



# Heat of Compression Dryers

420-3,680 m<sup>3</sup>/hr (250-2,165 scfm)



# Clean, Dry Oil-Free Air

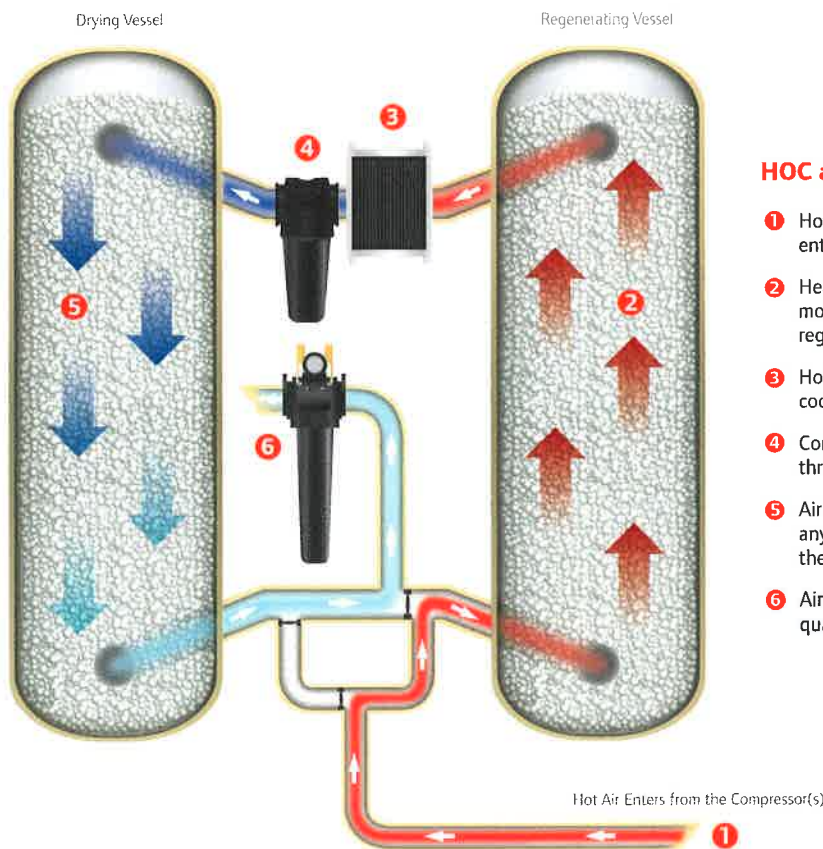
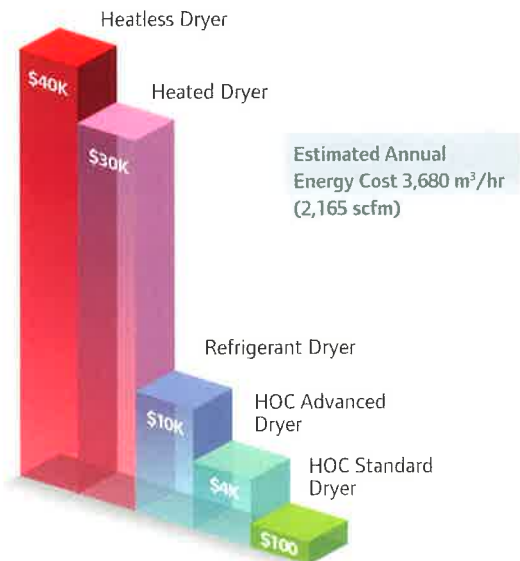
Ingersoll Rand heat of compression (HOC) dryers provide energy efficiency, flexibility and reliability.

## Energy Efficiency

Ingersoll Rand HOC dryers provide instrument quality air at operating costs well below those of typical desiccant dryer designs.

- HOC dryers utilize the heat already generated by the air compression process, which is normally considered waste
- Low pressure drop design conserves energy by permitting the air compressor to run at lower pressures
- Highly efficient, patented stainless steel water-to-air heat exchangers provide optimal performance
- The Standard water-cooled HOC model consumes less than 150 watts, which is equivalent to the energy consumed by one light bulb

## HOC Energy Consumption Comparison



## HOC at Work, Saving You Energy

- 1 Hot air from one or more compressors enters the dryer.
- 2 Heat energy from the hot air removes moisture from the desiccant being regenerated.
- 3 Hot air enters the heat exchanger and is cooled causing moisture to condense.
- 4 Condensate is removed from the air through a moisture separator.
- 5 Air flows through the drying vessel, where any remaining moisture is adsorbed by the desiccant.
- 6 Air exits through a filter providing high quality, instrument grade compressed air.



