

Ingersoll-Rand®

Rotary Screw Air Compressors

100-500 HP / 75-350 kW Single & 2-Stage



 **Ingersoll-Rand®**

Delivering Compressed Air Solutions For More Than 125 Years

For more than a century, Ingersoll-Rand air compressors have helped build dams, bridges and tunnels, produce cars, appliances and electrical equipment, and package foods and pharmaceuticals.

As more and more companies chose Ingersoll-Rand air compressors, we answered the call for new technologies and updated designs, ensuring that our customers would get the maximum benefits from their compressed air.

Focused on Our Customers

Ingersoll-Rand strives to deliver value to our customers in everything we do. We stay focused on what you need, remaining true to our goal: to help you achieve the best results possible with your compressed air supply.

By maintaining solid relationships with our customers, our dedicated sales staff and distributor network relay changing requirements to our engineering team. With this information, our engineers make design improvements that ensure that our customers get the quality compressed air they've asked for.

If you want a single source supplier, you can count on Ingersoll-Rand. Whether you need compressed air systems, parts and service, or technical support, we will be there to help your system run at peak efficiency now and in the future.

MORE THAN

125

YEARS

KNOWLEDGEABLE SALES STAFF



TECHNOLOGY LEADERSHIP



TECHNICAL ASSISTANCE



Ingersoll-Rand: Your Compressed Air Resource

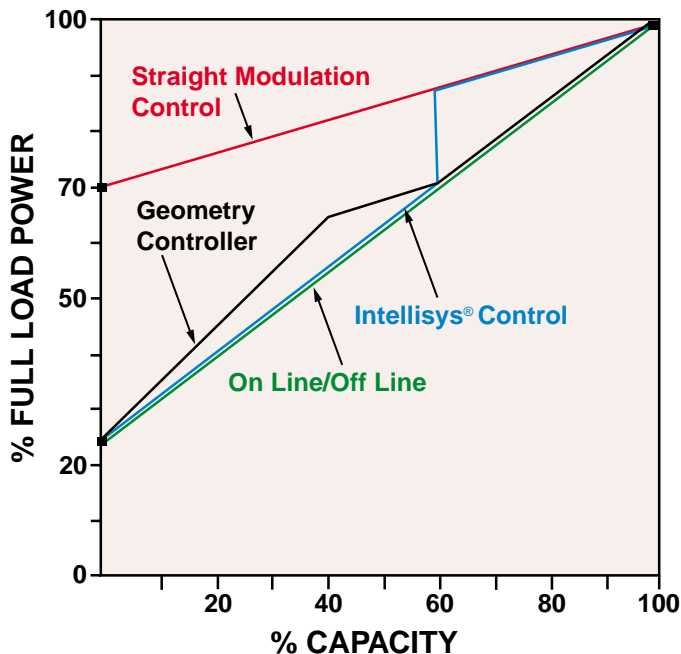
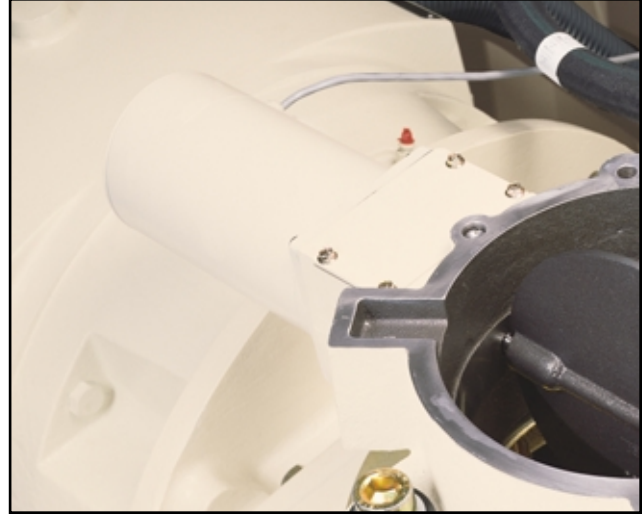
If you need compressed air, Ingersoll-Rand is here to help. We'll listen to what you need. Then we'll use our decades of leadership in the air systems market to help you design the best compressed air system for your application.

