Solid, simple and smart: advanced reliability in compressed air

CDX 4 - 840 Refrigerant Dryers

CECCATO ARIA COMPRESSA

User benefits

Simple installation

- Light and compact design
- Easy to transport
- Easy and fast installation using the optional filter supports and by pass option (CDX 4-18)

Solid quality

- High reliability was a key driver when developing the CDX dryer range
- First-class components tested under extreme operating conditions
- Constant dewpoint under any load conditions

Easy maintenance and accessibility

- Low maintenance level
- Reliable components easily accessible
- Long service intervals

Costs saving

- Very little maintenance required
- Low energy consumption
- Energy savings due to low pressure drops
- No loss of compressed air due to level-controlled condensate drain

CDX Refrigerant dryer

The inlet air of a compressor contains humidity and contaminants like dust, oil, etc. During the compression these contaminants reach a high concentration. This 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.

By cooling down the compressed air, a refrigerant dryer removes the largest part of the water content. Our CDX range ensures high quality dry air, increasing efficiency and productivity as well as the life span of your equipment and tools.

The benefit of refrigerant dryers

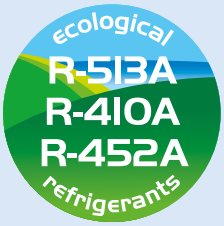
Clean and dry air

- Increase your overall productivity
- Improve your final product quality
- Protect your downstream equipment against corrosion, rust and leakages.
- Avoid costly service interventions

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 R513A, R410A and R452A gas.
- No impact on the ozone layer.
- R410A benefits:
  - Low Global Warming Potential (GWP)
  - Energy saving with rotary refrigerant compressor (20 to 30% more efficient then the conventional piston)



The smart choice for high reliability

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.

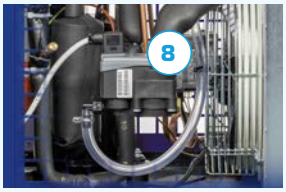
4. AIR-AIR EXCHANGER with high thermal performance and low pressure drop.

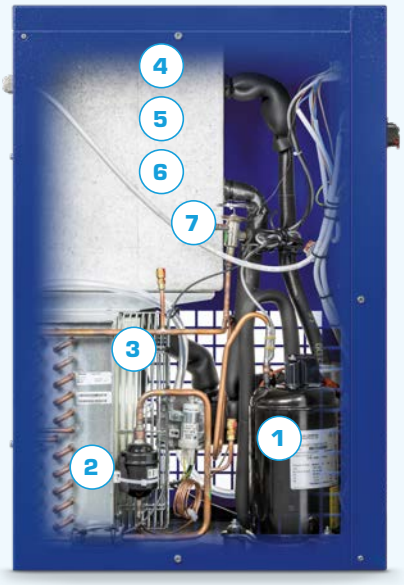
5. AIR/REFRIGERANT EVAPORATOR with high thermal performance and low pressure drop.

