

# Next Generation R-Series Oil-Flooded Screw Air Compressors

90-160 kW (125-200 hp)



# 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 are critical to your success.

Regardless of 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 an overall system approach to maximise efficiency and performance.

## Taking 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 Oil-flooded Screw Compressed Air System?

You need a reliable, cost-effective solution with industry-leading energy efficiency, all backed by a global network of experts. That's what you get with our 2<sup>nd</sup> generation R-Series oil-flooded screw air compressors.

## Efficiency and air flow

Advanced airend and drive component design provide world-class specific power and best-in-class air flow, resulting in reduced energy use.

## Reliability

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

## Suitable for virtually any environment

Our oil-flooded compressors are flexibly designed to have standard and optional features that allow operation both indoors and outdoors within an extended ambient temperature range.

## Lower total cost of ownership

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

## Customized 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, maximizing the productivity of your operation.



### Manufacturing & Assembly

Manufacturing & Assembly



### Metal Working

The power source to keep production moving quickly and on time



### Wood Working

Handle multiple tools while keeping out contaminants and moisture



### Mining

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

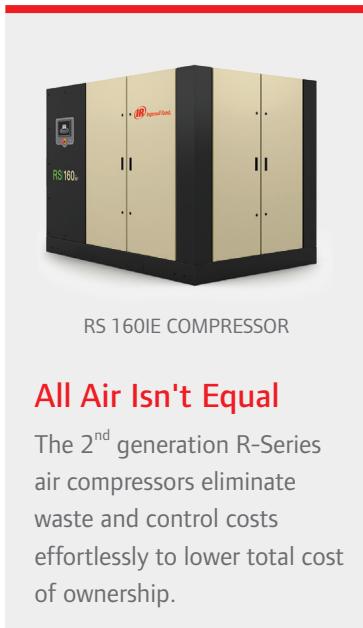


### Cement & Construction

Rugged durability and performance to get the job done efficiently

# AIR COMPRESSORS

Air compressor use accounts for a significant part of your energy costs. Our design team used advanced computer modeling techniques to create oil-flooded screw compressors that maximise efficiency and airflow, while operating reliably to improve your company's bottom line.



## All Air Isn't Equal

The 2<sup>nd</sup> generation R-Series air compressors eliminate waste and control costs effortlessly to lower total cost of ownership.

## What Makes Our Oil-flooded Screw Compressors Unique?

### Optimised Drive Components

World-class single and two-stage airends (two-stage available starting at 90 kW), along with a TEFC induction minimise energy use.



### Non-leakage Designs

V-Shield™ technology provides a totally integrated, non-leakage design, featuring O-ring face seals.



### Intuitive Control

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



### Adaptive Monitoring

Progressive Adaptive Control (PAC™) system monitors key operating parameters and continuously adjusts to prevent unexpected shutdowns.



### Advanced Cooling Systems

A free-floating cooling system allows heat exchangers to expand and contract, reducing thermal stress for improved system durability.



## 2<sup>nd</sup> Generation Oil-flooded Screw Air Compressors, 90-160 kW

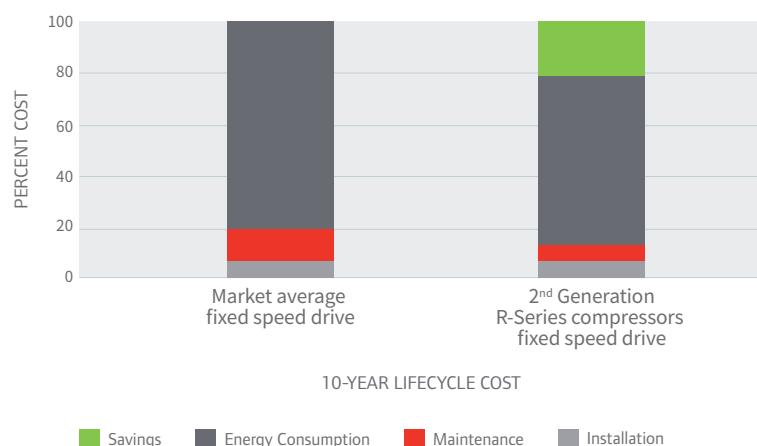
### World-Class Efficiency

Our 2<sup>nd</sup> Generation R-Series compressor includes an all-new, state-of-the-art airend, making it your best choice for performance. The new airend improves efficiency through several advancements, including an optimized rotor profile to help minimise operating expenses.

