

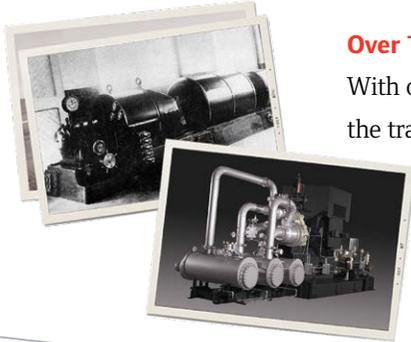


# Centrifugal Air Compressors

MSG<sup>®</sup> Centac<sup>®</sup> C-Series 350-1,300 kW (500-1,750 hp)



# A Tradition of Proven Reliability, Efficiency and Productivity



## Over 100 years of Oil-Free Innovation

With our new line of oil-free centrifugal compressors, Ingersoll Rand continues the tradition of Simplicity by Design — fewer parts and integrated components — and takes compressed air reliability, efficiency and productivity to even higher levels.

1871

Ingersoll Rock Drill Company was formed, later to become Ingersoll-Rand in 1905

1912

Our first oil-free centrifugal compressor introduced

1968

First packaged Centac® centrifugal compressor is introduced

2005

Ingersoll Rand offers the first centrifugal compressor for standard industry capable of achieving 600 psig (40 bar g)

2007

Ingersoll Rand is first to be Class 0 certified for centrifugal compressor technology

2013

Building on the industry-leading C1000 introduced in 2010, Ingersoll Rand expands its centrifugal compressor line with the new C800

## RELIABILITY

### Superior Design, Superior Life

- Long-life gears, bearings and components
- Leak-free seals and connections
- Simplified piping, integrated components, fewer connections

**Minimizes downtime**

## PRODUCTIVITY

### User-Friendly Operation and Accessibility

- Easy access to all critical components
- Plug and play compressor packages for efficient installation
- Informative and intuitive web-enabled controller

**Lower cost of ownership**

## EFFICIENCY

### Optimized Components and Systems

- Industry-leading performance
- High-performance cooling system improves efficiency
- 100% oil-free air under all operating conditions

**Reduces energy use and operating costs**

MSG® Centac® C800



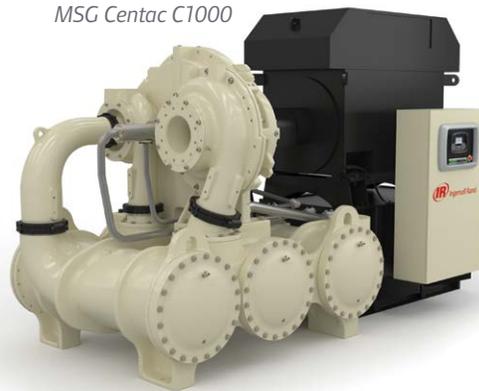
# The Centrifugal Technology Your Industry Demands



## Oil-Free, Risk Free

The first to be certified ISO 8573-1 Class 0, our oil-free centrifugal compressors offer efficient, economical and reliable solutions for delivering compressed air. These high-performing, versatile compressors provide 100% oil-free air in all operating conditions.

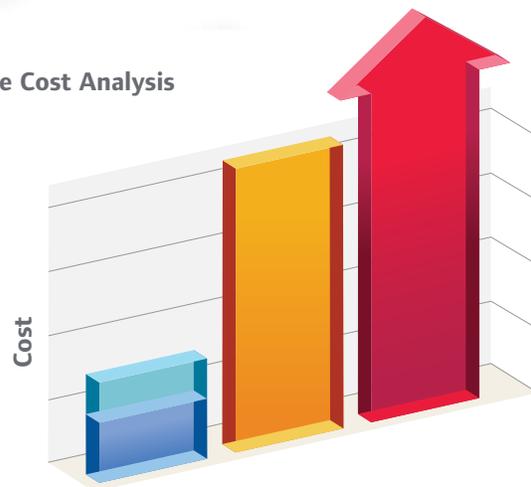
MSG Centac C1000



## Reliability Saves You Money

Capital and maintenance costs account for only a small portion of a compressor's lifecycle cost. While energy also represents a significant cost component, the single largest contributor to lifecycle cost is loss of production. Unplanned production interruptions are best prevented by using reliable equipment — so the return on investment on an Ingersoll Rand centrifugal compressor will be more than worth it over the life of your air system.

