



BA-Series Dual Stage Compressed Air Filters

Point-of-Use Breathing Air Filters



ENGINEERING YOUR SUCCESS.

Breathing Air Purifiers

Dual-Stage Compressed Air Filters - BA-Series

BA-Series filters are designed to be used as point-of-use breathing air filters. This combination unit contains both a fine grade coalescing filter element and an activated carbon vapor removal element. BA-Series filters may also be used in applications requiring compressed air to be free of odor or taste bearing hydrocarbons. Food and beverage applications would be typical where compressed air comes in contact with the product. The BA-Series can also be used as a pre-filter for critical needs such as zero air generators, membrane filters and many others!

Replacement elements are supplied in convenient repair kits which include one coalescing element, two activated carbon adsorber elements, and replacement seals. Two adsorber elements are supplied because the stage one coalescer will routinely outlive the extremely sensitive second stage adsorber element.

For severe applications with excessive solid and liquid contaminants, the BA-Series should be preceded by Parker Finite H-Series pre-coalescer or interceptor filters.

Parker Finite also supplies pressure regulators which can be used downstream of the BA-Series to lower system operating pressures to desired levels for breathing air applications. Please refer to the "Air Preparation Units" section of this catalog.



Parker Finite BA-Series Purifiers are available in 1/4" - 1" NPT connection sizes.

Product Features:

- Connection sizes: 1/4" - 1" NPT
- Flows: Up to 75 SCFM
- Maximum pressure: 500 PSIG
- Maximum temperature: 175° F
- Drain port: 1/8" NPT with standard manual drain (float drain available)

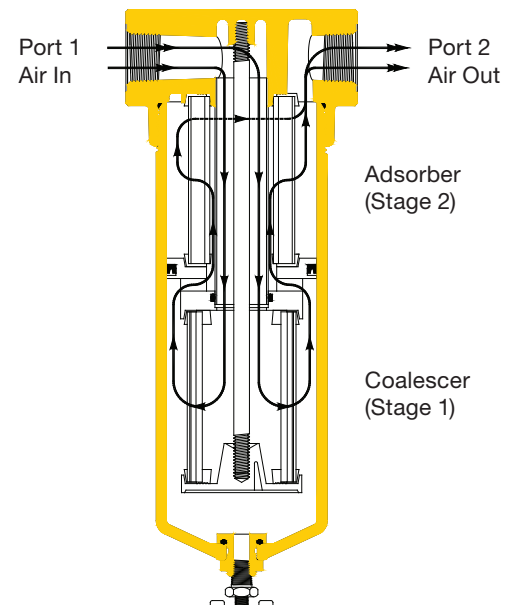
Typical Applications:

- Industrial breathing air
- Aircraft cabin air
- Zero air generator pre-filter
- Instrument air
- Food processing / Packaging
- Membrane pre-filtration
- Instrument air dryer pre-filter

How it Works

Compressed air enters Port 1 of the housing and is directed down a hollow chamber into the first-stage coalescing element (bottom). Oil, water and solid contaminant is removed with a 99.97% or higher efficiency as the air flows from the inside of the element to the outside. The coalesced liquid drains off the element into the bowl where it is removed either manually, or by an automatic float drain. The oil-free air then is redirected upwards to the inside of the adsorber element (top) by means of a non-bypassing separation device. The second stage's activated carbon element collects hydrocarbon vapors as the air flows from the inside to the outside of the element. The purified air then exits through Port 2 of the housing.

Note: This product does not remove toxic gases from the air stream. A carbon monoxide monitor is recommended.

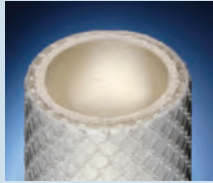


Choose Your Media Type

All BA filters have an activated carbon element (Stage 2). Depending on the application, you may either choose to use a micro-glass coalescer media type (C) or a micro-glass coalescer with a built-in pre-filter (Q) (Stage 1.)

Stage 1 – Coalescing

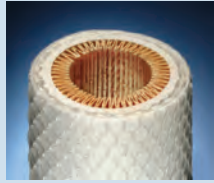
Coalescing Elements (removal of liquids and particulate)



Media Type C

Available in grades 4, 6

This coalescing element is made with our special UNI-CAST construction. Composed of an epoxy saturated borosilicate glass micro-fiber media, this media is used in applications requiring the removal of liquid and particulate contamination. The outer synthetic fabric layer allows for swift removal of coalesced liquids.



Media Type Q

Available in grades 4, 6

This coalescing element is composed of an epoxy saturated, borosilicate glass micro-fiber media, and is also made with our special UNI-CAST construction. This media type has a built-in pleated cellulose pre-filter as the inner layer. As with the C media type, the outer synthetic fabric layer aids in the swift and efficient removal of coalesced liquids.

Stage 2 – Adsorption

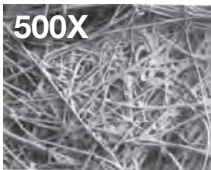
Adsorption Element (removal of odors)



Media Type A

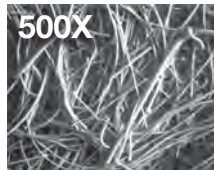
This hydrocarbon vapor removal element consists of an ultra-fine grained, highly concentrated, activated carbon sheet media. This media type is used to remove hydrocarbon vapor and is often used to remove the smell or taste of compressor lube oil from breathing air.

