

D-EC High-Efficiency Cycling Dryers

17-212 m³/hr (10-125 scfm)

Achieve maximum energy savings, while ensuring a continuous supply of dry high-quality compressed air.



D-EC

Higher Efficiency, Lower Cost

The Ingersoll Rand D-EC cycling refrigerated dryer design helps you achieve optimal performance at a lower cost compared to a non-cycling design. To reduce energy consumption, the dryer refrigeration system automatically deactivates during periods of low load and features a patented heat exchanger and thermal mass circuit.

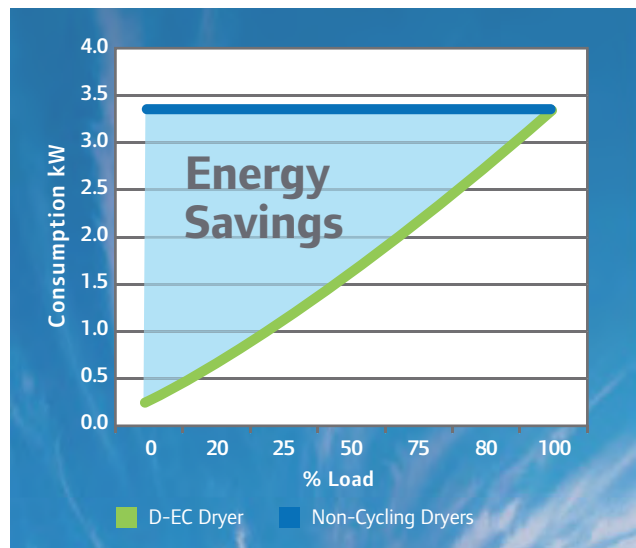
Reliability through Experience

Building upon extensive dryer experience, Ingersoll Rand incorporates advanced features into the D-EC dryer, such as microprocessor control, a highly efficient refrigeration system, a heavy duty drain and robust construction that enhance performance and provide maximum reliability.

Advanced Environmental Sustainability

Reducing energy use not only saves money, but decreases harmful greenhouse gases that hurt the environment. By shutting off the refrigeration system during periods of low loads, D-EC dryers minimize energy waste. And, they use R-134a refrigerant that has a zero Ozone Depletion Potential (ODP) to minimize overall environmental impact.

Energy Savings by Technology



Operating Efficiency is the Bottom Line

Ingersoll Rand D-EC dryers include innovative features to enhance the efficiency of your compressed air system and the quality of the air produced.

- Patented, energy saving heat exchanger
- Low pressure drop
- All energy savings readings on control panel
- Thermal mass cold energy storage reduces dryer compressor run time
- R134a refrigerant lowers energy consumption



Advanced microprocessor controller provides intuitive control over dryer functions and operation status

Simply Reliable

With over fifty years of dryer experience, Ingersoll Rand has developed a comprehensive performance testing program and simplified dryer design that enhance product reliability and ease-of-use.

- Compact size
- Advanced circuit design eliminates the need for thermal expansion valves and fan control switches

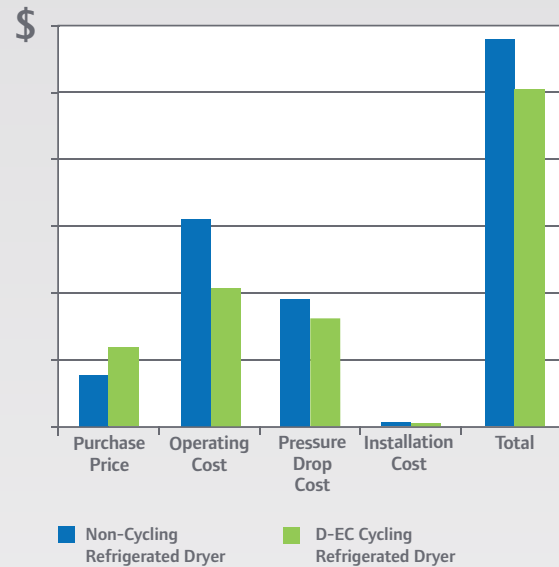


Every D-EC dryer is manufactured with premium components under stringent quality control resulting in years of dependable operation.

Low Operating Cost

In a typical compressed air dryer, the refrigerant compressor runs continuously, regardless of demand. The D-EC dryer deactivates the refrigeration system when demand is low. This combined with a low pressure drop helps the D-EC dryer provide lower operating costs.

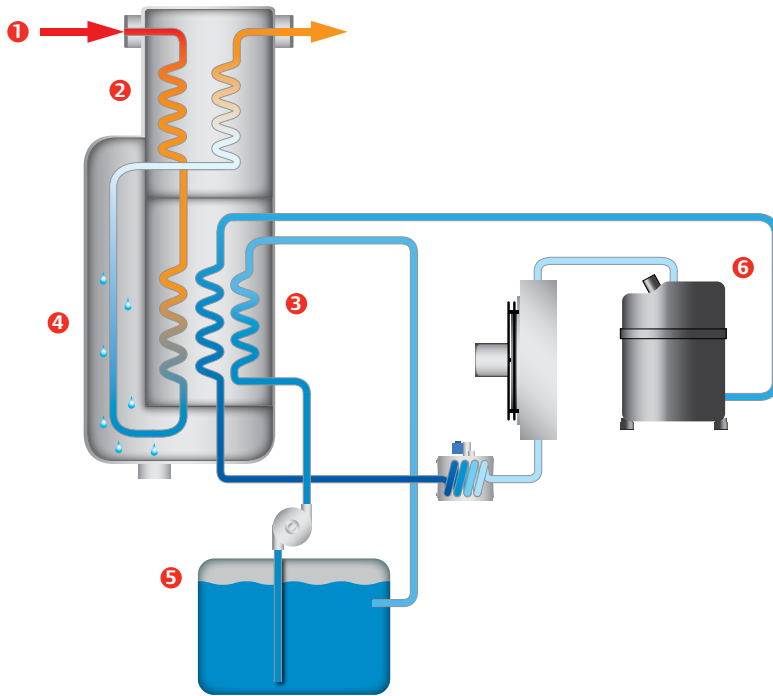
Average 5-Year Lifecycle Cost Comparison



