

VALVES



Gate Valves

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.

The LewVac range of gate valves combines innovative design, superior grade materials and a large offering of options to give 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 ensures 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.

LewVac gate valves are available with CF, ISO KF, ISO LF claw clamp and ISO LF bolted flanges, manual or pneumatic actuation and Viton® or copper sealed bonnet. Valve sizes range from 15.8mm to 304.8mm nominal ID. Larger sizes and ASA flanged valves are available to special order.



Angle & In Line Valves (Poppet Valves)

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.



All Metal Valves

All metal valves are similar to angle valves, however they employ all metal construction, including the poppet seal, which is made from OFE copper rather than elastomer. The metal seal allows installation and use of all metal valves at elevated temperatures, which would preclude the use of elastomer sealed valves.



Ball Valves

LewVac ball valves are specifically intended for high vacuum service. Valves are supplied in either 316L stainless steel or brass, in 3.2mm (1/8") to 152.4mm (6") tube O.D., pipe thread or ISO KF and ISO 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 removed 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 x 10⁻⁹ std. cc/sec.

Unlike other ball valves, LewVac ball valves are machined from solid round 316L grade stainless steel bar. Experience has shown 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 LewVac ball valves achieve lower absolute vacuum pressure.

All dimensions are nominal in millimetres unless otherwise specified



Precision Leak Valves

Precision leak valves are designed to enable the user to precisely control the admission of gas into a vacuum system.



Up To Air Valves

Installation of a LewVac up to air valve allows you to vent your chamber to atmosphere or backfill your chamber with the gas of your choice. Up to air valves are available in two mounting options: welded to the centre of the flange; welded to the OD of the flange, allowing in-line installation of the valve in your system. Up to air valves have 6.35mm (1/4") OD tubulations, are manually actuated and bellows sealed.



Pressure Relief Valves

The LewVac pressure relief valve has been developed as a safety device to protect vacuum systems from the dangers of over pressure, when back filling with gas. Pressure relief valves are available in various sizes, pressure ratings and flange mountings for use on HV systems. Pressure relief devices for use in UHV systems can be found in section 9.5 of this catalogue.

All dimensions are nominal in millimetres unless otherwise specified

CF Flanges With Copper Bonnet Seal



CF flanged gate valves have metric tapped flanges as standard. US size and imperial tapped flanges available on request.

Laminar flow, million cycle, 3 position, shielded gate, throttle, rectangular & aluminium gate valves are also available, please contact sales office for further details and pricing.

Features:

- 304 stainless steel vacuum brazed body.
- AM350 welded bellows.
- Electropolished inside and out.
- Manual or electropneumatic operation.
- Acme threads on manual actuator.
- 24VDC air control solenoid as standard on pneumatically actuated valves. (80psi max)
- Magnetic reed switch position indicator on pneumatic valves as standard.
- Optional microswitch position indicator.
- Minimal vibration during cycling.
- 100,000 cycles before service*.
- Copper bonnet seal, 1×10^{-10} Torr vacuum rating.
- Helium leak rate $<2 \times 10^{-9}$ std.cc/sec.
- Roughing ports available to special order.
- High temperature Kalrez® gate seal available.

Bakeout Specifications:

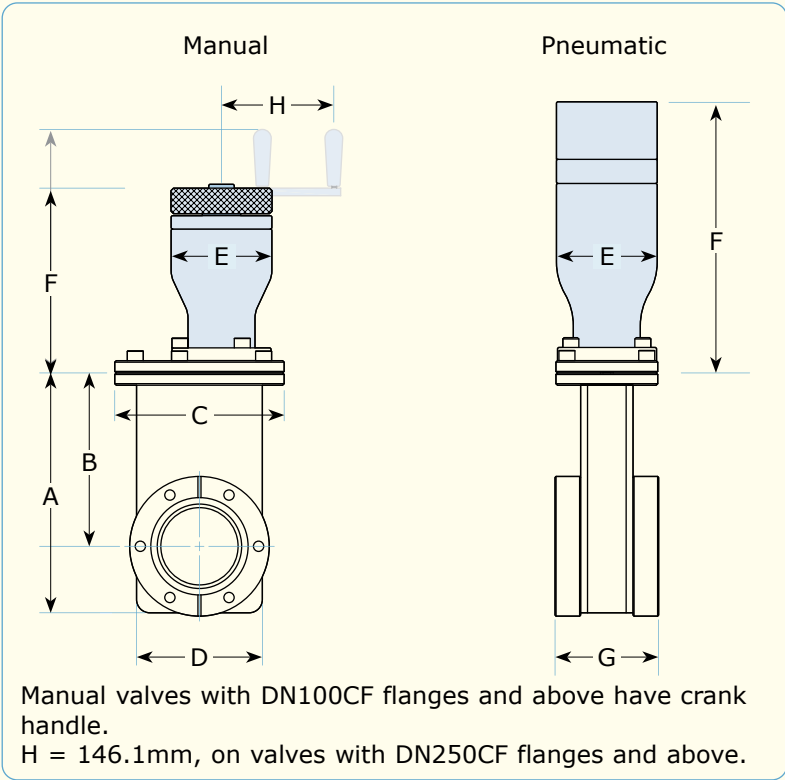
Max Temperature**

Copper bonnet seal / Viton® gate seal 150°C

Copper bonnet seal / Kalrez® gate seal 250°C

Actuator 60°C

* - Expected cycle life is application dependant.
** - To prevent damage to the gate seal, gate valves must be baked out in the open position.



All dimensions are nominal in millimetres unless otherwise specified

Manually Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN16CF	15.8	60.8	44.5	47.8	33.3	37.8	45.7	39.6	GV-16CF-C-M	£999	€1,149
DN40CF	38.1	119.1	86.1	84.1	62.5	50.2	91.7	51.6	GV-40CF-C-M	£1324	€1,523
DN63CF	63.5	165.3	122.2	111.0	89.4	50.2	91.7	61.2	GV-63CF-C-M	£1558	€1,792
DN100CF	101.6	273.5	206.6	177.8	143.5	75.4	200.5	75.4	GV-100CF-C-M	£2192	€2,521
DN160CF	152.4	357.8	270.2	222.3	191.8	75.4	200.5	80.5	GV-160CF-C-M	£2682	€3,085
DN200CF	203.2	468.3	353.7	285.8	254.5	75.4	200.5	85.1	GV-200CF-C-M	£3795	€4,365
DN250CF	254.0	611.1	464.8	341.4	304.6	88.9	308.2	92.8	GV-250CF-C-M	£6757	€7,771
DN275CF	273.0	670.8	511.8	369.9	332.3	88.9	308.2	98.9	GV-275CF-C-M	£8464	€9,734
14" OD	304.8	734.5	559.6	403.2	362.7	88.9	308.2	98.9	GV-1400CF-C-M	£8564	€9,849

