



Oil-free Compressed Air System Solution

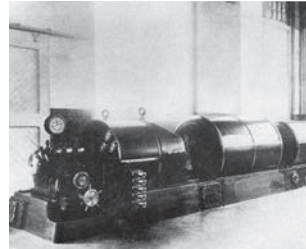
IRN37-160kW
Sierra37-150kW

Class 0
ISO 8573
Oil-Free Air

We at Ingersoll Rand are Writing a History of Continuous Innovation, Just Providing Compressed Air

1 We insist on innovation

For over a century, Ingersoll Rand has constantly introduced new technologies through sustainable innovation to promote the development of oil-free compressed air technology. Back in 1912, Ingersoll Rand created the world's first oil-free centrifugal air compressor. After that, it has successively developed the world's first oil-free screw air compressor and the first variable speed drive (VSD) oil-free screw air compressor equipped with hybrid permanent magnet motor, and constantly put forward new industry standards to meet the increasing needs of customers.



3 We own unique technology

By launching its oil-free screw air compressor equipped with unique hybrid permanent magnet motor technology, using Xe controller, UltraCoat and designed for ambient temperature up to 46°C, Ingersoll Rand seamlessly integrates conventional compressed technology tested for more than 100 years with high-tech rotor coating technology, enabling reliability and excellent performance specific to oil-free screw air compressors.

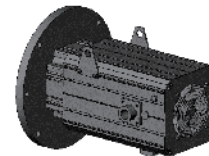


5 We are an industry expert

Ingersoll Rand has become a leader in oil-free compressed air system technology because we not only possess high quality products, but also deeply understand customers' needs for productivity and quality of oil-free compressed air systems and provide oil-free system solutions based on their specific needs. Wherever you are, and whatever production processes you are using or whatever products you are manufacturing, Ingersoll Rand can offer specialized oil-free system solutions and quality service for you.

2 We maintain a high industry standard

Ingersoll Rand is the industry's first air compressor manufacturer whose oil-free screw and centrifugal air compressors simultaneously passed through strict tests of TUV Rheinland® (an institute leading the world in independent testing and evaluation services), and obtained Class 0 air certificate, which has since been upgraded to the latest standard of ISO 8573-1:2010 Class 0. Ingersoll Rand has been selected for Dow Jones Sustainability World Index and North America Index for nine consecutive years.



4 We have a convenient global service network

Wherever your installations are in the world, Ingersoll Rand can serve you 24 hour a day, 7 days a week. Our PackageCARE services guarantee prompt response to your service needs, help you to eliminate unplanned downtime, reduce your huge investment in monitoring systems and operator training. With just a phone call, we can always provide you with creative & efficient service solutions keeping your system in good shape.



When High Air Purity is a High Priority

There's a lot riding on the quality of your air. The presence of particles, condensation, oil and oil vapor in a compressed air system can lead to downtime, product spoilage and recall, damage to your brand reputation, or worse, harmed consumers and product liability.

How pure is your compressed air system?

ISO 8573-1:2010 Class 0 specifies the standard on air purity class for food & beverage, pharmaceutical, textile, electronics and other demanding production industries. It is the most stringent air purity class standard, which covers the strict requirements for suspended solid, vapor and oil content. The lower the number of air purity class is, the higher the compressed air purity represented is.

ISO 8573-1:2010 Air Purity Classes

Particles				Condensation		Oil and Oil Vapor	
Purity Class	Particles per Cubic Meter			Pressure Dew Point		mg / m³	Purity Class
	0.1-0.5µm	0.5-1µm	1-5µm	°F	°C		
0	To be determined by final user or manufacturer, and more stringent than Class 1						0
1	100	1	0	-100	-70	0.01	1
2	100,000	1,000	10	-40	-40	0.1	2
3	--	10,000	500	-4	-20	1	3
4	--	--	1,000	37.4	3	5	4
5	--	--	20,000	44.6	7	--	5
6	--	--	--	50	10	--	6

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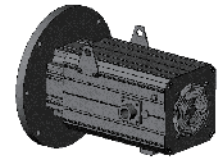
Whichever industry you are in and whatever compressed air purity you demand, Ingersoll Rand can provide you with purer compressed air, helping you to minimize the risk.



