



Ingersoll Rand Air Compression Air Treatment



Reliability, Efficiency, Energy-saving

In Ingersoll Rand, we are well aware that air quality is the cornerstone of a successful air compressor system. Improper treatment of compressed air may have a profound impact on your operations. To this end, we have innovatively developed a series of high-quality air treatment to fully meet your drying needs.

High-quality clean compressed air plays a crucial role in the production process. Ingersoll Rand dryers can remove moisture from compressed air to a greater extent while ensuring reliability to prevent the products from being contaminated and attain a higher yield rate. Besides, they can also extend the maintenance interval and life cycle of pneumatic control valves and other air-consuming equipment, and thus effectively reduce operating costs of factories by enabling efficient production and low carbon emissions.

Our dryers are designed to optimize the entire air compressor system to guarantee high air quality, and also improve productivity and efficiency for smoother overall operation. By choosing Ingersoll Rand, you can be sure of flourishing business with our excellent air treatment solutions.



Pharmaceutical & bio-fermentation process



Rubber, tire products



Process & instrument



IR Ingersoll Rand

Industrial Applications

Textiles, chemical fiber process



Food, beverages, tobacco production



D-INR Series Refrigerated Dryers

With D-INR series refrigerated dryers, Ingersoll Rand is committed to providing users with cleaner and drier air, and think more for our customers to always ensure higher efficiency, lower emissions, mature technology and perfect reliability for them.

Upgrade in refrigeration system for safety and reliability

- ISO 8573 Class 5 dew point and wider range of the highest operating temperature with standard configuration
- Safe operation of the system through multiple protections, including refrigerant high / low voltage protection, over current protection, refrigerant gas-liquid separator, and refrigerant drying filter
- Environmentally friendly refrigerants with stable & non-toxic property and a high refrigeration / thermal efficiency for improved performance of dryers, and reverse flow heat exchange design for extended life time of the unit, and energy-saving & environmental protection

New heat exchange design for a significant leap in performance

- Efficient three-in-one plate-fin heat exchanger, small size, light weight, high heat exchange efficiency, reduce pressure loss, to ensure lower energy consumption
- Precise pressure control of hot air bypass valve for higher operation efficiency of the unit by effectively preventing ice blockage and leakage, and the evaporator with a detachable design adopted for ease of maintenance and lower maintenance costs

Intelligent control system for safety and convenience

- Intuitive operation panel for indication of 5 working statuses, including operation, delay, remote, overload protection and refrigerant failure
- Dew point temperature display for direct observation of working effect of the dryer, and standard emergency stop switch equipped to ensure safety of the system
- Simple flowchart for easy understanding of the working principle of the refrigerated dryer



D-INR Series Refrigerated Dryers

| Model | Capacity m ³ /min | Connection size | Power V/Ph/hz | Dimensions (mm) | | | Weight kg |
|---------------------|---------------------------------|-----------------|------------------|-----------------|------|------|--------------|
| | | | | L | W | H | |
| Air-cooled | | | | | | | |
| D42INR-A-E | 0.7 | 1" BSPT | 220/1/50 | 550 | 330 | 645 | 43 |
| D72INR-A-E | 1.2 | 1" BSPT | 220/1/50 | 550 | 330 | 645 | 46 |
| D108INR-A-E | 1.8 | 1" BSPT | 220/1/50 | 550 | 330 | 695 | 61 |
| D216INR-A-E | 3.6 | 1.5" BSPT | 220/1/50 | 700 | 420 | 860 | 102 |
| D294INR-A-E | 4.9 | 1.5" BSPT | 220/1/50 | 700 | 420 | 860 | 102 |
| D342INR-A-E | 5.7 | 1.5" BSPT | 220/1/50 | 760 | 480 | 870 | 133 |
| D390INR-A-E | 6.5 | 1.5" BSPT | 220/1/50 | 760 | 480 | 870 | 135 |
| D444INR-A-E | 7.4 | 1.5" BSPT | 220/1/50 | 760 | 480 | 870 | 177 |
| D540INR-A-E | 9 | 2" BSPT | 220/1/50 | 950 | 600 | 1200 | 207 |
| D690INR-A-E | 11.5 | 2" BSPT | 220/1/50 | 950 | 600 | 1200 | 246 |
| D810INR-A-E | 13.5 | 2.5" BSPT | 380/3/50 | 1160 | 650 | 1300 | 273 |
| D990INR-A-E | 16.5 | 2.5" BSPT | 380/3/50 | 1160 | 650 | 1300 | 298 |
| D1050INR-A-E | 17.5 | 2.5" BSPT | 380/3/50 | 1160 | 650 | 1300 | 365 |
| D1170INR-A-E | 19.5 | 3" BSPT | 380/3/50 | 1260 | 760 | 1400 | 425 |
| D1380INR-A-E | 23 | 3" BSPT | 380/3/50 | 1260 | 760 | 1400 | 492 |
| D1590INR-A-E | 26.5 | 3" BSPT | 380/3/50 | 1320 | 800 | 1400 | 498 |
| D1740INR-A-E | 29 | 3" BSPT | 380/3/50 | 1320 | 800 | 1400 | 540 |
| D2100INR-A-E | 35 | 4" FLG | 380/3/50 | 1320 | 1040 | 1800 | 613 |
| D2340INR-A-E | 39 | 4" FLG | 380/3/50 | 1320 | 1040 | 1800 | 659 |
| D2700INR-A-E | 45 | 4" FLG | 380/3/50 | 1320 | 1040 | 1800 | 726 |
| D3090INR-A-E | 51.5 | 5" FLG | 380/3/50 | 1600 | 1280 | 1900 | 829 |
| D3480INR-A-E | 58 | 5" FLG | 380/3/50 | 1600 | 1280 | 1900 | 915 |
| D4080INR-A-E | 68 | 6" FLG | 380/3/50 | 1860 | 1350 | 1900 | 1100 |
| D4200INR-A-E | 70 | 6" FLG | 380/3/50 | 1860 | 1350 | 1900 | 1233 |
| D4560INR-A-E | 76 | 6" FLG | 380/3/50 | 1900 | 1480 | 2120 | 1445 |
| D4800INR-A-E | 80 | 6" FLG | 380/3/50 | 1900 | 1480 | 2120 | 1496 |
| D5520INR-A-E | 92 | 6" FLG | 380/3/50 | 2040 | 1960 | 2120 | 1758 |
| D5940INR-A-E | 99 | 6" FLG | 380/3/50 | 2040 | 1960 | 2120 | 1800 |
| D7680INR-A-E | 128 | 6" FLG | 380/3/50 | 1900 | 2500 | 2160 | 1980 |
| D8700INR-A-E | 145 | 8" FLG | 380/3/50 | 1900 | 2500 | 2340 | 2100 |
| Water-cooled | | | | | | | |
| D690INR-W-E | 11.5 | 2" BSPT | 220/1/50 | 850 | 500 | 920 | 255 |
| D810INR-W-E | 13.5 | 2.5" BSPT | 380/3/50 | 1010 | 600 | 1020 | 288 |
| D990INR-W-E | 16.5 | 2.5" BSPT | 380/3/50 | 1010 | 600 | 1020 | 297 |
| D1050INR-W-E | 17.5 | 2.5" BSPT | 380/3/50 | 1010 | 600 | 1020 | 376 |
| D1170INR-W-E | 19.5 | 3" BSPT | 380/3/50 | 1110 | 630 | 1070 | 442 |
| D1380INR-W-E | 23 | 3" BSPT | 380/3/50 | 1110 | 630 | 1070 | 502 |
| D1590INR-W-E | 26.5 | 3" BSPT | 380/3/50 | 1200 | 660 | 1120 | 505 |
| D1740INR-W-E | 29 | 3" BSPT | 380/3/50 | 1200 | 660 | 1120 | 572 |
| D2100INR-W-E | 35 | 4" FLG | 380/3/50 | 1310 | 960 | 1470 | 648 |
| D2340INR-W-E | 39 | 4" FLG | 380/3/50 | 1310 | 960 | 1470 | 696 |
| D2700INR-W-E | 45 | 4" FLG | 380/3/50 | 1310 | 960 | 1470 | 762 |
| D3090INR-W-E | 51.5 | 5" FLG | 380/3/50 | 1360 | 1020 | 1520 | 875 |
| D3480INR-W-E | 58 | 5" FLG | 380/3/50 | 1360 | 1020 | 1520 | 977 |
| D4080INR-W-E | 68 | 6" FLG | 380/3/50 | 1560 | 1200 | 1550 | 1188 |
| D4200INR-W-E | 70 | 6" FLG | 380/3/50 | 1560 | 1200 | 1550 | 1276 |
| D4560INR-W-E | 76 | 6" FLG | 380/3/50 | 1560 | 1480 | 1550 | 1432 |
| D4800INR-W-E | 80 | 6" FLG | 380/3/50 | 1560 | 1480 | 1550 | 1467 |
| D5520INR-W-E | 92 | 6" FLG | 380/3/50 | 1820 | 1580 | 1600 | 1698 |
| D5940INR-W-E | 99 | 6" FLG | 380/3/50 | 1820 | 1580 | 1600 | 1746 |
| D7680INR-W-E | 128 | 6" FLG | 380/3/50 | 1820 | 1580 | 1600 | 1825 |
| D8700INR-W-E | 145 | 8" FLG | 380/3/50 | 1820 | 2060 | 1760 | 2250 |

