

Centac® Centrifugal Air Compressors



## A Tradition of Proven Reliability, Efficiency and Productivity

#### Over 100 years of Oil-Free Innovation

We introduced our first oil-free centrifugal compressor in 1912, and over the decades we've continued to develop rugged, reliable, industry-leading compressor technologies. Ingersoll Rand

has become the leader in oil-free centrifugal compressed air because our technological advances are designed for the specific performance needs of our customers' industries. No matter what the application, Ingersoll Rand centrifugal compressors help eliminate inefficiencies, contaminants and breakdowns that can result in costly downtime, product liability or damage to your brand reputation, while reducing total lifecycle costs.

## RELIABILITY

### Superior Design, Superior Life

- Fewer moving parts means less downtime
- Dynamically balanced rotor assemblies ensure extremely low vibration
- Carbon ring seals minimize air leakage

Lowers cost of ownership

## **PRODUCTIVITY**

### User-Friendly Operation and Accessibility

- Easy-access components make maintenance faster and easier
- Simplified compressor design provides longer intervals between maintenance

Maximizes uptime

### EFFICIENCY

### Optimized Components and Systems

- Multi-stage compressors combine performance with energy savings
- Advanced impeller design provides maximum pressure control over the widest operating range

Reduces energy use and operating costs



# The Centrifugal Technology Your Industry Demands



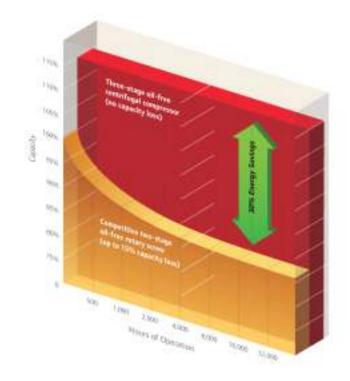
#### Oil-Free, Risk Free

The first to be certified ISO 8573-1:2001 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.



#### Greater Capacity for Greater Efficiency

Ingersoll Rand centrifugal compressors offer up to a 15% capacity advantage over competitive two-stage, oil-free compressors. This advantage increases to as much as 30% as our capacity remains constant, while competitive capacities decrease by up to 15%.



## Centac®...Engineered for Performance

Ingersoll Rand centrifugal compressors are designed for applications where reliability, productivity and efficiency are essential to getting the job done right...and the compressor's packaged design makes it easy to install wherever needed.

#### Long-Life Gears

25-year rated, uniformly hardened gears provide extreme reliability

#### **Efficient Impeller Design**

Backward leaning impellers provide constant pressure control while maximizing efficiency and turndown range

#### **Moisture Separator**

Stainless steel moisture separator provides superior reliability and helps prevent corrosion, ensuring high air quality

#### Coolers

Precisely engineered coolers maintain a low pressure drop and the large surface area provides maximum cooling efficiency. The Integral cooler design helps the compressor keep a compact footprint\*

 $*Optional\ external\ configurations\ available$ 

#### **High Capacity Bearings**

Hydrodynamic bearings are completely non-contact, offering virtually unlimited life and maximum efficiency with 2-3 times the lifespan of traditional bearings

#### '

High grade stainless steel rotors are fully balanced and require no coating, providing constant performance over time

#### Seals

Fully floating, non-contact carbon ring seals minimize air leakage and prevent oil from migrating into the compressed air stream; single-piece seal construction provides significantly better performance than other technologies, saving valuable compressed air

#### Diffuser

Optimally designed to work with Ingersoll Rand's backward leaning impellers for maximum efficiency

