+357 96 030922
info@marketpublishers.com

Steam Turbine Market Outlook 2025-2034: Market Share, and Growth Analysis By Plant Type (Gas, Coal, Nuclear, Other Plant Types), By Capacity (Rated Power (200MW)), By Technology, By Design, By End-Use Industry

https://marketpublishers.com/r/S3D13395DC2DEN.html
Date: October 2025
Pages: 160
Price: US$ 3,950.00 (Single User License)
ID: S3D13395DC2DEN

Abstracts

The Steam Turbine Market is valued at USD 15.8 billion in 2025 and is projected to grow at a CAGR of 2% to reach USD 18.9 billion by 2034.The steam turbine market is a crucial segment of the global power generation industry, offering efficient and reliable energy conversion solutions. Steam turbines are used in a wide range of applications, from electricity generation in power plants to industrial uses such as mechanical drive systems. The turbines operate by converting thermal energy from steam into mechanical energy, which is then used to generate electricity or drive industrial machinery. Steam turbines are integral to both conventional and renewable power plants, including coal, gas, and nuclear power stations, as well as in concentrated solar power plants. The growing demand for electricity, coupled with the ongoing transition to cleaner and more sustainable energy sources, has led to a steady rise in the adoption of advanced steam turbine technologies. With an emphasis on efficiency, reliability, and environmental sustainability, the market continues to innovate, particularly with the development of high-efficiency, low-emission turbines to meet the increasing global demand for clean energy. The steam turbine market experienced significant advancements, particularly in the area of efficiency improvements and emission reductions. Key players in the industry focused on developing next-generation steam turbines with higher thermal efficiency, allowing power plants to generate more electricity with less fuel. The increased integration of digital technologies, such as condition monitoring, predictive maintenance, and AI-driven optimization, has enhanced the reliability and operational lifespan of steam turbines, leading to lower operational costs and reduced downtime. Additionally, the shift toward renewable energy sources

+357 96 030922
info@marketpublishers.com

prompted the development of steam turbines designed for low-carbon technologies, such as concentrated solar power and geothermal plants. The continued trend toward hybrid power plants, combining fossil fuels with renewable energy systems, further bolstered the demand for versatile and adaptable steam turbines. However, challenges such as rising raw material costs and supply chain disruptions affected turbine production and delayed some large-scale projects in 2024. The steam turbine market is expected to continue its growth trajectory as the global demand for energy increases, especially in emerging economies. Continued technological advancements, such as the development of supercritical and ultra-supercritical steam turbines, will drive the market toward higher efficiency and lower emissions. The increasing adoption of combined heat and power (CHP) systems and integrated renewable energy solutions, where steam turbines are paired with solar, wind, or biomass, will present new opportunities for market expansion. Additionally, the ongoing development of hydrogen-fueled turbines will play a significant role in meeting decarbonization targets, especially in heavy industries. Governments' push for renewable energy adoption and net-zero carbon emission targets will further accelerate the demand for high-efficiency steam turbines that support these initiatives. However, challenges such as the high capital investment required for advanced turbine technologies, regulatory approval delays, and competition from alternative energy solutions may hinder the pace of market adoption in certain regions.

Key Insights Steam Turbine Market

Steam turbine manufacturers are focusing on developing high-efficiency turbines that offer better fuel utilization and contribute to reducing operational costs in power plants.

Integration of digital technologies, such as AI, machine learning, and predictive analytics, is enhancing turbine performance by enabling real-time monitoring, early fault detection, and optimized maintenance schedules.

There is a growing shift toward renewable energy sources, with steam turbines being integrated into hybrid and renewable power systems, such as concentrated solar power and geothermal energy plants.

Advances in steam turbine designs, such as supercritical and ultra-supercritical turbines, are improving thermal efficiency and reducing environmental impacts in power generation.

+357 96 030922
info@marketpublishers.com

Development of hydrogen-fueled steam turbines is emerging as a promising trend, as the energy industry seeks to meet decarbonization targets and reduce reliance on fossil fuels.

The increasing global demand for energy, particularly in emerging economies, is driving the need for efficient and reliable power generation systems, including advanced steam turbines.

Technological advancements in turbine efficiency, as well as the integration of digital technologies, are improving steam turbine performance and operational reliability.

The transition toward low-carbon and renewable energy solutions, including combined heat and power (CHP) systems, is increasing the demand for adaptable steam turbines that can work alongside renewable energy sources.

Government policies and regulatory frameworks that promote clean energy, such as decarbonization targets and renewable energy adoption, are driving the need for high-efficiency, low-emission steam turbines.

High capital investment requirements for advanced steam turbine technologies, along with regulatory approval delays and competition from alternative energy sources, remain significant barriers to wider adoption and market growth in certain regions.

Steam Turbine Market Segmentation

By Plant Type

- Gas
- Coal
- Nuclear
- Other Plant Types

+357 96 030922
info@marketpublishers.com

By Capacity

Rated Power (200MW)

By Technology

Steam Cycle

Combined Cycle

Cogeneration

By Design

Reaction

Impulse

By End-Use Industry

Power And Utility

Industrial

Key Companies Analysed

Hitachi Ltd.

Siemens AG

General Electric Company

Toshiba Corporation

Alstom Power Inc.

+357 96 030922
info@marketpublishers.com

Shanghai Electric Group Corp

Kawasaki Heavy Industries Ltd.

Doosan Enerbility Co Ltd.

Dongfang Electric Corporation Ltd.

Fuji Electric Ltd.

Weg SA

Black & Veatch Corporation

MAN Energy Solutions SE

Harbin Electric Company Limited

Solar Turbines Incorporated

Bharat Heavy Electricals Limited

Ansaldo Energia SpA

Power Machines Ltd.

