

Steel Casting Market Size to Reach \$55.6 Billion by 2034: Key Growth Trends Revealed

The growing demand for wind energy has fueled the need for heavy-duty steel castings, which are vital for manufacturing components.

WILMINGTON, DE, UNITED STATES, July 18, 2025 /EINPresswire.com/ -- According to a new report published by Allied Market Research, titled "<u>Steel Casting</u> <u>Market</u> by Type (Carbon Steel, Low-Alloy Steel, High-Alloy Steel, and Others), Process (Sand Casting, Investment Casting, Die Casting, and Others), and Application (Power Generation, Rail and



Steel Casting Market

Transit, Mining, Construction Machinery, Oil & Gas, and Others): Global Opportunity Analysis and Industry Forecast, 2025–2034", the global steel casting market was valued at \$33.1 billion in 2024 and is projected to reach \$55.6 billion by 2034, registering a CAGR of 5.4% during the forecast period.

Key Growth Drivers:-

1. Surge in Renewable Energy Projects:

The growing demand for wind energy has fueled the need for heavy-duty steel castings, which are vital for manufacturing components such as turbine hubs and generator frames. These applications require materials that offer high strength, durability, and resistance to harsh environmental conditions — qualities that make steel an indispensable choice.

2. Expansion of Global Infrastructure:

The rise in infrastructure and manufacturing projects worldwide is a major contributor to steel

casting market growth. In the U.S., the Infrastructure Investment and Jobs Act (IIJA) allocated \$1.2 trillion toward modernizing infrastructure. Similarly, India's National Investment and Infrastructure Fund (NIIF) invested \$365.5 million in the J&K tunnel road project. India is also on track to build 12 new steel plants by 2030 to meet growing demand from sectors like automotive, construction, and energy.

3. Automotive Sector Evolution:

The automotive and transportation industries are increasingly reliant on steel castings, especially in the electric vehicle (EV) segment. In 2024, China sold 12.87 million EVs, nearly 48% of its total automotive sales. Specialized steel castings are now used in EV battery housings, motor casings, and structural frames. Simultaneously, innovations such as vacuum die casting and lost-foam casting are improving quality while reducing production costs.

Market Trends and Opportunities:-

Eco-Friendly Steel Castings:

The shift toward sustainable construction and green building materials has opened new opportunities for eco-friendly steel castings. Companies like Salzgitter Flachstahl GmbH and ArcelorMittal have implemented initiatives such as Power Purchase Agreements (PPAs) and the XCarb Program to promote low-emission steel production. These advancements align with global sustainability goals and green building standards.

Heavy-Duty Vehicle Demand in Asia-Pacific:

The Asia-Pacific region, led by countries like China, India, and Japan, has seen rising demand for steel castings in trucks, buses, and logistics infrastructure. India is targeting 300 million tons of steel production by 2030-31, while innovations like Green Iron Castings from Brakes India and Volvo support the industry's shift toward low-carbon manufacturing.

Challenges and Restraints:-

Competition from Alternative Materials:

The rise of lightweight materials such as aluminum and composites poses a significant challenge. These alternatives are increasingly used in automotive and aerospace sectors due to their lower weight and comparable performance, leading to a gradual decline in steel casting usage in some applications.

Supplier Power and Cost Pressures:

Volatility in raw material prices and supply chain disruptions have strengthened the bargaining

power of steel suppliers. Companies like China Baowu Steel Group are leveraging technological advancements to offer specialized products, while ESG-compliant suppliers like POSCO are commanding premium pricing.

Market Segmentation Highlights:-

- By Type: Carbon Steel, Low-Alloy Steel, High-Alloy Steel, Others
- By Process: Sand Casting, Investment Casting, Die Casting, Others

- By Application: Power Generation, Rail & Transit, Mining, Construction Machinery, Oil & Gas, Others

- Forecast Period: 2025-2034
- Report Length: 426 pages

Key Market Players:

- ArcelorMittal
- Nippon Steel Corporation
- Eagle Alloy
- Jindal Steel & Power Ltd
- Harrison Steel Castings Company
- Ferralloy Inc
- Goodwin Steel Castings
- Barron Industries
- WHEMCO Steel Castings
- William Cook Group

These companies are actively pursuing strategic initiatives such as acquisitions, partnerships, new product launches, and green certifications to enhance their market share and sustainability profile.

Notable Developments:

 March 2023: ArcelorMittal acquired Companhia Siderúrgica do Pecém in Brazil for \$2.2 billion.
December 2024: India's Ministry of Steel introduced a green steel classification system based on carbon emissions per ton.

- November 2024: JSW Steel and POSCO announced a \$7.7 billion investment to set up an integrated steel plant in Odisha, targeting an initial capacity of 5 million metric tons per year.

About Us

Allied Market Research provides global enterprises as well as medium and small businesses with unmatched quality of "Market Research Reports" and "Business Intelligence Solutions." AMR has a targeted view to provide business insights and consulting to assist its clients to make strategic business decisions and achieve sustainable growth in their respective market domain.

Pawan Kumar, the CEO of Allied Market Research, is leading the organization toward providing high-quality data and insights. We are in professional corporate relations with various companies and this helps us in digging out market data that helps us generate accurate research data tables and confirms utmost accuracy in our market forecasting. Each and every data presented in the reports published by us is extracted through primary interviews with top officials from leading companies of domain concerned. Our secondary data procurement methodology includes deep online and offline research and discussion with knowledgeable professionals and analysts in the industry.

David Correa
Allied Market Research
+ 1 800-792-5285
email us here
Visit us on social media:
LinkedIn
Facebook
YouTube
Х

This press release can be viewed online at: https://www.einpresswire.com/article/831825758

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire[™], tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information. © 1995-2025 Newsmatics Inc. All Right Reserved.