



Refrigerant Dryers

CPX 10 - 4200

People. Passion. Performance.



Chicago
Pneumatic

CPX 10 - 4200

CPX Refrigerant dryer

The inlet air of a compressor contains humidity and contaminants like dust, oil, etc. During compression, these contaminants reach a high concentration. This can cause wear and corrosion in your downstream equipment, with potentially costly interruptions in your production, and a reduction in the efficiency and service life of your equipment.

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

The benefits of refrigerant dryers

Clean and dry air

- Increases your overall productivity
- Improves your final product quality
- Protects your downstream equipment against corrosion, rust and air leaks
- Avoids costly service interventions

User benefits

Simple installation

- Lightweight and compact design
- Easy to transport
- Easy and fast installation using the optional filter supports and bypass option (CPX 10-60)

Solid quality

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

Easy maintenance and accessibility

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

Cost savings

- 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



Environment friendly refrigerant gases



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

- Environment friendly thanks to the use of R513A and R410A gas.
- No impact on the ozone layer.

- New micro condenser requires lower gas load (CPX 850-4200).
- R410A benefits:
 - Low Global Warming Potential (GWP)
 - Energy savings with high-efficiency refrigerant compressors

CPX 10-700

Reliable dry air with the lowest operational costs



As low as Class -;4;-
according to ISO
8573-1:2010



Low pressure drop,
below 0.2 bar/2.9 psi



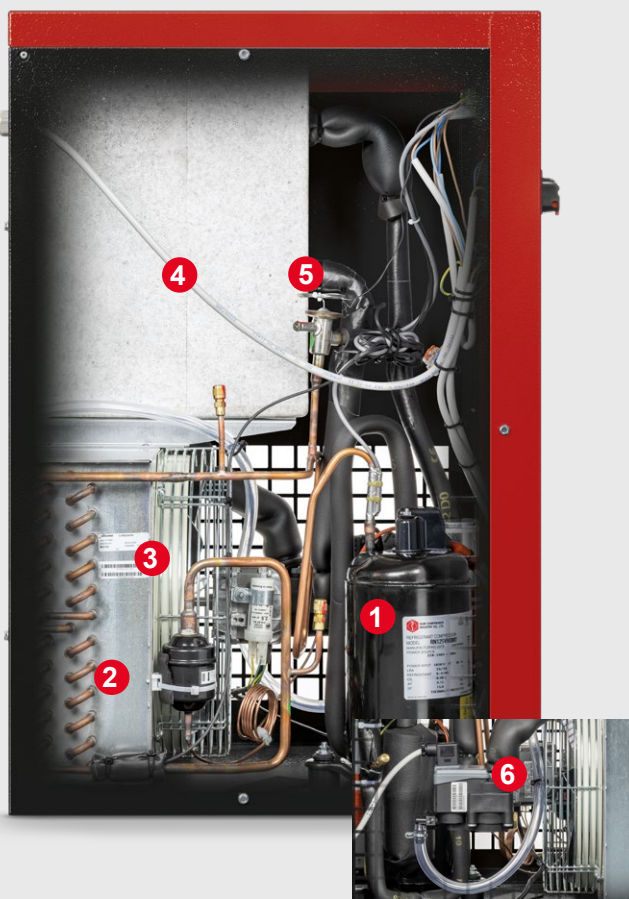
Robust design



Compact footprint
and easy installation



Very low
maintenance



Solid performance

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 3-in-1 HEAT EXCHANGER

With high-efficiency operation to minimize pressure drop and footprint.

5 HOT GAS BYPASS VALVE

Controls the refrigerant capacity under all load conditions to prevent ice formation in the system.

6 AUTOMATIC DISCHARGE OF CONDENSATE

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

Available options CPX 10-60

Bypass valve and filter support*

Continue using the filters during maintenance or malfunction of the dryer and avoid costly downtime.

Filter support*

Install two filters at the back of the dryer to reduce your dryer's footprint.

* Filters not included.

