Contact-Cooled Rotary Screw Air Compressors

R-Series 90-160 kW (125-200 hp)

Ingersoll Rand®

A New Level of Reliability, Efficiency and Productivity

Ingersoll Rand R-Series compressors offer the highest levels of reliability, efficiency and productivity with time proven designs and advanced technologies.

Progressive Adaptive Control – (PAC) Protection

An integrated, intelligent system that continuously monitors key operating parameters and adapts to prevent unexpected downtime.

- Scans and adjusts operating parameters in response to changes in filter condition.
- Ensures peak performance through real-time electronic maintenance indicators.
- Optimizes energy consumption and reduces noise by adjusting fan speed.
- Increases bearing life by eliminating any chance of water build-up in the coolant.
- Improves productivity by proactively monitoring and conditioning incoming power.

V-Shield Technology

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

- Superior elastomeric seals for repeatable leak-free connections.
- Reduced downstream contamination with stainless steel air piping.
- Vibration isolation system and metal-flex hoses extend compressor life and reduce noise.
- Significantly reduced potential leak paths.

Xe-145M option shown

Xe-Series Controller

The Xe-Series controller features an intuitive high resolution color display that provides a window into all vital compressor data.

- Remotely access and control your compressor from almost anywhere.
- High intensity LED indicators clearly show compressor status from a distance.
- Sequence up to 4 Xe controlled compressors without any additional hardware.
- Customizable to operate in 30 different languages.
- Real-time clock with scheduled start and stop ability.
- Web-enabled communication and control.
- Large navigation buttons and an intuitive menu layout for easy compressor control.
- Built-in performance analysis graphics and visual trending.
- Access automated inspection logs using a standard Web browser.
- Automatic email notification of warnings and trips.

R160ne

Sequential Cooling System

Significantly improves efficiency, serviceability and noise level.

- Low energy consumption and quiet operation with an energy-efficient centrifugal blower.
- Significantly reduces the energy required to remove harmful condensate in downstream air treatment by lowering discharge temperatures to as low as 5°C (9°F) above ambient.
- Integrated moisture separator delivers higher quality air by decreasing harmful condensate carryover, while electronic no-loss drain valves improve efficiency.
- Independently-mounted, free-floating air and coolant heat exchangers extend life by reducing thermal stress.
- Available for operation in extreme environments up to 55°C (131°F).

Trouble-Free Operation

Ingersoll Rand provides many more ways to ensure your operation remains productive while providing the lowest cost of ownership.

- Increased uptime, reduced maintenance and improved performance with our unique two-stage filtration, extended filtration life and extended life Ingersoll Rand premium grade coolant.
- High-quality air delivered through high-efficiency coolant separation that allows as little as 3 ppm carryover.
- Safe, easy maintenance via removable hinged doors, swing out separator lid and easy-slide heat exchangers.
- Minimized installation costs and complexity with single cooling air inlet and outlet, and easy exhaust heat management for lower utility costs.

Premium Lubricant Solution - Ultra EL

Designed for high-demand, multi-shift operations, Ultra EL gives you long-lasting, varnish-free protection.

- 16,000 hours/ 3years lubricant run time
- Advanced cooling
- Decreases wear significantly
- More Robust Corrosion Inhibition
- Significantly improved separation qualities

Innovative Design, Flexible Choices

i Efficiency for Constant Demand

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

R160NE

n Efficiency for Variable Demand

Nirvana Variable Speed Drive (VSD) Compressors
Ingersoll Rand VSD compressors maximize the full potential of variable speed technology. Only Nirvana VSD uses the Hybrid Permanent Magnet (HPM) motot, the highest efficiency motor available.

Ingersoll Rand rotary screw compressors provide superior operating features, benefits and equipment choices. Mix and match variable and fixed speed motors with single-stage or two-stage airends to achieve the exact level of performance and economy your operation and your budget require.

Deliver up to 15% more air with a two-stage airend

than a single-stage compressor, while consuming the same amount of energy!

ie Premium Efficiency for Constant Demand

Premium Fixed Speed Compressors
Ingersoll Rand R-Series Premium Efficiency fixed speed compressors feature the continuous duty, high-performance TEFC induction motor and deliver improved performance, better efficiency and enhanced features.

ne Premium Efficiency for Variable Demand

Premium Nirvana VSD Compressors
Ingersoll Rand R-Series Premium Efficiency fixed speed compressors deliver not only the full potential of variable speed technology with a Hybrid Permanent Magnet (HPM) motor, but also improved performance, better efficiency and enhanced features.

