Ingersoll Rand

High Pressure Dryers

Innovation

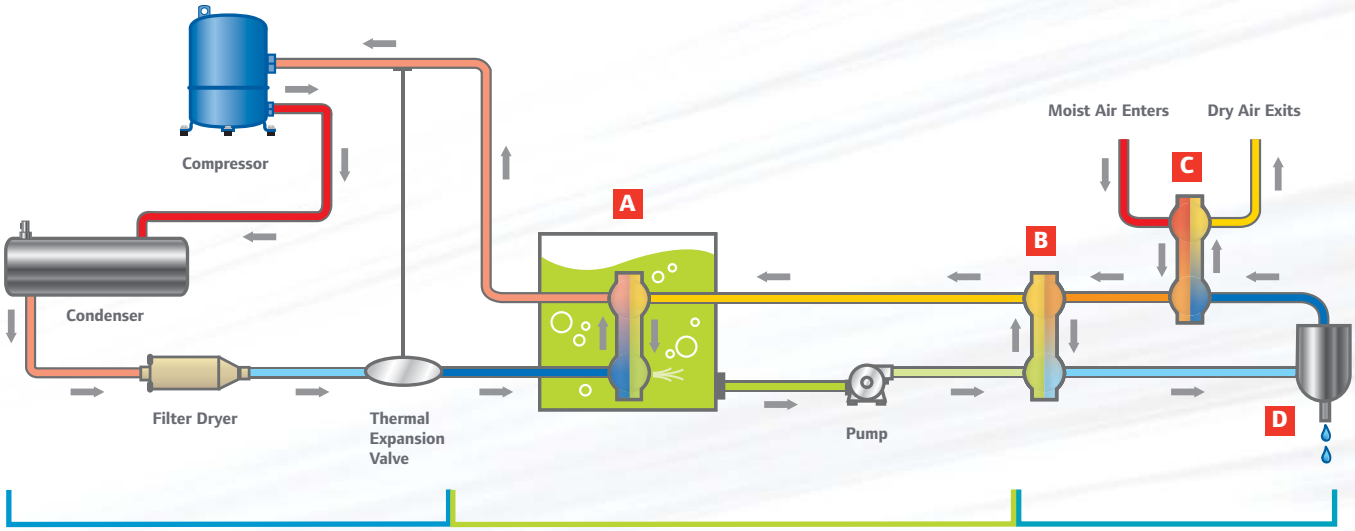
Reliability

Efficiency

Ingersoll Rand
Industrial Technologies

Reliability Is Our Design

Ingersoll Rand high pressure cycling refrigerated dryers provide reliability like no other dryer in their class — ideal for high pressure applications with demanding environments, such as the PET industry.



Refrigeration System employs a reliable, time-proven hermetic reciprocating compressor. Uses environmentally-friendly R404A refrigerant.

Thermal Mass Cooling System circulates the thermal mass fluid to provide a continuous cold medium for heat transfer.

Compressed Air Side System pre-cools the inlet air, chills the air to 38°F (3°C), removes moisture through the centrifugal separator and is re-heated for process use.

A **Submerged Evaporator Thermal Mass Storage Tank** maintains continuous pressure dew point control and permits the compressor to cycle off during low heat loads.

B **Air Chiller** uses reliable stainless steel corrugated heat exchangers to provide efficient heat transfer.

C **Stainless Steel Pre-cooler/Re-heater** assures that exiting compressed air is conditioned while energy costs are decreased by reducing the initial heat load.

D **Centrifugal Air/Moisture Separator** efficiently removes moisture for all applications, even under partial load conditions.

No Loss Drain effectively discharges the condensate without wasting valuable compressed air.

Built-in Energy Efficiency

Our cycling dryers provide significant savings over traditional non-cycling designs that use energy continuously, even at no load. The dryer's easy-to-use controller automatically manages dryer operation for optimum air treatment and efficiency.

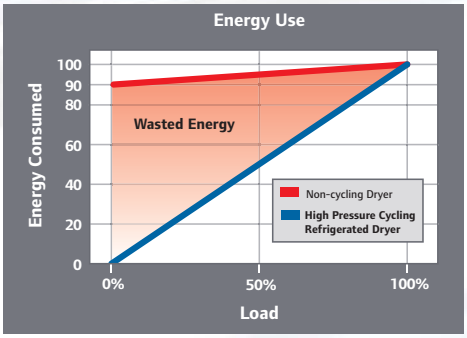
Superior Heat Transfer at Work

Central to the dryer's reliability and energy efficiency is its distinct, stainless steel heat exchanger design, which also prevents corrosion. Providing effective heat transfer with low pressure drop because of its uniquely short flow length, the heat exchanger presents a flow area three to five times that of an equivalent copper tubing exchanger. The heat exchanger is also self-cleaning, which greatly reduces the potential for fouling.

