

Automotive Aluminum Parts High Pressure Die Casting (HPDC) - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

The Automotive Aluminum Parts High Pressure Die Casting Market is expected to register a CAGR of 4.78% during the forecast period.

The COVID-19 pandemic had a negative impact on the market as the shutdown of manufacturing facilities and lockdowns in the first half of 2020 resulted in a decline in vehicle production across the world. However, with the gradual opening of restrictions in 2021 vehicle production picked up and further stable EV sales help the market regain its growth.

An increase in the production of passenger cars and commercial vehicles is expected to drive the market for the automotive parts developed through high-pressure aluminum die casting owing to their advantages. Some of the major factors driving the growth of the market are the enactment of stringent emission regulations and Corporate Average Fuel Economy (CAFE) standards, an increase in the demand for commercial vehicles and sales in the European region, and the growth of the automotive industry. Approximately 75.0% of the aluminum consumed can be reused, and reclaimed aluminum can be recycled indefinitely, making it the most popular material for automotive parts high pressure die casting.

Government pushing automobile manufacturers and encouraging customers to adopt electric vehicles by providing subsidies across key major countries like the United States, Germany, United Kingdom, India, China, etc. This trend of growing electric mobility encourages players operating in the market to produce various electric vehicle components like battery housings, transmission parts, etc.

Furthermore, growth in the substitution of aluminum for iron and steel in the automotive and automobile sectors, as well as increased funding in these sectors, would create lucrative opportunities for the growth of the high-pressure aluminum die casting

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market during the forecast period.

Automotive Aluminum Parts High Pressure Die Casting Market Trends

Rising Aluminum Prices Hindering the Market

In 2021, the global car sales were around 66.7 Million, which in 2020 were 63.8 Million. The global pandemic impacted economic activities all around the world including car sales the globe, and strict lockdowns were enforced in several countries to contain the spread of the virus. Owing to this the number of cars sold in 2020 was 14.8% lower than compared in 2019. But with life returning to normalcy, the number of cars sold globally has increased which will aid the automotive aluminium parts high-pressure die casting market to grow in the forecast period.

Owing to the increase in the demand for passenger cars and the growing awareness of electric mobility, major players are looking forward to electrifying their present fleet. For instance:

- In August 2022, Japanese carmaker Suzuki Motor announced its strategic investment worth INR 7,300 crore to set up the electric vehicle battery plant at Hansalpurin Gujarat. The plant will look forward for manufacturing advanced-chemistry cell batteries for upcoming electric vehicle technology in India. This will be Suzuki's second EV battery initiative in India after TDS Lithium-Ion Battery Gujarat (TDSG), which it set up in Gujarat in collaboration with Toshiba and Denso.
- In March 2022, Ford Motors announced to include three all-electric passenger vehicles in Europe by the end of 2024 and set a target to sell more than 600,000 electric vehicles annually by 2026 in the Europe region.
- In January 2022, General Motors announced considering investing more than USD 4 billion in two Michigan factories to increase its electric car manufacturing capacity. GM and LG Energy Solution have proposed constructing a USD 2.5 billion battery facility in Lansing.

With rising sales of the passenger car segment, demand for HPDC is witnessing promising growth. Nowadays, passenger car demanding HPDC in their different car components owing to their lightweight features and higher tensile strength. Aluminium extrusion companies are investing heavily to witness elevate sales bars. For instance, in August 2022, Cuprum who is the Latin America's largest aluminium extruder announced the investment of USD 100 million to build a new plant in Nuevo Leon for extrusion of aluminium to offer high pressure die casting technology in the automotive sector.

Considering these factors and aforementioned developments, passenger car segmented is expected to provide equivalent momentum to the demand for automotive aluminium HPDC.

North America Growing at a Faster Pace

Many die casting parts manufacturers across the world have significantly invested in the expansion of the aluminum high-pressure die-casting production process for the automotive industry. During 202-2021, North America has been recognized as one of the major regions with a larger number of investments and expansions of new production plants by major manufacturers like Nemak, Bocar, and George Fischer, mainly in the United States and Mexico.

Increased CO2 emissions and subsequent stringent CAFE and EPA regulations in the region are forcing automakers to employ high-pressure die casting (HPDC) parts of aluminum more extensively in their manufacturing processes, acting as a propellant for the market's growth in the country.

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The Mexican automotive die casting market is emerging, as the country is one of the largest vehicle manufacturers and seventh-largest car manufacturers in the world, as well as is the fourth-largest car exporter, behind Germany, Japan, and South Korea.

Key automakers, like Toyota, Mercedes-Benz (with Nissan), Audi, and BMW established new factories in Mexico. Other automakers, like General Motors, Fiat-Chrysler, Hyundai, and Honda are focusing on expanding their existing factories. Additionally, Chinese automobile manufacturers are planning to expand their production bases in Mexico, owing to the recent announcement of an increase in import tariff on auto parts from China to the United States.

Owing to the growing Mexican automotive industry, the presence of tier 1, tier 2, and tier 3 suppliers have been significantly increasing. With the rising trend of lightweight and robust automotive parts, the above suppliers are likely to adopt aluminum parts manufactured through HPDC, during the forecast period.

Automotive Aluminum Parts High Pressure Die Casting Industry Overview

The automotive aluminum parts high pressure die casting market is fragmented, as major players, like Rheinmetall Automotive, Endurance Group, Shiloh Industries, GF Casting Solutions, Ryobi Die Casting Inc., and Nematik.

Expansion of business segments and manufacturing plants, joint ventures with local manufacturers in key geographies, and mergers and acquisitions are the key strategies adopted by the players to maintain and improve their competitive position in the market. For instance,

- In August 2022, Minda Corporation Limited has announced that it has initiated acquisition of several Tier1 and OEMs in the internal combustion engine and electric vehicles space in United States, Africa, and Europe for developing business for high pressure die cast parts which includes aluminium HPDC parts as well.

Additional Benefits:

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

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