Today, we're the only manufacturer that can supply you with energy-efficient compressors in all three available technologies: rotary screw, reciprocating and centrifugal. And since each technology has its benefits, we can help you select the one that works best for your application.

Digital Control

Our exclusive digitally controlled stepper motor inlet valve system precisely matches the airflow to the system demand. Just set the preferred system pressure and the built-in Intellisys® microprocessor controller takes care of the rest.

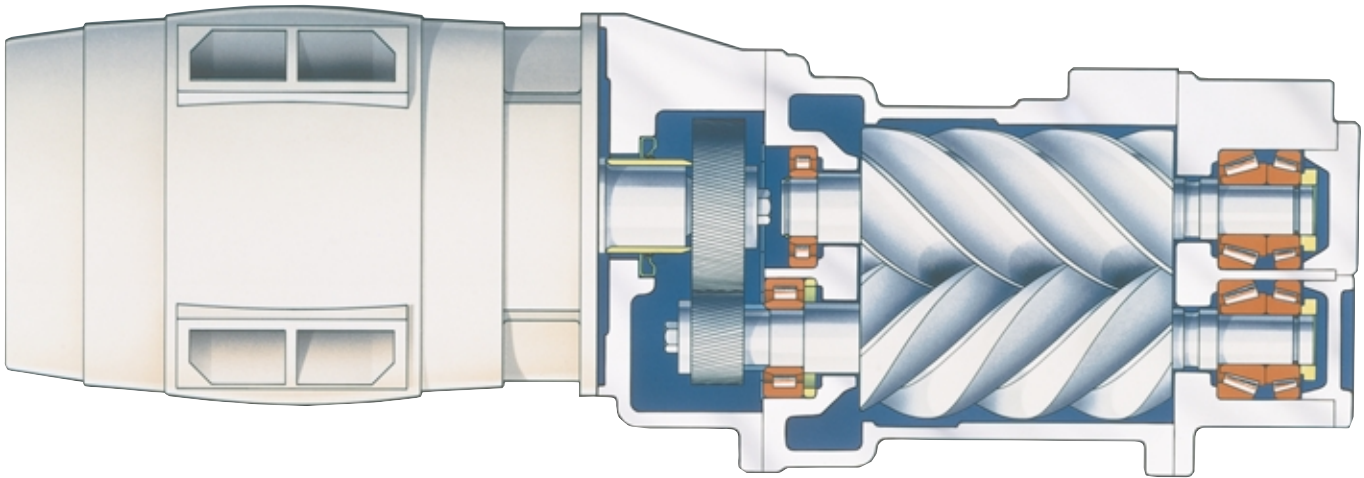
To further reliability the inlet control system requires no maintenance. There are no pressure switches to manually recalibrate and no valves that can stick open - and, as a matter of fact, there are no manual adjustments required during the course of normal operation.



Energy Saving Control System

We equip each compressor with not one, but three separate control modes: On-line/Off-line, Upper Range Modulation, and Auto Control Select. Simply set the Intellisys controller to the desired control method, and the microprocessor does the rest.

For the best overall efficiency, choose IR's patented Auto Control Select (ACS) system. ACS constantly monitors the compressor's operation and automatically adjusts the control system to the mode that best suits your system's needs: On-line/Off-line or Upper Range Modulation.



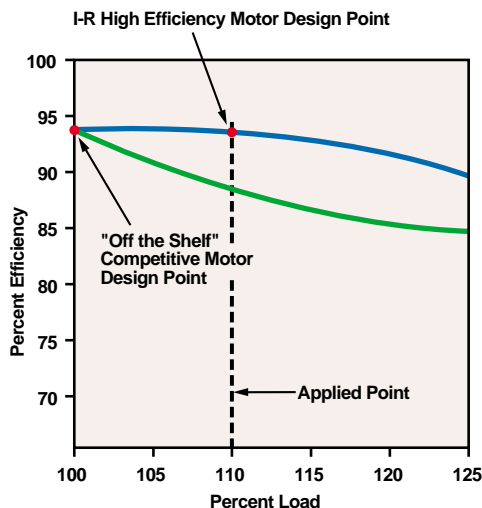
SSR: Unparalleled Reliability

Our time-proven integral gear drive is the only maintenance-free drive system in the industry. The airend and motor are permanently aligned, so during the course of normal operation no adjustments are ever required.