### Flexibility to Accommodate Your Application

Ingersoll Rand recognizes that each customer's application is unique. That is why we designed our HOC dryers with flexibility to accommodate:

- Air-cooled or water-cooled applications
- Ingersoll Rand or other oil-free compressors
- Existing compressors through field upgradable/retrofit options

The HOC dryer was also specifically designed with a low profile to facilitate ease of installation and maintenance as well as promote safety.

- Critical components are within easy reach for safe and simple maintenance
- Low overall height fits areas with low overhead clearance



### Reliability You Can Count On

Tried-and-true components, combined with innovative technology, yield reliable HOC dryers.

- High performance switching valves are designed for high temperature compressed air service
- Highly efficient, patented stainless steel water-to-air heat exchangers provide optimal performance under the harshest conditions
- Particulate after-filter delivers clean air to processes
- Long lasting, high quality desiccant ensures reliable dew point performance
- No-loss drains with auto-bypass ensure condensate removal

# Superior Features, Solid Dependability

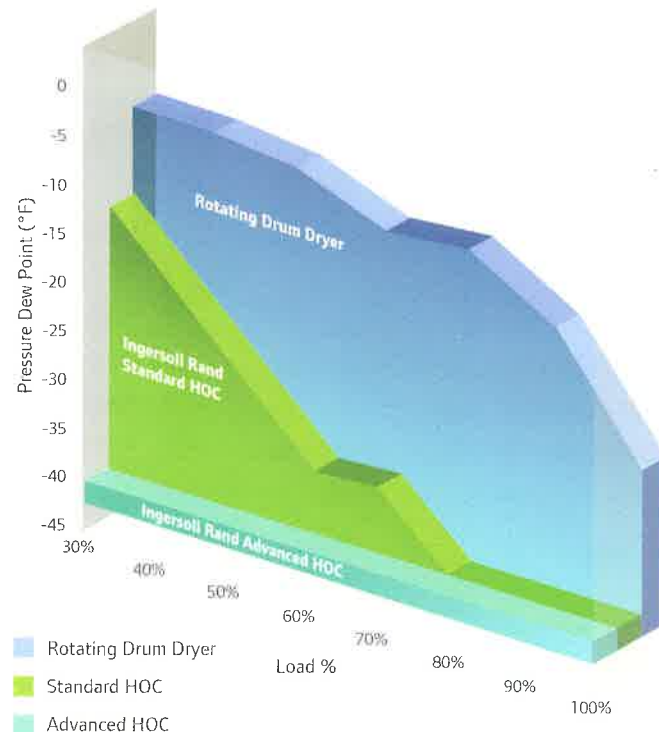
The Ingersoll Rand family of HOC dryers offers reliable performance and easy to use, intuitive controls.

## Performance

Ingersoll Rand HOC dryers deliver consistently clean, dry air for critical processes.

- Instrument quality air for a variety of applications
- Optional Advanced HOC model with Smart Control provides  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ) pressure dew point from 0% to 100% load
- Unique twin-cooler design minimizes dew point and temperature fluctuations
- Advanced HOC model can be used with multiple compressors, resulting in a reduced footprint and lower installation costs

## Better Performance - Higher Quality Air



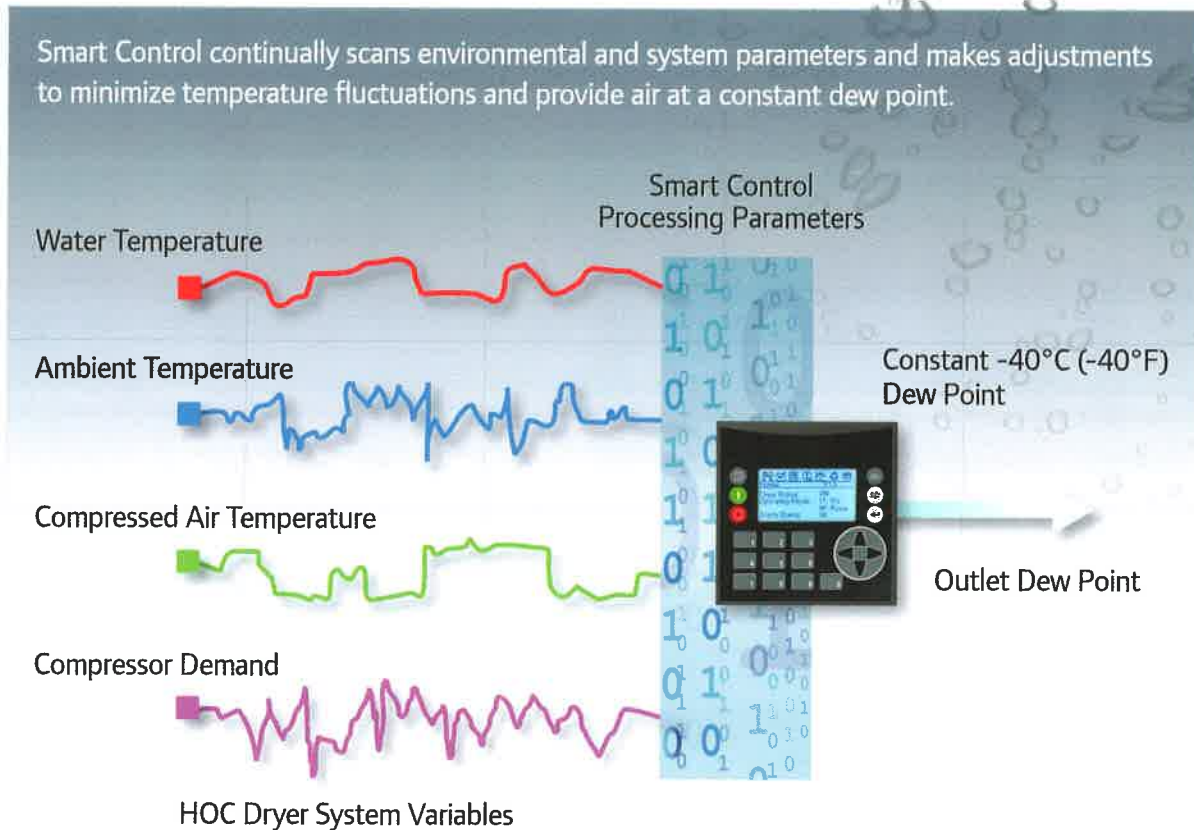
## Full-Featured Controller Comes Standard