Powerful Microprocessor-based Controller

The Digital Performance Controller (DPC) manages and monitors all important dryer parameters to ensure efficient and trouble-free operation. Modbus capability allows for remote customer connection.

Progress is greener with Ingersoll Rand



High pressure cycling refrigerated dryers are highly efficient, providing dry, clean air under any operating conditions.

The heat exchanger features a unique corrugated stainless steel panel to help ensure reliability.

The DPC features a user-friendly push-button interface putting you in complete control.

60 Hz Performance

Model	Capacity@ 580 psig[1] scfm (m^3/min)	Capacity@ 450 psig[2] scfm (m^3/min)	Pressure Drop[3] psig (bar g)	Refrigeration Compressor hp	Operating Power[4] kW	Dimensions W in (mm)	Dimensions D in (mm)	Dimensions H in (mm)	Shipping Weight lb (kg)	Connection Air In/Out
D890NC-HP	525 (15)	510 (14)	2.3 (0.16)	1.5	1.4	28 (711)	32.5 (826)	58 (1,473)	615 (279)	1.5" MPT
D1090NC-HP	640 (18)	625 (18)	1.8 (0.12)	2.0	1.7	28 (711)	32.5 (826)	58 (1,473)	735 (333)	2" MPT
D1340NC-HP	790 (22)	770 (22)	2.3 (0.16)	2.5	2.2	28 (711)	32.5 (826)	58 (1,473)	750 (340)	2" MPT
D2040NC-HP	1,200 (34)	1,175 (33)	2.9 (0.20)	3.5	2.8	41 (1,041)	40.0 (1,016)	62 (1,575)	1,100 (499)	3" MPT
D2770NC-HP	1,630 (46)	1,600 (45)	2.4 (0.17)	5.0	4.2	41 (1,041)	40.0 (1,016)	62 (1,575)	1,415 (642)	3" MPT
D4290NC-HP	2,525 (71)	2,470 (70)	1.6 (0.11)	9.0	7.3	33 (838)	76.0 (1,930)	69 (1,753)	2,765 (1,254)	4" FLANGE
D5635NC-HP	3,315 (94)	3,230 (91)	1.5 (0.10)	10.5	9.1	33 (838)	91.0 (2,311)	75 (1,905)	3,925 (1,780)	6" FLANGE
D7055NC-HP	4,150 (118)	4,000 (113)	1.9 (0.13)	10.5	9.6	33 (838)	91.0 (2,311)	75 (1,905)	4,165 (1,889)	6" FLANGE
D8585NC-HP	5,050 (143)	4,940 (140)	1.6 (0.11)	9.0[5]	14.6	76 (1,930)	96.0 (2,438)	100 (2,540)	5,425 (2,461)	8" FLANGE
D11280NC-HP	6,635 (188)	6,460 (183)	1.5 (0.10)	10.5[5]	18.1	76 (1,930)	96.0 (2,438)	100 (2,540)	7,125 (3,232)	8" FLANGE

(1) Capacity for 38°F (3°C) outlet pressure dew point basis inlet conditions of 580 psig (40 bar g), 100°F (38°C) and 85°F (29°C) water
(2) Capacity for 38°F (3°C) outlet pressure dew point basis inlet conditions of 450 psig (31 bar g), 100°F (38°C) and 85°F (29°C) water
(3) Pressure drop is at 580 psig (40 bar g) inlet and has tolerance of +/- 0.5 psig (0.03 bar g)
(4) Based on nominal operating conditions
(5) Two compressor configuration

Ingersoll Rand
Industrial Technologies

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 and environmentally friendly microturbines. We also enhance productivity through solutions created by Club Car®, the global leader in golf and utility vehicles for businesses and individuals.

www.air.ingersollrand.com

Distributed by:

Member of Pneurop

Member of CAGI
www.cagi.org

Know Pressure Compressed Air Challenge

Ingersoll Rand compressors are not designed, intended or approved for breathing air applications. Ingersoll Rand does not approve specialized equipment for breathing air applications and assumes no responsibility or liability for compressors used for breathing air service.

Nothing contained on these pages is intended to extend any warranty or representation, expressed or implied, regarding the product described herein. Any such warranties or other terms and conditions of sale of products shall be in accordance with Ingersoll Rand's standard terms and conditions of sale for such products, which are available upon request.

Product improvement is a continuing goal at Ingersoll Rand. Designs and specifications are subject to change without notice or obligation.