CPX 850-4200

Reliable dry air with the lowest operational costs



As low as Class -;4;- according to ISO 8573-1:2010



Low pressure drop, typically below 0.2 bar/2.9 psi



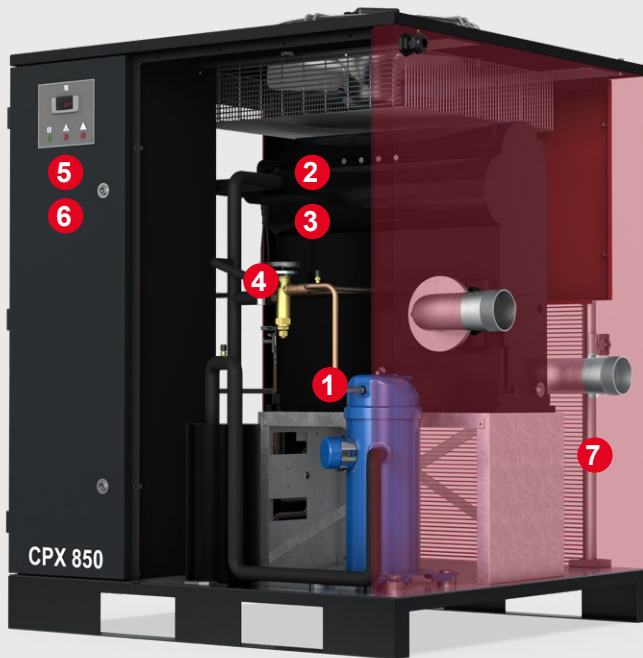
High-efficiency dryer lowers CO₂ emissions



New microchannel refrigerant condenser reduces gas charge and therefore your carbon footprint



Very low maintenance



State-of-the-art engineering

1 SCROLL REFRIGERANT COMPRESSOR

Scroll technology delivers a stable performance with industry-leading efficiency and COP.

2 AIR-AIR EXCHANGER

Designed for high thermal exchange and low load losses.

3 AIR/REFRIGERANT EVAPORATOR

- a** 1 for CPX 850-2500, 2 for CPX 3000-4200.
- b** Up to 25% lower pressure drop.
- c** Reduces dryer size.

4 HOT GAS BYPASS VALVE

Controls the refrigerant capacity under all load conditions to prevent ice formation.

5 CONTROL PANEL

Ensures easy, advanced control and monitoring.

6 FREE CONTACTS

Allow for remote start/stop, general alarm and drain alarm.

7 REFRIGERANT CONDENSER

Microchannel design ensures a smaller physical and environmental footprint.

