

Reliable, Efficient, Low Cost of Ownership

Providing clean, dry, compressed air is especially important in applications where moisture or contamination can cause system corrosion, damage to air-powered tools or degradation of products or processes touched by the compressed air.

Refrigerated dryers from Ingersoll Rand offer multiple design features to ensure a constant dew point at all load levels and will deliver a continuous dry air performance that satisfies ISO 7183 industry standards.

Clean, Reliable, Refrigerated Air

These units provide complete, affordable solutions for a wide selection of applications, including:

- Dry Cleaning.
- Light Processing.
- Petrochemical.
- Automotive.
- Manufacturing.
- Oil and Gas.

Designed for Optimum Efficiency

Multi-stage filtering helps remove residual contaminants.

Using refrigerated dryers from Ingersoll Rand will provide clean, dry air which means less corrosion in the air distribution system, less damage to air-powered tools and reduced potential for contamination in production process.

Ingersoll Rand offer multiple design features to ensure constant dew point at all load levels and will deliver continuous dry air performance that satisfies ISO 7183 industry standards.

Low Cost of Ownership

Ingersoll Rand's refrigerated dryers provide the very best combination of high efficiency, low pressure drop and small footprint which reduces power consumption, reduces installation time and facilitates maintenance.



Corrosion



Spoiled Paint Finish

Optimise your Choice

The 'D' Refrigerated Dryer Range - one range for all applications. These units provide a small footprint with complete, affordable solutions for applications ranging from dry cleaning to automotive body shops, to light processing and manufacturing applications. The high capacity units are designed for large-scale industrial, automotive and petrochemical applications.

Control Panel : D12IN-A to D480IN-A

- Full feature, multi-function control panel.
- Energy saving mode – shuts dryer off during low loads.
- Alarm display:
 - High and very high dew point.
 - Low dew point.
 - Probe failure.
- Fan speed indication.
- Remote alarm contact.
- Service intervals.
- History of last 10 alarms.



Electronic Drain Valve : D12IN-A to D480IN-A

The programmable electronic drain valve is fully adjustable to help minimise air loss.

- Easily adjusted from the dryer control panel to match all possible working conditions.
- Proven reliability – thousands in service.
- Includes a strainer for quick maintenance.



Control Panel : D600IN-A to D950IN-A

Includes all the main functions to control and monitor the unit:

- Energy saving mode – shuts dryer off during low loads.
- Alarm display:
 - Dew Point – high/low temperature.
 - High ambient temperature.
 - No-loss drain failure.
- Terminal for remote alarm signal.
- Terminal for remote alarm for no-loss drain.
- History of last 10 alarms.

Control Panel : D1300IN-A to D5400IN-A

This range has all the main functions you would expect to control and monitor the unit:

- Energy saving mode – shuts dryer off during low loads.
- Alarm display:
 - Dew Point – high/low temperature.
 - High ambient temperature.
 - No-loss drain failure.
- Terminal for remote alarm signal.
- Terminal for remote alarm for no-loss drain.
- Remote ON/OFF.
- History of the last 50 alarms.

Electronic No-loss Drain : D600IN-A to D5400IN-A

The powerful no loss electronic drain eliminates the need for pre-setting the unit.

- Using state-of-the-art software and combined with a special transducer interface to measure the presence of condensate, it is released only when needed.
- Continuous monitoring ensures fast, effective discharge of the condensate with no deficit of compressed air.



Advanced Microprocessor Controls :
D4620IN-W to D22800IN-W
and D6600IN-A to D13500IN-A

- Dew Point – high/low temperature.
- Air inlet temperature displays.
- Air outlet temperature.
- Multi level menus to allow user programming.
- Volt free general alarm contact.

Reliable Design

Scroll compressors with corrosion resistant materials deliver cost efficient, long-life performance. They feature fewer moving parts, are fully-instrumented and monitored for reliability and are protected by IP54-rated electrical enclosures.

This makes them the optimum investment for high-volume needs with a lot at stake – and the bigger, the better!

Every unit delivers advanced microprocessor control with multi-level menus, password protection and alarms.

Units with capacities above 150 m³/min also add self-diagnostic software plus the ability to trim energy consumption during periods of reduced demand.