Innovation Design of Ingersoll Rand Oil-free Screw Air Compressor

Hybrid Permanent Magnet Motor

- ◆ Stator coil and permanent magnet rotor of the hybrid permanent magnet motor produce a strong electromagnetic force and drive the motor shaft to rotate at different speeds, directly driving the directly-connected male rotor of the airend without efficiency loss of any intermediate drive part.
- ◆ Eliminate the use of wear parts and bearings in the motor & gear / bearing / shaft seal to consume less wear parts
- ◆ With a volume equal to 1/3 of an ordinary motor, it can be maintained on site and replace one of its winding coils rather than replacing the whole winding for a conventional motor, which saves a lot of money.
- ◆ Soft start at a starting current less than the rated current & infinite starts / stops, saving 30% energy for unloading over conventional air compressors and maintaining a continuous operating efficiency up to 96%
- ◆ Permanent magnet synchronous motor IE4 motor with IP55 rating
Excellent protection level IP55, significantly improved than the original Lleysenma motor protection level, motor energy efficiency IE4 (and at any turn Energy efficiency can be maintained IE4); With unlimited start and stop function, automatic stop under low speed, no unloading process

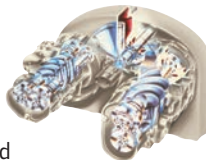


Nirvana Three-tube Parallel Cooler

- ◆ Distribute compressed air to three separate tubes to reduce pressure loss and balance heat load
- ◆ Eliminate heat circulation and pre-cooler to greatly reduce the exhaust temperature of second-stage compression chamber to approx. 30°F (17°C)
- ◆ Air-cooled oil-free screw air compressor with Nirvana guarantees stable CTD by adjusting air flow of variable frequency centrifugal fan, which also saves energy and reduce noise
- ◆ Ensure that the cooling flow to accommodate ambient temperature & load changes, and eliminate the possibility for compressed air to bring liquid water into second-stage rotor

Durable & Lasting Compression Module

- ◆ High efficient double-screw two-stage compression module with cast iron housing & synchronous gear drive
- ◆ The older oil-free screw compressor is equipped with a balance piston to offset the axial thrust, which can be easily seized by dust and other pollutants. To eliminate the hidden danger, Ingersoll Rand oil-free screw compressor replaces the balance piston with a pair of thrust bearings, which can withstand the axial force and improve the operation reliability of the airend
- ◆ The rotor with super coating guarantees stable and long lasting operating performance
- ◆ The stainless steel second-stage rotor can be operated at high temperature with greatly extended service life



Nirvana Oil-free

Excellent Reliability of Cooling Unit

- ◆ The unit is designed for the high temperature & high humidity working environment in Asia
- ◆ The air-cooled unit can be normally operated continuously under high temperature up to 46°C, and the water-cooled unit can reach the highest inlet water temperature of 46°C
- ◆ CTD of the cooling device can reach 8-10°C
- ◆ AllSierra® can be operated at harsh ambient temperatures to avoid high temperature shutdown

UltraCoat Super Coating

- ◆ Both rotor and base surface needs to be treated with Ingersoll Rand super coating through mechanical and chemical processes to ensure that the coating is extremely thin and firmly adhere to the surface
- ◆ After the rotor surface is roughened through shot peening, molybdenum disulfide (MoS₂) molecular resin embedded with high-temperature organic resin is mechanically wrapped onto the rough surface to make it durable, oxygen-resistant and non-fragile
- ◆ Compared to other coatings, UltraCoat super coating has a longer service life and reduces the airend energy consumption by 10%
- ◆ Stainless steel and aluminum alloy pipes are selected to connect the intercooler and stainless steel secondary rotor, which will not be corroded by the condensate produced in the intermediate cooling process, and extends the service life of the coating and rotor by preventing rust and shedding



