China Automotive Parts Aluminum Die Casting, Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 60 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License $4750.00
- Team License (1-7 Users) $5250.00
- Site License $6500.00
- Corporate License $8750.00

Report description:

Currently, the Chinese automotive parts aluminum die casting market is valued at USD 8.21 billion. It is expected to reach USD 13.22 billion in the next five years, registering a CAGR of 8.26% in the forecast period.

The manufacturing shutdowns, lockdowns, and trade restrictions induced by the pandemic negatively affected the automotive parts aluminum die-casting industry. Furthermore, the fall in automotive production and lack of labor significantly impacted the market. As automotive component manufacturers resumed operations due to steadily rising automobile sales on account of post-pandemic recovery in China, the market is likely to recover in the next five years. Furthermore, the manufacturers are implementing contingency plans to mitigate future business uncertainties to retain continuity with clients in the critical sectors of the automobile industry.

Over the long term, increasing investments in R&D by major industry players, a rise in sales of electric and hybrid vehicles, and the rising demand for commercial vehicles have been creating demand in the Chinese automotive and transportation industry with a surge in sales of automotive parts with aluminum die-casting.

China is one of the largest markets for automobiles in the world and is expected to grow more in the future. An increase in the production of passenger cars and commercial vehicles is expected to drive the market for automotive parts developed through aluminum die casting. Pollution is becoming a serious concern, and governing bodies are focused on curbing the pollution caused by vehicles. At the same time, automobile manufacturers are opting for lightweight components to reduce fuel consumption and curb the emission of harmful pollutants into the atmosphere.

The government is pushing automobile manufacturers and encouraging customers to adopt electric vehicles by providing

subsidies as the country is planning to completely ban diesel and petrol vehicles. An increase in the production of electric vehicles, such as passenger cars and commercial vehicles, is expected to boost the sales of automotive parts developed through aluminum die casting.

Key players in the market are expanding their production capacity to cater to the increased demand for automotive parts, and aluminum die casting. For instance,

Key Highlights
In March 2022, Linamar Corporation signed an agreement with Binhai New Area, Tianjin, to manufacture Skyjack products in China for the Asia-Pacific market.

China Automotive Parts Aluminum Die Casting Market Trends

Rise in Use of Lightweight Materials in the Automotive Industry

Automotive parts are becoming advanced and innovative with the evolution of new technologies. Among them, the use of lightweight materials for the manufacturing of auto components is gaining attention globally. One of the important factors for this trend is the enhanced fuel economy of automobiles through the adoption of lightweight automotive materials in manufacturing crucial parts. Additionally, lightweight vehicles must be manufactured without compromising on safety while also ensuring quality and performance. Therefore, aluminum is the most preferred by manufacturers due to its various advantages.

The rise in demand for electric and hybrid vehicles turned the focus of automotive manufacturers toward using lightweight materials like aluminum as a substitute for heavier steel and iron in all types of vehicles. According to some estimates, the average aluminum content used in 2021 to manufacture a battery-electric vehicle in China was 173.1 kg per vehicle. Now due to advancements in technology, aluminum's inhered strength, and significant weight reduction properties, the usage of aluminum is expected to increase by up to 70% by 2027. Similarly, in 2021, the average aluminum used in electric commercial buses was around 244.5 kg, which is expected to reach 340.6 kg by 2027, indicating an increase of more than 70% in the use of aluminum in manufacturing.

Thus, due to the chemical properties of aluminum, the application and demand for aluminum parts are predicted to increase in the Chinese automotive industry. This, in turn, would expand the market for aluminum die casting in the Chinese automotive industry.

Pressure Die Casting Holds Major Market Share

Aluminum is the most preferred metal for pressure die casting. Within automotive applications, hybrid and electric vehicle technologies are on the rise. Pressure die casting is expected to be a key contributor in areas of transmission, power train components, and battery compartment housings. For instance, electric vehicles (EVs) are expected to use 25% to 27% more aluminum by weight than combustion engine cars over the coming years.

In China, 2.99 million electric passenger vehicles were sold in 2021, which is an increase of 169.1% over 2020. This massive increase in electric passenger vehicle sales can be attributed to the government incentives provided for the purchase of electric vehicles both at the central and provincial levels, rising vehicular pollution, growing levels of environmental consciousness, and the announcements to ban sales of new ICE vehicles from 2040.

At an average of 250 kg of aluminum per unit, EVs have already created a demand for around 250,000 million tons of aluminum,

which is expected to increase up to 10 million tons by 2030. Such instances are expected to drive the demand for high-pressure die-casting components owing to their advantages. In addition, the companies manufacturing EVs are also actively procuring these pressure die-casting machines and are adopting this technology to prepare themselves to cater to the growing consumer demand.

The major players across the country are focusing on upgrading their portfolios and focusing the expansion of their manufacturing plants, collaborations, etc., on pitching themselves as top players in the market. For instance,

In April 2022, Nantong Jiangzhong Photoelectricity Co. Ltd ordered two new die-casting machines from Italpressegaus. The two TF 2800 High-Pressure Die Casting (HPDC) machines will be installed at Jiangzhong's facility in Jiangsu Province later this year and will help Nantong Jiangzhong focus on toggle-free two-platen technology as the future of modern die casting.

Based on the above factors automotive aluminum parts die-casting market is anticipated to grow at a healthy CAGR rate over the next five years.

China Automotive Parts Aluminum Die Casting Market Competitor Analysis

The Chinese automotive parts aluminum die casting market is fragmented, with many players accounting for a small market share. The market is characterized by the presence of considerably large players who have secured long-term supply contracts with major automotive OEMs. Some of the prominent companies in the market studied are Nemak, RYOBI Die Casting, Linamar Corporation, and ALCOA Inc. The major players in the country are entering into strategic partnerships with global leaders to gain a considerable market share. These players also engage in joint ventures, mergers and acquisitions, new product launches, and product development to expand their brand portfolios and cement their market positions.

For instance,

In September 2022, Alcoa Corporation launched a new high-strength, 6000 series alloy, A210 ExtruStrong, for automotive, construction, industrial, and consumer goods applications. Alcoa Corporation licensed the production and sales of C611 EZ cast alloy to CSMet New Material Group Co, based in Shanghai, China.
In February 2022, SuperTurbo Technologies Inc. and Linamar Corporation entered into an agreement to manufacture, test, and supply SuperTurbo turbochargers. SuperTurbo turbochargers provide an on-demand boost to internal combustion engines, which helps to precise control and balance boost pressure and air-fuel ratio. These turbochargers comply with China 7, Euro 7, and California Air Resource Board/EPA 2024/2027 emissions norms.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

Table of Contents:

China Automotive Parts Aluminum Die Casting, Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 60 pages | Mordor Intelligence

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4750.00
	Team License (1-7 Users)	$5250.00
	Site License	$6500.00
	Corporate License	$8750.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2025-05-12
		Signature