



# Oil-Free Scroll Air Compressor Systems

2-11 kW



ISO 8573-1  
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 scroll compressed air technologies and services. By focusing on you and your business, we provide collaborative solutions that make you successful, offering a total systems approach to maximise efficiency and performance.

## Take a Systems Approach

Delivering reliable oil-free compressed air to your facility goes well beyond the compressor itself. Optimise total cost of ownership (TCO) with a systems approach that delivers industry leading value through experienced installation and maintenance support, genuine OEM parts, accessories and consumables that extend the life of your system.

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

## Let's Get Started Together

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





# 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.

## For reliability

A robust product and system design delivers top quality air, protecting sensitive downstream equipment, lowering maintenance and extending equipment life

## For productivity

The use of an oil-free Class 0 certified compressor guarantees contamination-free air, eliminating the risk of product spoilage and waste

## For serviceability

Our oil-free equipment is designed specifically to make maintenance easy by providing clear access to consumable components

## For lower cost of ownership

Higher initial costs for oil-free systems are more than offset by lower operational and maintenance costs over a system's life to maintain the highest air quality

## Class 0 Oil-Free Air

### ISO 8573-1 Air Quality Classes

Quality Class	Oil & oil vapor mg/m <sup>3</sup>
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 W-Series oil-free scroll compressors are Class 0 for no oil content to ensure your air quality exceeds specifications.

## Oil-Free Scroll Compressors for Your Application

Ingersoll Rand offers a wide portfolio of reliable oil-free products that will adapt to your industry and application. We will assess and propose the best oil-free solution to increase the productivity of your installation, **providing zero risk of contamination of your final product.**



Hospitals, Labs,  
Universities



Pharmaceutical,  
Biotech



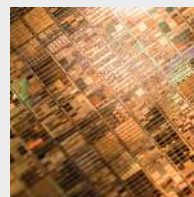
Medical Devices,  
Plastics



Canning, Beverages,  
Brewery



Glass Manufacturing



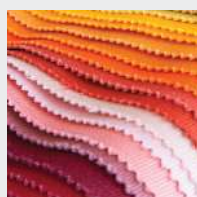
Electronics,  
Semiconductor



Food Processing



Electronics Assembly



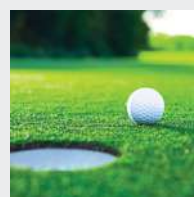
Textiles Industry



Bottling, Distillery



Printing Industry



Turf Management

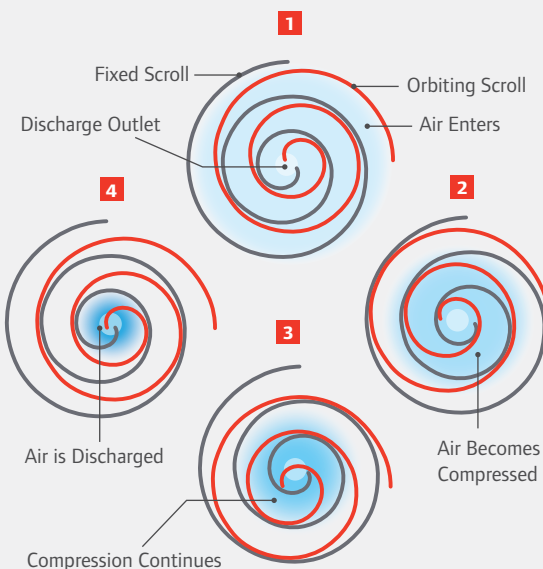
# AIR COMPRESSORS

When quiet operation, low maintenance and a small footprint are critical, scroll air compressors are the smart choice. Their compact and innovative design make them ideal for many commercial applications where reliable, oil-free air is required.

## How Scroll Compressors Work

Scroll compressors use two interlacing spiral scrolls to pump, compress and pressurise air.

- 1** One scroll remains in a fixed position, while the other scroll orbits around it without rotating.
- 2** This motion traps the air in the pockets between the two scrolls, and pushes the air towards the center. As the air moves closer to the center, the pockets become smaller, and the air is compressed.
- 3** The process constantly repeats to maintain suction.
- 4** Once the air reaches the center, it is discharged through an outlet.



**NO OIL  
ANYWHERE!**

None in the compressor  
None in the air  
None in the condensate



## Scroll Compressor Advantages

<b>Smaller footprint</b>	► Takes up less floor space
<b>Fewer components</b>	► Higher reliability, longer life, less maintenance
<b>Lower sound level</b>	► Healthy work environment
<b>100% oil-free</b>	► Can be used in any industry
<b>Use less consumables</b>	► Longer service intervals and life
<b>No metal friction</b>	► Less maintenance
<b>Zero emissions</b>	► Meets goals for sustainability
<b>Fewer moving parts</b>	► Lower vibration

## 100% Oil-Free Air

The simple tip seal design of a scroll compressor ensures no metal-to-metal contact anywhere. Therefore, the technology does not require lubrication, ensuring high-quality, oil-free air.



