



mb air systems ltd

**IR** Ingersoll Rand

# Rotary Screw Compressors

2.2 - 5.5 kW

*Innovation*

*Reliability*

*Efficiency*



# A Lifetime of Benefits

*The ideal choice for duty requirements of automotive, paint shop, fabrication shops and general light industrial applications is the Ingersoll Rand 2.2 to 5.5 kW rotary compressor range.*



We have listened to our customers and designed the range to meet their needs.

## **Cost Effective**

The 2.2 – 5.5 kW market has been traditionally dominated by reciprocating compressors, mainly due to cost constraints. However, advances in technology have allowed rotary compressors to rapidly close the gap in price when compared with reciprocating compressors. This coupled with lower energy costs to produce the same volume of air now make the rotary compressor a cost effective solution.

## **Quiet Performance**

Rotary screw compressors are designed to operate with low vibration and a smooth or low noise level. Sound levels as low as 64dB(A) allow these compressors to be located closer to the point of use, allowing the customer to meet his compressed air requirements without disrupting the workforce or risking any health and safety regulations. This results in a more productive and safer working environment. There is no need to designate a special or remote area for your installation.

## **Easy to Maintain**

Routine service and maintenance are easy to perform. Access is both quick and simple through easily removable panels, to allow check/change of the coolant, air filter element, spin-on oil filter and separator element. The belt is also easily accessible through the removal of the rear maintenance panel.

The reliability of Ingersoll Rand rotary compressors allow the unit to deliver trouble-free long operating life with simple, regular maintenance.

The clear control panel includes an emergency stop button, a pressure gauge, an hour meter, an alarm indicator and a power on indicator.

# The Value is in the Design

*At the heart of these units is reliable Ingersoll Rand rotary screw compressor technology proven in large-scale compressor operations around the world.*

### Simple and Effective

The control panel provides all the necessary functions to allow simple operation of your Ingersoll Rand rotary screw compressor.

### Performance and Reliability

The 2.2 - 5.5 kW rotary screw compressor provides a reliable compressed air solution, with a performance to match these high standards. Performance and reliability is assured with the use of high quality components to eliminate any possible disruption to the end user.

### Efficiency

Their initial value is immediately visible in terms of lower energy costs – typically 15% to 20% less than that required by reciprocating compressors to produce the same volume of air.

Long-term value is evident in their lasting durability. In a typical application, these rotary compressors are designed and built to provide the compressed air requirements on a daily basis.

### Compact Size

The small footprint of the compressor saves floor space, so they fit virtually anywhere in the workplace that compressed air is required.

The optional TAS dryer models (Total Air System) utilise the same footprint, so offering a full solution without the concern for any additional space requirements.

All models are 10 bar(g) and receiver mounted on a 200L receiver tank. With the optional dryer (TAS), Ingersoll Rand can provide a quiet solution, with a complete ready-to-use source for clean dry air.

You can quickly and cost effectively install and operate the units wherever compressed air is needed.

The units are easy to pipe into either an existing air distribution system as an efficient replacement for an existing compressor or into a new system.

### Designed for Workplace Comfort

Quiet rotary compressor operation and a sound dampened enclosure keep disruptive noise to a minimum.

## A Sound Choice

One of Ingersoll Rand's primary concerns is health and safety in the workplace. At decibel ratings between 64 and 67 dB(A), these Ingersoll Rand rotary compressors operate well below the sound levels of comparably sized reciprocating and rotary compressors and the recommended limit for noise exposure in the workplace.



**Cooling Air Discharge** – The cooling air is discharged from the top of the compressor. This saves the user additional space due to the fact that area around the compressor for ventilation is not required.

**Ease of Maintenance** – Easy removable panels provide access to regular service items such as oil filter, air filter and separator cartridge. The back panel is also removable for major service operations such as airend or belt replacement.

**Common manifold** – Incorporates minimum pressure and thermostatic valves, oil filter and the separator element, resulting in reduced pressure drops and a space saving design.

**Integrated airend/separator unit** – The airend is connected directly to the separator tank resulting in minimal joints, reduced leak paths and a package that is clean and uncluttered.

