

Industrial Gas - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019-2029

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Report description:

The Industrial Gas Market size is estimated at 1.67 Billion tons in 2024, and is expected to reach 2.07 Billion tons by 2029, growing at a CAGR of 4.35% during the forecast period (2024-2029).

COVID-19 negatively impacted the market in 2020. Carbon dioxide is used to produce carbonated soft drinks and soda water, which was affected owing to the pandemic scenario. However, the medical industry's demand for oxygen for resuscitation and inhalation therapy increased during the pandemic, stimulating the market's growth.

Key Highlights

- Over the short term, the growing need for alternate energy sources and increasing demand from the healthcare sector are expected to drive the growth of the industrial gas market.
- Environmental regulations and safety issues are projected for the market's growth.
- Industrial growth in Asia-Pacific and Africa will likely create market opportunities in the coming years.
- The Asia-Pacific region is expected to dominate the market and will likely witness the highest CAGR during the forecast period.

Industrial Gases Market Trends

Increasing Demand from the Medical and Pharmaceutical Sector

- Industrial gases, such as oxygen, nitrogen, carbon dioxide, hydrogen, methane, and propane, are essential molecules required

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as reaction agents for various process steps in the chemical production chain.

- Industrial gases provide solutions for inerting, reactor cooling, and pH control. Petrochemicals are substances obtained from the refining and processing of petroleum and natural gases. They require inert atmospheres for transportation and storage, which is provided by nitrogen.
- In refineries, oxygen is used to enrich the air feed to catalytic cracking regenerators, increasing the units' capacity. It is used in sulfur recovery units to achieve similar benefits. Oxygen is also used to regenerate catalysts.
- Large quantities of carbon dioxide are used as a raw material in the chemical process industry, especially for methanol and urea production.
- Hydrogen is mostly used in oil refining and chemical manufacturing. Hydrogen is used as a feedstock in the production of two industrial chemicals, ammonia and methanol. In refineries, it is used in various hydro-desulfurization (HDS) and hydrocracking procedures.
- Methane is used as a raw material in the chemical industry to make methanol, synthetic ammonia, acetylene, and methylene chloride, among others. Further, propane is used in the production of ethylene and propylene.
- The chemical industry across the world is projected to witness growth, owing to the increasing consumption, increasing export demand, and enabling government initiatives.
- Asia-Pacific has grown to be the hub for chemical processing globally. The chemical industry in countries such as China, India, and Japan has been growing rapidly. The largest proportion of the global chemicals market is held by Asia by far. Since 2012, it has continuously accounted for more than half of the global chemicals market.
- Chemical production in Asia overall increased by 4.2% in 2022. However, this varies greatly from country to country. India saw a significant increase in production (+4.6%). In contrast, production in Japan, South Korea, and Taiwan fell by 3.0%, 7.4%, and 12.9%, respectively.
- In the European Union (EU), chemical production fell sharply by 5.8% due to a sharp rise in natural gas prices. In Germany, this fell by around 12% as the production of gas-intensive basic chemicals ceased. The United Kingdom also experienced a significant decline in chemical production.
- In contrast, US chemical production increased by 2.3% in 2022. However, the underlying impact of weather-related production losses in 2021 played a major role. Meanwhile, production in South America grew at 2.6% in 2022, slightly slower than the previous year (+3.6%).
- Thus, the abovementioned factors are expected to influence the demand for industrial gases used in the chemical industry.

Asia-Pacific to Dominate the Industrial Gas Market

- Asia-Pacific is the largest market for industrial gases. China accounted for a major chunk of the consumption in the region. However, India is expected to witness the fastest growth in the region.
- China's aerospace industry is projected to return to profitability in 2022 after facing a significant decline in the previous years. The Civil Aviation Administration of China (CAAC) estimated the aviation sector to recover domestic traffic to around 85% of pre-pandemic levels.
- Industrial gases also find their application in transportation, including tire manufacturing using pressurized nitrogen, high-pressure argon for airbags, and carbon dioxide and nitrogen for precise and secure welding. According to the IATA (International Air Transport Association) report, India is poised to become the third-largest aviation market in the world by the end of 2030.
- As per the forecast given by the Ministry of Housing and Urban-Rural Development, China's construction sector is expected to maintain a 6% share of the country's GDP going into 2025. Considering the given forecasts, the Chinese government unveiled a five-year plan in January 2022 to make the construction sector more sustainable and quality-driven.

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- In March of 2023, Air Liquide, a major industrial gas player, announced investing around EUR 60 million (~USD 65.64 million) to revamp two Air Separation Units (ASUs), which the Group operates in the Tianjin industrial basin in China. This announcement comes within the context of the renewal of a long-term industrial gases supply contract with Tianjin Bohua YongliChemical Industry Co., Ltd ('YLC'), a subsidiary of the BohuaGroup.
- India is the Asia-Pacific's second-largest iron and steel producer, and production is increasing rapidly yearly.
- Steel production in India reached a historic level of around 120 million tons per annum, making it the world's second-largest steel producer, as per the Indian government report in December 2022. The country accounts for around 4.8% of global steel production annually.
- The crude steel production in India rose by around 5.80% to 124.4 million tons (MT) in 2022, compared to 118.2 MT in 2021, according to World Steel Association data. India produced around 10.9 MT of steel between January-February 2023, down by around 0.2% compared to the same period in 2022, as per the World Steel Association data.
- Growing demand for iron and steel from various industries and the upcoming steel ventures, coupled with government initiatives to boost the manufacturing sector, is expected to boost the usage of mechanical gas creation units to address the mass prerequisites for modern gases.
- Therefore, the abovementioned factors are expected to drive market growth in th region in the coming years.

Industrial Gases Industry Overview

The industrial gas market is consolidated in nature. Some of the market's major players (not in any particular order) include Air Liquide, Messer Group GmbH, Nippon Sanso Holdings Corporation, Linde PLC, and Air Products Inc.

Additional Benefits:

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

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