



# Oil-flooded Screw Compressed Air System

New RM Series 7-45 kW



# Ingersoll Rand offers the intelligence you need to win

Ingersoll Rand works to keep you ahead of your competition with advanced compressed air systems that boost productivity, lower operating expenses and extend equipment life. These innovations are designed into every air compressor—industry-leading air end enhancements for superior efficiency, world-class delivered capacity and exceptional reliability. All supported by unique advantages, including expert design and engineering, a comprehensive suite of support programs and long-life Ingersoll Rand-branded consumables.

New RM series oil-flooded screw air compressors. The intelligence you need - to win.

## Global Presence, Local Service



-  Manufacturing Facilities
- Buffalo, NY, US
- Campbellsville, KY, US
- Mocksville, NC, US
- West Chester, PA, US
- Curitiba, Brazil
- Wasquehal, France
- Oberhausen, Germany
- Simmerns, Germany

- Fogliano, Italy
- Milan, Italy
- Vignate, Italy
- Ahmedabad, India
- Shanghai, China
- Wujiang, China

-  Global Distribution Centers
- Charlotte, NC, US
- Genk, Belgium
- Singapore
- Shanghai, China

# Efficient Operation & Strong Information

## We Started at the Core

We utilize new state-of-the-art airend for development of the new RM series to deliver better performance for you. Through rotor profile optimization and many other improvements, the new airend can increase efficiency by 11% and reduce operating cost to a greater extent. Besides, new rotor profile achieves ideal air capacity, i.e. 11% more than the previous model. Smaller specific power means lower equipment investment cost and energy consumption, thus lowering your total cost.



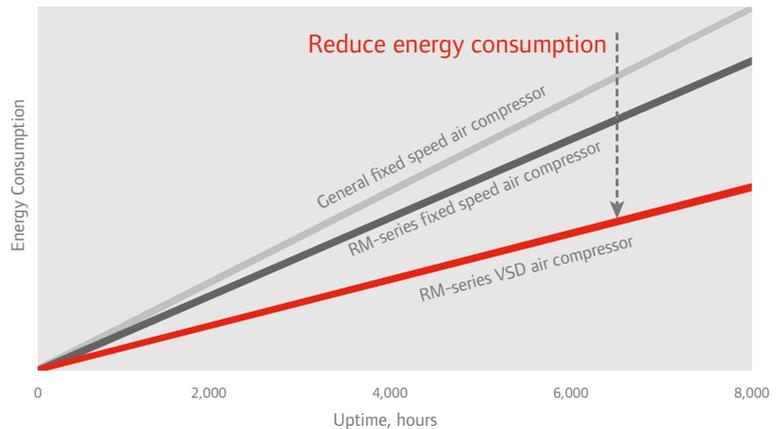
## Technology is Power

A high-quality compressor provides required operating parameters while supplying air. So, every RM series compressor is equipped with an intelligent controller to monitor key operating points and adjust system parameters, so as to prolong the uptime and reduce energy consumption. Wherever you are, you can learn the operating status of an air compressor in a real-time manner and promptly take necessary actions.

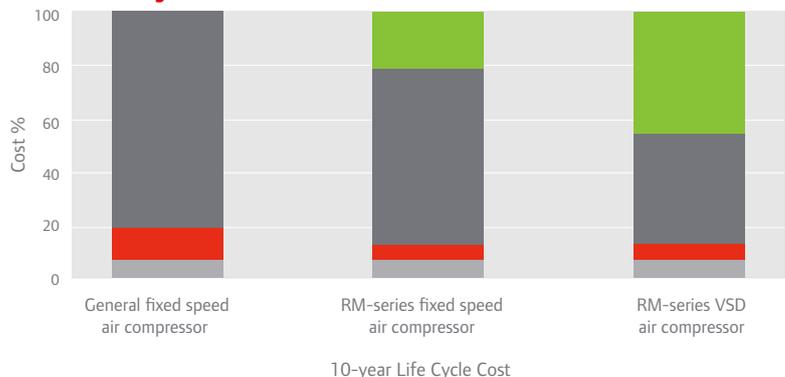
## For Higher Energy Efficiency

Every RM series air compressor features an all-new highly efficient airend, in combination with IE3 fixed speed and ECO\*-PM VSD IE5 motor technology, helping you save up to 12-30% on energy costs.

