

Ingersoll Rand

Non-cycling Refrigerated Dryers



Innovation

Reliability

Efficiency

Non-cycling Refrigerated Dryers...Delivering

Ingersoll Rand

Ingersoll Rand's refrigerated dryers deliver the reliability and quality behind our renowned **100+ year reputation.**



The Reliability Imperative

At Ingersoll Rand, equipment reliability is paramount to our design and manufacturing. Not only does our line of refrigerated dryers reflect our stringent quality standards, but with minimal downtime and almost non-existent maintenance, these dryers deliver highly affordable reliability that our customers can count on year after year.

High quality design and component selection are the key to our dryers' unmatched reliability. A refrigeration system and heat exchanger combine to cool compressed air as it passes through the dryer. Cooling causes moisture and contamination to condense so they can be removed from the air stream via a high efficiency separator, and then automatically discharged through a disposal drain.

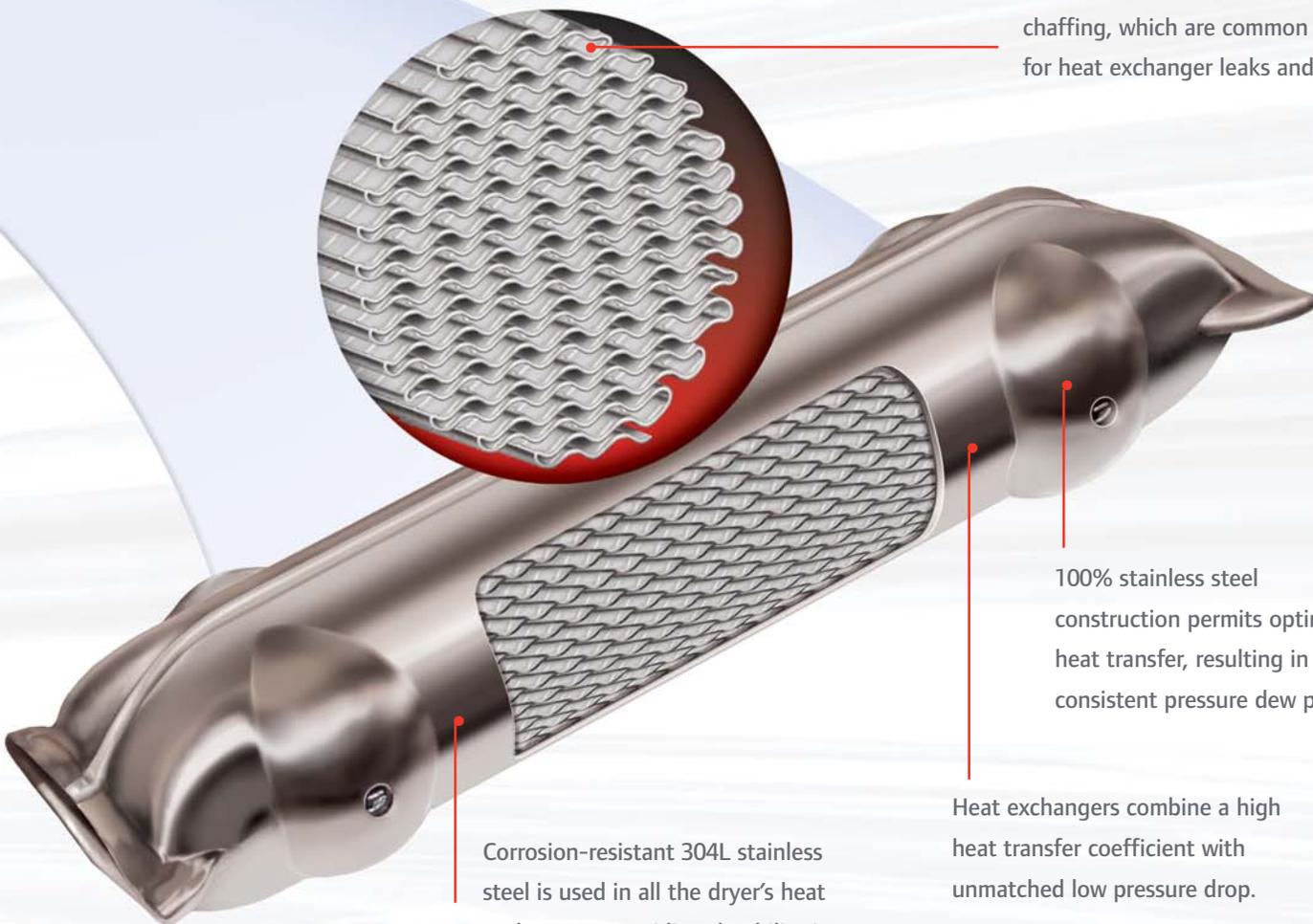
The stainless steel pre-cooler/reheater improves efficiency by reducing the refrigeration compressor power and also warming the outlet air to eliminate pipe sweating. Dryer components are carefully sized and matched to ensure consistent dew point at full or partial loading and in all ambient conditions.