Advanced Intelligent Control System

- ◆ The operator's panel of the unit is an LCD display with a backlight and a touch button
- ◆ Simple and easy to operate with complete functions
- ◆ Fault causes and faulty components can be memorized with perfect self-diagnosis, alarm& monitoring functions
- ◆ Local, remote and interlock control mode can be configured according to the needs of users, and unmanned operation can be realized under interlock control mode

Outstanding Sealing Technology

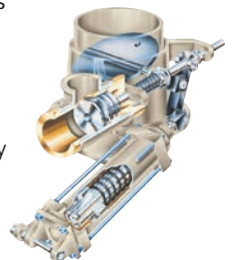
- ◆ Unique three-seal system
 - SS air seal –prevent air from entering oil passages (bearing seat / gears)
 - Labyrinth seal– prevent oil from entering the airend
 - Oil-draining seal–drain the oil into the atmosphere in case of a failure of the above seals
- ◆ 1~2 spacer rings open to atmosphere are set in each set of air-tight rings for the oil and gas to only come out of the hole open to atmosphere in case of a failure of the air-tight rings and not to enter the compression chamber, so as to discharge 100% oil-free compressed air



VSD

High Efficient Inlet Valve

- ◆ Ingersoll Rand high efficient inlet valve uses advanced hydraulic regulator (instead of pneumatic regulator), which eliminates regular replacement of pneumatic elements and reduces unnecessary downtime and maintenance costs
- ◆ A combined inlet & vent valve is used for loading / unloading. At the time of loading, the butterfly valve is fully open, and meanwhile the vent valve is closed; at the time of unloading, the butterfly valve is closed, when the air is circulated through a small hole on the butterfly valve flap and interlocks the vent valve to open for venting
- ◆ The oil and gas discharged through the vent cap on oil-free screw air compressor housing are drained directly to the outside of the housing along with hot gas, which further guarantees that the air drawn in by the airend is oil-free



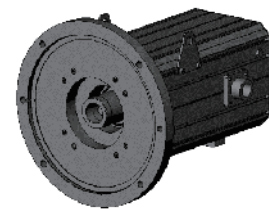
Star Product: Uncover the Power of Oil-free VSD

Nirvana oil-free air compressor with real VSD function

Ingersoll Rand is a manufacturer of oil-free air compressor with real VSD function. Nirvana oil-free air compressor can provide high quality oil-free compressed air supported with unmatched reliability in the market. Ingersoll Rand has once again successfully developed and released to market an oil-free air compressor with real VSD variable-frequency drive system by right of its unique design combining hybrid permanent magnet motor with innovative modular converter. Compared with other types of oil-free screw air compressors, Nirvana oil-free air compressor has much less rotating parts, and thus guarantees its extremely high reliability as driven by hybrid permanent magnet motor.

Precise Winding

The winding of hybrid permanent magnet motor of Nirvana oil-free air compressor is directly wound on the convex structure simply and reliably to eliminate low efficiency & heat concentration (often leading to motor insulation layer destruction and other faults) of ordinary induction motor. While repairing a conventional air compressor may result in shutdown for days or weeks and certain rental cost, and rewinding coils or replacing bearings will cost a lot of manpower and material resources, Nirvana stators can be replaced quickly and costs less than replacing motor windings.



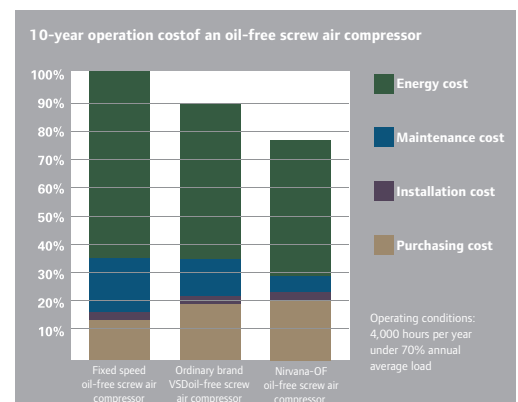
Newly upgraded hybrid permanent magnet motor with no bearings or wear parts

Energy Saving & High Efficiency

Since your investment in and operation of Nirvana, it will save your cost of operating an air compressor. Ingersoll Rand's unique VSD variable-frequency drive system enables the air compressor to ideally maintain high efficiency under a range of operating conditions. While starting the motor of a conventional air compressor may consume a lot of energy with the starting current usually being up to 8 times of the normal operating current at full load, the hybrid permanent magnet motor of Nirvana guarantees that the starting current is less than 100% of the load current, and thus eliminates the impact of air compressor start on the grid and saves energy.

