

Oil-Free Rotary Screw Air Compressor Systems

15-160 kW



ISO 8573
Class 0
Oil-Free Air

YOUR TRUSTED PARTNER IN COMPRESSED AIR

Staying ahead of your competition with advanced compressed air systems and services that boost productivity, lower operating expenses and extend equipment life is critical to your success.

No matter the industry or application, you can count on Ingersoll Rand® as a trusted partner for oil-free compressed air technologies and services. By focusing on you and your business, we provide collaborative solutions that make you successful, offering a total system approach to maximise efficiency and performance.

Take a Systems Approach

Delivering reliable compressed air to your facility goes well beyond the compressor itself. Optimise total cost of ownership (TCO) through a systems approach that employs the best air compression technologies to deliver reliability for life—from design to decommissioning.

Your business will benefit from Ingersoll Rand's partnership through our extensive experience and global expertise to ensure reliability, lower maintenance costs, ease of serviceability and system optimisation.



Let's Get Started Together

Throughout the entire lifecycle, our systems approach helps you achieve the lowest operating cost.



WHY CHOOSE A WORLD-CLASS ROTARY SCREW COMPRESSED AIR SYSTEM?

You need a reliable, cost-effective solution that complies with the most stringent air quality standards, features industry-leading energy efficiency and is backed by a global network of experts. That's what you get with our oil-free rotary screw air compressors.

For Efficiency and Air Flow

Advanced airend and drive component design provide world-class specific power and improved air flow, resulting in reduced energy use.

For Reliability

Every component in our oil-free compressor system supports maximum reliability for increased productivity, longer equipment life, lower operating costs and higher profitability.

For Virtually Any Environment

Our oil-free compressors have flexible standard and optional design features that allow operation both indoors and outdoors at extreme ambient temperatures as well as harsh environments.

For Lower Cost of Ownership

Intuitive microprocessor controls, easy serviceability and long-life consumables significantly reduce operating, maintenance and service costs over the lifetime of your compressed air system.



ISO 8573-1 Air Quality Classes	
Quality Class	Oil & Oil Vapor mg/m ³
0	< 0.01
1	0.01
2	0.1
3	1
4	5

Class 0 is the most stringent air class defined by ISO 8573, part 1. Our oil-free compressors are certified Class 0 for no oil content by TUV to ensure your air quality exceeds specifications.

Rotary Oil-Free Compressors Designed for Your Application



Food & Beverage



Pharmaceutical



Electronics



Chemical



Textile



Utilities

 Read the Whitepaper—Oil-free Compressed Air for the Chemical Process Industry

Energy makes up 70% of an air system's total cost, so matching the right compressor to your demand is critical. Choose our IES2-compliant variable speed drive (VSD) compressors for fluctuating demand, or fixed speed compressors for constant demand.





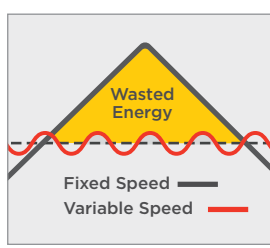
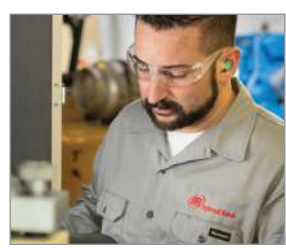


Best of Both Worlds

Base load with reliable fixed speed compressors and trim with VSD compressors for best-in-class part load efficiency.

[See Our Entire Portfolio of Oil-free Compressors](#)

What Makes Our 100% Oil-Free Rotary Screw Compressors Unique?

