



Next Generation Refrigerated Dryers

1300-2250 m³/hr

Our next generation of high-efficiency cycling and standard non-cycling refrigerated dryers feature an easy to service design that efficiently delivers Class-4 dry air, with a pressure dew point (PDP) of +3 °C.

Maximum Efficiency



At the heart of each refrigerated dryer is our advanced heat exchanger technology that offers greater flow capacity and improved heat transfer characteristics. This results in a highly efficient dryer with a lower pressure drop, a smaller footprint and a significant reduction in the dryer's specific power.

Intelligent Control



Removing moisture that a dryer has condensed out of the compressed air is critical and often overlooked until there is a problem with damaged products or equipment. In addition, if the condensate drain is not properly maintained by periodic flushing and cleaning, it becomes clogged and dramatically reduces dryer performance because of higher dew points.

Our next generation of refrigerated dryers feature an easy to use controller that is constantly monitoring the condensate level in the moisture separator to optimise discharge through the electronic no-loss drain valve. If the drain is not properly discharging due to

contaminates, or some other malfunction, the controller will automatically adjust the timing sequence of the drain in order to maintain optimum discharge and the dryer's performance.

Easy Serviceability



All preventative maintenance parts have been strategically located on one side of the dryer with easy to remove hinged panels for quick accessibility. Inlet and outlet connections are conveniently located in the back of the dryer for easy installation.



Built-in Reliability

To ensure durability and reliability during operation, our new family of refrigerated dryers is manufactured, tested and validated according to ISO 9001 specifications. The product has passed the highest safety requirements in accordance with EU directives. Tested in a climatic chamber to simulate the most hazardous environmental conditions possible, the product has passed all Ingersoll Rand performance requirements.

Clean, Dry Air at a Lower Operating Cost

Our new refrigerated dryer design has improved performance to give you superior air quality and throughput, with a lower cost of operation.

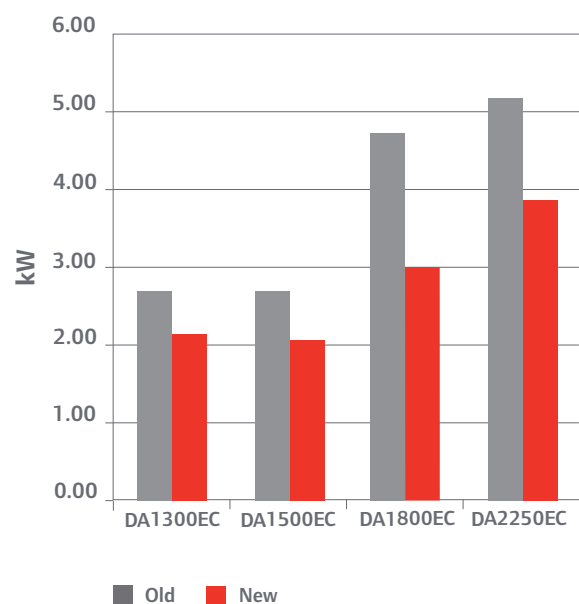
Bottom-Line Efficiency

- Delivers Class-4 dry air with a PDP of +3 °C according to ISO 8573-1:2010
- 24% average lower power consumption for a better operating efficiency
- New innovative heat exchanger design with greater flow capacity and heat transfer characteristics
- Innovative electronic no-loss drain is continuously monitored for proper operation and optimum performance
- Advanced, easy to use controller provides real-time monitoring and trouble-free operation



Less Energy Consumed

Our new efficient heat exchanger lowers pressure drop and maximizes heat transfer, while lowering energy costs by an average of 24%.



