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A&N CORPORATION

vacuum valves



Vacuum Valve

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Vacuum Valves



Comparing Valve Types

	HIGH-VACUUM BALL VALVE	HIGH-VACUUM POPPET VALVE	HIGH-VACUUM GATE VALVE
Maximum conductance	Yes	No	Yes
Minimum line length	No	No	Yes
Low to moderate particulates	Yes	Yes	No
Moderate to high particular	Yes	No	No
Bakeable to 100˚C	Yes	Yes	Yes
Bakeable over 100˚C	Yes[1]	Yes[1]	No
Large, full bore pass-through capability	Yes[2]	No	Yes
Positive pressure holding capability	Yes[3]	No	No
Pressure range ATM to 10^{-7} torr.	Yes	Yes[4]	Yes
Corrosion resistance	Yes[5]	No	No
Pneumatic actuation	Yes	Yes[6]	Yes
Electric actuation	Yes	Yes	No
Seats wiped clean during cycling	Yes	No	No
In-line re-buildability	Yes	No	No
Ease of re-build	Yes	Yes	No
Catastrophic fail safe closed or open	Yes[7]	Yes	No
Adjustable cycle time with actuation	Yes	No	No

Yes = recommended No = not recommended

1 = Viton begins to outgas and set at 150˚C.
Other seals can be substituted for higher temperature (200˚C).

Metal seal poppet valves go up to 400˚C

2 = Large bore pass-through capability of up to 5.8" available with tube bore high-vacuum ball valves.

3 = Up to 6 ATM (100 psi)

4 = Metal seal poppet valves to 10^{-10} torr.

5 = High-vacuum ball valves manufactured from 316 L.

Poppet and gate 304

6 = Exception–metal-sealed valves

7 = With pneumatic fail safe actuator

Overview:

A&N Corporation offers three main types of vacuum shut-off valves for your application. Each type regulates gas flow through your system with simple open or close commands. These valves are designed to perform fully opened or closed. The standard design is not meant for flow control, but is a simple off/on control mechanism for your vacuum system.

Poppet Valves are made of a body, actuator and internal poppet. The actuator transports the poppet linearly. When the poppet is moved toward the top of the valve the internal body cavity is open to the system and flow is unimpeded. Once the actuator moves the poppet to the bottom of the valve an elastomer sealing ring is compressed onto a sealing surface on the lower body of the valve. This creates a vacuum tight seal and stops flow. Poppet valves are available in three body styles; 90˚ Angle, In-Line and Angle In-Line.

Gate Valves provide straight-through, unimpeded flow with the smallest valve body profile. Gate valves are ideal for space-constrained applications that require maximum conductance. A central carriage or gate is raised and lowered by the actuator within the body. In the open position the gate retracts completely from the tube aperture allowing unrestricted flow. In the closed position an elastomer sealing ring is compressed against a sealing surface on the inside of one of the body ports.

Ball Valves offer straight, unimpeded flow with minimal impact on system space needed to accommodate the valve body. Ball valves are robust valves that are less sensitive to particulate contamination than the other valve types and are especially useful in dirty vacuum applications. Ball valves are made of a body, stem, ball and end caps. The ball is compressed within the body by end caps creating a vacuum tight central cavity. The valve is opened and closed by turning the stem 90˚ back and forth. The hole in the ball provides unobstructed flow in the open position and the sealing seat for the ball wipes the ball clean as it is opened



Specifications - *3/8" to 4" Port O.D.'s*

Temperature Range

- High Vacuum elastomer sealed bonnets
  – bakeable to 150˚C (200˚C intermittent)
- UHV copper sealed bonnets
  – bakeable to 200˚C open, 150˚C (200˚C intermittent) closed

Vacuum Rating

- Elastomer Bonnet Seal = $1x10^{-8}$ torr
- Copper Bonnet Seal = $1x10^{-10}$ torr

Materials

- Valve Body and Flanges: 304 Stainless Steel
- Welded Bellows: AM-350 Stainless Steel
- *Seals:*
  - Bonnet: Viton® or copper
  - Poppet: Viton®
- Pneumatic cylinder is aluminum or Manual handle is plastic

Features

General

- Poppet retracts fully when in open position
- Service valve without removal from the system

Manual Valves

- Self-lubricating bronze nut
- Acme Threads, maximize shaft travel per turn

Pneumatically Actuated Valves

- "Fail Safe" air-to-open, spring-to-close standard for sizes up to 2"
  - Air-to-open, air-to-close also available for these sizes (see options)
- Air-to-open, air-to-close standard for sizes 2 1/2" and above
- 60-80 psig operating air pressure

Options









Model shown with optional Solenoid (-S4A)





OPTION NUMBER	DESCRIPTION	UNIT PRICE
–PVS3A	120 VAC air control solenoid valve[1]	$ 55.00
–PVS3B	240 VAC air control solenoid valve[1]	$ 55.00
–PVS3C	24 VDC air control solenoid valve[1]	$ 55.00
–MI	Magnetic position indicator	$ 150.00
–AA	Air-to-open, air-to-close pneumatic actuator	$ N/C
–AAS	Air-to-open, air-to-close with spring fail safe[2]	$ 25.00
–PVS4A	4-way 120 VAC air control solenoid valve[3]	$ 55.00
–PVS4B	4-way 240 VAC air control solenoid valve[3]	$ 55.00
–PVS4C	4-way 24 VDC air control solenoid valve[3]	$ 55.00
–KP	Kalrez® high temperature poppet seal	call for quote
	Custom port fittings	call for quote

[1] *For use with pneumatically actuated valves: air-to-open, spring-to-close*
[2] *Available for valves up to 2"*
[3] *For use with pneumatically actuated valves: air-to-open, air-to-close*

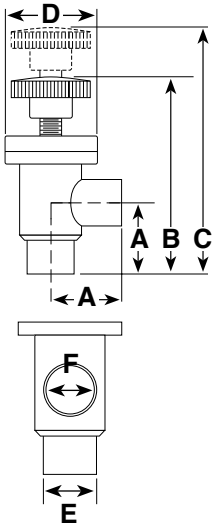
When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

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Manually Operated Angle Valves

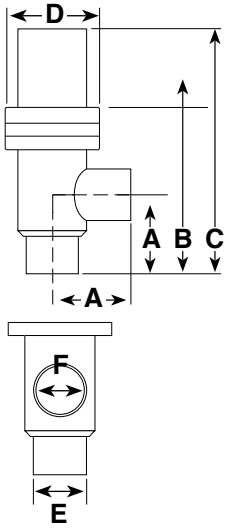
- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AV038-TE-E-M	VITON	0.38	N/A	1.50	4.40	5.40	2.48	0.38	0.25	$ 225.00
AV038-TE-C-M	COPPER	0.38	N/A	1.50	4.40	5.40	2.48	0.38	0.25	$ 270.00
AV050-TE-E-M	VITON	0.50	N/A	1.50	4.40	5.40	2.48	0.50	0.38	$ 225.00
AV050-TE-C-M	COPPER	0.50	N/A	1.50	4.40	5.40	2.48	0.50	0.38	$ 270.00
AV075-TE-E-M	VITON	0.75	N/A	2.00	5.20	6.05	2.48	0.75	0.63	$ 230.00
AV075-TE-C-M	COPPER	0.75	N/A	2.00	5.20	6.05	2.48	0.75	0.63	$ 270.00
AV100-TE-E-M	VITON	1.00	N/A	1.88	5.53	6.38	2.48	1.00	0.88	$ 250.00
AV100-TE-C-M	COPPER	1.00	N/A	1.88	5.53	6.38	2.48	1.00	0.88	$ 300.00
AV150-TE-E-M	VITON	1.50	N/A	2.25	6.30	7.85	2.97	1.50	1.38	$ 265.00
AV150-TE-C-M	COPPER	1.50	N/A	2.25	6.30	7.85	2.97	1.50	1.38	$ 320.00
AV200-TE-E-M	VITON	2.00	N/A	3.25	7.85	9.85	3.5	2.00	1.88	$ 450.00
AV200-TE-C-M	COPPER	2.00	N/A	3.25	7.85	9.85	4.05	2.00	1.88	$ 510.00
AV250-TE-E-M	VITON	2.50	N/A	3.00	8.27	10.77	4.00	2.50	2.38	$ 600.00
AV250-TE-C-M	COPPER	2.50	N/A	3.00	8.27	10.77	4.61	2.50	2.38	$ 660.00
AV300-TE-E-M	VITON	3.00	N/A	3.25	8.68	11.68	4.50	3.00	2.88	$ 780.00
AV300-TE-C-M	COPPER	3.00	N/A	3.25	8.68	11.68	5.62	3.00	2.88	$ 870.00

Pneumatically Actuated Angle Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AV038-TE-E-AS	VITON	0.38	N/A	1.50	3.85	5.85	2.48	0.38	0.25	$ 260.00
AV038-TE-C-AS	COPPER	0.38	N/A	1.50	3.85	5.85	2.48	0.38	0.25	$ 300.00
AV050-TE-E-AS	VITON	0.50	N/A	1.50	3.81	5.81	2.48	0.50	0.38	$ 295.00
AV050-TE-C-AS	COPPER	0.50	N/A	1.50	3.81	5.81	2.48	0.50	0.38	$ 300.00
AV075-TE-E-AS	VITON	0.75	N/A	2.00	4.27	6.27	2.48	0.75	0.63	$ 250.00
AV075-TE-C-AS	COPPER	0.75	N/A	2.00	4.27	6.27	2.48	0.75	0.63	$ 295.00
AV100-TE-E-AS	VITON	1.00	N/A	1.88	4.37	6.37	2.48	1.00	0.88	$ 280.00
AV100-TE-C-AS	COPPER	1.00	N/A	1.88	4.37	6.37	2.48	1.00	0.88	$ 350.00
AV150-TE-E-AS	VITON	1.50	N/A	2.25	5.06	7.56	2.97	1.50	1.38	$ 310.00
AV150-TE-C-AS	COPPER	1.50	N/A	2.25	5.06	7.56	2.97	1.50	1.38	$ 365.00
AV200-TE-E-AS	VITON	2.00	N/A	3.25	6.74	10.13	3.50	2.00	1.88	$ 510.00
AV200-TE-C-AS	COPPER	2.00	N/A	3.25	6.62	10.13	4.05	2.00	1.88	$ 570.00
AV250-TE-E-AS	VITON	2.50	N/A	3.00	7.18	10.10	4.00	2.50	2.38	$ 720.00
AV250-TE-C-AA	COPPER	2.50	N/A	3.00	7.18	10.10	4.61	2.50	2.38	$ 720.00
AV300-TE-E-AA	VITON	3.00	N/A	3.25	7.62	11.00	4.50	3.00	2.88	$ 900.00
AV300-TE-C-AA	COPPER	3.00	N/A	3.25	7.62	11.00	5.62	3.00	2.88	$ 930.00
AV400-TE-E-AA	VITON	4.00	N/A	4.22	9.55	14.99	6.50	4.00	3.88	$ 1380.00
AV400-TE-C-AA	COPPER	4.00	N/A	4.22	9.55	14.99	6.73	4.00	3.88	$ 1440.00

Replacement Parts

Poppet and Bonnet Seals - Viton®

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-VSK-075	.38-1.00	$ 10.00
PV-VSK-150	1.50	$ 15.00
PV-VSK-200	2.00	$ 20.00
PV-VSK-250	2.50	$ 25.00
PV-VSK-300	3.00	$ 25.00
PV-VSK-400	4.00	$ 30.00

Poppet and Bonnet Seals - Viton®, Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-CSK-075	.38-1.00	$ 17.00
PV-CSK-150	1.50	$ 22.00
PV-CSK-200	2.00	$ 25.00
PV-CSK-250	2.50	$ 30.00
PV-CSK-300	3.00	$ 30.00
PV-CSK-400	4.00	$ 32.00



Additional replacement parts (pictured above) are available. Call for assistance.



Specifications - *3/8" to 4" Port O.D.'s*

Temperature Range

- High Vacuum elastomer sealed bonnets – bakeable to 150˚C (200˚C intermittent)

Vacuum Rating

- Elastomer Bonnet Seal = $1x10^{-8}$ torr

Materials

- Valve Body and Flanges: 304 Stainless Steel
- Welded Bellows: AM-350 Stainless Steel
- *Seals:*
  - Bonnet: Viton®
  - Poppet: Viton®
- Pneumatic cylinder is aluminum or Manual handle is plastic

Features

General

- Poppet retracts fully when in open position
- Service valve without removal from the system

Manual Valves

- Self-lubricating bronze nut
- Acme Threads, maximize shaft travel per turn

Pneumatically Actuated Valves

- "Fail Safe" air-to-open, spring-to-close standard for sizes up to 2"
  - Air-to-open, air-to-close also available for these sizes (see options)
- Air-to-open, air-to-close standard for sizes 2 1/2" and above
- 60-80 psig operating air pressure

Options









Model shown with optional Solenoid (-S4A)





OPTION NUMBER	DESCRIPTION	UNIT PRICE
–PVS3A	120 VAC air control solenoid valve[1]	$ 55.00
–PVS3B	240 VAC air control solenoid valve[1]	$ 55.00
–PVS3C	24 VDC air control solenoid valve[1]	$ 55.00
–MI	Magnetic position indicator	$ 150.00
–AA	Air-to-open, air-to-close pneumatic actuator	$ N/C
–AAS	Air-to-open, air-to-close with spring fail safe[2]	$ 25.00
–PVS4A	4-way 120 VAC air control solenoid valve[3]	$ 55.00
–PVS4B	4-way 240 VAC air control solenoid valve[3]	$ 55.00
–PVS4C	4-way 24 VDC air control solenoid valve[3]	$ 55.00
–KP	Kalrez® high temperature poppet seal	call for quote
	Custom port fittings	call for quote

[1] *For use with pneumatically actuated valves: air-to-open, spring-to-close*
[2] *Available for valves up to 2"*
[3] *For use with pneumatically actuated valves: air-to-open, air-to-close*

When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

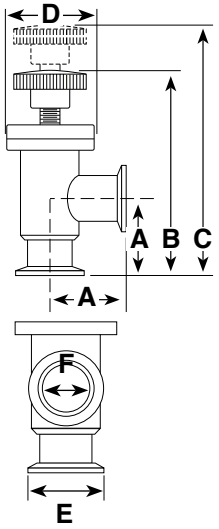
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Manually Operated Angle Valves

- High Vacuum Elastometer sealed bonnets
  - bakeable to 150˚C (200˚C intermittent)