Pneumatically Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN16CF	15.8	60.8	44.5	47.8	33.3	25.4	64.8	39.6	GV-16CF-C-P	£1089	€1,253
DN40CF	38.1	119.1	86.1	84.1	62.5	50.0	134.4	51.6	GV-40CF-C-P	£1413	€1,625
DN63CF	63.5	165.3	122.2	111.0	89.4	50.0	134.4	61.2	GV-63CF-C-P	£1654	€1,903
DN100CF	101.6	273.5	206.6	177.8	143.5	75.4	176.7	75.4	GV-100CF-C-P	£2283	€2,626
DN160CF	152.4	357.8	270.2	222.3	191.8	75.4	176.7	80.5	GV-160CF-C-P	£2817	€3,240
DN200CF	203.2	468.3	353.7	285.8	254.5	75.4	176.7	85.1	GV-200CF-C-P	£4010	€4,612
DN250CF	254.0	611.1	464.8	341.4	304.6	120.3	240.6	92.8	GV-250CF-C-P	£6757	€7,771
DN275CF	273.0	670.8	511.8	369.9	332.3	120.3	240.6	98.9	GV-275CF-C-P	£847	€975
14" OD	304.8	734.5	559.6	403.4	362.7	120.3	240.6	98.9	GV-1400CF-C-P	£8564	€9,849

Solenoid plumbing - Uses 4mm airlines from the solenoid to the actuator. The solenoid itself has a 1/8-27 npsf connection where you customer can add their choice of connection. The IN and EXH ports are left empty.

Options

Description	Part Code	Price £	Price €
Kalrez® high temperature gate seal	Add -KA	POA	POA
Micro switch position indicator	Add -MI	POA	POA

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

Conductance

Flange Size	Port Size	Conductance Litres / sec
DN16CF	15.8	12
DN40CF	38.1	128
DN63CF	63.5	524
DN100CF	101.6	1,726
DN160CF	152.4	5,289
DN200CF	203.2	12,006
DN250CF	254.0	21,497
DN275CF	273.0	25,073
14" OD	304.8	34,964

All dimensions are nominal in millimetres unless otherwise specified

CF Flanges With Viton® Bonnet Seal



CF flanged gate valves have metric tapped flanges as standard. US size and imperial tapped flanges available on request.

Laminar flow, million cycle, 3 position, shielded gate, throttle, rectangular & aluminium gate valves are also available, please contact sales office for further details and pricing.

Features:

- 304 stainless steel vacuum brazed body.
- AM350 welded bellows.
- Electropolished inside and out.
- Manual or electropneumatic operation.
- Acme threads on manual actuator.
- 24VDC air control solenoid as standard on pneumatically actuated valves. (80 psi max).
- Magnetic reed switch position indicator on pneumatic valves as standard.
- Optional microswitch position indicator.
- Minimal vibration during cycling.
- 100,000 cycles before service*.
- Viton® bonnet seal, 1 x 10⁻⁹ Torr vacuum rating.
- Helium leak rate <2 x 10⁻⁹ std.cc/sec.
- Roughing ports available to special order.

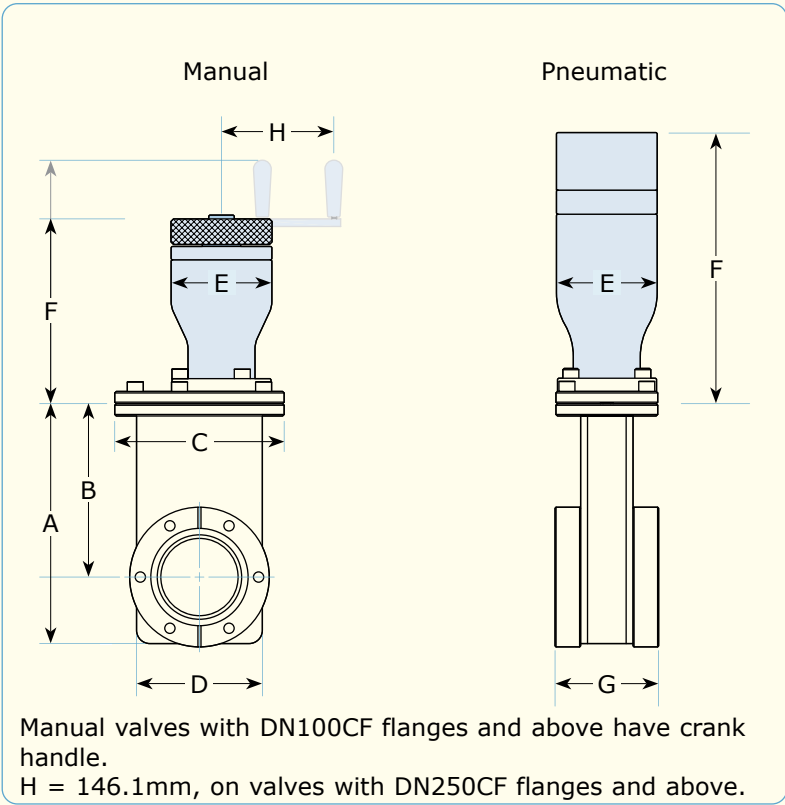
Bakeout Specifications:

Max Temperature**

Viton® bonnet seal / Viton® gate seal 150°C

Actuator 60°C

* - Expected cycle life is application dependant.
** - To prevent damage to the gate seal, gate valves must be baked out in the open position.



Manually Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN16CF	15.8	60.8	44.5	47.8	33.3	37.8	45.7	39.6	GV-16CF-V-M	£914	€1,052
DN40CF	38.1	119.1	86.1	84.1	62.5	50.2	91.7	51.6	GV-40CF-V-M	£1209	€1,391
DN63CF	63.5	165.3	122.2	111.0	89.4	50.2	91.7	61.2	GV-63CF-V-M	£1424	€1,638
DN100CF	101.6	273.5	206.6	177.8	143.5	75.4	200.5	75.4	GV-100CF-V-M	£2003	€2,304
DN160CF	152.4	357.8	270.2	222.3	191.8	75.4	200.5	80.5	GV-160CF-V-M	£2347	€2,700
DN200CF	203.2	468.3	353.7	285.8	254.5	75.4	200.5	85.1	GV-200CF-V-M	£3307	€3,804
DN250CF	254.0	611.1	464.8	341.4	304.6	88.9	308.2	92.8	GV-250CF-V-M	£5918	€6,806
DN275CF	273.0	670.8	511.8	369.9	332.3	88.9	308.2	98.9	GV-275CF-V-M	£7411	€8,523
14" OD	304.8	734.5	559.6	403.2	362.7	88.9	308.2	98.9	GV-1400CF-V-M	£7511	€8,638

