SR
Gas Purification Solutions

CO_2 removal purifier

flow capacity: 1.5 - 120 l/m

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No matter what application it is, we have a reliable solution for you

We are dedicated to the application of gas filtration and drying technologies, constantly providing customers with technical solutions that meet on-site requirements.

Reliable, energy-saving and environmentally friendly

Providing a full range of excellent products and solutions around industrial and medical application technologies reflects our industry capabilities and professional level.

Clean and dry compressed air

Clean, dry, pollution-free compressed air is crucial for safe, efficient and energy-saving equipment operation. Pollutants in compressed air can cause equipment operation failures, damage, and even endanger human life and health.

Decades of application experience have taught us that efficient filtration and drying of compressed air is a fundamental measure to save costs and ensure safety.

Improve the energy efficiency of compressed air

Compressed air consumes a large amount of money. In the filtration, drying and transportation stages, excessive consumption means more costs will be added.
Using appropriate filtration and drying methods and using efficient and energy-saving air compressor post-processing products can optimize system functions and minimize energy consumption.

CO_2 removal purifier system

Why buy purge gas in a high pressure cylinder when you can generate your own, more easily, reliably and cost effectively using a CO2 removal purifier?

The CO2 removal purifiers are small, simple and can be wall mounted right in your laboratory. Connect them to your existing compressed air system to deliver a continuous supply of clean, dry and CO_2 free purge gas without any of the hassle of traditional cylinders. Ideal for laboratory applications including FTIR purge, TOC purge, NMR, GC flame gas and laser purging, these systems eliminate the interruptions, recalibrations and safety concerns associated with high pressure oxygen and nitrogen cylinders.

Developed with the laboratory in mind, CO_2 removal purifiers require no bench space and the innovative exhaust silencing system ensures incredibly quiet operation. Using proven pressure swing adsorption (PSA) technology, the units feature automatic regeneration and advanced purification cartridges with integral pre and post filtration providing totally clean, dry air with a CO_2 level of less than 1 ppm.

It's time to bring your purge gas supply into the 21st century. There is no better solution for your laboratory purge gas needs.

benefits - CO_2 free

mount on the floor or the wall

PLC controller with clear text display

performance validated filtration

guaranteed performance

- CO_2 removal purifiers provide the highest standard of performance, backed up with a 2 year warranty.
- 100% function and performance tested.

increased efficiency

- A constant supply of high air purity eliminates interruption of analyses (to change cylinders) and reduces the amount of instrument re-callibration required.

lower running costs

- Producing CO_2-free air from an existing compressed air supply is significantly cheaper than using cylinder supplies.

simple installation

- CO_2 removal purifiers can be installed in the laboratory, eliminating the need for long gas lines from cylinders.

quiet operation

- Novel exhaust air silencer significantly reduces noise levels (<60dBa).

easy to maintain

- Less than 15 minutes required for maintenance.
- Unique factory built filtration and adsorption cartridge makes servicing simple.

sizing & specifications

model	recommended filtration	inlet & outlet	inlet air flow (1)		outlet gas flow (1)		dimensions (mm)			approx. weight
	part number	BSPP(4)	ft³/h	l/m	ft³/h	l/m	A	B	C	kg
NDC 015	NFDB 25DAC	8 mm PTC	5.3	2.5	3.2	1.5	432	229	254	9.0
NDC 050	NFDB 25DAC	8 mm PTC	17.6	8.3	10.6	5.0	432	229	254	9.0
NDC 140	NFDB 25DAC	8 mm PTC	53	25	32	15	432	229	254	9.0
NDC 300	NFDB 25DAC	8 mm PTC	106	50	64	30	635	229	254	13.5
NDC 600	NFDB 25DAC	12 mm PTC	212	100	127	60	1092	229	330	25.5
NDC 900	NFDB 50DAC	1"	318	150	191	90	743	426	283	47.0
NDC 1200	NFDB 50DAC	1"	424	200	254	120	743	426	283	47.0

specifications	
design operating pressure range	4 to 12 barg
recommended operating temperature range	1.5 to 20°C
power supply requirements	100 to 240 VAC, 50 or 60 Hz
maximum noise level (during depressurization)	60 dBa
manufacturing quality standards	ISO 9001.2015 & CE

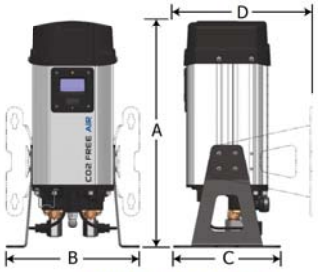
outlet gas quality	standard	optional
maximum CO_2 content	1 ppm	-
maximum pressure dew point	-70°C	-
maximum particulate size	1 micron	0.01 micron (2)
maximum oil content	-	0.0003 ppm (3)

pressure correction factors (5)

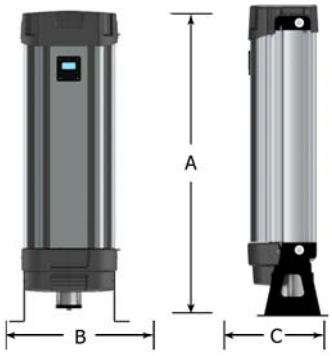
inlet air pressure (barg)	4	5	6	7	8	9	10	11	12
correction factor	0.63	0.75	0.88	1	1.13	1.25	1.38	1.50	1.63

temperature correction factors (5)

inlet air temperature (°C)	25	35	40	45	50
correction factor	1	1	0.97	0.88	0.73



NDC 015 to 600



NDC 900 & 1200

(1) at inlet conditions of 7 barg and 20°C and up to 375 ppm CO_2. For all other conditions contact sales@gas-psi.com for sizing assistance

(2) requires addition of a 1 micron particulate after filter at the outlet

(3) requires addition of a 0.01 micron coalescing pre filter and an AC activated carbon filter at the inlet. Recommended for compressed air systems using an oil flooded compressor

(4) NDC 015 to NDC 600 have push to connect fittings on the inlet and outlet. All other models have BSPP threaded connections

(5) to be used as a rough guide only. All applications shoudl be confirmed by us. Contact sales@gas-psi.com for further assistance.

(6) NDC 900 to NDC 1200 - noise level is 80 dBa

service guidelines ***- desiccant cartridges should be changed every 2 years***
- valves should be changed every 4 years
- refer to user guide for full service details

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