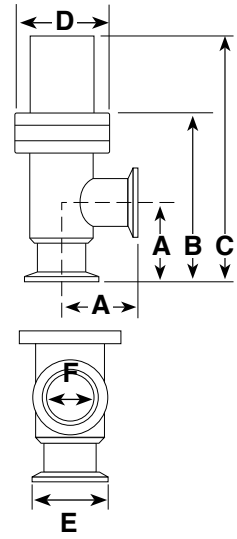
REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AV038-QF-E-M	VITON	0.38	QF10	1.65	4.55	5.55	2.48	1.18	0.25	$ 260.00
AV050-QF-E-M	VITON	0.50	QF10	1.65	4.55	5.55	2.48	1.18	0.38	$ 260.00
AV075-QF-E-M	VITON	0.75	QF16	2.15	5.35	6.20	2.48	1.18	0.63	$ 260.00
AV100-QF-E-M	VITON	1.00	QF25	2.03	5.68	6.53	2.48	1.57	0.88	$ 270.00
AV150-QF-E-M	VITON	1.50	QF40	2.40	6.45	8.00	2.97	2.16	1.38	$ 290.00
AV200-QF-E-M	VITON	2.00	QF50	3.40	8.00	10.00	3.50	2.95	1.88	$ 495.00
AV250-LF-E-M	VITON	2.50	LF63	3.25	8.52	11.02	4.00	3.74	2.38	$ 720.00
AV300-LF-E-M	VITON	3.00	LF80	3.50	8.93	11.93	4.50	4.33	2.88	$ 900.00



Pneumatically Actuated Angle Valves

- High Vacuum Elastometer sealed bonnets
  - bakeable to 150˚C (200˚C intermittent)

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AV038-QF-E-AS	VITON	0.38	QF10	1.65	4.00	6.00	2.48	1.18	0.25	$ 295.00
AV050-QF-E-AS	VITON	0.50	QF10	1.65	3.96	5.96	2.48	1.18	0.38	$ 295.00
AV075-QF-E-AS	VITON	0.75	QF16	2.15	4.42	6.42	2.48	1.18	0.63	$ 275.00
AV100-QF-E-AS	VITON	1.00	QF25	2.03	4.52	6.52	2.48	1.57	0.88	$ 300.00
AV150-QF-E-AS	VITON	1.50	QF40	2.40	5.21	7.71	2.97	2.16	1.38	$ 335.00
AV200-QF-E-AS	VITON	2.00	QF50	3.40	6.89	10.28	3.50	2.95	1.88	$ 555.00
AV250-LF-E-AA	VITON	2.50	LF63	3.25	7.43	10.35	4.00	3.74	2.38	$ 780.00
AV300-LF-E-AA	VITON	3.00	LF80	3.50	7.87	11.25	4.50	4.33	2.88	$1020.00
AV400-LF-E-AA	VITON	4.00	LF100	4.47	9.80	15.24	6.50	5.12	3.88	$1540.00



Accessories



QF/LF Flange Hardware

- Clamps
- Centering rings
- O-rings

For prices and information see QF/LF Catalog section: QF Clamps and Seals or LF Fasteners and Seals.

Replacement Parts

Poppet and Bonnet Seals - Viton®

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-VSK-075	.38-1.00	$ 10.00
PV-VSK-150	1.50	$ 15.00
PV-VSK-200	2.00	$ 20.00
PV-VSK-250	2.50	$ 25.00
PV-VSK-300	3.00	$ 25.00
PV-VSK-400	4.00	$ 30.00

Poppet and Bonnet Seals - Viton®, Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-CSK-075	.38-1.00	$ 17.00
PV-CSK-150	1.50	$ 22.00
PV-CSK-200	2.00	$ 25.00
PV-CSK-250	2.50	$ 30.00
PV-CSK-300	3.00	$ 30.00
PV-CSK-400	4.00	$ 32.00



Additional replacement parts (pictured above) are available. Call for assistance.



Specifications - *3/8" to 4" Port O.D.'s*

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Model shown with optional Solenoid (-S4A)





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–PVS3B	240 VAC air control solenoid valve[1]	$ 55.00
–PVS3C	24 VDC air control solenoid valve[1]	$ 55.00
–MI	Magnetic position indicator	$ 150.00
–AA	Air-to-open, air-to-close pneumatic actuator	$ N/C
–AAS	Air-to-open, air-to-close with spring fail safe[2]	$ 25.00
–PVS4A	4-way 120 VAC air control solenoid valve[3]	$ 55.00
–PVS4B	4-way 240 VAC air control solenoid valve[3]	$ 55.00
–PVS4C	4-way 24 VDC air control solenoid valve[3]	$ 55.00
–KP	Kalrez® high temperature poppet seal	call for quote
	Custom port fittings	call for quote

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[2] *Available for valves up to 2"*
[3] *For use with pneumatically actuated valves: air-to-open, air-to-close*

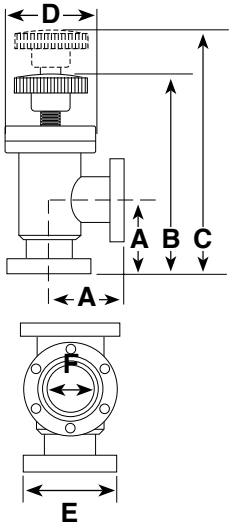
When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

A&N Corporation

707 Southwest 19th Avenue
Williston, Florida 32696
(352) 528-4100
1(800) FLANGE1
FAX (352) 528-3441
www.ancorp.com

Manually Operated Angle Valves

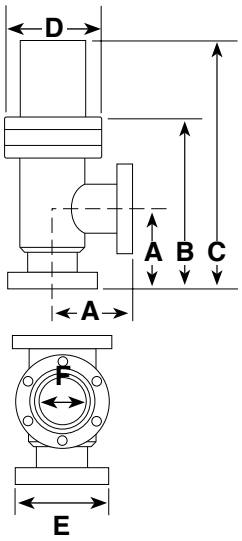
- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C
- Both CF Flanges Rotatable



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AV038-CF-E-M	VITON	0.38	CF133	1.60	4.50	5.50	2.48	1.33	0.25	$ 265.00
AV038-CF-C-M	COPPER	0.38	CF133	1.60	4.50	5.50	2.48	1.33	0.25	$ 290.00
AV050-CF-E-M	VITON	0.50	CF133	1.60	4.50	5.50	2.48	1.33	0.38	$ 265.00
AV050-CF-C-M	COPPER	0.50	CF133	1.60	4.50	5.50	2.48	1.33	0.38	$ 290.00
AV075-CF-E-M	VITON	0.75	CF133	2.50	5.70	6.55	2.48	1.33	0.63	$ 255.00
AV075-CF-C-M	COPPER	0.75	CF133	2.50	5.70	6.55	2.48	1.33	0.63	$ 295.00
AV100-CF-E-M	VITON	1.00	CF212	2.05	5.70	6.55	2.48	2.12	0.88	$ 280.00
AV100-CF-C-M	COPPER	1.00	CF212	2.05	5.70	6.55	2.48	2.12	0.88	$ 325.00
AV150-CF-E-M	VITON	1.50	CF275	2.45	6.50	8.05	2.97	2.72	1.38	$ 290.00
AV150-CF-C-M	COPPER	1.50	CF275	2.45	6.50	8.05	2.97	2.72	1.38	$ 350.00
AV200-CF-E-M	VITON	2.00	CF338	3.48	8.08	10.08	3.50	3.37	1.88	$ 540.00
AV200-CF-C-M	COPPER	2.00	CF338	3.48	8.08	10.08	4.05	3.37	1.88	$ 600.00
AV250-CF-E-M	VITON	2.50	CF450	3.38	8.65	11.15	4.00	4.47	2.38	$ 720.00
AV250-CF-C-M	COPPER	2.50	CF450	3.38	8.65	11.15	4.61	4.47	2.38	$ 780.00
AV300-CF-E-M	VITON	3.00	CF462	3.53	8.96	11.96	4.50	4.62	2.88	$ 900.00
AV300-CF-C-M	COPPER	3.00	CF462	3.53	8.96	11.96	5.62	4.62	2.88	$ 990.00

Pneumatically Actuated Angle Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C
- Both CF Flanges Rotatable



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AV038-CF-E-AS	VITON	0.38	CF133	1.60	3.95	5.95	2.48	1.33	0.25	$ 300.00
AV038-CF-C-AS	COPPER	0.38	CF133	1.60	3.95	5.95	2.48	1.33	0.25	$ 325.00
AV050-CF-E-AS	VITON	0.50	CF133	1.60	3.91	5.91	2.48	1.33	0.38	$ 300.00
AV050-CF-C-AS	COPPER	0.50	CF133	1.60	3.91	5.91	2.48	1.33	0.38	$ 325.00
AV075-CF-E-AS	VITON	0.75	CF133	2.50	4.77	6.77	2.48	1.33	0.63	$ 275.00
AV075-CF-C-AS	COPPER	0.75	CF133	2.50	4.77	6.77	2.48	1.33	0.63	$ 320.00
AV100-CF-E-AS	VITON	1.00	CF212	2.05	4.54	6.54	2.48	2.12	0.88	$ 305.00
AV100-CF-C-AS	COPPER	1.00	CF212	2.05	4.54	6.54	2.48	2.12	0.88	$ 375.00
AV150-CF-E-AS	VITON	1.50	CF275	2.45	5.26	7.76	2.97	2.72	1.38	$ 335.00
AV150-CF-C-AS	COPPER	1.50	CF275	2.45	5.26	7.76	2.97	2.72	1.38	$ 395.00
AV200-CF-E-AS	VITON	2.00	CF338	3.48	6.97	10.35	3.50	3.37	1.88	$ 600.00
AV200-CF-C-AS	COPPER	2.00	CF338	3.48	6.84	10.35	4.05	3.37	1.88	$ 660.00
AV250-CF-E-AA	VITON	2.50	CF450	3.38	7.56	10.48	4.00	4.47	2.38	$ 780.00
AV250-CF-C-AA	COPPER	2.50	CF450	3.38	7.56	10.48	4.61	4.47	2.38	$ 840.00
AV300-CF-E-AA	VITON	3.00	CF462	3.53	7.90	11.28	4.50	4.62	2.88	$ 1020.00
AV300-CF-C-AA	COPPER	3.00	CF462	3.53	7.90	11.28	5.62	4.62	2.88	$ 1050.00
AV400-CF-E-AA	VITON	4.00	CF600	4.66	9.99	15.43	6.50	5.97	3.88	$ 1575.00
AV400-CF-C-AA	COPPER	4.00	CF600	4.66	9.99	15.43	6.73	5.97	3.88	$ 1635.00



CF Flange Hardware

- Gaskets
- Bolts, nut, washer kits
- Plate nut kits

For prices and information see CF Catalog section: Listed in the index as Hardware.

Replacement Parts

Poppet and Bonnet Seals - Viton®

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-VSK-075	.38-1.00	$ 10.00
PV-VSK-150	1.50	$ 15.00
PV-VSK-200	2.00	$ 20.00
PV-VSK-250	2.50	$ 25.00
PV-VSK-300	3.00	$ 25.00
PV-VSK-400	4.00	$ 30.00

Poppet and Bonnet Seals - Viton®, Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-CSK-075	.38-1.00	$ 17.00
PV-CSK-150	1.50	$ 22.00
PV-CSK-200	2.00	$ 25.00
PV-CSK-250	2.50	$ 30.00
PV-CSK-300	3.00	$ 30.00
PV-CSK-400	4.00	$ 32.00



Additional replacement parts (pictured above) are available. Call for assistance.



Specifications - *3/8" to 4" Port O.D.'s*

Temperature Range

- High Vacuum elastomer sealed bonnets
  – bakeable to 150˚C (200˚C intermittent)
- UHV copper sealed bonnets
  – bakeable to 200˚C open, 150˚C (200˚C intermittent) closed

Vacuum Rating

- Elastomer Bonnet Seal = $1x10^{-8}$ torr
- Copper Bonnet Seal = $1x10^{-10}$ torr

Materials

- Valve Body and Flanges: 304 Stainless Steel
- Welded Bellows: AM-350 Stainless Steel
- *Seals:*
  - Bonnet: Viton® or copper
  - Poppet: Viton®
- Pneumatic cylinder is aluminum or Manual handle is plastic

Features

General

- Poppet retracts fully when in open position
- Service valve without removal from the system

Manual Valves

- Self-lubricating bronze nut
- Acme Threads, maximize shaft travel per turn

Pneumatically Actuated Valves

- "Fail Safe" air-to-open, spring-to-close standard for sizes up to 2"
  - Air-to-open, air-to-close also available for these sizes (see options)
- Air-to-open, air-to-close standard for sizes 2 1/2" and above
- 60-80 psig operating air pressure

Options









Model shown with optional Solenoid (-S4A)





OPTION NUMBER	DESCRIPTION	UNIT PRICE
–PVS3A	120 VAC air control solenoid valve[1]	$ 55.00
–PVS3B	240 VAC air control solenoid valve[1]	$ 55.00
–PVS3C	24 VDC air control solenoid valve[1]	$ 55.00
–MI	Magnetic position indicator	$ 150.00
–AA	Air-to-open, air-to-close pneumatic actuator	$ N/C
–AAS	Air-to-open, air-to-close with spring fail safe[2]	$ 25.00
–PVS4A	4-way 120 VAC air control solenoid valve[3]	$ 55.00
–PVS4B	4-way 240 VAC air control solenoid valve[3]	$ 55.00
–PVS4C	4-way 24 VDC air control solenoid valve[3]	$ 55.00
–KP	Kalrez® high temperature poppet seal	call for quote
	Custom port fittings	call for quote

[1] *For use with pneumatically actuated valves: air-to-open, spring-to-close*
[2] *Available for valves up to 2"*
[3] *For use with pneumatically actuated valves: air-to-open, air-to-close*

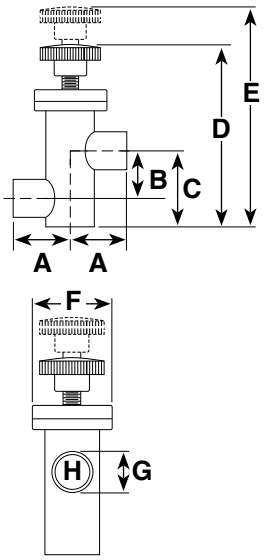
When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

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Manually Operated In-Line Valves

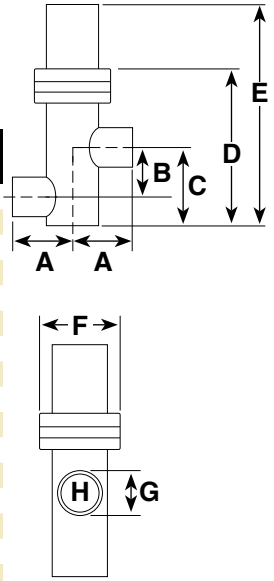
- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C



