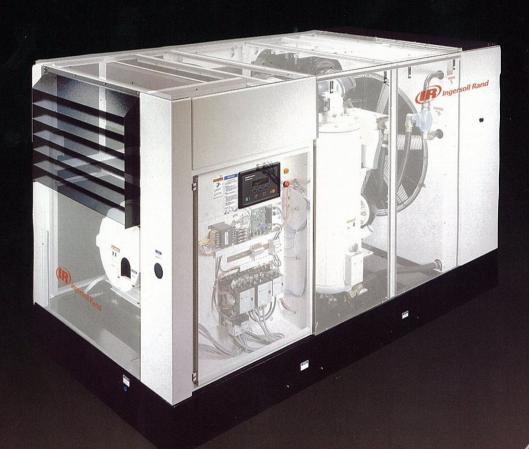
# Contact - Cooled Rotary Screw Air Compressors

90-250 kW / 125-450HP Single-Stage 75-350 kW / 100-500HP 2-Stage



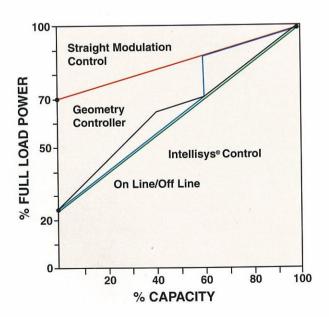


# Energy Saving Control System

# **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 enhance reliability the inlet control system requires no maintenance. There are no pressure switches to manually recalibrate and no diaphragms that can stick open. Also no manual adjustments are required during the course of normal operation.

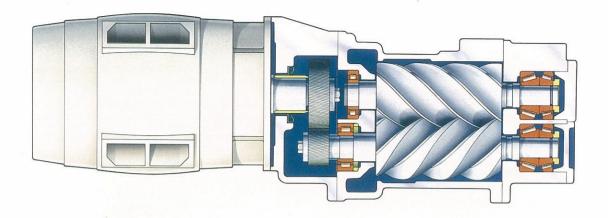




# Stepper Motor Control Inlet Valve

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 penetrate, and our triple-lip shaft seal prevent leakage of coolant to the motor.

# **Energy Efficient Motor**

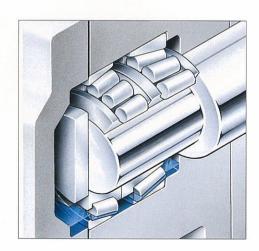
Every SSR compressor incorporates a durable high efficiency motor. SSR motors operate at peak efficiency under full load conditions, ensuring maximum energy savings.

# I-R High Efficiency Motor Design Point 100 95 90 100 95 75 70 Applied Point 100 105 110 115 120 125 Percent Load

# 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 longer bearing life.



# Two-Stage

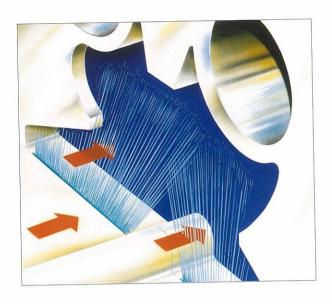
# **Energy Efficient Airend**

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

The airend rotors are precision machined in a twentystep process, ensuring unmatched rotor profile accuracy, repeatability, and efficiency.

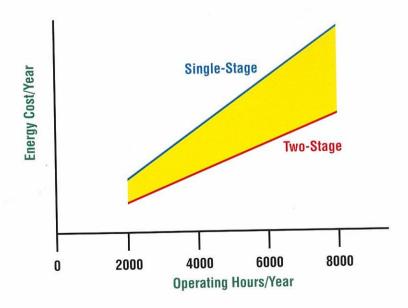
# **Reduced Bearing Loads**

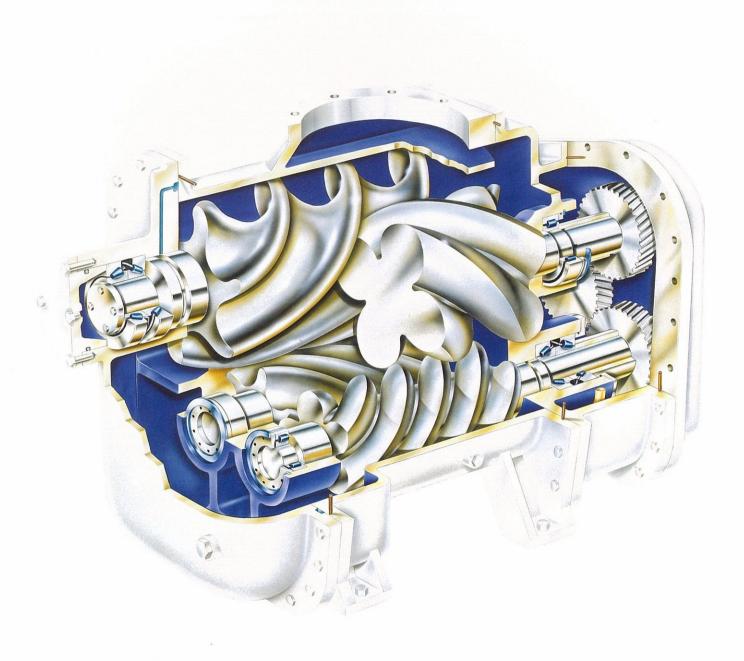
A lower compression ratio in each stage reduces bearing loads and increases the airend life. Our use of the highest quality bearings available assures you years of reliable, efficient service.



