Ingersoll Rand

Contact-Cooled Rotary Screw Air Compressors

R-Series 55-75 kW

A New Level of Reliability, Efficiency and Productivity

Ingersoll Rand R-Series rotary screw air compressors offer the very best of time-proven designs and technologies with new, advanced features to ensure the highest levels of reliability, efficiency and productivity available.

Xe-145M
option shown

Progressive Adaptive Control™ (PAC™) Protection

Continuously monitors key operating parameters and adapts to prevent unexpected downtime.

- Increases uptime by scanning and adjusting operating parameters in response to changes in filter condition
- Ensures peak performance with real-time electronic maintenance indicators
- Optimizes energy consumption and reduces noise by adjusting fan speed
- Improves productivity by proactively monitoring and conditioning incoming power

V-Shield™ Technology

Leak-free design with stainless steel pipes and long-life metal-flex hoses.

- Repeatable leak-free connections using superior elastomeric seals
- Reduces downstream contamination with stainless steel air piping
- Extends compressor life and reduces noise via vibration isolation system and metal-flex hoses

Xe-Series Controller

Features an intuitive high resolution color display with web access.

- Remote access and control using web-enabled communications with a standard web browser
- Achieves system optimization through built-in performance analysis and trending
- Clear and intuitive compressor controls with high intensity LED indicators and large navigation buttons
- Increases efficiency and stabilizes pressure by sequencing up to 4 Xe-controlled compressors without additional hardware

Sequential Cooling System

Significantly improves efficiency, serviceability and noise level.

- Reduces thermal stress and extends life using independently-mounted, free-floating heat exchangers
- Reduces the energy required to remove harmful condensate in downstream air by significantly lowering discharge temperatures
- Lowers energy consumption and noise with an energy-efficient centrifugal blower

Total Air System integrated dryer option shown

Total Air System (TAS)

Clean, dry air in a single package that minimizes installation costs and space.

- Protects downstream equipment with:
  - Integrated refrigerated dryer that provides dew point suppression up to 46°C (115°F) ambient temperature and 40% relative humidity
  - Standard high efficiency coalescing filter that delivers ISO Class 1-4-2 quality air
- Increases reliability and efficiency with a lower pressure drop than typical dryers and patented 3-in-1 heat exchanger
- Reduces service time and cost with single-point maintenance and monitoring
- Prevents unplanned shutdowns with PAC™ Protection by adjusting operating parameters in response to changes in filter condition

The Decision is Yours

Our optimized, energy-efficient packages deliver the combination of performance and value that best fits your specific needs. At Ingersoll Rand, it's all about value…and choice!

n **Nirvana VSD EFFICIENCY**

Variable speed with single-stage airend

i Fixed speed with single-stage airend

Total Air System

Optimized dryer, filtration system and compressor in one convenient package.

Innovative Design, Flexible Choice

Time-Proven Reliable Airends

Robust Airends

Used in compressors worldwide, Ingersoll Rand single-stage airends are both reliable and efficient.

- Precision machined rotors
- Highest quality tapered roller bearings
- Integrated coolant flow to eliminate leak paths

Energy Recovery System (ERS)

The Ingersoll Rand Energy Recovery System (ERS) provides a cost-effective way to reduce your energy bills and benefit the environment by capturing compressor heat and putting it to work.

- Supplements current water heating system
- Ensures years of trouble-free operation with corrosion resistant material

n Efficiency for Variable Demand

Nirvana Variable Speed Drive (VSD) Compressors

Ingersoll Rand VSD compressors feature the highest efficiency Hybrid Permanent Magnet (HPM) motor.

- Unlimited start/stops and shut off to conserve energy
- Rated for continuous duty — 100% load, 24/7, 46°C (115°F)
- Stable, constant pressure control
- Virtually no degradation in specific power at partial load
- Stable power factor over control range

Maintenance-free, bearingless motor design

Fewer rotating parts — no pulleys, belts or couplings to wear out

i Efficiency for Constant Demand

Fixed Speed Compressors

Ingersoll Rand R-Series fixed speed compressors are the most reliable and energy-efficient solution for processes with constant demand.

- Compressors can be outfitted for continuous and reliable operation in harsh conditions, even outdoors in rain and dust, from -23°C (-10°F) up to 55°C (131°F)
- NEMA 1/IP55 electric panels
- Class F insulation B temperature rise