REFERENCE NUMBER	BONNET SEAL	PORT SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IV038-TE-E-M	VITON	0.38	N/A	1.50	0.94	1.50	4.06	5.06	2.48	0.38	0.25	$ 285.00
IV038-TE-C-M	COPPER	0.38	N/A	1.50	0.94	1.50	4.06	5.06	2.48	0.38	0.25	$ 330.00
IV050-TE-E-M	VITON	0.50	N/A	1.50	1.00	1.62	4.19	5.19	2.48	0.50	0.38	$ 285.00
IV050-TE-C-M	COPPER	0.50	N/A	1.50	1.00	1.62	4.19	5.19	2.48	0.50	0.38	$ 330.00
IV075-TE-E-M	VITON	0.75	N/A	2.00	1.12	1.87	4.44	5.44	2.48	0.75	0.63	$ 285.00
IV075-TE-C-M	COPPER	0.75	N/A	2.00	1.12	1.87	4.44	5.44	2.48	0.75	0.63	$ 330.00
IV100-TE-E-M	VITON	1.00	N/A	1.88	1.37	2.25	4.69	5.80	2.48	1.00	0.88	$ 330.00
IV100-TE-C-M	COPPER	1.00	N/A	1.88	1.37	2.25	4.69	5.80	2.48	1.00	0.88	$ 390.00
IV150-TE-E-M	VITON	1.50	N/A	2.25	1.88	3.12	6.52	8.020	2.97	1.50	1.38	$ 350.00
IV150-TE-C-M	COPPER	1.50	N/A	2.25	1.88	3.12	6.52	8.020	2.97	1.50	1.38	$ 435.00
IV200-TE-E-M	VITON	2.00	N/A	3.25	2.62	4.12	8.73	10.73	3.50	2.00	1.88	$ 650.00
IV200-TE-C-M	COPPER	2.00	N/A	3.25	2.62	4.12	8.73	10.73	4.05	2.00	1.88	$ 700.00
IV250-TE-E-M	VITON	2.50	N/A	3.00	3.12	4.93	10.20	12.70	4.00	2.50	2.38	$ 700.00
IV250-TE-C-M	COPPER	2.50	N/A	3.00	3.12	4.93	10.20	12.70	4.61	2.50	2.38	$ 750.00
IV300-TE-E-M	VITON	3.00	N/A	3.25	3.68	5.62	11.04	14.04	4.50	3.00	2.88	$1000.00
IV300-TE-C-M	COPPER	3.00	N/A	3.25	3.68	5.55	11.04	14.04	5.62	3.00	2.88	$1050.00

Pneumatically Actuated In-Line Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C



REFERENCE NUMBER	BONNET SEAL	PORT SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IV038-TE-E-AS	VITON	0.38	N/A	1.50	0.94	1.50	3.62	5.62	2.48	0.38	0.25	$ 300.00
IV038-TE-C-AS	COPPER	0.38	N/A	1.50	0.94	1.50	3.62	5.62	2.48	0.38	0.25	$ 355.00
IV050-TE-E-AS	VITON	0.50	N/A	1.50	1.00	1.62	3.72	5.72	2.48	0.50	0.38	$ 300.00
IV050-TE-C-AS	COPPER	0.50	N/A	1.50	1.00	1.62	3.72	5.72	2.48	0.50	0.38	$ 355.00
IV075-TE-E-AS	VITON	0.75	N/A	2.00	1.12	1.87	4.00	6.00	2.48	0.75	0.63	$ 300.00
IV075-TE-C-AS	COPPER	0.75	N/A	2.00	1.12	1.87	4.00	6.00	2.48	0.75	0.63	$ 355.00
IV100-TE-E-AS	VITON	1.00	N/A	1.88	1.37	2.25	4.80	6.80	2.48	1.00	0.88	$ 375.00
IV100-TE-C-AS	COPPER	1.00	N/A	1.88	1.37	2.25	4.80	6.80	2.48	1.00	0.88	$ 435.00
IV150-TE-E-AS	VITON	1.50	N/A	2.25	1.88	3.12	5.875	8.375	2.97	1.50	1.38	$ 410.00
IV150-TE-C-AS	COPPER	1.50	N/A	2.25	1.88	3.12	5.875	8.375	2.97	1.50	1.38	$ 470.00
IV200-TE-E-AS	VITON	2.00	N/A	3.25	2.62	4.12	7.62	11.01	3.50	2.00	1.88	$ 700.00
IV200-TE-C-AS	COPPER	2.00	N/A	3.25	2.62	4.12	7.50	11.01	4.05	2.00	1.88	$ 750.00
IV250-TE-E-AA	VITON	2.50	N/A	3.00	3.12	4.93	9.11	12.03	4.00	2.50	2.38	$ 750.00
IV250-TE-C-AA	COPPER	2.50	N/A	3.00	3.12	4.93	9.11	12.03	4.61	2.50	2.38	$ 800.00
IV300-TE-E-AA	VITON	3.00	N/A	3.25	3.68	5.62	9.98	13.38	4.50	3.00	2.88	$1050.00
IV300-TE-C-AA	COPPER	3.00	N/A	3.25	3.62	5.55	9.98	13.38	5.62	3.00	2.88	$1100.00
IV400-TE-E-AA	VITON	4.00	N/A	4.22	4.88	7.38	12.83	18.27	6.50	4.00	3.88	$1530.00
IV400-TE-C-AA	COPPER	4.00	N/A	4.22	4.88	7.38	12.83	18.27	6.73	4.00	3.88	$1610.00

Replacement Parts

Poppet and Bonnet Seals - Viton®

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-VSK-075	.38-1.00	$ 10.00
PV-VSK-150	1.50	$ 15.00
PV-VSK-200	2.00	$ 20.00
PV-VSK-250	2.50	$ 25.00
PV-VSK-300	3.00	$ 25.00
PV-VSK-400	4.00	$ 30.00

Poppet and Bonnet Seals - Viton®, Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-CSK-075	.38-1.00	$ 17.00
PV-CSK-150	1.50	$ 22.00
PV-CSK-200	2.00	$ 25.00
PV-CSK-250	2.50	$ 30.00
PV-CSK-300	3.00	$ 30.00
PV-CSK-400	4.00	$ 32.00



Additional replacement parts (pictured above) are available. Call for assistance.



Specifications - 3/8" to 4" Port O.D.'s

Temperature Range

- High Vacuum elastomer sealed bonnets – bakeable to 150˚C (200˚C intermittent)

Vacuum Rating

- Elastomer Bonnet Seal = $1x10^{-8}$ torr

Materials

- Valve Body and Flanges: 304 Stainless Steel
- Welded Bellows: AM-350 Stainless Steel
- *Seals:*
  - Bonnet: Viton®
  - Poppet: Viton®
- Pneumatic cylinder is aluminum or Manual handle is plastic

Features

General

- Poppet retracts fully when in open position
- Service valve without removal from the system

Manual Valves

- Self-lubricating bronze nut
- Acme Threads, maximize shaft travel per turn

Pneumatically Actuated Valves

- "Fail Safe" air-to-open, spring-to-close standard for sizes up to 2"
  - Air-to-open, air-to-close also available for these sizes (see options)
- Air-to-open, air-to-close standard for sizes 2 1/2" and above
- 60-80 psig operating air pressure

Options









Model shown with optional Solenoid (-S4A)





OPTION NUMBER	DESCRIPTION	UNIT PRICE
–PVS3A	120 VAC air control solenoid valve[1]	$ 55.00
–PVS3B	240 VAC air control solenoid valve[1]	$ 55.00
–PVS3C	24 VDC air control solenoid valve[1]	$ 55.00
–MI	Magnetic position indicator	$ 150.00
–AA	Air-to-open, air-to-close pneumatic actuator	$ N/C
–AAS	Air-to-open, air-to-close with spring fail safe[2]	$ 25.00
–PVS4A	4-way 120 VAC air control solenoid valve[3]	$ 55.00
–PVS4B	4-way 240 VAC air control solenoid valve[3]	$ 55.00
–PVS4C	4-way 24 VDC air control solenoid valve[3]	$ 55.00
–KP	Kalrez® high temperature poppet seal	call for quote
	Custom port fittings	call for quote

[1] *For use with pneumatically actuated valves: air-to-open, spring-to-close*
[2] *Available for valves up to 2"*
[3] *For use with pneumatically actuated valves: air-to-open, air-to-close*

When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

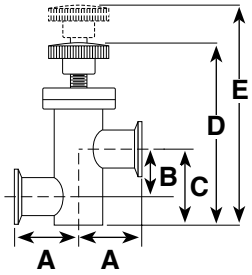
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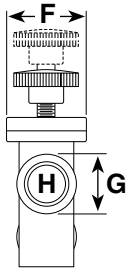
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Manually Operated In-Line Valves

- High Vacuum Elastometer sealed bonnets
  - bakeable to 150˚C (200˚C intermittent)

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IV038-QF-E-M	VITON	0.38	QF10	1.65	0.94	1.50	4.06	5.06	2.48	1.18	0.25	$ 310.00
IV050-QF-E-M	VITON	0.50	QF10	1.65	1.00	1.62	4.19	5.19	2.48	1.18	0.38	$ 310.00
IV075-QF-E-M	VITON	0.75	QF16	2.15	1.12	1.87	4.44	5.44	2.48	1.18	0.63	$ 310.00
IV100-QF-E-M	VITON	1.00	QF25	2.03	1.37	2.25	4.69	5.80	2.48	1.57	0.88	$ 355.00
IV150-QF-E-M	VITON	1.50	QF40	2.40	1.88	3.12	6.52	8.02	2.97	2.16	1.38	$ 385.00
IV200-QF-E-M	VITON	2	QF50	3.40	2.62	4.12	8.73	10.73	3.50	2.95	1.88	$ 685.00
IV250-LF-E-M	VITON	2.5	LF63	3.25	3.12	4.93	10.20	12.70	4.00	3.74	2.38	$ 800.00
IV300LF-E-M	VITON	3	LF80	3.50	3.68	5.62	11.04	14.04	4.50	4.33	2.88	$1100.00

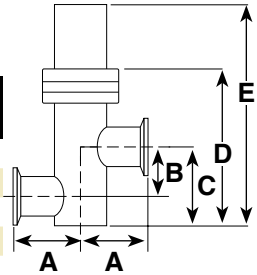


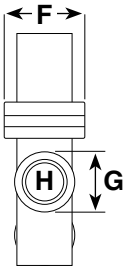


Pneumatically Actuated In-Line Valves

- High Vacuum Elastometer sealed bonnets
  - bakeable to 150˚C (200˚C intermittent)

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IV038-QF-E-AS	VITON	0.38	QF10	1.65	0.94	1.50	3.62	5.62	2.48	1.18	0.25	$ 325.00
IV050-QF-E-AS	VITON	0.50	QF10	1.65	1.00	1.62	3.75	5.72	2.48	1.18	0.38	$ 325.00
IV075-QF-E-AS	VITON	0.75	QF16	2.15	1.12	1.87	4.00	6.00	2.48	1.18	0.63	$ 325.00
IV100-QF-E-AS	VITON	1.00	QF25	2.03	1.37	2.25	4.80	6.80	2.48	1.57	0.88	$ 400.00
IV150-QF-E-AS	VITON	1.50	QF40	2.40	1.88	3.12	5.875	8.375	2.97	2.16	1.38	$ 440.00
IV200-QF-E-AS	VITON	2	QF50	3.40	2.62	4.12	7.62	11.01	3.50	2.95	1.88	$ 735.00
IV250-LF-E-AA	VITON	2.5	LF63	3.25	3.12	4.93	9.11	12.03	4.00	3.74	2.38	$ 850.00
IV300-LF-E-AA	VITON	3	LF80	3.50	3.68	5.62	9.98	13.38	4.50	4.33	2.88	$ 1150.00
IV400-LF-E-AA	VITON	4	LF100	4.47	4.88	7.38	12.83	18.27	6.50	5.12	3.88	$ 1670.00





Accessories



QF/LF Flange Hardware

- Clamps
- Centering rings
- O-rings

For prices and information see QF/LF Catalog section: QF Clamps and Seals or LF Fasteners and Seals.

Replacement Parts

Poppet and Bonnet Seals - Viton®

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-VSK-075	.38-1.00	$ 10.00
PV-VSK-150	1.50	$ 15.00
PV-VSK-200	2.00	$ 20.00
PV-VSK-250	2.50	$ 25.00
PV-VSK-300	3.00	$ 25.00
PV-VSK-400	4.00	$ 30.00

Poppet and Bonnet Seals - Viton®, Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-CSK-075	.38-1.00	$ 17.00
PV-CSK-150	1.50	$ 22.00
PV-CSK-200	2.00	$ 25.00
PV-CSK-250	2.50	$ 30.00
PV-CSK-300	3.00	$ 30.00
PV-CSK-400	4.00	$ 32.00



Additional replacement parts (pictured above) are available. Call for assistance.



Specifications - *3/8" to 4" Port O.D.'s*

Temperature Range

- High Vacuum elastomer sealed bonnets
  – bakeable to 150˚C (200˚C intermittent)
- UHV copper sealed bonnets
  – bakeable to 200˚C open, 150˚C (200˚C intermittent) closed

Vacuum Rating

- Elastomer Bonnet Seal = $1x10^{-8}$ torr
- Copper Bonnet Seal = $1x10^{-10}$ torr

Materials

- Valve Body and Flanges: 304 Stainless Steel
- Welded Bellows: AM-350 Stainless Steel
- *Seals:*
  - Bonnet: Viton® or copper
  - Poppet: Viton®
- Pneumatic cylinder is aluminum or Manual handle is plastic

Features

General

- Poppet retracts fully when in open position
- Service valve without removal from the system

Manual Valves

- Self-lubricating bronze nut
- Acme Threads, maximize shaft travel per turn

Pneumatically Actuated Valves

- "Fail Safe" air-to-open, spring-to-close standard for sizes up to 2"
  - Air-to-open, air-to-close also available for these sizes (see options)
- Air-to-open, air-to-close standard for sizes 2 1/2" and above
- 60-80 psig operating air pressure

Options









Model shown with optional Solenoid (-S4A)





OPTION NUMBER	DESCRIPTION	UNIT PRICE
–PVS3A	120 VAC air control solenoid valve[1]	$ 55.00
–PVS3B	240 VAC air control solenoid valve[1]	$ 55.00
–PVS3C	24 VDC air control solenoid valve[1]	$ 55.00
–MI	Magnetic position indicator	$ 150.00
–AA	Air-to-open, air-to-close pneumatic actuator	$ N/C
–AAS	Air-to-open, air-to-close with spring fail safe[2]	$ 25.00
–PVS4A	4-way 120 VAC air control solenoid valve[3]	$ 55.00
–PVS4B	4-way 240 VAC air control solenoid valve[3]	$ 55.00
–PVS4C	4-way 24 VDC air control solenoid valve[3]	$ 55.00
–KP	Kalrez® high temperature poppet seal	call for quote
	Custom port fittings	call for quote

[1] *For use with pneumatically actuated valves: air-to-open, spring-to-close*
[2] *Available for valves up to 2"*
[3] *For use with pneumatically actuated valves: air-to-open, air-to-close*

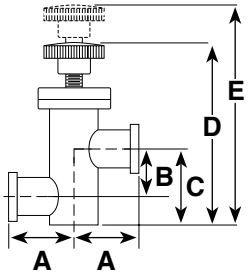
When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

