



Centrifugal Air Compressors

Centac C-Series
C1000 700-1,100 kW (900-1,500 hp)



Reliability

Efficiency

Productivity

More Than Air, Peace

Ingersoll Rand is now well into our second century of providing industries throughout the world with innovative solutions and expertise in compressed air technology and service. With our new line of Centac 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.

Ingersoll Rand has demonstrated an ongoing commitment to excellence in product design, manufacture and air quality. When it comes to centrifugal compressors, you can count on Ingersoll Rand to deliver the peace of mind that comes only from dealing with the world leader.

1871

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

1912

Our first oil-free centrifugal compressor introduced

1933

Technology-leading Ingersoll Rand oil-free reciprocating compressor goes to market

1952

The world's first oil-free rotary compressor is introduced

1968

First packaged Centac centrifugal compressor is introduced

of Mind

"Simplicity is the ultimate sophistication."

Leonardo da Vinci



1980s

Centrifugal technology expanded to several different applications

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

2010

Ingersoll Rand introduces the C1000 centrifugal compressor featuring the quickest maintenance and industry-leading performance

A Tradition of Proven Reliability, Ultimate and Unrivalled Productivity

Ingersoll Rand's new line of oil-free centrifugal air compressors embodies the innovation that continues to make Centac the worldwide benchmark for **reliability, efficiency** and **productivity**, even in the harshest of operating environments.

RELIABILITY

Superior Design, Superior Life

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

Lower cost of ownership

EFFICIENCY

Optimized Components and Systems

- Industry-leading performance
- Ultra low pressure drop cooling system
- 100% oil-free air under all operating conditions

Reduces energy use and operating costs



Efficiency

This fully enclosed model provides greatly reduced sound levels. The inlet filter and bypass silencer are mounted within the package — water, power and discharge air piping connections are all that are required.



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

Minimizes downtime

How pure is your air?

Knowing industry air quality standards and allowable contaminant levels will help you achieve and maintain acceptable air quality. The lower the ISO class rating, the purer the air will be.

If you need guaranteed pure air for your critical application, then you need Ingersoll Rand. Our centrifugal compressors were rigorously tested by TÜV Rheinland® — a global leader in independent testing and assessment services — and earned ISO 8573-1:2001 Class 0 certification. This is the most stringent class covering oil contamination in aerosol, vapor and liquid forms for the most critical manufacturing processes.



Innovative Design and Performance

The combination of Ingersoll Rand's industry-leading expertise and innovation delivers **exceptional levels of reliability and performance** in our new centrifugal air compressors.

A High-reliability Coolers

Transverse mounted, water-in-tube coolers can be thoroughly cleaned in place from either side. The coolers are oversized for greater fouling resistance and provide low CTD and pressure drop to increase compressor efficiency and reliability.

B Easy Access to Components

Optimized for superior serviceability, our unique vertically-split design provides fast access to major components to minimize downtime.

C Informative and Intuitive Controller

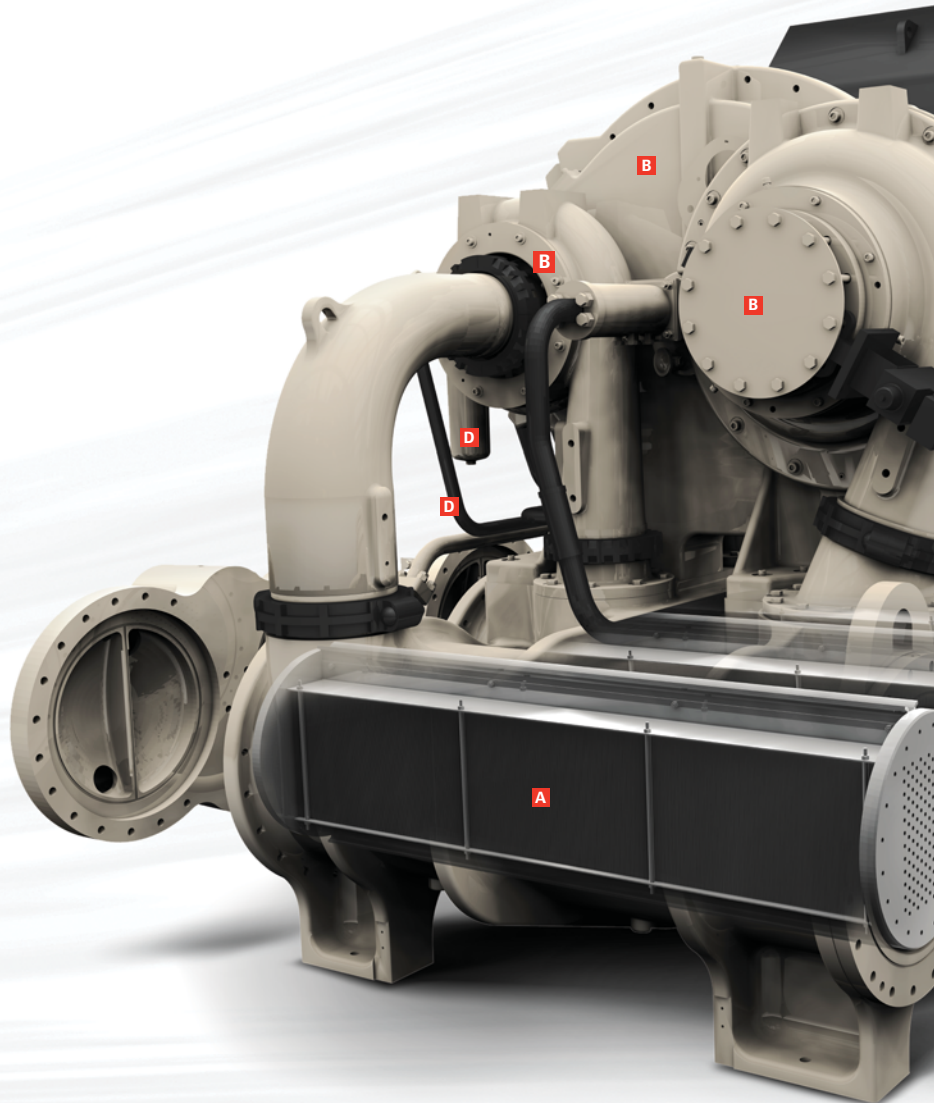
The high-resolution color display provides a powerful window into all vital signs of the compressor by continuously monitoring and trending critical parameters. Remote access to the compressor is available from virtually anywhere.

