



»»» CDX 4 - 840
Refrigerant dryers

Solid, simple, smart.
Advanced reliability in
compressed air.





User benefits

Simple Installation

- Light and compact design
- Easy to transport
- Easy installation that does not require any special equipment or special foundation work.

Solid Quality

- High reliability was a key driver when developing the CDX dryer range
- First-class components that have been tested under the worst possible operating conditions
- Constant dewpoint under any load conditions when correctly sized.

Easy Maintenance and Accessibility

- Less maintenance is required and is easier
- Reliable components that are easily accessed.
- Long service intervals

Cost savings

- Very little maintenance required
- Low energy consumption
- Energy savings due to low pressure drops throughout the dryer system
- No compressed air waste due to intelligent automatic discharge of condensate.

CDX Refrigerant dryer

A compressor takes humidity and contamination from the intake air, during the compression process these particles combine with the oil used in the compressor. All these impurities can cause wear and corrosion to the downstream equipment, with potential costly interruption to production, and reduction in the efficiency and service life of the equipment used.

To reduce this negative impact, a range of refrigerant dryers has been developed to ensure air quality, increase efficiency and productivity and lengthen the life span of your equipment and tools.

The benefits of refrigerant dryers

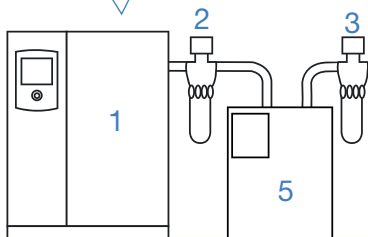
Clean and dry air

- Compressed air is cooled down by refrigerant gas, condensing the water in the air, allowing it to be removed.
- Protection of the air network from corrosion, rust and leakages.
- Higher final product quality.
- Increase your overall productivity
- Protection for the downstream equipment

Typical installations

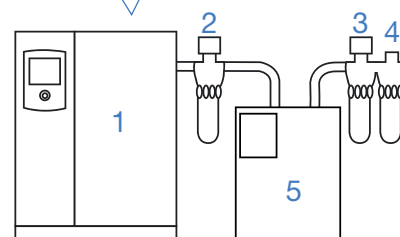
1. Compressor with after cooler
2. G filter
3. C filter

High quality air with reduced dew point
(air purity to ISO 8573-1: class 1:4:2)



4. V filter
5. Refrigerant dryer. Vertical receiver is always recommended

High quality air with reduced dew point and oil concentration
(air purity to ISO 8573-1: class 1:4:1)





»»» PDP Indicator

The operation of the CDX dryer is monitored by an electronic controller indicating all relevant information:



Technical details:

- Status of the refrigerant dryer
- Status of the fan
- Dewpoint indication

Alarm display:

- Alarm about high or low dewpoint
- Fan probe failure (CDX12-77)
- Service warning

Control panel with free contact (on request) for a:

- Remote PDP alarm (CDX 24-840)
- Remote high refrigerant temperature (CDX 24-840)
- Remote fan probe failure (CDX 24-77)



»»» Intelligent capacitive drain discharge

The full refrigerant dryer range is equipped with the capacity condensate drain, a range using electronic sensors to discharge only condensate and without wasting any compressed air.

Benefits

- ✓ Only water is discharged, no compressed air
- ✓ Energy saving
- ✓ No noise and environmental friendly

»»» Standard features (for CDX 100-840)

Free contacts for a:

- Remote start/stop
- Remote general alarm
- Remote drain alarm

»»» Available options (for CDX 4-18)

Bypass valve and filter support*

The optional bypass facility allows the system to operate using the filters only during maintenance or malfunction of the dryer, thus avoiding any downtime.

Filter support*

This option allows two filters to be installed on the rear side of the dryer, reducing overall dimensions and installation costs.

* Filters are not included in the option.



THE SMART CHOICE FOR HIGH RELIABILITY

Components

1 REFRIGERANT COMPRESSOR

driven by an electric motor, cooled using refrigerant fluid and protected against thermal overload.

2 REFRIGERANT CONDENSER

air-cooled and with a large exchange surface for high thermal exchange.

3 MOTOR-DRIVEN FAN

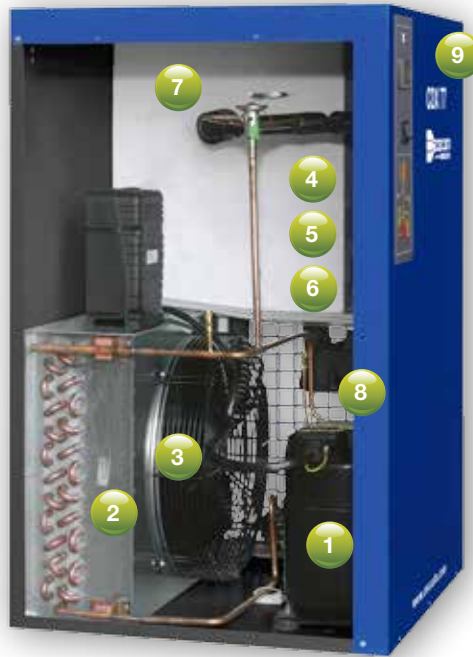
for the condenser cooling air flow.