Pneumatically Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN16CF	15.8	60.8	44.5	47.8	33.3	25.4	64.8	39.6	GV-16CF-V-P	£933	€1,073
DN40CF	38.1	119.1	86.1	84.1	62.5	50.0	134.4	51.6	GV-40CF-V-P	£1294	€1,489
DN63CF	63.5	165.3	122.2	111.0	89.4	50.0	134.4	61.2	GV-63CF-V-P	£1509	€1,736
DN100CF	101.6	273.5	206.6	177.8	143.5	75.4	176.7	75.4	GV-100CF-V-P	£2083	€2,396
DN160CF	152.4	357.8	270.2	222.3	191.8	75.4	176.7	80.5	GV-160CF-V-P	£2472	€2,843
DN200CF	203.2	468.3	353.7	285.8	254.5	75.4	176.7	85.1	GV-200CF-V-P	£3476	€3,998
DN250CF	254.0	611.1	464.8	341.4	304.6	120.3	240.6	92.8	GV-250CF-V-P	£5918	€6,806
DN275	273.0	670.8	511.8	369.9	332.3	120.3	240.6	98.9	GV-275CF-V-P	£7411	€8,523
14" OD	304.8	734.5	559.6	403.4	362.7	120.3	240.6	98.9	GV-1400CF-V-P	£7511	€8,638

Solenoid plumbing - Uses 4mm airlines from the solenoid to the actuator. The solenoid itself has a 1/8-27 npsf connection where you customer can add their choice of connection. The IN and EXH ports are left empty.

Options

Description	Part Code	Price £	Price €
Micro switch position indicator	Add -MI	POA	POA

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

Conductance

Flange Size	Port Size	Conductance Litres / sec
DN16CF	15.8	12
DN40CF	38.1	128
DN63CF	63.5	524
DN100CF	101.6	1,726
DN160CF	152.4	5,289
DN200CF	203.2	12,006
DN250CF	254.0	21,497
DN275CF	273.0	25,073
14" OD	304.8	34,964

All dimensions are nominal in millimetres unless otherwise specified

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KF & LF Claw Clamp Flanges With Viton® Bonnet Seal



Laminar flow, million cycle, 3 position, shielded gate, throttle, rectangular & aluminium gate valves are also available, please contact sales office for further details and pricing.

Features:

- 304 stainless steel vacuum brazed body.
- AM350 welded bellows.
- Electropolished inside and out.
- Manual or electropneumatic operation.
- Acme threads on manual actuator.
- 24VDC air control solenoid as standard on pneumatically actuated valves. (80 psi max).
- Magnetic reed switch position indicator on pneumatic valves as standard.
- Optional microswitch position indicator.
- Minimal vibration during cycling.
- 100,000 cycles before service*.
- Viton® bonnet seal, 1 x 10⁻⁹ Torr vacuum rating.
- Helium leak rate <2 x 10⁻⁹ std.cc/sec.
- Roughing ports available to special order.

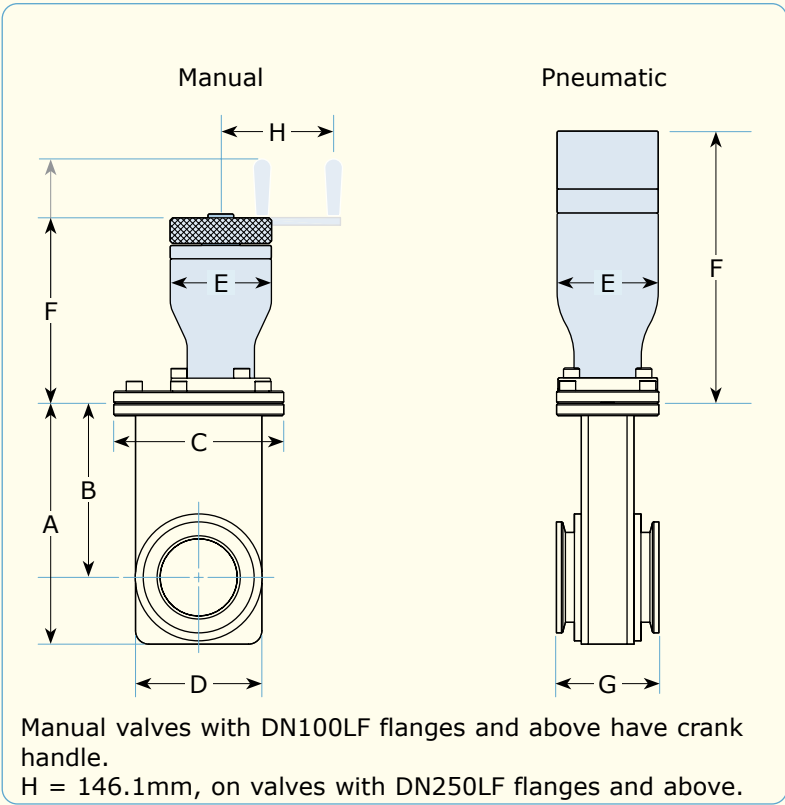
Bakeout Specifications:

Max Temperature**

Viton® bonnet seal / Viton® gate seal 150°C

Actuator 60°C

* - Expected cycle life is application dependant.
** - To prevent damage to the gate seal, gate valves must be baked out in the open position.



All dimensions are nominal in millimetres unless otherwise specified

Manually Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN16KF	15.8	60.8	44.5	47.8	33.3	37.8	45.7	75.2	GV-16KF-V-M	£914	€1,052
DN40KF	38.1	119.1	86.1	84.1	62.5	50.2	91.7	50.7	GV-40KF-V-M	£1209	€1,391
DN50KF	50.8	142.2	104.6	96.8	75.2	50.2	91.7	50.7	GV-50KF-V-M	£1239	€1,425
DN63LF	63.5	165.3	122.2	111.0	89.4	50.2	91.7	87.8	GV-63LF-V-M	£2053	€2,361
DN80LF	76.2	196.1	146.6	125.4	108.7	50.2	91.7	97.4	GV-80LF-V-M	£2268	€2,609
DN100LF	101.6	273.5	206.6	177.8	143.5	75.4	200.6	108.0	GV-100LF-V-M	£2542	€2,924
DN160LF	152.4	357.8	270.2	222.3	191.8	75.4	200.6	108.0	GV-160LF-V-M	£2947	€3,390
DN200LF	203.2	468.3	353.7	285.8	254.5	75.4	200.6	107.8	GV-200LF-V-M	£3955	€4,549
DN250LF	254.0	611.1	464.8	341.4	304.6	88.9	305.0	140.1	GV-250LF-V-M	£6517	€7,495