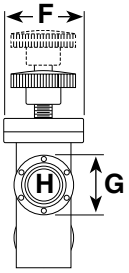
A&N Corporation

707 Southwest 19th Avenue
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(352) 528-4100
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FAX (352) 528-3441
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Manually Operated In-Line Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C
- Both CF Flanges Rotatable

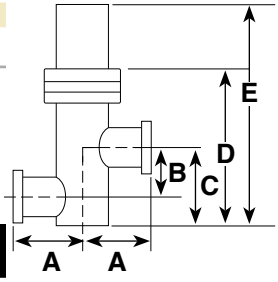


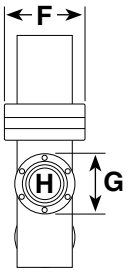


REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IV038-CF-E-M	VITON	0.38	CF 133	1.60	0.94	1.50	4.06	5.06	2.48	1.33	0.25	$ 310.00
IV038-CF-C-M	COPPER	0.38	CF 133	1.60	0.94	1.50	4.06	5.06	2.48	1.33	0.25	$ 350.00
IV050-CF-E-M	VITON	0.50	CF 133	1.60	1.00	1.62	4.19	5.19	2.48	1.33	0.38	$ 310.00
IV050-CF-C-M	COPPER	0.50	CF 133	1.60	1.00	1.62	4.19	5.19	2.48	1.33	0.38	$ 350.00
IV075-CF-E-M	VITON	0.75	CF 133	2.50	1.12	1.87	4.44	5.44	2.48	1.33	0.63	$ 310.00
IV075-CF-C-M	COPPER	0.75	CF 133	2.50	1.12	1.87	4.44	5.44	2.48	1.33	0.63	$ 350.00
IV100-CF-E-M	VITON	1.00	CF 212	2.05	1.37	2.25	4.69	5.80	2.48	2.12	0.88	$ 370.00
IV100-CF-C-M	COPPER	1.00	CF 212	2.05	1.37	2.25	4.69	5.80	2.48	2.12	0.88	$ 430.00
IV150-CF-E-M	VITON	1.50	CF 275	2.45	1.88	3.12	6.52	8.02	2.97	2.72	1.38	$ 390.00
IV150-CF-C-M	COPPER	1.50	CF 275	2.45	1.88	3.12	6.52	8.02	2.97	2.72	1.38	$ 470.00
IV200-CF-E-M	VITON	2.00	CF 338	3.48	2.62	4.12	8.73	10.73	3.50	3.37	1.88	$ 725.00
IV200-CF-C-M	COPPER	2.00	CF 338	3.48	2.62	4.12	8.73	10.73	4.05	3.37	1.88	$ 775.00
IV250-CF-E-M	VITON	2.50	CF 450	3.38	3.12	4.93	10.20	12.70	4.00	4.47	2.38	$ 800.00
IV250-CF-C-M	COPPER	2.50	CF 450	3.38	3.12	4.93	10.20	12.70	4.61	4.47	2.38	$ 850.00
IV300-CF-E-M	VITON	3.00	CF 462	3.53	3.68	5.62	11.04	14.04	4.50	4.62	2.88	$ 1100.00
IV300-CF-C-M	COPPER	3.00	CF 462	3.53	3.62	5.55	11.04	14.04	5.62	4.62	2.88	$ 1150.00

Pneumatically Actuated In-Line Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C (200˚C intermittent)
- Ultra-High Vacuum Copper sealed bonnets - bakeable to 204˚C
- Both CF Flanges Rotatable





REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IV038-CF-E-AS	VITON	0.38	CF 133	1.60	0.94	1.50	3.62	5.62	2.48	1.33	0.25	$ 325.00
IV038-CF-C-AS	COPPER	0.38	CF 133	1.60	0.94	1.50	3.62	5.62	2.48	1.33	0.25	$ 375.00
IV050-CF-E-AS	VITON	0.50	CF 133	1.60	1.00	1.62	3.72	5.72	2.48	1.33	0.38	$ 325.00
IV050-CF-C-AS	COPPER	0.50	CF 133	1.60	1.00	1.62	3.72	5.72	2.48	1.33	0.38	$ 375.00
IV075-CF-E-AS	VITON	0.75	CF 133	2.50	1.12	1.87	4.00	6.00	2.48	1.33	0.63	$ 325.00
IV075-CF-C-AS	COPPER	0.75	CF 133	2.50	1.12	1.87	4.00	6.00	2.48	1.33	0.63	$ 375.00
IV100-CF-E-AS	VITON	1.00	CF 212	2.05	1.37	2.25	4.80	6.80	2.48	2.12	0.88	$ 410.00
IV100-CF-C-AS	COPPER	1.00	CF 212	2.05	1.37	2.25	4.80	6.80	2.48	2.12	0.88	$ 470.00
IV150-CF-E-AS	VITON	1.50	CF 275	2.45	1.88	3.12	5.875	8.375	2.97	2.72	1.38	$ 445.00
IV150-CF-C-AS	COPPER	1.50	CF 275	2.45	1.88	3.12	5.875	8.375	2.97	2.72	1.38	$ 505.00
IV200-CF-E-AS	VITON	2.00	CF 338	3.48	2.62	4.12	7.62	11.01	3.50	3.37	1.88	$ 775.00
IV200-CF-C-AS	COPPER	2.00	CF 338	3.48	2.62	4.12	7.50	11.01	4.05	3.37	1.88	$ 825.00
IV250-CF-E-AA	VITON	2.50	CF 450	3.38	3.12	4.93	9.11	12.03	4.00	4.47	2.38	$ 850.00
IV250-CF-C-AA	COPPER	2.50	CF 450	3.38	3.12	4.93	9.11	12.03	4.61	4.47	2.88	$ 900.00
IV300-CF-E-AA	VITON	3.00	CF 462	3.53	3.68	5.62	9.98	13.38	4.50	4.62	2.88	$ 1150.00
IV300-CF-C-AA	COPPER	3.00	CF 462	3.53	3.62	5.55	9.98	13.38	5.62	4.62	2.88	$ 1200.00
IV400-CF-E-AA	VITON	4.00	CF 600	4.66	4.88	7.38	12.83	18.27	6.50	5.97	3.88	$ 1705.00
IV400-CF-C-AA	COPPER	4.00	CF 600	4.66	4.88	7.38	12.83	18.27	6.73	5.97	3.88	$ 1785.00



CF Flange Hardware

- Gaskets
- Bolts, nut, washer kits
- Plate nut kits

For prices and information see CF Catalog section: Listed in the index as Hardware.

Replacement Parts

Poppet and Bonnet Seals - Viton®

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-VSK-075	.38-1.00	$ 10.00
PV-VSK-150	1.50	$ 15.00
PV-VSK-200	2.00	$ 20.00
PV-VSK-250	2.50	$ 25.00
PV-VSK-300	3.00	$ 25.00
PV-VSK-400	4.00	$ 30.00

Poppet and Bonnet Seals - Viton®, Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-CSK-075	.38-1.00	$ 17.00
PV-CSK-150	1.50	$ 22.00
PV-CSK-200	2.00	$ 25.00
PV-CSK-250	2.50	$ 30.00
PV-CSK-300	3.00	$ 30.00
PV-CSK-400	4.00	$ 32.00



Additional replacement parts (pictured above) are available. Call for assistance.



Specifications - 3/8" to 2" Port O.D.'s

Temperature Range

- High Vacuum elastomer sealed bonnets – bakeable to 150˚C (200˚C intermittent)
- UHV copper sealed bonnets – bakeable to 200˚C open, 150˚C (200˚C intermittent) closed

Vacuum Rating

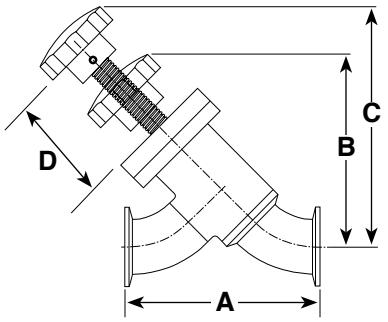
- Elastomer Bonnet Seal = $1x10^{-8}$ torr
- Copper Bonnet Seal = $1x10^{-10}$ torr

Materials

- Valve Body and Flanges: 304 Stainless Steel
- Welded Bellows: AM-350 Stainless Steel
- *Seals:*
  - Bonnet: Viton® or copper
  - Poppet: Viton®
  - Pneumatic cylinder is aluminum or Manual handle is plastic

Manual Valves

- ACME threads maximize shaft travel/turn
- Poppet retracts fully for unobstructed conductance
- Service valve without removal from the system



*ORDERING NOTE

Angle, In-Line Valves have 3 standard port connections:

TE=Weldable Tube End
QF=ISO-QF Flange
CF=CF Conflat® Style Flange

Review product specifications for the specific port connection size.

Viton Bonnet Seal - HV

REFERENCE NUMBER	SIZE	PORT FLANGES	A	B	C	D	UNIT PRICE
AIV075-TE-E-M	0.75	N/A	3.70	4.70	5.45	1.76	$ 340.00
AIV075-QF-E-M	0.75	QF16	4.00	4.70	5.45	1.76	$ 360.00
AIV075-CF-E-M	0.75	CF133	4.70	4.70	5.45	1.76	$ 370.00
AIV100-TE-E-M	1.00	N/A	3.90	4.55	5.30	1.76	$ 400.00
AIV100-QF-E-M	1.00	QF25	4.20	4.55	5.30	1.76	$ 410.00
AIV100-CF-E-M	1.00	CF212	4.24	4.55	5.30	1.76	$ 435.00
AIV150-TE-E-M	1.50	N/A	5.08	5.19	6.30	2.58	$ 410.00
AIV150-QF-E-M	1.50	QF40	5.38	5.19	6.30	2.58	$ 435.00
AIV150-CF-E-M	1.50	CF275	5.50	5.19	6.30	2.58	$ 450.00
AIV200-TE-E-M	2.00	N/A	6.42	6.02	7.33	2.85	$ 745.00
AIV200-QF-E-M	2.00	QF50	6.72	6.02	7.33	2.85	$ 760.00
AIV200-CF-E-M	2.00	CF338	6.87	6.02	7.33	2.85	$ 830.00

Copper Bonnet Seal - UHV

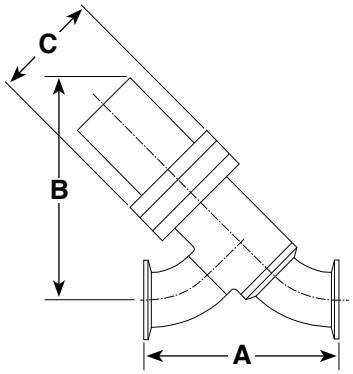
REFERENCE NUMBER	SIZE	PORT FLANGES	A	B	C	D	UNIT PRICE
AIV075-TE-C-M	0.75	N/A	3.70	4.70	5.45	1.76	$ 385.00
AIV075-CF-C-M	0.75	CF133	4.70	4.70	5.45	1.76	$ 410.00
AIV100-TE-C-M	1.00	N/A	3.90	4.55	5.30	1.76	$ 460.00
AIV100-CF-C-M	1.00	CF212	4.24	4.55	5.30	1.76	$ 495.00
AIV150-TE-C-M	1.50	N/A	5.08	5.19	6.30	2.58	$ 495.00
AIV150-CF-C-M	1.50	CF275	5.50	5.19	6.30	2.58	$ 530.00
AIV200-TE-C-M	2.00	N/A	6.42	6.02	7.33	2.85	$ 795.00
AIV200-CF-C-M	2.00	CF338	6.87	6.02	7.33	2.85	$ 880.00

A&N Corporation

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www.ancorp.com

Pneumatically Actuated Valves

- "Fail Safe" air-to-open, spring-to-close standard for sizes up to 2"
- 60-80 psig operating air pressure
- Service valve without removal from the system
- Poppet retracts fully for unobstructed conductance



Viton® Bonnet Seal - HV

REFERENCE NUMBER	SIZE	PORT FLANGES	A	B	C	UNIT PRICE
AIV075-TE-E-AS	0.75	N/A	3.70	5.32	2.48	$ 355.00
AIV075-QF-E-AS	0.75	QF16	4.00	5.32	2.48	$ 375.00
AIV075-CF-E-AS	0.75	CF133	4.70	5.32	2.48	$ 385.00
AIV100-TE-E-AS	1.00	N/A	3.90	5.18	2.48	$ 450.00
AIV100-QF-E-AS	1.00	QF25	4.20	5.18	2.48	$ 460.00
AIV100-CF-E-AS	1.00	CF212	4.24	5.18	2.48	$ 480.00
AIV150-TE-E-AS	1.50	N/A	5.08	6.04	2.97	$ 480.00
AIV150-QF-E-AS	1.50	QF40	5.38	6.04	2.97	$ 495.00
AIV150-CF-E-AS	1.50	CF275	5.50	6.04	2.97	$ 510.00
AIV200-TE-E-AS	2.00	N/A	6.42	7.83	3.48	$ 815.00
AIV200-QF-E-AS	2.00	QF50	6.72	7.83	3.48	$ 845.00
AIV200-CF-E-AS	2.00	CF338	6.87	7.83	3.48	$ 880.00

Copper Bonnet Seal - UHV

REFERENCE NUMBER	SIZE	PORT FLANGES	A	B	C	UNIT PRICE
AIV075-TE-C-AS	0.75	N/A	3.70	5.32	2.48	$ 410.00
AIV075-CF-C-AS	0.75	CF133	4.70	5.32	2.48	$ 425.00
AIV100-TE-C-AS	1.00	N/A	3.90	5.18	2.48	$ 510.00
AIV100-CF-C-AS	1.00	CF212	4.24	5.18	2.48	$ 540.00
AIV150-TE-C-AS	1.50	N/A	5.08	6.04	2.97	$ 540.00
AIV150-CF-C-AS	1.50	CF275	5.50	6.04	2.97	$ 575.00
AIV200-TE-C-AS	2.00	N/A	6.42	7.83	3.48	$ 865.00
AIV200-CF-C-AS	2.00	CF338	6.87	7.83	3.48	$ 940.00

*ORDERING NOTE

Angle, In-Line Valves have 3 standard port connections:

TE=Weldable Tube End
QF=ISO-QF Flange
CF=CF Conflat® Style Flange

Review product specifications for the specific port connection size.

Replacement Parts

Poppet and Bonnet Seals - Viton®

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-VSK-075	.38-1.00	$ 10.00
PV-VSK-150	1.50	$ 15.00
PV-VSK-200	2.00	$ 20.00
PV-VSK-250	2.50	$ 25.00
PV-VSK-300	3.00	$ 25.00
PV-VSK-400	4.00	$ 30.00

Poppet and Bonnet Seals - Viton®, Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
PV-CSK-075	.38-1.00	$ 17.00
PV-CSK-150	1.50	$ 22.00
PV-CSK-200	2.00	$ 25.00
PV-CSK-250	2.50	$ 30.00
PV-CSK-300	3.00	$ 30.00
PV-CSK-400	4.00	$ 32.00



Additional replacement parts (pictured above) are available. Call for assistance.