Unparalleled Energy Efficiency and Reliability of Nirvana

Nirvana requires no unloading, but simply lowers the screw speed to accommodate any changes in displacement. Nirvana adopts a shutdown mode simpler than the unloading mode of other air compressors. Also, Ingersoll Rand's unique super coating and hybrid permanent magnet motor makes Nirvana oil-free screw air compressor to be reliable, and save at least 30% energy over the conventional oil-free screw air compressors.



Ingersoll Rand provides high-purity compressed air for various industries

Pharmaceutical industry



From tablet production to application of preservatives, Ingersoll Rand Class 0 oil-free technology reduces product safety issues and eliminates product contamination risk.

Compressed air is frequently used to remove powder on tablets and sprayed on drug coating, where the oil-free air guarantees high product purity and eliminates the health risk caused by waste or oil contamination; at the time offilling and dispensing, compressed air is usually in direct contact with product or packaging, where Class 0 oil-free air prevents the oil from directly transferring to the product; Class 0 oil-free air is also essential for those processes requiring aseptic air. Ingersoll Rand also provides compressed air system monitoring consistent with GPM requirements and PAT schemes. Our innovative Intellisurvey tool allows us to monitor and analyze real-time performance of air systems to determine solutions that can promote system reliability and efficiency.

Food & beverage industry



There is no oil during air compression of an oil-free compressor, which reduces the risk of contamination through high temperature compression for food & beverage producers, and minimizes the microorganisms in food.

Compressed air is used to push grains along the pipeline, and is usually in direct contact with the production wrapping, filling and capping process. It can also be used for cooling of baked goods, spray production and bottle & pipe cleaning. Class 0 oil-free air guarantees high product purity, eliminates the contamination risk of end-products, and avoids potential health hazards.

With the recent increase of food safety issues, food safety factors are increasingly affecting consumption behavior of consumers. Ingersoll Rand Class 0 oil-free air ensures that end products are free of contaminants produced by air compressors, helping food and beverage manufacturers to regain and maintain consumers' trust in food safety.

Chemical industry



Class 0 oil-free air guarantees chemical purity in sensitive organic processes.

As compressed air provides oxygen to the bacteria during fermentation and oxidation, Class 0 oil-free air protects bacteria from being killed by residual oil in the air, and ensures oxidation process is not polluted by particles, which may be polluted by oil in the air and thus affect the composition of final products after sintering, but this risk is eliminated by using Class 0 oil-free air. Also, in the air separation industry, Compressed air is used for separation in PSA plants, and oil-free air guarantees no oil accumulation on the expensive filter membrane.

Safety is an important consideration in the chemical production industry to prevent any defects of safety management system, equipment failures, human operation errors and unpredictable chemical reactions, etc. Ingersoll Rand Class 0 oil-free air helps chemical producers to lower risks in the compressed air system.

Automobile industry



Oil-free compressed air has important applications in automobile assembly, where it is used to ensure high-quality general assembly during surface dirt cleaning and painting process.

Compressed air is used to clean and dry metal surfaces before painting, where oil stains on the surfaces may prevent adhesion of paint and result in premature corrosion, while oil-free air effectively eliminates such hazards. As compressed air sprays paint onto clean metal surfaces through spray gun and robotic arm, oil-free air can maintain adhesion of the paint, and avoid foaming for a long time after painting. Compressed air is also used in robots pushing car assembly, which are sensitive to quality of compressed air, and Class 0 oil-free air can prevent oil and sediments from hindering normal operation of the robots.

