CECCATO
ARIA COMPRESSA

REFRIGERATION AIR DRYERS
CDX from 4 to 700

TECHNOLOGY YOU CAN TRUST

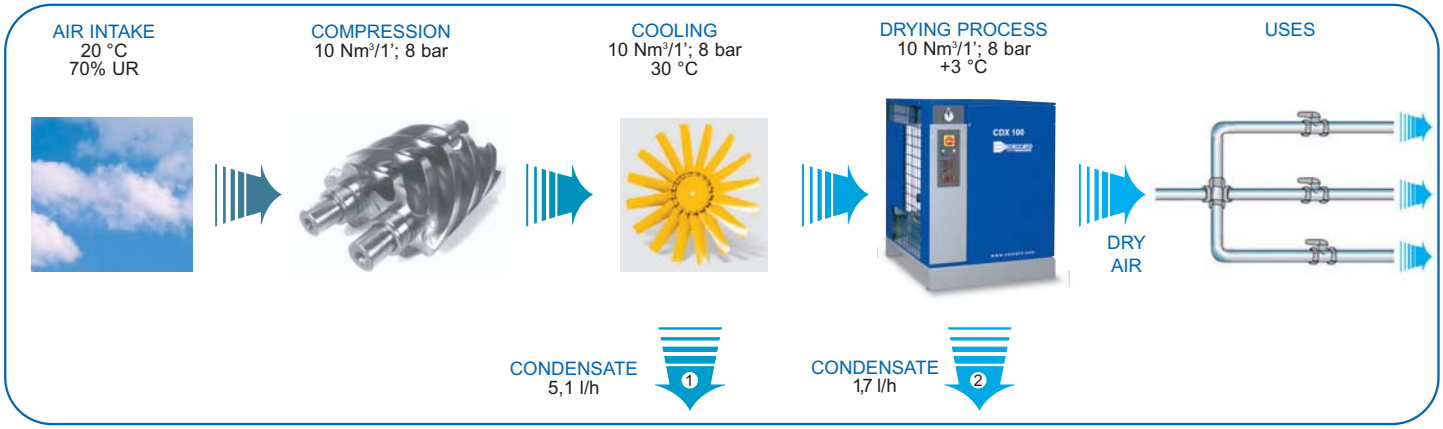
EN

Using a dryer is worth it

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

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.

For example, 5.1 l/h of condensate is separated from a compressor with an output capacity of 10 Nm³/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. ①



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. ②

The distribution unit costs less

and can be installed without slopes to drain points, without separators and without condensate drains, but with simple "T" slopes coming directly from the distribution ring.

Longer life

for pneumatic equipment, as the use of dry air guarantees reliable performance over time.

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 even be spread over very wide areas.
- for machine applications and pneumatic tools, as the absence of condensate eliminates the main cause of breakdowns.

Greater productivity

because of fewer untimely breakdowns due to machine faults.

Energy savings

due to fewer line pressure drops.

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 servomechanisms.

It increases profits and improves the company's image.

That's why maintenance managers, production managers, and air compressor specialists make sure their systems have a DRYER.

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Quality • Installation • Maintenance

Ceccato Aria Compressa S.p.A. 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.

Quality

High reliability attained through the development of the dryers in the CDX range.

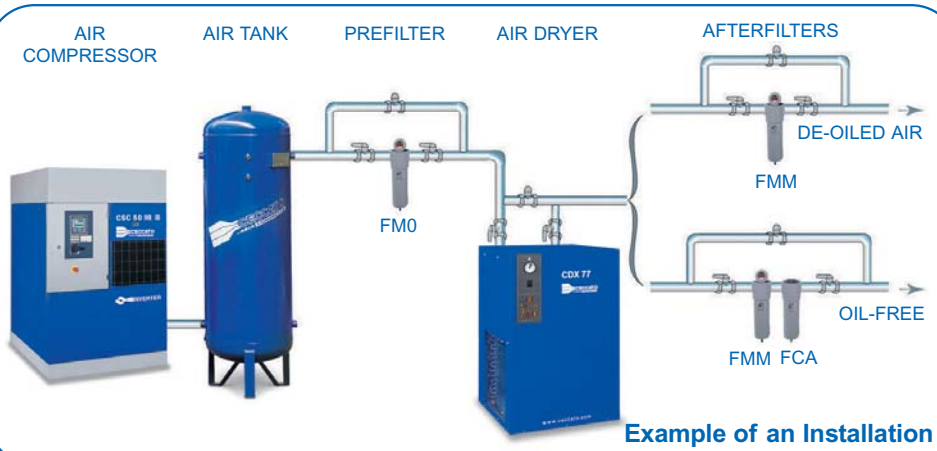
First-class components that have been tested under the worst possible operating conditions.

