

## Oil-Flooded Rotary Screw Compressed Air Systems

55-132 kW (75-175 hp), 4.5 to 14 barg (65-200 psig)



## **Your Trusted Partner in Compressed Air**

Staying ahead of your competition with advanced compressed air systems and services that boost productivity, lower operating expenses and extend equipment life is critical to your success.

No matter the industry or application, you can count on Ingersoll Rand® as a trusted partner for oil-flooded compressed air technologies and services. By focusing on you and your business, we provide collaborative solutions that make you successful, offering a total systems approach to maximise efficiency and performance.

#### Take a Systems Approach

Delivering reliable oil-flooded compressed air to your facility goes well beyond the compressor itself. Optimise total cost of ownership (TCO) through a systems approach that employs the best air compression technologies to deliver reliability for life—from design to decommissioning.

Your business will benefit from Ingersoll Rand's partnership through our extensive experience and global expertise to ensure reliability, lower maintenance costs, ease of serviceability and system optimisation.





# Why Choose a World-Class Rotary Screw Compressed Air System?

You need a reliable, cost-effective compressed air solution, all backed by a global network of experts. That's what you get with our Next Generation R-Series oil-flooded rotary screw air compressors.

#### For efficiency and air flow

Innovative semi-integrated airend and drive component design provides optimised efficiency and air flow, resulting in reduced energy use.

#### For reliability

Every component in our oil-flooded compressor system supports maximum reliability for increased productivity, longer equipment life, lower operating costs and higher profitability.



Our oil-flooded compressors can operate both indoors and outdoors at extreme ambient temperatures ranging from 1°C (-34°F) to 45°C (113°F), with engineered options available for harsher environments. A compact footprint also provides space saving convenience.



#### For lower cost of ownership

Intuitive microprocessor controls, real-time remote data monitoring, easy serviceability and long-life consumables significantly reduce operating, maintenance and service costs over the lifetime of your compressed air system.

### **Customised Products for Your Application**

Ingersoll Rand offers a wide portfolio of reliable products that will adapt to your industry and application. We will assess and propose the best solution to lower the total cost of ownership of your compressed air system, maximising the productivity of your operation.



Manufacturing & Assembly

High-quality air for your facility, from start to finish



Metal Working

The power source to keep production moving quickly and on time



Plastics

Perform molding and other fabrication services, power tools and support cleaning processes



Mining

Reliable power for equipment and ventilation, on the surface or below ground



Cement & Construction

Rugged durability and performance to get the job done efficiently

### **AIR COMPRESSORS**



Air compressor use accounts for a significant part of your energy costs. Designed and manufactured in-house, we use advanced computer modeling techniques to create rotary screw compressors that maximise efficiency and airflow, while operating reliably to improve your company's bottom line.



#### All Air Isn't Equal

Next Generation R-Series air compressors help eliminate waste and control costs to lower your total cost of ownership.



## What Makes Our Rotary Screw **Compressors Unique?**

#### **Optimised Drive Components**





#### **Intuitive Connectivity**

Xe-Pro Series controllers deliver increased control and functionality through an intuitive user interface as well as remote access with any common, current web browser.



#### **Simple and Serviceable**

Smart design elements including semi-integrated airends create easier access to internal parts for quicker maintenance and the optimised, compact design minimises piping and eliminates unnecessary connections.



#### **Robust Components**

Durable parts such as robust hoses and pipe connections with Viton Victaulic couplings, and an innovative separator deliver performance integrity and reliability for life.



HELIX

#### Intelligent Uptime

Integrated with Helix™ Connected Platform, a state-ofthe-art system that gives you real-time insights and data to keep your compressor operating at peak performance and reduce the risk of downtime.



Next Generation R-Series Rotary Screw Air Compressors, 55-132 kW

#### **Uncompromising Efficiency**

At the heart of each Next Generation R-Series single stage compressor is an innovative semi-integrated airend, to ensure the highest level of reliability and ease of service. The design incorporates an integrated oil filter and thermostat to improve efficiency, as well as fewer external hoses to ensure the highest level of reliability.