ECO (Environment, Conservation & Optimization) adopts the basic R&D concept of environmental protection, energy conservation and economy, all of which also become three qualities persistently chased by ECO PM motor, and conform to the objectives of Ingersoll Rand corporate strategy and Paris Accord.



## Greatly reduce total cost



Operate at 79% load for 4,000 hours per year; 0.05\$/kWh

# Internal Structure Design Optimization

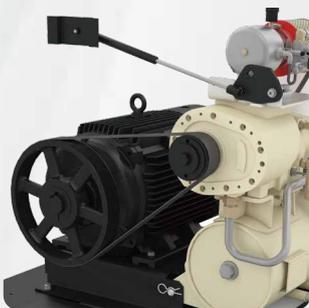


## 1 Efficiency

New efficient airend design increases efficiency by 11% & air capacity by 11%, and achieves long-lasting reliable operation.

## 2 Reliability

It can remove lubricant in compressed air to below 3-5ppm, so as to protect downstream equipment, extend filter service life, increase productivity and reduce maintenance cost for customers.



## 3 Ease of Maintenance

RM7-22i fixed speed drive unit equipped with a standard self-tensioning belt system requires no manual maintenance, and thus reduces daily maintenance costs.

RM30-45i fixed speed drive unit is equipped with an integral gear drive system as standard, which includes gearbox, gear and integrated direct-linking gear drive for higher drive efficiency.



7-22kW



## 7 Intelligence

Luminance series intelligent controllers achieves real-time monitoring of system parameters, whose standard IoT function enables you to learn air compressor status, wherever you are, and pre-alarms to exempt you from losses due to unexpected sudden shutdown.



## 6 Efficiency / Ease of Maintenance

Integrated cooling fan reduces energy consumption, improves efficiency of the unit, and saves more space for maintenance of other components.



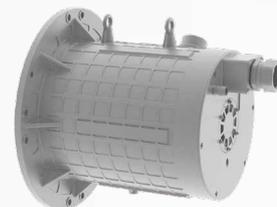
**30-45kW**

## 5 Robustness

Fixed speed: highly efficient IEC60034-30 IE3 motor enables IP55 protection grade, Class F insulation and Grade B temperature rise.



Variable speed drive (VSD): highly efficient IE5, IP66 oil-cooled permanent magnet VSD motor enables Class H insulation and Class B temperature rise.



## 4 Efficiency / Productivity Superiority

The air intake system with large-allowance inlet air and low pressure drop air filter effectively reduces inlet air pressure and improve efficiency of the unit, and reduces maintenance work and cost to facilitate the production for customers.

Note: Please consult your local Ingersoll Rand advisor for models and configurations, which may vary slightly for different products.

# 7-45kW Performance

Model	Rated Power kW	Nominal Pressure barg	Air Volume (FAD*) m <sup>3</sup> /min	Dimensions (L x W x H) mm	Weight kg
i Standard unit performance					
RM7i_A	7.5	7	1.22	716 x 677 x 1061 1380 x 790 x 1737 1576 x 844 x 1644	222
RM7i_A 272		8	1.14		362
RM7i_A TAS 272		10	1.00		460
		12.5	0.81		
RM11i_A	11	7	1.69	984 x 1017 x 1065 1596 x 1246 x 1808	225
RM11i_A 272		8	1.58		365
RM11i_A TAS 272		10	1.41		460
		12.5	1.23		
RM15i_A	15	7	2.50	993 x 1020 x 1118 1596 x 1246 x 1808	465
RM15i_A TAS 350		8	2.40		812
		10	2.07		
		12.5	1.70		
RM18i_A	18.5	7	3.10	1556 x 928 x 1413	509
RM18i_A TAS 350		8	3.00		856
		10	2.61		
		12.5	2.15		
RM22i_A	22	7	3.70	1556 x 928 x 1413	524
RM22i_A TAS 350		8	3.60		871
		10	3.08		
		12.5	2.72		
RM30i_A	30	7	5.44	1556 x 928 x 1413	697
		8	5.21		
		10	4.74		
RM37i_A	37	7	6.52	1556 x 928 x 1413	742
		8	6.12		
		10	5.62		
RM45i_A	45	7	8.30	1556 x 928 x 1413	870
		8	8.08		
		10	6.85		

Model	Rated Power kW	Nominal Pressure barg	Air Volume (FAD*) m <sup>3</sup> /min	Dimensions (L x W x H) mm	Weight kg
n Standard unit performance					
RM7n_A RM7n_A 272	7.5	12.5	0.15-1.18	840 x 680 x 810	169 309
RM11n_A RM11n_A 272	11	12.5	0.15-1.65	1356 x 789 x 1520	182 322

1. Air volume (FAD\*) (volume flow) is the operation parameter of the entire machine and measured as per the test standard in ISO1217:2009 Annex C.

