

# C-Series<sup>1</sup> CO<sub>2</sub> adsorption dryers

Flow Capacity: 1.5-120 L/min



# C<sup>1</sup>

The nano C-Series<sup>1</sup> range of CO<sub>2</sub> adsorption dryers purify regular compressed air to deliver a continuous supply of clean, dry (-70 °C pdp) and CO<sub>2</sub> free (<1 ppm) purge gas. CO<sub>2</sub> adsorption dryers replace high pressure oxygen or nitrogen gas cylinders and are ideal for numerous applications including FT-IR (Fourier transform infrared) purge, TOC purge, NMR, GC flame gas and laser purging.

The dryer design has been developed with the laboratory environment in mind – the unit can easily be wall mounted to save valuable bench space. The novel exhaust silencing system ensures that the unit is incredibly quiet in operation.

Using proven pressure swing adsorption (PSA) technology, the units feature automatic regeneration and integral pre and post filtration providing totally clean, dry air with a CO<sub>2</sub> level of <1ppm.

All nano porous system products are designed and manufactured within an ISO9001 quality system and are CE marked.

## Features

- Outlet CO<sub>2</sub> content to less than 1 PPM
- Outlet flow capacities up to 120 L/min
- Air dried to less than -70°C (-100°F) dew point
- Compact and lightweight design requires less space
- PLC control with clear display provides feedback
- Full repressurisation means no pressure fluctuations
- Novel exhaust silencing system ensures quiet operation

## Benefits

### Guaranteed Performance

- nano CO<sub>2</sub> adsorption dryers provide the highest standard of performance, backed up with a 5 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-calibration required.

### Lower Running Costs

- Producing CO<sub>2</sub>-free air from an existing compressed air supply is significantly cheaper than using cylinder supplies.

### Simple Installation

- CO<sub>2</sub> adsorption dryers 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 (<60dB(a)).

### Easy to Maintain

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

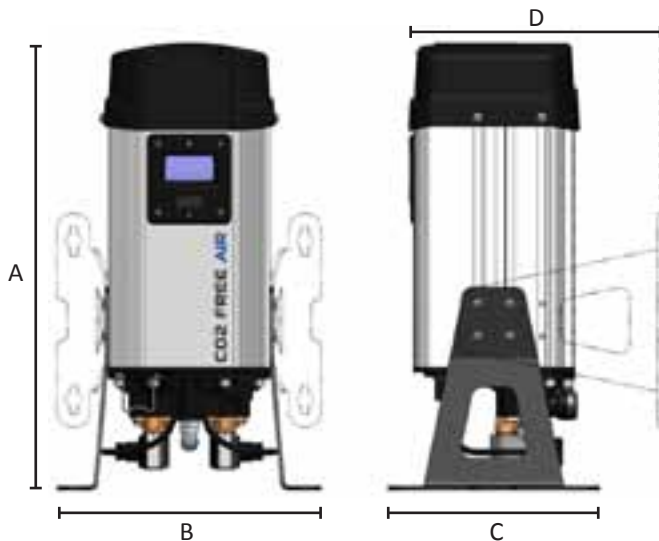
# nano C-Series<sup>1</sup> dryers

Model	Outlet flow rate (L/min)	Total air inlet flow required (L/min)	Air loss for regeneration (L/min)	Connections	Dimensions mm (inches)				Weight (approx)	Service Kit (12,000 hrs or 2 years)
					A	B	C	D	Kg (Lbs)	
NDC-015	1.5	2.5	1.0	1/4" Swagelok	447 (17)	241 (9)	160 (6)	252 (10)	8.3 (18.2)	NDK-011
NDC-140	15	25	10		447 (17)	241 (9)	160 (6)	252 (10)	8.3 (18.2)	NDK-021
NDC-300	30	50	20		647 (25)	241 (9)	160 (6)	252 (10)	12.8 (28.2)	NDK-031
NDC-600	60	100	40		1097 (43)	241 (9)	333 (13)	252 (10)	19.3 (42.5)	NDK-051
NDC-900	90	150	60	G 3/8"	734 (29)	440 (17)	295 (12)	335 (13)	40 (88.2)	NDK-061
NDC-1200	120	200	80		734 (29)	440 (17)	295 (12)	335 (13)	40 (88.2)	NDK-061

### Notes:

- Above flow rates are based on an air inlet pressure of 7 barg (100psig) and temperature of 21°C (70°F)
- Where the air source is from an oil lubricated compressor, we recommend that a 0.01 micron coalescing filter and also an activated carbon filter be installed, to reduce the (non-methane) hydrocarbons to <0.0003ppm. To achieve a particulate level of <0.01 micron, it would also be necessary to fit a fine dust filter to the outlet of the CO<sub>2</sub> adsorption dryer.

Specification	
CO <sub>2</sub> / Content Pressure Dewpoint / Particles	<1ppm -70°C / pdp (-100°F pdp) / <1 micron
Minimum working pressure	4 barg (58 psig)
Maximum working pressure	12 barg (174 psig)
Power supply	100 – 240VAC / 50 – 60Hz
Minimum inlet temperature	1.5°C (34.7°F)
Rated inlet condition	21°C (70°F), 375ppm CO <sub>2</sub>



Service Kit