Lifecycle Cost Analysis



### Capital & Traditional Maintenance

- Lower maintenance costs
- Fixed cost of ownership

### Power

- Reduced energy consumption

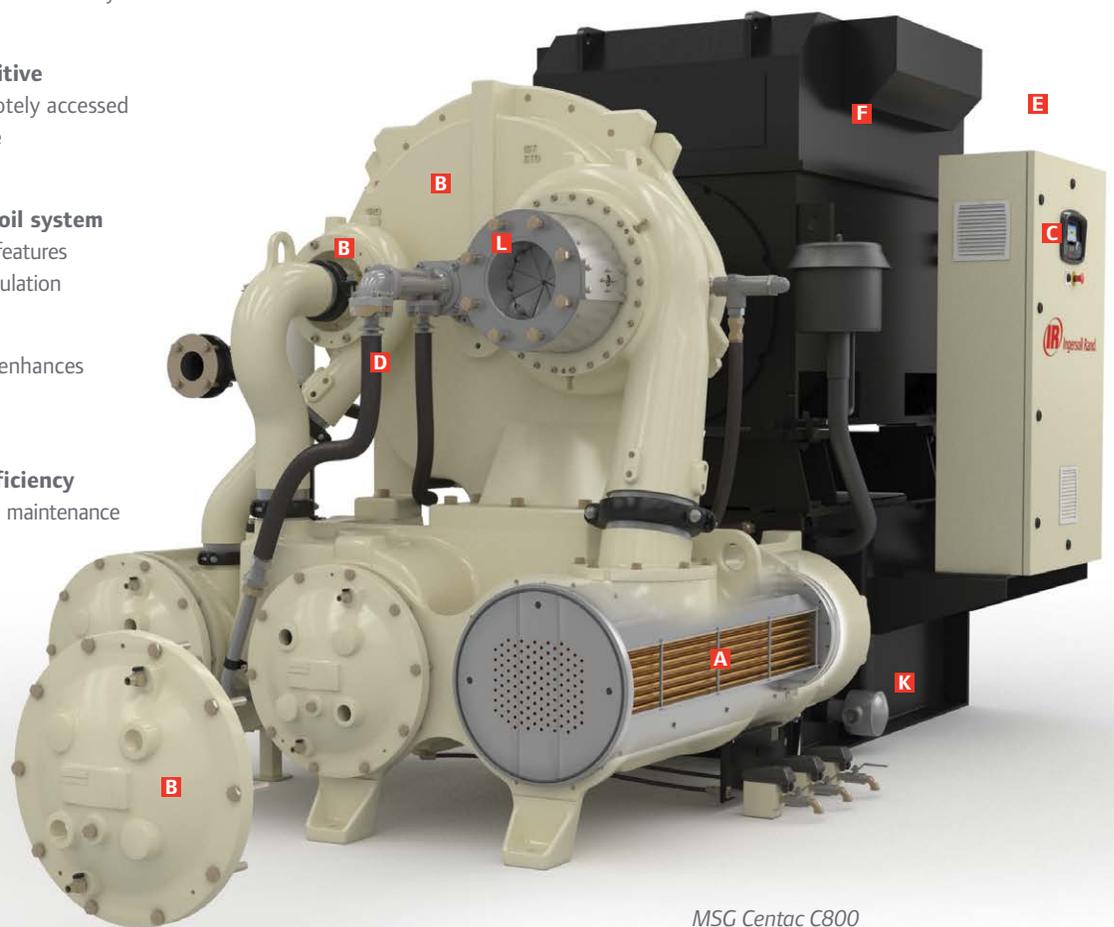
### Lost Production

- No contamination, oil-free operation
- No unscheduled plant interruptions due to air compressors

# Innovative Design...Maximum Flexibility

The combination of industry-leading Ingersoll Rand expertise and innovation delivers durable compressed air solutions that are easily customized to meet your specific system needs.

