



Rotary Screw Compressors

R-Series 4-11 kW (5-15 hp)

Fixed and Variable Speed Drives



Reliability. Efficiency. Productivity.

More Than 100 Years of Compressed Air Innovation



Ingersoll Rand introduced its first air compressor in 1872. Over the next 140 years, we have continued to develop rugged, reliable, industry-leading rotary screw compressor technologies. Today, we're experts in compressed air because our technological advances meet the specific performance needs of our customers' industries. No matter what the application, Ingersoll Rand rotary screw technology provides compressed air in all operating conditions to reduce costly downtime, product liability and damage to your reputation.

Compact Performance Where You Need It

The durable Ingersoll Rand R-Series 4-11 kW compressor extends the R-Series family into the smallest rotary screw offering with benefits like innovative features and a compact design that fits virtually any application environment.

Continued Reliability

- Upgrades to PTFE hoses with O-Ring face seals and fewer components reduce the potential for leaks and increase reliability
- Danfoss drive (VSD models) provides world class reliability, eliminating overheating and related component failures
- TEFC, Tri-Voltage (208-230/460 V) motors are standard on all fixed speed products
- Improved cooler design minimizes thermal expansion effects

Increased Efficiency

- IE3 premium energy-efficient fixed and variable speed motors support continuous operation in harsh environments
- Next-gen leak-free airends feature significantly improved turndown performance for variable speed units

Compact Productivity

- Vertically stacked drive components with the airend mounted above the main motor reduces the overall basemount footprint by 20% compared to previous models, improving balance and simplifying belt tension
- Xe Series programmable controllers deliver increased control functionality through an intuitive user interface, allowing for easy access to all critical operating parameters
- The R-Series Total Air System (TAS™) provides clean, dry air in a single package that minimizes installation costs, space and supports ISO air quality standards
- Quiet operation (69 dB(A)) complements the small footprint for installation and operation within limited workspaces

Proven Reliability. Robust Design.

The R-Series 4-11 kW family of compressors delivers optimum performance and easier maintenance, all in a robust, innovative package.



The Xe Series controllers deliver increased control functionality through an intuitive user interface with large navigation buttons for both fixed and variable speed drives.



A totally integrated, leak-free design uses stainless steel pipes and long life metal-flex hoses.



Vertically-stacked drive components reduce overall footprint by 20%.



The all-in-one CE55X air end features superior air/oil separation and reliability.

Convenient Choices for a Complete Air Solution

Clean, Dry Air

Drying the compressed air to remove moisture and contaminants prevents damage to finishing processes or product quality.



TAS (Total Air System)

- A** 3-in-1 heat exchanger
- B** High-efficiency and general purpose filters
- C** Condenser
- D** Reliable refrigerant compressor
- E** Cyclon water separator

TAS™—The Total Package

To provide the most comprehensive air solution, our Ingersoll Rand R-Series compressors are available with a Total Air System (TAS™) option. These complete compressor cooler and dryer systems come with integrated controls, water separators, drain ports and filters. For any capacity you need, let Ingersoll Rand provide the complete answer in a compact solution that fits your air requirements and workspace.

- High-efficiency general purpose filters with integrated dryer deliver ISO 1-5-1 quality air
- 3-in-1 heat exchanger provides increased reliability and efficiency
- Class-leading dryer design with proven reliability minimizes installation costs with a single-point power connection



Total Air System—Dryer Operation

The onboard dryer controller is integrated into the TAS™ package such that the dryer cycling is controlled by the compressor operation, and dryer alarms are fed back to the compressor controller. The dryer controller also allows for adjustment of critical operating parameters, saving you time and ensuring peace of mind.

Ensuring Optimal Uptime

Xe-50M vs. Xe-70M Features



Xe-50M



Xe-70M

Feature/Option	Xe-50M	Xe-70M
Display	2.1" Monochrome	2.6" 240 x 160 Monochrome
Total I/O's	11	23
RS-485 Communication Port	0	2
Ethernet Port	No	Yes (Optional ECO)
Data Collection (SD Card)	No	7 days (Optional ECO)
Start/Stop Control	✓	✓
Manual Load/Unload Control	✓	✓
Automatic Load Control (Auto-Restart)	✓	✓
Modulation (Fixed Speed Only)		✓
Mod/ACS (Fixed Speed Only)		✓
Lead/Lag		✓
Blower Control (Includes Low Ambient Option)		✓
Power Out Restart Option		✓
Integrated Dryer Control	✓	✓
Language	Symbolic	30 Languages text

Productivity is enhanced due to advanced diagnostics, automated data logging, report generation and compressor sequencing.