Class 0 oil-free compressed air provided by Ingersoll Rand air compressor can play its role in all fields of automobile industry.

Oil & gas industry

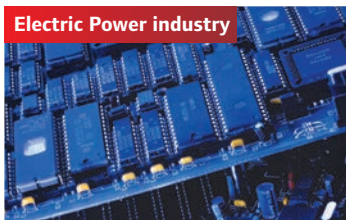


Ingersoll Rand is committed to providing quality products & services to meet technical and operational challenges in the oil & gas industry, and our Class 0 oil-free technology enables you to be highly efficient and productive on land and at sea, from exploration and exploitation to refining and processing of crude oil and natural gas products.

Class 0 oil-free air can be used in gasoline sweetening, acidic water oxidation, catalyst regeneration and desulfuration to maintain purity of end products; during equipment calibration & testing process, compressed air is usually used to calibrate the test bench for instruments and safety valves and liquid & gas analyzers, where Class 0 oil-free air guarantees the accuracy of such equipment.

As safety is critical for oil and gas companies, they must take special precautions to guarantee safety of the working environment. Ingersoll Rand Class 0 oil-free compressed air technology helps them to eliminate these risks and enhance safety and productivity.

Electric Power industry



We can provide better Class 0 oil-free products & services to support your high-profit and efficiency operation in electric power system.

Our products are widely used in various applications. Whether you need to handle turbine overhaul, boiler or grinder repair, air intake ventilation or booster fan, equipment maintenance or other matters, Ingersoll Rand can help you to get it done easily. With the increasing awareness of environmental protection, significant business opportunities emerge in renewable energy generation, where Ingersoll Rand products & services make construction, installation and maintenance of the equipment easier, and thus greatly improve production efficiency. Our products play a significant role in various areas, from small backup power supplies for residential, commercial or industrial low-power generators, to large independent generators powering the entire plant.

Oil-free Screw Air Compressor Performance

Sierra® Performance

50 Hz(37-150kW)							
Motor power kW	SL7.0barg FAD flow@ 7.0bar(g) m ³ /min	SM8.5barg FAD flow@ 8.5bar(g) m ³ /min	SH10barg FAD flow@ 10.0bar(g) m ³ /min	Width mm	Length mm	Height mm	Weight kg
37	6.00	5.10/5.20*	--	1372	2248	1917	2387/2410*
45	7.70	6.50	--	1372	2248	1917	2497/2520*
55	9.60	8.80	7.70/7.80*	1372	2248	1917	2577/2600*
75	12.70	11.60/11.70*	10.70/10.80*	1372	2248	1917	2682/2705*
90	16.10	13.60	13.00	1588	2692	2374/1840*	3270/3425*
110	19.40	18.00	15.40	1588	2692	2374/1840*	3350/3505*
132	22.80	21.40	18.80	1588	2692	2374/1840*	3400/3555*
150	25.90	24.60	22.10	1588	2692	2374/1840*	3450/3605*

60 Hz(50-200hp)							
Motor power hp	Model L FAD flow@ 100 psi(g) cfm	Model H FAD flow@ 125 psi(g) cfm	Model HH FAD flow@ 150 psi(g) cfm	Width in	Length in	Height in	Weight lb
50	216	186	--	54	88.5	75.4	5111
60	286	232	--	54	88.5	75.4	5364
75	336	290	268	54	88.5	75.4	5364
100	424	411	378	54	88.5	75.4	5500
125	586	524	477	62.5	106	93.3/72.5*	6437/6709*
150	691	691	566	62.5	106	93.3/72.5*	6452/6724*
200	912	855	760	62.5	106	93.3/72.5*	7099/7385*