Notes: 1. Standard conditions: Inlet P = 7Barg; Inlet T = 45°C, cooling water T = 30°C. Dewpoint conform to ISO 8573-1 Class 5
 2. For any special requests, please contact with IR sales representative



S Series

Refrigerated Dryer

As one of the core equipment of the compressed air system, the refrigerated dryer effectively reduces the temperature of the compressed air through a cooling medium, causing water vapor to condense and separate before being discharged, achieving air drying. The Ingersoll Rand S series refrigerated dryer is equipped with high-efficiency rotary compressors, high-efficiency refrigerants, and a newly designed three in one heat exchanger, ensuring stable operation of the unit under high temperature conditions and safeguarding customer safety production.

Product Information

- Non-cycling refrigerated dryer
- Rated pressure dew point 2~10 °C
- Rated processing capacity of 0.7~16.5 m³/min
- Full range of air-cooled models



Product Highlights



Adaptability to extreme working conditions

Specially designed for summer environments, it can operate stably under extreme conditions of 45 °C ambient temperature/60 °C inlet temperature, demonstrating excellent weather resistance.



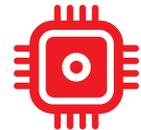
Efficient rotary compressor

The entire series of HIGHLY rotary compressors are equipped with high-efficiency R404A refrigerant to improve refrigeration efficiency and ensure dew point stability.



Innovative 3 in 1 heat exchanger

The newly designed 3 in 1 heat exchanger is equipped with a large pre cooler module to reduce energy consumption and improve system stability.



Intelligent controller module

Equipped with an intelligent controller module, standard with delayed startup and low-temperature shutdown protection functions, easy to operate, and efficient management.



S Series Refrigerated Dryer

| Model | Capacity m ³ /min | Power Supply V/Ph/hz | Air Interface Diameter | Nominal Power kW | Dimensions (mm) | | | Weight kg |
|----------|---------------------------------|-------------------------|---------------------------|---------------------|-----------------|-----|------|--------------|
| | | | | | L | W | H | |
| D42Rs-A | 0.7 | 220/1/50 | 0.75" | 0.45 | 470 | 360 | 680 | 42 |
| D72Rs-A | 1.2 | 220/1/50 | 0.75" | 0.45 | 470 | 360 | 680 | 48 |
| D108Rs-A | 1.8 | 220/1/50 | 1" | 0.51 | 550 | 380 | 690 | 63 |
| D216Rs-A | 3.6 | 220/1/50 | 1.5" | 0.67 | 650 | 450 | 780 | 81 |
| D294Rs-A | 4.9 | 220/1/50 | 1.5" | 0.80 | 760 | 500 | 780 | 95 |
| D342Rs-A | 5.7 | 220/1/50 | 1.5" | 0.93 | 760 | 500 | 850 | 102 |
| D390Rs-A | 6.5 | 220/1/50 | 1.5" | 0.99 | 760 | 500 | 850 | 118 |
| D444Rs-A | 7.4 | 220/1/50 | 1.5" | 1.06 | 760 | 500 | 850 | 124 |
| D540Rs-A | 9.0 | 220/1/50 | 1.5" | 1.16 | 850 | 520 | 875 | 185 |
| D690Rs-A | 11.5 | 220/1/50 | 2" | 1.88 | 900 | 600 | 1100 | 246 |
| D810Rs-A | 13.5 | 220/1/50 | 2" | 2.04 | 900 | 600 | 1100 | 254 |
| D990Rs-A | 16.5 | 380/3/50 | 2.5" | 2.90 | 1100 | 650 | 1200 | 276 |

Note: Data refer to the following conditions: ambient temperature: 25°C, inlet temperature: 35°C, inlet pressure: 7 barg.

R Series High-efficiency Regenerative Desiccant Dryers

D-ILRi/D-IERi Series

Heatless & Micro-heat Regenerative Desiccant Dryers

Ingersoll Rand D-ILRi and D-IERi desiccant dryers adopts heatless and micro-heat technology, in combination with double drying towers and valve control, to achieve highly efficient after-treatment of compressed air and outstanding product reliability.



Product Features:

- Reliable performance & extended life time
- Intelligent control for high accuracy and efficiency
- Integral structure for ease of installation
- Excellent design for outstanding performance
- Selection of quality materials to be aesthetically pleasing and robust
- Optimized customer experience with more functions



Advanced Dryer Tower Design

- **High-Quality Materials and Optimized Margin:** The tower body is manufactured using selected high-quality materials, with full consideration given to the adsorbent margin during the design process to ensure long-term stable operation of the equipment.
- **Patented Diverging Flow Design without Dead Zones:** A patented diverging flow structure is adopted to completely eliminate dead zones, ensuring uniform airflow distribution within the tower and enhancing drying efficiency.



High-Quality Pressure Reducing Valve

- **Precise Pressure Control:** The pressure reducing valve can accurately control the gas pressure actuating the control valve components within the range of 0.45-0.6 MPa, effectively preventing damage to the pneumatic valve actuator due to excessive pressure.
- **Field Adjustability:** The pressure reducing valve supports manual adjustment based on the size of the incoming gas at the site, allowing flexible adaptation to different working environments.



Intelligent Control System

- **Precise Cyclic Switching:** The intelligent control system can accurately control the cyclic switching of the desiccant dryer, ensuring accurate operation.
- **Real-Time Status Management:** The system displays key operational statuses such as drying, regeneration, and pressure equalization in real-time, allowing operators to monitor the equipment's operation at any time.
- **Flexible Switching Cycle:** The system defaults to a standard switching cycle but also supports manual settings based on actual field conditions, meeting diverse needs.

Technical Data

D-ILRi 20 Series Heatless Regenerative Desiccant Dryers

- Air flow: 1.2-127m³/min
- Max. working pressure: 1.0MPa
- Rated working pressure: 0.7MPa
- Max. inlet temperature: 45°C
- Pressure dew point: -20°C
- Regeneration air consumption: ≤14%

D-IERi 20 Series Micro-heat Regenerative Desiccant Dryers

- Air flow: 1.2-127m³/min
- Max. working pressure: 1.0MPa
- Rated working pressure: 0.7MPa
- Max. inlet temperature: 45°C
- Pressure dew point: -20°C
- Regeneration air consumption: ≤8%