The new rotor profile also provides larger airflow. With more airflow for the same power input, your compressor requirements are smaller, reducing both investment costs and energy usage.

For 90-160 kW models, improve performance even more with our optional two-stage airend for increased flow capacity and power gain.

### Significantly reduce total cost of ownership



### Magnify Next Generation Efficiency

Every 2<sup>nd</sup> Generation R-Series compressor features an advanced airend and IE3-rated NEMA Premium® motor that reduces total cost of ownership.

#### 2<sup>nd</sup> Generation R-Series – 50 Hz Performance

Model	Nominal power kW (hp)	Max pressure barg (psig)	Capacity (FAD) m <sup>3</sup> /min (cfm)
RS132i-160i fixed speed	132-160 (175-200)	7.0-14.0 (100-200)	18.1-31.2 (646-1,102)
RS90ie-160ie fixed speed Premium	90-160 (125-200)	7.0-14.0 (100-200)	13-31.9 (484-1,126)

#### 2<sup>nd</sup> Generation R-Series – 60 Hz Performance

Model	Nominal power kW (hp)	Max pressure barg (psig)	Capacity (FAD) m <sup>3</sup> /min (cfm)
RS132i-160i fixed speed	132-150 (175-200)	7.0-14.0 (100-200)	18.1-29.1 (646-1,027)
RS90ie-160ie fixed speed Premium	90-150 (125-200)	7.0-14.0 (100-200)	13-30.9 (484-1,091)

## Oil-flooded Screw Air Compressors, 90-160 kW

### A Tradition of Proven Design

Ingersoll Rand R-Series oil-flooded screw compressors provide superior operating features, benefits and equipment choices. Matching motors and airends to achieve the exact level of performance and economy your operation and budget require. This includes options like our two-stage airend (90 kW and above) that will drastically improve flow capacity and power consumption.



### Innovative Designs, Flexible Choices



Efficiency for Constant Demand: Fixed speed compressors featuring the reliable and efficient IE3 TEFC induction motor (RS models only)



Premium Efficiency for Constant Demand: Fixed speed compressors with the continuous duty IE3 TEFC induction motor and enhanced features for improved performance and efficiency



Moisture and contamination in compressed air cause serious 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 maximize energy savings or non-cycling dryers for a lower initial cost.

### Features of Refrigerated Dryer

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



### Cost-Effective Operation

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



## Maximum Performance

Use desiccant dryers when your application demands low dew points and the higher 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 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 CARE service programs. With CARE, we have one goal – to earn the right to be your trusted partner.



## The CARE Service Program Advantage

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

**Depending on your oil-flooded compressor system maintenance requirements, choose from one of these programs:**



### Package CARE™

- Greatest value
- Equipment risk transfer
- Foreseeable service costs
- Scheduled maintenance and all repairs
- No production interruption



### Planned CARE™

- All planned maintenance
- Predictable, on-time
- Preventative diagnostics
- Coverage on airend components



### Parts CARE™

- Genuine OEM parts at an agreed-to price
- Planned parts inventory
- Experienced support
- Fixed parts price

## IT ALL ADDS UP TO PEACE OF MIND



#### Lower Cost of Ownership

CARE service programs provide the most cost-effective solutions based on your customized maintenance strategy.

#### Superior Experience

Ingersoll Rand factory-trained service technicians are backed by more than 160 years of industry experience.

#### Increased Uptime

Our CARE 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 can focus on what's important to your business.



## Reforge of REMAN

Air compressors operating under high temperature and loading for long suffer from descent performance over time due to mechanical wear, air corrosion, aging or improper use and service. Ingersoll Rand reforge of REMAN safeguard your air compressors with professional, reliable and quick services, including overhaul and replacement of the entire machine, airen, motor and coolers.

## Performance Services



**Electronic  
Assessment**

By identifying, analysing and correcting problems throughout your system - wherever they occur - our global service team can reveal the root cause through big data analysis, and then recommend highly cost-effective solutions to keep your profitability maximized and total operation cost reduced.



**Air Leak  
Assessment**

- Track system performance
- Increase system efficiency
- Improve production and reduce waste
- Eliminate misjudgment



**System  
Assessment**





# 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.

## Genuine Parts

By virtue of our powerful global supply chain system, Ingersoll Rand has been able to provide various high-quality genuine parts, maintaining an efficient and reliable operating state of your equipment.



