+357 96 030922
info@marketpublishers.com

API 618 Reciprocating Gas Compressor Market Forecasts to 2032 – Global Analysis By Design Type (Single-Acting Compressors and Double-Acting Compressors), Stage, Configuration, Cooling Method, Driver Type, Capacity, Gas Type, Operating Pressure Range, Service Model, Application and By Geography

https://marketpublishers.com/r/AE964F83EB33EN.html
Date: September 2025
Pages: 200
Price: US$ 4,150.00 (Single User License)
ID: AE964F83EB33EN

Abstracts

According to Stratistics MRC, the Global API 618 Reciprocating Gas Compressor Market is accounted for $5.60 billion in 2025 and is expected to reach $9.41 billion by 2032 growing at a CAGR of 7.7% during the forecast period. An API 618 reciprocating gas compressor is a type of positive displacement compressor built to meet API Standard 618 specifications, widely used in oil and gas, petrochemical, and refining industries. It compresses gases by means of pistons powered by a crankshaft, producing high-pressure output with accuracy and dependability. Known for their robustness, efficiency, and adaptability, these compressors can manage diverse gases, pressures, and demanding operating conditions, making them ideal for continuous, heavy-duty industrial use.

According to the International Energy Agency (IEA), investment in energy efficiency reached around $240 billion in 2021, reflecting a broader trend toward optimizing energy consumption in industrial processes.

Market Dynamics:

Driver:

Increasing demand for high-pressure gas compression

+357 96 030922
info@marketpublishers.com

Widely used across oil & gas, petrochemicals, and natural gas processing, these compressors ensure reliable performance in demanding, high-pressure environments. As energy consumption accelerates, the need for efficient gas transmission and storage infrastructure is expanding. API 618 compressors, designed to handle pressures exceeding 3,000 psi, are increasingly deployed in large-scale energy systems. Their adoption is further supported by stricter environmental regulations and a shift toward cleaner energy solutions, as they offer improved energy efficiency and contribute to lower emissions across industrial operations.

Restraint:

Complex maintenance and skilled labor dependency

API 618 reciprocating compressors are built for demanding, high-pressure tasks, but their sophisticated design requires meticulous upkeep. Operating these units often depends on technicians with niche expertise in both mechanical systems and digital diagnostics, which can be scarce in developing regions. The multi-stage compression process, along with vibration and alignment challenges, increases the likelihood of downtime if not expertly managed. Procuring certified components and complying with API standards can further extend service timelines and raise operational costs. The shortage of formal training and certification programs for compressor maintenance adds to the difficulty. Consequently, the market faces limitations in scaling due to its reliance on a specialized and limited workforce.

Opportunity:

Technological advancements in efficiency and digital monitoring

Digital innovation is reshaping the API 618 compressor landscape, with smart sensors, predictive analytics, and virtual modeling enhancing system oversight. These tools support continuous monitoring, reduce unexpected failures, and improve energy performance—critical for industries focused on cost and sustainability. New materials and design improvements are boosting thermal efficiency and minimizing mechanical degradation. Automation and remote control capabilities now allow compressors to be managed from afar, even in challenging environments. As sectors aim for lower emissions and greater reliability, these upgrades make API 618 units more attractive. The fusion of mechanical strength with intelligent systems is opening up fresh opportunities across energy, chemicals, and hydrogen markets.

+357 96 030922
info@marketpublishers.com

Threat:

Competition from alternative compressor technologies

Although API 618 compressors excel in high-pressure scenarios, they’re increasingly challenged by centrifugal and screw compressors that offer simpler maintenance and compact designs. These competing technologies are gaining traction in mid-range applications due to their ease of use and integration. Advances in rotary and scroll compressors are closing the gap in efficiency and noise control. Many newer models come equipped with smart controls and modular setups, appealing to users with limited technical infrastructure. With growing environmental scrutiny, some industries are opting for compressors that are quicker to deploy and more eco-friendly. Without continued innovation, API 618 systems risk losing ground in less demanding applications.

Covid-19 Impact:

The pandemic caused significant delays in the API 618 compressor market, stalling industrial projects and disrupting production and logistics. Budget reallocations toward emergency responses led to postponed installations and reduced capital investment. Restrictions on travel and labor availability further hindered maintenance and commissioning efforts. Yet, the crisis underscored the need for dependable gas compression systems in critical sectors like energy and chemicals. COVID-19 has ultimately accelerated the adoption of remote technologies, reinforcing the strategic value of advanced reciprocating systems.

The double-acting compressors segment is expected to be the largest during the forecast period

The double-acting compressors segment is expected to account for the largest market share during the forecast period, due to growing adoption of double-acting compressors due to their ability to manage high-pressure gas in sectors like oil, gas, and hydrogen. Innovations such as modular configurations, improved crank balancing, and adaptive pressure control are boosting performance and durability. Current trends emphasize eco-friendly technologies and advanced condition monitoring systems. Notable innovations include enhanced hydrogen compression capabilities reaching 170 bar and increased utilization in gas lift and re-injection processes, supporting the industry's transition toward high-efficiency, low-emission operations.