- Patented heat exchanger design provides high heat transfer efficiency, reducing compressor run time and energy costs.
- Low pressure drop.
- Minimized shipping and installation costs.
- A true plug and play installation with single point connections.
- Perfect match for the Ingersoll Rand high-efficiency Nirvana compressor and for critical applications where the demand for compressed air fluctuates on a regular basis.

How the D-EC Dryer Works

Most facilities operate with varying degrees of compressed air usage. The Ingersoll Rand D-EC dryer meets actual air treatment demand by minimizing operating time through the use of thermal mass, cold energy storage.



- 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 Circulating glycol cools the compressed air allowing the refrigerant compressor to turn off during low demands
- 4 Condensed liquid is removed, which is purged using the dryer's drain valve
- 5 Thermal mass, cold energy storage reduces compressor run time saving energy
- 6 Refrigerant compressor runs only as needed

Ingersoll Rand...At Your Service

No matter where your facility is located, Ingersoll Rand is committed to serving you 24 hours a day, seven days a week, available to support you with innovative and cost-effective service solutions that will keep you running at peak performance.

Let Ingersoll Rand handle the pressures and responsibilities of owning a compressed air system with our signature service contract.

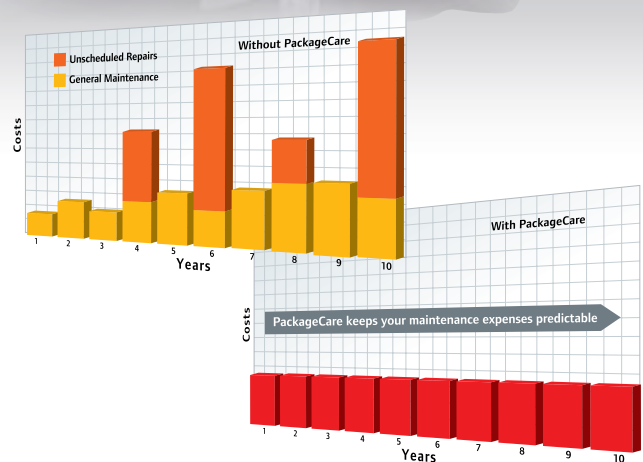
With PackageCare, you can...

- Control costs and keep your equipment running at peak efficiency
- Protect yourself from all repair and replacement expenses over the life of the agreement
- Maintain or improve the operational efficiency of any compressor, regardless of age, make or model



PackageCare™

Eliminate the Inconvenience



Specifications

Model	Flow Rate		In/Out Air Connect Size	Operating kW*	Dimensions (Width x Depth x Height)		Weight	
	m ³ /hr	scfm			mm	in	kg	lb
D17EC	17	10	1/2" FPT	.35	500 x 386 x 662	19.69 x 15.19 x 26.05	38.6	85
D31EC	31	18	1/2" FPT	.43	500 x 386 x 662	19.69 x 15.19 x 26.05	38.6	85
D41EC	41	24	1/2" FPT	.45	500 x 386 x 662	19.69 x 15.19 x 26.05	40.8	90
D59EC	59	35	1/2" FPT	.53	500 x 386 x 662	19.69 x 15.19 x 26.05	43.1	95
D85EC	85	50	3/4" FPT	.68	500 x 386 x 662	19.69 x 15.19 x 26.05	47.6	105
D127EC	127	75	1" FPT	.94	570 x 422 x 772	22.44 x 16.63 x 30.38	68.0	150
D170EC	170	100	1" FPT	.98	570 x 422 x 772	22.44 x 16.63 x 30.38	70.3	155
D212EC	212	125	1" FPT	1.10	570 x 422 x 772	22.44 x 16.63 x 30.38	72.6	160

Performance based on ISO 7183, Table 2, Option A2 (100 psig inlet air pressure, 100°F inlet air temperature, 100°F ambient air temperature)

Voltage for all models is 115/1/60

*Average kilowatts per hour of dryer operation at full rated capacity.

All models feature a 1/4" OD flexible drain line, have a 200 psig maximum working pressure and use R134a refrigerant.

Features Include

Multi-Layer Heat Exchanger

Digital Controller

Fully Hermetic Refrigeration Compressor

R134a Refrigerant

Efficient Refrigeration Condenser

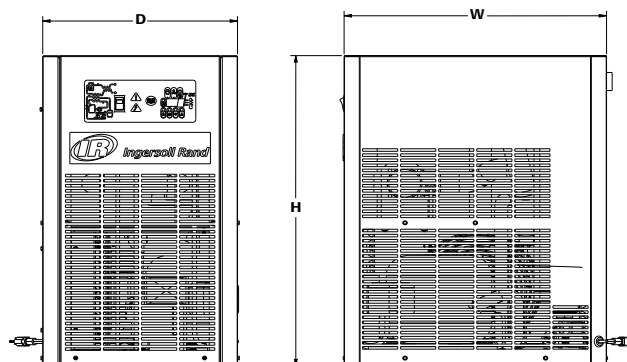
Glycol Circulation Pump

Timed Solenoid Drain

Drain Isolation Valve

Compact Size

Optional No-Loss Drain (D127EC - D212EC only)



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