Pneumatically Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN16KF	15.8	60.8	44.5	47.8	33.3	25.4	64.8	75.2	GV-16KF-V-P	£994	€1,144
DN40KF	38.1	119.1	86.1	84.1	62.5	50.0	134.4	50.7	GV-40KF-V-P	£1294	€1,489
DN50KF	50.8	142.2	104.6	96.8	75.2	50.0	134.4	50.7	GV-50KF-V-P	£1324	€1,523
DN63LF	63.5	165.3	122.2	111.0	89.4	50.0	134.4	87.8	GV-63LF-V-P	£2108	€2,425
DN80LF	76.2	196.1	146.6	125.4	108.7	50.0	134.4	97.4	GV-80LF-V-P	£2353	€2,706
DN100LF	101.6	273.5	206.6	177.8	143.5	75.4	176.7	108.0	GV-100LF-V-P	£2638	€3,034
DN160LF	152.4	357.8	270.2	222.3	191.8	75.4	176.7	108.0	GV-160LF-V-P	£3072	€3,533
DN200LF	203.2	468.3	353.7	285.8	254.5	75.4	176.7	107.8	GV-200LF-V-P	£4101	€4,717
DN250LF	254.0	611.1	464.8	341.4	304.6	120.3	240.6	140.1	GV-250LF-V-P	£6517	€7,495

Solenoid plumbing - Uses 4mm airlines from the solenoid to the actuator. The solenoid itself has a 1/8-27 npsf connection where you customer can add their choice of connection. The IN and EXH ports are left empty.

Options

Description	Part Code	Price £	Price €
Micro switch position indicator	Add -MI	POA	POA

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

Conductance

Flange Size	Port Size	Conductance Litres / sec
DN16KF	15.8	13
DN40KF	38.1	88
DN50KF	50.8	317
DN63LF	63.5	363
DN80LF	76.2	546
DN100LF	101.6	1,199
DN160LF	152.4	3,967
DN200LF	203.2	9,449
DN250LF	254.0	17,537

All dimensions are nominal in millimetres unless otherwise specified

LF Bolt Flanges With Viton® Bonnet Seal



Laminar flow, million cycle, 3 position, shielded gate, throttle, rectangular & aluminium gate valves are also available, please contact sales office for further details and pricing.

Features:

- 304 stainless steel vacuum brazed body.
- AM350 welded bellows.
- Electropolished inside and out.
- Manual or electropneumatic operation.
- Acme threads on manual actuator.
- 24VDC air control solenoid as standard on pneumatically actuated valves. (80 psi max).
- Magnetic reed switch position indicator on pneumatic valves as standard.
- Optional microswitch position indicator.
- Minimal vibration during cycling.
- 100,000 cycles before service*.
- Viton® bonnet seal, 1 x 10⁻⁹ Torr vacuum rating.
- Helium leak rate <2 x 10⁻⁹ std.cc/sec.
- Roughing ports available to special order.

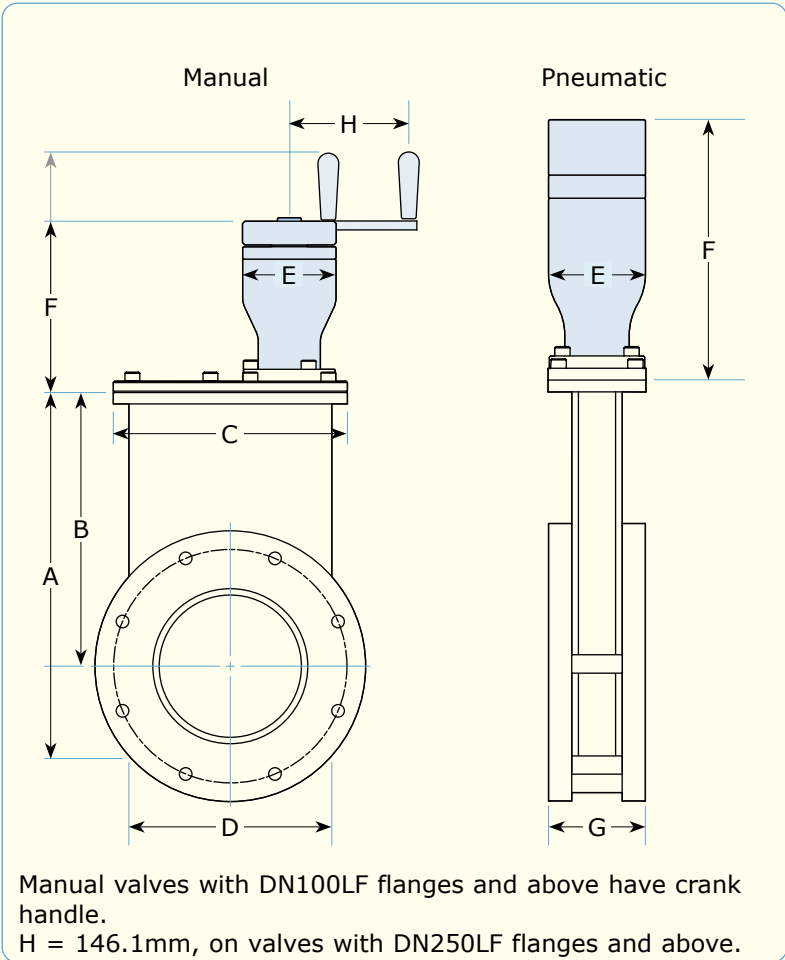
Bakeout Specifications:

Max Temperature**

Viton® bonnet seal / Viton® gate seal 150°C

Actuator 60°C

* - Expected cycle life is application dependant.
** - To prevent damage to the gate seal, gate valves must be baked out in the open position.



All dimensions are nominal in millimetres unless otherwise specified

Manually Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN63LF	63.5	165.3	122.2	111.0	89.4	50.2	91.7	51.4	GV-63LFB-V-M	£1424	€1,638
DN80LF	76.2	196.1	146.6	125.4	108.7	50.2	91.7	50.0	GV-80LFB-V-M	£1639	€1,885
DN100LF	101.6	273.5	206.6	177.8	143.5	75.4	200.6	61.2	GV-100LFB-V-M	£2003	€2,304
DN160LF	152.4	357.8	270.2	222.3	191.8	75.4	200.6	59.9	GV-160LFB-V-M	£2347	€2,700
DN200LF	203.2	468.3	353.7	285.8	254.5	75.4	200.6	67.4	GV-200LFB-V-M	£3332	€3,832
DN250LF	254.0	611.1	464.8	341.4	304.6	88.9	305.0	80.1	GV-250LFB-V-M	£5918	€6,806
DN320LF	304.8	734.5	559.6	403.2	362.7	88.9	305.0	80.1	GV-320LFB-V-M	POA	POA