Grade 4

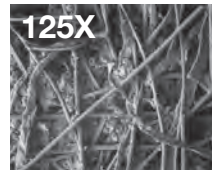


Stage 1 coalescers come in grade 6 (standard) or grade 4. Choose grade based on coalescing efficiencies in the chart on the following page.

Grade 6



Grade A



Stage 2 adsorbers polish the air stream of final trace amounts of hydrocarbon vapors with an efficiency of 99%+.

Specifications and Flow Rates

Coalescing Media Specifications

Media Grade	Coalescing Efficiency .3 to .6 Micron Aerosols	Maximum Oil Carryover ¹ PPM w/w	Micron Rating
4	99.995%	.003	.01
6	99.97%	.008	.01

¹Tested per ISO 12500-1.

Flow Ratings

Part Number	BAN1L		BAN15L		BAN2L		BAN3S		BAN4S		BAN3L		BAN4L	
Grade	4	6	4	6	4	6	4	6	4	6	4	6	4	6
Max. Rated Flow (SCFM) at 100 PSIG	10	14	12	16	14	18	25	30	35	45	40	60	50	75
Δp (dry)	2.0		2.0		2.0		1.5		2.0		1.5		2.0	
Δp (wet)	4.0		4.0		4.0		3.5		4.0		3.5		4.0	

Note: The differential pressure (Δp) includes the effects of the housing and both elements.

Expected Lifespan of BA-Series Filter Elements

Expected life of the filter elements is entirely dependent on the quality of the incoming compressed air, but can be several thousand hours. However, the elements should be changed whenever odors and/ or taste become present regardless of hours in operation.

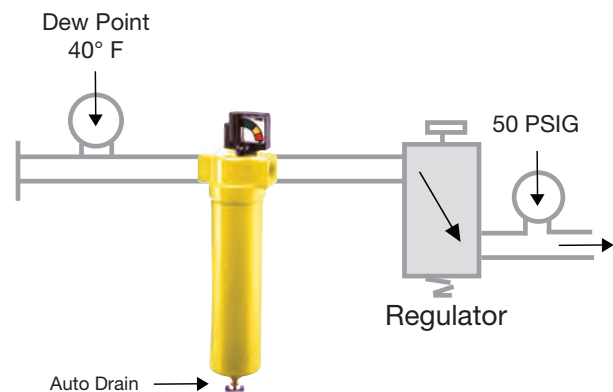
Application

Use any compressor with after-cooler and refrigerated dryer. Air intended for use as industrial breathing air and in decompression chambers.

CAUTION: Always use high temperature synthetic lubricants and monitor (alarm) for carbon monoxide concentrations exceeding established maximum recommended levels. This system will not eliminate toxic gases!

Other Specs Met:

OSHA 29CFR 1910.134



How to Order

Complete Dual-Stage Assembly Part Code Example:

BA	N	3	L 	6	C	U	Y
Series Name	Port Type	Port (Connection) Size	Bowl	Element Grade	Element Type	End Seal	Accessory Designator for pre-installed accessories
BA	N - NPT	1 - 1/4" 15 - 3/8" 2 - 1/2" 3 - 3/4" 4 - 1"	S - Standard L - Long (S available on 3/4" and 1" port size only) Note: Bowl length is determined by the flow rate required. See Flow Ratings Chart on the previous page.	4 6	C Q Note: Designate first stage; grade and media type, second stage; media type will always be "A" media, and is not designated in the part number.	U - Urethane (Standard all connection sizes)	A - Auto Drain D - DPI Indicator (1/4" - 1/2" only) G - DPG Gauge N - No Accessories W - A + D (1/4" - 1/2" only) Y - A + G

BA-Series Replacement Element Part Code Example:

K	BA	3	L	6	C	U
Repair Kit	Series Name	Port (Connection) Size	Bowl	Element Grade	Element Type	End Seal
K	BA	1 - 1/4" 15 - 3/8" 2 - 1/2" 3 - 3/4" 4 - 1"	S - Standard L - Long (S available on 3/4" and 1" port size only)	4 6	C Q	U - Urethane (Standard all connection sizes)

Example: KBA3L6CU

Note: Each repair kit contains (1) coalescing element, (2) activated carbon adsorber elements and replacement seals.

Note: Mounting brackets available: BK-M 1/4 - 1/2" connections
BK-3 3/4 - 1" connections

Pre-installed Accessories

Accessory Designator	Accessory Type	Maximum Pressure	Maximum Temperature
A	Auto Drain	250 PSIG (17 bar)	175°F (79°C)
D	DPI Indicator	250 PSIG (17 bar)	175°F (79°C)
G	DPG Gauge	500 PSIG (34 bar)	175°F (79°C)
N	No Accessories	500 PSIG (34 bar)	175°F (79°C)
W	Auto Drain and DPI Indicator	250 PSIG (17 bar)	175°F (79°C)
Y	Auto Drain and DPG Gauge	250 PSIG (17 bar)	175°F (79°C)