# 7-45kW Configurations

Standard Features	Description	Fixed Speed	Fixed Speed	Fixed Speed	Variable Speed
		RM7-11i	RM15-22i	RM30-45i	RM7-11n
Airend	Airend with premium performance	●	●	●	●
Controller	Energy-saving controller, with Chinese / English bilingual text display	●	●	●	●
	Programmable start-stop operation and remote connection	●	●	●	●
	Built-in sequential controller program for at most 4 units <sup>(1)</sup>	●	●	●	●
	Standard Modbus RTU protocol, RS485 interface	●	●	●	●
	Power outage restart option (PORO) <sup>(2)</sup>	●	●	●	●
Active self-adaptive protection (PAC™)	Monitor the maintenance of filter element and other wear parts, and adjust system operating parameters accordingly	●	●	●	●
	Real-time electronic maintenance indicator & shutdown protection	●	●	●	●
Cooling system	High efficient energy-saving fan with low noise	●	●	●	●
V-Shield™ technology	Vibration isolating pad & high-class flexible metal conduit	●	●	●	●
	Reusable air-tight fluorinated sealing materials	●	●	●	●
Supporting system	Noise-reducing housing of the unit	●	●	●	●
	Drip-proof base frame	●	\	\	●
	Long-life filter element and separator element	●	●	●	●
	Full-load / no-load flow regulation system control	●	●	●	\
	Variable frequency PID regulation control	\	\	\	●
Main motor and electrical system	Direct start	●	\	\	\
	Star-delta reduced voltage starter	○	●	●	\
	Variable frequency reduced voltage start	\	\	\	●
	High-efficiency TEFC, IP55 closed motor with Class B temperature rise & Class F insulation	●	●	●	\
	Permanent magnet variable frequency TEOC, IP66 motor – Class B temperature rise, Class H insulation	\	\	\	●
General configurations	12 months' warranty program	●	●	●	●
Protection under harsh ambient conditions	50°C high temperature option <sup>(3)</sup>	○	○	○	\
	14barg discharge pressure	○	○	\	\
	272L skid-mounted air tank	●	○	\	●
	TAS+ skid-mounted air tank	●	●	\	○
Environmental protection options	Food grade coolant Ultra FG	○	○	○	○

● Standard feature   ○ Optional feature   \ Not applicable

(1) To be realized after software update   (2) Standard for software, buzzer for non-standard   (3) Suitable for RM7/15/18i\_A unit without TAS

# Customized Products for Your Application

Ingersoll Rand offers a wide portfolio of reliable products that will adapt to your industry and application. We will assess and customize the system solution to reduce the total air consumption cost of your compressed air system, maximizing your operational productivity.

## Sewage Treatment



- Aeration
- Mixing
- Material conveying
- Sludge purging
- Air source for ozone generator

## Animal Husbandry



- Pneumatic valve
- Pneumatic switch
- Power conveying
- Purging

## Medical Gas Supply & Oxygen Generation



- Air supply for oxygen generation
- Dental treatment gas
- Medical devices
- Cleaning equipment

## Air Treatment

Moisture and contaminants in compressed air can cause serious equipment operation problems, such as rust, scaling, and pipe clogging, which can lead to product damage or even shutdown. Using our air treatment equipment as an integral component of your compressed air system will help improve productivity, system efficiency and product quality.

