Petrochemicals Positioning India as a Hub by 2035

"Turbomachinery OEM Perspective"

Presented by: Vijayaraghavan K S Elliott Group

Petrochemicals: Global Market Size

Human activity makes use of petrochemicals or the materials made from petrochemicals, our life without petrochemicals would be very different and less comfortable, which is why the consumption of petrochemical product is always on increasing tread.

Global market growth: 2021 to 2025 6.14% CAGR

2025 to 2035 6.90% CAGR

Global Petrochemical Capacity: 2200 Mtpa in 2020

3500 Mtpa by 59%

Market Influencer:

- Specialty chemicals, plastic manufacturing
- Crude oil refining capacity, growing population, improving standard of living of the masses



Petrochemicals: Emerging Technologies

Propane Dehydrogenation Process (PDH)

- Ethylene Cracker: Propylene recovery is low.
- Propane Dehydrogenation (PDH): producing propylene from propane.

E-Cracking... A Game Changing Technology

 A technology by which steam crackers will heated by electricity ultimately supplied by carbon-free sources such as wind and solar — rather than fossil.

E-Drive... A Competitive & Reliable Technology

Variable Speed Electric Drive systems.



Petrochemicals: India Positioning

India market growth: 42.50 Mn Tons in 2021 to 49.62 Mn Tons by

2025

From 2025 to FY 2035. India capacity should be

~87.2 Mn Tons @ 6.9 CAGR

New Petrochemical Project: 15 world-scale petrochemicals assets by 2035

GOI Initiative : Aatma-Nirbhar (self-reliant) in Petrochemicals –

New Technologies Locally

Investment: \$100 billion worth of investment to boost & bridge

supply deficit



Petrochemicals Plants In India

Plants In Operation	Upcoming / Ongoing Projects
Ethylene Crackers	Refinery / Petrochemicals
Indian Oil Corporation Limited, Panipat, Naptha Cracker Unit, Haryana	Petrochemical Expansion plant at HMEL Bhatinda Punjab
Haldia Petrochemicals Limited, Haldia, West Bengal	Refinery and Petrochemical plant at Rajasthan
Reliance Industries Limited, Vadodara, Gujarat	PHD Plant in Western Mahrashtra Region
Reliance Industries Limited, Hazira, Gujarat	
Gas Authority of India Ltd, Pata, Uttar Pradesh	
Reliance Industries Limited, Dahej, Gujarat	
Reliance Industries Limited, Nagothane, Gujarat	
ONGC Petro additions Limited, Dahej, Gujarat	
Brahmaputra Cracker and Polymer Limited, Assam	
Off Gas Cracker	
Reliance Industries Limited, Jamnagar	

Elliott Contribution in Petrochemical Industry

Elliott Group is a global leader in the design, manufacture and service of technically advanced centrifugal compressors, steam turbines, power recover expanders and axial compressors.

For over 50 years, Elliott has been the world leader in centrifugal compressors for ethylene production.

Elliott's experience and achievements in the ethylene industry include:

- Installations in nearly 50% of the world's nameplate Ethylene capacity
- Installations in over 65% of the Ethylene plants that produce > 500 KTA
- Installations in over 140 Ethylene plants in more than 60 countries worldwide
- Installation of more than 800 compressors worldwide for ethylene service



Elliott Contribution in Petrochemical Industry

Elliott's solutions for petrochemical services

Ethylene Cracker Plants

- · Cracked Gas Compressor
- Ethylene Refrigeration Compressor
- Propylene Refrigeration Compressor
- Heat Pump Compressor
- Methane Refrigeration Compressor
- Binary Refrigeration Compressor

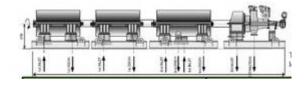
Propane Dehydrogenation (PDH)

- Product Gas Compressor
- Ethylene Gas Compressor

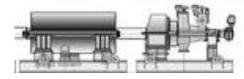
Others

- Polyethylene
- Butadiene
- Ethylene Oxide
- · Vinyl Chloride
- Chlorine
- Sulphuric Acid
- Synthesis Gas
- Hydrogen
- Feed Gas

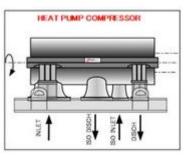
CGC



ERC/PRC

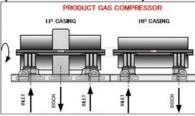


Heat Pump



Product Gas Compressor

(Motor Driven)





Elliott Contribution in Petrochemical Industry

Elliott will support it's customers with it's enriched experience and wide range of robust, efficient and reliable Turbomachinery solutions to match the fast growing Petrochemical demand in Indian & Global market.





The world turns to Elliott.