

Dec High-Efficiency Cycling Dryers

42-5,400 m³/hr

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



Higher Efficiency, Lower Cost

The high-efficiency design and construction of Ingersoll Rand Dec cycling dryers help you achieve better performance, while reducing energy consumption. The patented, high-efficiency heat exchanger combined with a thermal mass circuit helps save energy at any load. The highly efficient refrigerant compressor is automatically deactivated to save energy when not needed.

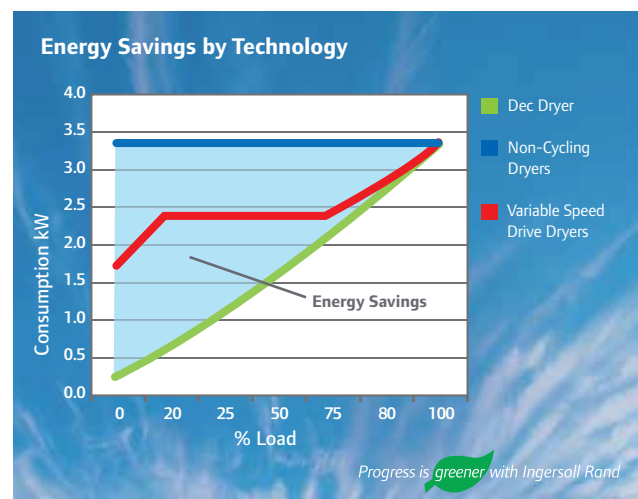
Reliability and Simplicity through Experience

Utilising extensive dryer design experience, the Ingersoll Rand Dec dryer includes features like microprocessor control and a heavy-duty electronic no-loss (ENL) drain that

increase reliability. Features such as dryer self-regulation and plug-and-play installation make start-up convenient, while readily-available parts make ongoing maintenance simple and easy.

Advanced Environmental Sustainability

By shutting off the compressor during low loads, Dec dryers dramatically reduce energy waste. Dec dryers use R134a and R407c refrigerants that are environmentally-friendly with the lowest Global Warming Potential to help reduce greenhouse gas emissions. High-quality components provide longer lasting dryers that require fewer replacement parts, minimising environmental impact.



Efficiency Is the Bottom Line

The Dec dryer's efficient design and construction are evident in terms of superior air quality and throughput with a lower cost of operation.

- Patented, energy saving heat exchanger
- Lowest pressure drop in the industry
- All energy savings readings on control panel
 - Thermal mass cold energy storage reduces dryer compressor run time
 - High quality air with an ISO Class 4 dew point
 - Electronic, no-loss drain eliminates compressed air loss
 - R134a and R407c refrigerants lower energy consumption



Dec dryer energy savings percentage display

Simply Reliable

Twenty years of industry experience, comprehensive performance testing and a simplified design enhance product reliability as well as ease-of-use.

- Compact size
- Advanced circuit design eliminates the need for thermal expansion valves and fan control switches
- Factory-installed glycol
- 5-year warranty with UltraCare Service

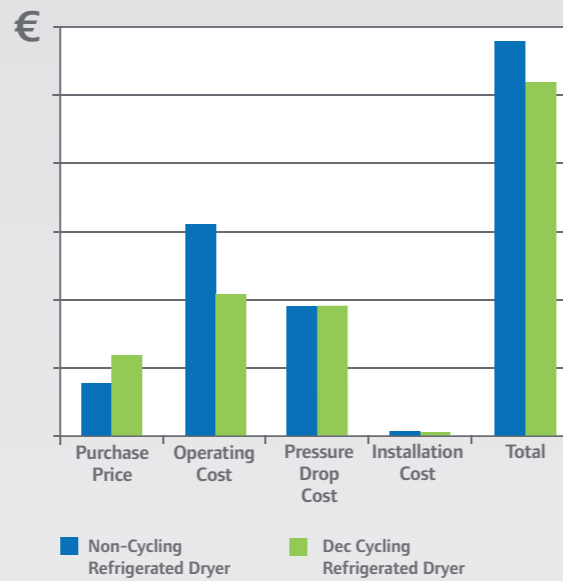


Every Dec dryer is manufactured with premium components under stringent quality control resulting in years of dependable operation.

Low Operating Cost

The Dec dryer is designed to deliver the lowest cost solution by focusing on all the cost contributors. In a typical compressed air dryer, the refrigerant compressor runs continuously regardless of demand.

