



R-series Oil-flooded Screw Air Compressors

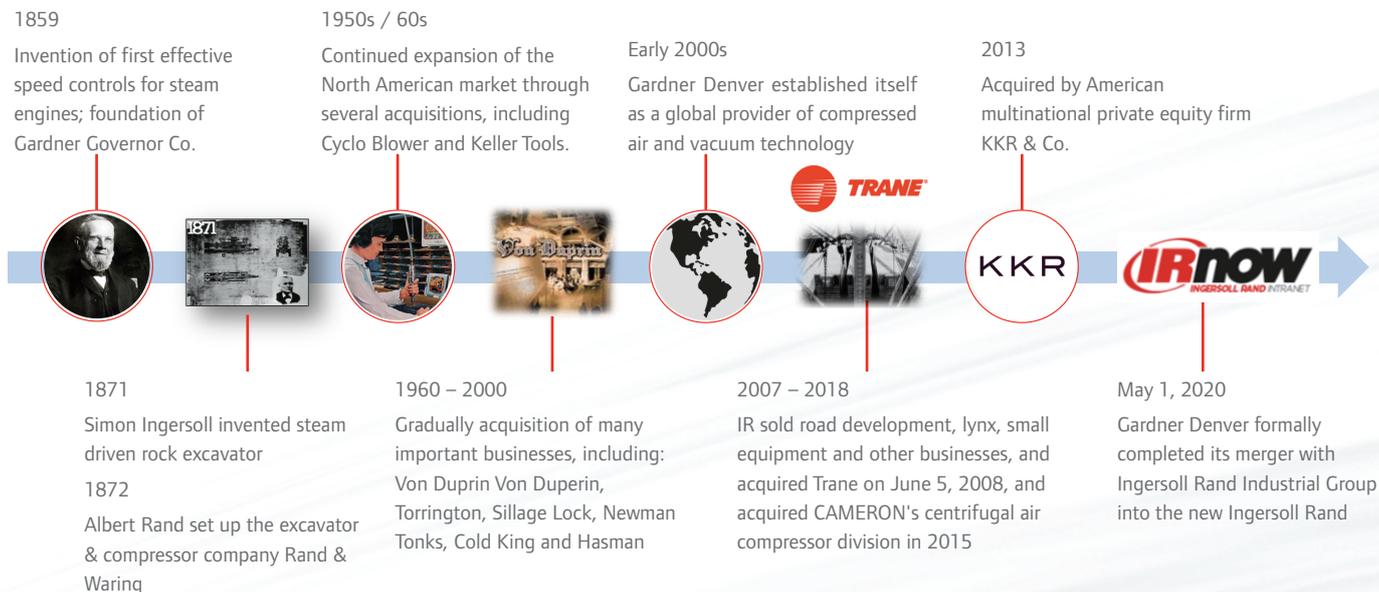
90-160 kW



Ingersoll Rand

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 50+ respected brands where our products and services excel in the most complex and harsh conditions. Our product portfolio covers multiple areas, including air compressor, pump, blower, flow management, loading, power tools and material lifting system. Our 18,000+ employees worldwide develop customers for life through their daily commitment to expertise efficiency. For more information, visit www.IRco.com.cn.

The brands under the umbrella of Ingersoll Rand include dozens of well-known enterprises in air compressor, blower and vacuum pump sectors, such as Ingersoll Rand, Gardner Denver, Elmo Rietschle and Robuschi, etc.



IR China

The Research and Development center located in Shanghai, China is the only technology R&D center of Ingersoll Rand in Asia-Pacific region. This not only demonstrates Ingersoll Rand's advantages in focusing on technological innovation, product R&D and industrial upgrading, but also highlights the company's confidence and determination to develop and further invest in Chinese market, as well as the high recognition of the business environment in China.

Ingersoll Rand locates its largest plant worldwide in Suzhou Wujiang Industrial Park, which covers an area of 230,000 square meters and has a building area of 91,000 square meters and nearly 700 employees. The production, quality inspection and control of all the products will be completed here; and the on-site supplier evaluation, production part approval process, incoming quality control, warehouse & inventory management, manufacturing process, testing & inspection, finished product quality control, and outgoing quality control and warranty strictly follows Ingersoll Rand's global quality procedures.



Applications

R-series Air Compressors

eliminate waste and control costs effortlessly to lower total cost of ownership.



