

KleenVent KV Series

Hydraulic Reservoir Isolators



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Features

- Capacities from 2-1/2 to 80 Gallons
- Five Bladder Polymers for a Wide Range of Fluids and Temperatures
- Polyglass and Steel Shells
- Optional Pressure/Vacuum Breaker



Kleen
Vent

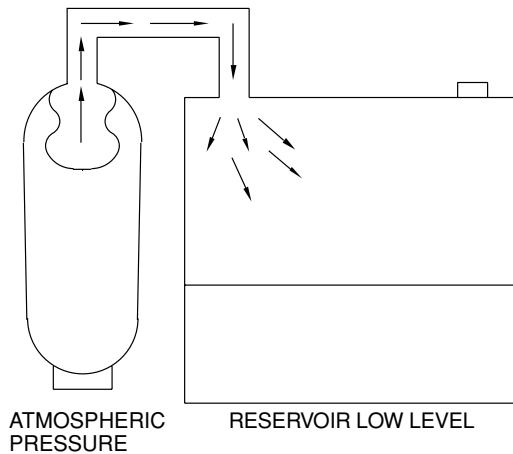
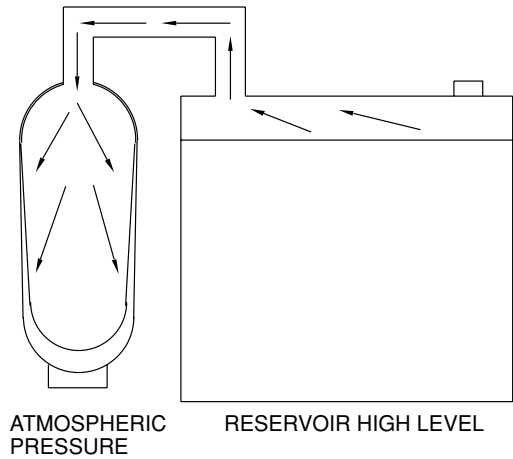
Fluid contamination can lead to high maintenance costs and downtime in hydraulic systems. KleenVent reservoir isolators provide protection against the ingestion of airborne contaminants – dust, chemicals, and water vapor – into your hydraulic system through the reservoirs breather-vent. By using an elastomer bladder as a lung, the changes in gas volume in a hydraulic system’s reservoir can be trapped and prevented from mixing with the outside atmosphere. And unlike conventional breathervent filters, KleenVent reservoir isolators provide a positive separation without the possibility of clogging or need for maintenance.

Why Use KleenVent Reservoir Isolators?

- reduce hydraulic system maintenance costs
- reduce hydraulic system downtime
- reduce waste disposal costs
- extends filter life
- low maintenance solution
- range of compounds for a variety of fluids

Greer KleenVent Reservoir Isolators – The Right Choice For . . .

- Steel/Primary Metal Mills
- Foundries
- Pulp and Paper Mills
- Power Generation Plants
- Automotive Plants
- Any Highly Contaminated or Humid Environment



Specifications

Materials

- Shell – polyglass or steel
- Ports – steel
- Bladders – choice of five compounds – Nitrile, Hydrin, Butyl, EPR, or Fluorocarbon, see chart below.

Pressure Ratings – Atmospheric pressure.

Fluids – Greer’s KleenVent reservoir isolators are compatible with virtually any industrial fluid with the proper bladder selection. See chart below or consult factory.

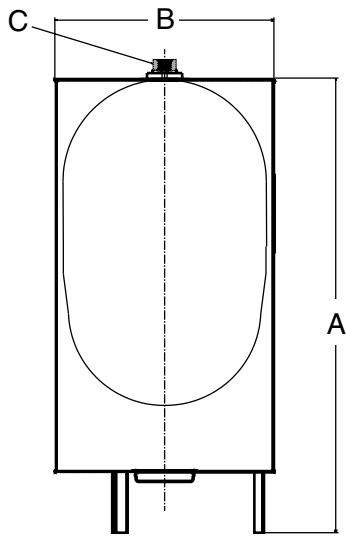
Options – Pressure/Vacuum Breakers for safety and reservoir protection, see next page.

Seal Code	Polymer	**Recommended Operating Temperature Range	Maximum Temperature with Reduced Life	General Application & Compatibility*
01	Buna-Nitrile	-20°F to 200°F -29°C to 93°C	225°F 107°C	Standard Compound – Compatible with most mineral oil-based fluids
04	Hydrin (Lo-Temp.)	-40°F to 225°F -40°C to 107°C	250°F 121°C	Compatible with most mineral oil-based fluids with enhanced low temperature performance
06	Butyl	-40°F to 200°F -40°C to 93°C	300°F 149°C	Compatible with most phosphate ester fluids and some synthetic fluids
08	Ethylene Propylene	-40°F to 200°F -40°C to 93°C	300°F 149°C	Compatible with some synthetic fluids and water
28	Fluorocarbon Elastomer	-10°F to 250°F -23°C to 121°C	400°F 204°C	Compatible with most mineral oil-based fluids at higher temperatures and some exotic fluids

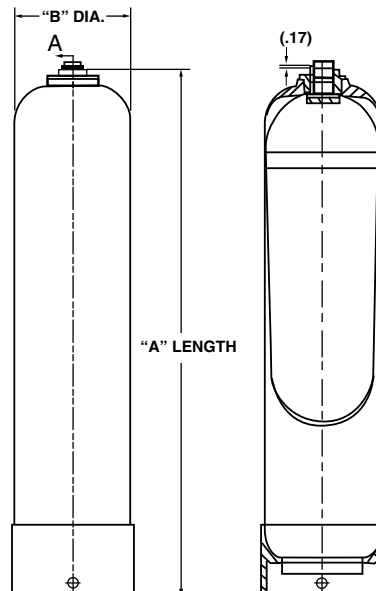
* Consult your local distributor or the factory for fluid compatibility information.