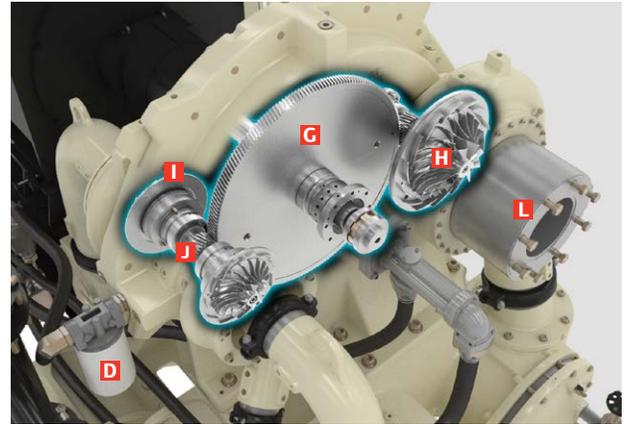
- A High-reliability coolers** can be thoroughly cleaned in place
- B Easily accessed components** optimized for superior serviceability
- C Informative and intuitive controller** can be remotely accessed from virtually anywhere
- D Simplified, leak-free oil system** with an integrated filter features pressure and thermal regulation
- E Low noise operation** enhances personal comfort
- F Heavy-duty, high-efficiency motor** features reduced maintenance and improved durability



MSG Centac C800

## C-Series Rotating Assembly

At the heart of each C800 and C1000 C-Series centrifugal compressor is our signature rotating assembly that maximizes efficiency, while being accessible for quick and easy maintenance.



**G Long-life gears** AGMA rated with low loading profile

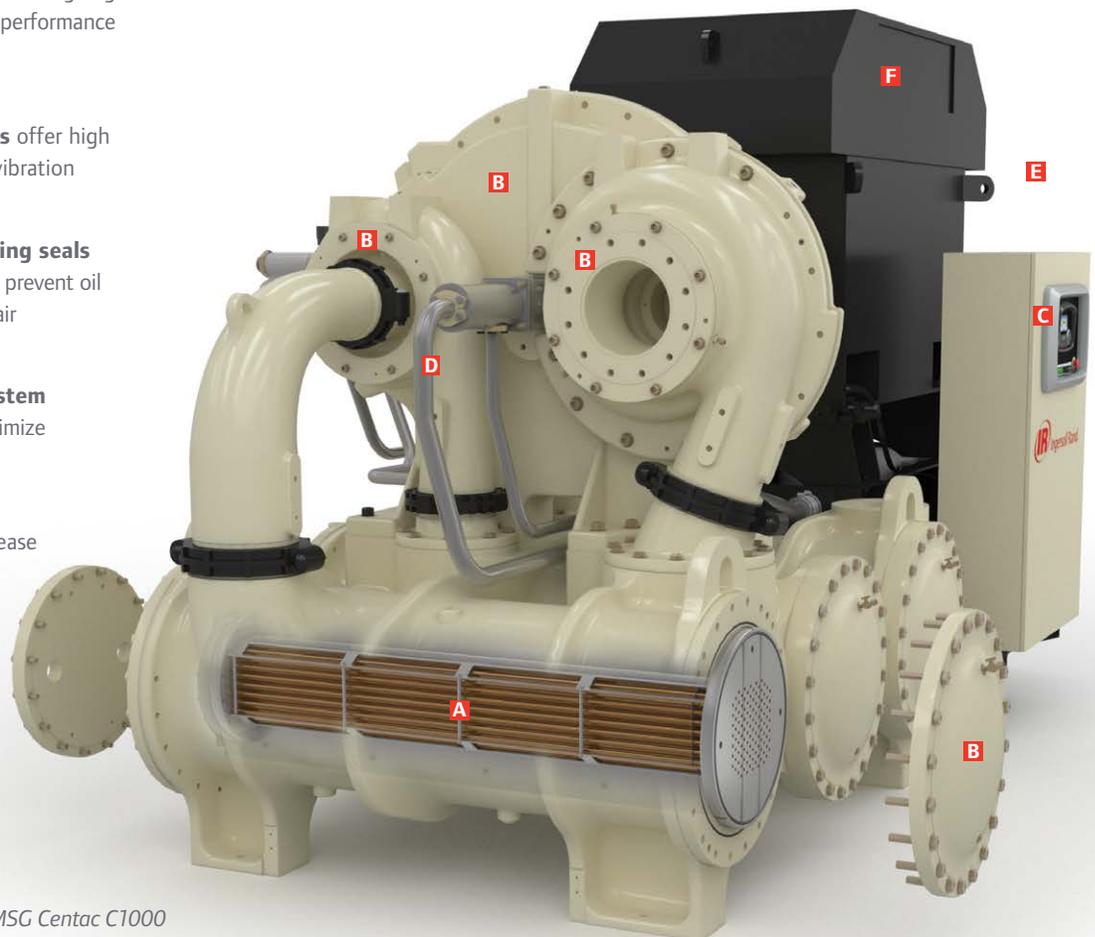
**H High-efficiency impellers and diffusers** designed with leading edge software maximize peak performance and extend turndown