Specifications

- 3/4" and 1 1/2" port
- Acme threads
- Vacuum rated below 10^{-10} Torr.
- Leak rated to less than 2×10^{-10} std. cc./sec.
- Constructed of all 300 Series S.S.
- Manual actuation
- Temperature range -250˚C to 400˚C.

Features

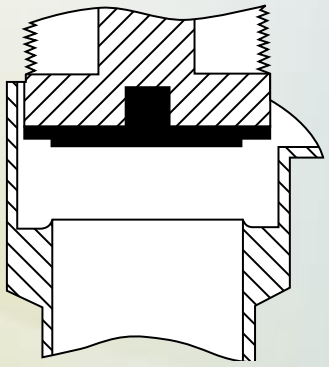
Specifications

- High conductance design
  - Pulled bodies
  - Poppet retracts fully in open position
- Electropolish finish
- Gasket wear/torque indicator
- Approved for cryogenic and beam line use
- All sizes are serviceable without removal from the system
- Hundreds of cycles per gasket

A&N all-metal sealed valves are designed for use in Ultra-high vacuum applications in which the valve will be subjected to temperature extremes which preclude the use of elastomer seals.

Sealing Mechanism

The vacuum seal is established by compressing the OFC copper poppet gasket onto a stainless steel knife-edge seat. (See illustration) When operated at median temperatures this gasket provides hundreds of seals. Operation at temperature maximums reduces gasket life to approximately 50 cycles. A radially graduated indicator is included on the top of the valve body as a visual cue for gasket replacement and proper torque for closure.

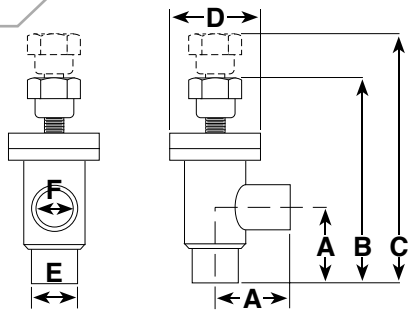


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All-Metal Angle Valves with Tube Ends

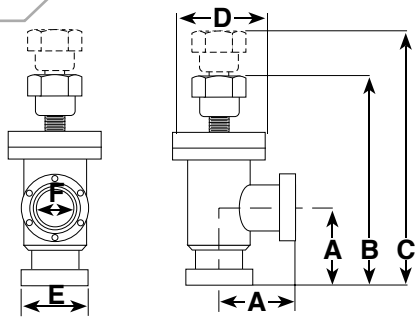
- Bakeable to 400˚C open; 300˚C closed



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AVB075-TE-C-M	COPPER	0.75	N/A	2.00	5.05	6.05	2.48	0.63	0.75	$ 480.00
AVB150-TE-C-M	COPPER	1.50	N/A	2.25	5.78	7.10	2.97	1.38	1.50	$ 530.00

All-Metal Angle Valves with CF Flanges

- Bakeable to 400˚C open; 300˚C closed
- Both CF Flanges Rotatable



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	UNIT PRICE
AVB075-CF-C-M	COPPER	0.75	CF133	2.50	5.28	6.28	2.48	0.63	1.33	$ 500.00
AVB150-CF-C-M	COPPER	1.50	CF275	2.45	5.90	7.23	2.97	1.38	2.75	$ 550.00

Accessories



CF Flange Hardware

- Gaskets
- Bolts, nut, washer kits
- Plate nut kits

For prices and information see CF Catalog section: Listed in the index as Hardware.

Replacement Parts

Poppet and Bonnet Seals - Copper

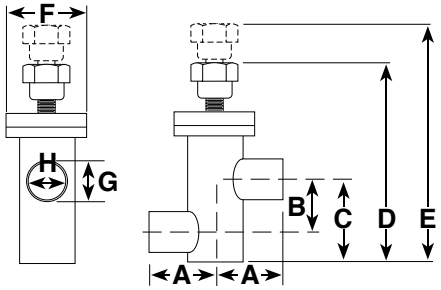
REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
MV-CSK-075	0.75	$ 35.00
MV-CSK-150	1.50	$ 45.00

Additional replacement parts (pictured right) are available. Call for assistance.



All-Metal In-Line Valves with Tube Flange

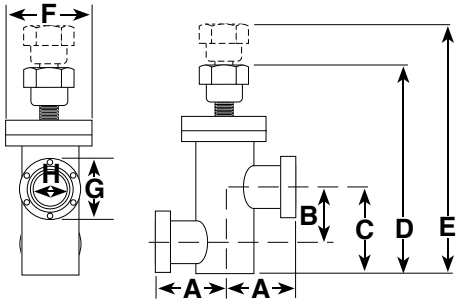
- Bakeable to 400˚C open; 300˚C closed



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IVB075-TE-C-M	COPPER	0.75	N/A	2.00	1.12	1.87	3.84	4.84	2.48	0.75	0.63	$ 530.00
IVB150-TE-C-M	COPPER	1.50	N/A	2.25	1.88	3.12	5.92	7.42	2.97	1.50	1.38	$ 580.00

All-Metal In-Line Valves with CF Flanges

- Bakeable to 400˚C open; 300˚C closed



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	VALVE DIMENSIONS A	B	C	D	E	F	G	H	UNIT PRICE
IVB075-CF-C-M	COPPER	0.75	CF133	2.50	1.12	1.87	3.84	4.84	2.48	1.33	0.63	$ 550.00
IVB150-CF-C-M	COPPER	1.50	CF275	2.45	1.88	3.12	5.92	7.42	2.97	2.72	1.38	$ 600.00

Accessories



CF Flange Hardware

- Gaskets
- Bolts, nut, washer kits
- Plate nut kits

For prices and information see CF Catalog section: Listed in the index as Hardware.

Replacement Parts

Poppet and Bonnet Seals - Copper

REFERENCE NUMBER	VALVE SIZE	UNIT PRICE
MV-CSK-075	0.75	$ 35.00
MV-CSK-150	1.50	$ 45.00

Additional replacement parts (pictured right) are available. Call for assistance.



A&N Corporation

707 Southwest 19th Avenue
Williston, Florida 32696
(352) 528-4100
1(800) FLANGE1
FAX (352) 528-3441
www.ancorp.com



Specifications

- 1.5" to 12" ports
- 100,000 cycles before service*
- Acme threads
- Viton® Bonnet Seal: 1 x 10^{-9} torr vacuum rating
- Copper Bonnet Seal: 1 x 10^{-10} torr vacuum rating
- Helium Leak Rate 2 x 10^{-10} std. cc./sec.
- 304 Stainless Steel Vacuum brazed body
- AM-350 Welded Bellows
- Electropolished inside and out
- Manual and Electropneumatic operation
- Valve closes in the event of power failure
- Minimal Vibrations during cycling

Bakeability

- Viton Bonnet Seal: 150˚C
- Copper Bonnet Seal: 200˚C
- Pneumatically actuated valves: Actuator 60˚C
- Copper Bonnet Valves with Kalrez® optional gate o-ring: 250˚C
- Heater Jackets for bakeouts up to 200˚C are available for valves—call your A&N sales representative.

**Expected cycle life is application dependent.*

Overview:

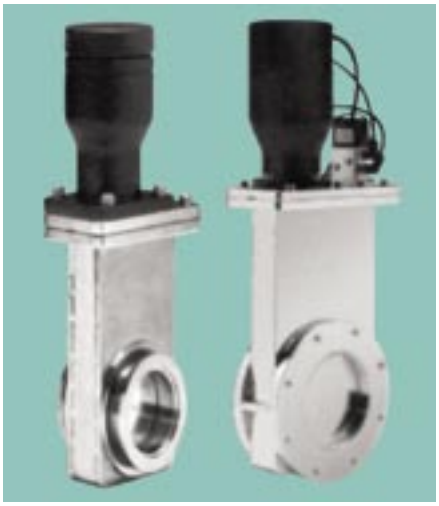
The A&N line of gate valves combines innovative design, superior grade materials, generous standard equipment and a large offering of options to give this valve unparalleled flexibility to meet your requirements.

The body of the valve is made of 304 stainless steel and is vacuum brazed to 1100˚C at 10^{-6} torr. This insures joint integrity and eliminates the possibility of "virtual leaks." It is then electropolished inside and out. The compact design provides a thin profile greatly reducing both the space needed for the valve and the valve's volume. Reduction of volume decreases outgassing and pumpdown time.

Design of the valve provides service for 100,000 cycles before maintenance for most applications. During maintenance the carriage is easily removable along with the solenoid without removing the valve from the system.

Pneumatically actuated valves close in the event of a power failure. Linear actuation allows the use of an AM-350 welded bellows to seal the actuator. This eliminates the use of rotary seals and the short stroke increases cycle life. Unique air cylinder design reduces vibrations during cycling. This is particularly important for semiconductor and other sensitive processes.

A&N Gate Valves are available with QF (NW,KF), LF (ISO) claw clamp style, LF (ISO) bolted style, ASA and CF flanges, manual or pneumatic actuation and Viton® or copper sealed bonnet. Valve sizes range from 1.5" to 12" nominal I.D. Larger sizes available per quote.



Specifications

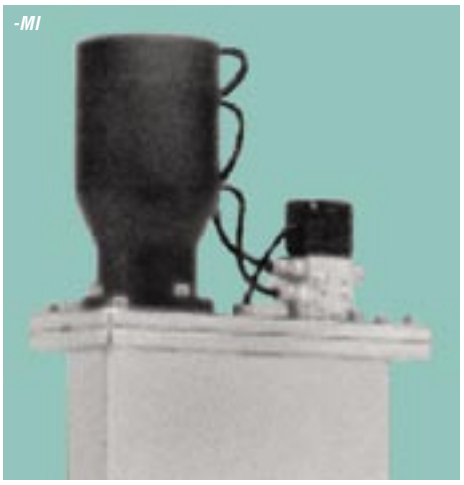
- 1.5" to 12" Nom I.D.
- Acme threads
- Viton® Bonnet Seal
- 10^{-9} Torr vacuum rating

Pneumatically Actuated Valves

- 80 psig operating air pressure
- Reed switch position indicator standard
- 120 VAC; 50/60Hz air solenoid standard
- Air-to-open, air-to-close

Options





OPTION NUMBER	DESCRIPTION	UNIT PRICE
–GVS4A	4-way 120 VAC air control solenoid valve	Standard
–GVS4B	4-way 240 VAC air control solenoid valve	$ 45.00
–GVS4C	4-way 24 VDC air control solenoid valve	$ N/C
–GVS4D	4-way 220 VAC air control solenoid valve	$ 45.00
–GVS4E	4-way 24 VAC air control solenoid valve	$ 45.00
–GMI	Micro-switch position indicator	$ 390.00

When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

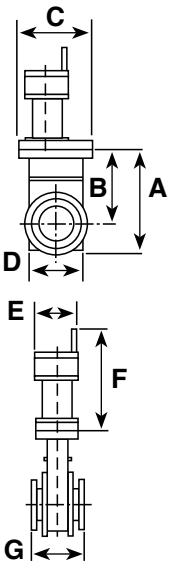
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Manually Operated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C

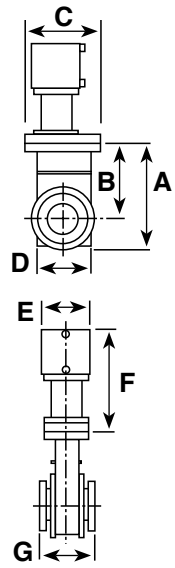
REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV150-QF-E-M	VITON	1.5	QF40	130	4.76	3.39	3.31	2.46	1.99	3.34	1.99	$ 830.00
GV200-QF-E-M	VITON	2	QF50	220	5.60	4.12	3.81	2.96	1.99	3.34	1.99	$ 1,130.00
GV250-LF-E-M	VITON	2.5	LF63	610	7.36	4.80	4.37	3.52	1.99	3.34	2.03	$ 1,975.00
GV300-LF-E-M	VITON	3	LF80	1070	8.62	5.76	4.94	4.28	1.99	3.34	1.97	$ 2,190.00
GV400-LF-E-M	VITON	4	LF100	2100	11.38	8.12	7.00	5.67	2.99	9.33	2.41	$ 2,465.00
GV600-LF-E-M	VITON	6	LF160	7100	15.07	10.63	8.75	7.55	3.00	9.33	2.41	$ 2,900.00
GV800-LF-E-M	VITON	8	LF200	15200	19.48	13.91	11.25	10.02	3.00	8.59	2.66	$ 3,800.00
GV1000-LF-E-M	VITON	10	LF250	26900	24.81	18.21	13.44	11.99	3.49	11.00	3.15	$ 6,150.00
GV1200-LF-E-M	VITON	12	LF320	42800	30.40	22.03	15.88	14.28	3.49	11.00	3.15	$ 6,600.00



Pneumatically Actuated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C
- 120 VAC air solenoid standard
- Reed Switch Position Indicator Standard

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV150-QF-E-P	VITON	1.5	QF40	130	4.76	3.39	3.31	2.46	1.99	5.12	1.99	$ 920.00
GV200-QF-E-P	VITON	2	QF50	220	5.60	4.12	3.81	2.98	1.99	5.12	1.99	$ 1,210.00
GV250-LF-E-P	VITON	2.5	LF63	610	7.36	4.80	4.37	3.52	1.99	5.29	2.03	$ 2,060.00
GV300-LF-E-P	VITON	3	LF80	1070	8.62	5.76	4.94	4.28	1.99	5.29	1.97	$ 2,280.00
GV400-LF-E-P	VITON	4	LF100	2100	11.38	8.12	7.00	5.67	2.99	7.33	2.41	$ 2,500.00
GV600-LF-E-P	VITON	6	LF160	7100	15.07	10.63	8.75	7.55	3.00	7.33	2.41	$ 3,050.00
GV800-LF-E-P	VITON	8	LF200	15200	19.48	13.91	11.25	10.02	3.00	6.59	2.66	$ 3,950.00
GV1000-LF-E-P	VITON	10	LF250	26900	24.81	18.21	13.44	11.99	3.49	9.28	3.15	$ 6,150.00
GV1200-LF-E-P	VITON	12	LF320	42800	30.40	22.03	15.87	14.28	3.49	9.28	3.15	$ 6,600.00



Accessories



QF/LF Flange Hardware

- Clamps
- Centering rings
- O-rings

For prices and information see QF/LF Catalog section: QF Clamps and Seals or LF Fasteners and Seals.

