

Industrial Gases – An Overview

December 2018

An
Introduction

Demand
Centers

Global
Industry

Domestic
Industry

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

An Introduction

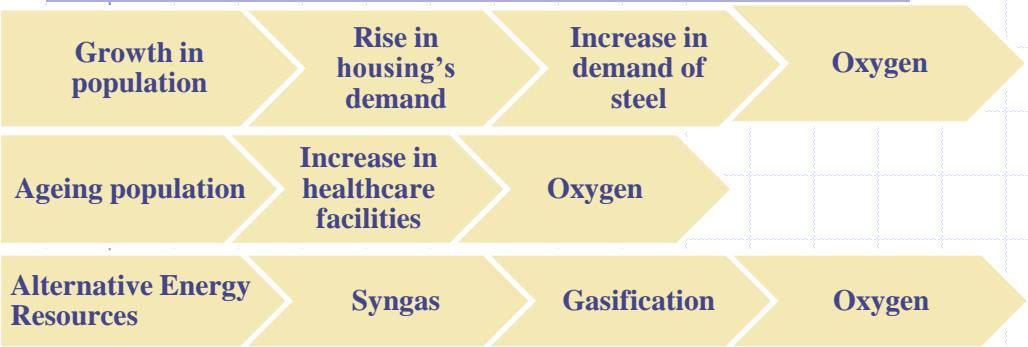
Demand Centers

Global Industry

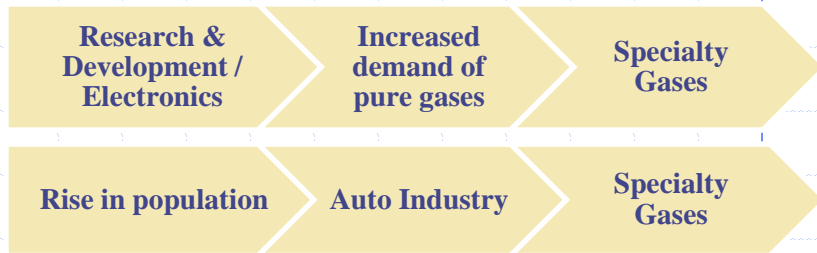
Domestic Industry

Demand Centers

Oxygen



Speciality Gases



Nitrogen



Global Players

- The global industrial gases market is estimated to be valued at US\$ 63bln in 2017 and this is projected to increase to US\$ 114bln by the end of 2025, witnessing a CAGR of 7.7%
- Linde Group and Praxair has merged as Linde Inc. Linde Inc is going to be 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)	Linde Group	Praxair	Air Liquide	Air Products & Chemicals
Revenue	20,536	11,437	24,419	8,188
Operating Profit	2,156	2,402	3,370	1,425
Gross Margin	38%	44%	39%	42%
Operating Margin	11%	21%	14%	17%
Country of Origin	German	US	France	US



The Domestic Industry

Manufacturer	North (tpd)	South (tpd)	Total	Capacity Share	Planned (tpd)
Pakistan Oxygen	130	125	255	37%	250
Ghani Gases	100	100	200	29%	120
Sharif Gases	60	50	110	16%	
Agha Steel	-	60	60	9%	
Fine Gases	-	50	50	7%	
Others	10	10	20	3%	
Total	300	395	695	100%	

- The southern region has a slightly larger share (57%) in the country's overall production capacity of ~700tpd.
- The industry is dominated by few large players with the largest two representing ~66% of the total production capacity.
- The major consumption centres in the country are ship breaking industry, oil and exploration and hospitals.
- With the announcement of a third gases plant by Ghani Gases of ~100tpd would enhance its share in the domestic market to an estimated 38%. However, with Pakistan Oxygen's announcement of 250tpd expansion will enable it to maintain its market share.

An Introduction

Demand Centers

Global Industry

Domestic Industry

The Domestic Industry

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

	Pakistan Oxygen (Formerly linde Pakistan)			Ghani Gases		
PKR (mln)	9MCY17	CY17	CY16	1QFY19	FY18	FY17
Revenue	3,618	4,413	3,954	539	2,049	1,804
Gross Profit	821	992	895	167	639	569
Gross Margin	23%	22%	23%	31%	31%	32%
Operating Profit/ (loss)	474	428	399	183	293	272
Operating Margin	13%	10%	10%	34%	14%	15%
Capacity Utilisation		81%	76%		100%	73%

*Capacity utilization of CY16 due to non-availability of data

- The two large players cater for ~82% of the country demand with Pakistan Oxygen in the leading position having a share of ~45%.
- Going forward, alongside overall economic buoyancy, the expected uptick in the industrial activity mainly owing to the CPEC would enhance the overall demand.

Industry Developments:

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

An
Introduction

Demand
Centers

Global
Industry

Domestic
Industry

Bibliography

<https://www.praxair.com/>
<https://www.lindeplc.com/en>
<http://pakoxygen.com/>
<http://ghanigases.com/main/>

Analysts	Muhammad Hassan Supervisory Senior +92 42 3586 9504 Muhammad.hassan@pacra.com	Zoya Aqib Associate Analyst +92 42 3586 9504 Hamza.ghalib@pacra.com
-----------------	--	--

DISCLAIMER

PACRA has used due care in preparation of this document. Our information has been obtained from sources we consider to be reliable but its accuracy or completeness is not guaranteed. The information in this document may be copied or otherwise reproduced, in whole or in part, provided the source is duly acknowledged. The presentation should not be relied upon as professional advice.