



Breathing Air Purification Systems

FLOW CAPACITY: 10 to 826 Nm³/h





“Our automotive manufacturer end-user needed a high-flow yet compact breathing air system. The nano NBA modular design really fit the bill.”

A nano Distributor – Southwestern US

In industry, there is perhaps no more critical use of compressed air than for breathing. Whether blasting with fine abrasives, cleaning tanks in hazardous locations or applying finishes to consumer products, high quality breathable compressed air is an absolute necessity to ensure the safety of the user.

The air around us may look clean, but compressed air can contain hidden dangers such as carbon monoxide (CO), carbon dioxide (CO₂), oil vapour, moisture, and particulates that put workers at serious risk.

With nano's range of breathing air purification systems, workers and employers can trust they are delivering and receiving safe, high-quality air at all times.

Clean breathing air is not just a requirement, it is essential to worker survival and operational efficiency.

nano B¹ Breathing Air Purification Systems

- Clean, reliable and safe supply of breathable air that meets or exceeds global standards.
- Plug and play systems for multiple users
- Stationary or portable systems available
- Carbon monoxide (CO) and carbon dioxide (CO₂) reduction to global standards, because nothing matters more than the air you breathe.
CO₂ reduction available on NBA models only.



Global Standards

When applied, operated and maintained correctly, the nano range of B¹ breathing air purification systems are guaranteed to meet and exceed global standards for breathing air quality.



Standard	UK & Europe	United States	Canada
Standard	EN12021	CGA G-7.1 OSHA Grade D	CSA Z180.1-19
Maximum Dew Point	-31°C	Varies By Application	5°C Below Lowest System Temperature
Maximum Oil Content	0.01 mg/m ³	5 mg/m ³	1 mg/m ³
Odour & Taste	No Pronounced Odour	No Pronounced Odour	No Pronounced Odour
Allowable O ₂ Range	21 to ±1%	19.5 to 23.5%	20 to 22%
Maximum CO Level	< 5 ppm	10 ppm	< 5 ppm
Maximum CO ₂ Level	< 500 ppm	1000 ppm	< 600 ppm

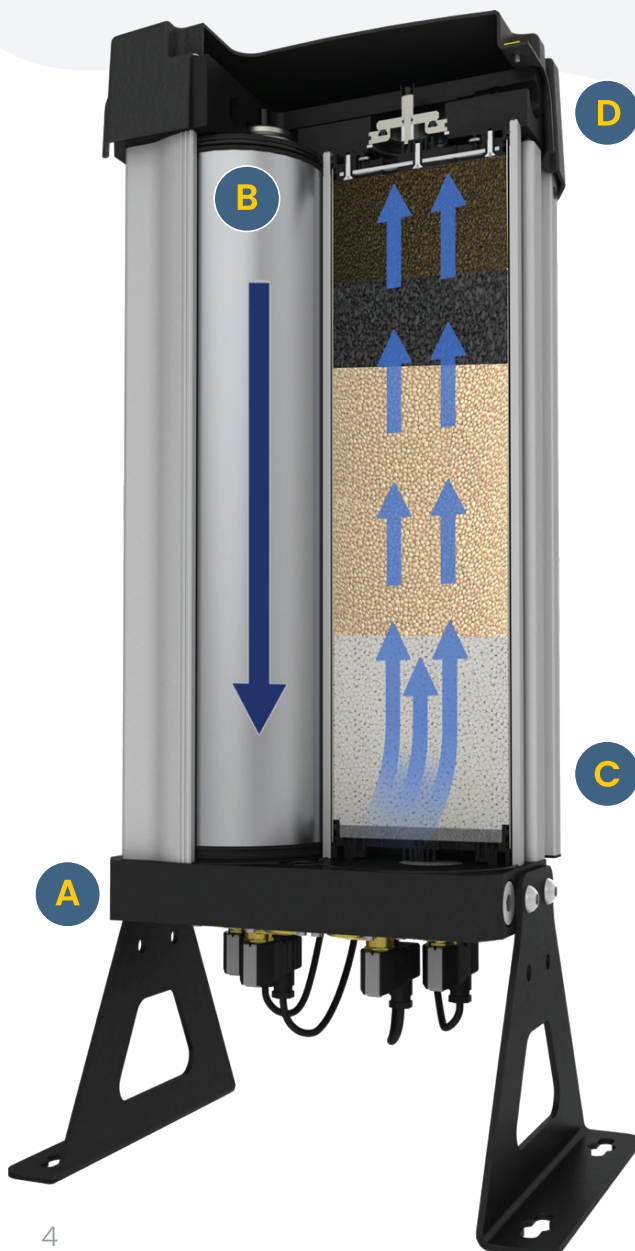


How it works

While many breathing air applications may require only the removal of particulate, oil, odour and taste, others may also require the removal of hazardous gases.