Choose the ie version featuring our most efficient single stage airend, to achieve up to an additional 6% energy savings. Coupled with a high performance IE4 Premium® efficiency motor with a TEFC enclosure, you get an air compressor that delivers uncompromising efficiency.

Our optional variable speed drive (VSD) can help you save even more on energy costs. These compressors deliver higher efficiency even at partial loads.



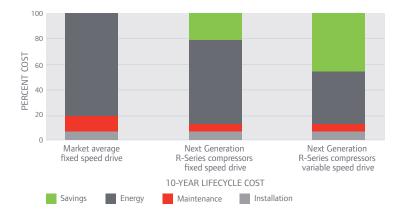
Next Generation R-Series compressors provide superior operating features, benefits and components.



#### **The Two-Stage Advantage**

For peak efficiency and reliability at 90 kW and above, at both full load operation and over a wider operating range, choose our workhorse two-stage airends. Operating at slow speed and splitting the pressure ratio into two stages significantly improves efficiency, reduces bearing loads and improves durability.

Our fixed speed two-stage airend is also redesigned from the ground up, including angular contact ball bearings, state-of-the-art rotor profiles and optimised lubricant distribution for even greater energy efficiency improvements.



## **Lower Your Total Cost** of Ownership

With improved efficiency and more airflow, our Next Generation R-Series compressors significantly reduce energy use, lowering your lifecycle cost.



## Simplicity by Design

Our single stage compressors incorporate advanced design features that create a compact footprint, reducing space requirements as well as simplifying maintenance—all aimed at lowering your total cost of ownership.

- **Semi-integrated airend** with integrated oil filter and thermostat provides ease of service and minimises potential leakage points due to fewer hoses and connections
- **Sound attenuating enclosure** with flush mounted doors reduces noise, provides easy service access
- **Robust hoses and pipe connections** with Viton Victaulic couplings ensure easy maintenance requirements
- **Innovative separator filter** delivers an oil carryover of less than 3ppm





Always stay connected to your compressor with the Xe-Pro Series controller.



### Reliability and Control You Can Count On

The Xe-Pro Series control system ensures reliable operation and protects your investment by continuously monitoring operational parameters. It has the capability to have programmable inputs and outputs, control additional equipment, as well as provide a variety of critical features.

Stay connected with the Xe-Pro Series via its easy to use touch screen display, or remote access via web-browser or smartphone. Real-time monitoring, diagnostics, trending and analysis will always keep you in total control.

## Deep Insights for Dependability with HELIX

Developed to give you essential visibility into day-to-day operational intelligence that maximises your uptime and peace of mind, the Helix Connected Platform from Ingersoll Rand offers real-time data monitoring for your compressed air system.

Advanced sensor technology inside the compressor sends data on a regular basis to our cloud-based platform. This data gives you a clear view into the functionality and health of your compressor, and is easily accessible around-the-clock from your PC, tablet or smartphone. With a range of connectivity service offerings available, Helix monitoring can be tailored to meet your specific operational needs.

- **Deep insights** for preventive maintenance, efficient repair work, and detailed analysis of equipment performance over time
- **Diagnostic reporting** that help maintenance teams keep your compressor operating at peak performance and reduce the risk of downtime
- Continuous real-time operating data available anytime, anywhere
- **Equipment maintenance notifications** that help ensure reliability and extend equipment life





## Innovative Design, Flexible Choices

Our rotary screw compressor systems provide flexible equipment choices, as well as advanced solutions that ensure reliable flow—even in extreme operating environments. That's what you expect from Ingersoll Rand. That's what you get from the Next Generation R-Series rotary screw air compressor.





