nessco
pressure systems

AIR DRYERS

INFINITY

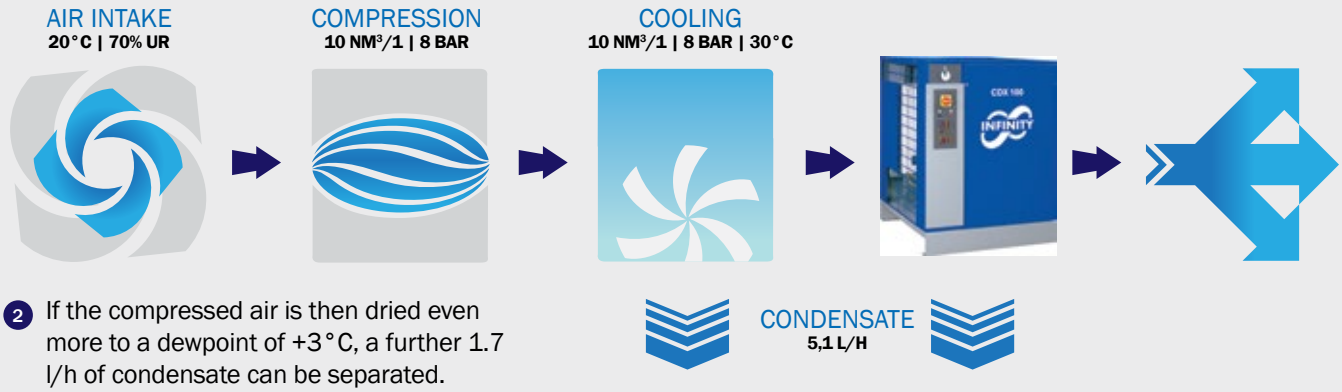
Infinity Air Dryer Systems

Humidity is a component of atmospheric air, which can be found in the form of condensate and/or vapour in compressed air distribution systems and the machines that use the compressed air.

If the condensate can be easily separated and discharged, humidity, in the form of vapour, will follow the compressed air flow all the way to the final product. When it then cools, a part of this humidity present in the compressed air condenses and over time causes serious damage to the distribution network, the machines using the compressed air and the final product.

How Air Dryers Work

1. For example, 5.1 l/h of condensate is separated from a compressor with an output capacity of 10 Nm^3/min and an ambient intake air temperature of 20 °C and 70% relative humidity, whilst operating at a delivery pressure of 8 bar(g) and cooling the air to 30 °C.



2. If the compressed air is then dried even more to a dewpoint of +3 °C, a further 1.7 l/h of condensate can be separated.

Air Dryer benefits

1. DISTRIBUTION UNIT COST
The distribution unit is more economical and can be installed without slopes to drain points, without separators and without condensate drains. Simple “T” drops coming directly from the distribution ring.

2. GREATER PRODUCTIVITY
Greater productivity because of fewer untimely breakdowns due to machine faults.

3. LOWER MAINTENANCE COSTS
- For the distribution network, as there is no need to clean line separators or check the operation of the drains, which at times may be spread over very wide areas.
- For machine applications and pneumatic tools, as the absence of condensate eliminates the main cause of breakdowns.

4. PROFITABILITY AND CREDIBILITY
Greater productivity thanks to fewer untimely breakdowns due to machine faults. Maintenance managers, production managers, and air compressor specialists make sure their systems have a dryer.

5. LONGER LASTING EQUIPMENT
Longer life for pneumatic equipment, as the use of dry air guarantees reliable performance over time.

6. HIGHER FINAL PRODUCT QUALITY
Higher final product quality both for applications where compressed air comes directly into contact with the product and where the air acts purely to assist movement of the machine’s servo mechanisms.

7. SAVINGS
- High energy savings due to low pressure drops throughout the system.
- No wastage of compressed air because of the intelligent automatic discharge of condensate.
- A cleaner compressed air distribution network without leakage. Greater reliability and longer life of applications.
- Less maintenance and easier maintenance both due to the reliability of the components and the easy access to any internal component. Safe and reliable operation.

Infinity CDX Air Dryer

Infinity Advanced Air Solutions is one of the world's leading manufacturers of dryers and is the only air compressor manufacturer that designs and manufactures all the dryers they use for their range of compressors in their own factories.

CDX Air Dryer features

1. QUALITY

High reliability attained through the development of the dryers in the CDX range. First-class components that have been tested under the worst possible operating conditions. Constant dewpoint under any load condition. Automatic operation.