The new full-featured controller on Ingersoll Rand HOC dryers is user-friendly to set up and intuitive to operate.

- **Interface:** Simple navigation, icon-based interface with backlit LCD display, integrated touchpad and multiple languages
- **Operation:** Precise control of valve positioning, real-time dryer function monitoring and alarm logging
- **Indicators:** Multi-point critical temperature tracking, maintenance alerts and key alarms
- **Communications:** Modbus via RS-485 interface and compatibility with Ingersoll Rand system automation

## How Smart Control Works

Reliable, high quality air—Ingersoll Rand Advanced HOC dryers use Smart Control to adapt dryer operation to system and environmental changes, ensuring a constant  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ).



### Why Smart Control

The problems created by having moisture in your compressed air system can range from an annoyance to wreaking havoc on your equipment and end products.

- Premature wearing and scoring of surfaces
- Rust and corrosion in tools, piping and equipment
- Damaged instruments
- Spoiled paint surfaces
- Increased scrap rate
- Unsafe or unpleasant work environment



# 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.

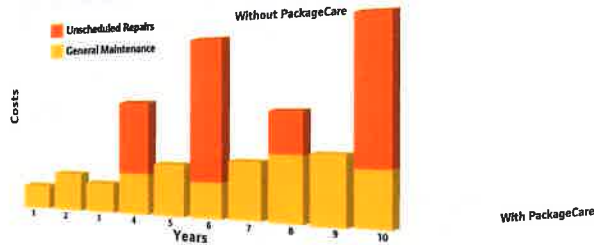


**PackageCare™**  
Eliminate the Inconvenience

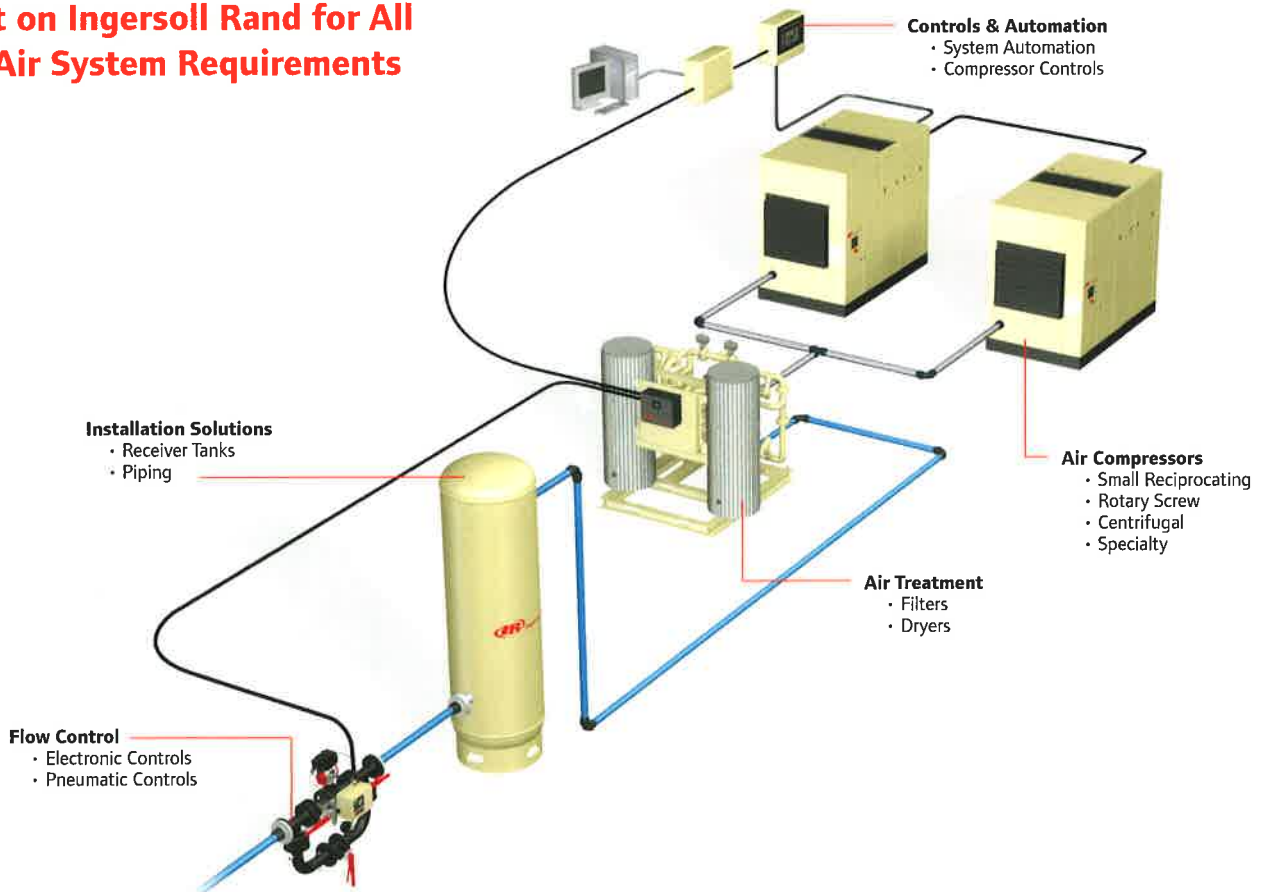
Let Ingersoll Rand handle the pressures and responsibilities of owning a compressed air system with our signature service contract.

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.



## Count on Ingersoll Rand for All Your Air System Requirements



## HOC Dryers Combined Specifications

Model*	Capacity		Inlet/Outlet Connection	Dimensions <sup>†</sup> Length x Width x Height cm (in)	Weight		Compatible Compressors		