The drive train is totally enclosed so that no dust or dirt can get in, and our triple-lip shaft seal prevents leakage of coolant to the motor.

Energy Efficient Motor

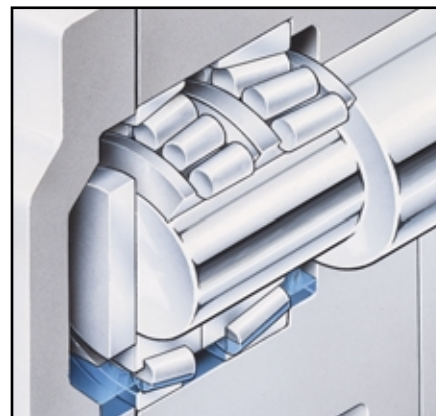
Every SSR compressor incorporates a durable high efficiency motor. SSR motors operate at peak efficiency under full load conditions, ensuring maximum energy savings.



Advanced Airend Design

At the core of the SSR is our rugged and reliable airend. Used in thousands of compressors worldwide, our airend is known for trouble-free operation and minimal maintenance.

Our airends utilize only the highest quality duplex tapered roller bearings. Roller bearings provide line contact for thrust loads, and dramatically improve the life of the airend. The SSR airend also incorporates a bearing coolant dam that traps coolant in the bearing during shutdown. This ensures proper bearing lubrication during the critical start-up phase, and a longer bearing life.



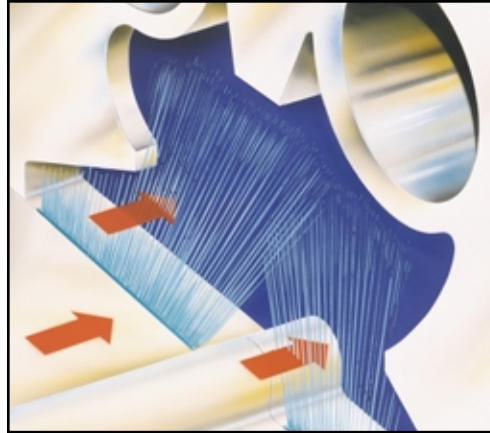
Reduced Bearing Loads

A lower compression ratio in each stage reduces bearing loads and increases airtend life. Our use of the highest quality bearings available assures you of years of reliable, efficient service.

Energy Efficient Airtend

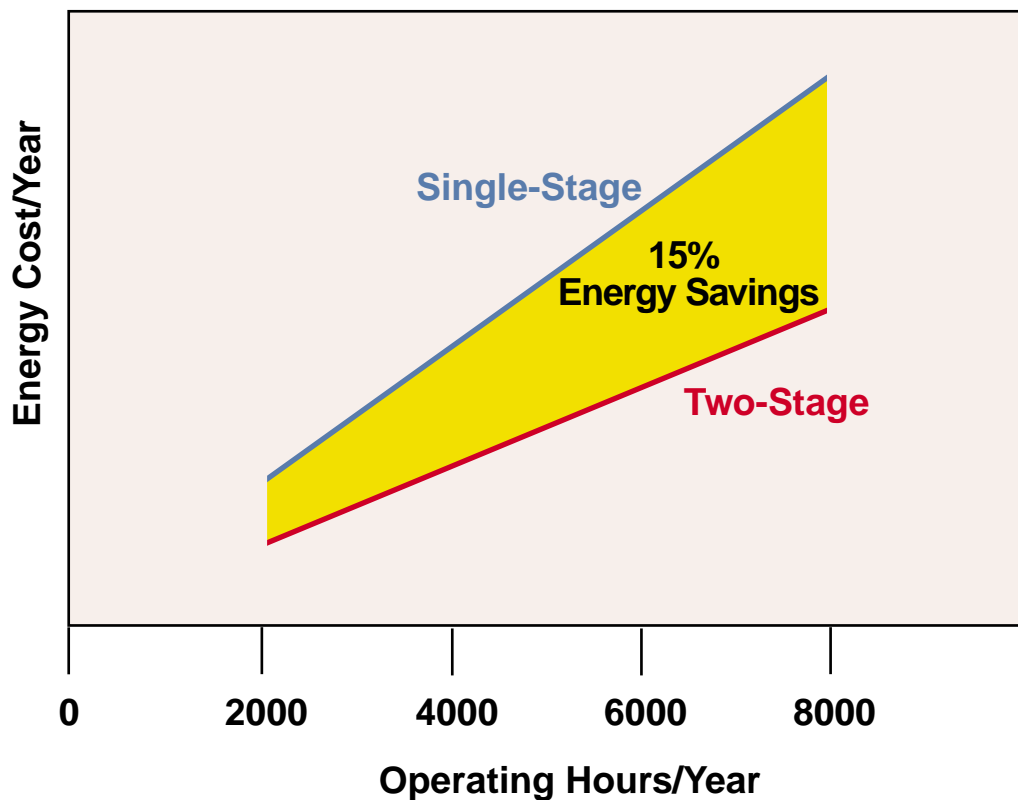
If you're looking for the greatest efficiency possible from a rotary screw then check out our two-stage compressors. The heart of the compressor is our time-proven two-stage airtend. By compressing the air in two steps instead of one, energy savings of up to 15% are realized.

