

# Filters 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.

# Filters for the Food Industry

## 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 Sterile Air 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.

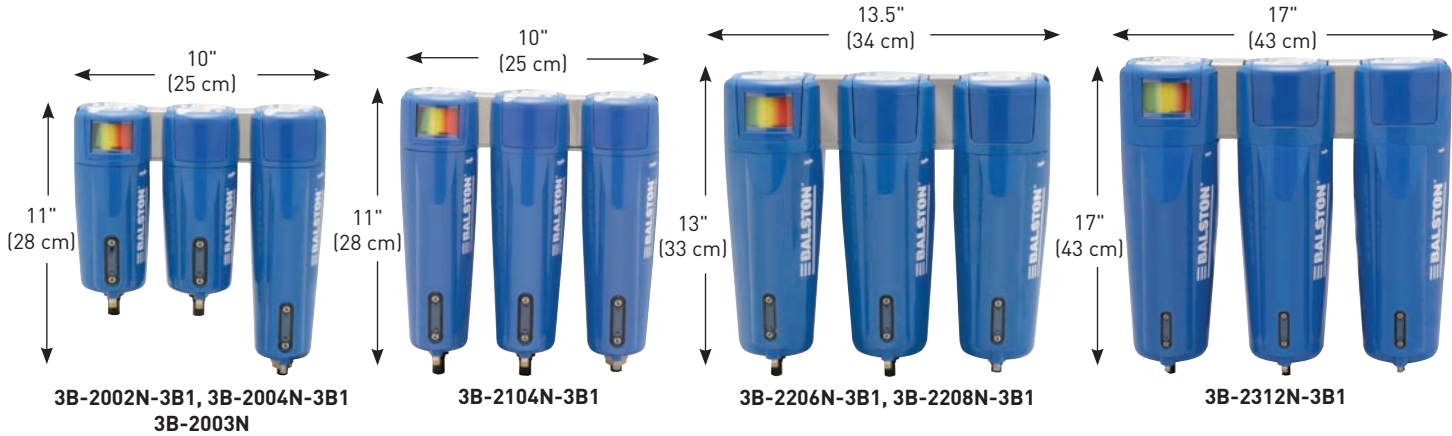
## Flow Rates

Filter Housing Model	Port Size	Filter Cartridge Grade	Flow rates SCFM (Nm <sup>3</sup> /hr), at 2 psi (0.14 bar) drop at indicated line pressure. Refer to Principal Specification Charts in each product data sheet for maximum pressure rating of each housing PSIG						
			2 (0.1)	20 (1.4)	40 (2.8)	80 (5.5)	100 (6.9)	125 (8.6)	150 (10)
3B-2002N-3B1	1/4"	DX	9 (15)	1932)	39 (87)	51 (107)	63 (107)	76 (129)	90 (153)
3B-2003N-3B1	3/8"	BX	3 (5)	8 (14)	11 (36)	21 (42)	25 (42)	31 (53)	36 (61)
3B-2004N-3B1	1/2"	SA	---	8 (14)	11 (36)	21 (42)	25 (42)	31 (53)	36 (61)
3B-2104N-3B1	1/2"	DX	19 (32)	41 (70)	65 (192)	113 (233)	137 (233)	166 (282)	196 (333)
		BX	9 (15)	19 (32)	30 (87)	51 (107)	63 (107)	76 (129)	90 (153)
		SA	---	19 (32)	30 (87)	51 (107)	63 (107)	76 (129)	90 (153)
3B-2206N-3B1	3/4"	DX	37 (63)	78 (133)	123 (364)	214 (440)	259 (440)	315 (535)	371 (630)
		BX	10 (17)	21 (36)	34 (95)	56 (119)	70 (119)	85 (144)	101 (172)
		SA	---	21 (36)	34 (95)	56 (119)	70 (119)	85 (144)	101 (172)
3B-2208N-3B1	1"	DX	55 (93)	115 (195)	181 (533)	314 (646)	380 (646)	463 (787)	546 (928)
		BX	11 (19)	23 (39)	37 (109)	64 (131)	77 (131)	94 (160)	111 (189)
		SA	---	23 (39)	37 (109)	64 (131)	77 (131)	94 (160)	111 (189)
3B-2312N-3B1	1 1/2"	DX	98 (167)	203 (345)	319 (941)	554 (1138)	670 (1138)	816 (1386)	963 (1636)
		BX	22 (37)	46 (78)	74 (219)	129 (263)	155 (263)	189 (321)	223 (379)
		SA	16 (27)	33 (56)	52 (155)	91 (187)	110 (187)	134 (228)	158 (223)

1 For CRN rated assemblies add a "C" to the Model Number. Example: 3B-C2104N-3B1

# Filters for the Food Industry

## 3 Stage Sterile Air Filter Systems



### 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				
Bowl	Aluminum				
Internals	Aluminum				
Seals	Buna-N Food Grade				
Maximum Temperature (1)	120°F (49°C)				
Maximum Pressure (2)	175 psig (12 barg)				
Minimum Pressure (3)	15 psig (1 barg)				
Shipping Weight	6.75 lbs. (3.1 kg)	7.5 lbs. (3.4 kg)	17.5 lbs. (8.0 kg)	17.5 lbs. 8.0 kg)	41.25 lbs. (18.8 kg)
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 17 bar.

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	5/150-19-DX	150-19-DX
		5/150-19-BX	150-19-BX
		5/150-19-SA	150-19-SA
3B-2208N-3B1	1" 3-Stage (DX, BX, SA) Stainless Assembly	5/150-19-DX	150-19-DX
		5/150-19-BX	150-19-BX
		5/150-19-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.