**Oil level sight glass** – Easily check the current level of coolant in the compressor.



## The Power of Rotary Compressor Technology

	Rotary Compressor	Reciprocating Compressor
<b>Performance</b>	17 – 25 % increase in air flow per kW	Standard volumetric efficiency
<b>Sound Level</b>	64 dB(A)	More than 80 dB(A)
<b>Operation</b>	Continuous demand application	Intermittent application
<b>Air Quality</b>	Filter for trace oil content	High oil content
<b>Air Quality</b>	Integrated dryer option for water removal	High moisture content
<b>Vibration</b>	Rotary technology creates no vibration, increasing component life	High vibration

### Specifications

Model	Motor		Pressure Max		Receiver Litres	Starter	Capacity FAD			Noise dB(A)*	Dimensions mm			Weight kg
	kW	hp	bar	g psig			l/min	m <sup>3</sup> /min	cfm		Width	Length	Height	
<b>Standard Unit</b>														
R2.2IU-10-200	2.2	3.0	10	145	200	DOL	241	0.24	8.5	64	555	1393	1111	184
R4IU-10-200	4.0	5.5	10	145	200	DOL	467	0.47	16.5	64	555	1393	1111	186
R4IU-10-200SD	4.0	5.5	10	145	200	S/D	467	0.47	16.5	64	555	1393	1111	186
R5.5IU-10-200SD	5.5	7.5	10	145	200	S/D	623	0.62	22	67	555	1393	1111	187
<b>With Dryer</b>														
R2.2IU-10-200-D	2.2	3.0	10	145	200	DOL	241	0.24	8.5	64	555	1393	1111	210
R4IU-10-200-D	4.0	5.5	10	145	200	DOL	467	0.47	16.5	64	555	1393	1111	212
R4IU-10-200SD-D	4.0	5.5	10	145	200	S/D	467	0.47	16.5	64	555	1393	1111	212
R5.5IU-10-200SD-D	5.5	7.5	10	145	200	S/D	623	0.62	22	67	555	1393	1111	213

\* Measured as per ISO 2151 ± 3dB(A).

"D" = Dryer, "SD" = Star Delta Starter — All units 400/3/50 electric.

# Meeting your needs

## Flexibility and Air Quality to Meet Your Needs

Ingersoll Rand offers two air system configurations to meet a variety of compressed air system requirements – all within the same small footprint.

### Standard Arrangement

- Compressor
- Receiver
- Electronic drain valve (option)



### Shop Air

The standard arrangement is for when there is a need either to replace an existing compressor in your current system or is also ideal in a new installation.

Suitable for:

- Automotive service shops
- Fabrication shops
- General light manufacturing

### Total Air System

- Compressor
- Receiver
- Refrigerated dryer
- Electronic drain valve (option)



### Clean Dry Air

Drying the compressed air to remove moisture and some contaminants to prevent damage to finishing processes or product quality.

Suitable for:

- Paint shops
- Laundry
- Printing



## Rotary Technology at a Glance

Rotary screw compressor designs operate without the vibration experienced by equally rated reciprocating compressors, and at just a fraction of the noise levels. This smooth operation means quieter, more energy-efficient and longer-lasting performance.

Better yet, these rotary compressors are designed to match the target applications – not just the intermittent 50/50 duty cycle for which most reciprocating compressors are rated. That means even with the steady demands of applications like paint sprayers, packaging lines, or continuously operating production equipment, you won't experience the accelerated wear that can cause premature component failure and eventually diminish the service life of your compressor.

## Ultra Coolant

The 2.2 – 5.5 kW range utilises our standard Ultra Coolant. Ultra Coolant reduces maintenance costs by lasting longer between changes. Further coolant replacement costs are minimised due to the superior separation system of the Ultra Coolant.



Progress is *greener* with Ingersoll Rand



Ingersoll Rand offers industry-leading products and solutions that enable businesses around the world to reduce energy consumption and costs and decrease harmful environmental emissions. From air compressors that reduce energy consumption to electric-powered golf cars with near-zero emissions, Ingersoll Rand provides the knowledge, experience and solutions to help our clients achieve their sustainability goals.

### Spare Parts

Simple to order parts and maintenance kits make it easy to ensure that you have the right parts on hand when you need them. Ingersoll Rand's reputation for compressor parts availability and reliability is second to none.



mb air systems ltd

**Company Directory:**

149 Glasgow Road  
Wishaw  
Lanarkshire  
ML2 7QJ  
Tel 01698 355711  
Fax 01698 359299

Wellheads Road  
Farburn Industrial Estate  
Dyce, Aberdeen  
AB21 7HG  
Tel 01224 723434  
Fax 01224 723545

Fleming Close  
Segensworth East  
Fareham  
Hampshire  
PO15 5SB  
Tel 01489 588398  
Fax 01489 588381

8 Burford Way  
Boldon Business Park  
Boldon  
Tyne & Wear  
NE35 9PZ  
Tel 0191 519 5500  
Fax 0191 537 1105

E-mail [sales@mbairsystems.co.uk](mailto:sales@mbairsystems.co.uk)  
[www.mbairsystems.co.uk](http://www.mbairsystems.co.uk)  
[www.airwinch.co.uk](http://www.airwinch.co.uk)



engineering solutions

design product finishing pneumatics & tools  
compressed air service  
offshore lifting