

List of Industrial, Medical and Specialty Gases Manufacturing Project Ideas. Oxygen, Hydrogen, Nitrogen, Heptafluoropropane, Acetylene Gas Plant.

Industrial Gases Market in India to Cross \$ 2.2

Billion by 2021.



Industrial Gases











Introduction

Industrial gases are produced or refined in large quantities for use in basic materials, chemical and petrochemical industries. Industrial gases encompass a large number of products that are gaseous at room temperature and pressure, and while they may actually be stored as a liquid or solid, they are commonly used in gaseous form. From a more scientific perspective, a gas is a state of matter without a prescribed shape or volume. Gases have unique Industrial gases properties and characteristics depending upon such variables as the temperature, pressure, and volume to which they are subjected. Gases have low densities, assume the volume of their containment (or dissipate to the atmosphere), mix well with other gases, and are more compressible than solids and liquids.



Industrial gases are comprised of elements, molecular compounds, or mixtures. The most common industrial gases are oxygen, hydrogen, nitrogen, carbon dioxide, and noble gases such as argon, neon, xenon, and krypton. Some industrial gases such as nitrogen, oxygen, argon, LNG, and liquefied petroleum gas are liquefied at high pressure for ease of storage and transport. At even lower temperatures these liquids can turn to a solid. Dry ice, a solid form of carbon dioxide, is a common example of a normally gaseous material (at ambient conditions) that has useful properties as a solid. Much of the carbon dioxide will sublimate; meaning it will move directly to the gaseous phase from the solid phase without becoming a liquid. Finally, some industrial gases, such as hydrogen, are highly volatile and need special handling and storage to ensure safe usage.



The industrial gases market in India is divided into three segments, such as tonnage gases, packaged gases and cylinder gases. These are three different distribution modes through which industrial gases are supplied to the required customer.

India's market for tonnage plants as well as merchant or small sized plants is witnessing growth as a result of growth in industrial as well as commercial market. The commercial market is influenced by growth in light engineering industry as well as metal fabrication industry, being clustered in northern and western regions of the country. Similarly, industrial gases market is influenced by growth in steel and refineries sector, being concentrated in eastern and southern part of the country.



This is further expected to drive demand for tonnage plants, positively impacting overall industrial gases market in India. Apart from this, capacity addition in refineries are driving demand for nitrogen gases, which are solely used to improve efficiency in refineries for processing of crude oil as well as pressure and purging applications. Nitrogen, Oxygen and Argon are the most commonly used industrial gases. They are used in a wide range of industries, which include oil & gas, petrochemicals, chemicals, mining, steelmaking, metals, environmental protection, medicine, power, pharmaceuticals, biotechnology, food, water, fertilizers, nuclear power, electronics and aerospace. With increasing government initiatives towards developing India's manufacturing sector, coupled with rapid industrialization, demand for industrial gases is anticipated to grow at a robust pace over the next five years.



The market for industrial gases in India is projected to reach US \$ 2.2 billion by 2021. Owing to increasing demand and rising competition, an increasing number of industrial gases companies in India are investing heavily on capacity additions at existing as well as new end user facilities. Additionally, an increasing number of largescale end users are also installing industrial gas production units within their premises for ensuring continuous supply of industrial gases. Global industrial gas market was valued at around USD 45.0 billion in 2014 and is

expected to reach USD 65.0 billion in 2020, growing at a CAGR of above 6.0% between 2015 and 2020.



Growing population and industrialization in emerging economies are some of the major growth driving factors for the industrial gases market. Increasing demand of these gases from food and tobacco, paper, chemicals, agriculture, mining, oil and gas, construction and healthcare industry is further fuelling the market growth. Additionally, consolidation, strategic business alliances and concentric diversifications are some of the strategies adopted by major players, which is expected to augment the market growth during the forecast period. However, high storage and transportation cost of industrial gases is expected to be a major restraint of this market.



Global Industrial Gases Market Revenue, 2014-2020 (USD Million)





The global industrial gases market is segmented on the basis of products type, production and delivery, application, and geography. The market is segmented by products type into hydrogen, oxygen, carbon dioxide, nitrogen, helium, argon, and acetylene. Further by production and delivery, the market is bifurcated into merchant gases (liquified, tank delivery), merchant gases (cylinder delivery), and high-volume gases (on-site generation). Further, application segment comprises petroleum refinery, chemical production, food processing, healthcare, electronics, metal processing, and other applications.