### Ultra Coolant

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



### Service Kit

It covers the parts to be regularly replaced due to normal wear, and also provides repair assembly of main parts for normal and smooth operation of the machine.



### Ultra FG

Food Grade Lubricant

- USDA/NSF H-1 class certified for occasional food contact environment
- Contaminants broken down and neutralized to prevent pathogen spreading
- Excellent chemical stability for better protection of air compressor components



### Xe Series Intelligent Controller

Higher reliability, efficiency and productivity.



### Built-in Filter

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



### System Automation and Control

As much as 20% to 60% of the energy used to operate compressed air systems is saved by Ingersoll Rand's turn-key solutions, from single-machine regulation to power distribution, speed regulation and centralized control of the whole station building. Centralized control system achieves all-round real-time monitoring and control, effectively reducing operating cost via guard-free station building.



# OIL-FLOODED PARTS AND ACCESSORIES



## SimplAir® Piping System

Traditional steel pipeline has such disadvantages as long installation period, inconvenient modification, large pressure loss and a tendency to rust which impair the compressed air quality. Ingersoll Rand SimplAir piping system, with its unique design and performance, effectively solves these problems for our customers, and saves energy.



## Condensate Management

Ingersoll Rand no-loss electronic and pneumatic drains, along with our oil/water separators, are the most reliable, durable and energy-efficient way to remove condensate for customers.



## 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.

## Heat Recovery

Energy cost of air compressor may exceed 10% of total power cost of most manufacturing enterprises, while about 85% energy consumed in practical operation of air compressor is converted into heat, which is cooled through the air compressor or dissipated into the atmosphere. Ingersoll Rand air compressor heat recovery system recovers as much heat wasted as possible to meet process or domestic heat demand while ensuring normal, reliable operation of the air compressor. Oil-spray, oil-free and centrifugal heat recovery is available.

## Reliable Compressed Air from Start to Finish

Maximize 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.



## 90-160kW (120-200hp) Configuration

Standard Configuration		Fixed Speed	Fixed Speed
Category	Description	i	ie
Airend	Airend of excellent performance	●	●
	Energy-saving controller, available in 31 languages	●	●
Controller	Programmable start-stop operation and remote connection	●	●
	Built-in sequence control program to jointly control up to 4 compressors	●	●
Progressive adaptive control (PAC™)	Monitor maintenance for filter element and other wearing parts and correspondingly adjust system operating parameters	●	●
	Real-time electronic maintenance indicator and stoppage protection	●	●
Cooling system	Free-floating air cooling system for improved energy efficiency and durability	●	●
	Highly efficient, energy saving and low noise centrifugal fan	●	●
	Used in environment up to 46°C	●	●
	Water separator	○	●
V-Shield™ technology	Automatic electronic drain	○	●
	Shock-absorbing pads and high-class flexible metal hose	●	●
	Recyclable fluorinated material for non-leakage seal	●	●
	Noise-reducing housing of the entire machine	●	●
Auxiliary system	Pre-filter / high dust pre-filter for the entire machine	●	●
	Long-lasting filter element and separator element	●	●
	Coolant	●	●
	Full-load/no-load flow regulation system control	●	●
Master motor & electrical system	Control panel of IP54/NEMA4 protection grade	●	●
	Star delta buck starter	●	●
	High efficiency enclosed IE3, TEFC, IP55 electric motor – Grade B temperature rise, Class F insulation	●	●
General configuration	Simple single air inlet-outlet pipeline (single air inlet and single air outlet)	●	●
	12-month warranty program	●	●
Options			
Protection against harsh environment	Outdoor / rain proofing option	○	○
	Frost protection (down to -10°C), 50Hz	○	○
	Protection against low temperature (down to -23°C), 60Hz	○	○
	Protection against high temperature (up to 55°C)*	○	○
	No-loss electronic drain	○	○
	High dust pre-filter for the entire machine	○	○
	High dust inlet filter	○	○
Environment-friendly option	Drip-proof baseplate for the entire machine	○	○
	Energy recovery system (ERS) **	○	○
	Food-grade coolant Ultra FG	○	○
Power supply protection	Power off and restart (PORO)	○	○
	Soft start	○	○
	Motor RTD monitoring	○	○
Other general options	Phase monitoring (protection)	○	○
	Xe-145M TFT controller	○	○
	Large air volume modulation	○	○
Notes			
● Standard configuration		* Not applicable to 160i/ie models	
○ Optional		** Not applicable to water-cooled units	