# **Coolant Curtain**

One of the keys to the efficiency of the two-stage design 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.







# 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.

# 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.

# **Rugged Motor**

The extra toughness built into the SSR motor means it will run when other motors quit.

# **Easy Connectivity**

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



# The SSR Package

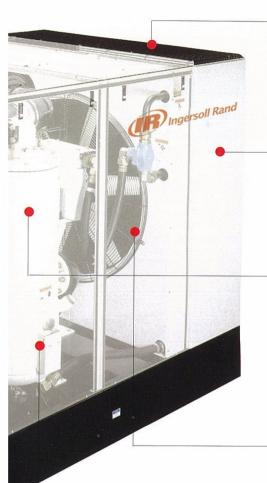
To fit the need of your compressed air system, we offer you the choice of an air-cooled or water-cooled design.

# **Factory-Tested**

IR tests each and every compressor to ensure you receive the highest reliability and lowest operating cost available.

### Convenient Top Exhaust

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



### **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.

# **End-to-End Cooling**

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

# 8000 Hour/2-Year Lubricant

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

# Star-Delta Starter

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

# Intellisys Gives You Total Control of Your Compressed Air Delivery

Whether you need continuous duty compressed air or an intermittent supply, Intellisys puts you in complete control.



### TOTAL CONTROL AT YOUR FINGERTIPS

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

### **EASY OPERATION**

Intellysis is easy to understand and easy to operate.

### ADJUSTABLE OPERATING PARAMETERS

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

### **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 intervals are kept equal.

### TIMESAVING DIAGNOSTICS

Intellisys provides fast diagnosis of system demand and status, 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 instant 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.

# Standard options available with the SSR Compressor

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 will work with you to find a solution. Please contact your local Ingersoll Rand distributor for details concerning.

- SE Control
- Multiple unit sequencer
- Remote communications capability
- Automatic power outage restart option
- Remote starter/no starter

- 6000V motor
- Variable frequency drive
- · Air-cooled or water-cooled
- High dust inlet filter
- NEMA 4 electrical option

### 50Hz SSR 90-250kW Performance

Free Air Delivery - M³/min(1) —

Nominal kW	ML 7.5 barg	MM 8.5 barg	MH 10 barg	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
90	17.1	15.3	14.0	3200	1587	1905	2617
110	20.0	19.2	17.5	3200	1587	1905	2640
132	23.5	22.3	21.0	3200	1587	1905	2702
160	28.0	26.0	25.0	3200	1587	1905	2731
200	34.3	32.9	30.2	4000	1930	2146	4030
250	43.9	42.5	38.8	4000	1930	2146	4934

# 60Hz SSR 125-450HP Performance

Free Air Delivery - CFM (1)

Nominal HP	XF 100 psig	EP 125 psig	HP 140 psig	XP 165 psig	Length (in)	Width (in)	Height (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	7=	160	82	95	12815
450	2050	1866	1833	_	160	82	95	12815

# 50Hz SSR 75-350kW 2-Stage Performance

Free Air Delivery - M³/min(1)

Nominal kW	ML 7.5 barg	MM 8.5 barg	MH 10 barg	MXU 14 barg	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
75-2S	15.7	14.2	13.1	-	3270	1620	1900	2690
90-2S	18.0	17.5	15.4	12.5	3270	1620	1900	2710
110-2S	22.1	20.4	18.9	15.4	3270	1620	1900	2860
132-28	26.2	24.2	23.1	18.4	3270	1620	1900	3120
160-2S	31.1	29.6	27.2	22.2	3270	1620	1900	3120
200-2S	41.5	38.8	36.2	29.6	4000	1930	2146	5460
250-2S	49.2	47.4	44.2	36.4	4000	1930	2146	5540
300-2S	60.2	56.0	52.1	44.3	4000	1930	2146	7190
350-2S	69.2	64.1	59.5	50.2	4000	1930	2146	7630

# 60Hz SSR 100-500HP 2-Stage Performance

Free Air Delivery - CFM (1)

Nominal HP	XFE 100 psig	EPE 125 psig	HPE 140 psig	HXPE 200 psig	Length (in)	Width (in)	Height (in)	Weight (lbs)
100-2S	560	504	470	-	123	63	75	6050
125-2S	690	621	580	443	123	63	75	6770
150-2S	825	743	693	548	123	63	75	6820
200-2S	1100	990	924	735	123	63	75	7020
250-2S	1380	1249	1167	960	148	76	85	13080
300-2S	1685	1476	1428	1185	148	76	85	13080
350-2S	1899	1740	1669	1366	160	82	96	14685
400-2S	2200	1991	1924	1543	160	82	96	14685
450-2S	2405	2245	2099	1739	160	82	96	14685
500-2S	2600	2425	2266	1879	160	82	96	14685

<sup>(1)</sup> 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 Annex C.