D Simplified, Leak-free Oil System

The system features an integrated oil filter in addition to pressure and thermal regulation. Leak-free operation is achieved using O-ring face seals.

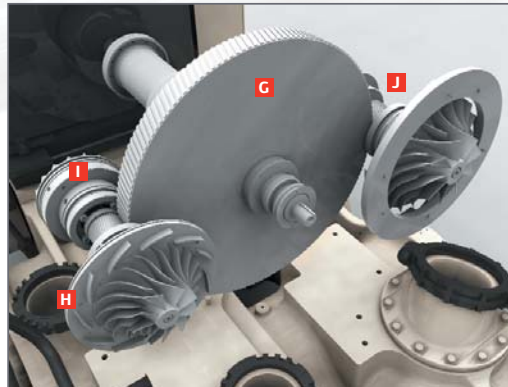
E Low Noise Operation

Personal comfort is enhanced with quiet operation. A low sound enclosure is available for further noise reduction.



Reliability Saves You Money

Capital and maintenance costs account for only a small portion of a compressor's life-cycle cost. While energy also represents a significant cost component, the single largest contributor to life-cycle 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.



F Heavy Duty, High Efficiency Motor

The motor features sleeve bearings that reduce maintenance and improve durability.

G Long-life Gears

High quality AGMA-rated gearing is designed for 25 year life. All components are uniform hardened vs. surface hardened to further increase reliability.

H Efficient Impeller Design

The backward leaning impellers designed with leading edge software maximize efficiency and turndown. Field removal is simple and requires no special tools.

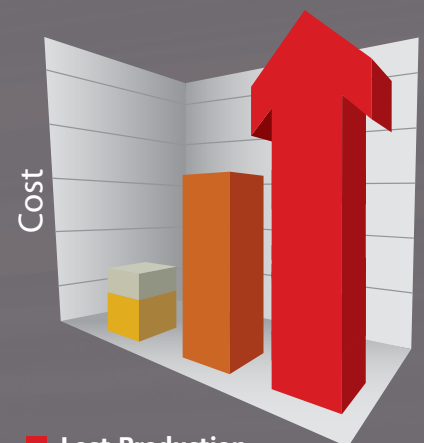
I High Capacity Bearings

Flex pad lobe bearings offer the highest load capability and low vibration. Tapered land thrust bearings absorb maximum load and are more tolerant to contaminants.

J Minimized Air Loss

Full floating non-contact carbon ring seals minimize air leakage and prevent oil from migrating into the air. Single piece construction provides 2-3 times better performance vs. other technologies, saving valuable compressed air.

Life-cycle Cost Analysis



Lost Production

- No unscheduled plant shutdowns because of air compressors

Energy

- Reduce wasted kW

Capital & Traditional Maintenance

- Lower maintenance costs
- Fixed cost of ownership

Intelligent Compressor Control...The Key

Ingersoll Rand controllers help maximize productivity by improving variables that impact cost and output, including performance, maintenance and energy consumption.

A Controller Like No other

The controller features an intuitive high-resolution color display that provides a window into all vital signs of the compressor. In addition to ensuring peak performance, the controller enables predictive maintenance through continuous monitoring and trending of critical parameters. Enhancing productivity and ease of use, the controller has an open Web page architecture allowing users to remotely interact with the compressor from almost anywhere.