**I High-capacity bearings** offer high load capability and low vibration

**J Non-contact carbon ring seals** minimize air leakage and prevent oil from migrating into the air

**K Optimized lube oil system** reduces oil usage to minimize environmental impact

**L Inlet guide vanes** decrease energy consumption up to 10%

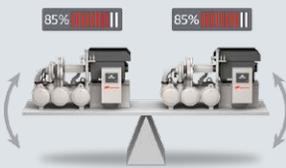


MSG Centac C1000

# Advanced Centrifugal Control

## Optimize Your Compressed Air System with Xe-Series Controls

The Ingersoll Rand Xe-Series controller uses the latest control algorithms to help lower energy consumption. Built-in control logic ensures system reliability by precisely managing discharge pressure and maximizing throttle range. The controller's intuitive, high-resolution color display makes critical information quick and easy to find. And with web-enabled alerts, the Xe-Series controller helps you maintain optimal operation automatically.



### Web-Enabled Communication

- Start/stop/load/unload and checks parameters remotely
- Email notification of alarms and trips
- Built-in performance reporting and visual trending with automated inspection logs

### More Connectivity Choices

- Communicates directly with your DCS system through Modbus
- Ethernet connection enables communication and control through tablets, computers or mobile devices
- Connects seamlessly with Ingersoll Rand system controls
- Sequences up to four additional controlled compressors with no additional hardware

### Intelligent Compressor Control

- **Constant Pressure Control** - Continually maintains precise discharge pressure to adjust for sudden demand variations
- **Auto Dual Control** - Provides enhanced energy savings during partial load conditions
- **Energy Smart Set Point (ESS)** - Adjusts settings to balance and share loads between multiple compressors in the same system, reducing bypassed air and saving energy

# Ingersoll Rand...At Your Service

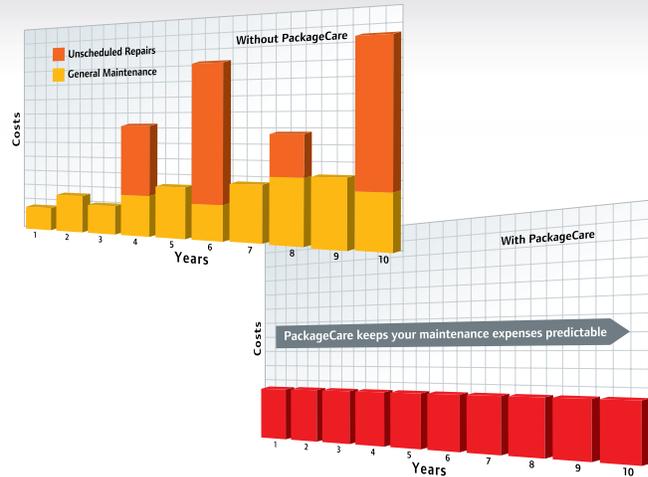
No matter where your facility is located, Ingersoll Rand is committed to serving you 24 hours a day, seven days a week, available to support you with innovative and cost-effective service solutions that will keep you running at peak performance.



