+357 96 030922
info@marketpublishers.com

Aluminium & Magnesium Die Casting Market Forecasts to 2032 – Global Analysis By Product (Engine Components, Transmission Components, Chassis Components, Structural Components, Body Panels, Electronic Housings, Interior Trim Components, and Other Products), Process, Material, Die Casting Equipment, Application, End User and By Geography

https://marketpublishers.com/r/A2F238A25798EN.html
Date: September 2025
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: A2F238A25798EN

Abstracts

According to Stratistics MRC, the Global Aluminium & Magnesium Die Casting Market is accounted for $6.00 billion in 2025 and is expected to reach $9.76 billion by 2032 growing at a CAGR of 7.2% during the forecast period. Aluminium and Magnesium Die Casting refers to a manufacturing process where molten aluminium or magnesium alloys are injected under high pressure into steel molds, known as dies, to create precise, complex, and lightweight metal components. This process ensures high strength, excellent dimensional accuracy, and superior surface finish, making it widely used across industries such as automotive, aerospace, electronics, and industrial machinery. The technique supports mass production, cost-efficiency, and the growing demand for lightweight materials.

Market Dynamics:

Driver:

Increasing adoption in consumer electronics

+357 96 030922
info@marketpublishers.com

The rising integration of aluminium and magnesium die-cast components in consumer electronics is driven by demand for lightweight, durable, and thermally efficient materials. As devices become more compact and performance-intensive, manufacturers are turning to die casting for precision and scalability. Smartphones, laptops, and wearables increasingly rely on cast housings and structural parts to optimize form factor and heat dissipation. The proliferation of smart home devices and IoT-enabled gadgets further accelerates this trend. Additionally, the push for aesthetic finishes and ruggedized designs makes die casting a preferred choice. This growing reliance across electronics segments is expanding market penetration and driving innovation in alloy formulations.

Restraint:

Technical limitations in large component casting

Despite its advantages, die casting faces constraints when producing large or complex components, especially in automotive and industrial applications. Issues such as porosity, dimensional instability, and cooling inefficiencies limit scalability for oversized parts. These technical hurdles often require secondary machining or alternative processes, increasing production time and cost. Moreover, the need for high-pressure systems and specialized tooling adds complexity to large-scale casting operations. Manufacturers also struggle with alloy compatibility and structural integrity at larger volumes. As a result, adoption in heavy-duty sectors remains cautious, slowing broader market expansion.

Opportunity:

Growing demand for recyclable and sustainable materials

Environmental regulations and consumer awareness are pushing industries toward recyclable and low-carbon materials, positioning aluminium and magnesium die casting as a sustainable solution. Both metals offer excellent recyclability without significant degradation in mechanical properties, making them ideal for circular manufacturing models. Automotive and electronics sectors are increasingly adopting these alloys to meet emissions targets and eco-labeling standards. Innovations in green casting techniques, such as reduced energy furnaces and closed-loop recycling, are enhancing sustainability credentials. Additionally, lightweighting benefits contribute to fuel efficiency and lower carbon footprints in transport applications. This convergence of performance and sustainability is unlocking new growth avenues across regions.

+357 96 030922
info@marketpublishers.com

Threat:

Competition from alternative manufacturing methods

Emerging technologies such as additive manufacturing, injection molding, and precision machining are challenging the dominance of die casting in certain applications. These methods offer greater design flexibility, faster prototyping, and reduced tooling costs, especially for low-volume or customized parts. As 3D printing advances in metal capabilities, it threatens traditional casting for intricate geometries and rapid iteration. Injection molding, particularly with high-performance polymers, is gaining traction in electronics and automotive interiors. Moreover, CNC machining provides superior surface finishes and tight tolerances for critical components. This competitive landscape is prompting die casters to innovate or risk displacement in niche segments.

Covid-19 Impact:

The COVID-19 pandemic disrupted global supply chains and manufacturing schedules, impacting die casting operations across sectors. Lockdowns and labor shortages led to delayed production cycles and reduced capacity utilization. Automotive and electronics demand initially declined, but rebounded as remote work and e-mobility trends accelerated. The crisis highlighted the need for resilient, localized supply chains and flexible manufacturing setups. In response, many firms invested in automation and digital monitoring to future-proof operations.

The engine componentssegment is expected to be the largest during the forecast period

The engine componentssegment is expected to account for the largest market share during the forecast period, due to its critical role in automotive manufacturing. Lightweight alloys are increasingly used in engine blocks, cylinder heads, and transmission housings to enhance fuel efficiency and thermal performance. Stringent emission norms and electrification trends are driving OEMs to replace heavier steel parts with cast aluminium and magnesium alternatives. These components require high dimensional accuracy and durability, making die casting a preferred method. Continuous innovation in alloy composition and casting techniques is expanding applicability across ICE and EV platforms. As a result, engine-related castings will maintain a stronghold in overall market share.