Standard Features		Fixed Speed		Nirvana VSD	
Category	Description	*i*	*ie*	*n*	*ne*
Airend	*Premium* two-stage 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	●	●	●	●
	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 *(aftercooler to moisture separator)*	●	●	●	●
	Vibration isolation pads and premium metal-flex hoses	●	●	●	●
	Repeatable leak-free connections with superior elastomeric seals	●	●	●	●
Services	Ergonomic swing-out lid on 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 4/IP65 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 12/IP54			●	●
	Variable speed drive on main motor & centrifugal blower motor			●	●
Optional Features					
Weather Protection	Outdoor modification/rain protection	○	○		
	Frost protection to -10°C (14°F)	○	○		
	High ambient protection up to 55°C (131°F)	○	○		
	Premium high dust filtration *(inlet and package pre-filters)*	○	○		
	Motor space heater	○	○		
Cooling Options	Water cooling with electronic water shut-off valve	○	○	○	○
	Sea water and harsh water cooling with electronic water shut-off valve	○	○	○	○
Environmental	Energy Recovery System (ERS)	○	○	○	○
	Fluid containment system	○	○	○	○
	Food grade coolant and X-tend filtration system	○	○	○	○
Electrical System & Power Protection	Power Outage Restart Option (PORO)	○	○	○	○
	Phase monitor (protection)	○	○	●	●
	Electronic, solid-state reduced voltage starter	○	○		
General Options	*I*nlet modulation *f*low control	○	○		
	Comprehensive service and coverage plan	○	○	○	○

Xe-Series Controllers	Xe-90M		Xe-145M	
	Fixed Speed	Nirvana VSD	Fixed Speed	Nirvana VSD
Description	*i* or *ie*	*n* or *ne*	*i* or *ie*	*n* or *ne*
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*

i Ingersoll Rand Standard – 50 Hz Performance

Model	Max Pressure barg	Nominal Power kW	Capacity (FAD)* m^3/min	Dimensions mm	Weight (kg) Air-cooled	Weight (kg) Water-cooled
R90i	7.5	90	16.71	2703 x 1466 x 2032	2420	2200
	8.5	90	15.72	2703 x 1466 x 2032	2420	2200
	10.0	90	14.02	2703 x 1466 x 2032	2420	2200
	14.0	90	10.25	2703 x 1466 x 2032	2420	2200
R110i	7.5	110	20.76	2703 x 1466 x 2032	2550	2330
	8.5	110	19.20	2703 x 1466 x 2032	2550	2330
	10.0	110	17.50	2703 x 1466 x 2032	2550	2330
	14.0	110	13.76	2703 x 1466 x 2032	2550	2330
R132i	7.5	132	25.20	2855 x 1836 x 2032	2926	2903
	8.5	132	23.93	2855 x 1836 x 2032	2926	2903
	10.0	132	21.10	2855 x 1836 x 2032	2926	2903
	14.0	132	17.53	2855 x 1836 x 2032	2926	2903
R160i	7.5	160	29.45	2855 x 1836 x 2032	2926	2903
	8.5	160	29.02	2855 x 1836 x 2032	2926	2903
	10.0	160	25.75	2855 x 1836 x 2032	2926	2903
	14.0	160	20.51	2855 x 1836 x 2032	2926	2903

ie Ingersoll Rand Premium – 50 Hz Performance

Model	Max Pressure barg	Nominal Power kW	Capacity (FAD)* m^3/min	Dimensions mm	Weight (kg) Air-cooled	Weight (kg) Water-cooled
R90ie	7.5	90	18.01	2855 x 1836 x 2032	2744	2722
	8.5	90	17.50	2855 x 1836 x 2032	2744	2722
	10.0	90	15.43	2855 x 1836 x 2032	2744	2722
	14.0	90	13.03	2855 x 1836 x 2032	2744	2722
R110ie	7.5	110	22.09	2855 x 1836 x 2032	2744	2722
	8.5	110	20.39	2855 x 1836 x 2032	2744	2722
	10.0	110	18.89	2855 x 1836 x 2032	2744	2722
	14.0	110	15.40	2855 x 1836 x 2032	2744	2722
R132ie	7.5	132	26.19	2855 x 1836 x 2032	3198	3175
	8.5	132	25.34	2855 x 1836 x 2032	3198	3175
	10.0	132	22.79	2855 x 1836 x 2032	3198	3175
	14.0	132	18.35	2855 x 1836 x 2032	3198	3175
R160ie	7.5	160	31.09	2855 x 1836 x 2032	3198	3175
	8.5	160	30.30	2855 x 1836 x 2032	3198	3175
	10.0	160	27.21	2855 x 1836 x 2032	3198	3175
	14.0	160	21.95	2855 x 1836 x 2032	3198	3175

