



Sample and Instrumentation Filtration



High Pressure Process Gas Filtration



Stainless Steel Filtration Vessels for Corrosive Environments



High Volume Gas Filtration

Balston Natural Gas Filters

Pressure rating to 1440 psig

Meets U.S. and Canadian codes for natural gas filters

Flow rates to 183 million standard cubic feet per day

High efficiency removal of suspended liquid and solid impurities



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 DXE 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.



Model AKC-0280



Model AKC-0880

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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 AKC, 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 200 to 1440 psig.

Each AKC assembly is equipped with an automatic float drain, differential pressure indicator, and a set of filter cartridges. 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) |
| AKC-0280-[] | 3" | FSO | 230°F (110°C) | 250 psig | 140 lbs.(63 kg) | 36"H x 16"W x 8" (91cm x 41cm x 20cm) | 15.62" (40cm) |
| 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) |
| AKC-0480-[] | 4" | FSO | 230°F (110°C) | 250 psig | 210 lbs.(95 kg) | 36"H x 21"W x 6" (91cm x 53cm x 15cm) | 20.63" (52cm) |
| 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" (127cm x 53cm x 38cm) | 20.63" (52cm) |

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. All AKC housing designs have CRN registration numbers assigned in all Canadian provinces.

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 AKC housings. Maximum operating pressure for the 20-211 drain is 400 psig.

5 Model 41-071 Differential Pressure Indicator (DPI) is installed on all AKC housings. Maximum operating pressure for 41-071 DPI is 250 psig. This DPI is not recommended for natural gas applications.

6 Differential Pressure Indicator and Automatic 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:

AKC Series: 150 lbs. R.F.S.O.
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.

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 |
| AKC-0280-DX | 20-211 | 41-071 | 2 | 200-80-DX |
| AKH-0280-DX | 20-211 (8) | --- | 2 | 200-80-DX |
| AHC-0280-DX | --- | --- | 2 | 200-80-DX |
| AKC-0480-DX | 20-211 | 41-071 | 4 | 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 DXE cartridges for KS-0280-3 housing, order 200-80-DXE. 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#RFSO.

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 |
|--------------|----------------------|---------------|-------------------------|----------------------|-------------------|---|----------------------------|
| AKC-0880-[] | 6" | FSO | 250°F (121°C) | 200 psig | 360 lbs.(163 kg) | 38"h x 25"w x 7.5" (97cm x 64cm x 19cm) | 24.75" (63cm) |
| 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) |
| AKC-1480-[] | 8" | FSO | 250°F (121°C) | 200 psig | 590 lbs.(268 kg) | 54"h x 34"w x 16" (137cm x 86cm x 41cm) | 34" (86cm) |
| 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) |
| AKC-2280-[] | 10" | FSO | 250°F (121°C) | 200 psig | 880 lbs.(400 kg) | 56"h x 36"w x 17" (142cm x 91cm x 43cm) | 36" (91 cm) |
| 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 |
|-------------------|-----------------------|-------------------------------------|--------------------------------|----------------------|
| AKC-0880-DX | 20-211 | 41-071 | 8 | 200-80-DXE |
| AKH-0880-DX | 20-211 (4) | — | 8 | 200-80-DXE |
| AHC-0880-DX | — | — | 8 | 200-80-DXE |
| AKC-1480-DX | 20-211 | 41-071 | 14 | 200-80-DXE |
| AKH-1480-DX | 20-211 (4) | — | 14 | 200-80-DXE |
| AKC-2280-DX | 20-211 | 41-071 | 22 | 200-80-DXE |
| AKH-2280-DX | 20-211 (4) | — | 22 | 200-80-DXE |
| AKS-0880-DX or BX | 20-211 or 20-440 (14) | — | 8 | 200-80-DXE or BXE |
| AKS-1480-DX or BX | 20-211 or 20-440 (14) | — | 14 | 200-80-DXE or BXE |
| AKS-2280-DX or BX | 20-211 or 20-440 (14) | — | 22 | 200-80-DXE or BXE |



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 |
| AKC-0280 | 1.7 | 1190 | 3.6 | 2500 | 6.7 | 4680 | 13.0 | 9030 | 19.2 | 13400 | 31.8 | 22100 | 44.4 | 30800 |
| AKH-0280 | | | | | | | | | | | | | | |
| AHC-0280 | | | | | | | | | | | | | | |
| AKC-0480 | 3.5 | 2430 | 7.3 | 5100 | 13.8 | 9550 | 26.5 | 18400 | 39.5 | 27300 | 64.9 | 45100 | 90.5 | 62900 |
| AKH-0480 | | | | | | | | | | | | | | |
| AHC-0480 | | | | | | | | | | | | | | |
| AKC-0880 | 7.0 | 4910 | 14.8 | 10300 | 27.8 | 19300 | 53.6 | 37200 | 79.5 | 55200 | 131 | 91100 | 183 | 127000 |
| AKH-0880 | | | | | | | | | | | | | | |
| AHC-0880 | | | | | | | | | | | | | | |
| AKC-1480 | 12.3 | 8580 | 25.9 | 18000 | 48.5 | 33700 | 93.6 | 65050 | 139 | 96400 | — | — | — | — |
| AKH-1480 | | | | | | | | | | | | | | |
| AHC-1480 | | | | | | | | | | | | | | |
| AKC-2280 | 19.2 | 13350 | 40.3 | 28000 | 75.4 | 52400 | 145 | 101000 | 216 | 150000 | — | — | — | — |
| AKH-2280 | | | | | | | | | | | | | | |

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 |

Application Notes