<h3>Efficient Design</h3>  <p>Advanced airends, superior package design and high performance drives including permanent magnet motors deliver best-in-class efficiency across the product range.</p>	<h3>Robust Components</h3>  <p>Proven, trouble-free airends, along with superior leak-free designs ensure reliability for life.</p>	<h3>Simple and Serviceable</h3>  <p>No special tools are required for maintenance, and all components are easily accessible. Our durable consumables lengthen service intervals.</p>
<h3>Intelligent Uptime</h3>  <p>Helix™ Connected Platform gives you real-time insights and data to keep your compressor operating at peak performance while ensuring uptime.</p>	<h3>Variable Speed Advantage</h3>  <p>By operating closer to the target pressure, achieve up to 35% energy savings with an integrated VSD vs. traditional fixed speed compressors.</p>	<h3>Superior Services</h3>  <p>A true partnership through experienced installation, assessment and maintenance teams that lowers compressor system cost of ownership.</p>

The Very Best in Efficiency

Our E-Series oil-free rotary screw compressors will improve energy efficiency while meeting Class 0 standards for oil and silicone free air. Along with the intuitive controller with IoT connectivity that continuously monitors operational parameters, you'll ensure reliable operation and protect your investment.

E Series 15-37 kW

- 100% oilless operation eliminates risk of contamination
- Water-injected compression system provides superior cooling, lubrication and sealing
- Single-stage, direct drive compression with optional VSD from 15-22 kW provides exceptional efficiency
- High reliability, low vibration compression elements extend compressor life
- Sealed-for-life bearings eliminate the need for oil lubrication
- No consumables and simplified design lowers maintenance and downtime



E Series 75-160 kW

- Unique drive design with two high speed permanent magnet motors and digital gearbox maximises efficiency
- Best-in-class footprint, 37% smaller than industry standard
- Significantly reduced noise levels (69 db(A) water-cooled, 70 db(A) air-cooled)
- Robust and unique sealing design prevents leakage
- Heat recovery option recoups up to 98% of the heat generated even in air-cooled models
- Water-cooled airend jacket provides superior cooling
- Advanced rotor coating delivers greater reliability, durability and air quality
- E-Series models starting at 75 kW are upgradeable to a maximum of 160 kW



 See Our Entire Portfolio of Oil-free Compressors

Purely Better with Nirvana Variable Speed 37-160 kW

Nirvana is not just any variable speed compressor. It provides so much more value than competitive designs. We fully integrate matched variable speed drives with the appropriate motors to maximise efficiency and reliability. HPM motor technology maintains the highest efficiency and a near unity power factor throughout the entire speed range.

Enjoy wide turndown while providing the ability to turn off immediately at minimum speed and unlimited starts and stops, so there's no need to continue running unloaded with Nirvana HPM technology.

Our easy to use Xe-Series controller will make a huge difference in managing your system efficiency, as well as your bottom line. The intuitive, high-resolution color display makes important compressor information easy to find.



 See Our Entire Portfolio of Oil-free Compressors



The Reliable Workhorse 37-150 kW

Sierra fixed speed compressors provide 100% oil-free Class 0 compressed air for safe, continuous and efficient operation with a robust design.

Engineered to Your Application

Special requirements are no problem for Ingersoll Rand oil-free compressors. We provide a customised solution matching your application with our extensive options list.

- Reliable extended temperature operation from -23°C to +55°C
- Special construction materials and additional prefilters for harsh environments
- Multiple controls and connectivity options
- Material certification and acceptance testing

The Choice is Yours

Type	Reliability	Efficiency	Air-cooled and Water-cooled Options	Intuitive Controller with Remote Access	Variable Speed Drive	Dual Drive Digital Gearbox	Heat Recovery Option	Silicone-free Air	100% oil-free air	100% Oilless
Sierra 37-150 kW	✓++	✓	✓	✓	-	-	✓	-	✓	-
Nirvana 37-160 kW	✓++	✓+	✓	✓	✓	-	✓	-	✓	-
E-Series 75-160 kW	✓++	✓++	✓	✓	✓	✓	✓	✓	✓	-
E-Series 15-37 kW	✓++	✓++	✓	✓	✓*	-	-	✓	✓	✓

*15-22 kW models only

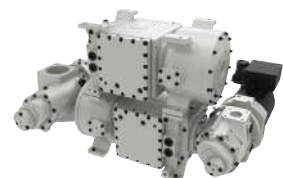
Optimise Your Demand

Mix and match motors and airends to achieve the exact level of performance and economy your operation and budget require.