4 AIR/REFRIGERANT EVAPORATOR

with high thermal exchange and low leakage rates.

5 CONDENSATE SEPARATOR

High-efficiency.



6 AIR-AIR EXCHANGER

with high thermal exchange and low load losses.

7 HOT GAS BYPASS VALVE

controls the refrigerant capacity under all load conditions preventing any formation of ice within the system.

8 AUTOMATIC DISCHARGE OF CONDENSATE

Energy saving and self adjusting, allows only moisture to discharge and prevents waste discharge of valuable compressed air.

9 CONTROL PANEL

indicating all relevant information

Drying principle

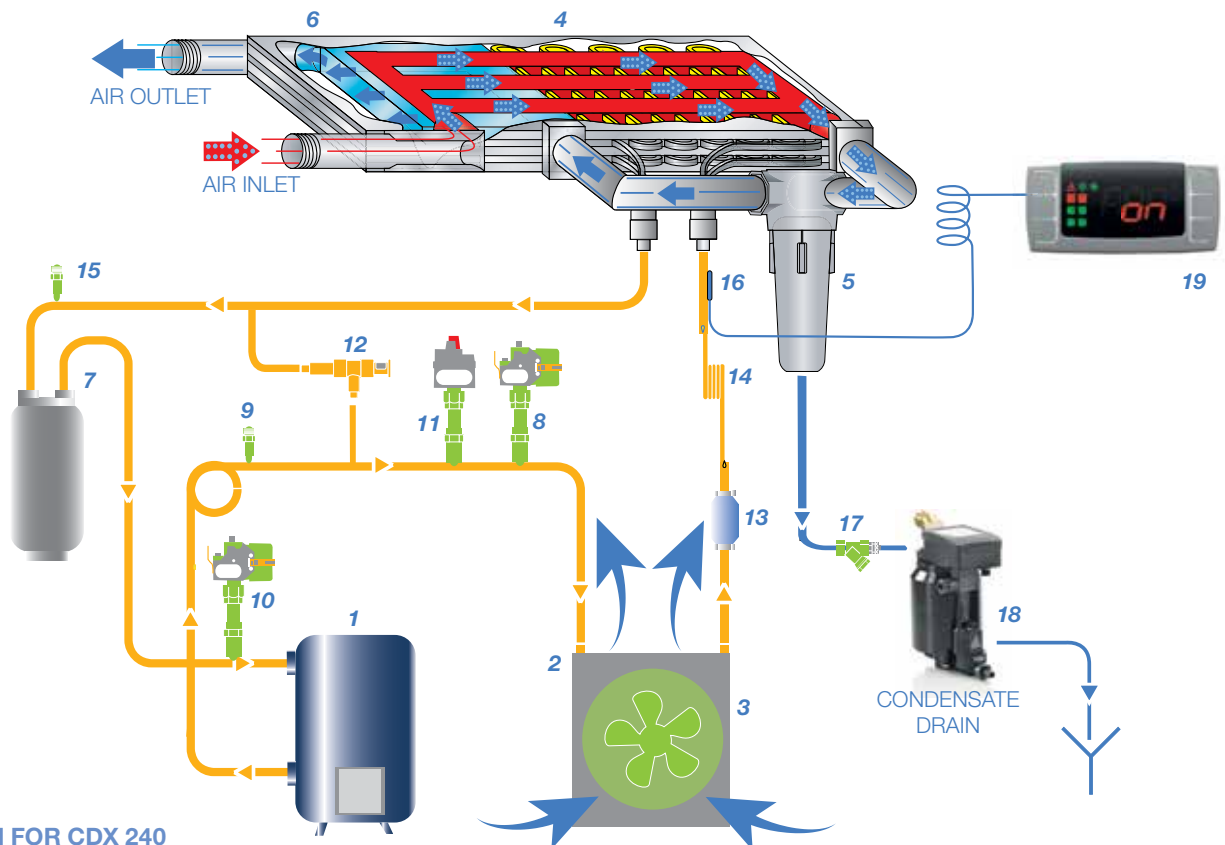


DIAGRAM FOR CDX 240

1. Refrigerant fluid compressor
2. Condenser
3. Motor driven fan
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. Fan pressure switch
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. PDP indicator