* Values for air-cooled / water-cooled unit

Nirvana Oil-free Compressor Performance

50 Hz(37-160kW)							
Model	Max. volume flow m ³ /min	Working pressure range barg	Motor power kW	Width mm	Length mm	Height mm	Weight kg
IRN37K-OF	6.5	4.5-8.5	37	1115	2080	2024	1579/1624*
IRN45K-OF	7.2	4.5-8.5	45	1115	2080	2024	1579/1624*
IRN55K-OF	10.6	4.5-10	55	1321	2078	1948	2041
IRN75K-OF	13.1	4.5-10	75	1321	2078	1948	2041
IRN90K-OF	18.7	4.5-10	90	1885	2547	2435	3215
IRN110K-OF	20.3	4.5-10	110	1885	2547	2435	3215
IRN132K-OF	25.6	4.5-10	132	1885	2547	2435	3215
IRN160K-OF	26.5	4.5-10	160	1885	2547	2435	3215

* The former is the parameter of the air-cooled unit, and the latter is the parameter of the water-cooled unit

60 Hz(50-200hp)									
Model	Max. volume flow cfm	Working pressure range barg	Working pressure range psig	Discharge dimensions NPT in	Motor power hp	Width in	Length in	Height in	Weight lb
IRN50H-OF	230	4.5-8.5	65-125	1.5	50	43.9	81.9	79.7	3482
IRN60H-OF	254	4.5-8.5	65-125	1.5	60	43.9	81.9	79.7	3482
IRN75H-OF	376	4.5-10	65-145	1.5	75	52	81.8	76.7	4500
IRN100H-OF	457	4.5-10	65-145	1.5	100	52	81.8	76.7	4500
IRN125H-OF	646	4.5-10	65-145	2	125	74.2	100.3	95.9	7088
IRN150H-OF	681	4.5-10	65-145	2	150	74.2	100.3	95.9	7088
IRN200H-OF	904	4.5-10	65-145	2	200	74.2	100.3	95.9	7088

Instrument-related standards:

Test standards: ISO1217, GB/T 3853-1998

Oil-free Screw Air Compressor Supply Scope

Scope of Supply

Standard Features			
Item	Description	Sierra®	Nirvana OF
Airend	Premium performance two-stage compression screw airend	●	●
	AGMA12 gear	●	●
	Stainless steel second-stage rotor	●	●
	UltraCoat super coating	●	●
	Thrust ball bearing	●	●
Sealing system	Labyrinth gland seal	●	●
	Multi-layer floating ring type gas seal	●	●
Cooling system	Max. ambient temperature of 46°C	●	●
	Thre-tube parallel cooler		●
	Cold / hot zone separation		●
	Independent variable frequency fan		●
Motor	Star-delta starter	●	
	High-efficiency IP55 TEFC IE4 closed motor– Class F insulation with B rise	●	
	Hybrid permanent magnet IP55 IE4 37-160kW		●
Power protection	PORO power outage restart	○	○
	Power optimizer		●
Control system	Integrated built-in converter		●
	Intelligent control system	●	●
	Energy-saving controller easy to operate	●	●
	Chinese / English switch	●	●

Optional Features		Sierra® Category	
Item	Description	Sierra® (37-75KW)	Sierra® (90-150KW)
Motor	10KV IP23/IP55motor		
	6KV IP23/IP55motor		
	Motor heater	○	○
	Motor phase monitor	○	○
	Total two RTD(PT100) for front & rear bearings	○	○
Electric control system	NEMA4 electric protection class	○	○
	Remote control module(dry contact signal: remote start & stop, running status, comprehensive fault alarm, remote / local switch)	○	○
	Unit discharge pressure 4-20mA signal	○	○
	Unit discharge temperature 4-20mA signal	○	○
	Moisture-proof heater for electric control box	○	○
Other options	Outdoor options	○	○
	High dust filter	○	○
	Back-flush component for airend	○	○

Optional Features		Nirvana Oil Free Category	
Item	Description	Nirvana OF (37-75KW)	Nirvana OF (90-160KW)
Other options	Back-flush component for airend	○	○
	PORO power outage restart	○	○

● Standard feature ○ Optional feature “Blank” Not available

AIR TREATMENT

Moisture and contamination in compressed air cause significant problems in equipment operation, such as rust, scale and clogged orifices that result in product damage or costly shutdowns. Making our air treatment equipment an integral component of your compressed air system will improve productivity, system efficiency and product or process quality.