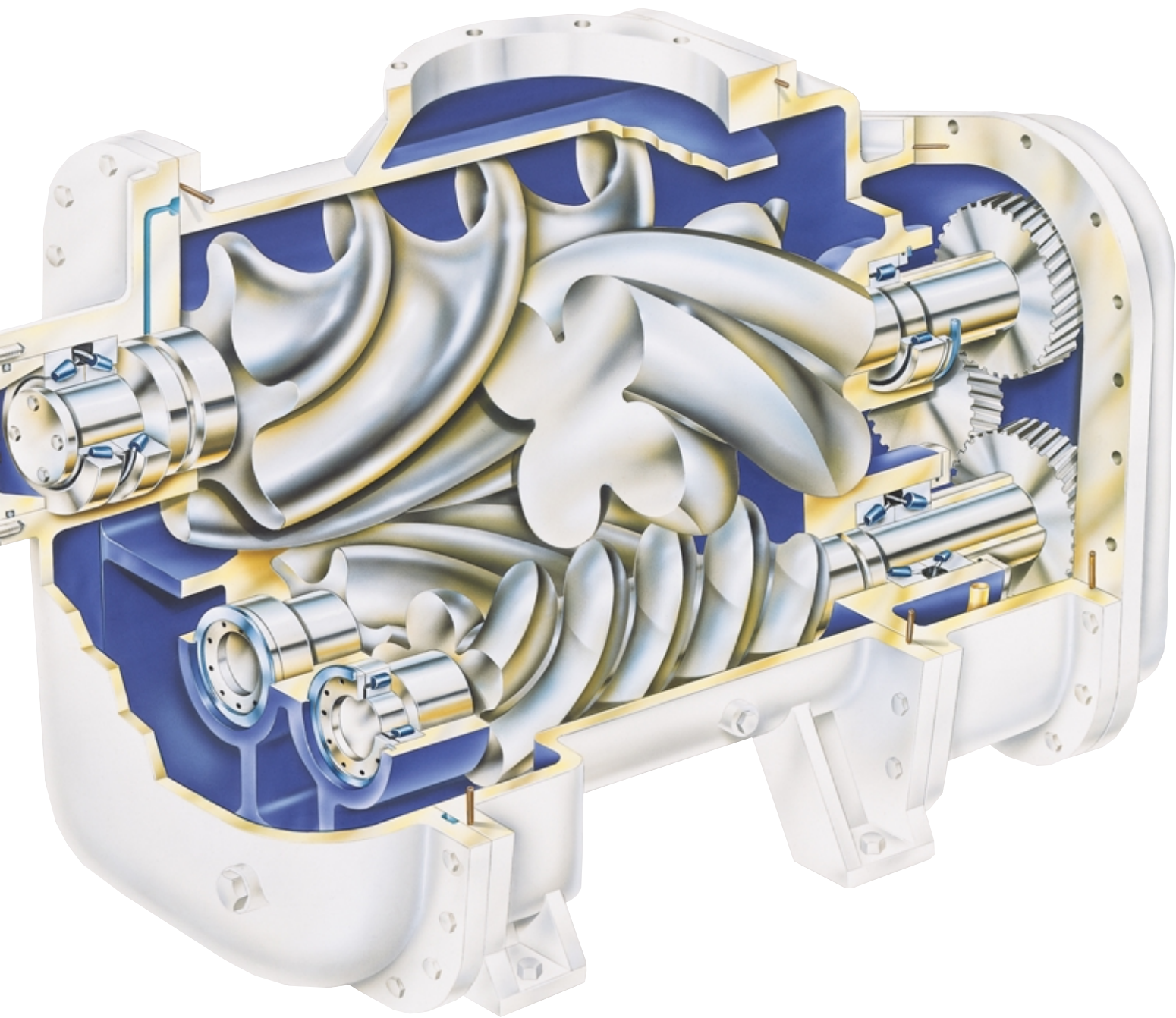
Our rotors are precision machined in a twenty-step process, ensuring unmatched rotor profile accuracy, repeatability, and efficiency.