Fixed and Variable Speed Drive Options

Features Description	Fixed Speed	Variable Speed
Xe-Series 50 Controller	●	
Xe-Series 70 Controller	○	●
Total Air System (TAS™) with integrated dryer	○	○
Power outage restart	○	○
Frost protection	○	
Outdoor modification enclosure	○	
Ultra FG or Ultra EL coolant	○	○
Hi-dust air filter	○	
Low voltage (208-230 V)	●	○
Receiver tank size (80/120 gallon)	○	○

● Standard Feature ○ Optional Feature "Blank" Not Available

Compressor Specifications

i Ingersoll Rand Fixed Speed – 60 Hz Performance

Model	Max. Pressure	Nominal Power		Capacity (FAD)*	Dimensions (Length x Width x Height)		Weight (Air-cooled)	
	psig	kW	hp	cfm	mm	in	kg	lb
R4i	110	4	5	19.44	960x690x1186.5	38x27x47	280/345	617/761
R4i TAS†	125	4	5	16.93	1156x690x1186.5	46x27x47	280/345	617/761
	145	4	5	14.27	1156x690x1186.5	46x27x47	280/345	617/761
R5.5i	110	5.5	7.5	30.47	960x690x1186.5	38x27x47	280/345	617/761
R5.5i TAS†	125	5.5	7.5	27.50	1156x690x1186.5	46x27x47	280/345	617/761
	145	5.5	7.5	24.30	1156x690x1186.5	46x27x47	280/345	617/761
	200	5.5	7.5	16.76	1156x690x1186.5	46x27x47	280/345	617/761
R7.5i	110	7.5	10	39.84	960x690x1186.5	38x27x47	280/345	617/761
R7.5i TAS†	125	7.5	10	36.70	1156x690x1186.5	46x27x47	280/345	617/761
	145	7.5	10	33.40	1156x690x1186.5	46x27x47	280/345	617/761
	200	7.5	10	25.30	1156x690x1186.5	46x27x47	280/345	617/761
R11i	110	11	15	57.46	960x690x1186.5	38x27x47	295/365	650/805
R11i TAS†	125	11	15	53.90	1156x690x1186.5	46x27x47	295/365	650/805
	145	11	15	50.40	1156x690x1186.5	46x27x47	295/365	650/805
	200	11	15	41.46	1156x690x1186.5	46x27x47	295/365	650/805

n Ingersoll Rand Variable Speed – 60 Hz Performance

Model	Max. Pressure	Nominal Power		Capacity (FAD) @ 145 psi	Dimensions (Length x Width x Height)		Weight (Air-cooled)	
	psig	kW	hp	cfm	mm	in	kg	lb
R5.5n	65-145	5.5	7.5	8.1 - 24.3	960x690x1186.5	38x27x47	285	628
R7.5n	65-145	7.5	10	11.7 - 33.4	960x690x1186.5	38x27x47	285	628
R11n	65-145	11	15	18.4 - 50.4	960x690x1186.5	38x27x47	305	672
R5.5n TAS†	65-135	5.5	7.5	8.1 - 24.3	960x690x1186.5	38x27x47	350	772
R7.5n TAS†	65-135	7.5	10	11.7 - 33.4	960x690x1186.5	38x27x47	350	772
R11n TAS†	65-135	11	15	18.4 - 50.4	960x690x1186.5	38x27x47	375	827

Receiver Tank	Length mm		Width		Height		Additional Mass	
	mm	in	mm	in	mm	in	kg	lb
80 gal Tank-mounted Version	1783	70.0	690	27.0	1,704	67.0	120	264.5
120 gal Tank-mounted Version	1897	75.0	690	27.0	1,832	72.0	142	313.0

*FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex C, and is measured at 10 psi lower than maximum pressure on non-TAS units and at maximum pressure on TAS equipped units.

†TAS units deliver ISO Class 1-5-1 quality air measured at steady state conditions in accordance with ISO 8573-1:2001 that dictates inlet air to package of 25°C (77°F) and relative humidity of 60%.

i Efficiency for Constant Demand Fixed Speed Compressors

Ingersoll Rand R-Series fixed speed compressors feature the reliable and efficient IE3 TEFC motor for constant demand processes.

n Efficiency for Variable Demand Variable Speed Compressors

Ingersoll Rand VSD compressors maximize the full potential of variable speed technology.

Making the Right Selection

Do you know what type of compressor you need? Truly, it depends on how it will be used. Two compressors could have the same specifications, but one may be better suited for your application. Reciprocating compressors, for example, are designed with a duty cycle application that sometimes requires them to cycle off and cool down. These work great in most low flow commercial and industrial applications. However, in the scenario where the air system demand requires a large amount of flow that can exceed the duty cycle of a reciprocating compressor, a rotary screw compressor is the logical choice for the application. The rotary screw compressor is designed to have a 100% duty cycle, meaning it can run all day long without cycling off to cool down. It is important to understand this concept as a compressor's flow may show ample capacity use, but it is still possible to run beyond its duty cycle if used continuously. This can lead to maintenance issues down the road. Furthermore, selecting the right compressor up front ensures more reliable, efficient and long-lasting performance.



Spare Parts

Simple to order parts and maintenance kits make it easy to ensure that you have the right parts on hand when you need them. Ingersoll Rand's reputation for compressor parts availability and reliability is second to none.

We Know the Products and We Have the Service

Service Technicians

- Factory certified technicians for all products
- Field Services—bring repair expertise to your facility

Air Surveys and Energy Audits

- Ultrasonic leak detection
- Supply- and demand-side energy audits
- Air system surveys

Engineering Services

- Systems engineers provide assistance with design, specifications and system layout of compressors, crane and ergonomic rails systems, and assembly layouts

Mechanical Installations

- Complete turnkey installations including air piping, ventilation, electrical, rigging, foundation and ducting for compressors

Emergency Rentals

- Stationary and portable compressors, dryers and tools

Maintenance Programs

- Preventive maintenance agreements
- PackageCare
- Predictive maintenance and diagnostics
- Oil analysis
- Vibration monitoring

Parts Support

- Parts for all Ingersoll Rand products and competitive compressor models





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