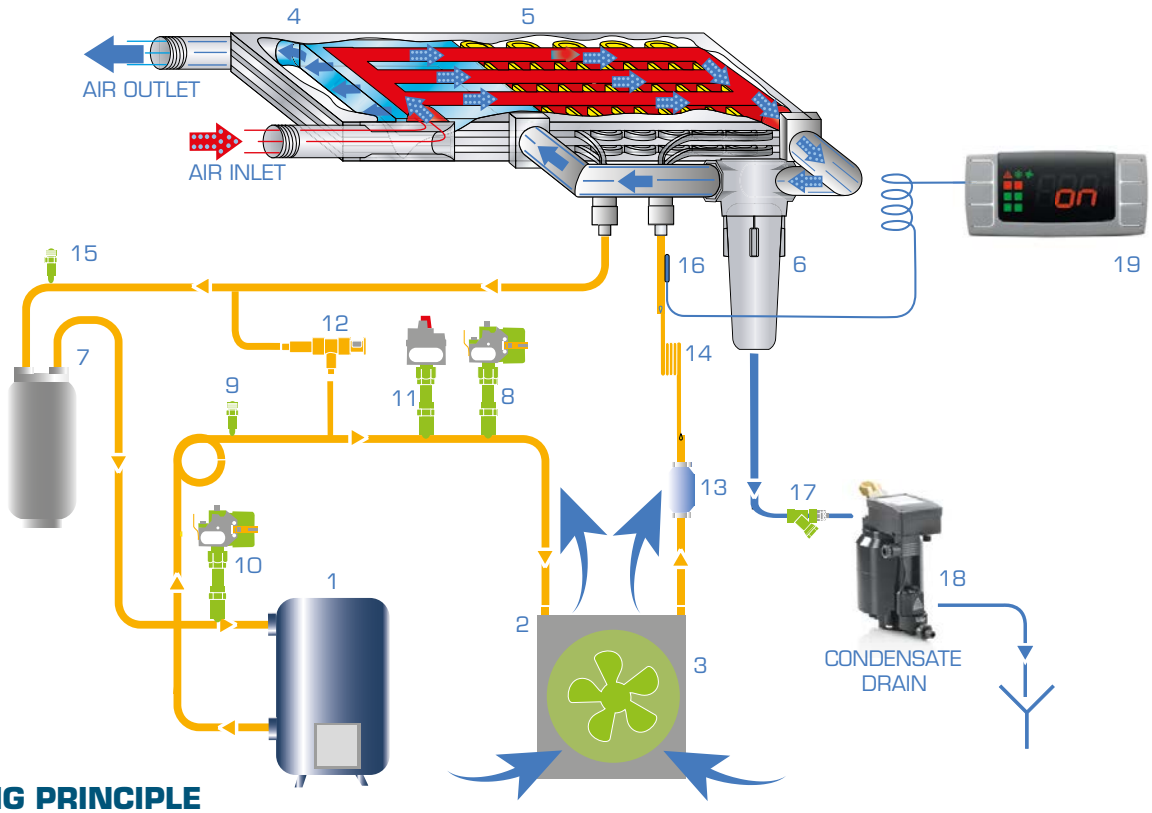
6. CONDENSATE SEPARATOR for efficient condensate removal.

7. HOT GAS BYPASS VALVE controls the refrigerant capacity under all load conditions.

8. AUTOMATIC DISCHARGE OF CONDENSATE energy saving and self adjusting, allows only moisture to discharge and prevents waste discharge of valuable compressed air.







DRYING PRINCIPLE

DIAGRAM FOR CDX 240

1. Refrigerant fluid compressor
2. Condenser
3. Motor driven fan
4. Air/air heat exchanger
5. Air/Refrigerant Evaporator
6. Condensate separator with a demister filter
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

Technical data

According to ISO 7183:2007 and Cagi Pneurop PN8NTC2

	Max. Working Pressure		Air Treatment Capacity			Motor power		Inlet/outlet Connections	Dimensions			Weight	
Model	Bar	PSI	lt/min.	m³/h	cfm	W	V/Hz/Ph	gas/DN	A	B	C	Kg.	Refrigerant gas
CDX 4	16	232	350	21	12,4	130	230/50/1	3/4" M	493	350	450	19	R513A
CDX 6	16	232	600	36	21,2	164	230/50/1	3/4" M	493	350	450	19	R513A
CDX 9	16	232	850	51	30,0	190	230/50/1	3/4" M	493	350	450	20	R513A
CDX 12	16	232	1200	72	42,4	266	230/50/1	3/4" M	493	350	450	25	R513A
CDX 18	16	232	1825	110	64,4	284	230/50/1	3/4" M	493	350	450	27	R513A
CDX 24	14	203	2350	141	83,0	674	230/50/1	1" F	497	370	764	44	R513A
CDX 30	14	203	3000	180	106	716	230/50/1	1" F	497	370	764	44	R513A
CDX 36	14	203	3600	216	127	631	230/50/1	1" 1/2 F	557	460	789	62	R410A
CDX 41	14	203	4100	246	145	705	230/50/1	1" 1/2 F	557	460	789	60	R410A
CDX 52	14	203	5200	312	184	905	230/50/1	1" 1/2 F	557	460	789	62	R410A
CDX 65	14	203	6500	390	230	969	230/50/1	1" 1/2 F	587	580	899	82	R410A
CDX 77	14	203	7700	462	272	1124	230/50/1	1" 1/2 F	587	580	899	82	R410A
CDX 100	14	203	10000	600	353	1540	400/50/3	2" F	1070	805	962	145	R410A
CDX 120	14	203	12000	720	424	1980	400/50/3	2" F	1070	805	962	158	R410A
CDX 150	14	203	15000	900	530	2010	400/50/3	2" 1/2 F	1070	805	962	165	R410A
CDX 180	14	203	18000	1080	636	2770	400/50/3	2" 1/2 F	1070	805	962	164	R410A
CDX 240	14	203	24000	1440	848	3260	400/50/3	3" F	1083	1020	1526	325	R410A
CDX 300	14	203	30000	1800	1060	3890	400/50/3	3" F	1083	1020	1526	335	R410A
CDX 350	14	203	35000	2100	1237	4750	400/50/3	3" F	1083	1020	1526	350	R410A
CDX 450	14	203	45000	2700	1589	6715	400/50/3	DN 125	1121	1020	1526	380	R452A
CDX 500	14	203	50000	3000	1766	6800	400/50/3	DN 125	2099	1020	1535	550	R452A
CDX 700	14	203	70000	4200	2472	10200	400/50/3	DN 125	2099	1020	1535	600	R452A
CDX 840	14	203	84000	5040	2966	12300	400/50/3	DN 125	2099	1020	1535	650	R452A

