



Model AKH-0280



Model AKH-0880

### Balston Compressed Gas Filters

Balston high flow rate compressed gas filters offer exceptionally high efficiency coalescing filtration of compressed gas at high flow rates. Specifically designed to remove suspended liquids and dirt from pipeline natural gas, the housings are ASME Code Stamped up to 1440 psig. Equipped with Balston Microfibre® Grade DX Disposable Filter Cartridges, the filters are rated at 93% retention of 0.01 micron and essentially 100% retention of 1 micron liquid droplets and particles.

Since the coalesced liquid drains continuously from the filter cartridges as rapidly as it is collected, the filters have an unlimited capacity for liquid removal.

Each filter cartridge is mounted on a rigid permanent filter holder with a vibration-resistant removable tube retainer. The filter cartridge is self-gasketing, and the filter holder is designed so that a perfect seal is easily made, even when the tube is replaced by an operator unfamiliar with the equipment.

Series AKH, and AHC housings are available with inlet and outlet ports covering the range from 2" to 10" pipe sizes. The standard carbon steel units have pressure ratings from 665 to 1440 psig.

Each AHC assembly is equipped with internal support cores and one set of filter cartridges. Also available is a complete line of stainless steel filter housings ASME code stamped for a rated maximum operating pressure of 200 psig.



Principal Specifications							
Model	Port Size Flange (7)	Closure Type*	Maximum Temperature (3)	Maximum Pressure (1)	Shipping Weight	Dimensions (8)	Flange to Flange Dimension
AHC-0180-[ ]	2"	SD	130°F (54°C)	1440 psig	98 lbs.(44 kg)	32"H x 15"W x 4.5" (81cm x 38cm x 11cm)	14.5" (37cm)
AKH-0280-[ ]	3"	FSO	250°F (121°C)	665 psig	235 lbs.(107 kg)	41"H x 16"W x 8" (104cm x 41cm x 20cm)	15.63" (40cm)
AHC-0280-[ ]	3"	SD	130°F (54°C)	1440 psig	220 lbs.(100 Kg)	43"H x 17"W x 12" (109cm x 43cm x 30cm)	16.63" (42cm)
AKH-0480-[ ]	4"	FSO	250°F (121°C)	665 psig	270 lbs.(122 kg)	40"H x 21"W x 6" (102cm x 53cm x 15cm)	20.63" (52cm)
AHC-0480-[ ]	4"	SD	130°F (54°C)	1440 psig	450 lbs.(204 kg)	50"H x 21"W x 15" 20.63" (127cm x 53cm x 38cm)	

**Notes:**  
 1 Vessel is ASME Section VIII, Div. 1 code stamped for rated pressure. All AKC housing designs have CRN registration numbers assigned in all Canadian provinces.

Model	Port Size Flange (13)	Materials of Construction	Maximum Temperature	Maximum Pressure (10)	Shipping Weight	Dimensions (8, 11)	Flange to Flange Dimension
KS-0280-3	3"	316SS Housing, Viton Seals	200°F (93°C)	200 psig	140 lbs.	36"h x 15.6"w x 7.75" (91cm x 40cm x 20cm)	15.62" (40cm)
KS-0480-4	4"	316SS Housing, Viton Seals	200°F (93°C)	200 psig	210 lbs.	35.5"h x 20.6"w x 6.25" (90cm x 52cm x 16cm)	20.63" (52cm)

Notes:

- 1 Vessel is ASME Section VIII, Div. 1 code stamped for rated pressure.
- 2 All vessels are constructed of carbon steel with Type 303 stainless steel filter cartridge holders and Buna-N seals.
- 3 Maximum operating temperature of carbon steel vessel is 650°F (343°C). Minimum operating (process and ambient) temperature is -20°F (-30°C).

- Max. Temp.**  
 250°F (121°C)  
 400°F (204°C)  
 500°F (260°C)
- Seal Material**  
 Buna  
 Viton  
 Silicone
- 4 Model 20-211 drain is installed on all AKS housings. Maximum operating pressure for the 20-211 drain is 400 psig.
- 6 Differential Pressure Indicator and Auto-

- matic Drain are not included with AHC and AKH Assemblies. Series AHC Assemblies are equipped with internal support cores and one set of filter cartridges.
- 7 ANSI Flange Classes:  
 AKH Series: 300 lbs. R.F.S.O.  
 AHC Series: 600 lbs. R.F.S.O.

- 8 Dimensions are height x width x center of flange-to-floor height.
- \*Closure Abbreviations:  
 SD: Screw type closure with Buna N "O" ring  
 FSO: Flat (flanged) top with swing bolts and Buna N "O" ring.

