ABB Gas Compressor Modules
Reduce costs with digital gas compression packages

Overview

ABB Gas Compressor Modules are fully designed, assembled and commissioned packages, based on ABB advanced technologies and premium reciprocating gas compressors.

We offer a modular approach that accelerates delivery and optimizes compressor performance.

Modules arrive on-site fully assembled, pre-tested, validated and commissioned to help reduce your risk. Module commissioning includes rigorous testing of mechanical, piping and automation and startup by ABB experts to help ensure consistent quality, predictable performance and compliance with stringent industry requirements.

After implementation, ABB provides advanced monitoring and optimization services to ensure machines remain in good health and are working optimally.

Because they are the world’s first digital gas compressor modules, these solutions provide operators with real-time insights about the status of the compressor to ensure more accurate management of equipment.

Benefits

- Accelerate delivery, optimize performance and reduce costs
- Enable more predictable and efficient operations
- Reduce capex and increase operational efficiencies by giving you a single source from which to purchase, deploy, service and maintain equipment
- Reduce risk with fully designed, pre-tested, validated, assembled and commissioned solutions

Features

- Maximum rated power is up to 7500 kW
- Maximum discharge pressure is up to 420 bar
- Maximum speed is up to 1800 RPM
- Low to moderate speed: 150 up to 1800 RPM
- ABB advanced technologies, such as Direct Torque Control

Applications

- Designs suitable for: Air; hydrogen; nitrogen; carbon dioxide; methane; sour gas; heavy hydrocarbon
- Available for the following applications:
  - **Upstream**: Natural gas gathering; enhanced oil recovery; acid gas, air and nitrogen injection; landfill gas
  - **Midstream**: Pipeline transportation; gas storage injection and withdrawal
  - **Downstream and chemical**: process gasses handling; compressed natural gas (CNG); hydrocarbon cracking
  - **Power generation**: Gas turbines fuel booster
Module components

**ABB technologies:**
- Prime mover
  - High/Medium/Low Voltage Motors
  - Variable Speed Drives (if suitable)
  - Gas Engines
- Control, protection and monitoring systems
  - ABB System 800xA High Integrity Control System
  - ABB ServicePort™
- Electrical equipment
  - Motor Control Center
  - Main Switchgear
  - MV/LV Transformers
- Instrumentation
  - Process instrumentation
  - Wired and wireless sensors for condition monitoring

**Gas compressor from Ariel Corporation**
- Different frames available to respond to different process and gas conditions

**Why choose ABB**
- We offer the world’s first digital gas compressor module, in which each component is connected and can provide insights about its status and residual lifetime
- We’re a global leader in electrical and automation technologies
- We have more than 30 years of experience delivering and packaging modularized systems for oil and gas companies
- We can deliver and support projects from start to finish and of any scale and scope
- Modules seamlessly integrate with other ABB solutions such as ABB Process Power Manager or System 800xA
- We have strong experience delivering highly customized packages for harsh conditions

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02 Ariel moderate-speed process compressors operate in comparable piston speed ranges to long-stroke, slow-speed compressors.

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**Services and support**

ServicePort provides service and support throughout the module life cycle:
- ServicePort is the keystone of the ABB Collaborative Support Network, which connects ABB experts to each gas compressor module
- ABB Ability™ digital solutions and the ABB Collaborative Support Network connect modules to an expert team on an agreed service schedule
- ServicePort enables maintenance personnel to monitor and service the compressor on all aspects of operation:
  - Process performance
  - Mechanical condition
  - Electrical condition
  - Control system performance
- In-person and virtual service and support ensure efficient and reliable operations on a 24/7 basis throughout the system life cycle

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