Efficiency for Constant Demand: Fixed speed compressors featuring a reliable and efficient TEFC induction motor

Efficiency for Variable Demand: VSD compressors with IES2-compliant HPM motors, the highest efficiency standard for power drive systems, better than IE4

Premium Efficiency for Variable Demand: Highest efficiency IES2-compliant VSD compressors; 75-160 kW models also include high speed PM motors and digital gearbox, exceeding IE5 performance



Sierra - 50 and 60 Hz Performance				
Model	FAD at 7 bar g (100 psig) m ³ /min (cfm)	FAD at 8.5 bar g (125 psig) m ³ /min (cfm)	FAD at 10.0 bar g (150 psig) m ³ /min (cfm)	Nominal kW (hp)
SL/SM/SH (50 Hz)	6.0-25.9 (212-915)	5.1-24.6 (180-869)	7.8-22.1 (275-780)	37-150 (50-200)
L/H/HH (60 Hz)	6.1-25.8 (216-911)	5.3- 24.2 (186-854)	7.6- 21.5 (268-759)	37-150 (50-200)

Nirvana - 50 and 60 Hz Performance				
Model	FAD at 7 bar g (100 psig) m ³ /min (cfm)	FAD at 8.5 bar g (125 psig) m ³ /min (cfm)	FAD at 10.0 bar g (150 psig) m ³ /min (cfm)	Nominal kW (hp)
IRN	5.7-25.6 (200-906)	5.1-24.1 (180-853)	7.6 -22.8 (269-807)	37-160 (50-200)

E-Series - 50 and 60 Hz Performance				
Model	FAD at 7 bar g (100 psig) m ³ /min (cfm)	FAD at 8.5 bar g (125 psig) m ³ /min (cfm)	FAD at 10.0 bar g (150 psig) m ³ /min (cfm)	Nominal kW (hp)
E15-37ih Fixed Speed	1.9-5.9 (67.0-209.4)	1.9-5.1 (67.0-180.1)	1.8-5.0 (63.5-176.5)	15-37 (20-50)
E15-22nh Variable Speed	0.3-3.4 (12.0-118.3)	0.4-3.2 (12.5-114.4)	0.4-2.9 (15.2-103.5)	15-22 (20-30)
E75ne -E160ne	6.7-24.0 (237-847)	7.0-23.9 (245-843)	7.7-23.6 (272-835)	75-160 (100-200)

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.



Desiccant Dryers

Desiccant dryers offer very low dew points and prevent potential freeze-up. Depending on whether you require lower initial capital costs, or lower energy use, choose from heat-of-compression (HOC), heatless or heated blower desiccant models.

Desiccant Dryer Features

- Delivers reliable -40°C (-40°F) PDP 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



Sub-Freezing Dryers

The SF is the only regenerative refrigerated dryer that combines the subfreezing pressure dew point (PDP) of a desiccant dryer, with the low operating and energy costs of a refrigerated dryer.

Sub-Freezing Dryer Features

- ISO Class 3 high-quality air with a -20°C (-4°F) PDP
- Low temperature operation, ideal for subfreezing temperatures
- Patented heat exchanger design reduces operating costs
- No costly consumables, lowering maintenance costs



Refrigerated Dryers

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

Refrigerated Dryer Features

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

Find the Right Dryer for Your Application



PARTS, ACCESSORIES & INSTALLATION

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 along with our installation solutions 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 drains are the most reliable,

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



Power Management

Lower your cost with our power management solutions,

including disconnects, line reactors, fuses and transformers.



Bolt-on Variable Frequency Drives

External bolt-on VFD

retrofits exactly match your compressor's output to the capacity required by varying main drive motor speed.



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 genuine OEM parts you need

with inventories maintained in strategic locations around the world.