HOC Dryers: Maximum Performance, Minimal Energy Use

HOC dryers recover the heat that is a natural by-product of the compression process to provide moisture-free air, while consuming virtually no energy.

Desiccant Dryers

Choose desiccant dryers when very low dew points are necessary for high-quality air and to prevent potential freeze-up. Depending on whether you require lower initial capital costs, or lower energy use, choose from heat-of-compression (HOC), heatless, externally heated or heated blower desiccant models.

Desiccant Dryer Features

- **Delivers reliable -40°C (-40°F) pressure dew point** in most operating conditions
- **High-strength desiccant** and durable valves
- **Low pressure drop design** saves energy
- **Advanced microprocessor control** is easy to use and maximises uptime



Refrigerated Dryers

Our cost-effective refrigerated dryers provide clean, dry air for most industrial applications. Choose efficient cycling dryers to maximise energy savings or non-cycling dryers for a lower initial cost.

Refrigerated Dryer Features

- **Dew points as low as 3°C (38°F)**, meeting ISO Class 4 requirements
- **Corrosion-free heat exchanger design** for reliable operation
- **Intuitive microprocessor control** for easy operation
- **Compact design** for easy serviceability



Cost-Effective Operation

Choose refrigerated dryers for lower capital, operating and maintenance costs for many industrial applications.

IRDR Compression Heat Rotary Desiccant Air Dryer

Compared to traditional switching operation, IRDR series compression heat rotary desiccant air dryer guarantees the constant provision of dry compressed air. Thanks to its zero gas consumption design, it can achieve high efficiency production, low carbon emission and lower operating cost for the plant, thus enabling visualization of whole-process energy saving, while reducing the trouble of wearing parts and improving the production efficiency for our customers.

Features of IRDR Compression Heat Rotary Desiccant Air Dryer

- **Energy saving**, smooth air flow, small pressure loss, low dew point
- **Continuous and efficient single-tower purification** for ideal adsorption effect
- **No electric or pneumatic switching valve** and no wearing parts for lower maintenance costs
- **Environmental-friendly product design** for low dust and noise level (below 50 dB)



zero gas consumption + micro power consumption

With guaranteed reliability, the dryer minimizes the water content of compressed air, thus preventing contamination of the final product by the compressed air, and enhancing the accepted product percentage.*

*It is currently only available in China.

OIL-FREE PARTS AND ACCESSORIES

A compressed air system is a significant investment. You expect consistently reliable, clean, dry air at the lowest possible operating cost. Choose our genuine parts and accessories to ensure that your compressor is running efficiently and productively.



F-Series In-Line Filters

Our advanced compressed air filters reduce

contamination in your air stream to help protect finished goods, critical processes and valuable equipment.



Heavy-Duty No-Loss Drains

No-loss electronic and pneumatic drains are the most

reliable, durable and energy-efficient way to remove condensate from air compressors and system components.



Power Management

Lower your cost of ownership with our power management solutions, including

disconnects, fuses and transformers.



Compressed Air Receiver Tanks

Our air receiver tanks are available in horizontal and vertical orientations, are designed for

extra air storage and made with steel for long-lasting durability.



Filters

Ingersoll Rand provides the highest-quality OEM filters for preventative

maintenance that eliminate the risk of using will-fit parts.



OEM Replacement Parts

We have the exact genuine OEM parts you

need with extensive inventories maintained in strategic locations around the world.

Installation Solutions

We offer a complete range of products and services in compressed air system installation, integration and commissioning. Regardless of the size and scope of the job, Ingersoll Rand has the capability to manage your project from start to finish.



Project Management Services

Fully integrated services managed by experts that ensure efficient operation



SimplAir® Piping Systems

Durable aluminum piping and “quick-connect” fittings enable easy installation

MAINTENANCE

Ensure reliability for the life of your compressed air equipment with our CARE service programs. With CARE, we have one goal —to earn the right to be your trusted partner.



