

Ingersoll Rand SimplAir

iRX Series

SimplAir is a completely different piping system compared to traditional compressed air piping. It combines a simple and unique structure, easy installation and modification, and excellent performance.

Traditional compressed air systems often use carbon steel or common stainless steel piping, which results in long installation cycles, inconvenient modifications, significant pressure losses, and rusting on the inner walls that can affect the quality of the compressed air.

In response to these shortcomings of traditional piping, Ingersoll Rand has designed and developed a unique SimplAir. It is made from high-performance alloy aluminum, treated with anodization, and has a smooth inner wall. The connections between pipes use a uniquely designed high-quality O-ring seal, which effectively addresses piping issues from design and installation to usage.



The SimplAir iRX Series Brings You

Safety and reliability

- The quick-install piping system has passed the pressure test certification of the National Testing Center
- Different locking structures designed for different pipe diameters ensure safe and reliable pipe connections
- The connectors use active sealing to ensure zero leakage

A small hole with a diameter of 10 millimeters can cause a waste of nearly 200,000 CNY per year



Reusable and Quick to Install

- Quick installation without the need for welding, bonding, or crimping and sealing, saving time
- Lightweight, easy to cut, and more convenient for on-site construction
- All pipes and connectors can be flexibly adjusted, disassembled, and reused
- Branching devices and branch pipelines can be added at any time
- Removable and reusable components perfectly adapt to your factory



Ingersoll Rand's SimplAir installation design saves you 60% of installation time

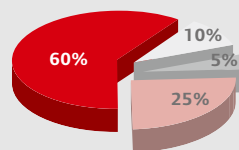
Durable and Robust

- All-aluminum alloy components, corrosion-resistant, never rust, with a uniform pipe expansion coefficient
- Advanced treatment processes are used on both the inner and outer surfaces to ensure quality
- Components exceed industry standards in thickness, with a designed service life of over 20 years
- Available in standard blue or bright gray, not only aesthetically pleasing but also easy to distinguish
- Guaranteed to be aesthetically pleasing, smooth, and clean in appearance

Energy-saving

- Smooth inner surface with an extremely low friction coefficient
- Optimized design with full bore and internal flow guidance effectively reduces pressure drop
- Uses active face sealing to ensure ideal sealing with no leakage

Ingersoll Rand SimplAir Saves Nearly 35% Energy Compared to Traditional Pipes



Research shows:
Only 60% of compressed air is truly utilized
5% of the loss is due to improper use
25% of the loss is due to air leakage
10% of the loss is due to pressure drop

If the pressure drop of carbon steel pipes increases by 1 kg per year, using aluminum alloy pipes can reduce the pressure drop by 0.5 kg compared to carbon steel pipes. Taking the average electricity cost of about 1.0 CNY per kWh as an example, a 355kW air compressor can save over **100,000 CNY** in energy consumption per year.

$355\text{kW} \times 3.5\% \times 1.0 \text{ CNY} \times 365 \text{ days} \times 24 \text{ hours} = 108,843 \text{ CNY}$

Note: The calculation is based on 365 days a year and 24 hours of work per day.

The pressure drop of carbon steel pipes increases over time due to internal rusting, while aluminum alloy pipes maintain a constant pressure drop due to their non-corrosive nature.



Technical Parameters

Number	Product specifications	Outer diameter (mm)	Wall thickness (mm)	Inner diameter (mm)	Theoretical weight (kg/m)	Theoretical weight (kg/6m)	Support span (m)
1	De20	20.00	1.45	17.10	0.23	1.37	2.20
2	De25	24.80	1.45	21.90	0.29	1.72	2.20
3	De32	32.20	1.60	29.00	0.42	2.49	2.50
4	De42	42.00	1.90	38.20	0.65	3.88	2.50
5	De50	50.60	2.10	46.40	0.86	5.18	3.00
6	De65	63.50	2.30	58.90	1.19	7.16	3.00
7	De80	88.90	2.60	83.70	1.92	11.41	3.00
8	De100	100.20	2.60	95.00	2.15	12.91	3.50
9	De125	133.00	2.75	127.50	3.04	18.23	3.50
10	De150	148.20	3.00	142.20	3.69	22.17	3.50
11	De200	205.30	3.00	198.90	5.46	32.91	4.00

Material grade: Ductile aluminum alloy (adopting GB/T4437.1-2015 "Aluminum and aluminum alloy extruded tubes - Part 1: Seamless round tubes" - Grade 6063;

Chemical composition: Complies with GB/T3190-2008 "Wrought aluminum and aluminum alloy chemical composition" regulations, density 2.7 Kg/dm³;

Dimensional and permissible deviations: Complies with GB/T4436-2012 "Aluminum and aluminum alloy tubes - Dimensional and permissible deviations" relevant provisions;

Superior Performance Beyond 304 Stainless Steel

- The inner wall is specially treated to form an excellent protective layer
- Has better resistance to alkali and acid corrosion than 304 stainless steel
- The installation method without welding or threading greatly reduces project installation time

High Strength

- System working pressure is 1.6MPa
- Applicable temperature range is -29°C to +80°C
- Passed 100bar pressure resistance test

Excellent Resistance

- Harsh environments
- Mechanical vibrations
- Thermal change environments



In industries such as manufacturing, electronics, food and beverage, and tobacco, Ingersoll Rand provides complete solutions for the factories of various industry users, involving equipment such as centrifuges, oil-free compressors, micro-oil compressors, and post-processing equipment. The air pipelines in the users' stations and factory buildings all use Ingersoll Rand's SimplAir to ensure the quality of compressed air, while saving a significant amount of energy for customers.



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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