#### **Optimise Your Demand**

Choose from optimised airends and drives to achieve the exact level of performance and economy your operation and budget require. Super-premium IE4 efficiency motors are available as an option on most models.

j

**Efficiency for Constant Demand:** Fixed speed compressors featuring the reliable IP55 Premium efficiency TEFC induction motor

n

**Efficiency for Variable Demand:** VSD compressors for the highest efficiency, lowest energy use option

ie

**Premium Efficiency for Constant Demand:** Fixed speed compressors with the continuous duty IP55 Premium efficiency TEFC induction motor and enhanced features for improved performance and efficiency

ne

**Premium Efficiency for Variable Demand:** VSD compressors with enhanced features for improved performance and efficiency

| Next Generation R-Series – 50 and 60 Hz Performance |                          |                             |   |
|---|--------------------------|-----------------------------|---|
| Model   | Nominal power<br>kW (hp) | Max pressure<br>barg (psig) | Max capacity (FAD) at<br>10 barg m³/min (cfm) |
| RSe55i-75i Fixed Speed                              | 55-75 (75-100)           | 7.5-13.0 (109-189)          | 9.50-12.54 (335-442)                          |
| RSe55n-75n Variable Speed                           | 55-75 (75-100)           | 10.0-13.0 (145-189)         | 9.41-12.15 (332-429)                          |
| RSe90i-132i Fixed Speed                             | 90-132 (120-177)         | 7.5-13.0 (109-189)          | 15.51-21.51 (548-760)                         |
| RSe90ie-132ie Premium Fixed Speed                   | 90-132 (120-177)         | 7.5-10.0 (109-145)          | 15.51-21.51 (548-760)                         |
| RSe90n-132n Variable Speed                          | 90-132 (120-177)         | 13.0 (189)                  | 15.55-21.19 (549-748)                         |
| RS90ie-160ie 2S Premium Fixed Speed                 | 90-160 (125-200)         | 7.5-14.0 (100-200)          | 16.40-28.90 (580-1,019)                       |
| R90ne-160ne 2S Premium Variable Speed               | 90-160 (125-215)         | 10.0 (145)                  | 15.40-27.21 (544-961)                         |

## AIR TREATMENT



Moisture and contamination in compressed air cause significant problems in equipment operation, like rust, scale and clogged orifices resulting in product damage or costly shutdowns. Making our air treatment equipment an integral component of your compressed air system will improve productivity, system efficiency and product or process quality.

## **Refrigerated Dryers**

Our cost-effective refrigerated dryers provide clean, dry air for most industrial applications. Choose efficient cycling dryers to maximise energy savings or non-cycling dryers for a lower initial cost.

#### **Refrigerated Dryer Features**

- Dew points as low as 3°C (38°F), meeting Class 4 requirements
- Corrosion-free heat exchanger design for reliable operation
- Intuitive microprocessor control for easy operation
- Compact design for easy serviceability



#### Cost-Effective **Operation**

Choose refrigerated dryers for lower capital, operating and maintenance costs for many industrial applications.



#### Maximum **Performance**

Use desiccant dryers when your application demands low dew points and the highest air quality.

## **Desiccant Dryers**

Choose desiccant dryers when very low dew points are necessary for high-quality air and to prevent potential freeze-up. Depending on whether you require lower initial capital costs, or lower energy use, choose from heatless, externally heated or heat blower desiccant models.

#### **Desiccant Dryer Features**

- Delivers reliable -40°C (-40°F) pressure dew point in most operating conditions
- High-strength desiccant and durable valves
- Low pressure drop design saves energy
- Advanced microprocessor control is easy to use and maximises uptime



## **MAINTENANCE SERVICES**



Ensure reliability for the life of your compressed air equipment with our comprehensive maintenance programs. At Ingersoll Rand, we have one goal—to earn the right to be your trusted partner.



### **Maintenance Program Advantages**

Compressed air is critical to your operation. A proper maintenance strategy is crucial to avoiding unplanned, unbudgeted downtime and production interruptions. By choosing an Ingersoll Rand compressor maintenance agreement, you are investing in your future with a trusted partner.