Global Industrial Gases Market, by Products Type 2016 Vs 2024









Here are few Projects for Startups:

> INDUSTRIAL AND PHARMACEUTICAL GRADE OXYGEN (500 INDUSTRIAL GAS CYLINDERS AND 500 MEDICATED GAS CYLINDERS)





> HIGH PURE DISSOLVED ACETYLENE GAS

Acetylene (C2H2) is known as one of the simplest and most significant chemical in the acetylene series. A compound of carbon and hydrogen, acetylene is a colorless, highly flammable gas that dissociates at normal to low pressures and needs to be stored in high-pressure tanks containing some porous material and acetone.......<u>Read more</u>





> OXYGEN AND NITROGEN GAS PLANT

Oxygen (CO2, gas at 00/1 matm., 1.429g./l, crit. Pressure, 49.7 Matm.) is a colorless, odourless, and tasteless gas, somewhat heavier than air. It is one of the most active elements and plays on essential part in the respiration of living cells and in combustion. Oxygen is required for cutting and welding of steel materials for manufacturing and repairs is various industries......<u>Read more</u>





> OXYGEN PLANT





> ACETYLENE GAS PLANT

Acetylene is an endothermic compound, its heat of formation being nearly 50kg.-cal. g. mol. Both the gas (tc, $37\hat{A}^\circ$; Pc, 62 atm.) and the liquid (b.p., $83.6\hat{A}^\circ$) are highly explosive, particularly under pressure. Acetylene is a colourless inflammable gas obtained by the action of water on calcium carbide.....<u>Read more</u>





> HYDROGEN GAS FROM METHANOL CRACKING





> HEPTAFLUOROPROPANE

1, 1, 1, 2, 3, 3, 3-Heptafluoropropane, also called heptafluoropropane, HFC-227 or HFC-227ea (ISO name), is a colourless, odourless gaseous halocarbon commonly helped as a gaseous fire suppression agent. Its chemical formula is CF3-CHF-CF3, or C3HF7. With a boiling point of $-16.4\hat{A}^{\circ}$ C, it is a gas at room temperature......Read more





Industrial Gas Production, Industrial Gases Processing, Projects on Industrial Gases Production, Industrial Gas Business, Production of Industrial Gases, Oxygen & Hydrogen Gas Manufacturing, Industrial Gases Industry, Industrial Gases Plant, Start an Industrial Gas Plant, Oxygen and Nitrogen Gas Plant, Industrial Gases Manufacture, Opportunities in Industrial Gas Manufacturing Industry, Industrial Gas Manufacturing Unit, Oxygen Plant Manufacturing and Setup Cost in India, Oxygen Manufacturing Plant, Industrial Gases, Industrial Gases Manufacture in India, Industrial Gas Production Plant, Industrial Gas Manufacturing Business, Industrial Gases Manufacturing Business Ideas & Opportunities, Industrial Gas Manufacturing Business and Investment Opportunities, Industrial Gas Production project ideas, Projects on Small Scale Industries, Small scale industries projects ideas, Oxygen Manufacturing Based Small Scale Industries Projects,



Project profile on small scale industries, How to Start Oxygen Manufacturing Industry in India, Industrial Gas Production Projects, Production of Heptafluoropropane, Production of Industrial and Pharmaceutical Grade Oxygen, High Pure Dissolved Acetylene Gas, Acetylene production, Production and Combustion of Acetylene, Oxygen and Nitrogen Gas Plant, Oxygen Plant, Acetylene Gas Plant, Hydrogen Gas from Methanol Cracking, Gas Filling of LPG Cylinder, Oxygen Gas Lancing Pipes, Ceramic Coated Pipes, Oxygen Lancing Tube used in Steel Plants, Furnace and Foundries, New project profile on Industrial Gas Production industries, Project Report on Oxygen Manufacturing Industry, Detailed Project Report on Oxygen Manufacturing, Project Report on Industrial Gas Production, Pre-Investment Feasibility Study on Industrial Gas Production, Techno-Economic feasibility study on Industrial Gas Production, Feasibility report on Industrial Gas Production, Free Project Profile on Industrial Gas Production, Project profile on Industrial Gas Production, Download free project profile on Oxygen Manufacturing, Startup Project for Industrial Gas Production



For more Projects and further details, visit at:

https://goo.gl/oN41ge https://goo.gl/DHt3bV https://goo.gl/B22nrp



Major Queries/Questions Answered in Our Report?

- How has the industry performed so far and how will it perform in the coming years?
- 2. What is the Project Feasibility of the Plant?
- 3. What are the requirements of Working Capital for setting up the plant?
- 4. What is the structure of the industry and who are the key/major players?



- **5.** What is the total project cost for setting up the plant?
- 6. What are the operating costs for setting up the plant?
- 7. What are the machinery and equipment requirements for setting up the plant?
- 8. Who are the Suppliers and Manufacturers of Plant & Machinery for setting up the plant?
- **9.** What are the requirements of raw material for setting up the plant?



