



Large Cycling and Non-Cycling Refrigerated Dryers

2,520-60,000 m³/hr (1,500-35,500 cfm)



Space-Saving Design

With expanded drying capacity and an integrated pre-filter, Ingersoll Rand large capacity refrigerated dryers have a smaller footprint to simplify your installation and free up valuable floorspace in your manufacturing operation.

Maximum Reliability

Complete ISO Class 2-4-3 protection provides the reliability you need. With integrated pre-filters and redundant no-loss drains closely monitored by a smart controller, you'll realise superior uptime.

Ingersoll Rand large capacity refrigerated dryers deliver outstanding value by providing high-quality compressed air, reliably and efficiently. Our innovative design lowers energy use, reduces carbon footprint and saves floorspace.

Increased Sustainability

Advanced refrigeration circuitry, as well as meeting global requirements to reduce the use of high Global Warming Potential (GWP) substances, will help to reduce your carbon footprint and support your sustainability goals well into the future.

Lower Energy Costs

Ingersoll Rand's patent pending large capacity heat exchanger (LCX) delivers significant efficiency gains, proven to reduce energy costs by as much as 50%.



Learn More
See the Details on Our New Refrigerated Dryers

Innovation that Drives Efficiency

At the heart of Ingersoll Rand's large capacity refrigerated dryers is the patent pending LCX large capacity heat exchanger. Using advanced modeling and simulation software tools, the heat exchanger's performance is optimised to deliver unprecedented performance that significantly lowers energy costs. Improvements include:

- **18-58% energy efficiency improvement**
- **25% greater flow capacity**
- **Over 1,000% improved thermal conductivity**

The innovative LCX heat exchanger offers significant energy efficiency gains while increasing overall drying capacity, reducing energy use and dryer footprint



Innovative Features that Mean Greater Savings for You

- Precision-balanced, high-pressure refrigerant circuit using R410A refrigerant with greater cooling capacity
- Efficient scroll compressors suitable for high-pressure refrigerants
- Micro-channel condensers with greater surface area and increased cooling capacity



DRAMATICALLY REDUCED CARBON FOOTPRINT

This exceeds the requirements set forth by the Montreal Protocol, an international agreement to reduce the use of high-GWP substances.

A Commitment to Sustainability

Sustainability is at the core of the large capacity refrigerated dryer's development, dramatically reducing the impact to carbon footprint:

- **47% lower Global Warming Potential (GWP)** by using R410A refrigerant to replace R404A
- **Over 45% less charge** required from the high-pressure refrigerant circuit
- **18-58% less less energy consumed** through dryer efficiency improvements

Choosing the Right Dryer for You

Our large capacity refrigerated dryers are available in cycling and non-cycling versions. Cycling dryers adjust operation based on demand to reduce energy consumption, while non-cycling dryers maintain steady operation regardless of demand. Typically, cycling dryers have a lower operating cost, while non-cycling dryers have a lower initial cost.



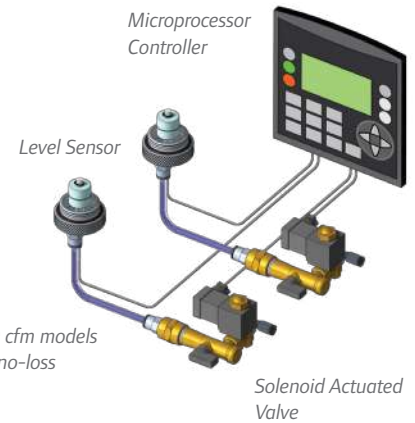
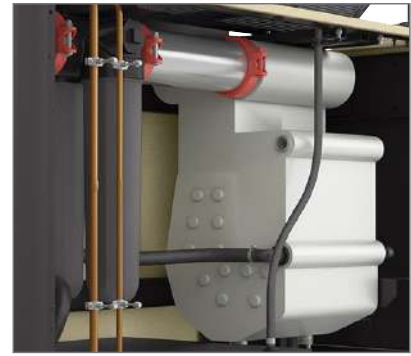
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See Our Entire Portfolio of Refrigerated Dryers

Built-in Reliability

Ingersoll Rand's large capacity refrigerated dryers come standard with an integrated pre-filter that increases compressed air system reliability by providing complete ISO protection (Class 2-4-3) against particulate, oil and water contaminants. In addition, the integrated differential pressure switch ensures optimal dryer performance and identifies the precise time to perform routine maintenance.

The dryer comes equipped with a next generation controller that has expanded I/O for continuous health monitoring of the dryer.

Often overlooked, a dryer's drain is critical to performance. Our 1,800-3,000 cfm models are equipped with new no-loss dual smart drains that are operated and monitored by the controller to maximize uptime. It features self-blockage clearing technology and built-in back-up for secure, continuous operation. Multiplex units are equipped with a standard smart PNLD drain to offer even greater protection.



Free Up Valuable Floorspace

The integrated pre-filter and greater flow capacity provided by the LCX heat exchanger means more cfm/ft², reducing the floorspace required for your compressed air treatment. Maximise your manufacturing space and make the most out of your operation.