Depending on your rotary screw compressor system we can customise a service program that best fits your needs. Our suite of CARE compressor maintenance programs range from total risk transfer of your equipment to Ingersoll Rand to

more basic programs for parts and services only, providing flexible solutions for the life of your compressed air system.

#### Each of our maintenance programs offer significant benefits, including:

- Genuine OEM parts eliminate exposure to unnecessary equipment wear and tear, reducing downtime
- Rapid response, because as an Ingersoll Rand service program customer, you are our top priority
- Optimised services for your specific operation that are structured to lower electricity consumption
- Early detection and predictability that eliminates surprises and unwanted costs
- Automated shipment or scheduling reminders prevent overlooking or under-maintaining equipment
- Equipment that lasts longer and runs better by replacing the right parts at the right time

### Intelligent Uptime Powered by Helix Connected Platform

Our suite of CARE compressor maintenance programs comes complete with premium monitoring via the Helix Connected Platform. Designed to increase uptime and maximise productivity, Helix connectivity gives your team the power of real-time data to ensure your compressor system operates at peak performance.

#### IT ALL ADDS UP TO PEACE OF MIND



















## Lower Cost of Ownership

Our service programs provide the most cost-effective solutions based on your customised maintenance strategy.

#### **Quality Results**

Ingersoll Rand factory-trained service technicians are backed by more than 145 years of industry experience.

## Increased Uptime

Service programs help decrease unplanned downtime and costly production interruptions.

#### Efficient Energy Use

Peak system efficiency is achieved through properly performed maintenance and inspection.

## Peace of Mind

Our world-class services will help you achieve the results you need, while you focus on what's important to your business.



## **OIL-FLOODED PARTS AND ACCESSORIES**



A compressed air system is a significant investment. You expect consistently reliable, clean, dry air at the lowest possible operating cost. Choose our genuine parts and accessories to ensure that your compressor is running efficiently and productively.

#### **Ultra Coolants**

Synthetic lubricants are better for the environment, last longer, are less expensive and are less prone to contamination. Our family of synthetic Ultra coolants are specifically designed to help rotary screw compressors maintain peak performance.



#### **Ultra Coolant**

- Up to 8,000 hours run time
- Industry leading compressor lubricant
- Environmentally friendly





#### **Ultra EL**

- Up to 16,000 hours run time
- Increases compressor efficiency
- High flash point for enhanced safety



#### **Ultra FG**

#### **Food Grade Lubricant**

- 8,000+ hours run time, longest FG on market
- Reduces contaminant threat
- Excellent stability and detergent action



### SimplAir® Piping **System**

Typical steel distribution systems can be costly and labor intensive. Our SimplAir piping system is your cost-effective alternative for air, inert gas and vacuum lines. Durable aluminum piping and a large range of "quick-connect" fittings, enable fast, easy installation, lowering installation costs.



### **Systems Automation** and Control

As much as 20% to 60% of the energy used to operate compressed air systems is wasted! From inline flow controllers to fully integrated system automation, our control solutions deliver reliable critical system access to lower energy costs.





## **OIL-FLOODED PARTS AND ACCESSORIES**





## F-Series In-Line Filters

Our advanced compressed air filters reduce contamination in your air stream to help protect finished goods, critical processes and valuable equipment.



## Heavy-Duty No-Loss Drains

No-loss electronic and pneumatic drains are the most reliable, durable and energy-efficient way to remove condensate from air compressors and system components.



## Installation Solutions

From receiver tanks to couplings, our installation solutions offer everything you need to deliver clean, dry air from the compressor to your point of use.



### OEM Replacement Parts

We have the exact genuine
OEM parts you need—from a
replacement rotor to a missing
bolt—with extensive inventories
maintained in strategic locations
around the world.

## Reliable Compressed Air from Start to Finish

Maximise your total cost of ownership with Ingersoll Rand's extensive knowledge of compressor technologies, services, parts and accessories—we are your trusted partner in compressed air systems.







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.

IngersollRand.com









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