Breathing Air Purifier

BAP12-142(+) Series

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/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/BAP+ Breathing Air Purifier range assures a safe working environment in a wide range of applications.

Breathing air applications:

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

Innovation

The breathing air purifier is fitted with a patented purge nozzle design with multiple orifice sizes*, enabling the purge rate to be adjusted to suit customer requirement, instead of delivering a set of fixed nozzles.

Compact operation

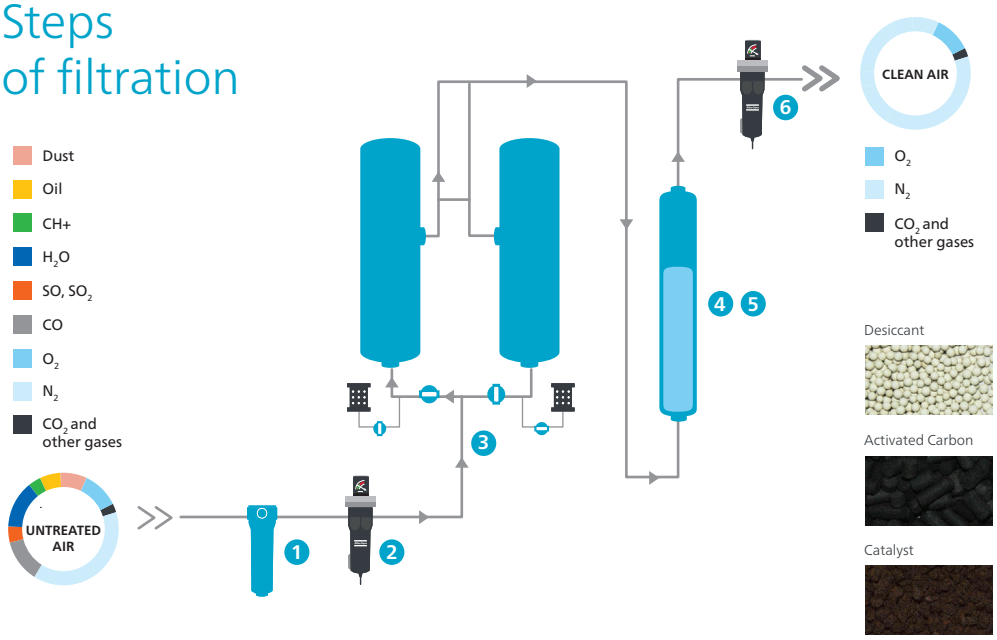
Through clever component positioning, the BAP/BAP+ fits into any space or setting. It comes pre-assembled and ready for use, ensuring minimal installation time and cost.

Energy efficiency

The BAP/BAP+ series incorporates state-of-the-art energy management control with built-in purge control* as standard (optionally on the BAP series). The purge saver stops the purge flow when the dew point level remains low, leading to a more efficient use of energy.

* The patented purge nozzle and purge control are not available on the BAP12-17.

6 Steps of filtration



1 2	A water separator for free water removal together with a fine and coarse coalescing filter, removes oil aerosol to less than 0.01 mg/m^3.
3	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.
4 5	A dual cleaning stage includes activated carbon to eliminate hydrocarbons (oil vapor, smells, etc.). A catalyst then converts CO into CO_2.
6	A bacterial filter at the exit removes bacteria and particles that may have been introduced in the desiccant stages with a count efficiency of 99.99%.

Choose the **best fit** for your requirement

BAP with basic controller

- Easy to use LED screen
- Microcontroller based design
- Dual voltage Device (115-230V)
- Alarm outputs to indicate solenoid faults, power faults and service intervals

BAP+ with advanced Elektronikon® controller

- 3,5" high definition display
- Standard purge control for up to 90% energy savings
- Alarms and warnings on PDP, net pressure and service
- Service warning indications for desiccant, catalyst, filters and water drains
- Pressure sensor on outlet for full control over the dryer's performance

Option	BAP	BAP+
EWD on filters and water drain	O	O
Inlet solenoid for remote control	-	O
Canadian CSA Option Kit (incl. NPT connection)	O	O
QDT quality indicator	O	O
Catalyst (CO to CO_2)	O	O
CO sensor	O	O
CO_2 sensor	O	O
O_2 sensor	O	O
Overflow protection (nozzle)	O	O
Gateway (Profibus, Modbus)	-	O

