

Balston® 3 Stage Sterile Air Filtration Systems

for the Food Industry



Balston 3 Stage Compressed Air Filter Assemblies

Safeguard your operations from rust, pipescale, water, oil, and organisms. The prefilters will remove contaminants at a very high efficiency - up to 99.99% for 0.01 micron particles and droplets. Liquid releases from the filter cartridge to an automatic drain as rapidly as it enters the filter. This allows the filter to continue removing liquids for an unlimited time without loss of efficiency or flow capacity.

The final stage of filtration removes all viable organisms with an efficiency rating of 99.9999+% at 0.01 microns. Select 1/4" to 1 1/2" aluminum with a durable powder coating designed to hold up to the dirtiest compressed air systems.



Product Features:

- Remove all viable organisms - at 99.9999+% @0.01 microns
- Remove 99.99% of 0.01 micron particles of oil, water, and dirt from compressed air and other gases
- USDA accepted for use in federally inspected meat and poultry plants
- Low pressure drop
- Continuously trap and drain liquids

The Application

Compressed air is contaminated with compressor oil, water condensate, pipe scale and rust all of which provide the ideal environment and means to grow bacteria. This natural occurring contaminate can also effect the taste, appearance and shelf life of food product. The food processing and packaging industry utilizes compressed air extensively throughout their facilities. Compressed air is used to push and propel product, cut and mix product in addition to packaging product.

Cahoon Farms in Walcott, New York uses Parker Balston three stage filtration systems for all their compressed air and sterile air applications. Cahoon Farms packages fresh sliced apples and cherries, dried apples, and other assorted dried fruits. Compressed air is used extensively throughout the facility servicing pneumatic equipment, slicing and mixing food product, and packaging. The sterile compressed air applications are filtered to an efficiency of 99.9999+% at 0.01 microns,

which is 30 times better than the accepted industry standard. Cahoon Farms safeguards their food product from any possible contamination that could lead to bacteria and mold growth. The investment in these filtration systems ensures Cahoon Farms' products will maintain superior taste, quality and freshness with an extended shelf life.

Balston Sterile Air Filters

2000 Series

Sterile Air Filter Rating Information

Balston grade SA filter cartridges, rated at 99.9999+% efficiency for 0.01 micron particles, is at least 30 times better than the accepted standard for sterile air filters developed by independent research organizations in the U.S. and U.K. (request bulletin TI-105 for a detailed discussion on Balston filter efficiency rating procedure, and Bulletin TI-935 for an independent test report on Balston Sterile Air Filters). Balston Sterile Air Filters are in full compliance with the requirements of the FDA.



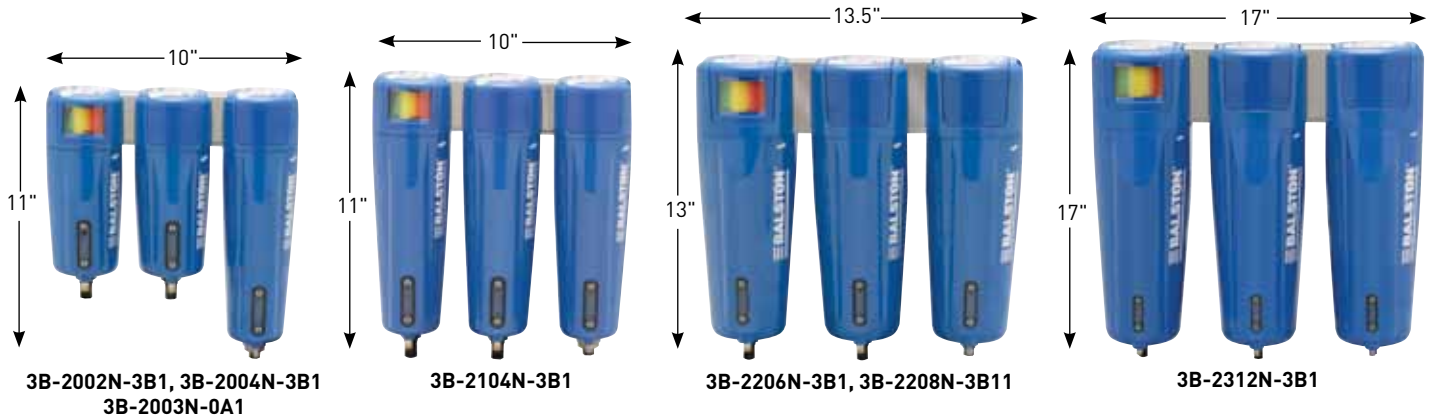
Explanation for 3 Stage Filter System

1st Stage: Grade DX	Removal of large quantities of oil, water, and dirt from compressed air. Prefilter to Grade BX
2nd Stage: Grade BX	Complete removal of trace quantities of oil, water, and dirt down to 0.01 microns.
3rd Stage: Grade SA	Removal of bacteria providing sterile air.