Coolant Curtain

One of the keys to the efficiency of the two-stage is the coolant curtain. Significant cooling of the air is achieved by injecting atomized oil into the compressed air stream leaving the first stage. Lowering the air temperature prior to entering the second stage significantly lowers the energy required for compression. The coolant curtain also eliminates the need for an intercooler.



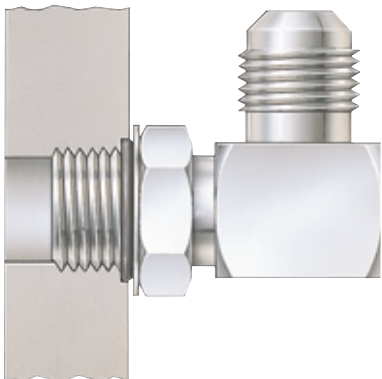




SSR AIR-COOLED PACKAGE (FRONT VIEW)

The SSR Package

To fit the needs of your compressed air system, we offer you the choice of an air-cooled or water-cooled design.



Inherent Leak-Free Design

By using SAE O-ring fittings on all connections 1/4" and larger, we've significantly reduced potential leakage problems associated with conventional threaded connections.

End-to-End Cooling

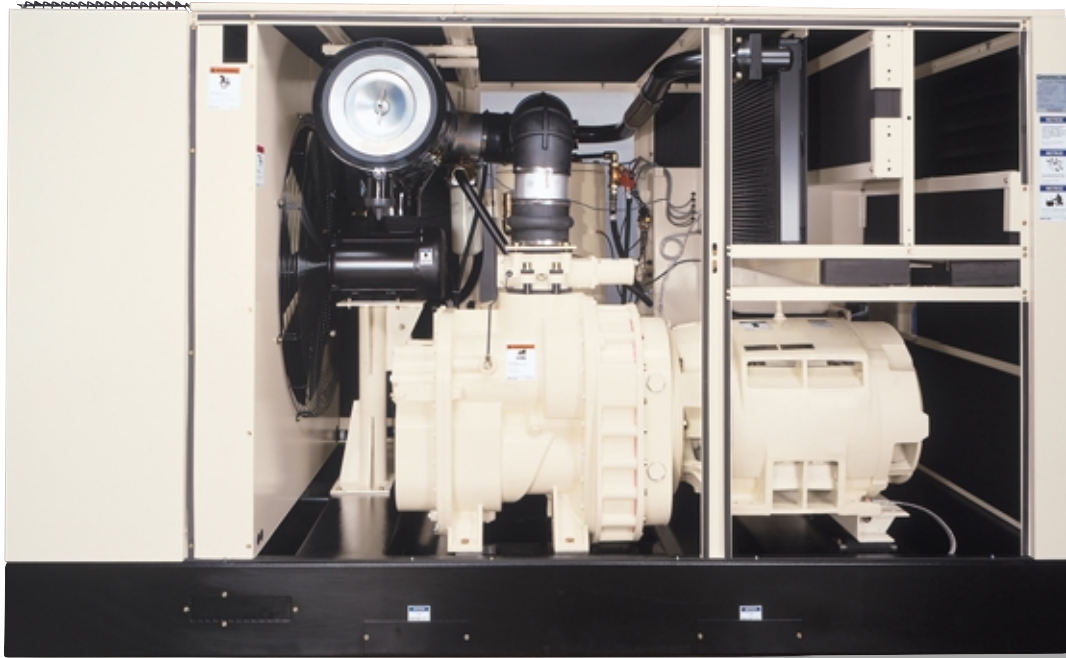
The aftercooler is located at the inlet end of the package. This allows cool compressed air only 15°F/8°C above the ambient temperature to pass downstream to the air system.