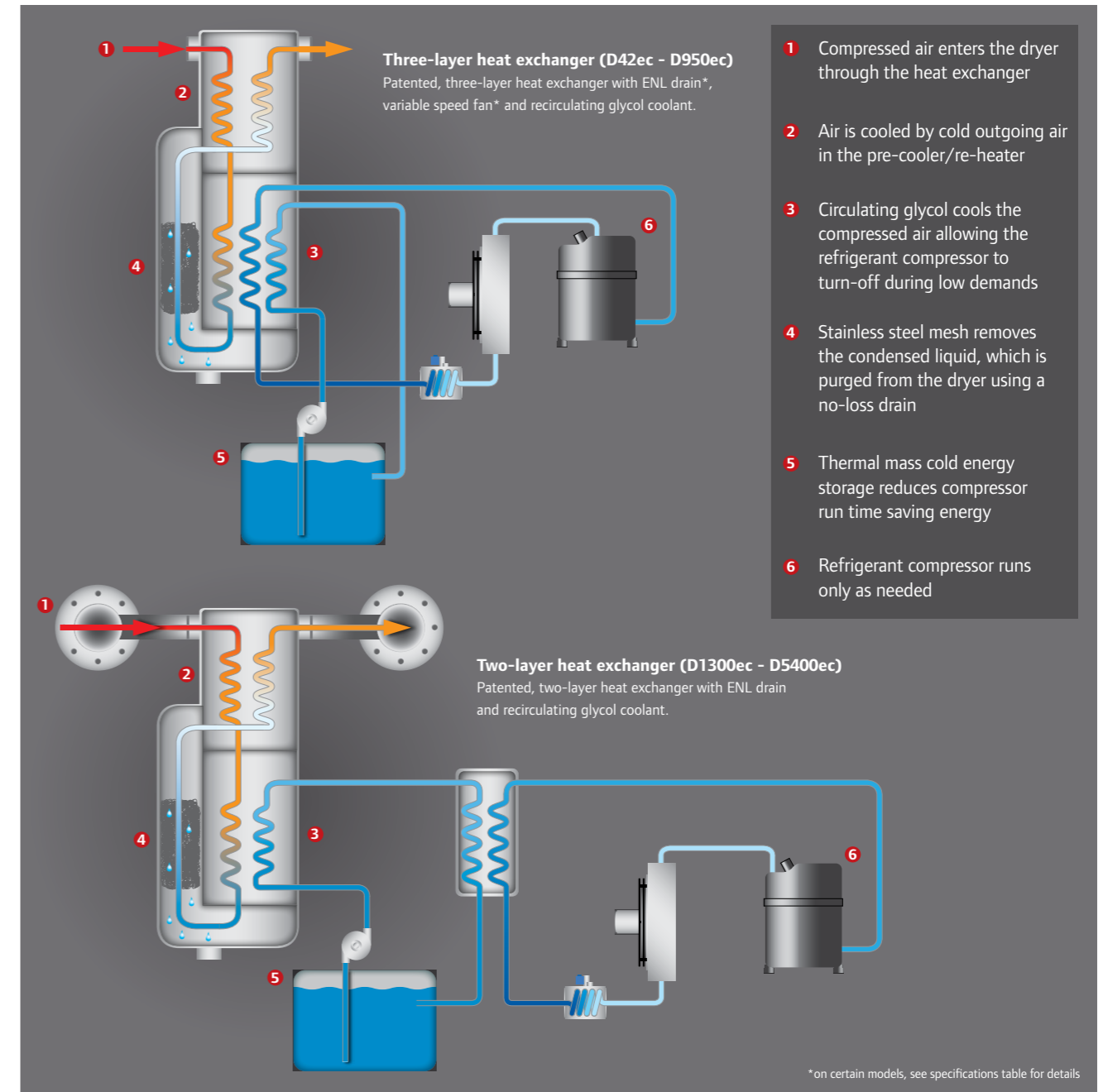
Average 5-Year Life-Cycle Cost Comparison



- Patented heat exchanger design achieves highest heat transfer efficiency in the industry, reducing compressor run time thus lower energy costs.
- Lowest pressure drop in the industry, averaging less than 0.2 bar g.
- 20% smaller footprint than competitive dryers.
- Minimised shipping and installation costs.
- A true plug-and-play installation with single point connections.
- Perfect match for the Ingersoll Rand high-efficiency Nirvana™ compressor, critical industries like hospitals and pharmaceutical facilities and any applications where the demand for compressed air changes on a regular basis.

How the Dec Dryer Works

Most facilities operate with varying degrees of compressed air usage. The Ingersoll Rand Dec dryer matches that by minimising operating time through the use of thermal mass, cold energy storage.



To keep your systems running at maximum efficiency 24 hours a day, 7 days a week, Ingersoll Rand designed UltraCare, a five-year all-in-one maintenance program for rotary compressors and air dryers.

- 5-year warranty
- One price covers all, there are no hidden extras
- Energy savings through efficient operation
- Minimised risk of breakdown
- Fixed costs over five years
- Extendable contract