- 10. Who are the Suppliers and Manufacturers of Raw materials for setting up the plant?
- **11.** What is the Manufacturing Process of the plant?
- 12. What is the total size of land required for setting up the plant?
- **13.** What will be the income and expenditures for the plant?
- 14. What are the Projected Balance Sheets of the plant?



- 15. What are the requirement of utilities and overheads for setting up the plant?
- 16. What is the Built up Area Requirement and cost for setting up the plant?
- 17. What are the Personnel (Manpower) Requirements for setting up the plant?
- **18.** What are Statistics of Import & Export for the Industry?
- **19.** What is the time required to break-even?



- **20.** What is the Break-Even Analysis of the plant?
- **21.** What are the Project financials of the plant?
- 22. What are the Profitability Ratios of the plant?
- **23.** What is the Sensitivity Analysis-Price/Volume of the plant?
- 24. What are the Projected Pay-Back Period and IRR of the plant?
- **25.** What is the Process Flow Sheet Diagram of the plant?
- **26.** What are the Market Opportunities for setting up the plant?
- 27. What is the Market Study and Assessment for setting up the plant?
- **28.** What is the Plant Layout for setting up the plant?



Reasons for Buying Our Report:

- The report helps you to identify a profitable project for investing or diversifying into by throwing light to crucial areas like industry size, market potential of the product and reasons for investing in the product
- The report provides vital information on the product like it's characteristics and segmentation
- The report helps you market and place the product correctly by identifying the target customer group of the product



- The report helps you understand the viability of the project by disclosing details like machinery required, project costs and snapshot of other project financials
- The report provides a glimpse of government regulations applicable on the industry
- The report provides forecasts of key parameters which helps to anticipate the industry performance and make sound business decisions



- Our research reports broadly cover Indian markets, present analysis, outlook and forecast for a period of five years.
- The market forecasts are developed on the basis of secondary research and are cross-validated through interactions with the industry players
- We use reliable sources of information and databases. And information from such sources is processed by us and included in the report



Free Instant Online Project Identification and Selection Service

Our Team has simplified the process for you by providing a "Free Instant Online Project Identification & Selection" search facility to identify projects based on multiple search parameters related to project costs namely: Plant & Machinery Cost, Total Capital Investment, Cost of the project, Rate of Return% (ROR) and Break Even Point % (BEP). You can sort the projects on the basis of mentioned pointers and identify a suitable project matching your investment requisites......<u>Read more</u>



Download Complete List of Project Reports:

Detailed Project Reports

NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our Market Survey cum Detailed Techno Economic Feasibility Report provides an insight of market in India. The report assesses the market sizing and growth of the Industry. While expanding a current business or while venturing into new business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.



And before diversifying/venturing into any product, they wish to study the following aspects of the identified product:

- Good Present/Future Demand
- Export-Import Market Potential
- Raw Material & Manpower Availability
- Project Costs and Payback Period

The detailed project report covers all aspect of business, from analyzing the market, confirming availability of various necessities such as Manufacturing Plant, Detailed Project Report, Profile, Business Plan, Industry Trends, Market Research, Survey, Manufacturing Process, Machinery, Raw Materials, Feasibility Study, Investment Opportunities, Cost and Revenue, Plant Economics, Production Schedule,



Working Capital Requirement, uses and applications, Plant Layout, Project Financials, Process Flow Sheet, Cost of Project, Projected Balance Sheets, Profitability Ratios, Break Even Analysis. The DPR (Detailed Project Report) is formulated by highly accomplished and experienced consultants and the market research and analysis are supported by a panel of experts and digitalized data bank.

We at NPCS, through our reliable expertise in the project consultancy and market research field, have demystified the situation by putting forward the emerging business opportunity in India along with its business prospects......<u>Read more</u>



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Who are We?

- One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services
- We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad





What do We Offer?

- Project Identification
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- Industry Trend
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- Turnkey Project Consultancy/Solutions
- Entrepreneur India (An Industrial Monthly Journal)



How are We Different ?

- We have two decades long experience in project consultancy and market research field
- We empower our customers with the prerequisite know-how to take sound business decisions
- We help catalyze business growth by providing distinctive and profound market analysis
- We serve a wide array of customers, from individual entrepreneurs to Corporations and Foreign Investors
- We use authentic & reliable sources to ensure business precision



Our Approach

Requirement collection

Thorough analysis of the project

Economic feasibility study of the Project

Market potential survey/research

Report Compilation



Contact us

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