Total Protection, Eliminate the Risk

PackageCARE™ represents the greatest value for asset management by transferring operational risk to Ingersoll Rand. We are responsible for scheduled maintenance, as well as using predictive and analytical tools to help prevent unexpected interruptions in your production.



Preventative and Predictive

PackageCARE™ is proactive. Other companies only replace parts after they have failed.



No Extra Cost

We are committed to keeping equipment operational at no additional cost.



Trustworthy Pricing

Competitive agreements increase in price for parts and service labor at the will of the supplier.



Risk Transfer

Extended warranties on competitive agreements typically cover defects in materials and workmanship, specifically excluding wear and tear, corrosion, etc. PackageCARE™ covers it all.



No Fine Print

The fine print on many agreements with extended warranties allows companies the opportunity to deny claims. Additionally, certain aspects of a repair are not covered, such as consumables or travel. With PackageCARE™, there's no fine print.



No Paperwork Hassles

Extended warranties require you to maintain certain records or submit information to the supplier, otherwise coverage can be denied.



No Surprises

Most extended warranty contract language states they can terminate for convenience. With PackageCARE™, we cannot walk away.



Flexibility

PackageCARE™ has more flexibility than an agreement with extended warranty. You can add older equipment, dryers and filters or include a rental compressor.

IT ALL ADDS UP TO PEACE OF MIND



Lower Cost of Ownership

CARE service programs provide the most cost-effective solutions based on your customised maintenance strategy.



Quality Results

Ingersoll Rand factory-trained service technicians are backed by more than 160 years of industry experience.



Increased Uptime

Our CARE programs help decrease unplanned downtime and costly production interruptions.



Efficient Energy Use

Peak system efficiency is achieved through properly performed maintenance and inspection.



Peace of Mind

Our world-class services will help you achieve the results you need, while you focus on what's important to your business.

SERVICES AND OPTIMISATION

Productivity is reduced by air loss caused by emergencies, maintenance and ongoing inefficiencies in your facility. Use our comprehensive products and services to minimise short term production losses and meet longer term sustainability goals.

Lower Your Operating Costs

To optimise your total cost of ownership, you need to look beyond just the air compressor. Here are some additional ways that Ingersoll Rand can help you reduce energy and equipment costs:



iR5300/5500 Controller

Control up to three oil-free compressors (one VSD, two fixed speed) to optimise energy use



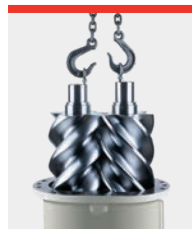
Energy Recovery Systems

Reuse heat generated during the air compression process for a variety of uses throughout your plant.



iControl

Maximise productivity with iControl, that provides a centralised control system for your entire air compressor room.



Airend Remanufacture

Based in China, our rotary airend program will maximise your compressor lifecycle while consuming less. It saves money, promotes reuse and eliminates unscheduled interruptions.

PERFORMANCE SERVICES



Electronic Assessment

Whether you need to manage costs, increase reliability or plan for future growth, our portfolio of assessment tools will provide you with detailed diagnostics that give you the proper insights to help lower total cost of ownership.



Air Leak Assessment

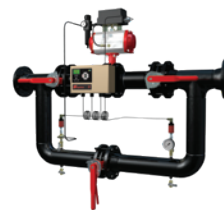


System Assessment

- Track System Performance
- Increase System Efficiency
- Improve Production and Reduce Waste
- Eliminate the Guesswork

System Automation

System assessments often identify waste caused by lack of adequate controls. Our suite of system automation solutions lower energy costs and stabilise pressure.



IntelliFlow In-line Controller



X-Series System Controls



Visualisation (VX)



MEMO



Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to Making Life Better for our employees, customers, shareholders, and planet. Customers lean on us for exceptional performance and durability in mission-critical flow creation and industrial solutions. Supported by over 80+ respected brands, our products and services excel in very complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity, and efficiency. For more information, visit www.IRCO.com.

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