NOTES:

Reference conditions:
- Operating pressure: 7 bar (100 psi)
- Operating temperature: 35°C
- Room temperature: 25°C
- Pressure dewpoint: +4°C +/-1
- Available in different voltages and frequencies

Operating limit conditions:
- Max. operating pressure: 16 bar (232 psi) CDX 4-18
  14 bar (203 psi) CDX 24-840
- Max. inlet temperature: 55°C (60°C for CDX 100-840)
- Min./Max. ambient temperature: +5°C; 43°C (+5°C; 46°C for CDX 100-840)

Optional for CDX (4-18):
- Bypass + filter support
- Filter support

Correction factor for conditions differing from the project K = A x B x C

	°C	25	30	35	40	43	46	
Room temperature	A	1,00	0,92	0,84	0,80	0,79	/	(CDX 4-77)
		1,00	0,91	0,81	0,72	/	0,62	(CDX 100-840)

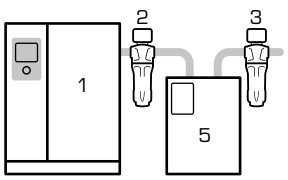
	°C	30	35	40	45	50	55	60	
Operating temperature	B	1,24	1,00	0,82	0,69	0,58	0,45	/	(CDX 4-77)
		1,00	1,00	0,82	0,69	0,58	0,49	0,42	(CDX 100-840)

	bar	5	6	7	8	9	10	11	12	13	14	15	16	
Operating Pressure	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	(CDX 4-77)
		0,90	0,97	1,00	1,03	1,05	1,07	1,09	1,11	1,12	1,15			(CDX 100-840)

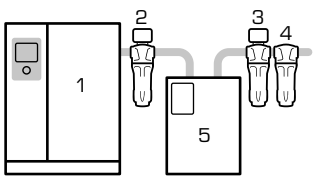
The new flow rate value can be obtained by dividing the current or real flow rate by the correction factor related to the real operation conditions.

Typical installations

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



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



Compressor with after cooler 1
G filter 2
C filter 3
V filter 4
Refrigerant dryer 5

Vertical receiver is always suggested

Product features and options

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
- Dew point indication

Alarm display:

- High or low dew point
- Fan probe failure (CDX12-77)
- Service reminder

Potential free contact

(CDX 24-77)

- **PDP alarm**
- **High refrigerant temperature**
- **Fan probe failure**

(CDX 100-840)

- **General alarm**
  - High/low PDP alarm
  - High-refrigerant temperature
  - Probe failures
  - High-pressure switch
  - Electrical failure
- **Drain alarm**
- **Remote start/stop**

Intelligent drain discharge

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

Benefits

- No loss of compressed air
- Energy saving
- Low noise level

Available options

(for CDX 4-18)

Filter support and bypass*

The optional bypass 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.

Contact your local representative:

www.ceccato.com

6999100156

ORIGINAL PART

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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