

# Large Cycling and Non-Cycling Refrigerated Dryers

3,000-40,000 m<sup>3</sup>/hr (1,800-24,000 cfm)



## Boost Your Bottom Line

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.



See the Details on Our  
New Refrigerated Dryers

## 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 realize superior uptime.

## 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%.



## 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 optimized 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 LCX heat exchanger increases drying capacity while reducing energy use and overall dryer footprint

## Optional High Pressure Configurations

Available in four models ranging from 5,100-14,000 m<sup>3</sup>/hr (3,000-8,000 cfm), our large capacity refrigerated dryers are available in optional high pressure configurations\* for demanding applications up to 680 psi.

\*Inlet filtration option ships separately



Optional high pressure heat exchanger operates up to 680 psi



### **DRAMATICALLY REDUCED CARBON FOOTPRINT**

## 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 energy consumed** through dryer efficiency improvements

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

## Choosing the Right Dryer for You

Ingersoll Rand's large capacity refrigerated dryers are available in cycling and non-cycling configurations, with high pressure and CRN variations. Cycling dryers maximize energy savings in systems with fluctuating demand, while non-cycling dryers are best applied where demand is constant. Please consult your local Ingersoll Rand representative for CRN on high-pressure large capacity dryers.



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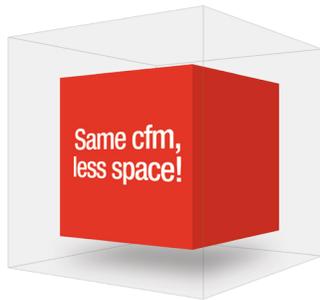
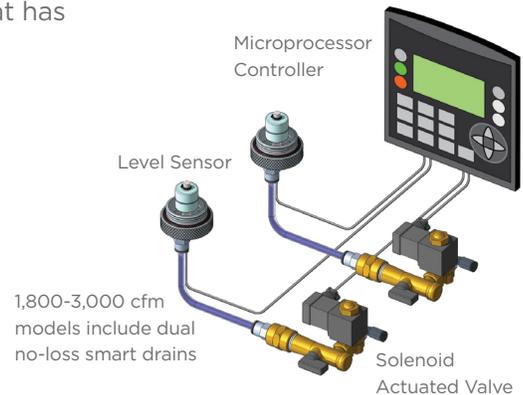
## Built-in Reliability

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 cycling and non-cycling\* dryers are equipped with smart no-loss drains, monitored by the controller to maximize reliability and uptime. Multi-module dryers utilize the industry preferred PNLD drains to offer even greater protection.

\*Non-cycling models above 6,000 m<sup>3</sup>/h (3,600 cfm)



## Free Up Valuable Floorspace

The integrated pre-filter and greater flow capacity provided by the LCX heat exchanger means more cfm/ft<sup>2</sup>, reducing the floorspace required for your compressed air treatment. Maximize your manufacturing space and make the most out of your operation.

## The Multiplex Advantage

For requirements over 3,000 scfm (5,000 m<sup>3</sup>/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:** For cycling models, 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 minimize 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 60 Hz Performance

Model	Flow Rate		Connect Size in	Air-Cooled Operating kW	Water-Cooled Operating kW	Dimensions (Width x Depth x Height)		Weight	
	m <sup>3</sup> /hr	cfm				mm	in	kg	lb
DA3000NVC	3,000	1,800	6	5.1	6.6	864 x 2,324 x 2,362	34 x 91.5 x 93	1,363	3,006
DA4000NVC	4,000	2,400	6	13.0	8.2	864 x 2,324 x 2,362	34 x 91.5 x 93	1,432	3,156
DA5000NVC	5,000	3,000	6	14.7	10.1	864 x 2,324 x 2,362	34 x 91.5 x 93	1,478	3,259
DA6000NVC	6,000	3,600	8	10.4	13.4	2,057 x 2,515 x 2,845	81 x 99 x 112	2,922	6,441
DA8000NVC	8,000	4,800	8	26.3	16.7	2,057 x 2,515 x 2,845	81 x 99 x 112	3,058	6,741
DA10000NVC	10,000	6,000	10	29.7	20.5	2,057 x 2,515 x 2,845	81 x 99 x 112	3,252	7,169
DA12000NVC	12,000	7,200	10	39.4	25.0	2,946 x 2,515 x 2,845	116 x 99 x 112	4,611	10,166
DA15000NVC	15,000	9,000	12	44.4	30.6	2,946 x 2,515 x 2,845	116 x 99 x 112	5,032	11,093
DA20000NVC	20,000	12,000	14	59.1	40.7	3,835 x 2,515 x 2,845	151 x 99 x 112	6,821	15,037
DA25000NVC	25,000	15,000	14	73.8	50.8	4,724 x 2,515 x 2,845	186 x 99 x 112	8,379	18,471
DA30000NVC	30,000	18,000	16	88.5	60.9	5,613 x 2,515 x 2,845	221 x 99 x 112	10,249	22,596
DA35000NVC	35,000	21,000	16	103.2	71.0	6,502 x 2,515 x 2,845	256 x 99 x 112	12,005	26,465
DA40000NVC	40,000	24,000	16	118.0	81.1	7,391 x 2,515 x 2,845	291 x 99 x 112	13,749	30,310