Replacement Parts

Gate Valve Seal Replacement Kits

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK150	1.5	$ 23.00
GV-SK200	2.0	$ 23.00
GV-SK250	2.5	$ 29.00
GV-SK300	3.0	$ 30.00
GV-SK400	4.0	$ 38.00

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK600	6.0	$ 53.00
GV-SK800	8.0	$ 75.00
GV-SK100	10.0	$105.00
GV-SK1200	12.0	$110.00





Specifications

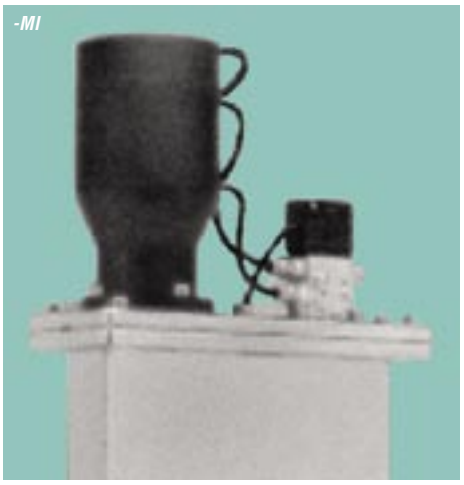
- 1.5" to 12" Nom I.D.
- Acme threads
- Viton® Bonnet Seal
- 10^{-9} Torr vacuum rating

Pneumatically Actuated Valves

- 80 psig operating air pressure
- Reed switch position indicator standard
- 120 VAC; 50/60Hz air solenoid standard
- Air-to-open, air-to-close

Options





OPTION NUMBER	DESCRIPTION	UNIT PRICE
–GVS4A	4-way 120 VAC air control solenoid valve	Standard
–GVS4B	4-way 240 VAC air control solenoid valve	$ 45.00
–GVS4C	4-way 24 VDC air control solenoid valve	$ N/C
–GVS4D	4-way 220 VAC air control solenoid valve	$ 45.00
–GVS4E	4-way 24 VAC air control solenoid valve	$ 45.00
–GMI	Micro-switch position indicator	$ 390.00

When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

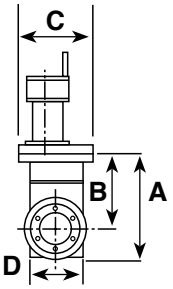
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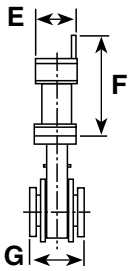
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Manually Operated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Threaded bolt holes are standard
- Viton® Seal intermittently - bakeable to 200˚C

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV250-LFB-E-M	VITON	2.5	LFB63	320	7.36	4.80	4.37	3.52	1.99	3.34	3.46	$ 1,370.00
GV300-LFB-E-M	VITON	3	LFB80	550	8.50	5.76	4.94	4.28	1.99	3.34	3.84	$ 1,585.00
GV400-LFB-E-M	VITON	4	LFB100	1900	11.50	8.12	7.00	5.67	2.99	9.33	4.23	$ 1,850.00
GV600-LFB-E-M	VITON	6	LFB160	4000	15.13	10.63	8.75	7.55	3.00	9.33	4.25	$ 2,300.00
GV800-LFB-E-M	VITON	8	LFB200	9500	19.41	13.91	11.25	10.02	3.00	8.59	4.25	$ 3,200.00
GV1000-LFB-E-M	VITON	10	LFB250	15400	24.71	18.21	13.44	11.99	3.49	11.00	5.51	$ 5,550.00
GV1200-LFB-E-M	VITON	12	LFB320	24500	29.31	22.03	15.88	14.28	3.49	11.00	4.67	$ 6,000.00

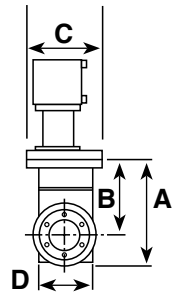


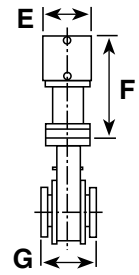


Pneumatically Actuated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C
- 120 VAC air solenoid standard
- Reed Switch Position Indicator Standard

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV250-LFB-E-P	VITON	2.5	LFB63	320	7.36	4.80	4.37	3.52	1.99	5.29	3.46	$ 1,455.00
GV300-LFB-E-P	VITON	3	LFB80	550	8.50	5.76	4.94	4.28	1.99	5.29	3.84	$ 1,675.00
GV400-LFB-E-P	VITON	4	LFB100	1900	11.50	8.12	7.00	5.67	2.99	7.33	4.23	$ 1,950.00
GV600-LFB-E-P	VITON	6	LFB160	4000	15.13	10.63	8.75	7.55	3.00	7.33	4.25	$ 2,450.00
GV800-LFB-E-P	VITON	8	LFB200	9500	19.41	13.91	11.25	10.02	3.00	6.59	4.25	$ 3,350.00
GV1000-LFB-E-P	VITON	10	LFB250	15400	24.71	18.21	13.44	11.99	3.49	9.28	5.51	$ 5,550.00
GV1200-LFB-E-P	VITON	12	LFB320	24500	29.31	22.03	15.87	14.28	3.49	9.28	4.67	$ 6,000.00





Accessories



QF/LF Flange Hardware

- Clamps
- Centering rings
- O-rings

For prices and information see QF/LF Catalog section: QF Clamps and Seals or LF Fasteners and Seals.

Replacement Parts

Gate Valve Seal Replacement Kits

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK150	1.5	$ 23.00
GV-SK200	2.0	$ 23.00
GV-SK250	2.5	$ 29.00
GV-SK300	3.0	$ 30.00
GV-SK400	4.0	$ 38.00

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK600	6.0	$ 53.00
GV-SK800	8.0	$ 75.00
GV-SK100	10.0	$105.00
GV-SK1200	12.0	$110.00



Gate Valve with ASA/ANSI Flanges



Specifications

- 1.5" to 12" Nom I.D.
- Acme threads
- Viton® Bonnet Seal
- 10^{-9} Torr vacuum rating

Pneumatically Actuated Valves

- 80 psig operating air pressure
- Reed switch position indicator standard
- 120 VAC; 50/60Hz air solenoid standard
- Air-to-open, air-to-close

Options



OPTION NUMBER	DESCRIPTION	UNIT PRICE
–GVS4A	4-way 120 VAC air control solenoid valve	Standard
–GVS4B	4-way 240 VAC air control solenoid valve	$ 45.00
–GVS4C	4-way 24 VDC air control solenoid valve	$ N/C
–GVS4D	4-way 220 VAC air control solenoid valve	$ 45.00
–GVS4E	4-way 24 VAC air control solenoid valve	$ 45.00
–GMI	Micro-switch position indicator	$ 390.00
–G1	O-ring groove on flange; gate side only[1]	$ N/C
–G2	O-ring groove on flange; carriage side only[1]	$ N/C
–G3	O-ring groove on flange; both sides of valve[1]	$ N/C

[1]O-ring groove I.D. on gate valves is .250" larger than the valve I.D.





When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

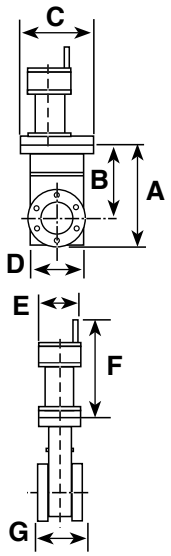
A&N Corporation

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Manually Operated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Threaded bolt holes are standard
- Viton® Seal intermittently - bakeable to 200˚C

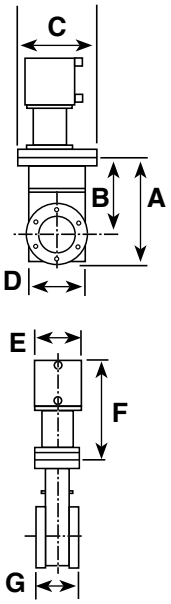
REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV250-ASA-E-M	VITON	2.5	ASA200	610	7.80	4.80	4.37	3.52	1.99	3.34	2.03	$ 1,370.00
GV300-ASA-E-M	VITON	3	ASA300	1070	9.50	5.76	4.94	4.28	1.99	3.34	2.03	$ 1,585.00
GV400-ASA-E-M	VITON	4	ASA400	2100	12.58	8.12	7.00	5.67	2.99	7.50	2.41	$ 1,850.00
GV600-ASA-E-M	VITON	6	ASA600	7100	16.15	10.63	8.75	7.55	2.99	7.50	2.41	$ 2,300.00
GV800-ASA-E-M	VITON	8	ASA600	14500	19.41	13.91	11.25	10.02	2.99	7.50	2.76	$ 3,200.00
GV1000-ASA-E-M	VITON	10	ASA1000	24800	26.13	18.13	13.56	11.99	3.50	11.00	3.15	$ 5,550.00
GV1200-ASA-E-M	VITON	12	ASA1000	42800	30.07	22.03	15.88	14.28	3.50	11.00	3.15	$ 6,000.00



Pneumatically Actuated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C
- 120 VAC air solenoid standard
- Reed Switch Position Indicator Standard

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV250-ASA-E-P	VITON	2.5	ASA200	610	7.80	4.80	4.37	3.52	1.99	5.12	2.03	$ 1,455.00
GV300-ASA-E-P	VITON	3	ASA300	1070	9.50	5.76	4.94	4.28	1.99	5.12	2.03	$ 1,675.00
GV400-ASA-E-P	VITON	4	ASA400	2100	12.58	8.12	7.00	5.67	2.99	6.69	2.41	$ 1,950.00
GV600-ASA-E-P	VITON	6	ASA600	7100	16.15	10.63	8.75	7.55	2.99	6.69	2.41	$ 2,450.00
GV800-ASA-E-P	VITON	8	ASA600	14500	19.41	13.91	11.25	10.02	2.99	6.69	2.76	$ 3,350.00
GV1000-ASA-E-P	VITON	10	ASA1000	24800	26.13	18.13	13.56	11.99	3.50	9.24	3.15	$ 5,550.00
GV1200-ASA-E-P	VITON	12	ASA1000	42800	30.07	22.07	15.88	14.28	3.50	9.24	3.15	$ 6,000.00



Accessories



ASA Flange Hardware

- Stainless steel nuts, bolts & washers

For prices and information see ASA Catalog section: ASA Flange Hardware.

Replacement Parts

Gate Valve Seal Replacement Kits

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK150	1.5	$ 23.00
GV-SK200	2.0	$ 23.00
GV-SK250	2.5	$ 29.00
GV-SK300	3.0	$ 30.00
GV-SK400	4.0	$ 38.00

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK600	6.0	$ 53.00
GV-SK800	8.0	$ 75.00
GV-SK100	10.0	$105.00
GV-SK1200	12.0	$110.00





Specifications

- 1.5" to 12" Nom I.D.
- Acme threads
- Viton® Bonnet Seal
- 10^{-9} Torr vacuum rating

Pneumatically Actuated Valves

- 80 psig operating air pressure
- Reed switch position indicator standard
- 120 VAC; 50/60Hz air solenoid standard
- Air-to-open, air-to-close

Options



OPTION NUMBER	DESCRIPTION	UNIT PRICE
–GVKP	Kalrez® high temperature gate seal	Call for quote
–GVS4A	4-way 120 VAC air control solenoid valve	Standard
–GVS4B	4-way 240 VAC air control solenoid valve	$ 45.00
–GVS4C	4-way 24 VDC air control solenoid valve	$ N/C
–GVS4D	4-way 220 VAC air control solenoid valve	$ 45.00
–GVS4E	4-way 24 VAC air control solenoid valve	$ 45.00
–GMI	Micro-switch position indicator	$ 390.00





When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

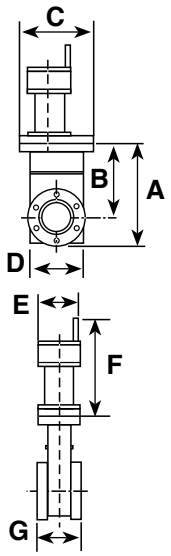
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Manually Operated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C
- Threaded Bolt holes are Standard

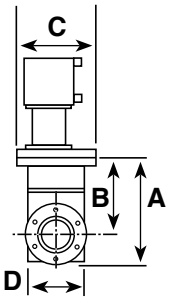
REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV150-CF-E-M	VITON	1.5	CF275	130	4.76	3.39	3.31	2.46	1.99	3.34	2.03	$ 830.00
GV200-CF-E-M	VITON	2	CF338	300	5.81	4.12	3.81	2.98	1.99	3.34	2.28	$ 1,130.00
GV250-CF-E-M	VITON	2.5	CF450	520	7.05	4.80	4.37	3.52	1.99	3.34	2.40	$ 1,370.00
GV300-CF-E-M	VITON	3	CF462	840	8.06	5.76	4.94	4.28	1.99	3.34	2.53	$ 1,585.00
GV400-CF-E-M	VITON	4	CF600	1700	11.12	8.12	7.00	5.67	2.99	7.50	2.97	$ 1,850.00
GV600-CF-E-M	VITON	6	CF800	5400	14.65	10.63	8.75	7.55	2.99	7.50	3.17	$ 2,300.00
GV800-CF-E-M	VITON	8	CF1000	12200	18.91	13.91	11.25	10.02	2.99	7.50	3.35	$ 3,200.00
GV1000-CF-E-M	VITON	10	CF1325	24900	24.28	18.13	13.56	11.99	3.50	11.00	3.65	$ 5,550.00
GV1200-CF-E-M	VITON	12	CF1400	34600	29.07	22.03	15.88	14.28	3.50	11.00	3.89	$ 6,000.00



Pneumatically Actuated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C
- 120 VAC air solenoid standard
- Reed Switch Position Indicator Standard
- Threaded Bolt holes are Standard

REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV150-CF-E-P	VITON	1.5	CF275	130	4.76	3.39	3.31	2.46	1.99	3.34	2.03	$ 920.00
GV200-CF-E-P	VITON	2	CF338	300	5.81	4.12	3.81	2.98	1.99	3.34	2.28	$ 1,210.00
GV250-CF-E-P	VITON	2.5	CF450	520	7.05	4.80	4.37	3.52	1.99	3.34	2.40	$ 1,455.00
GV300-CF-E-P	VITON	3	CF462	840	8.06	5.76	4.94	4.28	1.99	3.34	2.53	$ 1,675.00
GV400-CF-E-P	VITON	4	CF600	1700	11.12	8.12	7.00	5.67	2.99	7.50	2.97	$ 1,950.00
GV600-CF-E-P	VITON	6	CF800	5400	14.65	10.63	8.75	7.55	2.99	7.50	3.17	$ 2,450.00
GV800-CF-E-P	VITON	8	CF1000	12200	18.91	13.91	11.25	10.02	2.99	7.50	3.35	$ 3,350.00
GV1000-CF-E-P	VITON	10	CF1325	24900	24.28	18.13	13.56	11.99	3.50	11.00	3.65	$ 5,550.00
GV1200-CF-E-P	VITON	12	CF1400	34600	29.07	22.03	15.88	14.28	3.50	11.00	3.89	$ 6,000.00



Accessories



CF Flange Hardware

- Gaskets
- Bolts, nut, washer kits
- Plate nut kits

For prices and information see CF Catalog section: Listed in the index as Hardware.