Compact Productivity

- 20% smaller footprint minimises floor space requirements
- Improved component layout enhances serviceability and simplifies access for easy maintenance
- One dryer platform covers all configurations and sizes
- Water-cooled and sea-cooled options help meet your specific application
- Designed to meet regional requirements such as power supply regulations and local certifications
- Reduced leakage points increase reliability and lower maintenance

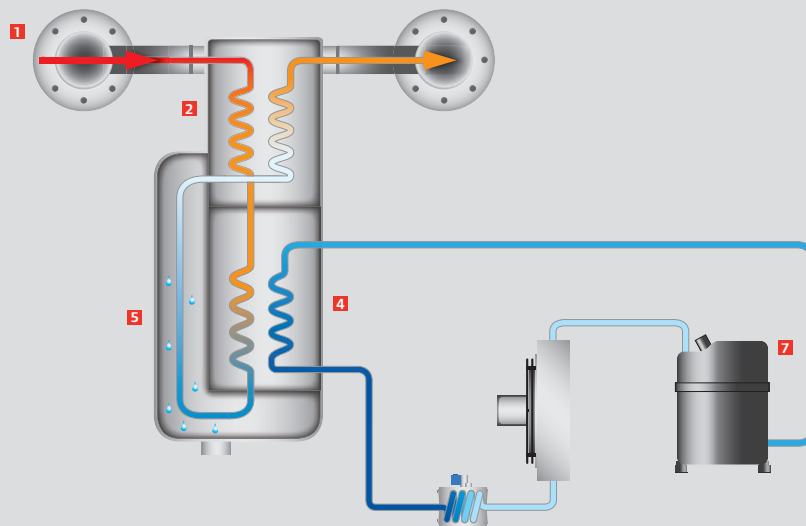
How Refrigerated Dryers Work

Ingersoll Rand refrigerated dryers use centrifugal separation to remove moisture at the coldest point in the system. As the air stream is cooled in the heat exchanger, moisture from the air stream condenses and is discharged through an electronic condensate removal drain. The result is highly efficient moisture removal and exceptionally dry, clean air.

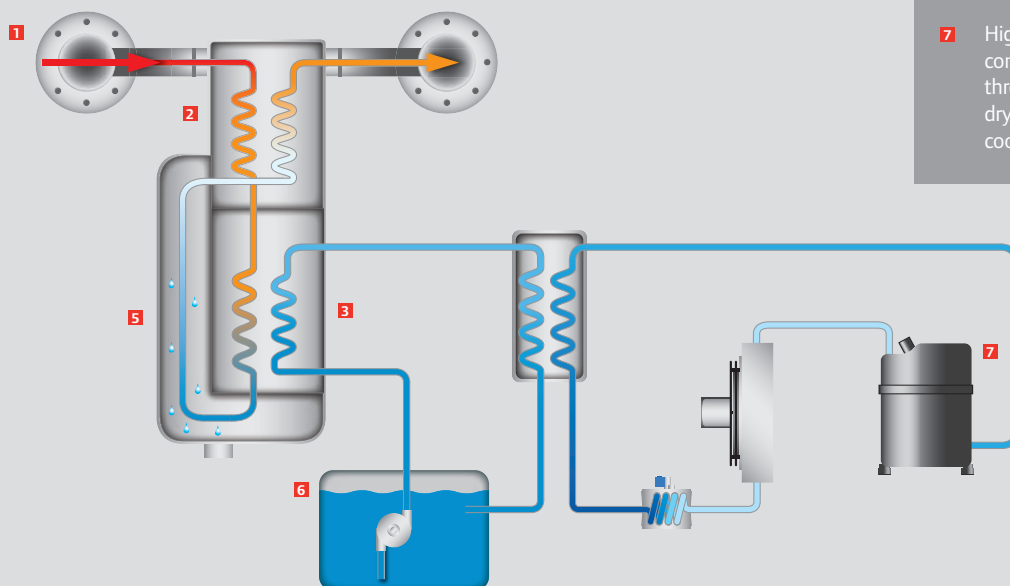
In the cycling dryer design, a thermal mass storage reservoir is added to the refrigeration circuit to store cold energy. This enables the refrigerant compressor to cycle off for energy savings during periods of reduced load.

Typically, cycling dryers have a lower operating cost, while non-cycling dryers have a lower initial cost. Let the experts at Ingersoll Rand help you select the dryer that is right for your application.