Pneumatically Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN63LF	63.5	165.3	122.2	111.0	89.4	50.0	134.4	51.4	GV-63LFB-V-P	£1509	€1,736
DN80LF	76.2	196.1	146.6	125.4	108.7	50.0	134.4	50.0	GV-80LFB-V-P	£1754	€2,018
DN100LF	101.6	273.5	206.6	177.8	143.5	75.4	176.7	61.2	GV-100LFB-V-P	£2083	€2,396
DN160LF	152.4	357.8	270.2	222.3	191.8	75.4	176.7	59.9	GV-160LFB-V-P	£2318	€2,666
DN200LF	203.2	468.3	353.7	285.8	254.5	75.4	176.7	67.4	GV-200LFB-V-P	£3476	€3,998
DN250LF	254.0	611.1	464.8	341.4	304.6	120.3	240.6	80.1	GV-250LFB-V-P	£5918	€6,806
DN320LF	304.8	734.5	559.6	403.2	362.7	120.3	240.6	80.1	GV-320LFB-V-P	POA	POA
DN400LF	400.0	959.9	731.3	504.2	470.7	176.5	267.0	97.8	GV-400LFB-V-P	POA	POA
DN500LF	500.9	1210.4	918.3	644.5	603.8	177.5	353.2	121.2	GV-500LFB-V-P	POA	POA
DN630LF	609.6	1357.1	1023.9	736.6	700.0	253.7	429.1	117.6	GV-600LFB-V-P	POA	POA

Solenoid plumbing - Uses 4mm airlines from the solenoid to the actuator. The solenoid itself has a 1/8-27 npsf connection where you customer can add their choice of connection. The IN and EXH ports are left empty.

Options

Description	Part Code	Price £	Price €
Micro switch position indicator	Add -MI	POA	POA

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

Conductance

Flange Size	Port Size	Conductance Litres / sec
DN63LF	63.5	615
DN80LF	76.2	1,071
DN100LF	101.6	2,122
DN160LF	152.4	7,140
DN200LF	203.2	11,597
DN250LF	254.0	24,990
DN320LF	304.8	43,268
DN400LF	400.0	74,905
DN500LF	500.9	132,197
DN630LF	609.6	228,856

All dimensions are nominal in millimetres unless otherwise specified

KF & LF Claw Clamp Flanges With Viton® Seals



Aluminium valves with CF flanges are also available, please call sales office for details.

Stainless steel, laminar flow, million cycle, 3 position, shielded gate, throttle & rectangular gate valves are also available, please contact sales office for further details and pricing.

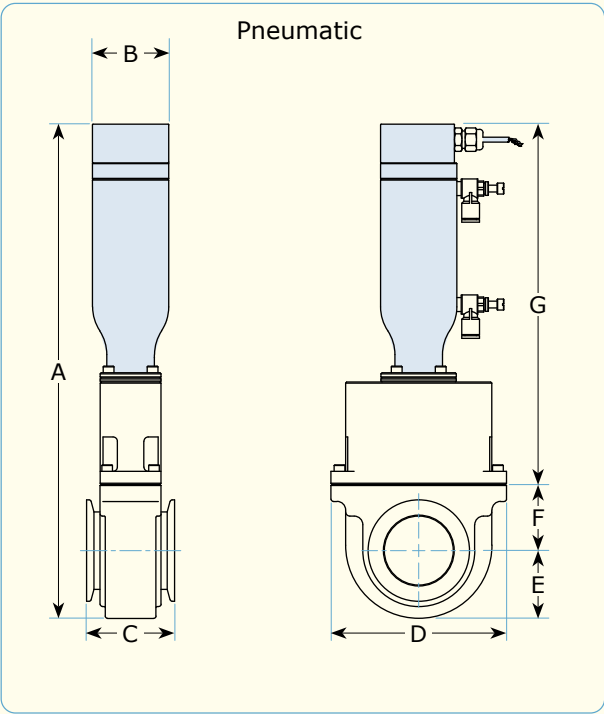
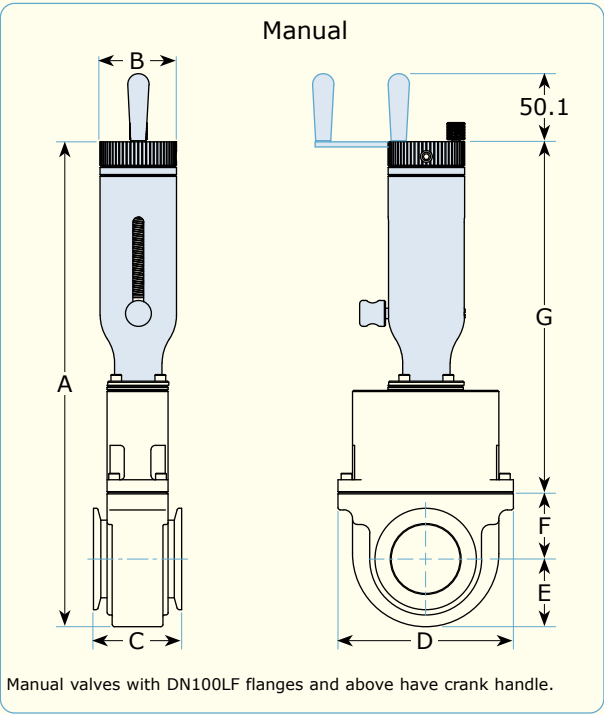
- Features:**
- All aluminium body and internal parts for lower H₂ outgassing.
 - Precision machined body from aluminium 6061-T6.
 - Simple gate design with few moving parts.
 - 200,000 cycles*
 - Manual or electropneumatic operation.
 - 24VDC air control solenoid as standard on pneumatically actuated valves. (80 psi max).
 - Unique dual quad ring long life shaft seal.
 - High performance PEEK bearing components.
 - Easily customisable to work with almost any application.
 - Split body design for easy in-situ servicing.
 - Magnetic reed switch position indicator on pneumatic valves as standard.
 - Optional microswitch position indicator.
 - Minimal vibration during cycling.

Specifications:

Max Temperature**

Valve body & gate	150°C
Actuator	60°C
Solenoid	60°C

* - Expected cycle life is application dependant.
** - To prevent damage to the gate seal, gate valves must be baked out in the open position.



All dimensions are nominal in millimetres unless otherwise specified

Manually Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN40KF	38.1	318.5	56.4	65.0	115.1	42.7	42.7	233.4	GVAA-40KF	POA	POA
DN50KF	50.8	357.9	56.4	65.0	129.5	50.0	49.0	258.8	GVAA-50KF	POA	POA
DN63LF	63.5	403.4	56.4	100.0	146.6	59.9	66.5	276.6	GVAA-63LF	POA	POA
DN80LF	76.2	447.3	56.4	104.9	?	72.4	74.2	300.5	GVAA-80LF	POA	POA
DN100LF	101.6	575.6	81.8	110.0	222.3	88.9	87.6	398.8	GVAA-100LF	POA	POA
DN160LF	152.4	752.3	81.8	135.1	250.4	127.0	139.7	485.4	GVAA-160LF	POA	POA
DN200LF	203.2	926.3	81.8	139.6	304.8	152.4	152.4	621.5	GVAA-200LF	POA	POA

