MSG® TURBO-AIR® 20000 Centrifugal Air & Gas Compressor

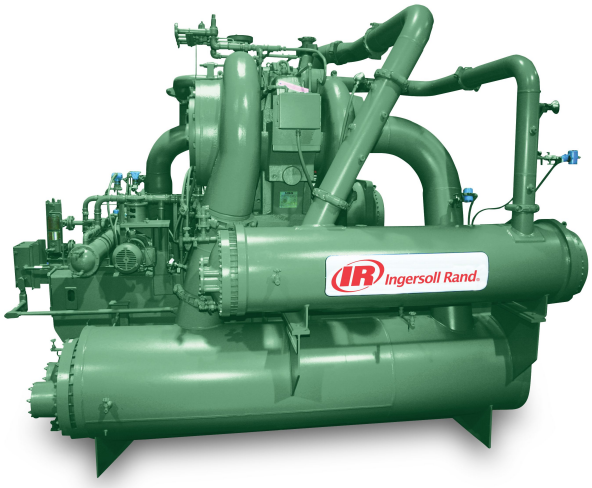
The MSG TURBO-AIR 20000 is a custom-engineered centrifugal compressor built for individual customer needs for a variety of applications. It is particularly well-suited for multi- stage, dual-process applications.

Features

MSG® TURBO-AIR® INTEGRALLY GEARED CENTRIFUGAL COMPRESSORS

MSG TURBO-AIR 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 TURBO-AIR 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 TURBOAIR 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

Model Specifications

Specification	Metric	Imperial
Standard Input Power	up to 4100 kW	up to 5500 hp
Discharge Pressure	up to 80 barg	up to 1160 psig
Inlet Flow	515 to 700 m3/min	18

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

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GAS FLOW ARRANGEMENT

MSG TURBOAIR 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

1. Compressor inlet
2. First-stage compressor volute
3. Coolant in
4. Coolant out
5. First-stage intercooler
6. Second-stage compressor volute
7. Second-stage intercooler
8. Third-stage compressor volute
9. Compressor discharge

About Ingersoll Rand Inc. Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity and efficiency. For more information, visit www.IRCO.com.