Atlas Copco

Breathing Air Purifiers
BAP Series (7-145 l/s / 15-307 cfm)

Sustainable Productivity

Atlas Copco

Breathing air that complies with International Breathing Air Standards

High quality air is of vital importance to many industries but even more so in breathing air applications. Atlas Copco BAP breathing air purifiers are designed to offer protection against a range of contaminants that may be present in a compressed air fed breathing air system. These include fumes, oil, vapors, gases, solid particles and micro-organisms. Complying with International Breathing Air standards, the BAP breathing air purifier range assures a safe working environment in a wide range of applications.

These include:

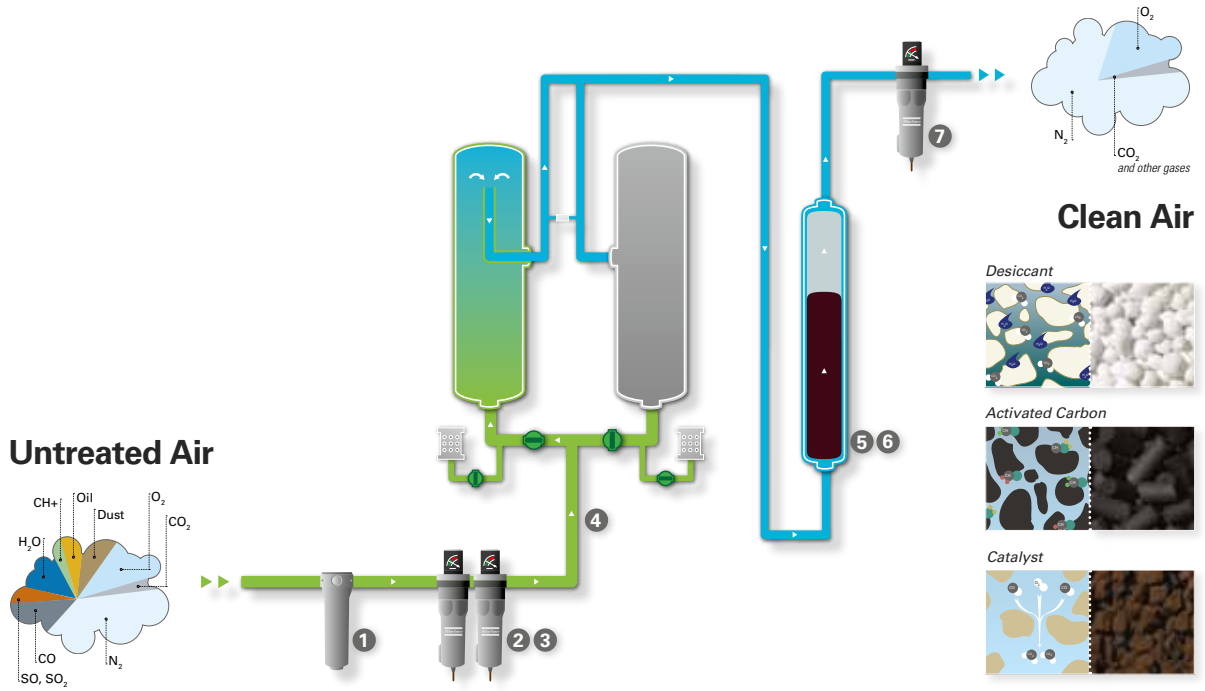
- Shot-blasting
- Tank cleaning
- Tunneling
- Pharmaceutical manufacturing
- Spray painting
- Offshore / marine
- Asbestos removal
- High-pressure cylinder filling

International compliance

Atlas Copco's Breathing Air Purifiers comply with OSHA Grade D, NFPA-99, CSA Z180.1-00, CGA G7.1-1997, EN12021, BS 4275, European Pharmacopoeia and other International Breathing Air Standards.

High-efficiency filtration

The BAP's multi-stage filtration offers unparalleled air purity.



1 2 3 A water separator and pre- and fine-coalescing filters remove free water and particles down to 0.01 micron and eliminate oil droplets down to 0.01 ppm.

4 A heatless desiccant dryer reduces moisture content to a pressure dew point of -40°C/-40°F, removing any risk of condensation, bacteria and mold growth.