CONNECTIVITY

Flexibility and Convenience

- Multiple connection options
- Modular input/output capability
- Easy LAN connection



to System Productivity

COMMUNICATION

Web-enabled Simplicity

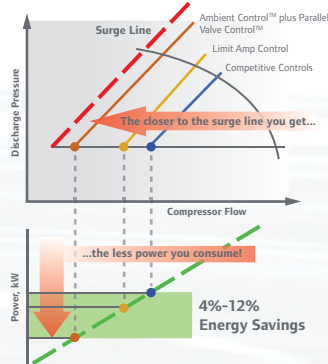
- Event logging and graphical trending
- Scheduled compressor data log generator
- No special software required
- Available in 26 languages



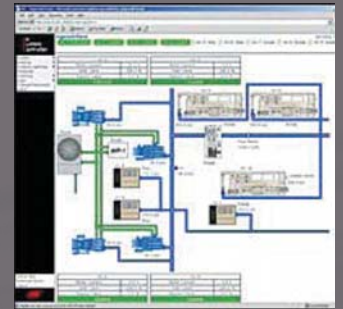
CONTROL

Optimize Your Operation

- Optimized turndown
- Simplified ambient control
- Advanced surge control
- Comprehensive machine health and safety monitoring



Air System Controller (ASC)



The ASC provides a window into the compressor room by making raw data available to plant operators and managers in formats that are easy to understand, while yielding substantial energy savings. The ASC uses human machine interface (HMI) software specifically designed by Ingersoll Rand for compressed air systems.

Functions include:

- Total system control over compressors, dryers, cooling towers, pumps and accessories
- Energy management
- Pressure- and load-sharing
- System benchmarking and data management
- Enhanced communications

A Configuration For Every Need

C1000 Performance														
Model	Nominal Capacity		Pressure Range		Nominal Driver Power		Length		Dimensions Width		Height		Estimated Weight	
	cfm	m ³ /min	psig	bar g	hp	kW	in	mm	in	mm	in	mm	lb	kg
3-stage Units	4,500-7,500	127-212	85-150	5.9-10.3	900-1,500	700-1,100	170	4,300	90	2,200	110	2,700	40,000	18,182
2-stage Units	4,500-7,500	127-212	50-60	3.4-4.5	700-1,100	500-800	170	4,300	90	2,200	110	2,700	40,000	18,182



Progress is  greener with Ingersoll Rand

Ingersoll Rand offers industry leading products and solutions that enable businesses around the world to reduce energy consumption and costs and decrease harmful environmental emissions. From air compressors that reduce energy consumption to electric-powered golf cars with near-zero emissions, Ingersoll Rand provides the knowledge, experience and solutions to help our clients achieve their sustainability goals.

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.

Count on Ingersoll Rand for All Your Air System Requirements



Air Quality

- Filtration
- Point-of-use air treatment
- Dryers
- Air sampling test kits
- Dew point meters



Environmental

- Condensate management
- Lubricants
- Water filtration



Installation

- SimplAir piping
- Intelliflow system pressure control
- Drains
- Fusible disconnects



Maintenance

- Hard parts
- Consumables
- Service contracts



Power Management

- Variable speed drives
- System controllers
- Line reactors
- Safety switches



Energy Efficiency

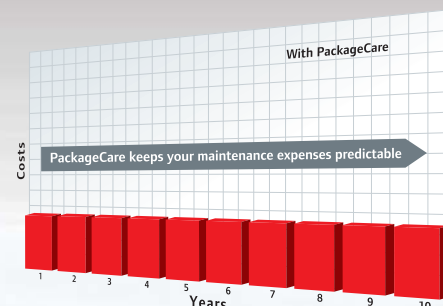
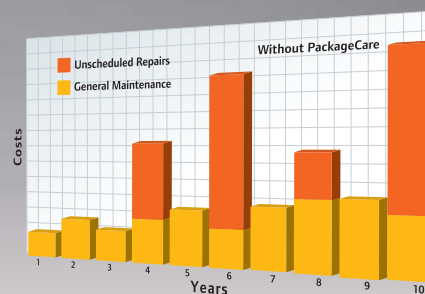
- System air pressure controllers
- Automated air system controls
- No-loss drains
- System audits



Or let Ingersoll Rand handle the pressures 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
- Maintain or improve the operational efficiency of any compressor, regardless of age, make or model
- Protect yourself from all repair and replacement expenses over the life of the agreement
- Ensure long-term value and satisfaction from your system





Ingersoll Rand Industrial Technologies provides products, services and solutions that enhance our customers' energy efficiency, productivity and operations. Our diverse and innovative products range from complete compressed air systems, tools and pumps to material and fluid handling systems and environmentally friendly microturbines. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

www.ingersollrandproducts.com

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