| Model | Flow m ³ /min | Power V/Ph/hz | Air interface pipe diameter mm | Dimensions (mm) | | | Weight kg |
|-----------------------------------------------------|-----------------------------|------------------|-----------------------------------|-----------------|------|------|--------------|
| | | | | L | W | H | |
| D-ILRi 20 series heatless desiccant dryers | | | | | | | |
| D72ILRi20 | 1.2 | 220/1/50 | 1/2" BSPT | 730 | 480 | 1550 | 132 |
| D126ILRi20 | 2.1 | 220/1/50 | 3/4" BSPT | 850 | 500 | 1620 | 144 |
| D216ILRi20 | 3.6 | 220/1/50 | 3/4" BSPT | 950 | 550 | 1620 | 168 |
| D282ILRi20 | 4.7 | 220/1/50 | 1" BSPT | 1000 | 600 | 1660 | 321 |
| D312ILRi20 | 5.2 | 220/1/50 | 1" BSPT | 1000 | 600 | 1660 | 328 |
| D408ILRi20 | 6.8 | 220/1/50 | 1-1/2" BSPT | 1000 | 600 | 1660 | 358 |
| D540ILRi20 | 9 | 220/1/50 | 1-1/2" BSPT | 1250 | 650 | 1740 | 405 |
| D690ILRi20 | 11.5 | 220/1/50 | 1-1/2" BSPT | 1250 | 650 | 1740 | 427 |
| D840ILRi20 | 14 | 220/1/50 | 2" BSPT | 1350 | 700 | 1830 | 485 |
| D1050ILRi20 | 17.5 | 220/1/50 | 2" BSPT | 1350 | 700 | 1830 | 565 |
| D1380ILRi20 | 23 | 220/1/50 | 2-1/2" BSPT | 1450 | 800 | 1920 | 814 |
| D1710ILRi20 | 28.5 | 220/1/50 | 3" BSPT | 1680 | 950 | 2060 | 955 |
| D2040ILRi20 | 34 | 220/1/50 | 3" BSPT | 1750 | 950 | 2070 | 1112 |
| D2550ILRi20 | 42.5 | 220/1/50 | DN100 FLG | 1850 | 1000 | 2250 | 1238 |
| D3120ILRi20 | 52 | 220/1/50 | DN100 FLG | 2000 | 1100 | 2300 | 1537 |
| D3600ILRi20 | 60 | 220/1/50 | DN125 FLG | 2100 | 1200 | 2520 | 1818 |
| D4500ILRi20 | 75 | 220/1/50 | DN125 FLG | 2200 | 1250 | 2550 | 2156 |
| D5220ILRi20 | 87 | 220/1/50 | DN125 FLG | 2200 | 1250 | 2550 | 2182 |
| D5940ILRi20 | 99 | 220/1/50 | DN150 FLG | 2200 | 1400 | 2820 | 2832 |
| D6780ILRi20 | 113 | 220/1/50 | DN150 FLG | 2200 | 1400 | 2820 | 2860 |
| D7620ILRi20 | 127 | 220/1/50 | DN150 FLG | 2300 | 1400 | 2830 | 3820 |
| D-IERi 20 series micro-heat desiccant dryers | | | | | | | |
| D72IERi20 | 1.2 | 220/1/50 | 1/2" BSPT | 730 | 480 | 1550 | 145 |
| D126IERi20 | 2.1 | 220/1/50 | 3/4" BSPT | 850 | 500 | 1620 | 152 |
| D216IERi20 | 3.6 | 220/1/50 | 3/4" BSPT | 950 | 550 | 1620 | 186 |
| D282IERi20 | 4.7 | 220/1/50 | 1" BSPT | 1000 | 600 | 1660 | 347 |
| D312IERi20 | 5.2 | 220/1/50 | 1" BSPT | 1000 | 600 | 1660 | 352 |
| D408IERi20 | 6.8 | 220/1/50 | 1-1/2" BSPT | 1000 | 600 | 1660 | 395 |
| D540IERi20 | 9 | 220/1/50 | 1-1/2" BSPT | 1250 | 650 | 1740 | 447 |
| D690IERi20 | 11.5 | 220/1/50 | 1-1/2" BSPT | 1250 | 650 | 1740 | 456 |
| D840IERi20 | 14 | 380/3/50 | 2" BSPT | 1350 | 700 | 1830 | 533 |
| D1050IERi20 | 17.5 | 380/3/50 | 2" BSPT | 1350 | 700 | 1830 | 611 |
| D1380IERi20 | 23 | 380/3/50 | 2-1/2" BSPT | 1450 | 800 | 1920 | 867 |
| D1710IERi20 | 28.5 | 380/3/50 | 3" BSPT | 1680 | 950 | 2060 | 1009 |
| D2040IERi20 | 34 | 380/3/50 | 3" BSPT | 1750 | 950 | 2070 | 1145 |
| D2550IERi20 | 42.5 | 380/3/50 | DN100 FLG | 1850 | 1000 | 2250 | 1302 |
| D3120IERi20 | 52 | 380/3/50 | DN100 FLG | 2000 | 1100 | 2300 | 1611 |
| D3600IERi20 | 60 | 380/3/50 | DN125 FLG | 2100 | 1200 | 2520 | 1912 |
| D4500IERi20 | 75 | 380/3/50 | DN125 FLG | 2200 | 1250 | 2550 | 2280 |
| D5220IERi20 | 87 | 380/3/50 | DN125 FLG | 2200 | 1250 | 2550 | 2312 |
| D5940IERi20 | 99 | 380/3/50 | DN150 FLG | 2200 | 1400 | 2820 | 2988 |
| D6780IERi20 | 113 | 380/3/50 | DN150 FLG | 2200 | 1400 | 2820 | 3046 |
| D7620IERi20 | 127 | 380/3/50 | DN150 FLG | 2300 | 1400 | 2830 | 3982 |

Notes: 1. Data refer to standard operating conditions: ambient temperature: 38°C, inlet temperature: 38°C, working pressure 7 barg.
2. Max. ambient temperature: 40°C, max. inlet temperature: 45°C, max. working pressure: 10 barg.

Technical Data

D-ILRi 40 Series Heatless Regenerative Desiccant Dryers

- Air flow: 1.2-127m³/min
- Max. working pressure: 1.0MPa
- Rated working pressure: 0.7MPa
- Max. inlet temperature: 45°C
- Pressure dew point: -40°C
- Regeneration air consumption: ≤14%

D-IERi 40 Series Micro-heat Regenerative Desiccant Dryers

- Air flow: 1.2-127m³/min
- Max. working pressure: 1.0MPa
- Rated working pressure: 0.7MPa
- Max. inlet temperature: 45°C
- Pressure dew point: -40°C
- Regeneration air consumption: ≤8%

| Model | Flow m ³ /min | Power V/Ph/hz | Air interface pipe diameter mm | Dimensions (mm) | | | Weight kg |
|-----------------------------------------------------|-----------------------------|------------------|-----------------------------------|-----------------|------|------|--------------|
| | | | | L | W | H | |
| D-ILRi 40 series heatless desiccant dryers | | | | | | | |
| D72ILRi40 | 1.2 | 220/1/50 | 1/2" BSPT | 730 | 480 | 1550 | 132 |
| D126ILRi40 | 2.1 | 220/1/50 | 3/4" BSPT | 950 | 550 | 1630 | 168 |
| D216ILRi40 | 3.6 | 220/1/50 | 1" BSPT | 1050 | 600 | 1680 | 321 |
| D282ILRi40 | 4.7 | 220/1/50 | 1-1/2" BSPT | 1050 | 600 | 1680 | 342 |
| D312ILRi40 | 5.2 | 220/1/50 | 1-1/2" BSPT | 1050 | 600 | 1680 | 358 |
| D408ILRi40 | 6.8 | 220/1/50 | 1-1/2" BSPT | 1250 | 650 | 1760 | 405 |
| D540ILRi40 | 9 | 220/1/50 | 2" BSPT | 1350 | 700 | 1840 | 442 |
| D690ILRi40 | 11.5 | 220/1/50 | 2" BSPT | 1350 | 700 | 1840 | 485 |
| D840ILRi40 | 14 | 220/1/50 | 2" BSPT | 1350 | 700 | 1840 | 565 |
| D1050ILRi40 | 17.5 | 220/1/50 | 2-1/2" BSPT | 1450 | 800 | 1930 | 814 |
| D1380ILRi40 | 23 | 220/1/50 | 3" BSPT | 1680 | 950 | 2060 | 955 |
| D1710ILRi40 | 28.5 | 220/1/50 | 3" BSPT | 1750 | 950 | 2080 | 1112 |
| D2040ILRi40 | 34 | 220/1/50 | DN100 FLG | 1850 | 1000 | 2150 | 1238 |
| D2550ILRi40 | 42.5 | 220/1/50 | DN100 FLG | 2000 | 1100 | 2260 | 1537 |
| D3120ILRi40 | 52 | 220/1/50 | DN125 FLG | 2100 | 1200 | 2430 | 1818 |
| D3600ILRi40 | 60 | 220/1/50 | DN125 FLG | 2200 | 1250 | 2430 | 2156 |
| D4500ILRi40 | 75 | 220/1/50 | DN150 FLG | 2320 | 1400 | 2680 | 2832 |
| D5220ILRi40 | 87 | 220/1/50 | DN150 FLG | 2320 | 1400 | 2680 | 2860 |
| D5940ILRi40 | 99 | 220/1/50 | DN150 FLG | 2420 | 1450 | 2680 | 3385 |
| D6780ILRi40 | 113 | 220/1/50 | DN150 FLG | 2420 | 1450 | 2680 | 3820 |
| D7620ILRi40 | 127 | 220/1/50 | DN150 FLG | 2620 | 1500 | 2750 | 4226 |
| D-IERi 40 series micro-heat desiccant dryers | | | | | | | |
| D72IERi40 | 1.2 | 220/1/50 | 1/2" BSPT | 730 | 480 | 1550 | 145 |
| D126IERi40 | 2.1 | 220/1/50 | 3/4" BSPT | 950 | 550 | 1650 | 186 |
| D216IERi40 | 3.6 | 220/1/50 | 1" BSPT | 1050 | 600 | 1720 | 347 |
| D282IERi40 | 4.7 | 220/1/50 | 1-1/2" BSPT | 1050 | 600 | 1720 | 385 |
| D312IERi40 | 5.2 | 220/1/50 | 1-1/2" BSPT | 1050 | 600 | 1720 | 395 |
| D408IERi40 | 6.8 | 220/1/50 | 1-1/2" BSPT | 1250 | 650 | 1800 | 447 |
| D540IERi40 | 9 | 380/3/50 | 2" BSPT | 1350 | 700 | 1900 | 496 |
| D690IERi40 | 11.5 | 380/3/50 | 2" BSPT | 1350 | 700 | 1900 | 533 |
| D840IERi40 | 14 | 380/3/50 | 2" BSPT | 1350 | 700 | 1900 | 611 |
| D1050IERi40 | 17.5 | 380/3/50 | 2-1/2" BSPT | 1450 | 800 | 1980 | 867 |
| D1380IERi40 | 23 | 380/3/50 | 3" BSPT | 1680 | 950 | 2100 | 1009 |
| D1710IERi40 | 28.5 | 380/3/50 | 3" BSPT | 1750 | 950 | 2110 | 1145 |
| D2040IERi40 | 34 | 380/3/50 | DN100 FLG | 1850 | 1000 | 2190 | 1302 |
| D2550IERi40 | 42.5 | 380/3/50 | DN100 FLG | 2000 | 1100 | 2300 | 1611 |
| D3120IERi40 | 52 | 380/3/50 | DN125 FLG | 2100 | 1200 | 2450 | 1912 |
| D3600IERi40 | 60 | 380/3/50 | DN125 FLG | 2200 | 1250 | 2470 | 2280 |
| D4500IERi40 | 75 | 380/3/50 | DN150 FLG | 2320 | 1400 | 2720 | 2988 |
| D5220IERi40 | 87 | 380/3/50 | DN150 FLG | 2320 | 1400 | 2720 | 3046 |
| D5940IERi40 | 99 | 380/3/50 | DN150 FLG | 2420 | 1450 | 2720 | 3506 |
| D6780IERi40 | 113 | 380/3/50 | DN150 FLG | 2420 | 1450 | 2720 | 3982 |
| D7620IERi40 | 127 | 380/3/50 | DN150 FLG | 2620 | 1500 | 2800 | 4396 |
| D9300IERi40 | 155 | 380/3/50 | DN200 FLG | 3000 | 1750 | 2900 | 5060 |