Technical Specifications

| Model | Class 5 < 7° C Dew Point | | Class 4 < 3° C Dew Point | | Nominal Power | Standard Power Supply | Air Connections | Dimensions | | | Weight | Max. Working Pressure bar g |
|--------------|-----------------------------|-------------------|-----------------------------|-------------------|------------------|--------------------------|--------------------|------------|-------------|--------|--------|--------------------------------------|
| | m³/min FAD 20°C | m³/hr FAD 20°C | m³/min FAD 20°C | m³/hr FAD 20°C | | | | kW | V / Ph / Hz | BSP in | | |
| Air Cooled | | | | | | | | | | | | |
| D12IN-A | 0.2 | 12 | 0.2 | 9.6 | 0.12 | 230/1/50 | 3/8" | 305 | 360 | 402 | 17 | 14 |
| D25IN-A | 0.4 | 25 | 0.3 | 20.0 | 0.12 | 230/1/50 | 3/8" | 305 | 360 | 402 | 23 | 14 |
| D42IN-A | 0.7 | 42 | 0.6 | 33.6 | 0.18 | 230/1/50 | 1/2" | 389 | 431 | 452 | 25 | 14 |
| D54IN-A | 0.9 | 54 | 0.7 | 43.2 | 0.18 | 230/1/50 | 1/2" | 389 | 431 | 452 | 26 | 14 |
| D72IN-A | 1.2 | 72 | 1.0 | 57.6 | 0.20 | 230/1/50 | 1/2" | 389 | 431 | 452 | 26 | 14 |
| D108IN-A | 1.8 | 108 | 1.4 | 86.4 | 0.41 | 230/1/50 | 3/4" | 420 | 515 | 562 | 33 | 14 |
| D144IN-A | 2.4 | 144 | 1.9 | 115.2 | 0.47 | 230/1/50 | 3/4" | 420 | 515 | 562 | 38 | 14 |
| D180IN-A | 3.0 | 180 | 2.4 | 144.0 | 0.61 | 230/1/50 | 3/4" | 420 | 515 | 562 | 43 | 14 |
| D240IN-A | 4.0 | 240 | 3.2 | 192.0 | 0.68 | 230/1/50 | 1 1/2" | 500 | 679 | 978 | 76 | 14 |
| D300IN-A | 5.0 | 300 | 4.0 | 240.0 | 1.04 | 230/1/50 | 1 1/2" | 500 | 679 | 978 | 87 | 14 |
| D360IN-A | 6.0 | 360 | 4.8 | 288.0 | 1.04 | 230/1/50 | 1 1/2" | 500 | 679 | 978 | 87 | 14 |
| D480IN-A | 8.0 | 480 | 6.4 | 384.0 | 1.40 | 230/1/50 | 1 1/2" | 500 | 679 | 978 | 110 | 14 |
| D600IN-A | 12.0 | 720 | 10.0 | 600.0 | 1.85 | 230/1/50 | 2" | 720 | 780 | 1425 | 120 | 14 |
| D780IN-A | 15.6 | 936 | 13.0 | 780.0 | 1.98 | 400/3/50 | 2" | 720 | 780 | 1425 | 130 | 12 |
| D950IN-A | 19.0 | 1140 | 15.8 | 950.0 | 2.58 | 400/3/50 | 2" | 720 | 780 | 1425 | 150 | 12 |
| D1300IN-A | 26.0 | 1560 | 21.7 | 1300.0 | 3.40 | 400/3/50 | 3" | 784 | 1388 | 1585 | 260 | 12 |
| D1410IN-A | 28.2 | 1692 | 23.5 | 1410.0 | 3.40 | 400/3/50 | 3" | 784 | 1388 | 1585 | 270 | 12 |
| D1890IN-A | 37.8 | 2268 | 31.5 | 1890.0 | 5.30 | 400/3/50 | 3" | 784 | 1388 | 1585 | 300 | 12 |
| D2520IN-A | 50.4 | 3024 | 42.0 | 2520.0 | 6.88 | 400/3/50 | DN 100 | 914 | 1388 | 1585 | 330 | 12 |
| D3000IN-A | 60.0 | 3600 | 50.0 | 3000.0 | 7.81 | 400/3/50 | DN 125 | 1500 | 1510 | 1570 | 420 | 12 |
| D4200IN-A | 84.0 | 5040 | 70.0 | 4200.0 | 11.29 | 400/3/50 | DN 125 | 1500 | 1510 | 1570 | 520 | 12 |
| D4800IN-A | 96.0 | 5760 | 80.0 | 4800.0 | 12.91 | 400/3/50 | DN 150 | 1500 | 1510 | 1570 | 620 | 12 |
| D5400IN-A | 108.0 | 6480 | 90.0 | 5400.0 | 12.91 | 400/3/50 | DN 150 | 1500 | 1510 | 1570 | 720 | 12 |
| D6600IN-A | 127.0 | 7618 | 102.7 | 6162.0 | 9.90 | 400/3/50 | DN 150 | 910 | 1940 | 1447 | 624 | 14 |
| D9000IN-A | 160.5 | 9630 | 130.4 | 7822.0 | 11.00 | 400/3/50 | DN 200 | 930 | 3000 | 2079 | 1077 | 14 |
| D11400IN-A | 204.1 | 12249 | 165.9 | 9952.0 | 14.35 | 400/3/50 | DN 200 | 930 | 3000 | 2079 | 1102 | 14 |
| D13500IN-A | 261.5 | 15692 | 212.9 | 12772.0 | 19.84 | 400/3/50 | DN 250 | 1150 | 3390 | 2210 | 1850 | 12 |
| | | | | | | | | | | | | |
| Water Cooled | | | | | | | | | | | | |
| D4620IN-W | 81.8 | 4909 | 65.8 | 3948.0 | 5.23 | 400/3/50 | DN 150 | 910 | 1940 | 1310 | 560 | 14 |
| D5400IN-W | 104.7 | 6282 | 84.1 | 5045.0 | 6.76 | 400/3/50 | DN 150 | 910 | 1940 | 1310 | 526 | 14 |
| D6600IN-W | 133.6 | 8015 | 105.7 | 6343.0 | 9.00 | 400/3/50 | DN 150 | 910 | 1940 | 1310 | 659 | 14 |
| D9000IN-W | 163.8 | 9825 | 131.6 | 7897.0 | 10.47 | 400/3/50 | DN 200 | 930 | 3000 | 1927 | 1055 | 14 |
| D11400IN-W | 209.8 | 12588 | 168.5 | 10113.0 | 14.23 | 400/3/50 | DN 200 | 930 | 3000 | 1927 | 1065 | 14 |
| D13500IN-W | 267.6 | 16055 | 214.6 | 12876.0 | 19.40 | 400/3/50 | DN 250 | 2975 | 1165 | 1980 | 1730 | 12 |
| D18000IN-W | 372.1 | 22326 | 300.3 | 18017.0 | 23.70 | 400/3/50 | DN 300 | 3575 | 1315 | 2230 | 2750 | 12 |
| D22800IN-W | 471.5 | 28291 | 380.0 | 22802.0 | 31.54 | 400/3/50 | DN 300 | 3575 | 1315 | 2230 | 2785 | 12 |