Natural Gas Filters

Ordering Information				
For assistance, call toll-free at 1-800-343-4048 8AM to 5PM Eastern Time				
Model	Automatic Float Drain	Differential Pressure Indicator (5)	Filter Cartridges No. Required	Box of 10 Cartridges (1)
AHC-0180-DX	---	---	1	200-80-DX
AKH-0280-DX	20-211 (8)	---	2	200-80-DX
AHC-0280-DX	---	---	2	200-80-DX
AKH-0480-DX	20-211 (8)	---	4	200-80-DX
AHC-0480-DX	---	---	4	200-80-DX
AKS-0280-DX	20-211 or 20-440 (14)	---	2	200-80-□
AKS-0480-DX	20-211 or 20-440 (14)	---	4	200-80-□

Notes:

- 9 To order filter cartridges, indicate Grade by putting appropriate letters after size designation. For example, to order Grade DX cartridges for KS-0280-3 housing, order 200-80-DX. Microfibre Filter Cartridges are sold in boxes of 10.

- 10 Vessel is ASME Section VIII, Division 1 code stamped for rated pressure at 200°F. Maximum pressure ratings are for temperatures to 200°F. Please consult factory for maximum pressure ratings at elevated temperatures.

- 11 All dimensions are approximate. Request certified drawing for installation dimensions.
- 12 Requires element retainer #27900, one for each cartridge. Order separately.

- 13 All flanges are ANSI 150#RFSSO.
- 14 20-211 Auto Float Drain, 20-440 Auto Electric Solenoid Drain.

Principal Specifications							
Model	Port Size Flange (7)	Closure Type*	Maximum Temperature (3)	Maximum Pressure (1)	Shipping Weight	Dimensions (8)	Flange to Flange Dimension
AKH-0880-[ ]	6"	FSO	250°F (121°C)	665 psig	560 lbs.(254 kg)	43"h x 25"w x 8.5" (109cm x 64cm x 22cm)	24.75" (63cm)
AHC-0880-[ ]	6"	SD	130°F (54°C)	1440 psig	980 lbs.(445 kg)	54"h x 25"w x 18" (137cm x 64cm x 46cm)	24.75" (63cm)
AKH-1480-[ ]	8"	FSO	250°F (121°C)	665 psig	1120 lbs.(508 kg)	54"h x 34"w x 16" (137cm x 86cm x 41cm)	34" (86cm)
AKH-2280-[ ]	10"	FSO	250°F (121°C)	665 psig	1430 lbs.(649 kg)	57"h x 36"w x 17" (145cm x 91cm x 43cm)	36" (91 cm)

Model	Port Size Flange (13)	Materials of Construction	Maximum Temperature	Maximum Pressure (10)	Shipping Weight	Dimensions (8, 11)	Flange to Flange Dimension
AKS-0880-[ ]	6"	316SS Housing, Viton Seals	200°F (93°C)	200 psig	360 lbs.(163 kg)	38"h x 24.75"w x 7.5" (97cm x 63cm x 19cm)	24.75" (63cm)
AKS-1480-[ ]	8"	316SS Housing, Viton Seals	200°F (93°C)	200 psig	590 lbs.(268 kg)	54"h x 34"w x 16.25" (137cm x 86cm x 41cm)	34" (86cm)
AKS-2280-[ ]	10"	316SS Housing, Viton Seals	200°F (93°C)	200 psig	880 lbs.(400 kg)	56"h x 36"w x 17.25" (142cm x 91cm x 44cm)	36" (91cm)

### Ordering Information

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

Model	Automatic Float Drain	Differential Pressure Indicator (5)	Filter Cartridges No. Required	Box of 10 Cartridges
AKH-0880-DX	20-211 (4)	—	8	200-80-DX
AHC-0880-DX	—	—	8	200-80-DX
AKC-1480-DX	20-211	41-071	14	200-80-DX
AKC-2280-DX	20-211	41-071	22	200-80-DX
AKS-0880-DX or BX	20-211 or 20-440 (14)	—	8	200-80-DX or BX
AKS-1480-DX or BX	20-211 or 20-440 (14)	—	14	200-80-DX or BX
AKS-2280-DX or BX	20-211 or 20-440 (14)	—	22	200-80-DX or BX