Affordable Reliability

A Heat Exchanger Like No Other

The foundation of our dryers' value, reliability and productivity is our patented stainless steel heat exchangers. Designed and manufactured specifically for compressed air drying, these high efficiency heat exchangers deliver a high heat transfer coefficient and the lowest pressure drop in the industry. A multi-path flow area that is 3-5 times that of an equivalent copper tube exchanger, combined with our unique continuous self-cleaning action, minimize fouling potential. What's more, the use of corrosion-resistant 304L stainless steel provides the kind of long-term durability in hostile environments you just can't get with copper or other metals.

An innovative corrugated and folded stainless steel panel is stacked inside two stainless steel shells, then welded together to form a unitized heat exchanger. This design ensures reliability through the elimination of dissimilar metals and tube-in-tube chaffing, which are common causes for heat exchanger leaks and failures.



Corrosion-resistant 304L stainless steel is used in all the dryer's heat exchangers, providing durability in environments unsuitable for copper or other metals.

100% stainless steel construction permits optimal heat transfer, resulting in a consistent pressure dew point.

Heat exchangers combine a high heat transfer coefficient with unmatched low pressure drop.

Performance Driven Benefits

Our refrigerated dryers provide the features and benefits that give you the **reliability, quality and performance** that you need from your compressed air system.

Designing and building the highest performance refrigerated dryers in the industry requires a unique set of engineering, manufacturing and testing capabilities...ones that only Ingersoll Rand can deliver. Our dryers integrate a unique combination of components and features that ensures maximum productivity and longest service life. From our patented stainless steel heat exchangers to our unique refrigeration system, Ingersoll Rand refrigerated dryers are simply unsurpassed in both quality and performance.

- A Quiet Compressor**
Highest quality, fully hermetic compressor offers quiet, reliable operation
- B Superior Heat Exchanger**
100% Stainless steel heat exchanger delivers superior heat transfer, lowest pressure drop and extreme reliability
- C Highly Efficient Separator**
High efficiency separator removes moisture for all applications, even under partial load conditions
- D Clog Resistant Condensate Drain**
Adjustable electric condensate drain with large port resists clogging
- E High Quality Enclosure**
Full cabinet made from heavy gauge steel, powder coated to yield a durable finish
- F Large Condensers**
Generously-sized condensers precisely positioned to avoid any accumulation of dust or debris

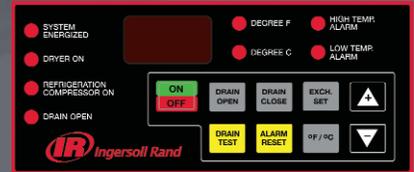




- G Efficient Precooler/Re-heater**  Precooler/reheater assures that exiting compressed air is conditioned while energy costs are decreased by reducing the initial heat load
- H Advanced Digital Controls** Advanced, easy-to-use digital controls for real time monitoring, trouble-free operation and remote connection
- I Easy Access Refrigeration Valves** Refrigeration service valves for easy maintenance
- J Eco-friendly Refrigerant**  Environmentally friendly R404A refrigerant meets all regulations and standards
- K Dew Point Control** Hot gas bypass ensures precise, constant dew point control
- L Robust Packaging** Designed and constructed to minimize the likelihood of shipping damage

Microprocessor Control

These easy-to-use controllers automatically manage dryer operation for optimum air treatment and for maximum energy efficiency.



Controller for models D340IN to D1360IN

- Simple and easily read interface with LED indication
- Digital display of evaporator temperature available at a glance to ensure optimal dryer performance
- Automatic dryer restart in the event of a sudden loss of power
- Adjustable condensate drain parameters
- Microprocessor control constantly monitors dryer functions and provides alarms to minimize dryer downtime



Controller for D1700IN to D4080IN

- Backlit LCD with integrated keypad allows viewing of dryer parameters regardless of environmental lighting
- MODBUS compatible remote communication via RS232 port
- Remote alarm contact available and remote start/stop ready
- Advanced diagnostic memory with failure code storage

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.

Count on Ingersoll Rand for All Your Air System Requirements



Air Quality

- Filtration
- Dryers
- Point-of-use air treatment
- Air sampling test kits
- Dew point meters



Environmental

- Condensate management
- Lubricants
- Water filtration



Installation

- SimplAir piping system
- Fusible disconnects
- Intelliflow system pressure control
- Drains