Babcock & Wilcox Enterprises Inc.

NPO Saturn PJSC

Elliot Group Corp

Triveni Turbine Limited

Turboden S.p.A.

L&T-MHI Power Turbine Generators Pvt Ltd.

+357 96 030922
info@marketpublishers.com

Vericor Power Systems LLC

Arani Power Systems Ltd.

Turbine Technology Services Corporation

Beijing Beizhong Steam Turbine Generator Co Ltd.

CMI Energy India Pvt Ltd

Dresser-Rand Group Inc.

Steam Turbine Market Analytics

The report employs rigorous tools, including Porter's Five Forces, value chain mapping, and scenario-based modeling, to assess supply–demand dynamics. Cross-sector influences from parent, derived, and substitute markets are evaluated to identify risks and opportunities. Trade and pricing analytics provide an up-to-date view of international flows, including leading exporters, importers, and regional price trends.

Macroeconomic indicators, policy frameworks such as carbon pricing and energy security strategies, and evolving consumer behavior are considered in forecasting scenarios. Recent deal flows, partnerships, and technology innovations are incorporated to assess their impact on future market performance.

Steam Turbine Market Competitive Intelligence

The competitive landscape is mapped through OG Analysis' proprietary frameworks, profiling leading companies with details on business models, product portfolios, financial performance, and strategic initiatives. Key developments such as mergers & acquisitions, technology collaborations, investment inflows, and regional expansions are analyzed for their competitive impact. The report also identifies emerging players and innovative startups contributing to market disruption.

Regional insights highlight the most promising investment destinations, regulatory landscapes, and evolving partnerships across energy and industrial corridors.

Countries Covered

+357 96 030922
info@marketpublishers.com

North America — Steam Turbine market data and outlook to 2034

United States

Canada

Mexico

Europe — Steam Turbine market data and outlook to 2034

Germany

United Kingdom

France

Italy

Spain

BeNeLux

Russia

Sweden

Asia-Pacific — Steam Turbine market data and outlook to 2034

China

Japan

India

South Korea

Australia

Indonesia

+357 96 030922
info@marketpublishers.com

Malaysia

Vietnam

Middle East and Africa — Steam Turbine market data and outlook to 2034

Saudi Arabia

South Africa

Iran

UAE

Egypt

South and Central America — Steam Turbine market data and outlook to 2034

Brazil

Argentina

Chile

Peru

** We can include data and analysis of additional countries on demand.*

Research Methodology

This study combines primary inputs from industry experts across the Steam Turbine value chain with secondary data from associations, government publications, trade databases, and company disclosures. Proprietary modeling techniques, including data triangulation, statistical correlation, and scenario planning, are applied to deliver reliable market sizing and forecasting.

Key Questions Addressed

+357 96 030922
info@marketpublishers.com

What is the current and forecast market size of the Steam Turbine industry at global, regional, and country levels?

Which types, applications, and technologies present the highest growth potential?

How are supply chains adapting to geopolitical and economic shocks?

What role do policy frameworks, trade flows, and sustainability targets play in shaping demand?

Who are the leading players, and how are their strategies evolving in the face of global uncertainty?

Which regional “hotspots” and customer segments will outpace the market, and what go-to-market and partnership models best support entry and expansion?

Where are the most investable opportunities—across technology roadmaps, sustainability-linked innovation, and M&A—and what is the best segment to invest over the next 3–5 years?

Your Key Takeaways from the Steam Turbine Market Report

Global Steam Turbine market size and growth projections (CAGR), 2024-2034

Impact of Russia-Ukraine, Israel-Palestine, and Hamas conflicts on Steam Turbine trade, costs, and supply chains

Steam Turbine market size, share, and outlook across 5 regions and 27 countries, 2023-2034

Steam Turbine market size, CAGR, and market share of key products, applications, and end-user verticals, 2023-2034

Short- and long-term Steam Turbine market trends, drivers, restraints, and opportunities

Porter’s Five Forces analysis, technological developments, and Steam Turbine

+357 96 030922
info@marketpublishers.com

supply chain analysis

Steam Turbine trade analysis, Steam Turbine market price analysis, and Steam Turbine supply/demand dynamics

Profiles of 5 leading companies—overview, key strategies, financials, and products

Latest Steam Turbine market news and developments

Additional Support

With the purchase of this report, you will receive

An updated PDF report and an MS Excel data workbook containing all market tables and figures for easy analysis.

7-day post-sale analyst support for clarifications and in-scope supplementary data, ensuring the deliverable aligns precisely with your requirements.

Complimentary report update to incorporate the latest available data and the impact of recent market developments.

** The updated report will be delivered within 3 working days*

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

6. ASIA PACIFIC STEAM TURBINE INDUSTRY STATISTICS – MARKET SIZE, SHARE, COMPETITION AND OUTLOOK

7. EUROPE STEAM TURBINE MARKET DATA, PENETRATION, AND BUSINESS PROSPECTS TO 2034

+357 96 030922
info@marketpublishers.com

8. NORTH AMERICA STEAM TURBINE MARKET SIZE, GROWTH TRENDS, AND FUTURE PROSPECTS TO 2034

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

12 APPENDIX

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Steam Turbine Market Outlook 2025-2034: Market Share, and Growth Analysis By Plant Type (Gas, Coal, Nuclear, Other Plant Types), By Capacity (Rated Power (<60MW), Rated Power (60-200MW), Rated Power (>200MW)), By Technology, By Design, By End-Use Industry

Product link: https://marketpublishers.com/r/S3D13395DC2DEN.html

Price: US$ 3,950.00 (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/S3D13395DC2DEN.html