MAN Energy Solutions
Future in the making

MOPICO® compression systems

compressors
turbomachinery

Hermetically-sealed, compact motor-compressor system

The MOPICO® is a state-of-the-art integrated motor-driven pipeline compression system for unmatched reliability and efficiency in gas transport grids. It is designed for rapid start-ups, changing load demands, and stays pressurized without venting in standby mode.

The MOPICO® system is primarily designed for gas pipeline applications, but is equally suited for a wide range of gas compression applications requiring high volume flows and pressures up to 150 bar.

The compactness and low weight of the MOPICO® compression system facilitates fast and cost-effective installations. The hermetically-sealed design and the elimination of various auxiliary systems result in an environmentally neutral system without pollutive emissions.

Many unique features provide significant advantages for plant design, operation and maintenance strategies. The proven concept represents an economically optimized investment in terms of total cost of ownership.

System concept

The MOPICO® is an integrated, hermetically-sealed system comprising the motor-compressor unit, a variable-frequency drive, and the unit control system. By means of a dedicated pipe/valve system, the two compression stages can be connected either in series and/or in parallel with online changeover from one mode to the other.

The vertically-split outer compressor casing is designed for operation at pressures of up to 150 bar.

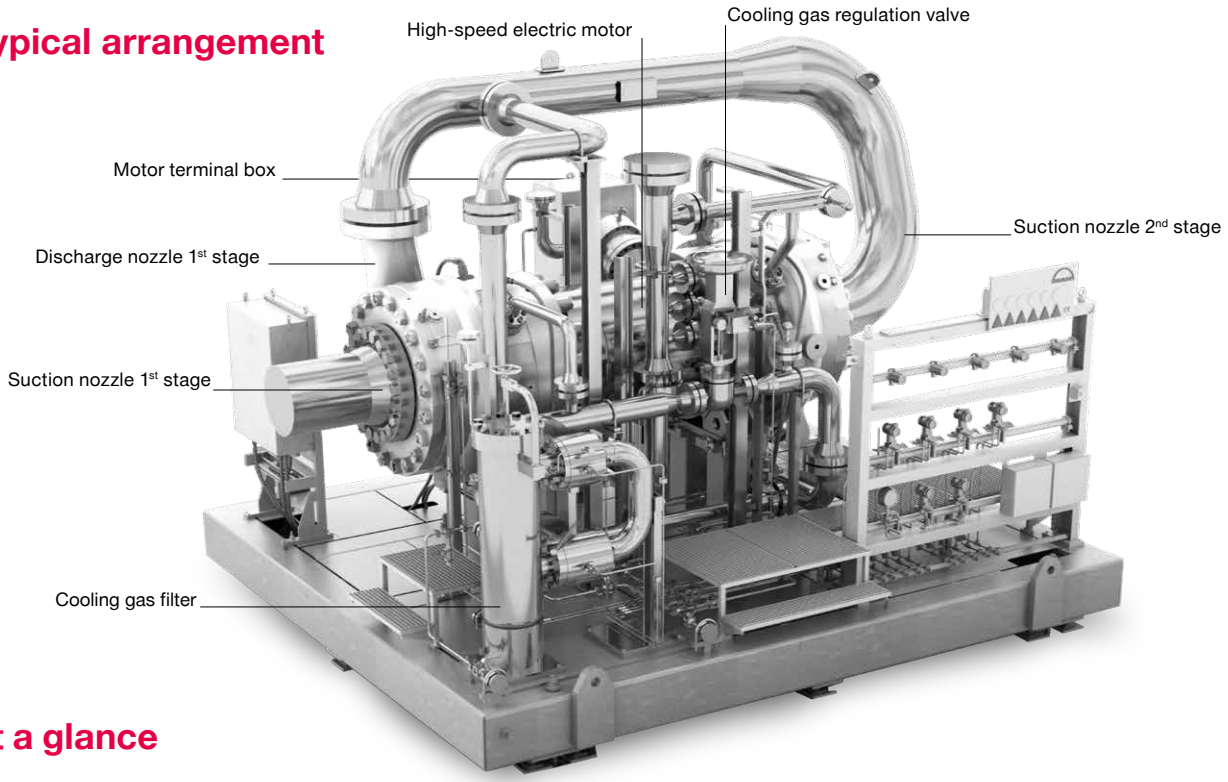
Applications

Gas transport, gas storage, any oil & gas process matching the performance characteristics of the compressor.