CDX 4 -840 REFRIGERANT DRYERS



Technical data • According to ISO 7183 and Cagi Pneurop PN8NTC2

TYPE	Max. Working Pressure		Air Treatment Capacity			Motor Power	Inlet / outlet Connections	Dimensions			Weight	refrigerant gas	
	bar	psi	l/1'	m ³ /h	cfm	W		V/Hz/Ph	gas/DN	L	W		H
CDX 4	16	232	350	21	12,4	130	230/50/1	3/4" M	350	500	450	19	R134a
CDX 6	16	232	600	36	21,2	164	230/50/1	3/4" M	350	500	450	19	R134a
CDX 9	16	232	850	51	30,0	190	230/50/1	3/4" M	350	500	450	20	R134a
CDX 12	16	232	1.200	72	42,4	266	230/50/1	3/4" M	350	500	450	25	R134a
CDX 18	16	232	1.825	110	64,4	284	230/50/1	3/4" M	350	500	450	27	R134a
CDX 24	13	188	2.350	141	83,0	609	230/50/1	1" F	370	500	764	44	R404A
CDX 30	13	188	3.000	180	106	673	230/50/1	1" F	370	500	764	44	R404A
CDX 36	13	188	3.600	216	127	793	230/50/1	1 1/2" F	460	560	789	53	R404A
CDX 41	13	188	4.100	246	145	870	230/50/1	1 1/2" F	460	560	789	60	R404A
CDX 52	13	188	5.200	312	184	1.072	230/50/1	1 1/2" F	460	560	789	65	R404A
CDX 65	13	188	6.500	390	230	1.190	230/50/1	1 1/2" F	580	590	899	80	R404A
CDX 77	13	188	7.700	462	272	1.446	230/50/1	1 1/2" F	580	590	899	80	R404A
CDX 100	13	188	10.000	600	353	1.319	400/50/3	2" F	735	898	962	128	R410A
CDX 120	13	188	12.000	720	424	1.631	400/50/3	2" F	735	898	962	146	R410A
CDX 150	13	188	15.000	900	530	1.889	400/50/3	2" F	735	898	962	158	R410A
CDX 180	13	188	18.000	1.080	636	2.110	400/50/3	2" F	735	898	962	165	R410A
CDX 240	13	188	24.000	1.440	848	3.900	400/50/3	3" F	1.020	1.082	1.535	325	R404A
CDX 300	13	188	30.000	1.800	1.060	4.460	400/50/3	3" F	1.020	1.082	1.535	335	R404A
CDX 350	13	188	35.000	2.100	1.237	5.550	400/50/3	3" F	1.020	1.082	1.535	350	R404A
CDX 450	13	188	45.000	2.700	1.589	6.715	400/50/3	DN125	1.020	1.082	1.535	380	R404A
CDX 500	13	188	50.000	3.000	1.766	6.800	400/50/3	DN125	1.020	2.099	1.535	550	R404A
CDX 700	13	188	70.000	4.200	2.472	10.200	400/50/3	DN125	1.020	2.099	1.535	600	R404A
CDX 840	13	188	84.000	5.040	2.966	12.300	400/50/3	DN125	1.025	2.099	1.535	650	R404A

NOTES:

(1) Reference conditions:

- Operating pressure : 7 bar (100 psi)
- Operating temperature : 35 °C
- Room temperature : 25 °C
- Pressure dewpoint : +3 °C +/- 1
- Available in different voltages and frequency

Limit conditions:

- Working pressure: 16 bar (232 psi) CDX 4-18
13 bar (188 psi) CDX 24-840
- Operating temperature: 55 °C
- Min/Max room temperature: +5 °C; 45 °C

Optional for CDX (4-18):

- Bypass + filter support
- Filter support



Correction factor • for conditions differing from the project $K = A \times B \times C$

Room temperature	°C	25	30	35	40	45	
	A	1,00	0,92	0,84	0,80	0,74	
		1,00	0,91	0,81	0,72	0,62	(CDX 100-840)

Operating temperature	°C	30	35	40	45	50	55	
	B	1,24	1,00	0,82	0,69	0,58	0,45	
		1,00	1,00	0,82	0,69	0,58	0,49	(CDX 100-840)

Operation pressure	bar	5	6	7	8	9	10	11	12	13	14	15	16	
	C	0,90	0,96	1,00	1,03	1,06	1,08	1,10	1,12	1,13	1,15	1,16	1,17	
	0,90	0,97	1,00	1,03	1,05	1,07	1,09	1,11	1,12				(CDX 100-840)	

The new flow rate value can be obtained by dividing the current or real flow rate by the correction factor related to the real operation conditions.

Environmental friendly refrigerant gases

A key objective in the design of the CDX dryer was to deliver a product that offers performance, reliability and safety with the lowest possible environmental impact.

- Environmentally friendly thanks to the use of R134a, R404A and R410A gas.
- No impact on the ozone layer.
- R410A gas has exceptional properties:
 - Very low Global Warming Potential (GWP)
 - Energy saving by use of rotary refrigerant compressor



CDX 4-840 Refrigerant dryers

Part of a full range of
Quality air products



- A high quality product offering you **technology you can trust**.
- Our products are **easy to use** and guarantee high **reliability**.
- Distributors are always nearby ensuring **availability** of both products and support.
- Choosing our high performance products entails a **partnership** that will boost your business.
- Safeguarding long-term productivity through optimal **serviceability** and use of original parts.



Care. Trust. Efficiency.

Care.

Care is what service is all about: professional service by knowledgeable people, using high-quality original parts.

Trust.

Trust is earned by delivering on our promises of reliable, uninterrupted performance and long equipment lifetime.

Efficiency.

Equipment efficiency is ensured by regular maintenance. Efficiency of the service organization is how Original Parts and Service make the difference.

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