** Temperature ranges may vary depending upon the fluid used in the hydraulic system.

Models, Capacities and Dimensions



Steel KleenVent



Polyglass KleenVent

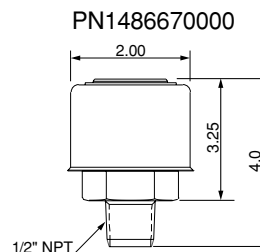
Model	Nominal Capacity Gallons (Liters)	Actual Internal Volume (bladder) Gallons (Liters)	Shell Material	A in. (mm)	B in. (mm)	C Port Size Thread Size	Weight lbs. (Kg)
KV02F0T01A2	2.5 (9.5)	1.70 (6.43)	Polyglass	19.8 (502)	8.00 (203)	SAE #16 1-5/16 - 12	14 (6.4)
KV05F0T01A2	5 (18.9)	4.10 (15.52)	Polyglass	36.6 (929)	8.00 (203)	SAE #16 1-5/16 - 12	22 (10)
KV10F0T01A2	10 (37.8)	7.70 (29.14)	Polyglass	49.2 (1249)	9.00 (228)	SAE #16 1-5/16 - 12	38 (17)
KV20F0T01A2	20 (75.6)	16.20 (61.32)	Polyglass	49.8 (1264)	12 (305)	SAE #24 1-7/8 - 12	60 (27)
KV20M0T01A1	20 (75.6)	16.20 (61.32)	Steel	54.18 (1376)	12 (305)	SAE #24 1-7/8 - 12	80 (36)
KV40M0T01A1	40 (151)	30.00 (113.55)	Steel	35.00 (889)	22 (562)	SAE #24 1-7/8 - 12	115 (52)
KV60M0T01A1	60 (227)	45.00 (170.33)	Steel	47.50 (1206)	22 (562)	SAE #24 1-7/8 - 12	150 (68)
KV80M0T01A1	80 (302)	60.00 (227.10)	Steel	60.12 (1527)	22 (562)	SAE #24 1-7/8 - 12	190 (86)

Optional Pressure/Vacuum Breaker

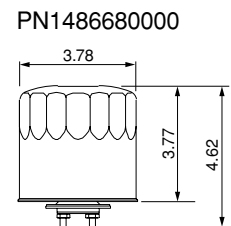
Greer recommends that every KleenVent installation be equipped with a Pressure/Vacuum Breaker to protect reservoir in the event of a sudden fluid loss or over-filling. Parker offers two types of optional pressure/vacuum breakers, Type 1 that installs with a 1/2" male NPT, and Type 2 bayonet style that installs into your existing reservoirs fill-vent port.

Features & Specifications:

- Fixed pressure relief – 1 psid ± 0.5 PSI (0.07 bar ± 0.035 bar)
- Fixed vacuum relief – 0.15 psid ± 0.15 PSI (0.01 bar ± 0.01 bar)
- 10 micron filter – Type 1, reusable sintered bronze; Type 2, replaceable filter cartridge.



Type 1 – NPT Style



Type 2 – Bayonet Style

Kleen Vent

KleenVent Installation & Sizing Information

KleenVents should be installed when the reservoir is at its highest level. This will allow the bladder to deflate as the reservoir level drops. KleenVents should be installed in a vertical position for optimum performance. Multiple KleenVents should be installed in parallel when the required size exceeds 80 gallons. Always use “actual volumes” when sizing and select the next higher size when a capacity is required between size offerings.

Sizing a KleenVent on New and Existing Systems

On new systems, sum all single acting cylinder “differential” volumes (rod area x stroke) and all accumulator volumes in the system. Multiply this sum by 1.2 to find the KleenVent volume required. Select a KleenVent(s) with an actual capacity equal to or greater than the sum calculated. On existing systems, if the cylinder and accumulator sizes are known, the above method may be used. If not, calculate the total change in fluid volume in the system during operation by measuring the high and low fluid level of the reservoir. Multiply the difference in fluid levels by the width and length of the reservoir to calculate the total fluid volume change. Select a KleenVent(s) with an actual capacity equal to or greater than the sum calculated. Feel free to contact the factory for sizing assistance.

Installation Kits . . . Add Without Interruption

Add closed-loop protection without shutting down, purging the reservoir, contaminating existing fluids or losing time.

KleenVent Installation Kits

Part Number	Description
8708690006	Installation Kit with 6' hose
8708690009	Installation Kit with 9' hose
8708690012	Installation Kit with 12' hose
8708690018	Installation Kit with 18' hose
8708690024	Installation Kit with 24' hose



How to Order KleenVents

KV Series KleenVents can be specified by using the symbols in the chart below to develop a model number. Select only those symbols that represent the features desired, and place them in the sequence indicated by the example at the top of the chart.