Carbon dioxide (CO_2) and carbon monoxide (CO) are odorless, tasteless gases that can be harmful or even lethal if inhaled, especially in high concentrations. If there is the potential for high levels of CO or CO_2 in the air, it is imperative they are reduced to safe levels for breathing.

The nano NBA modular breathing air purification systems are based on the tested and proven nano D^{12/13} modular dryers but employ a unique split cartridge system to completely treat the air prior to respiration.



- A** Clean, filtered compressed air enters the inlet into NBA unit where the inlet valves direct the flow to either the left or right column sets.
- B** After passing through the inlet valve, the compressed air enters one side of the manifold under the extruded columns.
- C** The compressed air then flows up through the mixed bed cartridges where the air is dried to -40°C , existing CO_2 is scrubbed, taste and smell are removed and deadly CO is changed through a catalytic process to less hazardous CO_2 .
- D** The clean, dry, breathable air flows through a final filter and exits through the outlet.



Features

Portable Breathing Air Cases

Case houses a nano water separator and 0.01 micron coalescing filter with automatic condensate drains and an AC activated carbon adsorber to remove moisture, oil aerosols, odors and taste to 0.003 ppm all in one simple, portable package.

- 85 or 170 Nm³/h flow rates
- Adjustable pressure regulators
- Four outlet connections for multiple users
- Integral CO monitor

Wall Mounted Breathing Air Panels

Panel includes a nano water separator and 0.01 micron coalescing filter with automatic condensate drains and an AC activated carbon adsorber to remove moisture, oil aerosols, odors and taste to 0.003 ppm.

- 85, 170 or 297 Nm³/h flow rates
- Adjustable pressure regulators
- Multiple outlet connections for multiple users
- Integral CO monitor

Modular Systems

Includes a 4-layer, mixed bed to reduce CO and CO₂ and an integral 1 micron particulate after filter.

- Wide range of flow rates
- Tower pressure gauges
- For multiple users
- Dew point demand switching energy savings (optional)
- Adjustable pressure regulators
- CO monitor (optional)

Accessories & Options

Customise your breathing air system with upgrades including remote audible and visual alarms, free-standing CO monitors and test, calibration and service kits to keep your products working at their optimum level of performance.

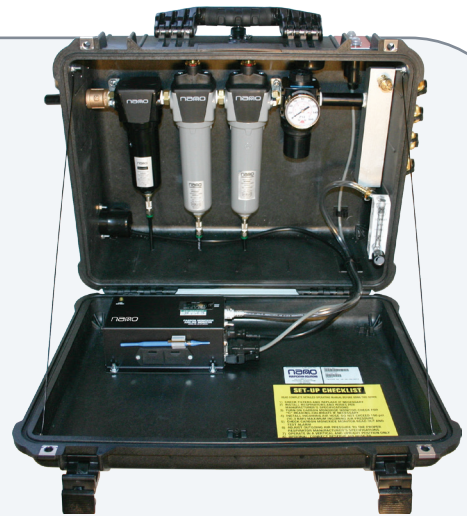




Benefits

Portable Breathing Air Cases

- For users who need a robust, compact, and water-resistant breathable air filtration system that goes anywhere.
- Includes an adjustable pressure regulator and carbon monoxide (CO) monitor to ensure safe and reliable operation.
- Independently validated systems provide breathing air to stringent international standards for breathing air.



Wall Mounted Breathing Air Panels

- For one or more users who require high quality breathable air filtration system without portability requirements.
- Easy to install panel can be mounted to wall, skid or any location such as blasting or paint booth, a confined space, a hazardous area or a tank cleaning location.
- Includes an adjustable pressure regulator and carbon monoxide (CO) monitor to ensure safe and reliable operation.
- Independently validated systems provide breathing air to stringent international standards for breathing air.



Modular Breathing Air Purifier System

- Effectively reduces harmful carbon monoxide (CO) and carbon dioxide (CO₂) levels, protecting workers with safe, breathable air.
- All-in-one package including mixed bed NBA cartridges.
- Independently validated systems provide breathing air to stringent international standards for breathing air.





