

Process Gas Compressors Market Forecasts to 2032 – Global Analysis By Vehicle Type (Oil-Injected Compressors, Oil-Free Compressors, Positive Displacement Compressors and Dynamic Compressors), End User and By Geography

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Abstracts

According to Statistics MRC, the Global Process Gas Compressors Market is accounted for \$8.60 billion in 2025 and is expected to reach \$14.52 billion by 2032 growing at a CAGR of 7.77% during the forecast period. Process gas compressors play an essential role in industries that rely on the transport and compression of gases for operational processes. These machines manage gases like natural gas, hydrogen, nitrogen, and other industrial variants at high pressures, facilitating smooth movement through pipelines and processing systems. Built for continuous operation, they emphasize reliability, energy conservation, and low maintenance requirements. They are widely employed in chemical manufacturing, refining, petrochemical production, and power generation sectors. Recent technological developments have enhanced their efficiency, safety features, and environmental compliance, establishing process gas compressors as vital assets for stable operations, improved productivity, and sustainable growth across various industrial applications.

According to the IEA's World Energy Outlook, global natural gas demand is projected to grow at an average rate of 0.4% per year from 2022 to 2030 under the Stated Policies Scenario (STEPS).

Market Dynamics:

Driver:

Growing energy demand

Increasing global energy consumption is driving the process gas compressors market. Industrial expansion and rapid urbanization have significantly raised the use of natural gas, hydrogen, and other industrial gases. Process gas compressors ensure efficient compression and transportation of these gases, maintaining continuous supply to refineries, chemical plants, and power generation units. Additionally, as renewable energy sources grow, gas-fired power plants require dependable compressors as backup systems. This heightened energy requirement encourages investment in modern, high-capacity compressors that improve operational efficiency, reduce maintenance needs, and maintain steady energy distribution, reinforcing the critical role of process gas compressors in supporting global energy infrastructure.

Restraint:

High initial investment

The process gas compressors market faces limitations due to their high upfront costs. Advanced designs, specialized materials, and precise manufacturing contribute to substantial capital investment. For small and medium enterprises, these costs can be prohibitive, restricting the adoption of such equipment. Expenses related to installation, commissioning, and system integration add to the financial challenge. Although process gas compressors deliver long-term operational efficiency and reliability, the significant initial investment often deters companies from immediate acquisition. This cost barrier slows market growth and encourages some industries to explore alternative gas handling solutions, impacting the widespread adoption of advanced compressors despite their long-term industrial advantages.

Opportunity:

Expansion of natural gas infrastructure

The growing development of natural gas infrastructure worldwide offers major opportunities for the process gas compressors market. Investments in pipelines, storage facilities, and gas processing plants increase the demand for reliable compressors. These compressors enable efficient transportation, compression, and distribution of natural gas, ensuring a stable supply for industrial, commercial, and residential applications. Expansion of LNG terminals and international pipeline projects further amplifies the need for advanced compression solutions. This trend motivates

manufacturers to produce high-capacity, energy-efficient compressors capable of handling large gas volumes. Overall, the worldwide growth of natural gas infrastructure presents significant potential for market expansion, technology upgrades, and enhanced adoption of process gas compressors.

Threat:

Volatility in raw material prices

The process gas compressors market is threatened by unpredictable raw material costs. High-quality metals, alloys, and specialized components are essential to ensure compressors operate reliably under extreme pressures and temperatures. Sharp increases in prices for steel, nickel, or other critical materials can raise manufacturing costs, squeezing profit margins and influencing pricing decisions. Material cost fluctuations create uncertainty for producers, potentially delaying production schedules or hindering investment in advanced technologies. Elevated costs may also reduce affordability for end-users, limiting adoption. This instability in raw material pricing challenges supply chain continuity and overall market expansion, posing a significant threat to the growth and profitability of process gas compressors worldwide.

Covid-19 Impact:

The COVID-19 crisis significantly affected the process gas compressors market. Global supply chain interruptions, including delays in sourcing materials and manufacturing, caused reduced production and slower deliveries. Industrial shutdowns and operational restrictions in petrochemical, chemical, and energy sectors led to a temporary decline in compressor demand. Investment in new equipment was postponed due to uncertainty and budget constraints. Following the easing of restrictions, industrial activity resumed, driving gradual market recovery. The pandemic also emphasized the importance of reliable, efficient, and automated compressors to withstand future disruptions. While COVID-19 created short-term challenges, it reinforced the need for resilient, technologically advanced gas compression solutions across industrial sectors worldwide.

