

MODERN GAS TRANSMISSION SOLUTIONS



Introducing:

1st Gas Transmission Engineering Concept

GasTEC I

"Modern Gas Transmission Solutions" are

- Technologies developed to transform classic gas transmission systems in order to enhance gas transmission performance, reducing
 - Fuel Consumption
 - Operational Costs
 - Carbon Emission
- Targeting all gas transmission system components:
 - Gas Compressor Station
 - Gas Pipeline
 - Gas Pressure Reduction Station
- Developed by extension of Machinery Engineering and Process Integration experiences in Gas Processing Facilities, LNG Plants, Power Stations and Utility Plants to gas transmission systems
- Comprise of five Gas Transmission Engineering Concepts (GasTEC)

GasTEC I: CCSD (Combined Compressor Station Design)

Target:

Gas Compressor Stations

Process Integration Idea:

Heat Recovery Steam Generation

Machinery Engineering Idea:

Steam Turbine Driven Gas Compressor

Case Study

- A 4 PJ/day Gas Compressor Station
- Classic Design: 4 × Turbocompressor
- CCSD (Based on GasTEC I):
 - 3 × Turbocompressor
 - 1 × ST-Comp
 - Steam Cycle Infrastructure
- **Fuel Consumption Reduction \approx 30%**
- **Fuel Gas Saved \approx 1.5 PJ/year**
- **Added Capital Cost \approx US\$ 28 Million**
- **Payback Period \approx 2 Years**



A Similar European Case → [Mallnow Compressor Station](#)

Other GasTEC

- GasTEC II: OPD
Optimal Pipeline Design
- GasTEC III: ICSD
Integrated Compressor Station Design
- GasTEC IV: TEPR
Turboexpander Equipped Pressure Reduction
- GasTEC V: UGT
The Ultimate Gas Transmission Solution



Mallnow Compressor Station