Product Specifications

MODEL	INLET CONNECTION			OUTLET CONNECTION ⁽¹⁾			INLET FLOWS ⁽⁴⁾	OUTLET FLOWS ⁽⁴⁾	DIMENSIONS (mm)			APPROX. WEIGHT
	SIZE	TYPE	QTY	SIZE	TYPE	QTY			Nm³/h	Nm³/h	A	
Breathing Air Panels												
BAP 050 CP N	½"	BSPP	1	⅜"	BSPP	4	85	85	584	559	203	13
BAP 050 CP H	½"	BSPP	1	¼"	Hansen ⁽¹⁾	4	85	85	584	559	203	13
BAP 050 CP S	½"	BSPP	1	¼"	Schrader ⁽¹⁾	4	85	85	584	559	203	13
BAP 100 CP N	¾"	BSPP	1	⅜"	BSPP	4	170	170	584	559	203	18
BAP 100 CP H	¾"	BSPP	1	¼"	Hansen ⁽¹⁾	4	170	170	584	559	203	18
BAP 100 CP S	¾"	BSPP	1	¼"	Schrader ⁽¹⁾	4	170	170	584	559	203	18
BAP 175 CP N	¾"	BSPP	1	⅜"	BSPP	6	297	297	584	559	203	20
BAP 175 CP H	¾"	BSPP	1	¼"	Hansen ⁽¹⁾	6	297	297	584	559	203	20
BAP 175 CP S	¾"	BSPP	1	¼"	Schrader ⁽¹⁾	6	297	297	584	559	203	20
Portable Breathing Air Cases												
BAC 035 CP N	½"	BSPP	1	⅜"	BSPP	4	60	60	432	610	216	13
BAC 035CP H	½"	BSPP	1	¼"	Hansen ⁽¹⁾	4	60	60	432	610	216	13
BAC 035 CP S	½"	BSPP	1	¼"	Schrader ⁽¹⁾	4	60	60	432	610	216	13
Modular Breathing Air Purifier Systems												
NBA 030	⅜"	PTC ⁽²⁾	1	⅜"	PTC ⁽²⁾	1	13	10	649	263	220	12
NBA 040	⅜"	PTC ⁽²⁾	1	⅜"	PTC ⁽²⁾	1	20	15	873	263	280	16
NBA 050	⅜"	PTC ⁽²⁾	1	⅜"	PTC ⁽²⁾	1	32	24	1193	263	280	20
NBA 070	1"	BSPP	1	1"	BSPP	1	59	44	762	426	283	40
NBA 090	1"	BSPP	1	1"	BSPP	1	93	70	914	426	283	54
NBA 110	1"	BSPP	1	1"	BSPP	1	148	110	1245	426	283	78
NBA 120	1"	BSPP	1	1"	BSPP	1	183	138	1499	426	283	95
NBA 2110	2"	BSPP	1	2"	BSPP	1	292	219	1288	400	619	166
NBA 2120	2"	BSPP	1	2"	BSPP	1	367	275	1538	400	619	200
NBA 3120	2"	BSPP	1	2"	BSPP	1	550	413	1538	400	787	272
NBA 4120	2"	BSPP	1	2"	BSPP	1	734	550	1538	400	955	363
NBA 6120	2"	BSPP	1	2"	BSPP	1	1101	826	1538	400	1291	524

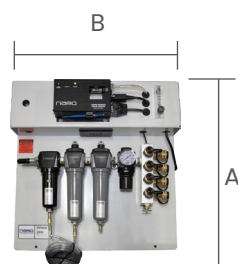
SPECIFICATIONS	BAP PANELS	BAC CASES	NBA 030 TO 120	NBA 2110 TO 6120
Operating pressure range (barg)	1 to 10	1 to 10	6 to 16	6 to 10 ⁽³⁾
Recommended operating temp range (°C)	1.5 to 30	1.5 to 30	1.5 to 30	1.5 to 30

(1) Female style coupling (2) PTC = push to connect fittings (3) Contact support.asia@nano-purification.com for higher pressures or flows.

(4) Flow rates based on 7 barg and 30°C inlet temperature. (5) Tower pressure gauges as standard on NBA 070 and above. Applies to serial numbers 20-H-xxxx-xx and above.

• Contact support.asia@nano-purification.com for intrinsically safe, integrated CO & O₂ monitoring or any options or equipment not listed.

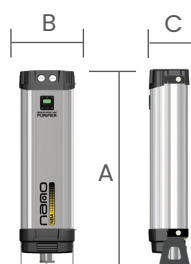
• Quick-disconnect fittings for use in compressed breathing air systems shall be selected to prevent accidental connection to other sources of compressed gas.



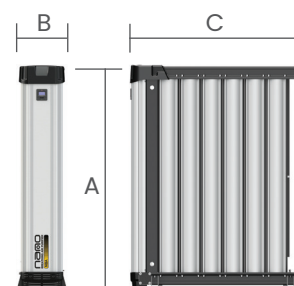
BAP 050 to BAP 175 CP



BAC 050 to BAC 100 CP



NBA 030 to NBA 120



NBA 2110 to NBA 6120

Experience.
Customer.
Service.



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