The oil-injected compressors segment is expected to be the largest during the forecast period

The oil-injected compressors segment is expected to account for the largest market share during the forecast period due to their operational efficiency, durability, and

versatility in managing different industrial gases. By using oil for lubrication, sealing, and cooling, these compressors maintain stable performance and withstand high-pressure conditions. They are extensively utilized in petrochemical, chemical, and energy industries where uninterrupted gas flow and steady pressure are critical. Their high reliability, reduced maintenance needs, and adaptability to varying capacity and pressure requirements make them the preferred choice for industrial operations. This combination of efficiency, longevity, and flexibility ensures oil-injected compressors maintain a leading position, representing the largest segment in the global process gas compressors market.

The natural gas processing segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the natural gas processing segment is predicted to witness the highest growth rate. Rising demand for natural gas as a cleaner energy source, along with growing investments in LNG infrastructure, pipelines, and processing plants, fuels the requirement for reliable compressors. These compressors ensure smooth transportation, compression, and steady flow of natural gas throughout processing and distribution networks. Expansion of gas infrastructure and ongoing energy transition efforts further accelerate growth. Consequently, the natural gas processing segment presents substantial opportunities for manufacturers to provide technologically advanced, durable, and efficient compressors, making it a focal point for market development and strategic investments worldwide.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share. This leadership is driven by swift industrialization and infrastructure advancements in nations such as China, India, and Southeast Asia. The region's burgeoning manufacturing industries, especially in petrochemicals, chemicals, and oil and gas, have substantially heightened the demand for process gas compressors. Moreover, the escalating consumption of natural gas and LNG further propels the requirement for these compressors. With an estimated market share of around 40%, Asia-Pacific's sustained industrial expansion solidifies its dominant role in the process gas compressors market.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest

CAGR. This surge is fueled by accelerated industrialization, urban development, and substantial infrastructure investments in nations such as China, India, and Southeast Asia. The region's burgeoning manufacturing industries, especially in sectors like petrochemicals, chemicals, and oil and gas, have notably heightened the demand for process gas compressors. Furthermore, supportive government policies and the presence of cost-effective labor enhance Asia-Pacific's appeal for industrial and manufacturing endeavors. Consequently, Asia-Pacific is poised to maintain its leadership with remarkable growth in the market in the forthcoming years.

Key players in the market

Some of the key players in Process Gas Compressors Market include Atlas Copco Group, Ingersoll Rand Inc., Sundyne LLC, Siemens Energy AG, Howden Group, Buckhardt Compression AG, Borsig ZM GmbH, Bauer Kompressoren GmbH, Mitsubishi Heavy Industries Ltd., Burckhardt Compression AG, Kaeser Kompressoren SE, Neuman & Esser Group, Baker Hughes, PCCS and Adson Engineering Corporation.

Key Developments:

In June 2025, Siemens Energy and New Zealand-based EnPot Ltd inked an agreement to cooperate at an official ceremony with New Zealand's Prime Minister Christopher Luxon in Shanghai today. The deal signals the companies' joint drive to accelerate the decarbonisation of China's energy-intensive primary aluminium industry. Together, EnPot and Siemens Energy will offer solutions to enable intelligent energy management and power modulation for aluminium smelters.

In August 2023, Atlas Copco has agreed to acquire Sykes Group Pty Ltd. from Seven Group Holdings Ltd., a company listed on the Australian Securities Exchange. Sykes is a global manufacturer of dewatering pumps, predominantly used for transferring water with solids and abrasive nature within the mining and wastewater sectors. It is headquartered in Newcastle, New South Wales, Australia. Sykes has 123 employees globally and annual revenues of approximately 65 MAUD.

In October 2023, Ingersoll Rand Inc. has completed the acquisitions of Oxywise s.r.o. and Fraserwoods Fabrication and Machining Ltd. for a combined all-cash purchase price of approximately \$26 million. Oxywise, based in Slovakia, increases Ingersoll Rand's broader air treatment capabilities with onsite oxygen and nitrogen generating-systems based on pressure swing adsorption technology, cylinder filling systems, containerized systems and gas control solutions.

Types Covered:

- Oil-Injected Compressors
- Oil-Free Compressors
- Positive Displacement Compressors
- Dynamic Compressors

End Users Covered:

- Oil & Gas
- Petrochemicals
- Chemicals
- Power Generation
- Industrial Gases
- Manufacturing
- Healthcare
- Refineries
- Natural Gas Processing
- Utilities / Energy Infrastructure

Regions Covered:

- North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

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