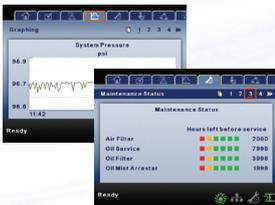
R-series Air Compressors

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.



Intuitive Control

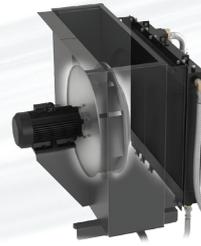
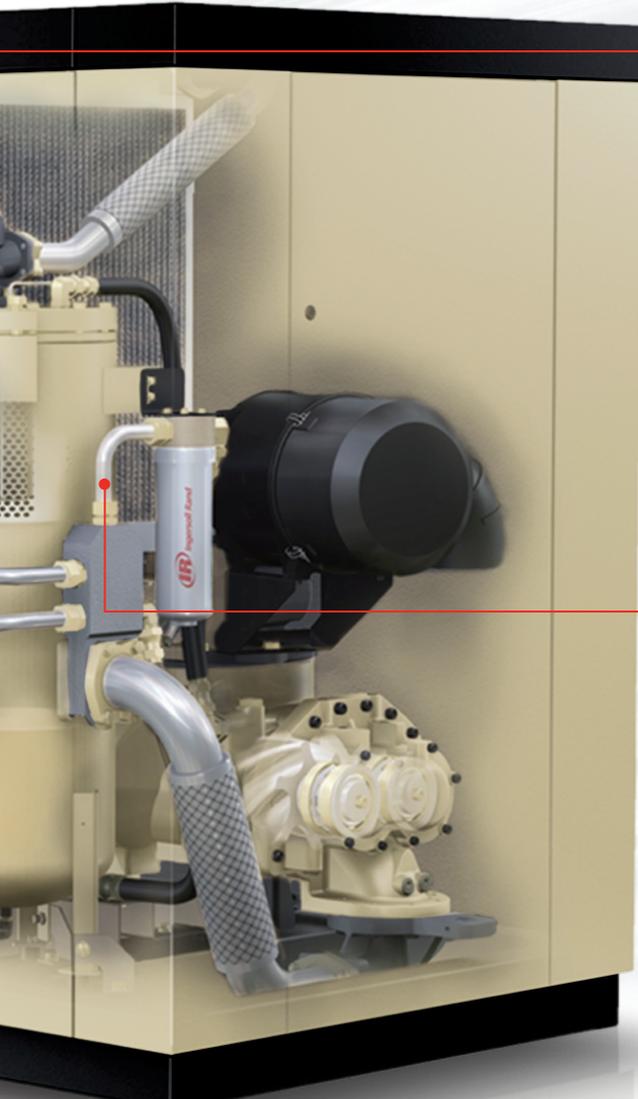
- Ri comes standard with the Xe-Series controllers deliver increased control and functionality through an intuitive user interface as well as remote access with any common, current web browser.
- Rn/ne comes with a new generation Luminance controller integrated with LoT for more powerful functions.



Adaptive Monitoring

- Progressive Adaptive Control (PAC™) system is fully integrated with sensor and control system.
- It monitors key operating parameters and continuously adapts to prevent unexpected downtime.





Advanced Cooling Systems

- Unique design prevents hot air from flowing through critical electrical elements.
- Air pre-filter assembly greatly reduces cleaning time of coolers.



Leak-free Design

- V-Shield™ technology provides a totally integrated, leak-free design.
- Elastic Viton O-ring face seal connection.
- Also used in flexible metal hose with internal fold design and unique external stainless steel braided wire mesh.
- Significantly improve reliability while reducing vibration.