Continuous duty high-performance TEFC induction motor

Standard Features			
Category	**Description**	**Fixed Speed i**	**Nirvana VSD n**
Airend	Time-proven single-stage airend	●	●
PAC™ Protection	Scans and adjusts operating parameters in response to filtration changes	●	●
	Real-time electronic maintenance indicators and shutdown protection	●	●
	Blower speed adaptable to ambient temperature		●
	Automatic coolant temperature control to eliminate moisture build-up		●
	Integrated line reactor in compliance with industrial EMC standards		●
Cooling System	Air-cooled sequential cooling system optimized for efficiency & serviceability	●	●
	Energy-efficient and low noise centrifugal blower	●	●
	Generous package cooling system rated for 46°C (115°F) ambient	●	●
	Moisture separator	●	●
	Electronic no-loss condensate drains	○	●
V-Shield™ Technology	Stainless steel air piping	●	●
	Vibration isolation pads and premium metal-flex hoses	●	●
	Repeatable leak-free connections with superior elastomeric seals	●	●
Services	Ergonomic swing-out lid on the separator tank	●	●
	Simple ducting (single air inlet and single air outlet)	●	●
	12-month full package warranty	●	●
Auxiliary Systems	Noise attenuation enclosure	●	●
	Package pre-filtration	●	●
	Long life filtration and separation elements	●	●
	Extended-life Ingersoll Rand premium grade coolant	●	●
	Flow control by variable speed technology		●
	Flow control by full load/no load regulation system	●	
Motors & Electrical Systems	Control panel protection, NEMA 1/IP55 electrics	●	
	Star-delta reduced voltage starter	●	
	High-efficiency TEFC IP55 motors - Class F insulation with B rise	●	
	Hybrid Permanent Magnet (HPM) motor – EMC-compliant		●
	Control panel protection, NEMA 1/IP55		●
	Variable speed drive on main motor & centrifugal blower motor		●
Optional Features			
Total Air System (TAS)	Single point maintenance and monitoring		
	High efficiency pre-filter	○	○
	3-in-1 heat exchanger		
	ISO Class 1-4-2 quality air delivered		
Weather Protection	Outdoor modification/rain protection†	○	
	Frost protection to -10°C (14°F)†*	○	
	Extreme low ambient protection to -23°C (-10°F)†◆	○	
	High ambient protection up to 55°C (131°F)†	○	
	Premium high dust filtration	○	
	Water cooling	○	○
	Sea water and harsh water cooling	○	○
Environmental	Energy Recovery System (ERS)	○	○
	Fluid containment system	○	○
	Food grade coolant and filtration system	○	○
Power Protection	Power Outage Restart Option (PORO)	○	○
	Safety switch disconnects	○	○
	Phase monitor (protection)	○	●
	Electronic solid state reduced voltage starter	○	
General Options	Flow control by inlet modulation control	○	
	Comprehensive service and coverage plan	○	○

Xe-Series Controllers	Xe-90M (Standard)		Xe-145M (Optional)	
Description	**Fixed Speed i**	**Nirvana VSD n**	**Fixed Speed i**	**Nirvana VSD n**
Built-in energy savings calculator		●		●
On controller graphing and trending			●	●
Standard Web pages	●	●	●	●
Remote control via Web pages	●	●	●	●
Automated reporting			●	●
Web-based graphing and trending			●	●
Email notification of warnings and trips			●	●
Built-in sequencer for up to 4 units	●	●	●	●
Direct communications with Xi system controls	●	●	●	●

● Standard Feature ○ Optional Feature "Blank" Not Available *Applies to 50 Hz Unit Only ◆Applies to 60 Hz Unit Only †Not Available on Total Air System (TAS) Model