5 6 A dual cleaning stage includes activated carbon to eliminate hydrocarbons (oil vapor, smells). A catalyst then converts CO into CO_2.

7 A bacterial filter at the outlet removes bacteria and particles that may have been introduced in the desiccant stages down to 0.01 micron.

Atlas Copco challenge test

Atlas Copco developed the Challenge Test to ensure the BAP series meets international regulations. The test was designed to take into account the impurities in ambient air by subjecting the BAP to the maximum concentrations reported by governments worldwide. Excelling in these 'worst case scenarios' in ambient air quality, the BAP gives you peace of mind in real life conditions.

	EN 12021	European Pharmacopoeia	Breathable Air System air quality
[1] CO_2	< 500 ppm	< 500 ppm	< 220 ppm (1)
[2] CO	< 15 ppm	< 5 ppm	< 1 ppm (2)
[3] SO_2	Not specified	< 1 ppm	< 0.2 ppm (3)
[4] NOx	Not specified	< 2 ppm	< 1 ppm (4)
Water vapor	5°C below lowest temperature*	ADP -45°C (-49°F) /	PDP -40°C (-40°F)
		PDP -31°C (-23°F)	
Oil vapor	0,5 mg/m³	< 0.1 mg/m³	< 0.003 mg/m³
Dust particles	Not specified	Not specified	< 0.01 ppm
Taste and odor	Without significant odor or taste	Taste and odor free	Free

** In case the conditions of usage and storage of the compressed air supply are not known, the pressure dewpoint shall not exceed -11°C.*

1) When tested with 700 ppm (at inlet) *2) When tested with 50 ppm (at inlet)* *3) When tested with 5 ppm (at inlet)* *4) When tested with 5 ppm (at inlet)*

Assured purity, complete endurance

BAP air purifiers provide the ultra clean air you require, within a manageable budget. Their innovative filtration system is the definitive breathing air solution, while a small footprint allows you to make the most of the space available.

High-performance desiccant bags

- Pressure dewpoint of -40°C/-40°F as standard.
- Protection against ageing and overflow peaks.

Dewpoint Dependent Switching (optional)

- Real PDP monitoring (hygrometer).
- PDP display on controller (and alarm).
- The dryer will only switch to the next tower when the desiccant is saturated (based on PDP input). During that period, the dryer consumes no purge.

Filters

- Pre-filter(s) at the inlet prevents oil contamination.
- Bacterial filter at the outlet protects against desiccant dust and bacteria.

Advanced control and monitoring system

- Timer control variant cycles defined to reach PDP target even at 100% load.
- Auto restart after power failure function with cycle status memory.

Dual cleaning stage

- Activated carbon eliminates hydrocarbons (oil vapor, smells).
- A catalyst converts CO into CO_2.

High-quality valve block with few moving parts

- Minimized pressure drop and increased reliability.

Electronic water drain (optional)