Maintenance

- Hard parts
- Consumables
- Service contracts



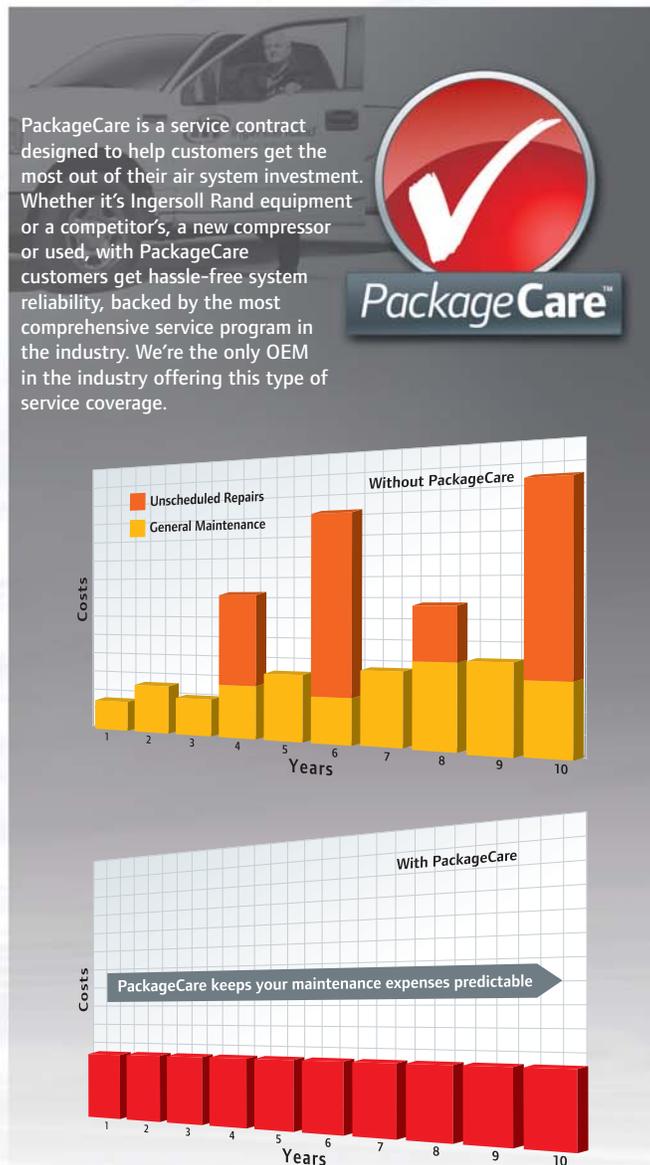
Power Management

- Variable speed drives
- Line reactors
- System controllers
- Safety switches



Energy Efficiency

- System air pressure controllers
- Automated air system controls
- No-loss drains
- System audits



Specifying the Exact Dryer You Need

Ingersoll Rand makes it easy for you to specify the refrigerated dryer that best meets your precise application needs.

Refrigerated Dryer Performance														
Model	Capacity		Pressure Drop		Operating Power kW	Width		Depth		Height		Shipping Weight		Air In/Out in
	scfm	m ³ /min	psig	bar g		in	mm	in	mm	in	mm	lb	kg	
D340IN	200	5.7	1.6	0.11	1.7	23	584	31	787	40	1,016	325	147	1.5 MPT
D420IN	250	7.1	2.0	0.14	1.6	23	584	31	787	40	1,016	340	154	1.5 MPT
D510IN	300	8.5	2.0	0.14	2.1	23	584	31	787	40	1,016	375	170	2 MPT
D680IN	400	11.3	2.9	0.20	3.5	23	584	31	787	40	1,016	375	170	2 MPT
D850IN	500	14.2	2.9	0.20	3.6	42	1,067	40	1,016	62	1,575	950	431	3 MPT
D1020IN	600	17.0	3.0	0.21	4.5	42	1,067	40	1,016	62	1,575	950	431	3 MPT
D1190IN	700	19.8	2.7	0.19	5.4	42	1,067	40	1,016	62	1,575	1,050	476	3 MPT
D1360IN	800	22.7	3.0	0.21	5.6	42	1,067	40	1,016	62	1,575	1,050	476	3 MPT
D1700IN	1,000	28.3	2.4	0.17	6.5	32	813	72	1,829	69	1,753	1,700	771	4 FLG
D2040IN	1,200	34.0	3.1	0.21	9.5	32	813	72	1,829	69	1,753	1,725	782	4 FLG
D2720IN	1,600	45.3	3.3	0.23	11.3	32	813	72	1,829	69	1,753	1,800	816	4 FLG
D3400IN	2,000	56.6	3.5	0.24	13.8	32	813	91	2,311	91	2,311	2,450	1,111	6 FLG
D4080IN	2,400	68.0	4.8	0.33	16.2	32	813	91	2,311	91	2,311	2,500	1,134	6 FLG

Performance data presented in accordance with CAGI Standard ADF100; based on 100°F inlet, 100°F ambient, and 100 psig inlet conditions
 Maximum working pressure: D340IN to D1360IN, 300 psig; D1700IN to D4080IN, 220 psig
 Operating power is based on nominal conditions
 Available voltages: 460/3/60 - all models; 575/3/60 - all models; 230/3/60 - D340IN to D1700IN; 230/1/60 - D340IN
 Pressure drop +/- 0.5 psig



Progress is greener with Ingersoll Rand

Ingersoll Rand offers industry-leading products and solutions that enable businesses around the world to reduce energy consumption and costs and decrease harmful environmental emissions. From air compressors that reduce energy consumption to electric-powered golf cars with near-zero emissions, Ingersoll Rand provides the knowledge, experience and solutions to help our clients achieve their sustainability goals.



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

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