n Ingersoll Rand Nirvana Standard – 50 Hz Performance

Model	Max Pressure barg	Nominal Power kW	Capacity (FAD)** m^3/min	Dimensions mm	Weight (kg) Air-cooled	Weight (kg) Water-cooled
R90n	4.5-10.0	90	8.47-17.95	2703 x 1466 x 2032	2060	1850
R110n	4.5-10.0	110	8.47-21.66	2703 x 1466 x 2032	2060	1850
R132n	4.5-10.0	132	8.47-24.44	2855 x 1836 x 2032	2363	2354
R160n	4.5-10.0	160	8.47-28.88	2855 x 1836 x 2032	2363	2354

ne Ingersoll Rand Nirvana Premium – 50 Hz Performance

Model	Max Pressure barg	Nominal Power kW	Capacity (FAD)** m^3/min	Dimensions mm	Weight (kg) Air-cooled	Weight (kg) Water-cooled
R90ne	4.5-10.0	90	8.86-18.72	2855 x 1836 x 2032	2495	2472
R110ne	4.5-10.0	110	8.86-23.00	2855 x 1836 x 2032	2495	2472
R132ne	4.5-10.0	132	8.86-27.24	2855 x 1836 x 2032	2495	2472
R160ne	4.5-10.0	160	8.86-32.05	2855 x 1836 x 2032	2495	2472

*FAD (Free Air Delivery) is full-package performance including all losses, tested per ISO 1217:2009 Annex C and measured at 0.5 bar g lower than maximum pressure.
**FAD is full-package performance including all losses, tested per ISO 1217: 2009 Annex C and measured at 7 bar g.

i Ingersoll Rand Standard – 60 Hz Performance

Model	Max Pressure	Nominal Power	Capacity (FAD)*	Dimensions	Weight (lb)	
	psig	hp	cfm	in	Air-cooled	Water-cooled
R90i	110	125	621	106 x 58 x 80	5335	4850
	125	125	566	106 x 58 x 80	5335	4850
	145	125	511	106 x 58 x 80	5335	4850
	200	125	360	106 x 58 x 80	5335	4850
R110i	110	150	751	106 x 58 x 80	5620	5140
	125	150	690	106 x 58 x 80	5620	5140
	145	150	625	106 x 58 x 80	5620	5140
	200	150	485	106 x 58 x 80	5620	5140
R160i	110	200	985	112 x 72 x 80	6450	6400
	125	200	905	112 x 72 x 80	6450	6400
	145	200	865	112 x 72 x 80	6450	6400
	200	200	695	112 x 72 x 80	6450	6400

ie Ingersoll Rand Premium – 60 Hz Performance

Model	Max Pressure	Nominal Power	Capacity (FAD)*	Dimensions	Weight (lb)	
	psig	hp	cfm	in	Air-cooled	Water-cooled
R90ie	110	125	664	112 x 72 x 80	6050	6000
	125	125	615	112 x 72 x 80	6050	6000
	145	125	567	112 x 72 x 80	6050	6000
	200	125	459	112 x 72 x 80	6050	6000
R110ie	110	150	812	112 x 72 x 80	6050	6000
	125	150	725	112 x 72 x 80	6050	6000
	145	150	681	112 x 72 x 80	6050	6000
	200	150	545	112 x 72 x 80	6050	6000
R160ie	110	200	1030	112 x 72 x 80	7050	7000
	125	200	970	112 x 72 x 80	7050	7000
	145	200	903	112 x 72 x 80	7050	7000
	200	200	725	112 x 72 x 80	7050	7000

n Ingersoll Rand Nirvana Standard – 60 Hz Performance

Model	Max Pressure	Nominal Power	Capacity (FAD)**	Dimensions	Weight (lb)	
	psig	hp	cfm	in	Air-cooled	Water-cooled
R90n	65-145	125	299-665	106 x 58 x 80	4540	4080
R110n	65-145	150	299-772	106 x 58 x 80	4540	4080
R160n	65-145	200	299-993	112 x 72 x 80	5210	5190

ne Ingersoll Rand Nirvana Premium – 60 Hz Performance

Model	Max Pressure	Nominal Power	Capacity (FAD)**	Dimensions	Weight (lb)	
	psig	hp	cfm	in	Air-cooled	Water-cooled
R90ne	65-145	125	313-690	112 x 72 x 80	5500	5450
R110ne	65-145	150	313-825	112 x 72 x 80	5500	5450
R160ne	65-145	200	313-1060	112 x 72 x 80	5500	5450

*FAD (Free Air Delivery) is full-package performance including all losses, tested per ISO 1217:2009 Annex C and measured at 0.5 bar g lower than maximum pressure.
**FAD is full-package performance including all losses, tested per ISO 1217: 2009 Annex C and measured at 7 bar g.

Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands — including Club Car®, Ingersoll Rand®, Thermo King® and Trane® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a $13 billion global business committed to a world of sustainable progress and enduring results.

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We are committed to using environmentally conscious print practices.

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