MSG compressors are custom designed and built for individual customer needs for a variety of applications. Our MSG style compressors are manufactured with a highly engineered air flow components, designed for easy, low-cost installation and operation.

Features

**MSG® INTEGRALLY GEARED CENTRIFUGAL COMPRESSORS**

MSG (multi-stage geared) compressors offer outstanding design flexibility. MSG compressors are application engineered with numerous available configurations:
- Flows from 70 to 3800 m³/min (2500 to 135,000 CFM)
- Input capacity to over 18,650 kW (25,000 hp)
- Discharge pressures to 100 barg (1450 psig)

**FEATURES**

**Oil-Free Air and Gas**
- Prevents system contamination
- Reduces the potential for compressed air pipeline fires caused by oil carryover
- No costly waste disposal associated with oil-laden condensate
- Eliminates the expense and maintenance of oil separation filters at the discharge

**High Reliability**
MSG centrifugal compressors are designed to be extremely reliable due to:
- Conservative high-quality gear design
- Long-life pinion bearing design
- Thrust loads absorbed at low speed
- Stainless steel compression elements

**Low Compressor Operating Life Cycle Cost**

MSG centrifugal compressors provide better overall operating efficiency than positive displacement or other centrifugal compressors.
- Excellent efficiencies at full load, part load and no load
- Low maintenance cost
- Increased uptime from high-reliability design (limits the need for multiple unit installations for basic reliability reasons)
- No sliding or rubbing parts in the compression process that can cause wear and thereby efficiency loss

**Easy Operation/Maintenance**

- State-of-the-art MAESTRO control systems
- Fully automated operation for any process conditions
- Machine self-diagnostics
- Compression elements do not wear or require periodic replacement
- Accessible horizontally split gearbox for quick inspection
- Removable intercooler and aftercooler bundles for easy cleaning

**Simple Installation**

- Compressor, lubrication system, intercoolers, shaft coupling, coupling guard, interconnecting piping, etc. on a common base
- Easy installation with no special foundation requirements
- Easy component accessibility
- Site connection point flexibility
- Reduced floor space required
- Dynamic compression process is pulsation-free, so installation of additional dampening equipment is not required.

**APPLICATIONS**
Engineered Air Applications

- Industrial gases
- Instrument air
- American Petroleum Institute (API) standards
- Soot blowers
- Large plant air
- Power industry related

Gas Compressor Applications

- Fuel gas boosting
- Natural gas gathering
- Hydrocarbon refrigeration gas
- Carbon monoxide
- CO2 (wet or dry)
- SynGas
- Low molecular weight recycle gas
- High-pressure nitrogen
- Landfill gas

MSG centrifugal compressors are exceptional by design.

- One, two or three rotors, up to six stages per gearbox
- Horizontal splitline(s) for easy access to parts

GAS FLOW ARRANGEMENT

MSG centrifugal compressors feature an advanced arrangement of gas flow components. Advantages of this arrangement include:

- Directed gas movement to reduce turbulence induced friction
- Air is cooled after every stage to provide high isothermal efficiency

Air Flow Diagram 01: Compressor inlet 02: First-stage compressor volute 03: Coolant in 04: Coolant out 05: First-stage intercooler 06: Second-stage compressor volute 07: Second-stage intercooler 08: Third-stage compressor volute 09: Compressor discharge
# Model Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Metric</th>
<th>Imperial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Input Power</td>
<td>Up to 4100 kW</td>
<td>Up to 5500 hp</td>
</tr>
<tr>
<td>Discharge Pressure</td>
<td>Up to 100 barg</td>
<td>Up to 1450 psig</td>
</tr>
<tr>
<td>Inlet Flow</td>
<td>70 to 280 m³/min</td>
<td>2500 to 10,000 cfm</td>
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</tbody>
</table>

# Parts & Accessories

- **MSG® Centrifugal Compressor Replacement Parts**
- **Upgrade - Aerodynamic Enhancements for Centrifugal Compressors**
- **Upgrade - Variable Inlet Guide Vanes for Centrifugal Compressors**
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