Technical specifications BAP 7-145

TYPE	Inlet pressure		Max. inlet flow			Purge	Pressure drop		Weight	Length	Width	Height	Connection*
MED	bar(e)	psig	l/s	m³/h	cfm	%	dP mbar	psi	kg	mm	mm	mm	
BAP 7	7	102	7.0	25.2	14.8	19.0	510	7.4	184	950	650	885	½"
	10	145	8.4	30.2	17.8	15.8	510	7.4	184	950	650	885	½"
	13	188	9.4	33.8	19.9	14.1	510	7.4	184	950	650	885	½"
BAP 13	7	102	13.0	46.8	27.5	19.0	530	7.7	201	950	650	1075	½"
	10	145	15.6	56.2	33.1	15.8	530	7.7	201	950	650	1075	½"
	13	188	17.5	63.0	37.1	14.1	530	7.7	201	950	650	1075	½"
BAP 25	7	102	25.0	90.0	53.0	18.0	560	8.1	245	950	650	1300	½"
	10	145	30.0	108.0	63.6	15.0	560	8.1	245	950	650	1300	½"
	13	188	33.8	121.7	71.6	13.3	560	8.1	245	950	650	1300	½"
BAP 35	7	102	35.0	126.0	74.2	18.0	600	8.7	271	950	650	1545	1"
	10	145	42.0	151.2	89.0	15.0	600	8.7	271	950	650	1545	1"
	13	188	47.3	170.3	100.2	13.3	600	8.7	271	950	650	1545	1"
BAP 50	7	102	50.0	180.0	106.0	19.0	820	11.9	315	950	650	1915	1"
	10	145	60.0	216.0	127.1	15.8	820	11.9	315	950	650	1915	1"
	13	188	67.5	243.0	143.0	14.1	820	11.9	315	950	650	1915	1"
BAP 70	7	102	70.0	252.0	148.3	18.0	660	9.6	446	1250	850	1545	1 ½"
	10	145	84.0	302.4	178.0	15.0	660	9.6	446	1250	850	1545	1 ½"
	13	188	94.5	340.2	200.2	13.3	660	9.6	446	1250	850	1545	1 ½"
BAP 80	7	102	80.0	288.0	169.5	18.0	700	10.2	494	1250	850	1915	1 ½"
	10	145	96.0	345.6	203.4	15.0	700	10.2	494	1250	850	1915	1 ½"
	13	188	108.0	388.8	228.9	13.3	700	10.2	494	1250	850	1915	1 ½"
BAP 100	7	102	100.0	360.0	211.9	19.0	820	11.9	502	1250	850	1915	1 ½"
	10	145	120.0	432.0	254.3	15.8	820	11.9	502	1250	850	1915	1 ½"
	13	188	135.0	486.0	286.1	14.1	820	11.9	502	1250	850	1915	1 ½"
BAP 145	7	102	145.0	522.0	307.3	19.0	800	11.6	620	1250	850	1915	1 ½"
	10	145	174.0	626.4	368.7	15.8	800	11.6	620	1250	850	1915	1 ½"
	13	188	195.8	704.9	414.9	14.1	800	11.6	620	1250	850	1915	1 ½"

* 50 Hz: G; 60 Hz: NPT

Flow mentioned is the maximum inlet flow to the BAP series.
Dryer unit performance measured according to ISO 7183, latest edition.
Quality of air measured according to ISO 8573-2, Ed. 1, 1996, ISO 8573-4, Ed.1, 2001 and ISO 8573-5, Ed.1, 2001 for filter used.

Reference conditions:
Compressed air inlet temperature: 35°C/100°F.
Ambient temperature: 25°C/77°F.
Inlet relative humidity: 100%.
Nominal working pressure: 7.5 bar(e)/109 psig, 10 bar(e)/145 psig and 12.5 bar(e)/181 psig respectively.

Limitations of operation:
Maximum/minimum ambient temperature: 40°C/1°C, 104°F/34°F.
Maximum inlet compressed air temperature: 45°C/113°F.
Maximum inlet pressure: 16 bar(e)/232 psig for 13 bar units.
Maximum pressure: 11 bar(e)/160 psig for 7.5 bar and 10 bar units.

BAP 145

Optimize your system

Some applications may need or may benefit from additional options and more refined control and air treatment systems. To meet these needs, Atlas Copco has developed options and easily integrated compatible equipment.

Options
Purge control (with 4-20 mA sensor)
Electronic water drain on filters and water separators
CO catalyst (add-on) for polluted areas
QDT "purity indicator"

Driven by innovation

With more than 135 years of innovation and experience, Atlas Copco will deliver the products and services to help maximize your company's efficiency and productivity. As an industry leader, we are dedicated to offering high air quality at the lowest possible cost of ownership. Through continuous innovation, we strive to safeguard your bottom line and bring you peace of mind.

Building on interaction

As part of our long-term relationship with our customers, we have accumulated extensive knowledge of a wide diversity of processes, needs and objectives. This gives us the flexibility to adapt and efficiently produce customized compressed air solutions that meet and exceed your expectations.

A committed business partner

With a presence in over 170 countries, we will deliver high-quality customer service anywhere, anytime. Our highly skilled technicians are available 24/7 and are supported by an efficient logistics organization, ensuring fast delivery of genuine spare parts when you need them. We are committed to providing the best possible know-how and technology to help your company produce, grow, and succeed. With Atlas Copco you can rest assured that your superior productivity is our first concern!

Atlas Copco

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