Non-Cycling Refrigerated Dryers



Cycling Refrigerated Dryers



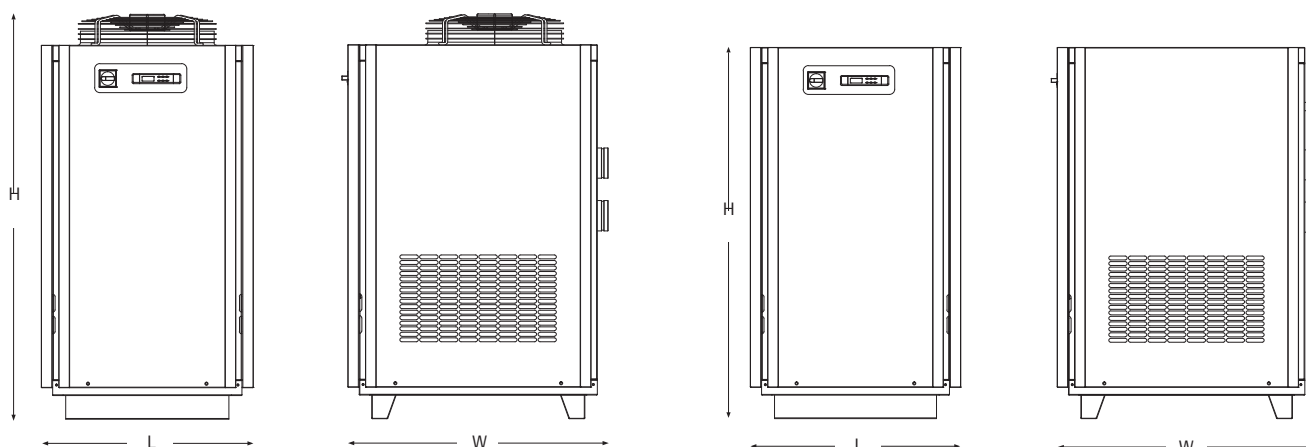
- 1** Compressed air enters the dryer through the heat exchanger
- 2** Air is cooled by cold outgoing air in the pre-cooler/re-heater
- 3** Cycling: Circulating glycol cools the compressed air allowing the refrigerant compressor to turn off during low demands
- 4** Non Cycling: Circulating refrigerant cools the compressed air
- 5** Advanced moisture separator design removes the condensed liquid, which is purged from the dryer using a smart drain
- 6** Cycling: Thermal mass cold energy storage reduces compressor run time saving energy
- 7** High-efficiency scroll compressor pumps refrigerant through system (in cycling dryers, only when needed to cool glycol)

Ingersoll Rand – 50 Hz Performance

Model	Capacity (FAD)* +3 °C PDP m ³ /hr	Max. Operating Pressure bar g	In/Out Air Connections	Nominal Power kW	Dimensions (Length x Width x Height) mm	Weight kg
Non-Cycling						
DA1300IN	1300	14	3" BSP	2.78	806 x 1,012 x 1,539	234
DA1500IN	1500	14	3" BSP	2.78	806 x 1,012 x 1,539	234
DA1800IN	1800	14	3" BSP	2.78	806 x 1,012 x 1,539	234
DA2250IN	2250	14	3" BSP	3.54	806 x 1,012 x 1,539	260
Cycling						
DA1300EC	1300	14	3" BSP	2.14	806 x 1,012 x 1,539	394
DA1500EC	1500	14	3" BSP	2.45	806 x 1,012 x 1,539	394
DA1800EC	1800	14	3" BSP	2.92	806 x 1,012 x 1,539	394
DA2250EC	2250	14	3" BSP	3.68	806 x 1,012 x 1,539	399

* Data refers to the following conditions: air FAD 20°C/1 bar g, pressure 7 bar g, ambient temperature 25°C, air inlet temperature 35°C, condensing mean temperature 40°C, stated pressure dew points in accordance with ISO 8573-1:2001 standards

* FAD (Free Air Delivery) is full package performance including all losses, tested per ISO 1217:2009 Annex C



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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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