Replacement Parts

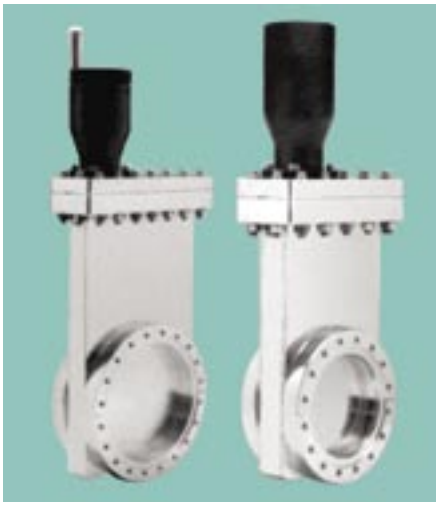
Gate Valve Seal Replacement Kits

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK150	1.5	$ 23.00
GV-SK200	2.0	$ 23.00
GV-SK250	2.5	$ 29.00
GV-SK300	3.0	$ 30.00
GV-SK400	4.0	$ 38.00

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK600	6.0	$ 53.00
GV-SK800	8.0	$ 75.00
GV-SK100	10.0	$105.00
GV-SK1200	12.0	$110.00



Gate Valve with CF Flanges-Copper Bonnet Seal



Specifications

- 1.5" to 12" Nom I.D.
- Acme threads
- Viton® Bonnet Seal
- 10^{-9} Torr vacuum rating

Pneumatically Actuated Valves

- 80 psig operating air pressure
- Reed switch position indicator standard
- 120 VAC; 50/60Hz air solenoid standard
- Air-to-open, air-to-close

Options



OPTION NUMBER	DESCRIPTION	UNIT PRICE
–GVKP	Kalrez® high temperature gate seal	Call for quote
–GVS4A	4-way 120 VAC air control solenoid valve	Standard
–GVS4B	4-way 240 VAC air control solenoid valve	$ 45.00
–GVS4C	4-way 24 VDC air control solenoid valve	$ N/C
–GVS4D	4-way 220 VAC air control solenoid valve	$ 45.00
–GVS4E	4-way 24 VAC air control solenoid valve	$ 45.00
–GMI	Micro-switch position indicator	$ 390.00





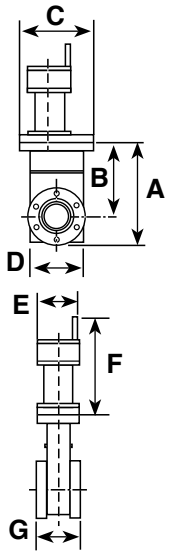
When ordering options, please add the option number(s) to the end of the reference number for the valve you are ordering.

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Manually Operated Gate Valves

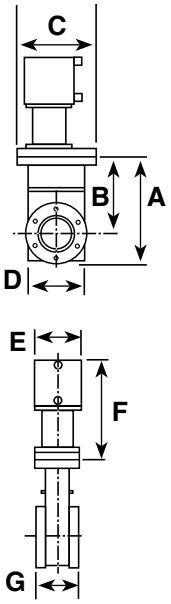
- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C
- Threaded Bolt holes are Standard



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV150-CF-C-M	COPPER	1.5	CF275	130	4.76	3.39	3.31	2.46	1.99	3.34	2.03	$ 1,020.00
GV200-CF-C-M	COPPER	2	CF338	300	5.81	4.12	3.81	2.98	1.99	3.34	2.28	$ 1,340.00
GV250-CF-C-M	COPPER	2.5	CF450	520	7.05	4.80	4.37	3.52	1.99	3.34	2.40	$ 1,600.00
GV300-CF-C-M	COPPER	3	CF462	840	8.06	5.76	4.94	4.28	1.99	3.34	2.53	$ 1,930.00
GV400-CF-C-M	COPPER	4	CF600	1700	11.12	8.12	7.00	5.67	2.99	7.50	2.97	$ 2,100.00
GV600-CF-C-M	COPPER	6	CF800	5400	14.63	10.65	8.75	7.55	2.99	7.50	3.17	$ 2,800.00
GV800-CF-C-M	COPPER	8	CF1000	12200	18.91	13.91	11.25	10.02	2.99	7.50	3.35	$ 3,650.00
GV1000-CF-C-M	COPPER	10	CF1325	24900	24.28	18.13	13.56	11.99	3.50	11.00	3.65	$ 6,200.00
GV1200-CF-C-M	COPPER	12	CF1400	34600	29.07	22.03	15.88	14.28	3.50	11.00	3.89	$ 6,800.00

Pneumatically Actuated Gate Valves

- High Vacuum Elastometer sealed bonnets - bakeable to 150˚C
- Viton® Seal intermittently - bakeable to 200˚C
- 120 VAC air solenoid standard
- Reed Switch Position Indicator Standard
- Threaded Bolt holes are Standard



REFERENCE NUMBER	BONNET SEAL	SIZE	PORT FLANGES	CONDUCTANCE (MOL.-1/SEC.)	VALVE DIMENSIONS A	B	C	D	E	F	G	UNIT PRICE
GV150-CF-C-P	COPPER	1.5	CF275	130	4.76	3.39	3.31	2.46	1.99	5.12	2.03	$ 1,100.00
GV200-CF-C-P	COPPER	2	CF338	300	5.81	4.12	3.81	2.98	1.99	5.12	2.28	$ 1,425.00
GV250-CF-C-P	COPPER	2.5	CF450	520	7.05	4.81	4.37	3.52	1.99	5.12	2.40	$ 1,755.00
GV300-CF-C-P	COPPER	3	CF462	840	8.06	5.76	4.94	4.28	1.99	5.12	2.53	$ 2,025.00
GV400-CF-C-P	COPPER	4	CF600	1700	11.12	8.12	7.00	5.67	2.99	6.69	2.97	$ 2,250.00
GV600-CF-C-P	COPPER	6	CF800	5400	14.63	10.65	8.75	7.55	2.99	6.69	3.17	$ 3,200.00
GV800-CF-C-P	COPPER	8	CF1000	12200	18.91	13.91	11.25	10.02	2.99	6.69	3.35	$ 3,750.00
GV1000-CF-C-P	COPPER	10	CF1325	24900	24.28	18.13	13.56	12.00	3.50	9.24	3.65	$ 6,200.00
GV1200-CF-C-P	COPPER	12	CF1400	34600	29.07	22.03	15.88	14.28	3.50	9.24	3.89	$ 6,800.00

Accessories



CF Flange Hardware

- Gaskets
- Bolts, nut, washer kits
- Plate nut kits

For prices and information see CF Catalog section: Listed in the index as Hardware.

Replacement Parts

Gate Valve Seal Replacement Kits

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK150	1.5	$ 23.00
GV-SK200	2.0	$ 23.00
GV-SK250	2.5	$ 29.00
GV-SK300	3.0	$ 30.00
GV-SK400	4.0	$ 38.00

REFERENCE NUMBER	NOMINAL VALVE I.D.	UNIT PRICE
GV-SK600	6.0	$ 53.00
GV-SK800	8.0	$ 75.00
GV-SK100	10.0	$105.00
GV-SK1200	12.0	$110.00



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The A&N ball valve is specifically intended for high vacuum service. Valves are stocked in brass and 316L stainless steel in 1/8" to 6" tube O.D.; pipe thread or QF and LF end connections. Teflon seats and Viton seals are standard, however, other combinations are available on request.

Ball valves offer straight-through flow providing maximum conductance, interchangeable end connections, unobstructed ports and low initial installation and maintenance costs.

Gas entrapment has been eliminated by drilling an evacuation hole in the shut-off side of the ball exposing the body cavity to either upstream or downstream pressure depending on installation. A further advantage is the rigid stem assembly which does away with lateral movement during actuation that has plagued users of other valves in the past.

Stem seals are easily replaced and only three bolts need be disassembled to service the seats and body seals.

- Provisions are made to evacuate the area between the seat and the body up to the body seal.
- Each valve is (mass spectrometer) helium leak checked and certified. Guaranteed leakage rate is less than 1×10^{-9} std. cc/sec.
- Unlike other ball valves A&N Ball Valves are machined from solid round 316L grade stainless steel bar. Our experience has shown us that for vacuum applications cast ball valves are subject to voids, microscopic leak paths, porosity and inclusion in the material. This leads to virtual leaks, outgassing, permeation and longer pump down times. In addition to faster pump down times the machined A&N Ball valve achieves lower absolute vacuum pressure.

- *Guaranteed leakage rate*
- *High conductance*
- *Straight through flow*
- *Complete range of sizes*
- *Simple & easy to service*
- *Machined from solid bar stock*

Pneumatic Actuators

Integrally-mounted valve operators using pressurized air source are available in either a double-action or fail-safe design. A solenoid valve is normally mounted on the actuator to control the air supply. Compact microswitch assemblies are available where remote indication of valve position is desired.



Locking Kit

Secure the position of your manual ball valve with a locking kit. To order add "–LK" to the end of the valve reference number and add $60.00 to the price of your valve.





Specifications - 1/2" to 6" Port Connections

Temperature Range:

- Standard Viton® seals bakeable to 150˚C (200˚C intermittent)
- Vacuum Rating = $1x10^{-8}$ torr
- Helium Leak Rated less than $1x10^{-9}$ std. cc/sec.

Materials:

- Valve Body, Ball, Stem and Flanges: 316 Stainless Steel (for Brass See pg. 2.36 & 2.37)
- Seals: Viton®
- Seats: Teflon®

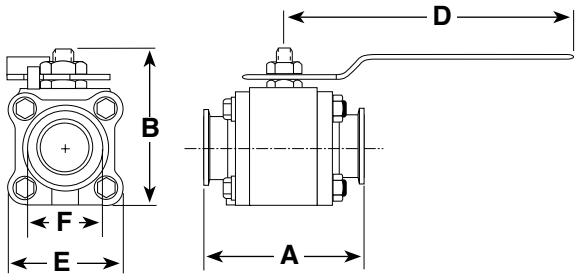
Features

- High conductance; straight through flow
- Service valve without removal from the system
- Evacuation hole on side of ball eliminates "virtual leak"
- "Particulate resistant" ball/seat design lengthens time between maintenance cycles

Manual Valves

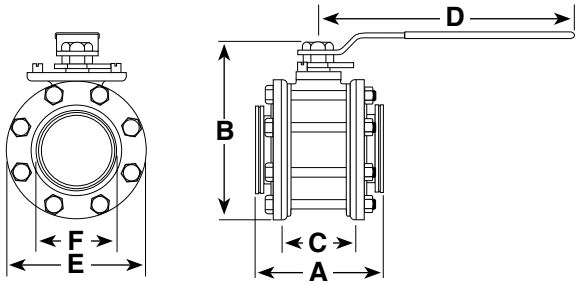
***ORDERING NOTE**

Locking Kit available
see pg. 2-33



Sizes 1/8" to 2 1/8" tubing – Body Series B,C,D,E

REFERENCE NUMBER	END CAP	BALL PORT SIZE	A	B	C	D	E	F	UNIT PRICE
B4050-QF10	QF10	0.57	3.48	2.45	2.50	4.50	1.75	1.18	$ 275.00
B4075-QF16	QF16	0.57	3.48	2.45	2.50	4.50	1.75	1.18	$ 275.00
B4075-QF25	QF25	0.57	3.48	2.45	2.50	4.50	1.75	1.575	$ 275.00
C4100-QF25	QF25	0.81	3.75	3.10	3.25	5.50	2.25	1.575	$ 391.00
C4100-QF40	QF40	0.81	3.75	3.10	3.25	5.50	2.25	2.165	$ 391.00
D4150-QF40	QF40	1.25	4.65	4.42	-	8.13	3.20	2.165	$ 682.00
E4200-QF50	QF50	1.50	4.97	4.88	-	8.13	3.58	2.953	$ 798.00



Sizes 2 1/2" to 6" tubing – Body Series F,G,H,I

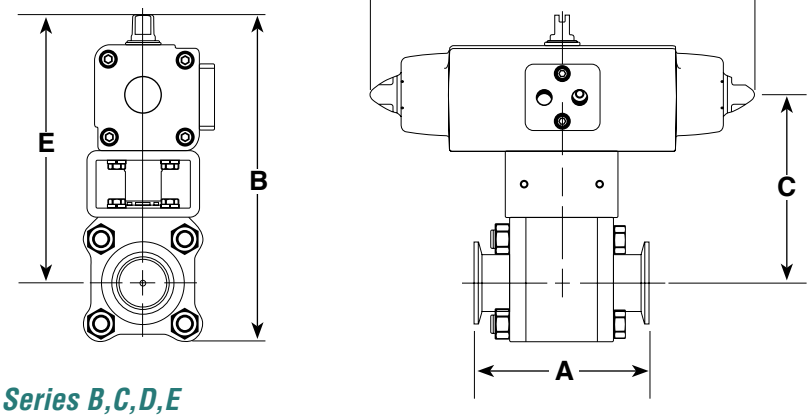
REFERENCE NUMBER	END CAP	BALL PORT SIZE	A	B	C	D	E	F	UNIT PRICE
F4250-LF63	LF63	2.00	6.35	8.07	2.875	11.00	5.82	3.47	$ 2,283.00
G4300-LF80	LF80	2.50	6.50	8.70	3.275	13.00	6.45	4.33	$ 3,201.00
H4400-LF100	LF100	3.25	7.625	10.38	4.375	15.00	8.125	5.12	$ 4,275.00
I4600-LF160	LF160	4.38	10.25	14.375	5.76	20.00	11.00	7.09	$ 8,135.00

A&N Corporation

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www.ancorp.com

Pneumatic Valves

- "Fail Safe" air-to-open, spring-to-close standard
  - "Fail Safe" can be mounted to fail open or closed
- Air-to-open, air-to-close by request for no additional charge
- 80-120 psig operating air pressure



Sizes 1/8" to 2" tubing – Body Series B,C,D,E

REFERENCE NUMBER	END CAP	BALL PORT SIZE	A	B	C	D	E	UNIT PRICE
B4075-QF16-AS	QF16	0.57	3.47	7.13	4.25	9.18	6.13	$1000.00
B4075-QF25-AS	QF25	0.57	3.47	7.13	4.25	9.18	6.13	$1000.00
C4100-QF25-AS	QF25	0.81	3.92	7.47	4.42	9.18	6.29	$1116.00
C4100-QF40-AS	QF40	0.81	3.92	7.47	4.42	9.18	6.29	$1116.00
D4150-QF40-AS	QF40	1.25	4.65	8.59	4.96	10.19	7.04	$1447.00
E4200-QF50-AS	QF50	1.5	4.97	8.99	5.15	10.19	7.23	$1678.00

***ORDERING NOTE**

When ordering repair kits have the valve's serial number available to insure proper replacement parts are ordered.