Optimised Drive Components

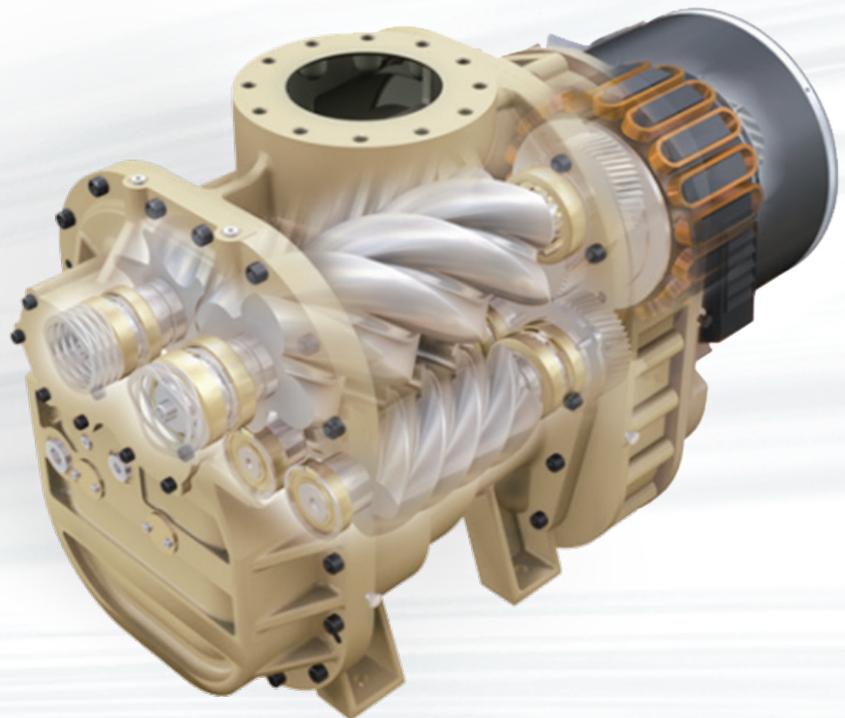
- World-class single and two-stage airends (two-stage available starting at 90 kW), along with a TEFC induction or optional variable speed motor minimise energy use.

Airend – Heart of Every Air Compressor

1 Airend with roller bearing for excellent reliability and efficiency



2 Precisely machined rotor and oil passage leading to the cast iron housing, gear-driven and maintenance-free



3 Two-stage compression technology, with very low compression ratio at each stage and efficient & consistent discharge

4 Unique spraying curtain decreasing bearing load, extending airend service life and reducing energy consumption cost

Motor – Backbone of Air Compressor



1 HPM (Hybrid Permanent Magnet) motor tapping the maximum potential of VSD technology

2 Smooth soft start for higher efficiency



3 Actually no decrease in efficiency of the motor under partial load

4 Highest configuration of TEFC IE4 IP55



5 Motor efficiency above 95%

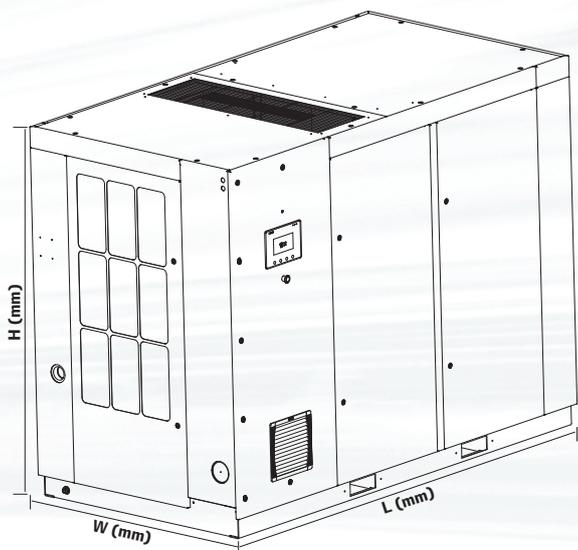
6 Motor shutoff under low flow conditions for energy saving & noise reduction

Specification

Model	Max. pressure		Nominal power		Air volume (FAD)*		Overall weight (air-cooled)		Overall weight (air-cooled)	
	barg	psig	kW	hp	m ³ /min	cfm	kg	lb	kg	lb
R90i	7.5	110	90	125	16.71	590	2420	5335	2200	4850
	8.5	125			15.72	555				
	8.5	145			14.02	495				
	14	200			10.25	362				
R110i	7.5	110	110	150	20.76	733	2550	5620	2330	5140
	8.5	125			19.20	678				
	8.5	145			17.50	618				
	14	200			13.76	486				

Model	Max. pressure		Nominal power		Air volume (FAD)*		Overall weight (air-cooled)		Overall weight (air-cooled)	
	barg	psig	kW	hp	m ³ /min	cfm	kg	lb	kg	lb
R90n	7-10	100-145	90	125	8.47-17.95	299-634	2060	4540	1850	4080
R110n			110	150	8.47-21.66	299-765				
R132n			132	175	8.47-24.44	299-863	2363	5210	2354	5190
R160n			160	215	8.47-28.88	299-1020				
R90ne			90	125	8.86-18.72	313-661	2495	5500	2472	5450
R110ne			110	150	8.86-22.96	313-811				
R132ne			132	175	8.86-27.24	313-962				
R160ne			160	215	8.86-32.05	313-1132				