### Refrigerated dryer



- 2~10°C rated pressure dew point
- Adaptability to extreme working conditions in summer: Stable operation at 45°C ambient temperature/60°C inlet air temperature
- High-efficiency rotor compressor, three-in-one changer  
Heater to improve system stability
- Equipped with an intelligent controller for easy operation and efficient management

### Desiccant dryer



- Reliable -40°C pressure dew point under most operating conditions
- High-strength desiccant and durable valve
- Low pressure-drop design saves energy
- Advanced microprocessor control, easy to use and maximizing the extension of service time

### High efficiency filter



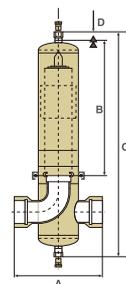
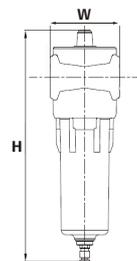
- G(GP) class –conventional protective filtration
- D(DP) class - general dust removal filtration
- H(HE) class - high efficiency precision filtration
- A(AC) class - activated carbon filtration
- F-IU class - absolute sterilizing-grade filtration

# Dryer Performance

Model	Flow m <sup>3</sup> /min	Power V/Ph/hz	Air connector diameter inch	Dimensions (L x W x H) mm	Weight kg
<b>D-IN series refrigerated dryer</b>					
D42Rs-A	0.7	220/1/50	0.75" BSPT	470 x 360 x 680	42
D72Rs-A	1.2	220/1/50	0.75" BSPT	470 x 360 x 680	48
D108Rs-A	1.8	220/1/50	1" BSPT	550 x 380 x 690	63
D216Rs-A	3.6	220/1/50	1.5" BSPT	650 x 450 x 780	81
D294Rs-A	4.9	220/1/50	1.5" BSPT	760 x 500 x 780	95
D342Rs-A	5.7	220/1/50	1.5" BSPT	760 x 500 x 850	102
D390Rs-A	6.5	220/1/50	1.5" BSPT	760 x 500 x 850	118
D444Rs-A	7.4	220/1/50	1.5" BSPT	760 x 500 x 850	124
D540Rs-A	9	220/1/50	1.5" BSPT	850 x 520 x 875	185
<b>D-INRi series refrigerated dryer</b>					
D216INRi-A	3.6	220/1/50	1.5" BSPT	620 x 480 x 720	72
D294INRi-A	4.9	220/1/50	1.5" BSPT	700 x 520 x 850	102
D342INRi-A	5.7	220/1/50	1.5" BSPT	700 x 520 x 850	102
D390INRi-A	6.5	220/1/50	1.5" BSPT	700 x 520 x 850	133
D444INRi-A	7.4	220/1/50	1.5" BSPT	700 x 520 x 850	135
D540INRi-A	9	220/1/50	1.5" BSPT	854 x 614 x 960	177
<b>D-ILRi/IERi series regenerative adsorption dryers (-20°C)</b>					
D72ILRi/IERi20	1.2	220/1/50	1/2" BSPT	730 x 480 x 1550	132/145
D126ILRi/IERi20	2.1	220/1/50	3/4" BSPT	850 x 500 x 1620	144/152
D216ILRi/IERi20	3.6	220/1/50	3/4" BSPT	950 x 550 x 1620	168/186
D282ILRi/IERi20	4.7	220/1/50	1" BSPT	1000 x 600 x 1660	321/347
D312ILRi/IERi20	5.2	220/1/50	1" BSPT	1000 x 600 x 1660	328/352
D408ILRi/IERi20	6.8	220/1/50	1-1/2" BSPT	1000 x 600 x 1660	358/395
D540ILRi/IERi20	9	220/1/50	1-1/2" BSPT	1250 x 650 x 1740	405/447
<b>D-ILRi/IERi series regenerative adsorption dryers (-40°C)</b>					
D72ILRi/IERi40	1.2	220/1/50	1/2" BSPT	730 x 480 x 1550	132/145
D126ILRi/IERi40	2.1	220/1/50	3/4" BSPT	950 x 550 x 1620	168/186
D216ILRi/IERi40	3.6	220/1/50	1" BSPT	1000 x 600 x 1660	321/347
D282ILRi/IERi40	4.7	220/1/50	1-1/2" BSPT	1000 x 600 x 1660	342/385
D312ILRi/IERi40	5.2	220/1/50	1-1/2" BSPT	1000 x 600 x 1660	358/395
D408ILRi/IERi40	6.8	220/1/50	1-1/2" BSPT	1250 x 650 x 1740	405/447
D540ILRi/IERi40	9	220/1/50 380/3/50	2" BSPT	1350 x 700 x 1830	442/496