The Multiplex Advantage

For requirements over 3,000 scfm (5,000 m³/hr), our large capacity refrigerated dryers consist of multiple, independent air treatment modules, each with its own controls and refrigeration system, for cycling dryers sharing a central thermal mass cold storage medium. The modular design creates many operating advantages:

- **Efficient, no-fail operation:** Independent refrigeration system, controls, pumps and drains create redundancy
- **Robust Reliability:** An innovative multiplex sequencer balances the operating hours of each module to achieve uniform wear of the refrigeration system that reduces lifecycle cost
- **No back-up required:** Perform maintenance on one module while the other modules continue to operate; in addition, multiplex dryers use a single point connection
- **Simplified installation:** Factory assembled to minimise field installation costs, and designed to simplify future capacity expansion
- **Serviceability:** The modular design provides easy access to components, and there is no need to disassemble the entire unit while performing maintenance



Ingersoll Rand Cycling Refrigerated Dryers 50 Hz Performance

Model	Flow Rate		Connect Size in	Air-Cooled Operating kW	Water-Cooled Operating kW	Dimensions, Air-Cooled Units (Height x Width x Depth)		Weight, Air-Cooled Units	
	m ³ /hr	cfm				mm	in	kg	lb
IN-NVC 2520	2,520	1,500	4.0	4.6	4.1	1,556 x 1,337 x 1,576	61.5 x 53 x 62	667	1,470
IN-NVC 3000	3,000	1,800	5.0	6.5	5.4	1,556 x 1,337 x 1,576	61.5 x 53 x 62	755	1,664
IN-NVC 4500	4,500	2,650	6.0	7.7	6.6	2,282 x 860 x 2,315	90 x 34 x 91.5	1,189	2,621
IN-NVC 6000	6,000	3,600	6.0	9.3	8.2	2,282 x 860 x 2,315	90 x 34 x 91.5	1,339	2,952
IN-NVC 7500	7,500	4,400	6.0	12.6	9.3	2,282 x 860 x 2,315	90 x 34 x 91.5	1,383	3,049
IN-NVC 9000	9,000	5,300	8.0	15.4	13.2	2,282 x 2,007 x 2,429	90 x 79 x 96	1,904	4,198
IN-NVC 12000	12,000	7,200	8.0	18.6	16.4	2,282 x 2,007 x 2,429	90 x 79 x 96	2,622	5,781
IN-NVC 15000	15,000	9,000	8.0	25.1	18.5	2,282 x 2,007 x 2,429	90 x 79 x 96	2,710	5,975
IN-NVC 18000	18,000	10,600	10.0	27.9	24.6	2,538 x 3,015 x 2,640	100 x 119 x 104	4,072	8,977
IN-NVC 22500	22,500	13,250	10.0	37.7	27.8	2,538 x 3,015 x 2,640	100 x 119 x 104	4,204	9,268
IN-NVC 30000	30,000	18,000	12.0	50.2	37.0	2,538 x 3,845 x 2,690	100 x 119 x 104	5,617	12,383
IN-NVC 37500	37,500	22,100	14.0	62.8	46.3	2,538 x 4,810 x 2,740	100 x 189.5 x 108	7,030	15,498
IN-NVC 45000	45,000	26,500	14.0	75.4	55.5	2,538 x 5,770 x 2,740	100 x 227.5 x 108	8,423	18,570
IN-NVC 52500	52,500	30,900	16.0	87.9	64.8	2,538 x 6,730 x 2,790	100 x 265 x 110	9,836	21,685
IN-NVC 60000	60,000	35,500	16.0	100.5	74.0	2,538 x 7,690 x 2,790	100 x 303 x 110	11,239	24,778

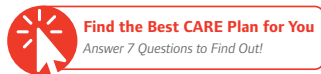
Ingersoll Rand Non-Cycling Refrigerated Dryers 50 Hz Performance

D2520IN	2,520	1,500	4.0	4.9	3.7	1,468 x 1,198 x 925	58 x 47.5 x 36.5	345	761
D3000IN	3,000	1,800	5.0	5.7	4.7	1,568 x 1,555 x 1,338	62 x 61.5 x 53	487	1,074
IN-D4500	4,500	2,650	6.0	7.3	5.2	2,282 x 860 x 2,315	90 x 34 x 91.5	878	1,936
IN-D6000	6,000	3,600	6.0	8.9	6.9	2,282 x 860 x 2,315	90 x 34 x 91.5	929	2,048
IN-D7500	7,500	4,400	6.0	12.2	8.9	2,282 x 860 x 2,315	90 x 34 x 91.5	974	2,147
IN-D9000	9,000	5,300	8.0	14.6	10.5	2,282 x 2,007 x 2,429	90 x 79 x 96	1,940	4,277
IN-D12000	12,000	7,200	8.0	17.8	13.8	2,282 x 2,007 x 2,429	90 x 79 x 96	2,040	4,497
IN-D15000	15,000	9,000	8.0	24.4	17.8	2,282 x 2,007 x 2,429	90 x 79 x 96	2,130	4,696
IN-D18000	18,000	10,600	10.0	26.7	20.8	2,358 x 3,015 x 2,640	93 x 119 x 104	2,842	6,266
IN-D22500	22,500	13,250	10.0	36.6	26.6	2,358 x 3,015 x 2,640	93 x 119 x 104	2,922	6,442

CARE Maintenance Programs

Reliability for Life

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 CARE maintenance service program — from full risk transfer to routine maintenance or parts coverage — you are investing in your future with a trusted global partner.



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