### Ingersoll Rand Non-Cycling Refrigerated Dryers 60 Hz Performance

Model	Flow Rate		Connect Size in	Air-Cooled Operating kW	Water-Cooled Operating kW	Dimensions (Width x Depth x Height)		Weight	
	m <sup>3</sup> /hr	cfm				mm	in	kg	lb
DA3000IN	3,000	1,800	6	8.0	5.8	864 x 2,324 x 2,362	34 x 91.5 x 93	1,227	2,706
DA4000IN	4,000	2,400	6	10.0	6.98	864 x 2,324 x 2,362	34 x 91.5 x 93	1,295	2,856
DA5000IN	5,000	3,000	6	13.9	9.2	864 x 2,324 x 2,362	34 x 91.5 x 93	1,342	2,959
DA6000IN	6,000	3,600	8	16.3	11.9	2,057 x 2,515 x 2,845	81 x 99 x 112	2,748	6,058
DA8000IN	8,000	4,800	8	20.3	14.2	2,057 x 2,515 x 2,845	81 x 99 x 112	2,884	6,358
DA10000IN	10,000	6,000	10	28.1	18.7	2,057 x 2,515 x 2,845	81 x 99 x 112	3,063	6,754
DA12000IN	12,000	7,200	10	30.4	21.2	2,946 x 2,515 x 2,845	116 x 99 x 112	4,400	9,701
DA15000IN	15,000	9,000	12	42.0	27.9	2,946 x 2,515 x 2,845	116 x 99 x 112	4,666	10,287
DA20000IN	20,000	12,000	14	55.9	37.1	3,835 x 2,515 x 2,845	151 x 99 x 112	6,297	13,882
DA25000IN	25,000	15,000	14	69.8	46.3	4,724 x 2,515 x 2,845	186 x 99 x 112	7,827	17,257
DA30000IN	30,000	18,000	16	83.7	55.5	5,613 x 2,515 x 2,845	221 x 99 x 112	9,671	21,322
DA35000IN	35,000	21,000	16	97.6	64.7	6,502 x 2,515 x 2,845	256 x 99 x 112	11,259	24,822
DA40000IN	40,000	24,000	16	111.5	73.9	7,391 x 2,515 x 2,845	291 x 99 x 112	12,840	28,308

### Ingersoll Rand High Pressure Cycling Refrigerated Dryers 60 Hz Performance

Model	Flow Rate		Connect Size in	Air-Cooled Operating kW	Water-Cooled Operating kW	Air-Cooled Dimensions (Width x Depth x Height)		Air-Cooled Weight	
	m <sup>3</sup> /hr	cfm				mm	in	kg	lb
DA5100NVCHP	5,100	3,000	6	10.4	6.6	915 x 2,236 x 2,363	36 x 88 x 93	1,619	3,569
DA7000NVCHP	7,000	4,000	6	13.0	8.3	916 x 2,236 x 2,363	36 x 88 x 93	1,624	3,579
DA10200NVCHP	10,200	6,000	8	20.8	13.2	2,071 x 2,532 x 2,487	82 x 100 x 98	3,357	7,399
DA14000NVCHP	14,000	8,000	8	26.0	16.6	2,071 x 2,532 x 2,487	82 x 100 x 98	3,366	7,419



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