Notes: 1. Data refer to standard operating conditions: ambient temperature: 38°C, inlet temperature: 38°C, working pressure 7 barg.

2. Max. ambient temperature: 40°C, max. inlet temperature: 45°C, max. working pressure: 10 barg.

D-IBRi Series

Heating Air-blowing Regenerative Desiccant Dryers

Ingersoll Rand D-IBRi series desiccant dryers adopt the heat blowing principle to achieve efficient drying of compressed air, which greatly reduces the loss of compressed air and saves energy.

- The ambient air drawn by the blower is heated by an external electric heater before entering the regeneration tower for thermal regeneration of the adsorbent;
- After a certain period of thermal regeneration, the heater is turned off before using a blower for cold blowing regeneration and cooling-off;
- When the temperature in the adsorption tower drops to a certain point, the dry air from the outlet of the working tower is used for cold blowing regeneration in the regeneration tower at an average air consumption $\leq 3\%$ during the cycle, so as to finally complete the regeneration and activation of the adsorbent in the regeneration tower;
- In case of low outlet air quality requirements (e.g. atmospheric dew point $\leq -40^{\circ}\text{C}$), or low ambient temperature, only a blower is used for cold blowing regeneration without introducing dry air from the outlet of the working tower, resulting in no regeneration air consumption (when the regeneration air consumption is zero).



Product Features

- A dual eccentric PTFE sealed butterfly valve is adopted for reliable performance and long service life
- A high quality two-position five-way solenoid valve is used to control pneumatic valves to ensure the reliable operation of the equipment.
- A blower with reliable performance is used to guarantee normal operation of the dryer system.
- Unique design ensures uniform distribution of dry regeneration airflow, eliminating "short circuit" phenomenon caused by flow rate high at the center and low at the edges.
- Tower body and high-temperature pipes are wrapped with patterned aluminum sheet for insulation against energy waste.
- Specific pressurization function ensures uninterrupted air supply during dryer switching.
- Multiple measures are taken to ensure that the laminar bed is not loose, the desiccant is not worn, and the use life of the desiccant is extended.
- The air flows through the dryer at a slower speed for longer contact time with the desiccant, thus maintaining the dew point and reducing pressure loss.
- Pressure gauge and safety valve is equipped on every tower body.
- An appropriate cooling-off period is included in the regeneration cycle to prevent peak dew point during conversion.
- Standard configuration: programmable logic controller (PLC) & human-machine interaction interface.

Technical Data

- Working pressure range: 0.7~1.0Mpa
- Average cycle regeneration gas consumption: ≤3% (zero air consumption: 0%)
- Nominal pressure dew point: -40°C (optional -70°C)
- Rated inlet temperature: ≤38°C
- Adsorbent: active aluminum oxide (with non-standard option of molecular sieve / silica gel)
- Cycle time: 8 hours
- Power supply: 380V/3PH/50Hz
- Pressure drop: ≤0.02MPa
- Control mode: fully automatic PLC control

D-IBRi Series Heated Air Blower Regenerative Desiccant Dryers

| Model | Flow m ³ /min | Power V/Ph/hz | Air interface pipe diameter mm | Installed power kW | Dimensions (mm) | | | Weight kg |
|------------|-----------------------------|------------------|-----------------------------------|-----------------------|-----------------|------|------|--------------|
| | | | | | L | W | H | |
| D840IBRi | 14 | 380/3/50 | DN50 | 18.4 | 1500 | 800 | 2320 | 1320 |
| D1080IBRi | 18 | 380/3/50 | DN65 | 20.5 | 1500 | 800 | 2380 | 1360 |
| D1320IBRi | 22 | 380/3/50 | DN80 | 23.5 | 1700 | 1050 | 2400 | 1530 |
| D1500IBRi | 25 | 380/3/50 | DN80 | 23.5 | 1700 | 1050 | 2400 | 1570 |
| D1980IBRi | 33 | 380/3/50 | DN100 | 29.5 | 1900 | 1100 | 2520 | 2130 |
| D2640IBRi | 44 | 380/3/50 | DN100 | 43.5 | 2200 | 1150 | 2540 | 2890 |
| D3000IBRi | 50 | 380/3/50 | DN100 | 43.5 | 2200 | 1150 | 2540 | 2960 |
| D3600IBRi | 60 | 380/3/50 | DN125 | 54 | 2340 | 1250 | 2680 | 3750 |
| D4200IBRi | 70 | 380/3/50 | DN125 | 71 | 3300 | 1900 | 2780 | 5320 |
| D4800IBRi | 80 | 380/3/50 | DN125 | 71 | 3300 | 1900 | 2780 | 5360 |
| D5400IBRi | 90 | 380/3/50 | DN150 | 77 | 3360 | 2000 | 2860 | 7440 |
| D6000IBRi | 100 | 380/3/50 | DN150 | 77 | 3360 | 2000 | 2860 | 7480 |
| D7200IBRi | 120 | 380/3/50 | DN150 | 99 | 3600 | 2200 | 3030 | 8650 |
| D9000IBRi | 150 | 380/3/50 | DN200 | 123 | 3800 | 2300 | 3330 | 9800 |
| D12000IBRi | 200 | 380/3/50 | DN200 | 153.5 | 4200 | 2450 | 3400 | 11400 |