Constant dewpoint under any load condition.

Automatic operation.

Installation

Its unique light and compact design makes it easy to transport by whatever means you choose to use. 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's necessary is a pneumatic and an electrical connection and the dryer is ready to use.
Installation is only complete once filters have also been fitted.



Example of an Installation

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 its operation and performance using first-class components that have been tested in the field for many years.
The refrigerant dryer offered by Ceccato Aria Compressa S.p.A. is a unit that:

- requires low maintenance and long intervals between overhauls;
- has few components subject to stress.

Savings • Environment

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.

Intelligent automatic discharger of condensate

Advantages

- **Discharges only water, NOT compressed air**
  = Energy savings

- **Noise-free, no acoustic impact**
  = Environmental protection

Environmental protection

No CFC = No impact on the OZONE LAYER

Ecological thanks to the adoption of R404A gas

Complies with current EC regulations

Thermal insulation to guarantee high efficiency

Intelligent discharge of condensate

That's why maintenance managers, production managers, and air compressor specialists make sure their systems have a DRYER made by Ceccato Aria Compressa S.p.A.

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CDX dryers • Layout

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 IP54 MOTOR-DRIVEN VENTILATOR
for the condenser cooling air flow.

④ AIR/REFRIGERANT EVAPORATOR
with high thermal exchange and low leakage rates.

CDX 77

CDX 500

⑤ CONDENSATE SEPARATOR
High-efficiency.

⑥ AIR-AIR EXCHANGER
with high thermal exchange and low load losses.

⑦ REFRIGERANT FLUID SEPARATOR
high-efficiency refrigerant fluid.

⑫ HOT GAS BYPASS VALVE
controls the refrigerant capacity under all load conditions preventing any formation of ice within the system.

⑯ ⑲ INSTRUMENT PANEL for control, consisting of: dewpoint level indicator, ON/OFF switch, voltage indicator and fault alarm.

⑱ AUTOMATIC DISCHARGE OF CONDENSATE, which is ecological and capable of preventing unwanted discharge of compressed air.

⑰ COLLECTOR FILTER
for collecting anyimpurities to protect the condensate discharge system.

⑬ FILTER REFRIGERANT.