Model	Class 5 < 7°C Dew Point* m³/min m³/h		Class 4 < 3°C Dew Point* m³/min m³/h		Pressure Drop* bar g	Absorbed Power kW (50 Hz)* at Different Loads				Max. Working Pressure bar g	Air Connections BSP in	Dimensions (Width x Length x Height) mm	Weight kg
	100%	75%	50%	25%									
D42ec	0.7	42	0.6	33.6	0.08	0.24	0.19	0.12	0.04	14	1/2"	386 x 500 x 651	38
D54ec	0.9	54	0.7	43.2	0.09	0.24	0.19	0.12	0.04	14	1/2"	386 x 500 x 651	39
D72ec	1.2	72	1.0	57.6	0.16	0.32	0.26	0.15	0.06	14	1/2"	386 x 500 x 651	43
D108ec	1.8	108	1.4	86.4	0.09	0.45	0.36	0.22	0.08	14	3/4"	386 x 500 x 651	48
D144ec	2.4	144	1.9	115.2	0.18	0.51	0.41	0.25	0.09	14	3/4"	386 x 500 x 651	51
D180ec	3.0	180	2.4	144.0	0.12	0.65	0.53	0.31	0.11	14	1"	420 x 567 x 771	67
D240ec	4.0	240	3.2	192.0	0.21	0.64	0.52	0.31	0.11	14	1"	420 x 567 x 771	71
D300ec	5.0	300	4.0	240.0	0.16	0.94	0.76	0.45	0.16	14	1 1/2"	500 x 730 x 980	105
D360ec	6.0	360	4.8	288.0	0.22	0.94	0.76	0.45	0.16	14	1 1/2"	500 x 730 x 980	108
D480ec	8.0	480	6.4	384.0	0.18	1.28	1.04	0.62	0.22	14	1 1/2"	500 x 730 x 980	120
D600ec	12.0	720	10.0	600.0	0.17	1.30	1.05	0.62	0.23	13	2"	750 x 780 x 1340	170
D780ec	15.6	936	13.0	780.0	0.18	2.20	1.78	1.06	0.38	13	2"	750 x 780 x 1340	220
D950ec	19.0	1,140	15.8	950.0	0.24	2.20	1.78	1.06	0.38	13	2"	750 x 780 x 1340	230
D1300ec	26.0	1,560	21.7	1,300.0	0.14	2.98	2.31	1.71	0.94	13	3"	784 x 1388 x 1585	390
D1410ec	28.2	1,692	23.5	1,410.0	0.16	2.98	2.31	1.71	0.94	13	3"	784 x 1388 x 1585	400
D1890ec	37.8	2,268	31.5	1,890.0	0.27	4.41	3.42	2.54	1.40	13	3"	784 x 1388 x 1585	430
D2520ec	50.4	3,024	42.0	2,520.0	0.23	7.73	6.00	4.44	2.45	13	DN100	914 x 1388 x 1585	500
D3000ec	60.0	3,600	50.0	3,000.0	0.18	8.04	6.24	4.62	2.55	13	DN125	1500 x 1510 x 1570	740
D4200ec	84.0	5,040	70.0	4,200.0	0.29	8.04	6.24	4.62	2.55	13	DN125	1500 x 1510 x 1570	770
D4800ec	96.0	5,760	80.0	4,800.0	0.2	10.27	7.97	5.90	3.26	13	DN150	1500 x 1510 x 1570	1010
D5400ec	108.0	6,480	90.0	5,400.0	0.26	10.27	7.97	5.90	3.26	13	DN150	1500 x 1510 x 1570	1040

*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

Maximum inlet temperature: 60°C **Minimum ambient temperature:** 2°C **Maximum ambient temperature:** D42ec to D950ec: 50°C **D1300ec to D5400ec:** 45°C

Standard power supply (V/Ph/Hz): D42ec to D480ec: 230/1/50 D600ec and above: 400/3/50

Type of compressor: D42ec to D180ec: Reciprocating D240ec to D480ec: Rotary D780ec and above: Scroll

Refrigerant type: D42ec to D180ec: R134a D240ec and above: R407c

Features	D42ec - D240ec	D300ec - D480ec	D600ec - D950ec	D1300ec - D2700ec	D3600ec - D5400ec
Dew Point Indication	●	●	●	●	●
On/Off Switch	only on D240ec	●	●	●	●
Terminal for Remote Alarm Signal	only on D240ec	●	●	●	●
High Pressure Switch			D780ec & D950ec	●	●
Variable Speed Fan	●	●	only on D600ec		
Fan Pressure Switch			D780ec & D950ec	●	●
Alarm History	Last 10	Last 10	Last 10	Last 50	Last 50
Heat Exchange Layers	1 x 3	1 x 3	1 x 3	2 x 2	2 x 2
Anti-freezing Protection	●	●	●	●	●
Drain Type	Solenoid Timed	Solenoid Timed	Electronic No-loss	Electronic No-loss	Electronic No-loss
Glycol Circulator	●	●	●	●	●
Aluminium Heat Exchanger with Anti-corrosion Manifold	●	●	●	●	●
% Energy Saving Display	●	●	●	●	●
Number of Probes*	2	2	2	4	4
Quick Restart Function				●	●

● Standard Feature "blank" not applicable

*2 probes = glycol control and frigorific circuit, 4 probes = glycol control, refrigerant suction, compressor oil, air inlet + 1 thermal switch-contact on refrigerant discharge line



Ingersoll Rand Industrial Technologies provides products, services and solutions that enhance our customers' energy efficiency, productivity and operations. Our diverse and innovative products range from complete compressed air systems, tools and pumps to material and fluid handling systems. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

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