-: Not available O: optional

Technical Specifications

Type	Inlet pressure		Max. inlet flow			Purge	Pressure drop	
	bar(e)	psig	l/s	m^3/h	cfm	%	dP, mbar	psi
BAP12 BAP12+	7	102	12	43.2	25.4	18	646	9.36
	10	145	16	57.6	33.9	13	646	9.36
	13	188	21	75.6	44.5	10	646	9.36
BAP17 BAP17+	7	102	17	61.2	36	18	926	13.4
	10	145	23	82.8	48.7	13	926	13.4
	13	188	29	104.4	61.4	10	926	13.4
BAP21 BAP21+	7	102	21	75.6	44.5	18	722	10.4
	10	145	29	104.4	61.4	13	722	10.4
	13	188	37	133.2	78.4	10	722	10.4
BAP35 BAP35+	7	102	35	126	74.1	18	712	10.3
	10	145	49	176.4	103.8	13	712	10.3
	13	188	62	223.2	131.4	10	712	10.3
BAP42 BAP42+	7	102	42	151.2	89	18	644	9.3
	10	145	58	208.8	122.9	13	644	9.3
	13	188	75	270	158.9	10	644	9.3
BAP52 BAP52+	7	102	52	187.2	110.2	18	739	10.7
	10	145	71	255.6	150.4	13	739	10.7
	13	188	91	327.6	192.8	10	739	10.7
BAP71 BAP71+	7	102	71	255.6	150.4	18	749	10.9
	10	145	97	349.2	205.5	13	749	10.9
	13	188	124	446.4	262.7	10	749	10.9
BAP104 BAP104+	7	102	104	374.4	220.4	18	914	13.3
	10	145	142	511.2	300.9	13	914	13.3
	13	188	182	655.2	385.6	10	914	13.3
BAP142 BAP142+	7	102	142	511.2	300.9	18	1,475	21.4
	10	145	194	698.4	411	13	1,475	21.4
	13	188	248	892.8	525.5	10	1,475	21.4

Flow mentioned is the maximum inlet flow to the BAP/BAP+.

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:

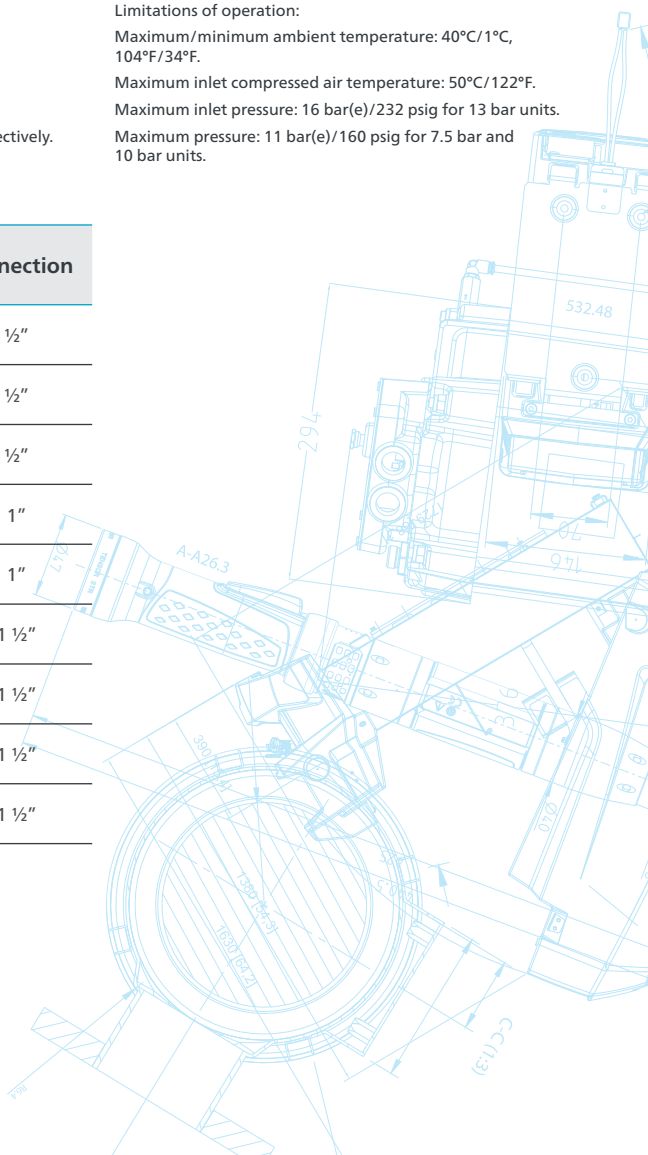
Maximum/minimum ambient temperature: 40°C/1°C, 104°F/34°F.

Maximum inlet compressed air temperature: 50°C/122°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.

Type	Weight	Length	Width	Height	Connection
	kg	mm	mm	mm	
BAP12	77	450	550	1241	½"
BAP12+	106	700	800	1580	
BAP17	87	450	550	1640	½"
BAP17+	116	700	800		
BAP21	102	700	800	1217	½"
BAP21+	131			1680	
BAP35	108	700	800	1460	1"
BAP35+	137			1680	
BAP42	130	700	800	1585	1"
BAP42+	159			1680	
BAP52	184	700	800	1517	1 ½"
BAP52+	213			1680	
BAP71	184	700	800	1735	1 ½"
BAP71+	213				
BAP104	261	900	800	1822	1 ½"
BAP104+	290			1778	
BAP142	309	900	800	1847	1 ½"
BAP142+	338			1778	



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