# High-efficiency Filter Performance

Model	Flow @7barg m <sup>3</sup> /min	Connector Dimensions	Dimensions mm		Weight kg		
<b>Threaded type A,C,H,D</b>							
			H	W			
F42*	0.7	0.5" BSPT	266	90	1.1		
F72*	1.2	0.5" BSPT	266	90	1.1		
F108*	1.8	0.75" BSPT	300	90	1.4		
F216*	3.6	1" BSPT	420	120	3.2		
F294*	4.9	1.5" BSPT	520	120	5.2		
F342*	5.7	1.5" BSPT	520	120	5.2		
F390*	6.5	1.5" BSPT	520	120	5.2		
F444*	7.4	1.5" BSPT	520	120	5.2		
F540*	9	2" BSPT	730	160	7.6		
Filtration class	Flow @7barg m <sup>3</sup> /min	Connector Dimensions	Dimensions mm				Weight kg
<b>F-IU grade sterilization filter</b>							
			A	B	C	D	
F150IU	2.5	1"BSPT	160	168	282	170	0.5
F216IU	3.6	1"BSPT	220	210	435	220	2.6
F480IU	8	2"BSP	220	335	560	350	3.5



# Luminance Controller

With its strong control and remote management function, the new generation Luminance controller of Ingersoll Rand guarantees steady operation and also greatly improves the operating and management efficiency of your compressor.



## Controller Features



### More User-friendly Interface

- High-resolution touch screen
- More intuitive key parameter & information display



### Easier Upgrade

- Modular design for easier iterative upgrade of software functions and continuous improvement of user experience



### More Advanced Algorithm

- Advanced controller algorithm for smaller pressure fluctuation and lower energy consumption
- Sequencer for up to 4 compressors with Luminance and no other system controllers



### Steadier Performance

- Fully isolated design with stronger anti-interference capability and better electromagnetic compatibility
- Used in a variety of operating ambient conditions and operating life of at least 40,000 hours for 5 years



### More Efficient Management

- Built-in Internet connection for efficient remote management of operating status and maintenance schedule of the unit
- Automatic alarm & fault reminder and performance report sending



### Stronger Core

- Multi-core processor for significant improvement of computing speed and communication capability
- Significantly reduce data collection and operation interface delay for more timely communication

## What is Helix™ AI Cloud?

Ingersoll Rand Helix™ AI Cloud aims to maximize the uptime and easily enable the owner's real-time compressed air system data management. The advanced sensor technology integrated in the compressor regularly sends data to our cloud platform, which can be accessed by you from PC, tablet PC or smartphone to learn machine operating condition at any time. We provide layered services for you to choose the required data monitoring and analysis level based on your specific operation demand.



### Shorter Planned Stops

Better machine performance



### Visualized Maintenance Plan

All units under control



### Timely Maintenance

Extended service life of the unit



### Online State Monitoring of the Unit

Higher productivity and mechanical efficiency



### Lower Shutdown Risk

Minimum unscheduled downtime



### Quick Response Services

Better & professional insights

# Service Contract



PackageCARE: from 1st day when the agreement becomes effective, all operating risks transfer from you to us to free you from any concerns. You will enjoy 100% operating risk transfer for any machine model and life.



PlannedCARE: all-round genuine spare parts and maintenance services. You will enjoy preventative diagnosis, current state analysis & trend judgment; 10 years' air end warranty (for new oil-flooded screw air compressor)



PartsCARE: genuine spare parts for daily maintenance. You will enjoy regular shipment of spare parts and daily maintenance reminder, 5 years' air end warranty (for new oil-flooded screw air compressor)

## It All Adds Up to Peace of Mind



### Lower TCO

CARE service programs provide the most cost-effective solutions based on your customized 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,

## Maintenance Service Package

Replacement / maintenance period: 2,000 / 4,000 / 8,000 hours

**All parts and components required for maintenance or service at a time are included in the package.**

**Reliability:** constant air quality guarantee with genuine spare parts

**Scheduling:** regular maintenance & care as planned to decrease failure probability and increase operating stability

**Efficiency:** one chart No. replacing a number of spare parts lists to increase procurement & management efficiency

**Comprehensiveness:** all parts and components required for maintenance or service at a time are included for shorter lead time than individual parts

**Economy:** visual service cost budget and superiority in price to purchase of individual parts



**One-stop service with OEM quality guarantee**



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](http://www.IRco.com).

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