Pneumatically Actuated



Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN40KF	38.1	325.6	56.4	65.0	115.1	42.7	42.7	240.5	GVAA-40KF-P	POA	POA
DN50KF	50.8	364.5	56.4	65.0	129.5	50.0	49.0	265.7	GVAA-50KF-P	POA	POA
DN63LF	63.5	403.1	68.6	100.0	146.6	59.9	66.5	276.6	GVAA-63LF-P	POA	POA
DN80LF	76.2	454.2	68.6	104.9	?	72.4	74.2	307.3	GVAA-80LF-P	POA	POA
DN100LF	101.6	562.6	81.8	110.0	222.3	88.9	87.6	386.1	GVAA-100LF-P	POA	POA
DN160LF	152.4	757.7	100.8	135.1	250.4	127.0	139.7	487.4	GVAA-160LF-P	POA	POA
DN200LF	203.2	957.8	138.9	139.9	304.8	152.4	152.4	649.7	GVAA-200LF-P	POA	POA
DN250LF	254.0	1121.4	151.6	165.1	355.6	177.8	177.8	762.5	GVAA-250LF-P	POA	POA
DN320LF	304.8	1278.4	151.6	180.1	406.4	207.8	219.2	848.4	GVAA-320LF-P	POA	POA

Options

Description	Part Code	Price £	Price €
Micro switch position indicator	Add -MI	POA	POA

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

LF Bolt Flanges With Viton® Seals

Awaiting photo

Features:

- All aluminium body and internal parts for lower H₂ outgassing.
- Precision machined body from aluminium 6061-T6.
- Simple gate design with few moving parts.
- 200,000 cycles*
- Manual or electropneumatic operation.
- 24VDC air control solenoid as standard on pneumatically actuated valves. (80 psi max).
- Unique dual quad ring long life shaft seal.
- High performance PEEK bearing components.
- Easily customisable to work with almost any application.
- Split body design for easy in-situ servicing.
- Magnetic reed switch position indicator on pneumatic valves as standard.
- Optional microswitch position indicator.
- Minimal vibration during cycling.

Aluminium valves with CF flanges are also available, please call sales office for details.

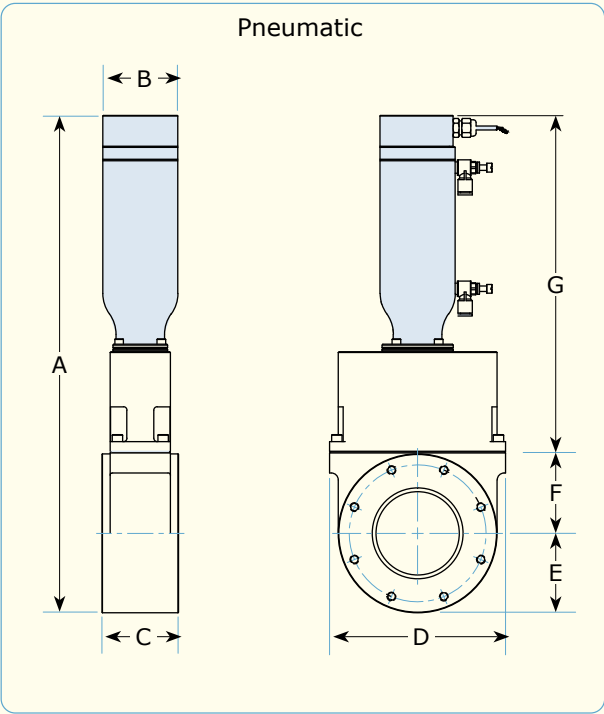
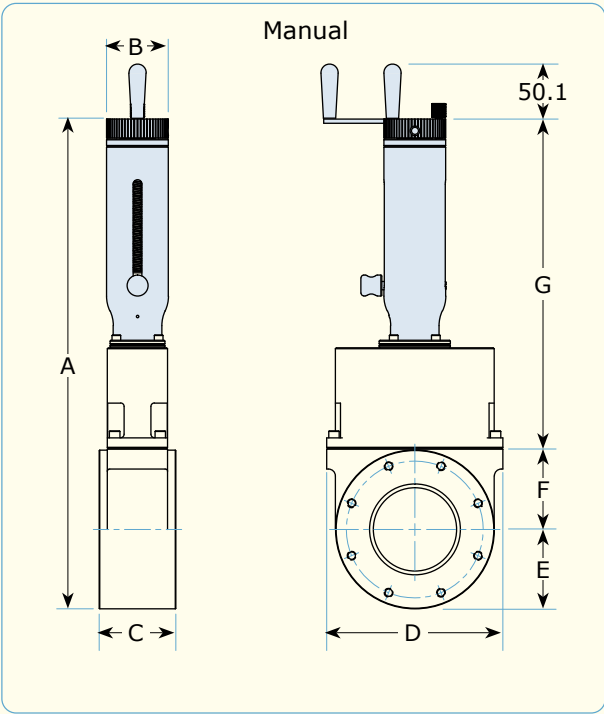
Stainless steel, laminar flow, million cycle, 3 position, shielded gate, throttle & rectangular gate valves are also available, please contact sales office for further details and pricing.

Specifications:

Max Temperature**

Valve body & gate	150°C
Actuator	60°C
Solenoid	60°C

* - Expected cycle life is application dependant.
** - To prevent damage to the gate seal, gate valves must be baked out in the open position.



All dimensions are nominal in millimetres unless otherwise specified

Manually Actuated - Fig. 1.

Awaiting photo

Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN63LF	63.5	458.5	56.4	65.0	146.6	65.0	66.5	276.6	GVAA-63LFB	POA	POA
DN80LF	76.2	497.3	56.4	70.1	?	72.4	74.2	300.5	GVAA-80LFB	POA	POA
DN100LF	102.4	625.6	81.8	70.1	222.3	88.9	87.6	398.8	GVAA-100LFB	POA	POA
DN160LF	152.4	802.4	81.8	89.9	254.0	127.0	139.7	485.4	GVAA-160LFB	POA	POA
DN200LF	203.2	976.4	81.8	100.1	304.8	152.4	152.4	621.5	GVAA-200LFB	POA	POA

Pneumatically Actuated - Fig. 2.