 Learn about the True Value of Genuine OEM Parts

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

Fully integrated services managed by experts that ensure efficient operation



SimplAir® Piping Systems

Durable aluminum piping and "quick-connect" fittings enable easy installation



Air System Accessories

Everything you need to deliver clean, dry air from the compressor to point of use



MAINTENANCE SERVICES

Ensure reliability for the life of your compressed air equipment with our comprehensive maintenance programs. At Ingersoll Rand, we have one goal—to earn the right to be your trusted partner.



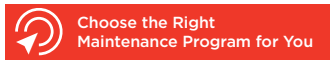
Maintenance Program Advantages

Compressed air is critical to your operation. A proper maintenance strategy is crucial to avoiding unplanned, unbudgeted downtime and production interruptions. By choosing an Ingersoll Rand compressor maintenance agreement, you are investing in your future with a trusted partner.

Depending on your rotary screw compressor system we can customise a service program that best fits your needs. Our suite of CARE compressor maintenance programs range from total risk transfer of your equipment to Ingersoll Rand to more basic programs for parts and services only, providing flexible solutions for the life of your compressed air system.

Each of Our Maintenance Programs Offer Significant Benefits, Including:

- Genuine OEM parts eliminate exposure to unnecessary equipment wear and tear, reducing downtime
- Rapid response, because as an Ingersoll Rand service program customer, you are our top priority
- Optimised services for your specific operation that are structured to lower electricity consumption
- Early detection and predictability that eliminates surprises and unwanted costs
- Automated shipment or scheduling reminders prevent overlooking or under-maintaining equipment
- Equipment that lasts longer and runs better by replacing the right parts at the right time
- Premium monitoring via the Helix™ Connected Platform to maximise productivity



IT ALL ADDS UP TO PEACE OF MIND



Lower Cost of Ownership

Our 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 145 years of industry experience.

Increased Uptime

Service 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.

PRODUCTIVITY ENHANCEMENTS

Productivity is reduced by air loss caused by ongoing inefficiencies as well emergencies in your facility. Use our Helix Connected Platform to meet long term sustainability goals and our rental services to minimise short term production loss.

HELIX™ Deep Insights for Dependability

Developed to give you essential visibility into day-to-day operational intelligence that maximises your uptime and peace of mind, the Helix™ Connected Platform from Ingersoll Rand offers real-time data monitoring for your compressed air system.

Advanced sensor technology inside the compressor sends data on a regular basis to our cloud-based platform. This data gives you a clear view into the functionality and health of your compressor, and is easily accessible around-the-clock from your PC, tablet or smartphone. With a range of connectivity service offerings available, Helix™ monitoring can be tailored to meet your specific operational needs.

- Deep insights for preventive maintenance, efficient repair work, and detailed analysis of equipment performance over time
- Diagnostic reporting that help maintenance teams keep your compressor operating at peak performance and reduce downtime
- Continuous real-time operating data available anytime, anywhere
- Maintenance notifications that help ensure reliability and extend equipment life

 [Learn More about the Helix™ Connected Platform](#)



Ingersoll Rand Rentals

Minimise costly interruptions using Ingersoll Rand's comprehensive Rental Services. You'll get a quick response, a broad line of robust products and unparalleled on-site experience that satisfies your exact requirements when you need it for emergencies or long-term planning.



The Air You Need, the Way You Want it

- Oil-free compressors
37-355 kW - 7.0-10.7 barg
- Extensive compressor inventory
- Air dryers with dew points from -40°C to 3°C
- Heavy-duty, outdoor-ready designs
- Connection accessories
- Short- and long-term agreements
- Multiple depot and service locations
- Comprehensive contingency planning
- Electric systems for low-cost operation

 [Learn More about Our Rental Services](#)



About Ingersoll Rand Inc.

Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to helping make life better for our employees, customers and communities. Customers lean on us for our technology-driven excellence in mission-critical flow creation and industrial solutions across 40+ respected brands where our products and services excel in the most 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.

IngersollRand.com



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