



# MSG<sup>®</sup> 18 Centrifugal Air & Gas Compressor



REQUEST A QUOTE

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<sup>®</sup> INTEGRALLY GEARED CENTRIFUGAL COMPRESSORS

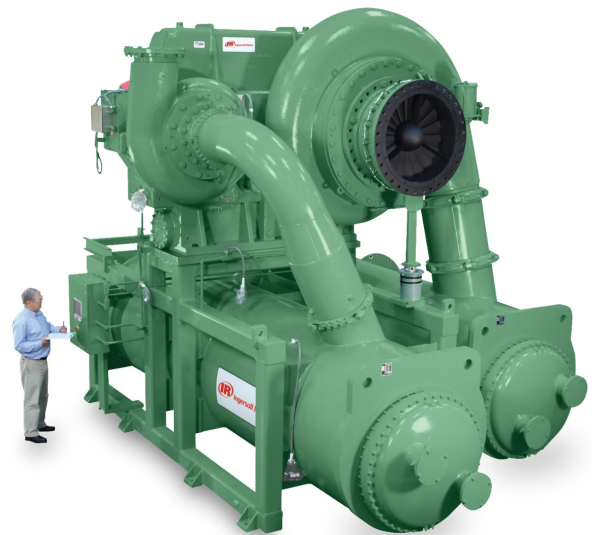
MSG (multi-stage geared) compressors offer outstanding design flexibility. MSG compressors are application engineered with numerous available configurations:

- Flows from 70 to 3800 m<sup>3</sup>/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
- 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

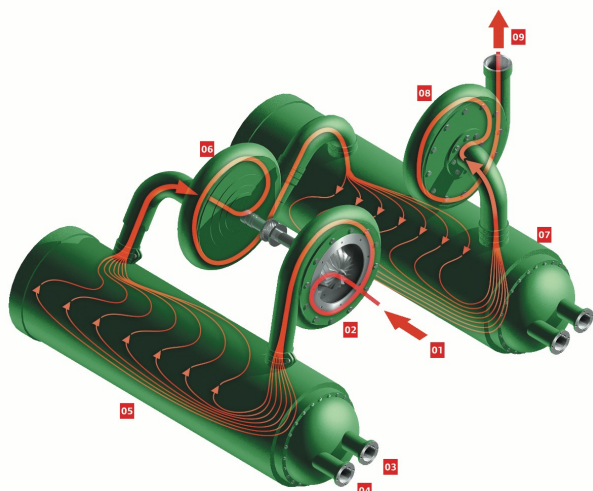
## GAS FLOW ARRANGEMENT

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





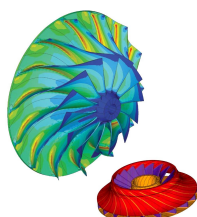
## Model Specifications

| Specification        | Metric                           | Imperial             |
|----------------------|----------------------------------|----------------------|
| Standard Input Power | up to 14,900 kW                  | up to 20,000 hp      |
| Discharge Pressure   | up to 41 barg                    | up to 600 psig       |
| Inlet Flow           | 1280 to 2265 m <sup>3</sup> /min | 45,250 to 80,000 CFM |

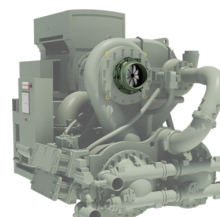
## Parts & Accessories



**MSG® Centrifugal Compressor  
Replacement Parts**



**Upgrade - Aerodynamic  
Enhancements for Centrifugal  
Compressors**



**Upgrade - Variable Inlet Guide  
Vaness for Centrifugal  
Compressors**



**REQUEST A QUOTE**



**Centrifugal Oil Filters**



**Field Overhaul Services**



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