Flow Rates

Filter Housing Model	Port Size	Filter Cartridge Grade	Flow rates (SCFM), at 2 psi drop at indicated line pressure. Refer to Principal Specification Charts in each product data sheet for maximum pressure rating of each housing								
			2	20	40	80	100	125	150	200	250
3B-2002N-3B1	1/4"	DX	9	19	39	51	63	76	90	117	145
3B-2003N-3B1	3/8"	BX	3	8	11	21	25	31	36	47	58
3B-2004N-3B1	1/2"	SA	---	8	11	21	25	31	36	---	---
3B-2104N-3B1	1/2"	DX	19	41	65	113	137	166	196	257	316
		BX	9	19	30	51	63	76	90	117	145
		SA	---	19	30	51	63	76	90	---	---
3B-2206N-3B1	3/4"	DX	37	78	123	214	259	315	371	484	596
		BX	10	21	34	56	70	85	101	131	162
		SA	---	21	34	56	70	85	101	---	---
3B-2208N-3B1	1"	DX	55	115	181	314	380	463	546	711	877
		BX	11	23	37	64	77	94	111	144	178
		SA	---	23	37	64	77	94	111	---	---
3B-2312N-3B1	1 1/2"	DX	98	203	319	554	670	816	963	1254	1546
		BX	22	46	74	129	155	189	223	290	358
		SA	16	33	52	91	110	134	158	206	253

3 Stage Sterile Air Filter Systems



3B-2002N-3B1, 3B-2004N-3B1
3B-2003N-0A1

3B-2104N-3B1

3B-2206N-3B1, 3B-2208N-3B11

3B-2312N-3B1

Principal Specifications

Model	3B-2002, 2003, 2004	3B-2104	3B-2206	3B-2208	3B-2312
Port Size	1/4" NPT	1/2" NPT	3/4" NPT	1" NPT	1.5" NPT
Materials of Construction					
Head	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Bowl	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Internals	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Seals	Buna-N Food Grade	Buna-N Food Grade	Buna-N Food Grade	Buna-N Food Grade	Buna-N Food Grade
Maximum Temperature (1)	120°F (49°C)	120°F (49°C)	120°F (49°C)	120°F (49°C)	120°F (49°C)
Maximum Pressure (2)	175 psig	175 psig	175 psig	175 psig	175 psig
Minimum Pressure (3)	15 psig	15 psig	15 psig	15 psig	15 psig
Shipping Weight	6.75 lbs.	7.5 lbs.	17.5 lbs.	17.5 lbs.	41.25 lbs.
Dimensions	10"W X 11"L	10"W X 11"L	13.5"W X 13"L	13"W X 13"L	17"W X 17"L

Notes:

1 Max. temperature with auto drain

2 Max. pressure with auto drain. Max. pressure with manual drain is 250 psi.

3 Required for proper operation of auto drain.

Ordering Information For assistance, call toll-free at 1-800-343-4048 8AM to 5PM Eastern Time

Assembly Ordering Information

Model P/N		Replacement Cartridge	
		Box of 5	Box of 10
3B-2002N-3B1	1/4" 3-Stage (DX, BX, SA) Filter Assembly	5/100-12-DX	100-12-DX
3B-2003N-3B1	3/8" 3-Stage (DX, BX, SA) Filter Assembly	5/100-12-BX	100-12-BX
3B-2004N-3B1	1/2" 3-Stage (DX, BX, SA) Filter Assembly	5/100-12-SA	100-12-SA
3B-2104N-3B1	1/2" 3-Stage (DX, BX, SA) Filter Assembly	5/100-18-DX	100-18-DX
		5/100-18-BX	100-18-BX
		5/100-18-SA	100-18-SA
3B-2206N-3B1	3/4" 3-Stage (DX, BX, SA) Filter Assembly	5/200-176-DX	150-19-DX
		5/200-176-BX	150-19-BX
		5/200-176-SA	150-19-SA
3B-2208N-3B1	1" 3-Stage (DX, BX, SA) Stainless Assembly	5/200-185-DX	150-19-DX
		5/200-185-BX	150-19-BX
		5/200-185-SA	150-19-SA
3B-2312N-3B1	1 1/2" 3-Stage (DX, BX, SA) Stainless Assembly	5/200-35-DX	200-35-DX
		5/200-35-BX	200-35-BX
		5/200-35-SA	200-35-SA

4 2 each of mounting brackets are required for adequate support.

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