n Ingersoll Rand Nirvana Standard – 50 Hz Performance										
	Max. Pressure		Nominal Power		Capacity (FAD)**		Dimensions (Length x Width x Height)		Weight (Air-cooled)	
Model	bar g	psig	kW	hp	m^3/min	cfm	mm	in	kg	lb
R55n	4.5-10.0	65-145	55	75	3.23-10.53	114-372	2432 x 1265 x 2032	96 x 50 x 80	1,420	3,131
R75n	4.5-10.0	65-145	75	100	3.23-13.56	114-479	2432 x 1265 x 2032	96 x 50 x 80	1,420	3,131
n Ingersoll Rand Nirvana† Total Air System (TAS) – 50 Hz Performance										
	Max. Pressure		Nominal Power		Capacity (FAD)**		Dimensions (Length x Width x Height)		Weight (Air-cooled)	
Model	bar g	psig	kW	hp	m^3/min	cfm	mm	in	kg	lb
R55n TAS	4.5-9.5	65-135	55	75	3.23-10.11	114-357	2432 x 1265 x 2032	96 x 50 x 80	1,570	3,462
R75n TAS	4.5-9.5	65-135	75	100	3.23-12.94	114-457	2432 x 1265 x 2032	96 x 50 x 80	1,570	3,462
i Ingersoll Rand Standard – 50 Hz Performance										
	Max. Pressure		Nominal Power		Capacity (FAD)*		Dimensions (Length x Width x Height)		Weight (Air-cooled)	
Model	bar g	psig	kW	hp	m^3/min	cfm	mm	in	kg	lb
R55i	7.5	110	55	75	10.19	360	2432 x 1265 x 2032	96 x 50 x 80	1,603	3,533
	8.5	125	55	75	9.43	333	2432 x 1265 x 2032	96 x 50 x 80	1,603	3,533
	10.0	145	55	75	8.58	303	2432 x 1265 x 2032	96 x 50 x 80	1,603	3,533
	14.0	200	55	75	6.51	230	2432 x 1265 x 2032	96 x 50 x 80	1,603	3,533
R75i	7.5	110	75	100	14.21	502	2432 x 1265 x 2032	96 x 50 x 80	1,718	3,787
	8.5	125	75	100	12.77	451	2432 x 1265 x 2032	96 x 50 x 80	1,718	3,787
	10.0	145	75	100	11.61	410	2432 x 1265 x 2032	96 x 50 x 80	1,718	3,787
	14.0	200	75	100	8.83	312	2432 x 1265 x 2032	96 x 50 x 80	1,718	3,787
i Ingersoll Rand† Total Air System (TAS) – 50 Hz Performance										
	Max. Pressure		Nominal Power		Capacity (FAD)*		Dimensions (Length x Width x Height)		Weight (Air-cooled)	
Model	bar g	psig	kW	hp	m^3/min	cfm	mm	in	kg	lb
R55i TAS	7.0	103	55	75	10.19	360	2432 x 1265 x 2032	96 x 50 x 80	1,753	3,864
	8.0	118	55	75	9.43	333	2432 x 1265 x 2032	96 x 50 x 80	1,753	3,864
	9.5	138	55	75	8.58	303	2432 x 1265 x 2032	96 x 50 x 80	1,753	3,864
	13.5	193	55	75	6.51	230	2432 x 1265 x 2032	96 x 50 x 80	1,603	3,533
R75i TAS	7.0	103	75	100	13.34	471	2432 x 1265 x 2032	96 x 50 x 80	1,868	4,118
	8.0	118	75	100	12.77	451	2432 x 1265 x 2032	96 x 50 x 80	1,868	4,118
	9.5	138	75	100	11.61	410	2432 x 1265 x 2032	96 x 50 x 80	1,868	4,118
	13.5	193	75	100	8.83	312	2432 x 1265 x 2032	96 x 50 x 80	1,868	3,787

* FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217:2009 Annex C and is measured at 0.5 bar g/10 psig lower than maximum pressure on non-TAS units and at maximum pressure on TAS-equipped units.

** FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217:2009 Annex C and capacity range is measured at 7 bar g/100 psig.

† TAS units deliver ISO Class 1-4-2 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%.

Ingersoll Rand...At Your Service

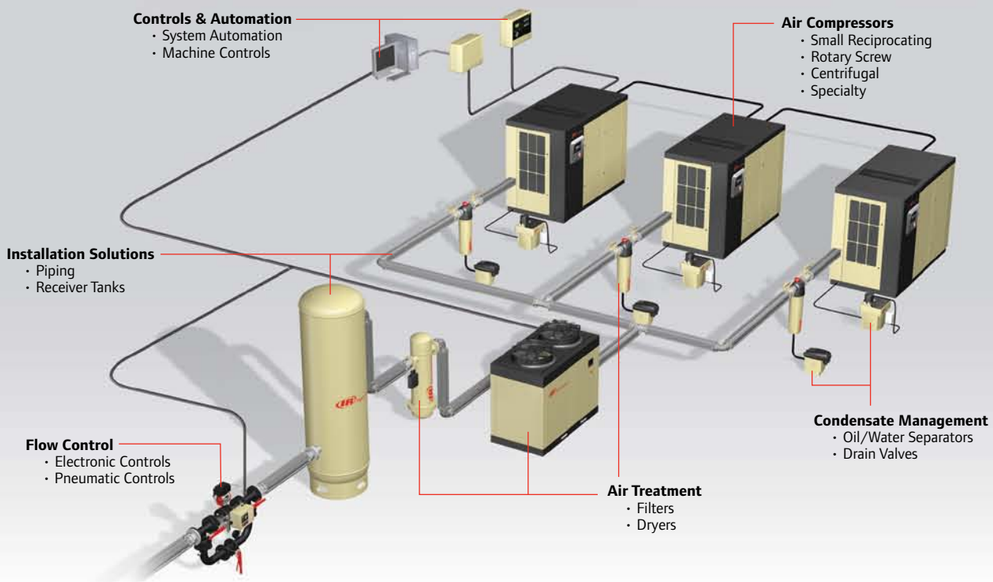
No matter what the industry or location, Ingersoll Rand is committed to serving you 24 hours a day, seven days a week.

Our worldwide network of distributors, engineers and certified, factory–trained technicians are a phone call away – ready to support you with innovative and cost–effective service solutions that will keep you running at peak performance.

The easiest way to protect your air system and budgets is PackageCare

PackageCare – much more than Extended Warranty, is a Long-Term Comprehensive Service Contract covering visits of expertly trained service engineers, consumables and all parts including wear tear and breakdowns, if any. Moreover, it's at fixed and predictable cost.

Count on Ingersoll Rand for All Your Air System Requirements



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02/2014