The contract manufacturerssegment is expected to have the highest CAGR during the

+357 96 030922
info@marketpublishers.com

forecast period

Over the forecast period, the contract manufacturerssegment is predicted to witness the highest growth rate, driven by outsourcing trends and cost optimization strategies. OEMs across automotive, electronics, and industrial sectors are increasingly partnering with specialized casting firms to streamline operations. These manufacturers offer scalable production, advanced tooling capabilities, and rapid turnaround times, making them attractive for high-volume and precision parts. The rise of EVs and smart devices is fueling demand for agile suppliers who can adapt to evolving design requirements. Additionally, contract firms are investing in automation and quality control to meet global standards. This shift toward strategic outsourcing is propelling their market expansion at an accelerated pace.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, driven by robust manufacturing ecosystems and rising industrial output. Countries like China, India, and Japan are major hubs for automotive and electronics production, driving demand for cast components. Government initiatives promoting lightweight materials and energy-efficient technologies are further boosting adoption. The region benefits from cost-effective labor, abundant raw materials, and expanding infrastructure. Rapid urbanization and consumer electronics penetration also contribute to market growth.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, fuelled by technological advancements and sustainability mandates. The region’s automotive sector is aggressively transitioning toward EVs, creating demand for lightweight, high-performance castings. Aerospace and defense industries are also adopting magnesium alloys for structural and weight-sensitive applications. Investments in automation, AI-driven quality control, and digital foundries are enhancing production efficiency. Additionally, regulatory pressures around recyclability and carbon emissions are accelerating material substitution. This innovation-led environment is positioning North America as a high-growth region for die casting solutions.

Key players in the market

Some of the key players in Aluminium & Magnesium Die Casting Market include Ryobi

+357 96 030922
info@marketpublishers.com

Limited, Gibbs Die Casting, Nemak, Alteams Group, Dynacast International, Mino Industry USA, Endurance Technologies, Form Technologies, Shiloh Industries, Guangdong Hongtu Technology, GF Casting Solutions, Rane Group, Ahresty Corporation, Pace Industries, Sundaram Clayton, Alcoa Corporation, Castwel Auto Parts, and Sandhar Technologies.

Key Developments:

In July2025, Nemak, S.A.B. de C.V. announced that it has entered into a definitive agreement to acquire theautomotive business of GF Casting Solutions, a Swiss-based leader in lightweight castedcomponents. This strategic acquisition will represent a key milestone in Nemak's efforts to accelerate itstransformation beyond ICE powertrain components and broaden its global footprint.

In February 2025, Architect Equity a private equity group focused on the lower middle market, is pleased to announce the acquisition of Gibbs Die Casting Corporation ("Gibbs"), a leading manufacturer of precision die-casted, machined and assembled products for the automotive and industrial markets, from Koch Enterprises, Inc. Terms of the transaction were not disclosed.

Products Covered:

Engine Components

Transmission Components

Chassis Components

Structural Components

Body Panels

Electronic Housings

Interior Trim Components

Other Products

+357 96 030922
info@marketpublishers.com

Processes Covered:

- High?Pressure Die Casting
- Low?Pressure Die Casting
- Permanent Mold Casting
- Gravity Die Casting

Materials Covered:

- Aluminium Die Casting
- Magnesium Die Casting

Die Casting Equipments Covered:

- Hot Chamber Machines
- Cold Chamber Machines

Applications Covered:

- Automotive
- Aerospace
- Consumer Electronics
- Industrial Equipment & Machinery
- Renewable Energy
- Other Applications

+357 96 030922
info@marketpublishers.com

End Users Covered:

- Contract Manufacturers
- Aftermarket Distributors
- Defense Contractors
- Medical Device Manufacturers
- Construction & Infrastructure
- Other End Users

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

+357 96 030922
info@marketpublishers.com

12 KEY DEVELOPMENTS

13 COMPANY PROFILING

+357 96 030922
info@marketpublishers.com

+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: Aluminium & Magnesium Die Casting Market Forecasts to 2032 – Global Analysis By Product (Engine Components, Transmission Components, Chassis Components, Structural Components, Body Panels, Electronic Housings, Interior Trim Components, and Other Products), Process, Material, Die Casting Equipment, Application, End User and By Geography

Product link: https://marketpublishers.com/r/A2F238A25798EN.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/A2F238A25798EN.html