



Dec High-Efficiency Cycling Dryers

42-5,400 m³/hr



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



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 low global warming potential to help reduce greenhouse gas emissions. High-quality components provide longer lasting dryers that require fewer replacement parts, minimising environmental impact.

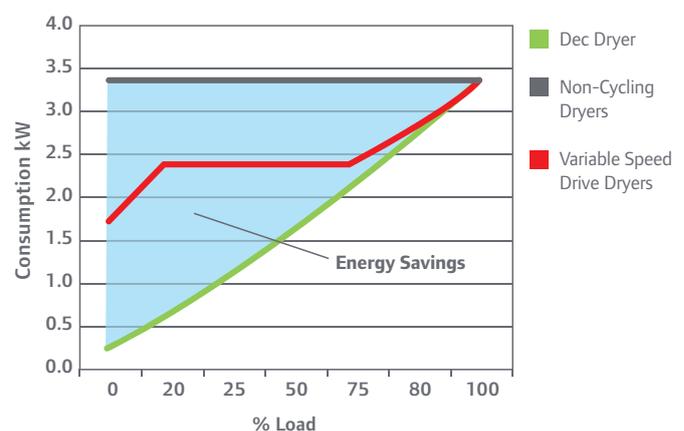
Higher Efficiency, Lower Cost

The high-efficiency design and construction of Ingersoll Rand Dec cycling dryers helps 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

Energy Savings by Technology



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 (3°C) pressure dew point
- Electronic, no-loss drain eliminates compressed air loss
- R134a and R407c refrigerants with low Global Warming Potential



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 CARE Maintenance Programs

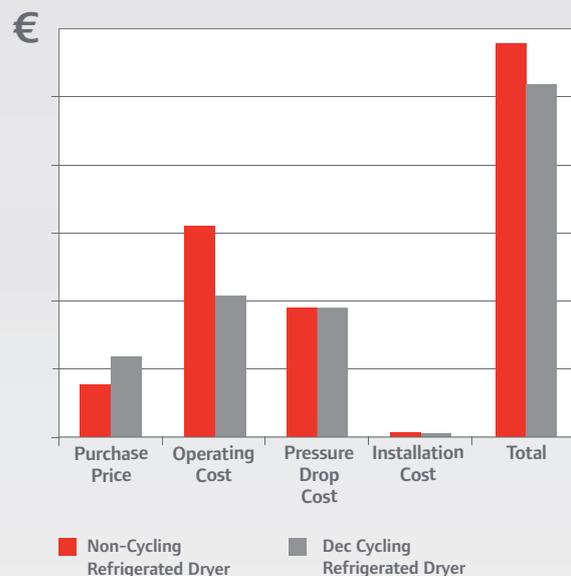


Every Dec dryer is manufactured with premium components under stringent quality control resulting in years of dependable operation.

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.

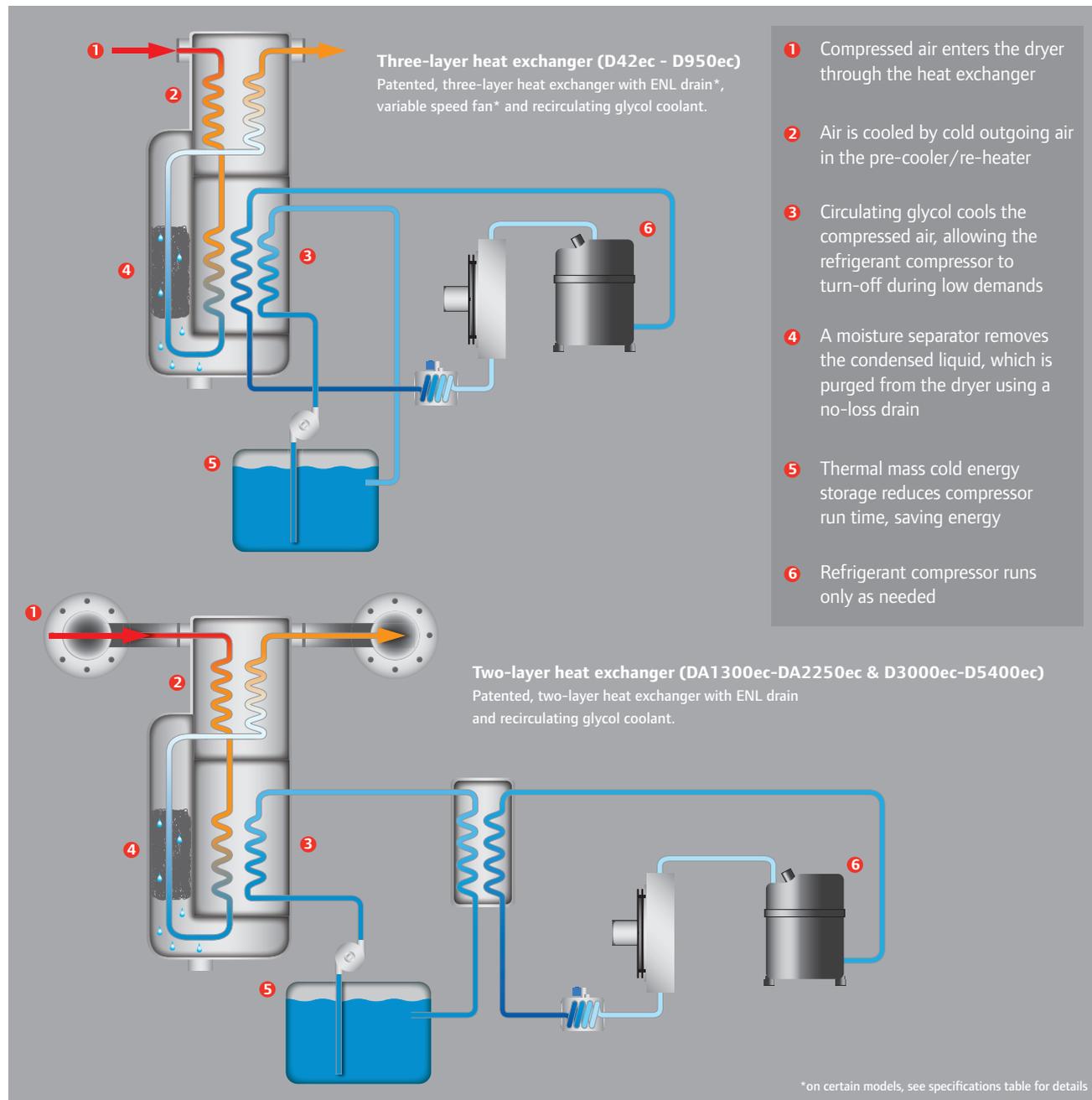
Average 5-Year Life-Cycle Cost Comparison