Notes:

- 1) Data refers to the following conditions: air FAD 20°C/1 bar a, pressure 7 bar g, ambient temperature 25°C, air inlet temperature 35°C, water inlet temperature = 30°C, condensing mean temperature = 40°C, stated pressure dew points in accordance with ISO 8573-1:2001 standards.

Maximum Inlet Temperature

| | |
|-------------------------|-------|
| D12IN-A to D5400IN-A | 60 °C |
| D6600IN-A to D13500IN-A | 65 °C |
| D4620IN-W to D22800IN-W | 65 °C |

Maximum Ambient Temperature

| | |
|-------------------------|-------|
| D12IN-A to D950IN-A | 50 °C |
| D1300IN-A to D13500IN-A | 46 °C |
| D4620IN-W to D22800IN-W | 46 °C |

Water Connections BSP (inches)

| | |
|-------------------------|--------|
| D4620IN-W to D6600IN-W | 1 1/2" |
| D9000IN-W to D22800IN-W | 2" |

If Pressostatic valve option installed on D13500IN-W, D18000IN-W & D22800IN-W, the inlet water connection changes to two 1 1/2" BSP connections.

Features

| Features | Air Cooled | | | | | | Water Cooled | |
|----------------------------------|---------------------------|----------------------------|----------------------------|------------------------------|-------------------------------|------------|-------------------------------|--------------------------------|
| | D12IN-A to D180IN-A | D240IN-A to D480IN-A | D600IN-A to D950IN-A | D1300IN-A to D5400IN-A | D6600IN-A to D11400IN-A | D13500IN-A | D4620IN-W to D11400IN-W | D13500IN-W to D22800IN-W |
| Dew Point Indication | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| On/off Switch | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Terminal for Remote Alarm Signal | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Remote Control | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Energy Saving Mode | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Remote ON/OFF Switch | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| High Pressure Switch | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Variable Speed Fan | ✓ | ✓ | | | | | | |
| Fan Pressure Switch | | | ✓ | ✓ | ✓ | ✓ | | |
| History of Last 10 Alarms | ✓ | ✓ | ✓ | | | | | |
| History of Last 50 Alarms | | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hot Gas By-pass Valve | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Electronic No-loss Drain | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Electronic Drain Valve | ✓ | ✓ | | | | | | |
| Internal Pre-filter | | | | | | ✓ | | ✓ |

Maintaining air quality is so important that the International Standards Organisation (ISO) developed six compressed air quality classes, as defined by ISO 8573-1:2001.

ISO 8573-1:2001 Air Quality Classes

| Quality Class | Solid - Maximum Number of Particles per m ³ | | | Water Pressure Dew Point °C | Oil & Oil Vapour mg/m ³ |
|---------------|--|--------------|------------|-----------------------------|------------------------------------|
| | 0.1-0.5 micron | 0.5-1 micron | 1-5 micron | | |
| 0 | As specified by the end-user or manufacturer and more stringent than Class 1 | | | | |
| 1 | 100 | 1 | 0 | -70°C | 0.01 |
| 2 | 100,000 | 1000 | 10 | -40°C | 0.1 |
| 3 | N/A | 10,000 | 500 | -20°C | 1 |
| 4 | N/A | N/A | 1,000 | 3°C | 5 |
| 5 | N/A | N/A | 20,000 | 7°C | N/A |
| 6 | N/A | N/A | N/A | 10°C | N/A |

To determine which industry classification you require, ask yourself these simple questions:

- Does compressed air quality affect my production process and the quality of my end products?
- Will poor compressed air quality decrease my productivity, cost savings and product quality standards?
- What internal and external ambient conditions affect the quality of my compressed air produced by my system?