Rotors

## 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

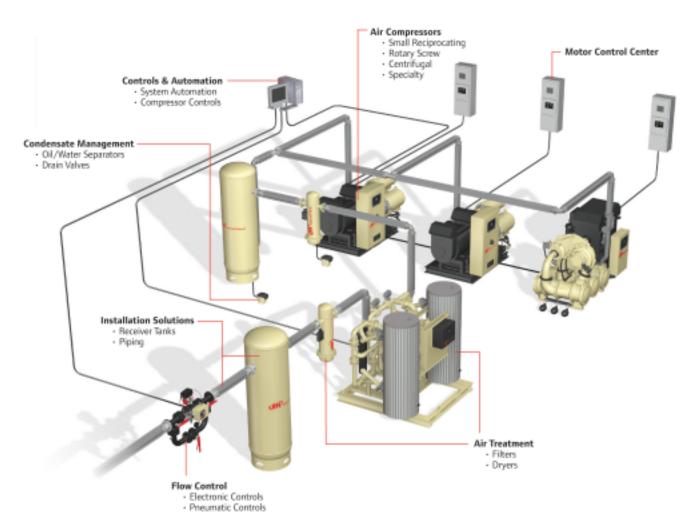
## We Build Solutions

We do more than build products at Ingersoll Rand. We bring our customers unmatched experience in designing comprehensive compressed air systems that cover virtually any need.

#### Systems and Support to Keep You Productive

Ingersoll Rand not only designs and builds extremely efficient air systems, it solves process and business problems as well. This helps customers succeed in today's global economy through enhanced reliability, energy efficiency and productivity.

No matter what your industry or location, Ingersoll Rand is committed to serving you 24/7. Our worldwide network of distributors, engineers and certified, factory-trained technicians are a phone call away—ready to support you with innovative, cost-effective and performance-enhancing solutions.



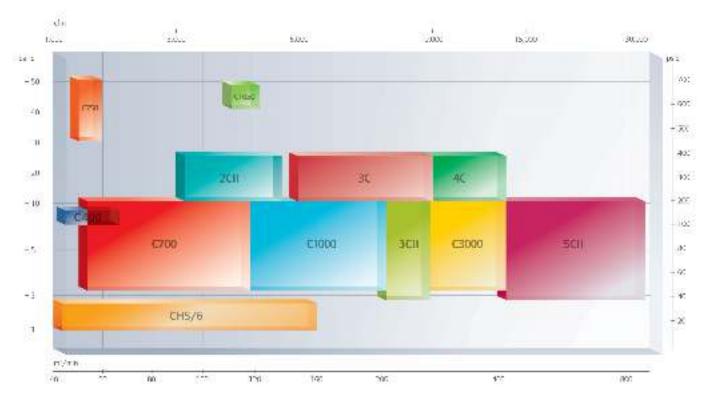
Low Pressure 0.35-2.10 bar g (5-30 psig)								
	Flow		Power					
Model	m³/min	cfm	kW	hp				
CH5	42 - 80	1,300 - 3,000	132 - 270	175 - 350				
CH6	90 - 160	3 000 - 6 000	270 - 430	350 - 600				

Standard Pressure 3.1-10.3 bar g (45-150 psig)							
	Flow		Power				
Model	m³/min	cfm	kW	hp			
C400	45-67	1,600-2,350	260-400	350 - 500			
C700	54-119	1,900-4,200	200-700	300 - 900			
C1000	127 - 212	4,500 - 7,500	350 - 1,300	500 - 1,750			
3CII	187-280	6,600-10,000	670-1,600	900-2,000			
C3000	270-420	9,500-15,000	1,000-2,400	1,500 - 3,500			
5CII	450-850	16,000-30,000	1,500-4,600	2,000 - 6,000			

High Pressure 10.3-42.0 bar g (150-610 psig)							
	Flow		Power				
Model	m³/min	cfm	kW	hp			
2CII	90 - 130	3,000 - 4,600	750 - 1,300	1,000 - 1,750			
C750	50 - 60	1,800 - 2,100	500 - 660	700 - 900			
C1050	115	4,000	1,150	1,500			
3C	140 - 285	5,000 - 10,000	1,300 - 2,250	1,750 - 3,000			
4C	255 - 425	9,000 - 15,000	1,500 - 3,350	2,000 - 4,500			

Weights and dimensions are estimated and will vary with scope and options. Performance is nominal. Please contact Ingersoll Rand for specific data.

## Our Broad Range of Centac® Family Compressors





Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane® —work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. Ingersoll Rand products range from complete compressed air systems, tools and material and fluid handling systems. The diverse and innovative products, services and solutions enhance our customers' energy efficiency, productivity and operations. Ingersoll Rand is a \$14 billion global business committed to a world of sustainable progress and enduring results. For more information, visit ingersollrand.com or ingersollrandproducts.com.











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