- 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.
- Compact footprint
- 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. Used in critical industries like hospitals and pharmaceutical facilities and in 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.



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.

Technical Specifications

Model	Class 5 < 7 °C Dew Point*		Class 4 < 3 °C Dew Point*		Standard Power Supply V/Ph/Hz	Max. Absorbed Power kW (50 Hz)* at Different Loads				Air Working Pressure bar g	Connections BSP in	Dimensions (Width x Length x Height) mm	Weight kg
	m ³ /min	m ³ /h	m ³ /min	m ³ /h		100%	75%	50%	25%				
D42ec	0.7	42	0.6	33.6	230/1/50	0.20	0.16	0.12	0.08	14	1/2"	386 x 500 x 651	37
D54ec	0.9	54	0.7	43.2	230/1/50	0.24	0.19	0.14	0.09	14	1/2"	386 x 500 x 651	37
D72ec	1.2	72	1.0	57.6	230/1/50	0.32	0.25	0.18	0.11	14	1/2"	386 x 500 x 651	41
D108ec	1.8	108	1.4	86.4	230/1/50	0.45	0.34	0.24	0.14	14	3/4"	386 x 500 x 651	46
D144ec	2.4	144	1.9	115.2	230/1/50	0.51	0.39	0.27	0.16	14	3/4"	386 x 500 x 651	49
D180ec	3.0	180	2.4	144.0	230/1/50	0.54	0.42	0.29	0.17	14	1"	420 x 567 x 771	67
D240ec	4.0	240	3.2	192.0	230/1/50	0.64	0.49	0.34	0.19	14	1"	420 x 567 x 771	69
D300ec	5.0	300	4.0	240.0	230/1/50	0.79	0.60	0.42	0.23	14	1 1/2"	500 x 730 x 980	104
D360ec	6.0	360	4.8	288.0	230/1/50	0.94	0.72	0.49	0.27	14	1 1/2"	500 x 730 x 980	107
D480ec	8.0	480	6.4	384.0	230/1/50	1.03	0.78	0.54	0.29	14	1 1/2"	500 x 730 x 980	119
D600ec	12.0	720	10.0	600.0	230/1/50	1.28	0.97	0.66	0.35	14	2"	750 x 780 x 1,340	186
D780ec	15.6	936	13.0	780.0	400/3/50	1.80	1.36	0.92	0.48	13	2"	750 x 780 x 1,340	227
D950ec	19.0	1,140	15.8	950.0	400/3/50	2.18	1.65	1.11	0.58	13	2"	750 x 780 x 1,340	237
DA1300ec	21.7	1,300	26.0	1,560.0	400/3/50	2.14	1.64	1.14	0.64	14	3"	806 x 1,012 x 1,539	394
DA1500ec	25.0	1,500	30.0	1,800.0	400/3/50	2.45	1.87	1.29	0.71	14	3"	806 x 1,012 x 1,539	394
DA1800ec	30.0	1,800	36.0	2,160.0	400/3/50	2.92	2.22	1.53	0.83	14	3"	806 x 1,012 x 1,539	394
DA2250ec	37.5	2,250	45.0	2,700.0	400/3/50	3.68	2.79	1.91	1.02	14	3"	806 x 1,012 x 1,539	399
D3000ec	60.0	3,600	50.0	3,000.0	400/3/50	6.66	5.09	3.52	1.94	13	DN125	914 x 1,388 x 1,585	870
D4200ec	84.0	5,040	70.0	4,200.0	400/3/50	7.66	5.84	4.02	2.19	13	DN125	1,500 x 1,510 x 1,570	905
D4800ec	96.0	5,760	80.0	4,800.0	400/3/50	8.83	6.72	4.60	2.49	13	DN150	1,500 x 1,510 x 1,570	1000
D5400ec	108.0	6,480	90.0	5,400.0	400/3/50	9.89	7.51	5.13	2.75	13	DN150	1,500 x 1,510 x 1,570	1020

*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

Features	D42ec - D240ec	D300ec - D480ec	D600ec - D950ec	DA1300ec-DA2250ec	D3000ec - D5400ec
Dew Point Indication	✓	✓	✓	✓	✓
On/Off Switch	only on D240EC	✓	✓	✓	✓
Terminal for Remote Alarm Signal	✓	✓	✓	✓	✓
High Pressure Switch				✓	✓
Variable Speed Fan	✓	✓	only on D600EC		
Fan Pressure Switch				✓	✓
Alarm History	Last 10	Last 10	Last 10	Last 50	Last 50
Heat Exchange Layers	3	3	3	2	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



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