115°F/46°C Ambient

SSR compressors operate in high ambient conditions, making them suitable for locations around the world. Even if the compressor is not operated in sweltering climates, the high temperature rating ensures fewer nuisance shutdowns caused by fouled coolers.

Star-Delta Starter

This advanced starter gives the compressor a controlled, cushioned start, eliminating current surges and extending component life for increased system reliability.



SSR AIR-COOLED PACKAGE (BACK VIEW)

8000 Hour/2-Year Lubricant

UltraCoolant reduces maintenance costs by going longer between changes. Also, because of UltraCoolant's superior separating properties, less coolant is passed downstream to the air system, further minimizing coolant costs.

Quiet Enclosure

A low sound enclosure is standard and keeps sound levels to a minimum.

Easy Serviceability

The SSR package is remarkably uncluttered, making servicing easy. All components are readily accessible behind easily removable panels.

Rugged Motor

The extra toughness built into the SSR motor means it will run when other motors quit. Maintenance and repair of the SSR motor are just like any other motor you own.

Factory-Tested

Every SSR compressor undergoes state-of-the-art computerized testing to ensure that you get the best possible performance under varying conditions.

Easy Connectivity

The SSR is fully piped and wired, resulting in simple external connection of all utilities.

Convenient Top Exhaust

The cooling air flow discharges from the top of the package facilitating easy ducting for removal and/or recovery of exhaust heat.



Intellisys Gives You Total Control of Your Compressed Air Delivery

Whether you need eight hours of continuous duty compressed air or an intermittent supply over a 24 hour period, Intellisys® puts you in complete control.

TOTAL CONTROL AT YOUR FINGERTIPS

With finger-touch control, the Intellisys controller provides quick, comprehensive access to your compressed air system.

EASY OPERATION

Intellisys is easy to learn and easy to operate.

ADJUSTABLE OPERATING PARAMETERS

To satisfy your system requirements, you can change your operating parameters quickly and easily.

SSR Options

The SSR compressor comes with several options to ensure that you get the right machine for your application. If there are any special options or requirements you need, we'll work with you to find a solution. Just contact your local Ingersoll-Rand distributor.

- Multiple unit sequencer
- Remote communications capability
- Automatic power outage restart option
- Remote starter/no starter
- Variable frequency drive
- Air-cooled or water-cooled
- TEFC motors
- Premium efficiency motors (60Hz only)
- High-dust inlet filter
- No aftercooler
- Power phase monitor
- NEMA 4 electrical option
- Outdoor modification
- Low-ambient temperature option

BUILT-IN SEQUENCER

You can sequence up to four similarly equipped Intellisys compressors. The lead machine automatically rotates among the compressors based on accumulated hours, so maintenance levels are kept equal.

TIMESAVING DIAGNOSTICS

Intellisys provides fast diagnosis of system demand and displays a warning and/or stops the compressor if it exceeds operating parameters. This will keep troubleshooting expenses and downtime to a minimum.

COMPREHENSIVE DATA DISPLAY

An easy-to-read, liquid crystal display provides you with critical details of your compressor's operation, allowing you to make fast adjustments when necessary.

GIVING YOU COMPLETE FLEXIBILITY

With Intellisys, you are always in control. You can change your operating parameters to maintain the best performance level.