Technical data

According to ISO 7183:2007 and Cagi Pneurop PN8NTC2

MODEL	MAX. WORKING PRESSURE		AIR TREATMENT CAPACITY			POWER CONSUMPTION	VOLTAGE	INLET/OUTLET CONNECTIONS	DIMENSIONS			WEIGHT	REFRIG-ERANT GAS
	Bar	PSI	l/min.	m³/h	cfm	W	V/Hz/Ph	gas/DN	A	B	C	Kg	
CPX 10	16	232	350	21	12,4	130	230/50/1	3/4" M	493	350	450	19	R513A
CPX 20	16	232	600	36	21,2	164	230/50/1	3/4" M	493	350	450	19	R513A
CPX 30	16	232	850	51	30,0	190	230/50/1	3/4" M	493	350	450	20	R513A
CPX 40	16	232	1200	72	42,4	266	230/50/1	3/4" M	493	350	450	25	R513A
CPX 60	16	232	1825	110	64,4	284	230/50/1	3/4" M	493	350	450	27	R513A
CPX 80	14	203	2350	141	83,0	674	230/50/1	1" F	497	370	764	44	R513A
CPX 100	14	203	3000	180	106	716	230/50/1	1" F	497	370	764	44	R513A
CPX 125	14	203	3600	216	127	631	230/50/1	1" 1/2 F	557	460	789	62	R410A
CPX 150	14	203	4100	246	145	705	230/50/1	1" 1/2 F	557	460	789	60	R410A
CPX 180	14	203	5200	312	184	905	230/50/1	1" 1/2 F	557	460	789	62	R410A
CPX 225	14	203	6500	390	230	969	230/50/1	1" 1/2 F	587	580	899	82	R410A
CPX 270	14	203	7700	462	272	1124	230/50/1	1" 1/2 F	587	580	899	82	R410A
CPX 350	14	203	10000	600	353	1540	400/50/3	2" F	1070	805	962	145	R410A
CPX 425	14	203	12000	720	424	1980	400/50/3	2" F	1070	805	962	158	R410A
CPX 530	14	203	15000	900	530	2010	400/50/3	2" 1/2 F	1070	805	962	165	R410A
CPX 700	14	203	18000	1080	636	2770	400/50/3	2" 1/2 F	1070	805	962	164	R410A
CPX 850	14	203	24000	1440	848	3500	400/50/3	3" M	1005	1132	1399	230	R410A
CPX 1000	14	203	30000	1800	1059	3690	400/50/3	3" M	1005	1121	1596	325	R410A
CPX 1200	14	203	35000	2100	1236	4550	400/50/3	3" M	1005	1121	1596	338	R410A
CPX 1500	14	203	45000	2700	1589	6097	400/50/3	DN 100	1005	1121	1826	390	R410A
CPX 1700	14	203	50000	3000	1766	6540	400/50/3	DN 100	1005	1531	1826	462	R410A
CPX 2200	14	203	62400	3744	2204	7100	400/50/3	DN 100	1005	1531	1826	508	R410A
CPX 2500	14	203	70000	4200	2472	7290	400/50/3	DN 100	1005	1531	1826	508	R410A
CPX 3000	14	203	84000	5040	2966	8260	400/50/3	DN 150	1979	1455	1826	810	R410A
CPX 3500	14	203	99000	5940	3496	10200	400/50/3	DN 150	1979	1455	1826	815	R410A
CPX 4200	14	203	120000	7200	4238	12180	400/50/3	DN 150	1979	1455	1833	900	R410A

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) CPX 10-60
14 bar (203 psi) CPX 80-4200
 - Max. inlet temperature: 55°C (60°C for CPX 350-4200)
 - Min./Max. ambient temperature: +5°C; 43°C (+5°C; 46°C for CPX 350-4200)

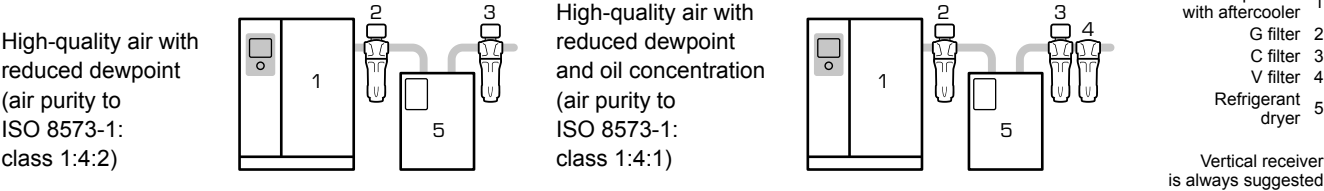
- Optional for CPX (10-60):
- Bypass + filter support
 - Filter support



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

Room temperature	°C	25	30	35	40	43	46	Operating temperature	°C	25	30	35	40	46	50	55	60
	A	1	0.91	0.81	0.72	0.67	0.62		B	1.1	1.05	1	0.82	0.69	0.58	0.49	0.42
Operating pressure	bar	6	7	8	10	13	14	15	16	13	14	15	16	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.			
	C	0.97	1	1.03	1.07	1.12	1.15	1.16	1.17	1,13	1,15	1,16	1,17				

Typical installations





At Chicago Pneumatic we have a passion for performance and long-lasting partnerships. Since 1901, we have been committed to reliability based on technology and trust.

A large, stylized red fingerprint graphic that serves as a background for the central text.

People. Passion. Performance.

For more information, please contact your CP partner:

6999 6105 21

Use only authorized parts. Any damage or malfunction caused by the use of unauthorized parts is not covered by Warranty or Product Liability.

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