## i standard unit performance, 50Hz

Model	Max. pressure		Rated power		Air volume (FAD)*	Dimensions (L x W x H)			Weight (Air-cooled)		Weight (Water-cooled)	
	barg	psig	kW	hp		mm	in	kg	lb	kg	lb	
RS132i	7.5	110	132	175	26.6	2855x1899x2107	112.4x74.8x83	3720	8201	3780	8333	
RS132i	8.5	125	132	175	24.8	2855x1899x2107	112.4x74.8x83	3720	8201	3780	8333	
RS132i	10.0	145	132	175	22.7	2855x1899x2107	112.4x74.8x83	3720	8201	3780	8333	
RS132i	14.0	200	132	175	18.1	2855x1899x2107	112.4x74.8x83	3720	8201	3780	8333	
RS160i	7.5	110	160	200	31.2	2855x1899x2107	112.4x74.8x83	3820	8422	3880	8554	
RS160i	8.5	125	160	200	30.0	2855x1899x2107	112.4x74.8x83	3820	8422	3880	8554	
RS160i	10.0	145	160	200	27.6	2855x1899x2107	112.4x74.8x83	3820	8422	3880	8554	
RS160i	14.0	200	160	200	22.3	2855x1899x2107	112.4x74.8x83	3820	8422	3880	8554	

## ie standard unit performance, 50Hz

Model	Max. pressure		Rated power		Air volume (FAD)*	Dimensions (L x W x H)			Weight (Air-cooled)		Weight (Water-cooled)	
	barg	psig	kW	hp		mm	in	kg	lb	kg	lb	
RS90ie	7.5	110	90	125	19.3	2855x1899x2107	112.4x74.8x83.0	3270	7209	3478	7668	
RS90ie	8.5	125	90	125	18.2	2855x1899x2107	112.4x74.8x83.0	3270	7209	3478	7668	
RS90ie	10.0	145	90	125	16.4	2855x1899x2107	112.4x74.8x83.0	3270	7209	3478	7668	
RS90ie	14.0	200	90	125	13.0	2855x1899x2107	112.4x74.8x83.0	3270	7209	3478	7668	
RS110ie	7.5	110	110	150	23.5	2855x1899x2107	112.4x74.8x83.0	3364	7416	3572	7875	
RS110ie	8.5	125	110	150	22.1	2855x1899x2107	112.4x74.8x83.0	3364	7416	3572	7875	
RS110ie	10.0	145	110	150	20.0	2855x1899x2107	112.4x74.8x83.0	3364	7416	3572	7875	
RS110ie	14.0	200	110	150	16.4	2855x1899x2107	112.4x74.8x83.0	3364	7416	3572	7875	
RS132ie	7.5	110	132	175	27.7	2855x1899x2107	112.4x74.8x83.0	3646	8038	3854	8497	
RS132ie	8.5	125	132	175	26.2	2855x1899x2107	112.4x74.8x83.0	3646	8038	3854	8497	
RS132ie	10.0	145	132	175	23.8	2855x1899x2107	112.4x74.8x83.0	3646	8038	3854	8497	
RS132ie	14.0	200	132	175	19.6	2855x1899x2107	112.4x74.8x83.0	3646	8038	3854	8497	
RS160ie	7.5	110	160	200	31.9	2855x1899x2107	112.4x74.8x83.0	4194	9246	3986	8788	
RS160ie	8.5	125	160	200	31	2855x1899x2107	112.4x74.8x83.0	4194	9246	3986	8788	
RS160ie	10.0	145	160	200	28.9	2855x1899x2107	112.4x74.8x83.0	4194	9246	3986	8788	
RS160ie	14.0	200	160	200	23.9	2855x1899x2107	112.4x74.8x83.0	4194	9246	3986	8788	

\* FAD (volume flow) is the operation parameter of the entire machine and measured as per the test standard in ISO1217:2009 Annex C.



Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to Making Life Better for our employees, customers, shareholders, and planet. Customers lean on us for exceptional performance and durability in mission-critical flow creation and industrial solutions. Supported by over 80+ respected brands, our products and services excel in very 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](http://www.IRCO.com).



#### Contact Ingersoll Rand

Add.: F11, L'Avenue, 99 Xianxia Road, Shanghai  
Tel.: 021-22216000  
Website: [www.IngersollRand.com](http://www.IngersollRand.com)

**24h National Toll-free  
Service Hotline:**

**800 820 2128  
400 820 2128**