**W5i-A10 COMPRESSOR**

## Clean, Quiet and Efficient

Our scroll compressors pack tremendous value into a small, efficient package.

## What Makes Our Oil-Free Scroll Compressors Unique?

### Efficient Design and Control

Our scroll compressors deliver more flow per kW and reach pressures up to 10 barg in a single stage of compression. We achieve this efficiency through design features such as:

- **Start/stop control** that minimises wasted energy in unloaded conditions
- **A dual-inlet airoend design** for stable and efficient compression
- **Aluminum shell** reduces overall product weight



### Multiplex Design

The ability to multiplex the design for part-load efficiency means you can operate the exact number of compressors to match your demand.



### Cool Operation

Our generously sized fan insures cool operation and longer life of your components.



### Microprocessor Control

Manages discharge pressure to meet your air demand, while measuring key operating parameters to reduce unwanted downtime.



### Cooler Discharge Air Temperature

Aftercooler is included in all packages to cool the discharge air with forced air fans included in the enclosed models to insure heat is removed.



**W11i-A10 COMPRESSOR**





# AIR COMPRESSORS

## W-Series Features and Specifications

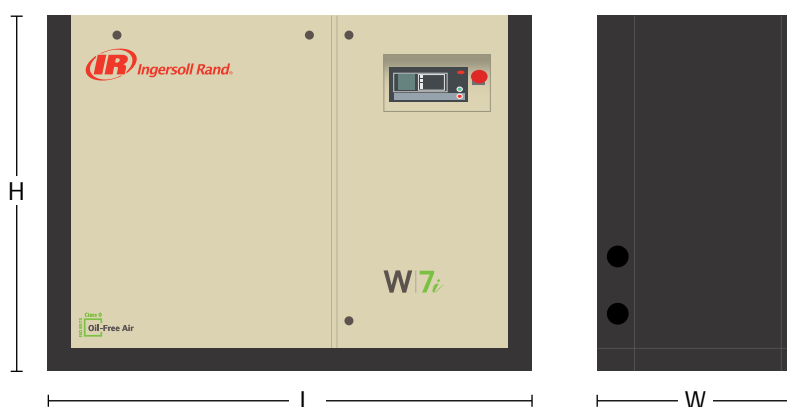
### STANDARD FEATURES

Inlet filtration with replaceable element	Pressure gauge*
On/Off switch*	Automatic start/stop operation*
Power on light*	Control voltage starter with motor overload protection*
High temperature shutdown with indication light*	Air-cooled aftercooler
Run time hour meter*	Rugged motor sized for duty with ingress protection

\* Included on front-mounted control panel

### W-Series – 50 Hz Performance

Model	Max Pressure barg	Nominal Power kw	Air Flow m <sup>3</sup> /min	Connection Size BSPT	Dimensions (LxWxH) mm	Weight kg	Sound Level db (A)
W2i-A8	8	2.2	0.24	1/2"	830 x 740 x 910	204	58
W2i-A10	10	2.2	0.21	1/2"		204	58
W4i-A8	8	3.7	0.40	1/2"		231	58
W5i-A8	8	5.5	0.60	1/2"		240	59
W5i-A10	10	5.5	0.53	1/2"		240	59
W7i-A8	8	7.7	0.84	1"	1,445 x 800 x 1,000	438	62
W7i-A10	10	7.7	0.74	1"		438	62
W11i-A8	8	11	1.20	1"		495	64
W11i-A10	10	11	1.06	1"		495	64



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.

## Modular Desiccant Dryers

Choose desiccant dryers when very low dew points are necessary for high-quality air and to prevent potential freeze-up.



- **Delivers high-quality air**, ISO Class 2 or optional Class 1 pressure dew point
- **Compact footprint and low noise operation** (< 75 dBA), suitable for work environments
- **High-strength desiccant and durable components** provide extended life
- **Low pressure drop design** saves energy
- **Advanced microprocessor control** easy to use and maximises uptime

## Refrigerated Dryers

Cost-effective refrigerated dryers provide clean, dry air for most industrial applications. Cycling dryers maximise energy savings, while non-cycling dryers minimise initial cost.



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

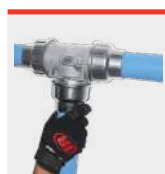
## OEM Parts and Services

Ingersoll Rand is your trusted partner for the long haul. Our services include skilled project management and installation for start-up, system expansion or decommissioning, as well as flexible maintenance programs that meet your specific requirements. And our genuine OEM parts ensure that your compressor is running reliably and efficiently.

### Installation



- Project management services



- SimplAir® piping systems



- Air system accessories

### Maintenance Programs



- PackageCARE™ full risk transfer



- PlannedCARE™ planned maintenance



- PartsCARE™ parts and assistance

### Genuine OEM Parts



- Filters (annually)



- Tip seals and grease (2-4 years\*)



- Replacement airends (4-8 Years\*)

\*Part life depends on application and use—higher pressure designs will require maintenance sooner.



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