Design characteristics

- **Compressor/Motor:** Highly efficient due to axial inlet arrangement. Simple arrangement with one impeller mounted on each side of the high-speed motor with only one axial and two radial bearings - no gearbox required.
- **Bearings:** The rotor system is levitated on active magnetic bearings, eliminating lube oil systems.
- **Drive system:** The motor is driven by a variable-frequency drive system (VFD), located away from the compressor building.
- **Cooling:** The self-cooling layout uses process gas to cool the motor and magnetic bearings without auxiliary systems.

Typical arrangement

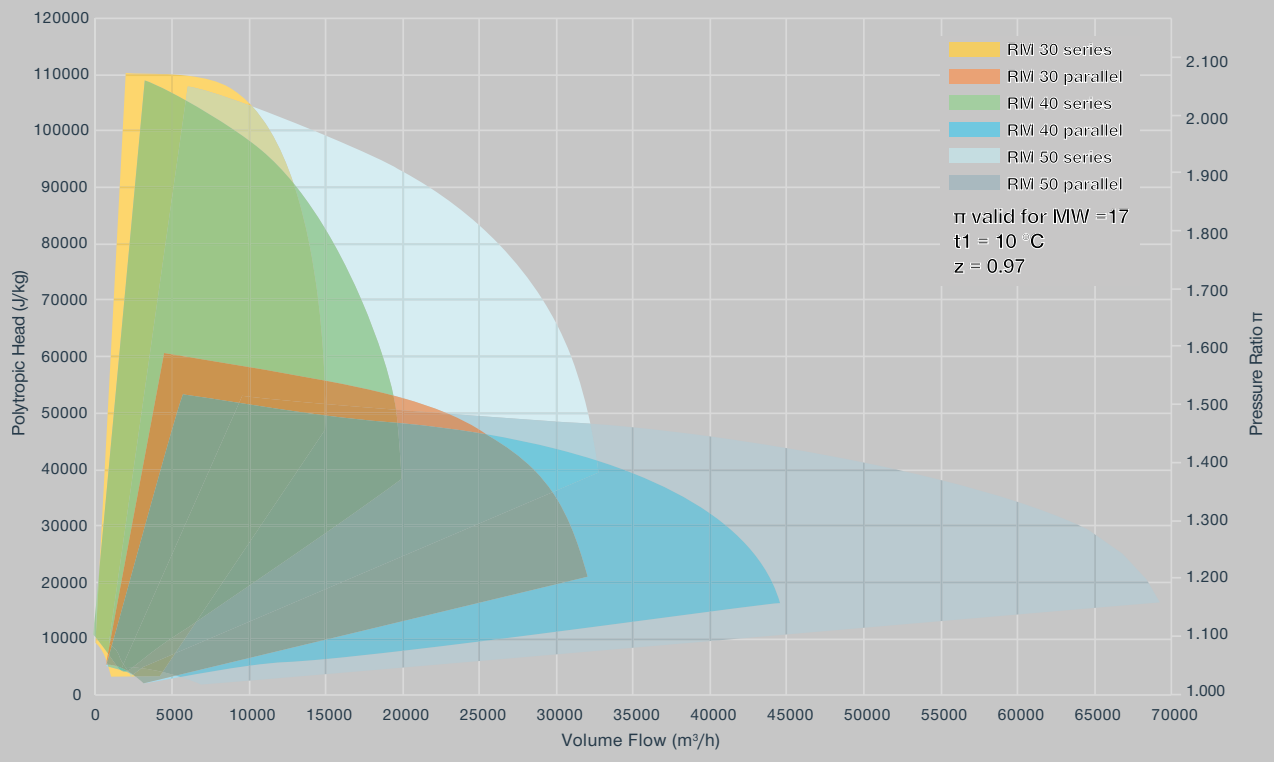


At a glance

Features	Benefits
Hermetically-sealed design eliminates oil and dry gas seal systems	Environmentally neutral system / High safety and integrity No venting in standby mode
Series and/or parallel mode operation with state-of-the-art axial inlet compressor stages.	Widest operational range and highest operational flexibility from a single system
Overhung impeller with axial inlet	Low operational costs due to unmatched efficiency
All-electric concept	Fast demand response Immediate availability and unrestricted number of starts No exhaust gas emissions Remote operation and monitoring
Elimination of wear & tear elements, reduced number of component	Smooth integration into existing environment High availability and reliability with reduced maintenance Minimal spare parts stocking, long maintenance intervals

MOPICO® motor-compression systems

Compressor selection map (series / parallel)



MAN Energy Solutions
86224 Augsburg, Germany
P +49 821 322-1750
F +49 821 322-49 1750

MAN Energy Solutions Schweiz AG
Hardstrasse 319
8005 Zürich, Switzerland
Phone +41 44 278-2211
www.man-es.com