60Hz SSR 125-450 HP Performance

Free Air Delivery - CFM

Nominal HP	XF 100 psig	EP 125 psig	HP 140 psig	XP 165 psig	L (in)	W (in)	H (in)	Weight (lbs)
125	655	571	519	-	123	63	75	5770
150	739	670	610	558	123	63	75	5820
200	993	892	812	739	123	63	75	6020
250	1213	1066	979	864	148	76	86	10840
300	1359	1252	1150	-	148	76	86	11440
300E	1506	1363	1285	-	148	76	86	11440
350	1695	1537	1451	-	160	82	95	12815
400	1899	1719	1626	-	160	82	95	12815
450	2050	1866	1833	-	160	82	95	12815

60Hz SSR 2-Stage 100-500 HP Performance

Free Air Delivery - CFM

Nominal HP	XFE 100 psig	EPE 125 psig	HPE 140 psig	HXPE 200 psig	L (in)	W (in)	H (in)	Weight (lbs)
100	560	504	470	-	123	63	75	6050
125	690	621	580	443	123	63	75	6770
150	825	743	693	548	123	63	75	6820
200	1100	990	924	735	123	63	75	7020
250	1380	1249	1167	960	148	76	85	13080
300	1685	1476	1428	1185	148	76	85	13080
350	1899	1740	1669	1366	160	82	96	14685
400	2200	1991	1924	1543	160	82	96	14685
450	2405	2245	2099	1739	160	82	96	14685
500	2600	2425	2266	1879	160	82	96	14685

50Hz SSR 90-300kW Performance

Free Air Delivery - M³/min

Nominal kW	MLD 7.5 barg	MMD 8.5 barg	MHD 10.0 barg	L (mm)	W (mm)	H (mm)	Weight (kg)
90	17.1	15.3	14.0	3124	1587	1905	2617
110	20.0	19.2	17.5	3124	1587	1905	2640
132	23.5	22.3	21.0	3124	1587	1905	2731
160	28.0	26.0	25.0	3124	1587	1905	2731
Nominal HP	XF 7.5 barg	EP 8.5 barg	HP 10.0 barg	L (mm)	W (mm)	H (mm)	Weight (kg)
250	33.8	29.6	27.1	3759	1930	2191	5189
300	38.2	35.0	32.1	4064	2083	2416	5813
350	46.9	43.8	41.3	4064	2083	2416	5813

50Hz SSR 2-Stage 90-350kW Performance

Free Air Delivery - M³/min

Nominal kW	MLD 7.5 barg	MMD 8.5 barg	MHD 10.0 barg	MXUD 14.0 barg	L (mm)	W (mm)	H (mm)	Weight (kg)
75	15.7	14.2	13.1	-	3124	1587	1905	2744
90	18.0	17.5	15.4	12.5	3124	1587	1905	3071
110	22.1	20.4	18.9	15.4	3124	1587	1905	3094
132	26.2	24.2	23.1	18.4	3124	1587	1905	3184
160	31.1	29.6	27.2	22.2	3124	1587	1905	3184
Nominal HP	XFE 7.5 barg	EPE 8.5 barg	HPE 10.0 barg	HXPE 14.0 barg	L (mm)	W (mm)	H (mm)	Weight (kg)
250	38.1	34.5	32.3	26.9	3759	1930	2146	5933
300	46.5	40.7	39.4	34.1	4064	2083	2416	6665
350	53.2	48.1	46.5	39.2	4064	2083	2416	6665
400	59.0	55.0	51.4	43.3	4064	2083	2416	6665
450	65.6	61.1	57.0	48.2	4064	2083	2416	6665
500	72.0	67.0	62.0	52.5	4064	2083	2416	6665

Notes: 1) FAD (Free Air Delivery) CFM and M³/min. are ratings of full package performance in accordance with CAGI-PNEUROP acceptance test standard PN2CPTC2 or ISO1217: 1996 Appendix C.

Product improvement is a continuing goal at Ingersoll-Rand. Designs and specifications are subject to change without notice or obligation.

More Than Air. Solutions.

Online solutions: www.air.ingersoll-rand.com



Ingersoll-Rand air compressors are not designed, intended or approved for breathing air. Compressed air should not be used for breathing air applications unless treated in accordance with all applicable codes and regulations.

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