+357 96 030922
info@marketpublishers.com

The oil & gas segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the oil & gas segment is predicted to witness the highest growth rate, driven by increasing needs for high-pressure gas transport, re-injection, and treatment. Cutting-edge technologies like optimized cylinder designs, smart monitoring tools, and efficient crank systems are improving operational reliability. Trends are shifting toward compatibility with hydrogen and carbon capture initiatives. Recent advancements include compressors engineered for pressures exceeding 3,000 psi and extreme conditions, supporting the sector's focus on robust, low-emission, and economically viable solutions.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, due to accelerating industrial development, rising energy needs, and greater focus on oil, gas, and petrochemical expansion. Innovations like modular cylinder setups, improved pulsation management, and smart monitoring tools are boosting efficiency and dependability. The region is seeing increased adoption of hydrogen and carbon capture technologies to meet environmental targets. Recent advancements include compressors built for demanding conditions and high-pressure tasks, highlighting a move toward more sustainable and robust energy infrastructure.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, due to increased shale gas activity, LNG infrastructure development, and rising petrochemical demand. Technological progress including multi-stage compression, smart control systems, and robust design enhancements is improving operational efficiency and reliability. Emerging trends focus on hydrogen blending and carbon capture integration. Key developments involve compressors engineered for upstream exploration and gas gathering, reflecting the region's emphasis on durable, low-emission, and high-performance solutions tailored to evolving energy and environmental standards.

Key players in the market

Some of the key players in API 618 Reciprocating Gas Compressor Market include Burckhardt Compression AG, Dresser-Rand, Neuman & Esser Group, Shenyang Blower Works Group, Ariel Corporation, Shenyang Yuanda Compressor, Siemens

+357 96 030922
info@marketpublishers.com

Energy, Kobelco, GE Oil & Gas, Atlas Copco, Howden Group, Sundyne, FS-Elliott, MAN Energy Solutions, and Ingersoll Rand.

Key Developments:

In July 2025, Howden announces the acquisition of Nordic Netcare, a provider of digital healthcare solutions and health case management for insurers, pension funds and corporations in the Nordics, headquartered in Denmark. The acquisition reflects Howden's strategy to invest in its digital health capabilities to strengthen its clients' ability to manage people risk and improve employee well-being in the region.

In June 2025, Siemens Energy and Eaton join forces to provide power and technology to accelerate the delivery of new data center capacity. The collaboration will enable simultaneous construction of data centers and associated on-site power generation with grid connection and the integration of renewables to meet regional regulatory requirements, if required.

In June 2022, Ariel Corporation announce their agreement to provide non-lube compressor solutions capable of fulfilling the hydrogen compression requirements of the future hydrogen mobility market such as public transportation, large fleet vehicles, private trucking companies, trains, boats/ships and other high volume, high pressure, vehicle-fueling applications.

Design Types Covered:

Single-Acting Compressors

Double-Acting Compressors

Stage Covered:

Single-Stage Systems

Multi-Stage Systems

Configurations Covered:

+357 96 030922
info@marketpublishers.com

Horizontal

Vertical

V-shaped

Tandem

Cooling Methods Covered:

Air-cooled

Water-cooled

Driver Types Covered:

Electric Motor

Gas Engine

Steam Turbine

Capacities Covered:

Low Capacity (up to 500 HP)

Medium Capacity (500-1000 HP)

High Capacity (above 1000 HP)

Gas Types Covered:

Natural Gas

Hydrogen

+357 96 030922
info@marketpublishers.com

Sour Gas

CO?

Process Gas

Operating Pressure Ranges Covered:

Low Pressure (up to 150 psi)

Medium Pressure (150-1000 psi)

High Pressure (above 1000 psi)

Service Models Covered:

New Equipment Sales

Aftermarket

Applications Covered:

Oil & Gas

Chemical Processing

Petrochemical Manufacturing

Power Generation

LNG Plants

CNG/Hydrogen Fueling Stations

Other Applications

+357 96 030922
info@marketpublishers.com

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

+357 96 030922
info@marketpublishers.com

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:

+357 96 030922
info@marketpublishers.com

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
  - Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

15 GLOBAL API 618 RECIPROCATING GAS COMPRESSOR MARKET, BY GEOGRAPHY

+357 96 030922
info@marketpublishers.com

16 KEY DEVELOPMENTS

17 COMPANY PROFILING

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: API 618 Reciprocating Gas Compressor Market Forecasts to 2032 – Global Analysis By Design Type (Single-Acting Compressors and Double-Acting Compressors), Stage, Configuration, Cooling Method, Driver Type, Capacity, Gas Type, Operating Pressure Range, Service Model, Application and By Geography

Product link: https://marketpublishers.com/r/AE964F83EB33EN.html

Price: US$ 4,150.00 (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/AE964F83EB33EN.html