+357 96 030922
info@marketpublishers.com

Automotive Parts Die Casting - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

https://marketpublishers.com/r/A6A7FF9FF4BCEN.html
Date: July 2024
Pages: 100
Price: US$ 4,750.00 (Single User License)
ID: A6A7FF9FF4BCEN

Abstracts

The Automotive Parts Die Casting Market size in terms of Greater Than-6.19 is expected to grow from USD 46.13 billion in 2024 to USD 62.28 billion by 2029, at a CAGR of greater than 6.19% during the forecast period (2024-2029).

The automotive parts die casting market is experiencing significant growth, primarily driven by the global shift toward lightweight vehicles and the increasing popularity of electric vehicles. This trend toward lighter vehicles arises from the need to improve fuel efficiency and reduce carbon emissions, aligning with global environmental regulations and sustainability goals. Electric vehicles, in particular, require complex, high-precision components that are both lightweight and sturdy, and die casting is an ideal process to meet these demands.

For instance, CAF? standards and EPA policies to reduce automobile emissions and increase fuel efficiency are driving automobile manufacturers to reduce the weight of the automobile by using lightweight, non-ferrous metals. The move by the EPA to raise the miles per gallon (mpg) standards to 54.5 mpg by 2025 has helped the die casting industry, as the only way to get to those mileage standards is by manufacturing lightweight vehicles. Subsequently, using die cast parts as a weight-reduction strategy is a major driver for the market.

Further, advancements in die casting technology are significantly contributing to the expansion of the market. Innovations in machine design, process control, and mold technologies improve the efficiency and quality of die casting operations. These technological improvements increase the precision and strength of the cast parts and reduce waste and energy consumption, making the process more environmentally

+357 96 030922
info@marketpublishers.com

friendly and cost-effective. Integrating automation and digital technologies, such as computer-aided engineering (CAE) and the Internet of Things (IoT), optimizes the die casting process, leading to reduced lead times and increased productivity.

Moreover, the versatility of die casting allows for the production of a wide range of automotive parts, including intricate engine components, transmission systems, and structural elements. High-pressure die casting (HPDC) has emerged as a prominent technology, offering high-speed production capabilities and the ability to produce complex shapes with high dimensional accuracy. Moreover, vacuum die casting is gaining traction due to its ability to produce parts with superior mechanical properties and minimal porosity, further enhancing the quality and durability of automotive components.

As vehicle manufacturers increasingly focus on reducing vehicle weight to meet stringent emission standards and improve battery range in EVs, the demand for innovative die casting solutions is expected to surge. This is likely to lead to further advancements in materials and processes, such as the development of new alloys and enhanced casting techniques, to meet the evolving requirements of the automotive industry.

Automotive Parts Die Casting Market Trends

Pressure Die Casting Holds the Largest Market Share While Vacuum Die Casting is Expected to Witness a High Growth Rate

Pressure die casting is the largest category based on production type. Pressure die casting dominates the automotive parts die casting market with its efficient, high-volume, intricate, and durable components production.

Pressure die casting has been pivotal in the automotive parts die casting market, primarily due to its proficiency in fabricating high-volume, complex parts with perfect surface finish. Additionally, high-pressure die casting (HPDC) is increasingly used to produce large auto parts.

Major automotive companies like Tesla are utilizing HPDC to manufacture significant components, such as the front and rear ends of vehicles, as single parts. This application of HPDC has led to significant advancements in the efficiency and sustainability of automotive manufacturing processes. For instance, HPDC allows for replacing 70 to 100 parts with a single part, drastically reducing production complexity

+357 96 030922
info@marketpublishers.com

and improving overall efficiency.

While pressure die casting has the largest share, vacuum die casting is expected to emerge as the fastest-growing segment in the automotive parts die casting market, driven by its ability to enhance the quality and strength of manufactured components. This growth trajectory is underpinned by the technology's intrinsic advantage in mitigating air entrapment during the casting process, thereby ensuring the production of components with enhanced structural integrity.

Further, vacuum die-casting significantly reduces porosity, creating denser and more robust automotive parts. This attribute is increasingly sought in producing critical automotive components, where superior quality and strength are non-negotiable. Moreover, the method's proficiency in manufacturing high-quality, durable parts positions it as an indispensable technology in the evolving automotive manufacturing sector, particularly for components that require higher reliability and performance standards.

The Asia-Pacific Region is Expected to Play Key Role in the Market

The Asia-Pacific region is expected to play a dominant role in the market owing to the presence of key countries like India, China, and Japan. China is one of the major producers of die casting parts, accounting for more than 60% of the regional (Asia-Pacific) die casting market share.

The Asia-Pacific region leads in the automotive parts die casting market because of significant contributions from China and India. This is due to their growing car industry, high vehicle production, and major car manufacturers based there.

In 2022, over 35 million vehicles were produced in Asia-Pacific, with China accounting for 27 million motor vehicles alone. China was followed by Japan and India, which produced over 7.8 million and 5.4 million motor vehicles, respectively. Additionally, the overall commercial vehicle sales in the region in 2022 were registered at over 6.6 million units; over 3.3 million units were sold in China alone.

Moreover, the Asia-Pacific region derives strength from a well-entrenched manufacturing infrastructure, augmented by government policies favorably inclined toward the automotive industry's growth, thereby cementing its leadership position in

+357 96 030922
info@marketpublishers.com

the global context. Factors such as new manufacturing technologies and a focus on fuel-efficient cars shape the market.

The increasing wealth of the middle class also positively impacts the market growth. The region's push for advanced car technologies like electric and hybrid vehicles, backed by government policies for clean energy vehicles and environmental concerns, drives the market. This evolving market environment in Asia-Pacific, marked by rapid growth and technological advancements, is expected to drive the global automotive parts further die casting industry.

Automotive Parts Die Casting Industry Overview

The global market for die casting is fragmented, with many regional small-medium scale players from developing countries entering the market. Major recognized players, such as Nemak, Georg Fischer Automotive, Ryobi Die casting, Rheinmetall AG, Form Technologies Inc. (Dynacast), and Shiloh Industries, accounted for over 16% of the global market share. These key players have focused their revenues on R&D to develop better production processes and alloys for automotive parts. For instance,

In October 2023, Kentucky Industrial Holdings Inc. purchased the Rane Precision Die Casting facility in Russellville, Kentucky. The plant specializes in aluminum castings for the automotive and other industries.

Additional Benefits:

The market estimate (ME) sheet in Excel format

3 months of analyst support

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

6 COMPETITIVE LANDSCAPE

+357 96 030922
info@marketpublishers.com

7 MARKET OPPORTUNITIES AND FUTURE TRENDS

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Automotive Parts Die Casting - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

Product link: https://marketpublishers.com/r/A6A7FF9FF4BCEN.html

Price: US$ 4,750.00 (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/A6A7FF9FF4BCEN.html