



Refrigerant Dryers

CPX 10 - 4200

**PORTLAND
COMPRESSOR**
Experience You Can Depend On
800-542-8300

People. Passion. Performance.



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



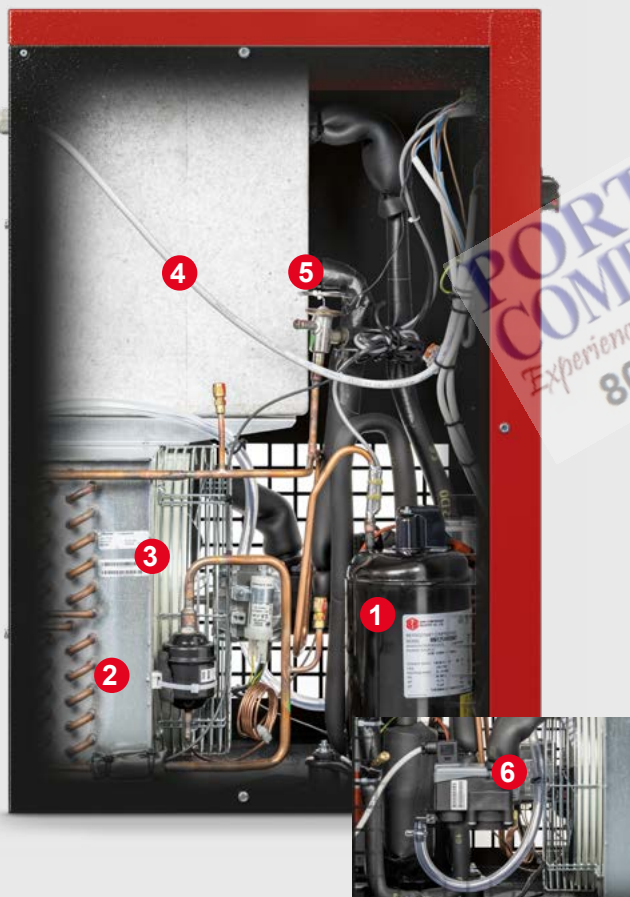
Robust design



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			INLET/OUTLET CONNECTIONS	DIMENSIONS mm (inch)			WEIGHT	REFRIG-ERANT GAS
	Bar(PSI)	l/min.	m³/h	cfm	BSP/NPT	A	B	C	Kg (Lb)	
CPX 10	16 (232)	350	21	12,4	3/4" M	493 (19,4)	350 (13,78)	450 (17,71)	19 (41,89)	R513A
CPX 20	16 (232)	600	36	21,2	3/4" M	493 (19,4)	350 (13,78)	450 (17,71)	19 (41,89)	R513A
CPX 30	16 (232)	850	51	30,0	3/4" M	493 (19,4)	350 (13,78)	450 (17,71)	20 (44,1)	R513A
CPX 40	16 (232)	1200	72	42,4	3/4" M	493 (19,4)	350 (13,78)	450 (17,71)	25 (55,12)	R513A
CPX 60	16 (232)	1825	110	64,4	3/4" M	493 (19,4)	350 (13,78)	450 (17,71)	27 (59,53)	R513A
CPX 80	14 (203)	2350	141	83,0	1" F	497 (20,23)	370 (14,57)	764 (30,07)	44 (97,02)	R513A
CPX 100	14 (203)	3000	180	106	1" F	497 (20,23)	370 (14,57)	764 (30,07)	44 (97,02)	R513A
CPX 125	14 (203)	3600	216	127	1" 1/2 F	557 (22,6)	460 (18,11)	789 (31,05)	62 (136,71)	R410A
CPX 150	14 (203)	4100	246	145	1" 1/2 F	557 (22,6)	460 (18,11)	789 (31,05)	60 (132,3)	R410A
CPX 180	14 (203)	5200	312	184	1" 1/2 F	557 (22,6)	460 (18,11)	789 (31,05)	62 (136,71)	R410A
CPX 225	14 (203)	6500	390	230	1" 1/2 F	587 (23,7)	580 (22,83)	899 (35,38)	82 (180,81)	R410A
CPX 270	14 (203)	7700	462	272	1" 1/2 F	587 (23,7)	580 (22,83)	899 (35,38)	82 (180,81)	R410A
CPX 350	14 (203)	10000	600	353	2" F	1070 (42,14)	805 (31,7)	962 (37,85)	145 (319,72)	R410A
CPX 425	14 (203)	12000	720	424	2" F	1070 (42,14)	805 (31,7)	962 (37,85)	158 (348,39)	R410A
CPX 530	14 (203)	15000	900	530	2" 1/2 F	1070 (42,14)	805 (31,7)	962 (37,85)	165 (363,82)	R410A
CPX 700	14 (203)	18000	1080	636	2" 1/2 F	1070 (42,14)	805 (31,7)	962 (37,85)	164 (361,62)	R410A
CPX 850	14 (203)	24000	1440	848	3" M	1005 (39,57)	1132 (44,57)	1399 (55,08)	230 (507)	R410A
CPX 1000	14 (203)	30000	1800	1059	3" M	1005 (39,57)	1121 (44,15)	1596 (62,83)	325 (717)	R410A
CPX 1200	14 (203)	35000	2100	1236	3" M	1005 (39,57)	1121 (44,15)	1596 (62,83)	338 (745)	R410A
CPX 1500	14 (203)	45000	2700	1589	DN 100 / 4" ANSI	1005 (39,57)	1121 (44,15)	1826 (71,89)	390 (860)	R410A