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



Model	L (mm)	W (mm)	H (mm)
R90i R110i	2703	1466	2032
R90n R110n	2703	1466	2032
R132n R160n	2856	1855	2035
R90ne-R160ne	2856	1855	2035

Configuration

Standard Configuration		Fixed speed	VSD	
Category	Description	i	n	ne
Airend	Airend of excellent performance	●	●	●
Controller	Energy-saving controller, available in multiple languages	●	●	●
	Programmable start-stop operation and remote connection	●	●	●
	Built-in sequence control program to jointly control up to 4 compressors	●		
	Built-in energy-saving computer		●	●
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	●	●	●
V-Shield™ technology	Stainless steel discharge pipe	●	●	●
	Recyclable fluorinated material for non-leakage seal	●	●	●
Cooling system	Free-floating air cooling system for improved energy efficiency and durability	●	●	●
	Used in environment up to 46°C	●	●	●
	Highly efficient, energy saving and low noise centrifugal fan	●	●	●
	Water separator	●	●	●
	Automatic electronic drain	●	●	●
	Air pre-filter assembly	●	●	●
	Split design	●	●	●
Auxiliary system	Noise-reducing housing of the entire machine	●	●	●
	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	●		
	Control panel of IP54 protection grade		●	●
	Star delta buck starter	●		
	High efficiency enclosed IE3, TEFC electric motor	●		
	High efficiency enclosed IE4, TEFC electric motor		●	
	HPM ODP master motor			●
General configuration	Simple individual intake & discharge air pipeline (single air intake and single discharge)	●	●	●
	12-month warranty program	●	●	●

Options		Fixed speed
Category	Description	i
Protection against harsh environment	Outdoor / rain proofing option	●
	Protection against low temperature	●
	Protection against high temperature	●
	High dust filter	●
Other general options	Motor heater	●
	Soft start	●
	Heat recovery system (ERS)	●
	Large air volume modulation	●

Choice – Shaping the Future

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.

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.

Why Choose our Oil-flooded Screw Air Compressor?

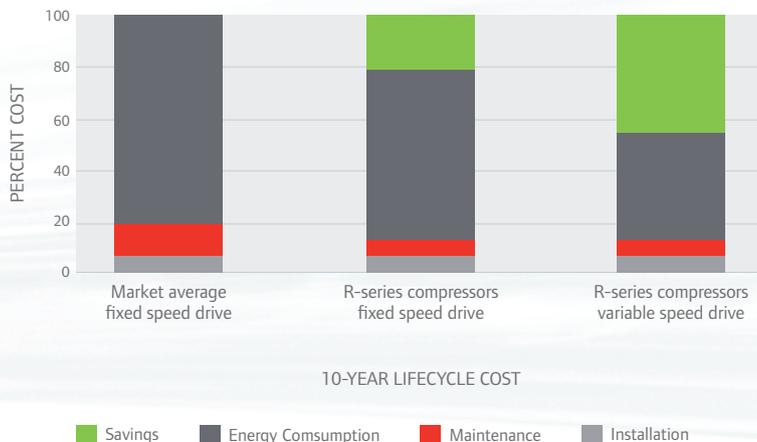
Reliability

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

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.

Significantly reduce total cost of ownership



Driving Toward Efficiency

Every R-Series compressor features an advanced airend and IE3-rated NEMA Premium® motor that reduces total cost of ownership. For even more efficiency, an optional variable speed drive (VSD) can help you save even more on energy costs.

Complete Air System

Your Trusted Partner in Compressed Air

Delivering reliable oil-flooded compressed air to your facility goes well beyond the compressor itself. Ingersoll Rand designs a complete, comprehensive and ideal air system for you, which, from front-end device to backend treatment, 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 different dryers to maximize energy savings or for a lower initial cost.

Refrigerated Dryer Features

- 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



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

After-sale Services – for Peace of Mind

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:



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



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



- 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 customised maintenance strategy.



Quality Results

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 focus on what's important to your business.

Parts and Services

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.



REMAN Rentals

Air compressors operating under high temperature and load for long suffer from descent performance over time due to mechanical wear, air corrosion, aging or improper use and service. Ingersoll Rand REMAN rentals safeguard your air compressors with professional, reliable and quick services, including overhaul and replacement of the entire machine, airend, 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 maximised and total operation cost reduced.



Air Leak Assessment

- Track System Performance
- Increase System Efficiency
- Improve Production and Reduce Waste
- Eliminate Misjudgment



System Assessment





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