Let Ingersoll Rand handle the pressures and responsibilities of owning a compressed air system with our signature service contract.

## With PackageCare, you can...

- Control costs and keep your equipment running at peak efficiency.
- Protect yourself from all repair and replacement expenses over the life of the agreement.
- Maintain or improve the operational efficiency of any compressor, regardless of age, make or model.

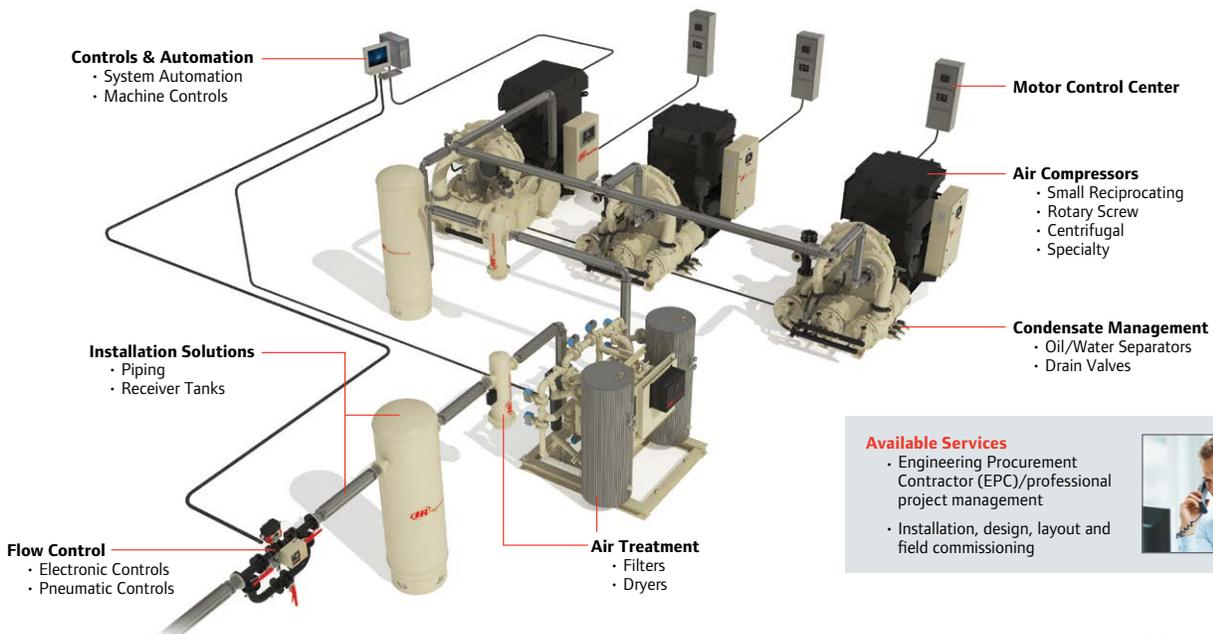


## Standard Pressure 3.1-10.3 bar g (45-150 psig)

Model	Flow		Power	
	m <sup>3</sup> /min	cfm	kW	hp
C800	65 - 142	2,300 - 5,200	350 - 800	400 - 1,100
C1000	127 - 212	4,500 - 7,500	350 - 1,300	500 - 1,750

Performance is nominal. Please contact Ingersoll Rand for specific data.

## Count on Ingersoll Rand for All Your Air System Requirements



### Available Services

- Engineering Procurement Contractor (EPC)/professional project management
- Installation, design, layout and field commissioning





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