CPX 1700	14 (203)	50000	3000	1766	DN 100 / 4" ANSI	1005 (39,57)	1531 (60,29)	1826 (71,89)	462 (1019)	R410A
CPX 2200	14 (203)	62400	3744	2204	DN 100 / 4" ANSI	1005 (39,57)	1531 (60,29)	1826 (71,89)	508 (1120)	R410A
CPX 2500	14 (203)	70000	4200	2472	DN 100 / 4" ANSI	1005 (39,57)	1531 (60,29)	1826 (71,89)	508 (1120)	R410A
CPX 3000	14 (203)	84000	5040	2966	DN 150 / 6" ANSI	1455 (57,28)	1979 (77,93)	1826 (71,89)	810 (1786)	R410A
CPX 3500	14 (203)	99000	5940	3496	DN 150 / 6" ANSI	1455 (57,28)	1979 (77,93)	1826 (71,89)	815 (1797)	R410A
CPX 4200	14 (203)	120000	7200	4238	DN 150 / 6" ANSI	1455 (57,28)	1979 (77,93)	1833 (72,17)	900 (1984)	R410A

NOTES:

Reference conditions:

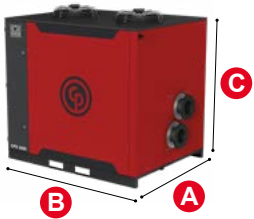
- Operating pressure: 7 bar. (102 psi)
- Operating temperature: 35°C (95° F)
- Room temperature: 25°C (77° F)
- Pressure dewpoint: +4°C +/-1°C (39° F. +/- 2°F.)
- Available in different voltages and frequencies

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. (131 °F.) CPX10-270
60°C. (140 °F.) CPX350-4200
- Min./Max. ambient temperature: +5°C.; +43°C. (+41°F. ; +109 °F.) CPX10-270
+5°C.; +46°C. (+41 °F.; 115 °F.) CPX350-4200

Optional for CPX (10-60):

- Bypass + filter support
- Filter support



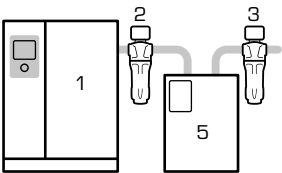
Correction factor for conditions differing from the project $K = A \times B \times C$

Room temperature	°C (°F)	25 (77)	30 (86)	35 (95)	40 (104)	43 (109)	46 (115)	Operating temperature	°C (°F)	25 (77)	30 (86)	35 (95)	40 (104)	46 (115)	50 (122)	55 (131)	60 (140)
	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 (psi)	6 (87)	7 (102)	8 (116)	10 (145)	13 (189)	14 (203)	15 (218)	16 (232)	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								

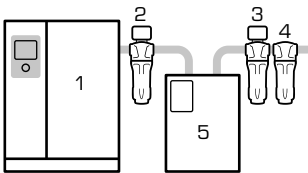
The new flow rate value can be obtained by dividing the current or real flow rate by the correction factor related to the real operation conditions.

Typical installations

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



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



- Compressor with aftercooler 1
- G filter 2
- C filter 3
- V filter 4
- Refrigerant dryer 5

Vertical receiver is always suggested



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

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