

# Industrial Gases – An Overview

**October 2019**

An  
Introduction

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# An Introduction | Distribution Channels

- ◆ 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.
- ◆ The most common industrial gases are oxygen, hydrogen, nitrogen, carbon dioxide, and noble gases such as argon, neon, xenon, and krypton.

## Distribution Channels



**Packaged:** Compressed in metal cylinders for customers



**Merchant:** Supply of gases in cryogenic tankers



**On-Site:** Direct supply to customers via pipeline

- Globally, packaged segment dominates the market - ~45% of the market.
- In case of Pakistan, the market is pre-dominantly secured through packaged segment, while merchant distribution has nominal share

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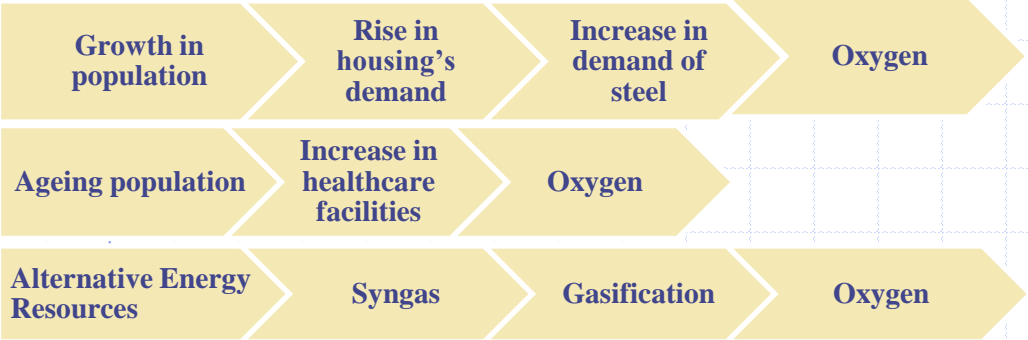
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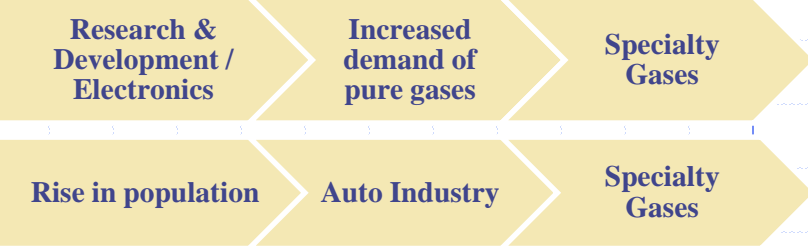
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# Demand Centers

## Oxygen



## Speciality Gases



## Nitrogen



# Global Players

- The global industrial gases market is estimated to be valued at US\$ 75bln in 2018 and this is projected to increase to US\$ 114bln by the end of 2025, displaying a CAGR of ~6%.
- The merger of Linde Group and Praxair was completed on 31<sup>st</sup> October, 2018. Linde Inc is now the market leader of industrial gases.
- Asia Pacific held the largest share of ~39% with the greater contribution from China and India.
- The global market is dominated by few large players that hold more than 60% share.
- Most of the large players in the industry have high margins.

International Players			
(US\$ mln) CY18	Linde Inc (post-merger with Praxair)	Air Liquide	Air Products & Chemicals
Revenue	14,900	24,793	8,930
Operating Profit	5,247	3,590	1,979
Gross Margin	27%	32%	31%
Operating Margin	16%	14%	22%
Country of Origin	German	France	US

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# The Domestic Industry

Manufacturer	North (TPD)	South (TPD)	West (TPD)	Total Capacity (TPD)	Capacity Share (%)	Planned (TPD)
Ghani Chemicals	220	110		330	38%	-
Pakistan Oxygen	130	130		260	30%	250 (South)
Sharif Gases	60		50	110	13%	
Agha Steel		60		60	7%	
Fine Gases		50		50	6%	
Sultan Oxygen		25		25	3%	
Others	20	10		30	3%	
<b>Total</b>	<b>430</b>	<b>385</b>	<b>50</b>	<b>865</b>	<b>100%</b>	

- Majority of the production capacity (~50%) is now concentrated in the Northern region, since Ghani Chemicals set up its third 110TPD plant in Aug-19.
- The industry is dominated by few large players with the largest two representing ~68% of the total production capacity.
- The major consumption centres in the country are ship breaking industry, oil and exploration and hospitals.
- Ghani Chemicals is currently the market leader in terms of capacity. However, Pakistan Oxygen has announced capacity expansion with a 250TPD plant which, when online, will once again put it in the lead.

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# The Domestic Industry

Players	Market share (Revenue Based)
Pakistan Oxygen	45%
Ghani Chemicals	37%
Sharif Gases	10%
Fine Gases	3%
Others	5%

PKR (mln)	Pakistan Oxygen (Formerly Linde Pakistan)			Ghani Chemical Industries		
	9MCY19	CY18	CY17	3MFY20	FY19	FY18
Revenue	3,535	4,860	4,413	577	2,301	2,049
Gross Profit	852	1,110	992	206	579	639
Gross Margin	24%	23%	22%	36%	25%	31%
Operating Profit/ (loss)	494	639	428	106	178	293
Operating Margin	14%	13%	10%	18%	8%	14%
Capacity Utilization	N/A	78%	81%	N/A	94%	100%

- The two large players cater to ~82% of the country demand with Pakistan Oxygen in the leading position having a share of ~45%, since Ghani Chemicals' new plant has not commenced commercial operations yet.
- Over FY19, demand for industrial gases from key sectors remained sluggish, in line with the overall economic slowdown. This trend is expected to continue in the short term.

## Industry Developments:

- Linde Pakistan has been acquired by local consortium and now renamed as Pakistan Oxygen. New management of Pakistan Oxygen announced its expansion plan of 250tpd with ~PKR 6bln.



# Bibliography

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