D-IBRi ZP Series Zero Purge Heated Air Blower Regenerative Dryers

| Model | Flow m ³ /min | Power V/Ph/hz | Air interface pipe diameter mm | Installed power kW | Dimensions (mm) | | | Weight kg |
|---------------|-----------------------------|------------------|-----------------------------------|-----------------------|-----------------|------|------|--------------|
| | | | | | L | W | H | |
| D840IBRi ZP | 14 | 380/3/50 | DN50 | 18.4 | 1800 | 1400 | 2400 | 1970 |
| D1080IBRi ZP | 18 | 380/3/50 | DN65 | 20.5 | 1800 | 1400 | 2400 | 2050 |
| D1320IBRi ZP | 22 | 380/3/50 | DN80 | 23.5 | 2200 | 1500 | 2500 | 2190 |
| D1500IBRi ZP | 25 | 380/3/50 | DN80 | 23.5 | 2200 | 1500 | 2500 | 2250 |
| D1980IBRi ZP | 33 | 380/3/50 | DN100 | 29.5 | 2200 | 1700 | 2550 | 2530 |
| D2640IBRi ZP | 44 | 380/3/50 | DN100 | 43.5 | 2400 | 1850 | 2600 | 3600 |
| D3000IBRi ZP | 50 | 380/3/50 | DN100 | 43.5 | 2400 | 1850 | 2600 | 3760 |
| D3600IBRi ZP | 60 | 380/3/50 | DN125 | 54 | 2720 | 1960 | 2750 | 4285 |
| D4200IBRi ZP | 70 | 380/3/50 | DN125 | 71 | 3500 | 2200 | 2800 | 5600 |
| D4800IBRi ZP | 80 | 380/3/50 | DN125 | 71 | 3500 | 2200 | 2800 | 5800 |
| D5400IBRi ZP | 90 | 380/3/50 | DN150 | 77 | 3480 | 2300 | 2900 | 6980 |
| D6000IBRi ZP | 100 | 380/3/50 | DN150 | 77 | 3480 | 2300 | 2900 | 7750 |
| D7200IBRi ZP | 120 | 380/3/50 | DN150 | 99 | 3600 | 2720 | 3050 | 8740 |
| D9000IBRi ZP | 150 | 380/3/50 | DN200 | 123 | 4000 | 2800 | 3350 | 10540 |
| D12000IBRi ZP | 200 | 380/3/50 | DN200 | 153.5 | 4250 | 3200 | 3460 | 13500 |

Note: Data refer to the following conditions: ambient temperature: 38°C, inlet temperature: 38°C, inlet pressure: 7 barg.

HCD Series

Heat-of-Compression (HOC) Regenerative Desiccant Dryers

With Ingersoll Rand HCD series HOC regenerative desiccant dryers, the desiccant saturated after adsorption is regenerated with the hot air discharged from the compressor, instead of electric heating, and then cooled through partial dry air blowing, if required, to enhance its drying capability.

HCD series dryers can only be used in combination with air compressors with oil-free lubrication. This is because, when high temperature oil-containing compressed air is used for desiccant regeneration, it will contaminate and fail the desiccant, and impair the performance of the dryers; also, oil may be accumulated over time during high temperature regeneration, resulting in potential safety hazards.



Configuration

Cryogenic Temperature Model

- Working pressure range: 0.7~1.0Mpa
- Average air consumption: 3% (zero air consumption: 0%)
- Nominal pressure dew point: -40°C
- Inlet temperature: ≥120°C
- Simens PLC
- TD-400 text display
- Near / remote control
- Stainless steel pneumatic control pipeline assembly

High Temperature Model

- Working pressure range: 0.7~1.0Mpa
- Average air consumption: 3% (zero air consumption: 0%)
- Nominal pressure dew point: -40°C
- Inlet temperature: ≥180°C
- Simens PLC
- TD-400 text display
- Near / remote control
- Stainless steel pneumatic control pipeline assembly

| Model HCD | Flow m ³ /min | Overall power kW | Max cooling water flow t/h | Air interface pipe diameter mm | Dimensions (mm) | | | Weight kg |
|---------------------------------------------------------|-----------------------------|---------------------|-------------------------------|-----------------------------------|-----------------|------|------|--------------|
| | | | | | L | W | H | |
| HCD-H series high temperature HOC dryers | | | | | | | | |
| HCD20H | 19 | 0.2 | 14.5 | DN65 | 2800 | 1400 | 2700 | 1800 |
| HCD22H | 23 | 0.2 | 15.9 | DN65 | 2800 | 1400 | 2700 | 1980 |
| HCD25H | 26 | 0.2 | 18.1 | DN65 | 2800 | 1400 | 2700 | 2250 |
| HCD35H | 35 | 0.2 | 25.3 | DN80 | 2900 | 1500 | 2750 | 3150 |
| HCD45H | 45 | 0.2 | 32.5 | DN100 | 3000 | 1600 | 2800 | 4050 |
| HCD50H | 52.9 | 0.2 | 38.3 | DN100 | 3000 | 1600 | 2800 | 4680 |
| HCD60H | 62.0 | 0.2 | 44.8 | DN125 | 3200 | 1700 | 2850 | 5580 |
| HCD70H | 69.0 | 0.2 | 50.6 | DN125 | 3600 | 1900 | 2950 | 6300 |
| HCD75H | 76.9 | 0.2 | 55.6 | DN125 | 4100 | 2200 | 3050 | 6900 |
| HCD85H | 84.1 | 0.2 | 61.5 | DN150 | 4100 | 2200 | 3150 | 7500 |
| HCD-H series high temperature HOC dryers | | | | | | | | |
| HCD120L | 120 | 51.2 | 54 | DN150 | 3800 | 2800 | 3100 | 9000 |
| HCD150L | 150 | 69.2 | 68 | DN150 | 3900 | 3000 | 3200 | 10800 |
| HCD180L | 180 | 84.2 | 81 | DN200 | 4200 | 3200 | 3300 | 13200 |
| HCD200L | 200 | 93.2 | 90 | DN200 | 4400 | 3500 | 3500 | 14700 |
| HCD250L | 250 | 96.2 | 112 | DN250 | 4500 | 4000 | 4100 | 18300 |
| HCD300L | 300 | 138.2 | 135 | DN250 | 5100 | 4500 | 4500 | 21900 |
| HCD350L | 350 | 160.2 | 160 | DN250 | 5600 | 4500 | 4500 | 22900 |
| HCD400L | 400 | 185.2 | 180 | DN300 | 6000 | 4700 | 4700 | 23900 |
| HCD-H ZP series high temperature HOC dryers | | | | | | | | |
| HCD20H ZP | 19 | 0.2 | 18.2 | DN65 | 2850 | 1400 | 2700 | 1900 |
| HCD22H ZP | 23 | 0.2 | 20 | DN65 | 2850 | 1400 | 2700 | 2080 |
| HCD25H ZP | 26 | 0.2 | 22.7 | DN65 | 2850 | 1400 | 2700 | 2350 |
| HCD35H ZP | 35 | 0.2 | 32.5 | DN80 | 3000 | 1500 | 2850 | 3260 |
| HCD45H ZP | 45 | 0.2 | 40.8 | DN100 | 3200 | 1600 | 2850 | 4170 |
| HCD50H ZP | 52.9 | 0.2 | 48 | DN100 | 3200 | 1600 | 2850 | 4800 |
| HCD60H ZP | 62.0 | 0.2 | 56.3 | DN125 | 3400 | 1700 | 2900 | 5710 |
| HCD70H ZP | 69.0 | 0.2 | 63.5 | DN125 | 3600 | 2000 | 2950 | 6520 |
| HCD75H ZP | 76.9 | 0.2 | 69.8 | DN125 | 4100 | 2200 | 3050 | 7130 |
| HCD85H ZP | 84.1 | 0.2 | 77.1 | DN150 | 4100 | 2200 | 3150 | 7760 |
| HCD-L ZP series cryogenic temperature HOC dryers | | | | | | | | |
| HCD120L ZP | 120 | 66.2 | 86.8 | DN150 | 5000 | 2900 | 3100 | 9920 |
| HCD150L ZP | 150 | 90.2 | 95.2 | DN200 | 4900 | 3000 | 3200 | 12400 |
| HCD180L ZP | 180 | 120.2 | 114.2 | DN200 | 5200 | 3200 | 3300 | 14880 |
| HCD200L ZP | 200 | 132.2 | 127 | DN200 | 5400 | 3500 | 3500 | 16430 |
| HCD250L ZP | 250 | 165.2 | 159 | DN250 | 5500 | 4000 | 4100 | 21080 |
| HCD300L ZP | 300 | 180.2 | 190 | DN250 | 6100 | 4500 | 4500 | 23800 |
| HCD350L ZP | 350 | 210.2 | 222 | DN250 | 6600 | 4500 | 4500 | 24900 |
| HCD400L ZP | 400 | 240.2 | 254 | DN300 | 7100 | 4700 | 4700 | 25900 |