High Pressure Filter Housings

Flow Rate at 2 psi Drop at Indicated Line Pressure with 200-80-DX filter Cartridges														
Assembly	40 psig		100 psig		200 psig		400 psig		600 psig		1000 psig		1400 psig	
	MM SCFD	SCFM	MM SCFD	SCFM	MM SCFD	SCFM	MM SCFD	SCFM	MM SCFD	SCFM	MM SCFD	SCFM	MM SCFD	SCFM
AHC-0180	0.8	595	1.8	1250	3.3	2340	6.5	4515	9.4	6700	15.9	11050	22.2	15400
AKH-0280 AHC-0280	1.7	1190	3.6	2500	6.7	4680	13.0	9030	19.2	13400	31.8	22100	44.4	30800
AKH-0480 AHC-0480	3.5	2430	7.3	5100	13.8	9550	26.5	18400	39.5	27300	64.9	45100	90.5	62900
AKH-0880 AHC-0880	7.0	4910	14.8	10300	27.8	19300	53.6	37200	79.5	55200	131	91100	183	127000
AKH-1480	12.3	8580	25.9	18000	48.5	33700	93.6	65050	139	96400	--	--	--	--
AKH-2280	19.2	13350	40.3	28000	75.4	52400	145	101000	216	150000	--	--	--	--

MM SCFD = Million Standard Cubic Feet per Day  
 SCFM = Standard Cubic Feet per Minute

Stainless Steel Filter Housings

Flow Rate (SCFM) at 2 psi Drop at Indicated Line Pressure								
Assembly	Grade	2 psig	20 psig	60 psig	80 psig	100 psig	150 psig	200 psig
AKS-0280	DXE	364	760	1630	2065	2500	3600	4680
	BXE	90	190	400	510	620	890	1160
AKS-0480	DXE	760	1540	3320	421	5100	7300	9550
	BXE	180	380	810	1025	1240	1780	2320
AKS-0880	DXE	1500	3120	6710	8505	10300	14800	19300
	BXE	360	750	1620	2050	2480	3560	4640
AKS-1480	DXE	2620	5450	11720	14860	18000	25800	33700
	BXE	630	1310	2830	3585	4340	6230	8120
AKS-2280	DXE	4080	8470	18230	23115	28000	40200	52400
	BXE	1000	2070	4460	5655	6850	9840	12800

Natural Gas  
Filters

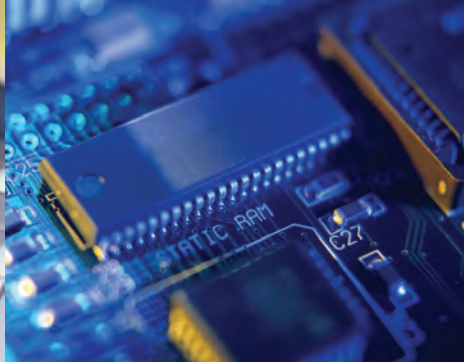


# Application Notes

Natural Gas  
Filters



Specialty Gas Filtration



Analytical Gas Filtration



Process Gas Filtration



Critical Blow Off Applications

# 0.01 Micron Membrane Filters

Filtration to 0.01 micron

No particle shedding

**Integral prefilter protects the membrane**

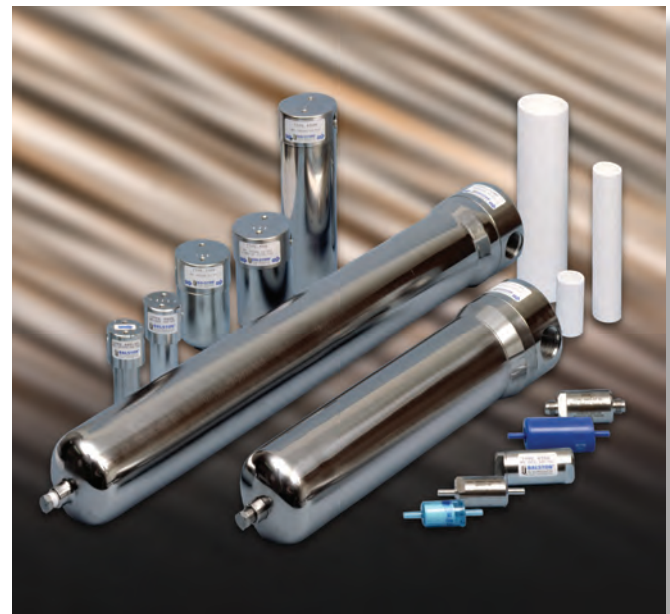
Corrosion resistant housings

Pressure to 5,000 psig

**PTFE membrane with glass and fluorocarbon prefilter**

Chemically inert to most gases

Easy to install



## GS Series Membrane Filters

The Balston GS Series Membrane Filter Cartridges combine absolute membrane filtration down to 0.01  $\mu\text{m}$ , with an integral pre-filter to protect the membrane.

Ideally suited for high purity compressed air and gas requirements, these membrane cartridges are available in several housing configurations shown above.

### Use as a Final Filter for:

- Ultra-high purity gases
- Corrosive or toxic gases
- Cylinder gases
- Doping gases