	m <sup>3</sup> /hr	scfm			Approximate kg	lb	Nirvana hp	Sierra hp	Centac hp
D420EHS/A	420	250	1-1/2" FPT	143 (58) x 152 (60) x 193 (76)	920	2,020	50-60	50	-
D680EHS/A	680	400	2" FPT	221 (87) x 193 (76) x 236 (93)	1,300	2,870	75	60-75	-
D850EHS/A	850	500	2" FPT	221 (87) x 193 (76) x 236 (93)	1,640	3,610	100	100	-
D1020EHS/A	1,020	600	3" FPT	221 (87) x 193 (76) x 236 (93)	1,970	4,350	125	125	-
D1360EHS/A	1,360	800	3" FPT	224 (88) x 213 (84) x 221 (87)	2,180	4,800	150	150	-
D2040EHS/A	2,040	1,200	4" FLG	259 (102) x 224 (88) x 221 (87)	3,050	6,730	200	200-250	-
D2720EHS/A	2,720	1,600	4" FLG	264 (104) x 229 (90) x 252 (99)	3,400	7,490	-	300-400	400
D3680EHS/A	3,680	2,165	6" FLG	328 (129) x 244 (96) x 252 (99)	4,670	10,290	-	-	450-500

\*"S" for Standard model and "A" for Advanced model

<sup>†</sup>Dimensions for water-cooled models

Dryers rated at 7 bar g (100 psig), 35°C (95°F) ambient air temperature and 29°C (85°F) water temperature for water-cooled dryers.

Standard Features	Standard	Advanced
UL-listed, NEMA 4 electrical enclosures	●	●
Tower insulation	●	●
High-performance switching valves	●	●
No-loss drain system	●	●
High condensate alarm with back-up drain	●	●
High-efficiency separator	●	●
Tower pressure gauges	●	●
Tower temperature gauges	●	●
Stainless steel heat exchangers	●	●
1 micron after-filter	●	●
ASME vessels	●	●
Modbus connectivity	●	●
Remote alarm contact	●	●
Remote start/stop	●	●
Full-featured controller	●	●
Smart Control with constant -40°C (-40°F) dew point	N/A	●
Optional Features	Standard	Advanced
Air-cooled	○	○
Dew point transmitter	○	○
Three-valve dryer bypass	○	○
Stainless steel control air tubing	○	○
NEMA 4X stainless steel enclosures	○	○
Class I Div 2	○	N/A

● Standard Feature

○ Optional Feature



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