2. INSTALLATION

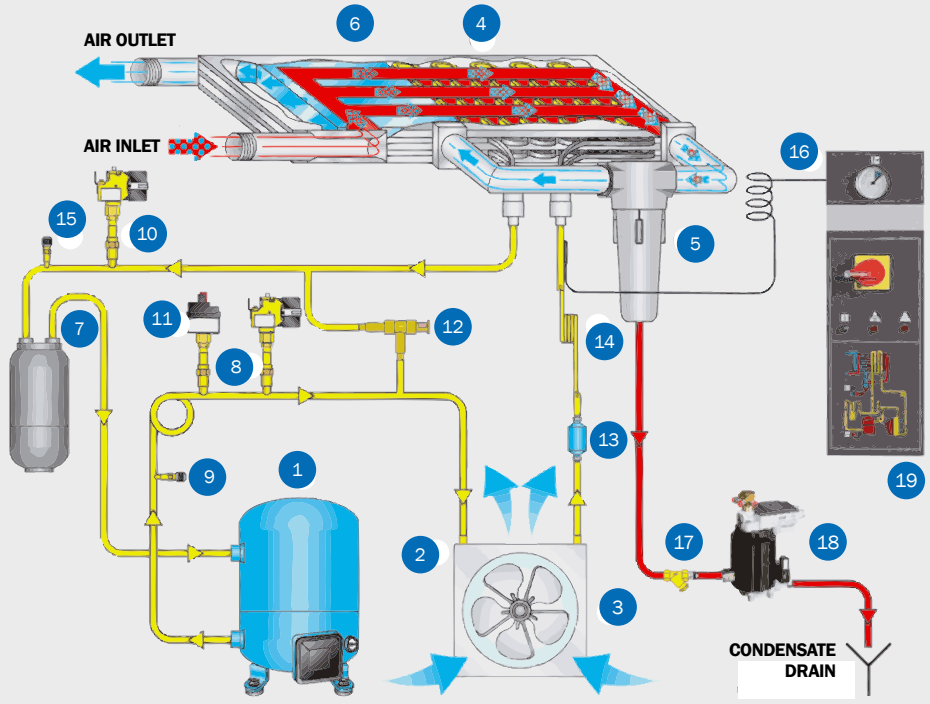
Its unique light and compact design makes it easy to transport by whatever means. Installation of the CDX dryer is simple and does not require any special equipment nor any special foundation work, whether it is a new system or an update to an existing system. All that is necessary is a pneumatic and an electrical connection plus filters and the dryer is ready to use.

3. MAINTENANCE

Years of experience, the quality of the components we use, the generous size of the unit, its simple design and effective control system all contribute towards making these units safe and reliable over time. All the dryers in the CDX range have been designed and built with particular attention given to operation and performance using first-class components that have been tested in the field for many years. The refrigerant dryer offered by Infinity is a unit that:

- Requires low maintenance and long intervals between overhauls;
- Has few components subject to stress.

Layout



1. Refrigerant fluid compressor
2. Condenser
3. Motor-driven ventilator
4. Air/Refrigerant evaporator
5. Condensate separator with a demister filter
6. Air/air heat exchanger
7. Refrigerant fluid separator
8. Maximum pressure switch
9. Service valve
10. Minimum pressure switch
11. Pressure switch, fan control
12. Hot gas bypass valve
13. Refrigerant fluid filter
14. Capillary tube
15. Service valve
16. Dewpoint thermometer
17. Impurity collector
18. Automatic discharge of condensate
19. Instrument panel

Infinity CDX Refrigeration Air Dryers

CODE	FAD (CFM)	PRESSURE (BAR)	PSI	10,200WATT	PORT SIZE	DIMENSIONS (L X W X H)	WEIGHT (KG)
CDX 12	42.4	16	232	266	3/4" M	350 x 500 x 450	25
CDX 18	64.4	16	232	284	3/4" M	350 x 500 x 450	27
CDX 24	83	13	188	609	1" F	370 x 500 x 764	44
CDX 30	106	13	188	673	1" F	370 x 500 x 764	44
CDX 36	127	13	188	793	11/2" F	460 x 560 x 789	53
CDX 41	145	13	188	870	11/2" F	460 x 560 x 789	60
CDX 52	184	13	188	1,072	11/2" F	460 x 560 x 789	65
CDX 65	230	13	188	1.190	11/2" F	580 x 590 x 899	80
CDX 77	272	13	188	1.446	11/2" F	580 x 590 x 899	80
CDX 100	353	13	188	1,818	2" F	735 x 898 x 962	128
CDX 120	424	13	188	1,319	2" F	735 x 898 x 962	146
CDX 150	530	13	188	1,631	2" F	735 x 898 x 962	158
CDX 180	636	13	188	1,889	2" F	735 x 898 x 962	165
CDX 240	848	13	188	2,110	3" F	1,020 x 1,082 x 1,535	325
CDX 300	1,060	13	188	3,900	3" F	1,020 x 1,082 x 1,535	335
CDX 350	1,237	13	188	4,460	3" F	1,020 x 1,082 x 1,535	350
CDX 450	1,589	13	188	5,550	DN125	1,020 x 1,082 x 1,535	380
CDX 500	1,766	13	188	6,715	DN125	1,020 x 2,099 x 1,535	550
CDX 700	2,472	13	188	6,800	DN125	1,020 x 2,099 x 1,535	600