global market.

The global <u>metal casting market size reached USD 177.3 Billion in 2024</u>. Looking forward, IMARC Group expects the market to reach USD 325.7 Billion by 2033, exhibiting a growth rate (CAGR) of 6.94% during 2025-2033.

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Global Metal Casting Market Dynamics:

Accelerating Demand from the Automotive and Transportation Sectors:

Demand within the global Metal Casting Market is noticeably driven by productivity increases within automotive and broader transportation sectors. In vehicles, metal castings are an indispensable part of engine blocks, transmission housings, chassis components, and brake systems. These industries' automotive value chains have been undergoing transformations, particularly from a supply side with expansion of EVs (electric vehicles) integration into fleets. Historically powertrain components for internal combustion engines (ICE) vehicles depended on cast iron and aluminum; now EVs demand structural elements such as battery enclosures as well as high-torque electric motors made from lightweight super alloys like aluminum and magnesium. The push towards light weighting is especially important to improve overall range of EVs but also fuel efficiency across all vehicle types. In addition, commercial growth in trucks, railroads, and airplanes that require rugged yet precision machined metals strengthens enduring demand evolution for advanced manufacturing processes in metal casting technologies branding transportation sector as premier initiator for market expansion and innovations.

Robust Growth in Industrial Machinery and Construction:

Another pivotal dynamic shaping the global Metal Casting Market is the robust growth observed in the industrial machinery and construction sectors. Various pieces of industrial vehicles like heavy agricultural equipment, machine tools, as well as power generation and mining components are manufactured using metal castings. With industrialization gaining traction globally, particularly in developing markets, there is a booming requirement for metal parts machined to exacting standards, which stimulates the metal casting sector.

At the same time, the construction industry is a primary contributor towards consumption of metal castings where they are used as structural support members in buildings and infrastructure projects such as bridges and pipelines as well as in construction machinery mounted hinged components. The increasing pace of urbanization coupled with infrastructure development programs and smart city investments around the world fulfills a sustained considerable requirement for robust metal parts. Parts that are casted possess required strength balance between durability and affordability which make them suitable for such demanding requirements tends to directly increase their consumption across diverse sectors.

Technological Advancements and Sustainability Imperatives:

The global Metal Casting Market is fundamentally undergoing changes because of new technological innovations and escalating sustainability drivers. Innovations in casting processes, for instance, advanced die casting (high-pressure die casting), investment, and sand casting has improved material properties with the production of intricate, precise, lightweight components. Increased efficiency, reduced defect rates, automation of processes, better quality control features AI systems, and resource optimizations makes digitalization more appealing.

At the same time, ensuring sustainable processes in metal casting is being recognized. Environmental responsibility mandates foundries to implement cleaner technologies like Electric Induction Furnaces which reduce CO2 ratios while placing a greater emphasis on recycled scrap metal as raw materials which drastically cuts energy usage as well as waste. These shifts are complemented by greener approaches to waste management such as sand reclamation or byproduct reuse. The combination of both technological innovation along with renewable resource ideologies drastically improves overall industry performance and product value positioning sustainable casting practices not only as a competitive advantage but also primary force in future market transformations.

By the IMARC Group, Some of the Top Competitive Landscape Operating in the Metal Casting Market are Given Below:

- Arkema Group
- BASF SE
- Honeywell International Inc.
- Tosoh Corporation
- Zeochem LLC

Global Metal Casting Market Trends:

The Global Metal Casting Market continues to grow and evolve according to many meaningful trends. One of the most impactful trends is the increasing usage of lightweight materials such as aluminum and magnesium, due to the automotive industry's focus on fuel efficiency and greater range for electric vehicles. The market is focusing more and more on advanced high-pressure die casting and precision investment casting, which allow the production of complex components that are near-net shape while possessing superior mechanical properties. In addition, there is increasing use of digital technologies such as AI for defect identification, design automation processes for productivity enhancement, design simulation tools for optimization generating better results which adds value productivity automation in metal casting.

The move toward sustainable eco-friendly casting practices strongly emphasizes increased regulations for corporate responsibility alongside stricter environmental policies like higher limits on recycled materials used, along with energy consumption by furnaces directly reflecting these policies. Finally, addressing outlooks from both emerging economies as well as expanding industrialization within developed countries make infrastructure advancements coupled with growth in-demand metal castings across multitude of end-use sectors resulting in indispensable outlook strengthening amidst global competition.

Explore the Full Report with Charts, Table of Contents, and List of Figures: <u>https://www.imarcgroup.com/metal-casting-market</u>

Key Market Segmentation:

Breakup by Process:

- Sand Casting
- Gravity Casting
- High-Pressure Die Casting (HPDC)

- Low-Pressure Die Casting (LPDC)
- Others

According to the report, sand casting represented the largest segment.

Breakup by Material Type:

- Cast Iron
- Aluminum
- Steel
- Zinc
- Magnesium
- Others

According to the report, cast iron accounted for the largest market share.

Breakup by End Use:

- Automotive and Transportation
- Equipment and Machine
- Building and Construction
- Aerospace and Military
- Others

According to the report, automotive and transportation represented the largest segment.

Breakup by Automotive and Transportation Market: Components:

- Alloy Wheels
- Clutch Casing
- Cylinder Head
- Cross Car Beam
- Crank Case
- Battery Housing
- Others

According to the report, alloy wheels accounted for the largest market share.

Breakup by Automotive and Transportation Market: Vehicle Type:

- Passenger Cars
- Light Commercial Vehicles
- Heavy Commercial Vehicles

According to the report, passenger cars represented the largest segment.

Breakup by Automotive and Transportation Market: Electric and Hybrid Type:

- Hybrid Electric Vehicles (HEV)
- Battery Electric Vehicles (BEV)
- Plug-In Hybrid Electric Vehicles (PHEV)

According to the report, hybrid electric vehicles (HEV) accounted for the largest market share.

Breakup by Automotive and Transportation Market: Application:

- Body Assemblies
- Engine Parts
- Transmission Parts
- Others

According to the report, body assemblies accounted for the largest market share.

Regional Insights:

- North America (United States, Canada)
- Asia Pacific (China, Japan, India, Australia, Indonesia, Korea, Others)
- Europe (Germany, France, United Kingdom, Italy, Spain, Others)
- Latin America (Brazil, Mexico, Others)
- Middle East and Africa (United Arab Emirates, Saudi Arabia, Qatar, Iraq, Other)

According to the report, Asia Pacific accounted for the largest market share.

Key highlights of the Report:

- Market Performance
- Market Outlook
- COVID-19 Impact on the Market
- Porter's Five Forces Analysis
- Historical, Current and Future Market Trends
- Market Drivers and Success Factors
- SWOT Analysis
- Structure of the Market
- Value Chain Analysis
- Comprehensive Mapping of the Competitive Landscape

Note: If you need specific information that is not currently within the scope of the report, we can provide it to you as a part of the customization. Related Report by IMARC Group: -

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