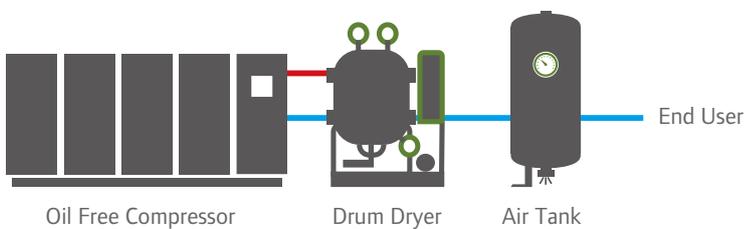
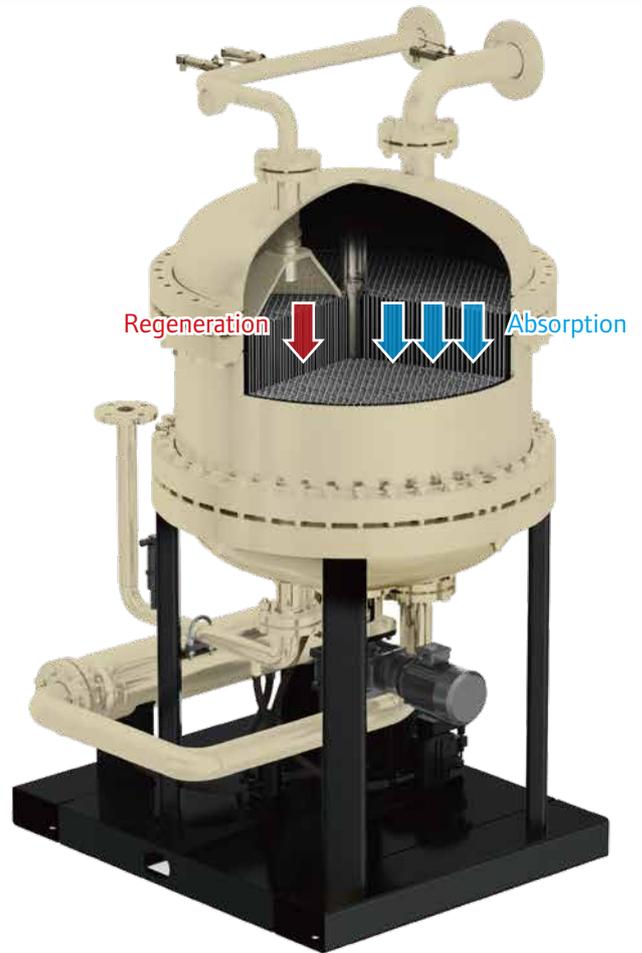
Note: the dimensions and air inlet & outlet pipe diameter of all dryers are subject to the final outline drawings.

IRDR Series

Drum Desiccant Dryer

The wheel was invented in 1950 and has been used as a mature technology in various areas requiring normal pressure drying, such as new wind systems, room dehumidification and purification. IRDR is to change the design of the rotating wheel of normal pressure to be suitable for the pressure state. The wheel is a core spare part of the adsorbent, so that when compressed air passes, moisture stays on the drum. A cellular structure similar to that of an engine exhaust gas catalytic device is adopted to ensure maximum adsorption area. The surface uses high-performance special composite material, dehumidification ability is much better than traditional alumina. The wheel, which is seeable to the naked eye, has a very low pressure drop.

Different from the traditional two-tower constant adsorption dryer, IRDR zero purge drum dryer has a single tower design, a honeycomb structure, and a corrugated special high-performance composite adsorbent. Most of the internal area is used to dry compressed air, and a small part is used for compression heat regeneration, which works continuously and stably.



Dual air inlet from compressor; No filter required.



Zero Energy Consumption Design

- Use oil-free compressor residual heat
- Regeneration process, zero gas consumption and micro power consumption (0.12kW)
- Air flow is smooth and pressure loss is small



No Consumables

- No alumina molecular sieve, no dust, environmental protection
- No electric pneumatic switch valve, no consumables
- Low speed swing, low noise



Continuous and Efficient Purification

- No switching required, dew point stability
- Single towers have the smallest footprint and fewer components
- Hard substrates, composite silicones, cellular structures, and high-efficiency adsorption
- External separator to improve water separation



IRDR

| Model | Capacity CFM or m ³ /min | Rated flow pressure Mpa | Ambient temperature °C | inlet temperature °C | High Temp. inlet temperature °C | heater kW | Package Weight kg | Width cm | Depth cm | Height cm |
|---------------------|----------------------------------------|-------------------------------|------------------------------|----------------------------|---------------------------------------|--------------|-------------------------|-------------|-------------|--------------|
| Air Cooled | | | | | | | | | | |
| IRDR5-8.5 | 5.1 | 0.85 | 1-40 | ≤38 | ≥110 | / | 700 | 110 x | 130 x | 200 |
| IRDR10-7 | 9.6 | 0.70 | 1-40 | ≤38 | ≥110 | / | 700 | 110 x | 130 x | 200 |
| IRDR16-7 | 16.1 | 0.70 | 1-40 | ≤38 | ≥110 | / | 950 | 125 x | 160 x | 230 |
| IRDR20-10 | 20.3 | 1.00 | 1-40 | ≤38 | ≥110 | / | 800 | 120 x | 130 x | 200 |
| IRDR25-8.5 | 24.6 | 0.85 | 1-40 | ≤38 | ≥110 | / | 1000 | 130 x | 160 x | 230 |
| IRDR32-10 | 31.8 | 1.05 | 1-40 | ≤38 | ≥110 | / | 1050 | 135 x | 160 x | 230 |
| IRDR35-8.5 | 35.0 | 0.85 | 1-40 | ≤38 | ≥110 | / | 1100 | 140 x | 160 x | 230 |
| IRDR41-10 | 40.6 | 1.05 | 1-40 | ≤38 | ≥110 | / | 1100 | 140 x | 160 x | 230 |
| IRDR45-7.5 | 45.2 | 0.75 | 1-40 | ≤38 | ≥110 | / | 1400 | 160 x | 190 x | 240 |
| IRDR51-10 | 50.9 | 1.07 | 1-40 | ≤38 | ≥110 | / | 1400 | 160 x | 190 x | 240 |
| Water Cooled | | | | | | | | | | |
| IRDR5W-8.5 | 5.2 | 0.85 | 1-40 | ≤38 | ≥110 | / | 650 | 80 x | 120 x | 200 |
| IRDR10W-7 | 9.6 | 0.70 | 1-40 | ≤38 | ≥110 | / | 650 | 80 x | 120 x | 200 |
| IRDR16W-7 | 16.1 | 0.70 | 1-40 | ≤38 | ≥110 | / | 800 | 90 x | 130 x | 210 |
| IRDR20W-10 | 20.3 | 1.00 | 1-40 | ≤38 | ≥110 | / | 650 | 80 x | 130 x | 200 |
| IRDR25W-8.5 | 24.6 | 0.85 | 1-40 | ≤38 | ≥110 | / | 800 | 90 x | 140 x | 210 |
| IRDR32W-10 | 31.8 | 1.05 | 1-40 | ≤38 | ≥110 | / | 850 | 90 x | 150 x | 220 |
| IRDR35W-8.5 | 35.1 | 0.85 | 1-40 | ≤38 | ≥110 | / | 900 | 90 x | 160 x | 220 |
| IRDR41W-10 | 41.1 | 1.05 | 1-40 | ≤38 | ≥110 | / | 900 | 90 x | 160 x | 220 |
| IRDR45W-7.5 | 45.2 | 0.75 | 1-40 | ≤38 | ≥110 | / | 1600 | 150 x | 200 x | 230 |
| IRDR51W-10 | 50.9 | 1.07 | 1-40 | ≤38 | ≥110 | / | 1600 | 150 x | 200 x | 230 |
| IRDR54W-7.5 | 53.3 | 0.75 | 1-40 | ≤38 | ≥110 | / | 1600 | 150 x | 200 x | 230 |
| IRDR60W-7.5 | 62.1 | 0.75 | 1-40 | ≤38 | ≥110 | / | 1700 | 150 x | 200 x | 250 |
| IRDR65W-8.5 | 65.0 | 0.85 | 1-40 | ≤38 | ≥110 | / | 1800 | 150 x | 190 x | 250 |
| IRDR70W-8.5 | 72.5 | 0.85 | 1-40 | ≤38 | ≥110 | / | 1800 | 150 x | 190 x | 250 |
| IRDR80W-8.5 | 80.1 | 0.85 | 1-40 | ≤38 | ≥110 | / | 1900 | 150 x | 200 x | 250 |
| IRDR90W* | 90 | 0.7 | 1-40 | ≤38 | ≥110 | / | 2200 | 160 x | 210 x | 280 |
| IRDR100W* | 100 | 0.7 | 1-40 | ≤38 | ≥110 | / | 2200 | 160 x | 210 x | 280 |
| IRDR125W* | 125 | 0.7 | 1-40 | ≤38 | ≥110 | / | 2300 | 160 x | 210 x | 280 |
| IRDR150W* | 150 | 0.7 | 1-40 | ≤38 | ≥110 | / | 3000 | 175 x | 240 x | 300 |
| IRDR200W* | 200 | 0.7 | 1-40 | ≤38 | ≥110 | / | 4000 | 210 x | 260 x | 310 |
| IRDR250W* | 250 | 0.7 | 1-40 | ≤38 | ≥110 | / | 4800 | 240 x | 280 x | 320 |
| IRDR300W* | 300 | 0.7 | 1-40 | ≤38 | ≥110 | / | 5400 | 260 x | 310 x | 330 |

* The IRDR90-300 products are only listed reference data under 0.7Mpa. For detailed selection parameters, please consult with Ingersoll Rand sales.