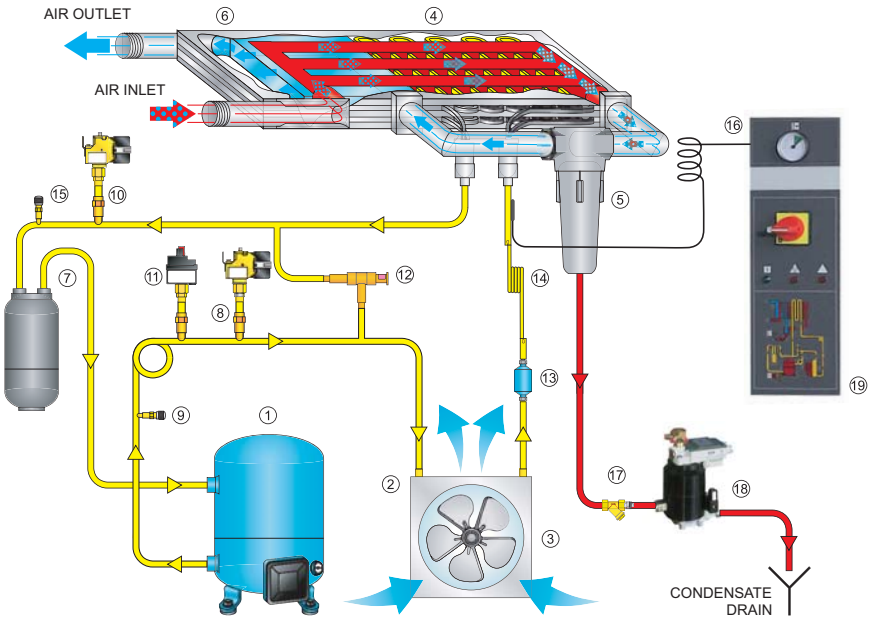

DIAGRAM CDX 500

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

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TECHNICAL DATA (according to ISO 7183 and Cagi Pneurop PN8NTC2)

Type	bar	psi	① l/1'	① m³/h	cfm	① W	V/Hz/Ph	gas/DN	L	W	H	Kg
CDX 4	16	232	350	21	12,4	130	230/50/1	3/4" M	350	500	450	19
CDX 6	16	232	600	36	21,2	164	230/50/1	3/4" M	350	500	450	19
CDX 9	16	232	850	51	30,0	190	230/50/1	3/4" M	350	500	450	20
CDX 12	16	232	1.200	72	42,4	266	230/50/1	3/4" M	350	500	450	25
CDX 18	16	232	1.825	110	64,4	284	230/50/1	3/4" M	350	500	450	27
CDX 24	13	188	2.350	141	83,0	609	230/50/1	1" F	370	500	764	44
CDX 30	13	188	3.000	180	106	673	230/50/1	1" F	370	500	764	44
CDX 36	13	188	3.600	216	127	793	230/50/1	1½" F	460	560	789	53
CDX 41	13	188	4.100	246	145	870	230/50/1	1½" F	460	560	789	60
CDX 52	13	188	5.200	312	184	1.072	230/50/1	1½" F	460	560	789	65
CDX 65	13	188	6.500	390	230	1.190	230/50/1	1½" F	580	590	899	80
CDX 77	13	188	7.700	462	272	1.446	230/50/1	1½" F	580	590	899	80
CDX 100	13	188	10.000	600	353	1.818	400/50/3	2" F	735	898	962	128
CDX 120	13	188	12.000	720	424	2.013	400/50/3	2" F	735	898	962	146
CDX 150	13	188	15.000	900	530	2.636	400/50/3	2" F	735	898	962	158
CDX 180	13	188	18.000	1.080	636	3.568	400/50/3	2" F	735	898	962	165
CDX 240	13	188	24.000	1.440	848	3.900	400/50/3	3" F	1.020	1.082	1.535	325
CDX 300	13	188	30.000	1.800	1.060	4.460	400/50/3	3" F	1.020	1.082	1.535	335
CDX 350	13	188	35.000	2.100	1.237	5.550	400/50/3	3" F	1.020	1.082	1.535	350
CDX 500	13	188	50.000	3.000	1.766	6.800	400/50/3	DN125	1.020	2.099	1.535	550
CDX 700	13	188	70.000	4.200	2.472	10.200	400/50/3	DN125	1.020	2.099	1.535	600

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 24-700
- 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 x B x C

Room temperature	°C	25	30	35	40	45	
	A	1,00	0,92	0,84	0,80	0,74	(CDX 4-77)
		1,00	0,91	0,81	0,72	0,62	(CDX 100-700)

Operating temperature	°C	30	35	40	45	50	55	
	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	(CDX 100-700)

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	(CDX 4-77)
		0,90	0,97	1,00	1,03	1,05	1,07	1,09	1,11	1,12				(CDX 100-700)

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.

CECCATO ARIA COMPRESSA S.p.A. aims to constantly improve its products. We reserve the right to change specifications and product design without prior notice.

UNI EN ISO 9001: 2000

Design
Manufacture, Sales and
Service of air compressors,
Air dryers and air filters

UNI EN ISO 14001

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ORIGINAL PART

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