Ball Valve Repair Kits

REFERENCE NUMBER	BODY SERIES	UNIT PRICE
BV-RK-B	B	$ 30.00
BV-RK-C	C	$ 45.00
BV-RK-D	D	$ 76.00
BV-RK-E	E	$ 86.00
BV-RK-F	F	$ 110.00
BV-RK-G	G	$ 125.00
BV-RK-H	H	$ 143.00
BV-RK-I	I	$ 166.00

Repair Kits include all parts of the valve that may wear with use. Stem seals and bushings, body seals and teflon® seats



Specifications - *1/2" to 2" Port Connections*

Temperature Range:

- Standard Viton® seals bakeable to 150˚C (200˚C intermittent)
- Vacuum Rating = $1x10^{-8}$ torr
- Helium Leak Rated less than $1x10^{-9}$ std. cc/sec.

Materials:

- Valve Body, Stem and Flanges: Brass
- Ball: 316 Stainless Steel
- Seals: Viton®
- Seats: Teflon®

Features

- High conductance; straight through flow
- Service valve without removal from the system
- Evacuation hole on side of ball eliminates "virtual leak"
- "Particulate resistant" ball/seat design lengthens maintenance cycles

***ORDERING NOTE**

When ordering repair kits have the valve's serial number available to insure proper replacement parts are ordered.



Ball Valve Repair Kits - Brass

REFERENCE NUMBER	BODY SERIES	UNIT PRICE
BV-RK-B	B	$ 30.00
BV-RK-C	C	$ 45.00
BV-RK-D	D	$ 76.00
BV-RK-E	E	$ 86.00

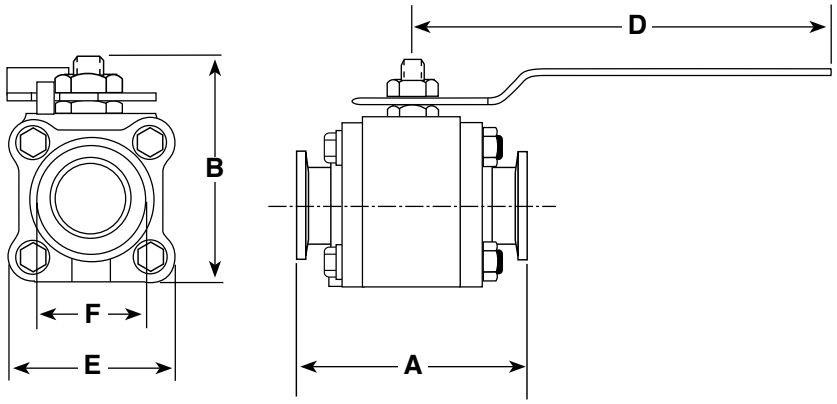
Repair Kits include all parts of the valve that may wear with use. Stem seals and bushings, body seals and teflon® seats

A&N Corporation

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Sizes QF10 to QF50 - Body Series B, C, D, E

- Body made of machined 360 Brass



REFERENCE NUMBER	END CAP	BALL PORT SIZE	VALVE DIMENSIONS A	B	D	E	F	UNIT PRICE
B1075-QF16	QF16	0.57	3.48	2.45	4.50	1.75	1.18	$ 132.00
B1075-QF25	QF25	0.57	3.48	2.45	4.50	1.75	1.575	$ 132.00
C1100-QF25	QF25	0.81	3.75	3.10	5.50	2.25	1.575	$ 182.00
C1100-QF40	QF40	0.81	3.75	3.10	5.50	2.25	2.165	$ 182.00
D1150-QF40	QF40	1.25	4.65	4.42	8.13	3.20	2.165	$ 303.00
E1200-QF50	QF50	1.50	4.97	4.88	8.13	3.58	2.953	$ 347.00





Specifications *- 1/8" to 2 1/8" Port Connections*

Temperature Range:

- Standard Viton® seals bakeable to 150˚C (200˚C intermittent)
- Vacuum Rating = $1x10^{-8}$ torr
- Helium Leak Rated less than $1x10^{-9}$ std. cc/sec.

Materials:

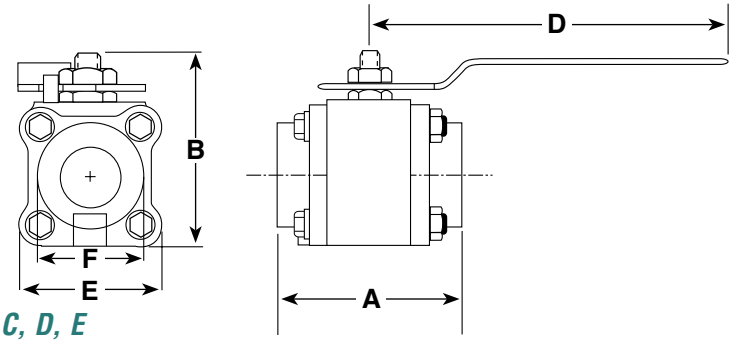
- Valve Body, Ball, Stem and Flanges: 316 Stainless Steel or Brass
- Seals: Viton®
- Seats: Teflon®

Features

- High conductance; straight through flow
- Service valve without removal from the system
- Evacuation hole on side of ball eliminates "virtual leak"
- "Particulate resistant" ball/seat design lengthens maintenance cycles

Brass Valves

- Body made of machined 360 Brass



Sizes 1/8" to 2 1/8" - Body Series B, C, D, E

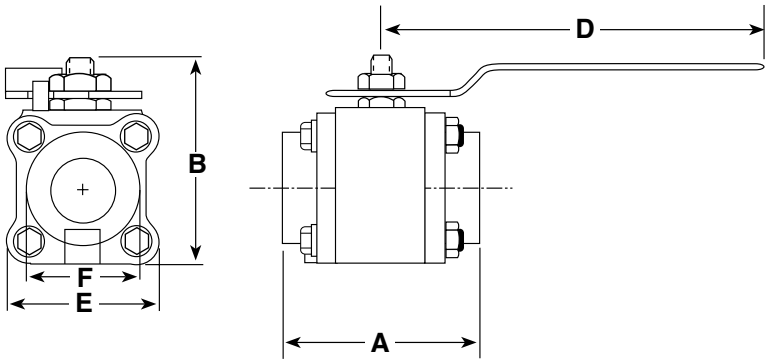
REFERENCE NUMBER	END CAP	BALL PORT SIZE	A	B	D	E	F	UNIT PRICE
B1012-TE	1⁄8" O.D.	0.57	2.975	2.45	4.50	1.75	0.75	$ 110.00
B1025-TE	1⁄4" O.D.	0.57	2.975	2.45	4.50	1.75	0.75	$ 110.00
B1038-TE	3⁄8" O.D.	0.57	2.975	2.45	4.50	1.75	0.75	$ 110.00
B1050-TE	1⁄2" O.D.	0.57	2.975	2.45	4.50	1.75	0.75	$ 110.00
B1062-TE	5⁄8" O.D.	0.57	2.975	2.45	4.50	1.75	1.25	$ 110.00
B1075-TE	3⁄4" O.D.	0.57	2.975	2.45	4.50	1.75	1.25	$ 110.00
B1087-TE	7⁄8" O.D.	0.57	2.975	2.45	4.50	1.75	1.25	$ 110.00
C1100-TE	1" O.D.	0.81	3.675	3.10	5.50	2.25	1.625	$ 154.00
C1112-TE	1 1⁄8" O.D.	0.81	3.675	3.10	5.50	2.25	1.625	$ 154.00
D1150-TE	1 1⁄2" O.D.	1.25	4.45	4.42	8.13	3.20	2.40	$ 253.00
D1162-TE	1 5⁄8" O.D.	1.25	4.45	4.42	8.13	3.20	2.40	$ 253.00
E1200-TE	2" O.D.	1.50	5.00	4.88	8.13	3.58	2.93	$ 319.00
E1212-TE	2 1⁄8" O.D.	1.50	5.00	4.88	8.13	3.58	2.93	$ 319.00

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FAX (352) 528-3441
www.ancorp.com

Stainless Steel Valves

- Body made of machined 316 Stainless Steel



Sizes 1/8" to 2 1/8" - Body Series B, C, D, E

REFERENCE NUMBER	END CAP	BALL PORT SIZE	A	B	D	E	F	UNIT PRICE
B4012-TE	1⁄8" O.D.	0.57	2.975	2.50	4.50	1.75	0.75	$ 237.00
B4025-TE	1⁄4" O.D.	0.57	2.975	2.50	4.50	1.75	0.75	$ 237.00
B4038-TE	3⁄8" O.D.	0.57	2.975	2.50	4.50	1.75	0.75	$ 237.00
B4050-TE	1⁄2" O.D.	0.57	2.975	2.50	4.50	1.75	0.75	$ 237.00
B4062-TE	5⁄8" O.D.	0.57	2.975	2.50	4.50	1.75	1.25	$ 237.00
B4075-TE	3⁄4" O.D.	0.57	2.975	2.50	4.50	1.75	1.25	$ 237.00
B4087-TE	7⁄8" O.D.	0.57	2.975	2.50	4.50	1.75	1.25	$ 237.00
C4100-TE	1" O.D.	0.81	3.675	3.25	5.50	2.25	1.625	$ 358.00
C4112-TE	1 1⁄8" O.D.	0.81	3.675	3.25	5.50	2.25	1.625	$ 358.00
D4150-TE	1 1⁄2" O.D.	1.25	4.45	4.42	8.13	3.2	2.4	$ 600.00
D4162-TE	1 5⁄8" O.D.	1.25	4.45	4.42	8.13	3.2	2.4	$ 600.00
E4200-TE	2" O.D.	1.50	5.00	4.88	8.13	3.58	2.93	$ 743.00
E4212-TE	2 1⁄8" O.D.	1.50	5.00	4.88	8.13	3.58	2.93	$ 743.00

***ORDERING NOTE**

When ordering repair kits have the valve's serial number available to insure proper replacement parts are ordered.



Ball Valve Repair Kits

REFERENCE NUMBER	BODY SERIES	UNIT PRICE
BV-RK-B	B	$ 30.00
BV-RK-C	C	$ 45.00
BV-RK-D	D	$ 76.00
BV-RK-E	E	$ 86.00

Repair Kits include all parts of the valve that may wear with use. Stem seals and bushings, body seals and teflon® seats

Vacuum Ball Valve with Pipe Ends





Specifications - 1/8" to 2" Port Connections

Temperature Range:

- Standard Viton® seals bakable to 150˚C (200˚C intermittent)
- Vacuum Rating = $1x10^{-8}$ torr
- Helium Leak Rated less than $1x10^{-9}$ std. cc/sec.

Materials:

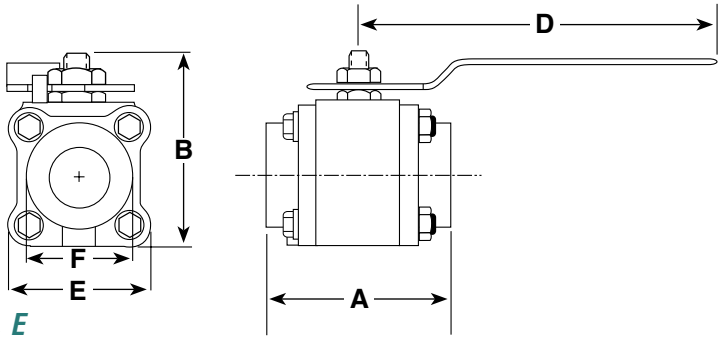
- Valve Body, Ball, Stem and Flanges: 316 Stainless Steel or Brass
- Seals: Viton®
- Seats: Teflon®

Features

- High conductance; straight through flow
- Service valve without removal from the system
- Evacuation hole on side of ball eliminates "virtual leak"
- "Particulate resistant" ball/seat design lengthens maintenance cycles

Brass Valves

- Body made of machined 360 Brass



Sizes 1/8" to 2" - Body Series B, C, D, E

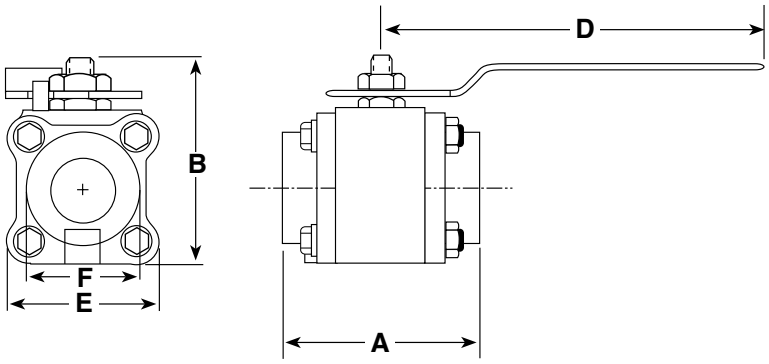
REFERENCE NUMBER	END CAP	BALL PORT SIZE	A	B	D	E	F	UNIT PRICE
B1012-SE	1⁄8" NPT	0.35	2.125	1.70	2.88	1.25	0.75	$ 99.00
B1025-SE	1⁄4" NPT	0.35	2.125	1.70	2.88	1.25	0.75	$ 99.00
B1038-SE	3⁄8" NPT	0.35	2.125	1.70	2.88	1.25	1.25	$ 99.00
B1050-SE	1⁄2" NPT	0.57	2.975	2.45	4.50	1.75	1.25	$ 110.00
B1075-SE	3⁄4" NPT	0.57	2.975	2.45	4.50	1.75	1.25	$ 110.00
C1100-SE	1" NPT	0.81	3.675	3.10	5.50	2.25	1.625	$ 154.00
D1150-SE	1 1⁄2" NPT	1.25	4.45	4.42	8.13	3.20	2.40	$ 240.00
E1200-SE	2" NPT	1.50	5.00	4.88	8.13	3.58	2.93	$ 319.00

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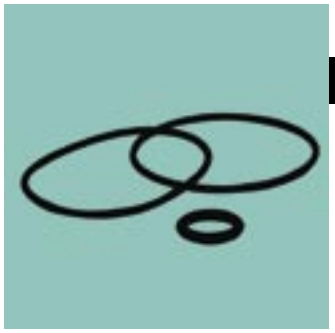


Sizes 1/8" to 2" - Body Series B, C, D, E

REFERENCE NUMBER	END CAP	BALL PORT SIZE	A	B	D	E	F	UNIT PRICE
B4012-SE	1⁄8" NPT	0.57	2.975	2.45	4.50	1.75	0.75	$ 237.00
B4025-SE	1⁄4" NPT	0.57	2.975	2.45	4.50	1.75	0.75	$ 237.00
B4038-SE	3⁄8" NPT	0.57	2.975	2.45	4.50	1.75	1.25	$ 237.00
B4050-SE	1⁄2" NPT	0.57	2.975	2.45	4.50	1.75	1.25	$ 237.00
B4075-SE	3⁄4" NPT	0.57	2.975	2.45	4.50	1.75	1.25	$ 237.00
C4100-SE	1" NPT	0.81	3.675	3.10	5.50	2.25	1.625	$ 357.00
D4150-SE	1 1⁄2" NPT	1.25	4.45	4.42	8.13	3.20	2.40	$ 600.00
E4200-SE	2" NPT	1.50	5.00	4.88	8.13	3.58	2.93	$ 743.00

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BV-RK-E	E	$ 86.00

Repair Kits include all parts of the valve that may wear with use.
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