Operating conditions

- Standard Operating Pressure: 0.7Mpa
- Temperature air inlet: ≤ 38°C
- High temperature air inlet: ≥ 110°C
- Ambient temperature: 1-40°C
- Power supply: AC380V / 3P / 50Hz
- Cooling water inlet temperature: ≤32°C

Standard configuration

- Variable frequency control
- Zero purge drain valve
- PLC control, color touch screen
- Remote control

Optional configuration

- Temperature air inlet: ≥ 90°C
- Electric heater
- Only one high temperature air inlet
- Remote transmission
- Stainless steel pipe
- Dew Point Display Module



IRDR-E

| Model | Capacity CFM or m ³ /min | Rated flowpressure Mpa | Ambient temperature °C | inlet temperature °C | High Temp. inlet temperature °C | heater kW | Package Weight kg | Width cm | Depth cm | Height cm |
|---------------------|----------------------------------------|------------------------------|------------------------------|----------------------------|---------------------------------------|--------------|-------------------------|-------------|-------------|--------------|
| Air Cooled | | | | | | | | | | |
| IRDR5-8.5E | 5.1 | 0.85 | 1-40 | ≤38 | ≥110 | 4 | 750 | 110 | 130 | 200 |
| IRDR10-7E | 9.6 | 0.70 | 1-40 | ≤38 | ≥110 | 4 | 750 | 110 | 130 | 200 |
| IRDR16-7E | 16.1 | 0.70 | 1-40 | ≤38 | ≥110 | 4 | 1000 | 125 | 160 | 230 |
| IRDR20-10E | 20.3 | 1.00 | 1-40 | ≤38 | ≥110 | 4 | 850 | 120 | 130 | 200 |
| IRDR25-10E | 24.9 | 1.00 | 1-40 | ≤38 | ≥110 | 4 | 1050 | 130 | 160 | 230 |
| IRDR32-10E | 31.8 | 1.05 | 1-40 | ≤38 | ≥110 | 4 | 1100 | 135 | 160 | 230 |
| IRDR35-8.5E | 35.0 | 0.85 | 1-40 | ≤38 | ≥110 | 4 | 1150 | 140 | 160 | 230 |
| IRDR41-10E | 40.6 | 1.05 | 1-40 | ≤38 | ≥110 | 4 | 1150 | 140 | 160 | 230 |
| IRDR45-7.5E | 45.2 | 0.75 | 1-40 | ≤38 | ≥110 | 9 | 1500 | 160 | 190 | 240 |
| IRDR51-10E | 50.9 | 1.07 | 1-40 | ≤38 | ≥110 | 9 | 1500 | 160 | 190 | 240 |
| Water Cooled | | | | | | | | | | |
| IRDR5W-8.5E | 5.2 | 0.85 | 1-40 | ≤38 | ≥110 | 4 | 700 | 110 | 120 | 200 |
| IRDR10W-7E | 9.6 | 0.70 | 1-40 | ≤38 | ≥110 | 4 | 700 | 110 | 120 | 200 |
| IRDR16W-7E | 16.1 | 0.70 | 1-40 | ≤38 | ≥110 | 4 | 850 | 120 | 130 | 210 |
| IRDR20W-10E | 20.3 | 1.00 | 1-40 | ≤38 | ≥110 | 4 | 700 | 110 | 130 | 200 |
| IRDR25W-10E | 24.9 | 1.00 | 1-40 | ≤38 | ≥110 | 4 | 850 | 120 | 140 | 210 |
| IRDR32W-10E | 31.8 | 1.05 | 1-40 | ≤38 | ≥110 | 4 | 900 | 120 | 150 | 220 |
| IRDR35W-8.5E | 35.1 | 0.85 | 1-40 | ≤38 | ≥110 | 4 | 950 | 120 | 160 | 220 |
| IRDR41W-10E | 41.1 | 1.05 | 1-40 | ≤38 | ≥110 | 4 | 950 | 120 | 160 | 220 |
| IRDR45W-7.5E | 45.2 | 0.75 | 1-40 | ≤38 | ≥110 | 9 | 1700 | 150 | 200 | 230 |
| IRDR51W-10E | 50.9 | 1.07 | 1-40 | ≤38 | ≥110 | 9 | 1700 | 150 | 200 | 230 |
| IRDR54W-7.5E | 53.3 | 0.75 | 1-40 | ≤38 | ≥110 | 9 | 1700 | 150 | 200 | 230 |
| IRDR60W-7.5E | 62.1 | 0.75 | 1-40 | ≤38 | ≥110 | 15 | 1800 | 150 | 200 | 250 |
| IRDR65W-8.5E | 65.0 | 0.85 | 1-40 | ≤38 | ≥110 | 15 | 1900 | 150 | 190 | 250 |
| IRDR70W-8.5E | 72.5 | 0.85 | 1-40 | ≤38 | ≥110 | 15 | 1900 | 150 | 190 | 250 |
| IRDR80W-8.5E | 80.1 | 0.85 | 1-40 | ≤38 | ≥110 | 15 | 2000 | 150 | 200 | 250 |
| IRDR90WE* | 90 | 0.7 | 1-40 | ≤38 | ≥110 | 22 | 2300 | 160 | 210 | 280 |
| IRDR100WE* | 100 | 0.7 | 1-40 | ≤38 | ≥110 | 22 | 2300 | 160 | 210 | 280 |
| IRDR125WE* | 125 | 0.7 | 1-40 | ≤38 | ≥110 | 27 | 2400 | 160 | 210 | 280 |
| IRDR150WE* | 150 | 0.7 | 1-40 | ≤38 | ≥110 | 36 | 3100 | 175 | 240 | 300 |
| IRDR200WE* | 200 | 0.7 | 1-40 | ≤38 | ≥110 | 45 | 4200 | 210 | 260 | 310 |
| IRDR250WE* | 250 | 0.7 | 1-40 | ≤38 | ≥110 | 56 | 5000 | 240 | 280 | 320 |
| IRDR300WE* | 300 | 0.7 | 1-40 | ≤38 | ≥110 | 76 | 5600 | 260 | 310 | 330 |

* The IRDR90-300 products are only listed reference data under 0.7Mpa. For detailed selection parameters, please consult with Ingersoll Rand sales.

Operating conditions

- Standard Operating Pressure: 0.7Mpa
- Temperature air inlet: ≤ 38°C
- High temperature air inlet: ≥ 110°C
- Ambient temperature: 1-40°C
- Power supply: AC380V / 3P / 50Hz
- Cooling water inlet temperature: ≤ 32°C

Standard configuration

- Variable frequency control
- Zero purge drain valve
- PLC control, color touch screen
- Remote control

Optional configuration

- Temperature air inlet: ≥ 90°C
- Electric heater
- Only one high temperature air inlet
- Remote transmission
- Stainless steel pipe
- Dew Point Display Module



D-ICD Series

High Efficiency Combined Dryers

D-ICD series high efficiency combined dryers make a breakthrough from a simple serial connection of ordinary refrigerator and absorber, and obtains a superior energy-saving effect to greatly improve the return on investment of users.

- High-temperature inlet air is reduced to 5°C or below by using freeze-drying technology;
- Saturated humid air under low temperature conditions, after removing the condensed water by an efficient cyclone separator, and then filtering out the oil by an efficient oil removal filter, enters the adsorption tower for low-temperature adsorption;
- The adsorbed dry and cold air enters the freeze-drying system again, and achieves a temperature rise effect by exchanging heat with the humid hot air at the inlet;
- After the temperature is raised, most of the dry compressed air will go to the air pipeline, and a small part of the dry hot air will return to the regeneration tower to enable variable temperature regeneration of the adsorbent already saturated at low temperature.

Product Features

Reliable performance

High-quality outlet compressed air with stable low dew point and no impurities & moisture is obtained under stable outlet temperature.

Easy maintenance

Moisture content of compressed air is reduced by using a freeze-drying system to effectively prolong the life time of the adsorbent, extend the work cycle and reduce valve wear.

Pressure dew point options

The pressure dew point can be designed to be -40°C or -70°C according to user requirements.

Good energy-saving effect

The dryer requires no installation of an electric heater or no increase in regeneration air consumption, thus significantly reducing regeneration air consumption of the adsorbent (i.e. regeneration gas consumption $\leq 3\%$) and reducing the power consumption of the refrigeration compressor by 20%-40%.