INGERSOLL RAND. MORE THAN AIR. SOLUTIONS.

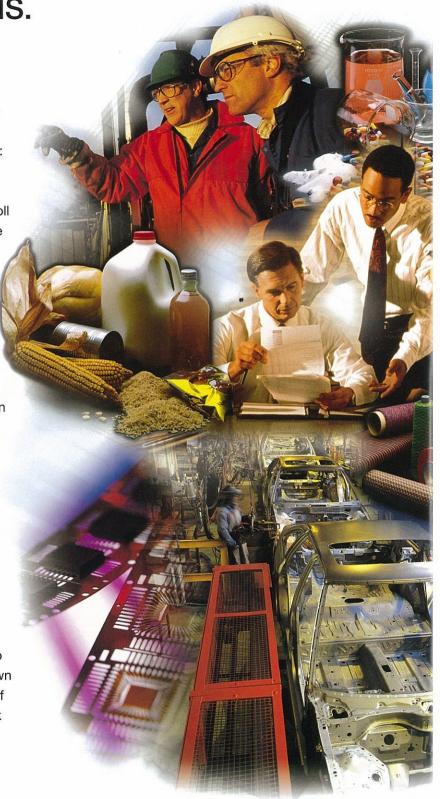
Ingersoll Rand became the world leader in compressed air technology not by building more air compressors, but by providing more problemsolving system solutions for its customers. No one offers more solutions than IR: rotary screw or centrifugal, versatile controls, air system audits, turnkey installation, "air over the fence," financing, rentals and full service. Ingersoll Rand customers know that IR is with them for the life of their compressed air installation.

# INGERSOLL RAND' S YEARS OF APPLICATION EXPERIENCE WILL HELP YOU ARRIVE AT YOUR COMPRESSED AIR SOLUTION.

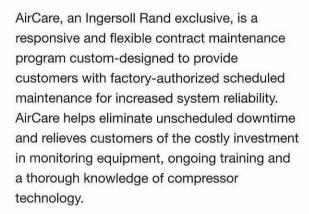
Ingersoll Rand has tackled virtually every conceivable compressed air system application in the world, and yet every day there is a new customer need to be addressed. You can be certain, whatever the size or nature of your application, IR will have the experience, the right product and the right system solution for you.

# THE INGERSOLL RAND TEAM. WITH YOU FOR THE LONG HAUL.

Ingersoll Rand's team of professionals, from product design and development to sales consulting, application engineering, installation, startup and aftersale service, knows how to keep your compressed air system operating costs down while maintaining peak performance for the life of your system. IR's 24/7 parts and service network is ready to serve you 365 days a year with whatever it takes to keep your system up and running.



# AIRCARE. FLEXIBLE MAINTENANCE. CONSTANT QUALITY.



# WARRANTY EXTENDED TO FIVE YEARS

IR's AirCare program allows you the opportunity to extend the drivetrain or full package warranty to five years, providing you with total peace of mind.

# COMPREHENSIVE COVERAGE FOR ANY COMPRESSOR

AirCare is available for new machines or with overhauls and exchanges. In addition, AirCare can be coupled with service contracts for total coverage of parts and preventive maintenance service.

# LOWER COST. INCREASED PRODUCTIVITY.

A compressor installation covered by the AirCare program can expect:

- Reductions in emergency maintenance costs due to periodic inspections
- Reductions in energy costs due to increased operating efficiency
- Increased productivity due to dramatically shortened downtime

### THE AIRCARE PROGRAM

No long-term maintenance program is more comprehensive than AirCare. The chief highlights of the program include:

- Certified, professional technicians will perform routine inspections and diagnostic service
- Performance will be enhanced through exclusive use of genuine IR parts and lubricants
- All-inclusive fluid analysis program will comprehensively monitor the lubricant in the compressor to detect problems at the earliest possible opportunity
- Vibration analysis diagnostics pinpoint the need for component replacement through monitoring and trend analysis that predicts the service life of critical components

### REMOTE MONITORING

An added option to AirCare is IR's Intelliguard™ remote monitoring feature. This 24-hour-a-day, seven-days-a-week, surveillance of the air compressor installation helps identify potential problems at an early stage and prevent unexpected repairs.





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