Space saving

More space is saved with the compact structure design than a simple serial connection of refrigerator and absorber.



Technical Data

- Nominal working pressure: 0.7-1.0Mpa
- Rated inlet temperature: $\leq 45^{\circ}\text{C}$
- Average air consumption: $\leq 3\%$
- Electrical grade: NEMA 4 or IP55
- Cooling water temperature: 32°C
- Standard inlet conditions: 0.7Mpa / 38°C / 100% saturated humid air

Configuration

- Simens PLC and touch panel
- Near / remote control
- Integral housing design for flow rate up to $60\text{m}^3/\text{min}$
- Split design for flow rate of $80\text{m}^3/\text{min}$ and above
- Stable dew point performance & energy saving

| Model D-ICD | Flow m^3/min | Power V/Ph/Hz | Air interface pipe diameter mm | Cooling water interface pipe diameter | Cooling water flow t/h | Desiccant filled in double towers Kg |
|--------------------------------------------------------------------|---------------------------------|------------------|-----------------------------------|------------------------------------------|---------------------------|-----------------------------------------|
| D-ICD series high efficiency combined dryers (water-cooled) | | | | | | |
| D900ICD-W | 15 | 380/3/50 | DN65 | 1" | 4.5 | 324 |
| D1200ICD-W | 20 | 380/3/50 | DN65 | 1" | 5.0 | 350 |
| D1800ICD-W | 30 | 380/3/50 | DN80 | 1-1/2" | 6.0 | 430 |
| D2400ICD-W | 40 | 380/3/50 | DN100 | 1-1/2" | 8.0 | 628 |
| D3000ICD-W | 50 | 380/3/50 | DN100 | 1-1/2" | 10.0 | 650 |
| D3600ICD-W | 60 | 380/3/50 | DN125 | 1-1/2" | 12.0 | 845 |
| D4800ICD-W | 80 | 380/3/50 | DN125 | 1-1/2" | 16.0 | 1122 |
| D6000ICD-W | 100 | 380/3/50 | DN150 | 1-1/2" | 22.0 | 1560 |
| D7200ICD-W | 120 | 380/3/50 | DN150 | 1-1/2" | 27.0 | 1800 |
| D9000ICD-W | 150 | 380/3/50 | DN200 | 1-1/2" | 30.0 | 2260 |

Note: The air inlet is flanged for all dryers. The dimensions and air inlet & outlet pipe diameters are subject to the outline drawings. Other non-standard models with different flow rate can be customized upon request.

F Series Universal Filters

Integrating Excellent Performance into Design and Manufacturing

Ingersoll Rand's advanced F series compressed air filters effectively reduce contaminants in the air system to protect critical processes and precious instruments & equipment. Through rigorous testing and by integrating excellent components, F series filters can provide high quality compressed air in a long-lasting way.



Superior quality

Without effective filtration, various problems, such as a higher scrap rate, inferior quality products and additional maintenance costs, may occur in the manufacturing and processes of those products relying on compressed air. Our brand new F series filters are designed to solve these problems and ensure that the compressed air system provides high-quality clean compressed air for your equipment.



Higher efficiency

Maintaining a low pressure difference across all compressed air components is crucial for highly-efficient energy systems. Our new F series filters adopts a rigorous engineering design to ensure low pressure difference throughout the available lifetime of the filter element, and are equipped with a differential pressure indicator, which can directly display the cost consumption caused by the pressure difference in the system.

Optimal choice

As every compressed air system has its unique filtration requirements, our all-new F series filters are available in four different filtration grades to provide comprehensive filtration solutions for compressed air in all critical processes.

F Series Universal Filters

| Model | Flow | | Air interface pipe diameter mm | Dimensions (mm) | | Weight kg |
|----------------------------------|---------------------|--------------------|-----------------------------------|-----------------|------|--------------|
| | m ³ /min | m ³ /hr | | H | W | |
| F series threaded filters | | | | | | |
| F42*-E | 0.7 | 42 | 0.5" BSPT | 266 | 90 | 1.1 |
| F72*-E | 1.2 | 72 | 0.5" BSPT | 266 | 90 | 1.1 |
| F108*-E | 1.8 | 108 | 0.75" BSPT | 300 | 90 | 1.4 |
| F216*-E | 3.6 | 216 | 1" BSPT | 420 | 120 | 3.2 |
| F294*-E | 4.9 | 294 | 1.5" BSPT | 520 | 120 | 5.2 |
| F342*-E | 5.7 | 342 | 1.5" BSPT | 520 | 120 | 5.2 |
| F390*-E | 6.5 | 390 | 1.5" BSPT | 520 | 120 | 5.2 |
| F444*-E | 7.4 | 444 | 1.5" BSPT | 520 | 120 | 5.2 |
| F540*-E | 9 | 540 | 2" BSPT | 730 | 160 | 7.6 |
| F690*-E | 11.5 | 690 | 2" BSPT | 730 | 160 | 7.6 |
| F810*-E | 13.5 | 810 | 2" BSPT | 730 | 160 | 7.6 |
| F990*-E | 16.5 | 990 | 2.5" BSPT | 1010 | 160 | 9.5 |
| F1050*-E | 17.5 | 1050 | 2.5" BSPT | 1010 | 160 | 9.5 |
| F1170*-E | 19.5 | 1170 | 2.5" BSPT | 1010 | 160 | 9.5 |
| F1380*-E | 23 | 1380 | 3" BSPT | 770 | 200 | 10.6 |
| F1590*-E | 26.5 | 1590 | 3" BSPT | 770 | 200 | 10.6 |
| F1740*-E | 29 | 1740 | 3" BSPT | 1035 | 200 | 12.8 |
| F2100*-E | 35 | 2100 | 3" BSPT | 1035 | 200 | 12.8 |
| F series flanged filters | | | | | | |
| F2340*-E | 39 | 2340 | 3"FLG | 1140 | 440 | 76 |
| F2700*-E | 45 | 2700 | 4"FLG | 900 | 500 | 91 |
| F3090*-E | 51.5 | 3090 | 5"FLG | 930 | 500 | 98 |
| F3480*-E | 58 | 3480 | 5"FLG | 930 | 500 | 103 |
| F4080*-E | 68 | 4080 | 5"FLG | 950 | 540 | 118 |
| F4200*-E | 70 | 4200 | 5"FLG | 950 | 540 | 120 |
| F4560*-E | 76 | 4560 | 6"FLG | 990 | 560 | 124 |
| F4800*-E | 80 | 4800 | 6"FLG | 990 | 560 | 127 |
| F5520*-E | 92 | 5520 | 6"FLG | 1040 | 640 | 132 |
| F5940*-E | 99 | 5940 | 6"FLG | 1040 | 640 | 136 |
| F7680*-E | 128 | 7680 | 6"FLG | 1040 | 640 | 165 |
| F8700*-E | 145 | 8700 | 8"FLG | 1140 | 700 | 228 |
| F10800*-E | 180 | 10800 | 8"FLG | 1160 | 760 | 295 |
| F12960*-E | 216 | 12960 | 8"FLG | 1160 | 760 | 302 |
| F14400*-E | 240 | 14400 | 8"FLG | 1200 | 820 | 335 |
| F18000*-E | 300 | 18000 | 10"FLG | 1250 | 900 | 428 |
| F21600*-E | 360 | 21600 | 10"FLG | 1300 | 940 | 483 |
| F25200*-E | 420 | 25200 | 12"FLG | 1360 | 1000 | 554 |
| F28800*-E | 480 | 28800 | 14"FLG | 1550 | 1100 | 766 |

Notes: 1. Rated working pressure: 7Barg, max. working pressure: 16Barg, working temperature: <80°C, with a differential pressure indicator.

2. "*" refers to the filter grades: G, D, H & A

- G: 1µ for moisture removal at an efficiency over 95%, filtering out of water & oil mist above 1µm
- D: 1µ for dust removal, filtering out dust particles above 1µm
- H: 0.01µ/0.01ppm for oil removal, filtering out particles above 0.01µm, water & oil mist, and with residual oil content of 0.01ppm@7barg
- A: 0.01µ/0.001ppm for precise oil removal, filtering out particles above 0.01µm, water & oil mist, and with residual oil content of 0.001ppm@7barg



Ingersoll Rand Inc. (NYSE:IR), driven by an entrepreneurial spirit and ownership mindset, is dedicated to Making Life Better for our employees, customers, shareholders, and planet. Customers lean on us for exceptional performance and durability in mission-critical flow creation and industrial solutions. Supported by over 80+ respected brands, our products and services excel in very complex and harsh conditions. Our employees develop customers for life through their daily commitment to expertise, productivity, and efficiency. For more information, visit www.IRCO.com.



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