Awaiting photo

Flange Size	Port Size	A	B	C	D	E	F	G	Part Code	Price £	Price €
DN63LF	63.5	408.2	68.6	65.0	146.6	65.0	66.6	276.6	GVAA-63LFB-P	POA	POA
DN80LF	76.2	454.2	68.6	70.1	?	72.4	74.2	307.3	GVAA-80LFB-P	POA	POA
DN100LF	102.4	562.6	81.8	70.1	222.3	88.9	87.6	386.1	GVAA-100LFB-P	POA	POA
DN160LF	152.4	757.7	100.8	89.9	254.0	127.0	139.7	487.4	GVAA-160LFB-P	POA	POA
DN200LF	203.2	957.8	138.9	100.1	304.8	152.4	152.4	649.7	GVAA-200LFB-P	POA	POA
DN250LF	254.0	1121.4	151.6	115.1	355.6	177.8	177.8	762.5	GVAA-250LFB-P	POA	POA
DN320LF	304.8	1283.0	151.6	125.0	406.4	212.6	219.2	848.4	GVAA-320LFB-P	POA	POA
DN400LF	400.0	1656.7	176.5	145.0	550.0	275.0	261.6	1120.1	GVAA-400LFB-P	POA	POA

Options

Description	Part Code	Price £	Price €
Micro switch position indicator	Add -MI	POA	POA

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

Viton® Bonnet Seal, Manually Actuated



Features:

- Polished 304 stainless steel body.
- AM350 stainless steel bellows.
- Manual operation.
- Up to 500,000 cycles and ease of maintenance greatly increases system uptime.
- Viton® bonnet & poppet seals, 1 x 10⁻⁹ Torr vacuum rating.
- Helium leak rate 2 x 10⁻⁹ std.cc/sec.
- Rotatable flanges on CF models.
- Larger sizes and other configurations available on request.

Bakeout Specifications:

Max Temperature

Viton® bonnet & poppet seal

Open / Closed 100°C / 100°C

Actuator 80°C

Fig. 1.

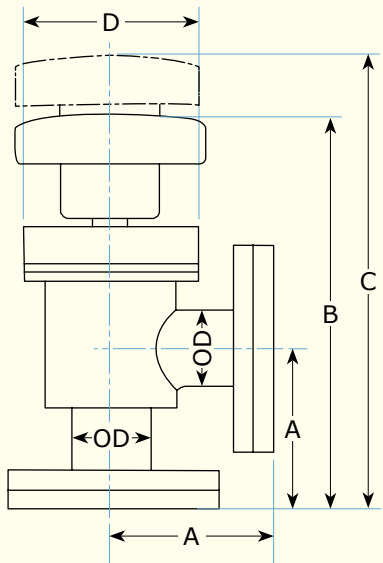


Fig. 2.

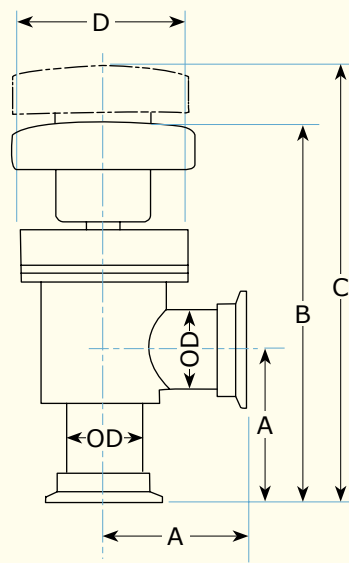
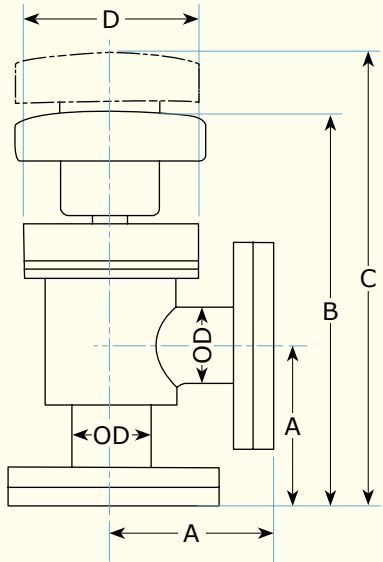


Fig. 3.



All dimensions are nominal in millimetres unless otherwise specified

CF Flanged



Flange Size	Fig.	A	B	C	D	OD	Part Code	Price £	Price €
DN16CF	1	63.5	144.8	165.1	56.9	19.1	AV-16CF-M	£154	€178
DN40CF	1	62.2	165.1	197.6	75.7	38.1	AV-40CF-M	£254	€293
DN63CF	1	85.6	222.3	264.7	88.4	63.5	AV-63CF-M	£498	€573

KF & LF Flanged



Flange Size	Fig.	A	B	C	D	OD	Part Code	Price £	Price €
DN16KF	2	54.6	137.4	156.2	56.9	19.1	AV-16KF-M	£137	€158
DN25KF	2	51.6	130.3	149.6	56.9	25.4	AV-25KF-M	£140	€161
DN40KF	2	61.0	157.5	190.0	75.7	38.1	AV-40KF-M	£210	€242
DN50KF	2	86.4	207.0	251.7	88.4	50.8	AV-50KF-M	£244	€281
DN63LF	3	82.8	219.2	261.6	88.4	63.5	AV-63LF-M	£388	€447

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

Viton® Bonnet Seal, Pneumatically Actuated



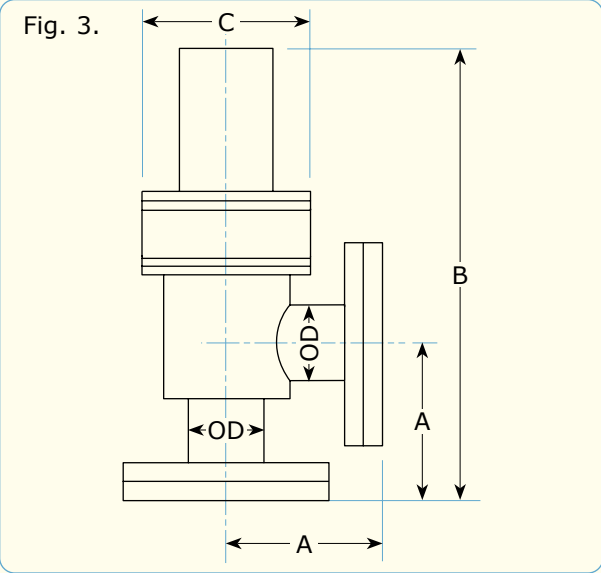
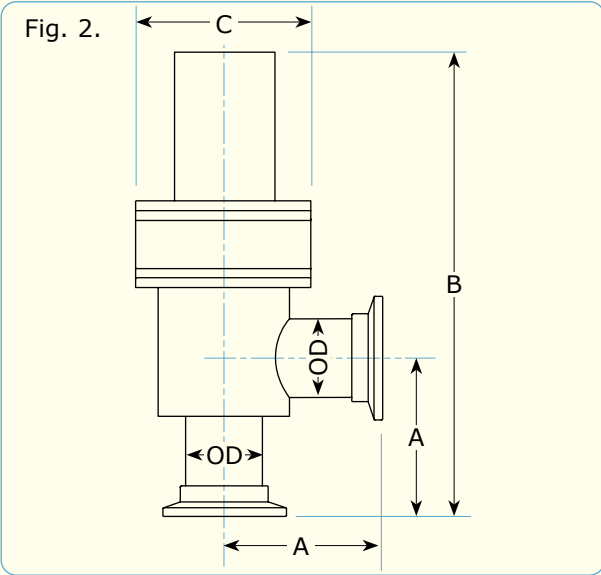
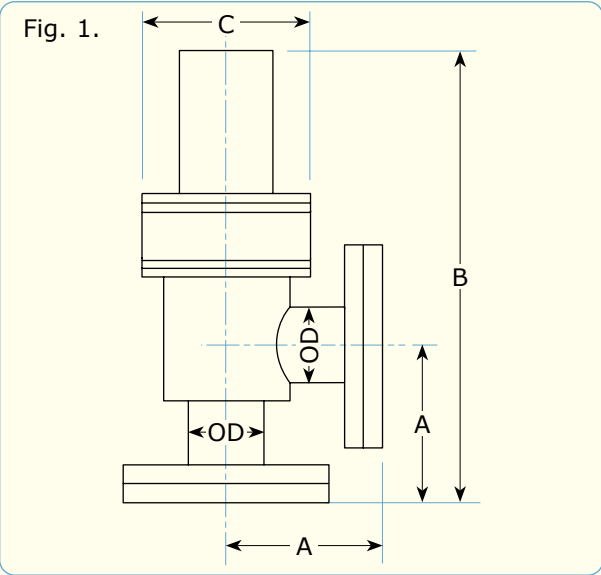
Features:

- Polished 304 stainless steel body.
- AM350 stainless steel bellows.
- Electropneumatic operation.
- 24VDC air control solenoid as standard.
- Up to 500,000 cycles and ease of maintenance greatly increases system uptime.
- Viton® bonnet & poppet seals, 1 x 10⁻⁹ Torr vacuum rating.
- Helium leak rate 2 x 10⁻⁹ std.cc/sec.
- Rotatable flanges on CF models.
- Larger sizes, reed switch position indicators and other configurations available on request.

Bakeout Specifications:

Max Temperature

Viton® bonnet & poppet seal
Open / Closed 100°C / 100°C
Solenoid 80°C



All dimensions are nominal in millimetres unless otherwise specified

CF Flanged



Flange Size	Fig.	A	B	C	OD	Part Code	Price £	Price €
DN16CF	1	63.5	181.1	56.8	19.1	AV-16CF-P	£289	€333
DN40CF	1	62.5	211.7	75.8	38.1	AV-40CF-P	£345	€397
DN63CF	1	85.6	274.6	99.6	63.5	AV-63CF-P	£717	€825
DN100CF	1	119.4	458.7	151.6	101.6	AV-100CF-P	£1285	€1,478

DN16CF & DN40CF flanged valves are air to open, spring to close as standard. DN63CF & DN100CF flanged valves are air to open and close. 50-90 psi operating pressure.

KF & LF Flanged



Flange Size	Fig.	A	B	C	OD	Part Code	Price £	Price €
DN16KF	2	54.6	172.2	56.8	19.1	AV-16KF-P	£264	€304
DN25KF	2	51.6	165.9	56.8	25.4	AV-25KF-P	£269	€310
DN40KF	2	61.0	210.2	75.8	38.1	AV-40KF-P	£3257	€3,746
DN50KF	2	86.3	267.6	88.4	50.8	AV-50KF-P	£4291	€4,935
DN63LF	3	82.8	271.8	99.6	63.5	AV-63LF-P	£605	€696
DN100LF	3	113.5	352.0	151.6	101.6	AV-100LF-P	£1155	€1,329
DN160LF	3	159.0	452.6	240.0	152.4	AV-160LF-P	£1878	€2,160

KF flanged valves are air to open, spring to close as standard. LF flanged valves are air to open and close. 50-90 psi operating pressure. Air fittings are 1/8" BSP tapered.

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

Copper Bonnet Seal, Manually Actuated



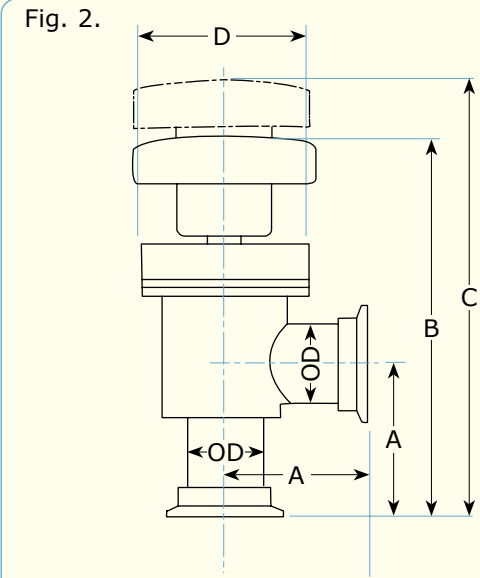
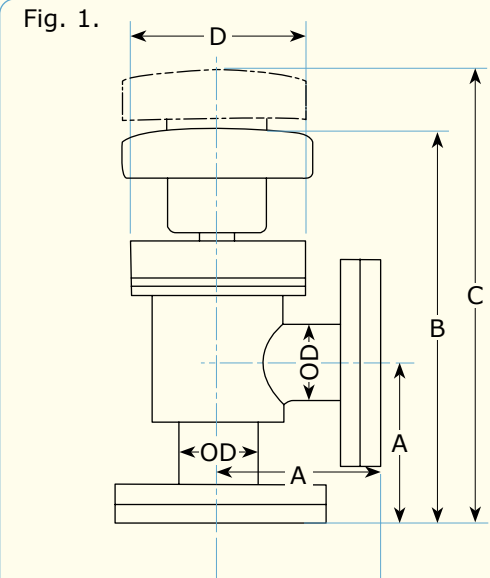
Features:

- Polished 304 stainless steel body.
- AM350 stainless steel bellows.
- Manual operation.
- Up to 500,000 cycles and ease of maintenance greatly increases system uptime.
- Copper bonnet seal, 1×10^{-10} Torr vacuum rating.
- Viton® poppet seal
- Helium leak rate 2×10^{-9} std.cc/sec.
- Rotatable flanges on CF models.
- Larger sizes and other configurations available on request.

Bakeout Specifications:

Max Temperature

Copper bonnet seal / Viton® poppet seal
Open / Closed 200°C / 100°C
Actuator 80°C



All dimensions are nominal in millimetres unless otherwise specified

CF Flanged



Flange Size	Fig.	A	B	C	D	OD	Part Code	Price £	Price €
DN16CF	1	63.5	141.7	161.5	69.9	19.1	AV-16CF-C-M	£212	€244
DN40CF	1	62.2	169.7	200.7	85.6	38.1	AV-40CF-C-M	£290	€334
DN63CF	1	85.9	221.5	289.1	113.5	63.5	AV-63CF-C-M	£647	€745

KF Flanged



Flange Size	Fig.	A	B	C	D	OD	Part Code	Price £	Price €
DN16KF	2	54.6	133.1	152.7	69.9	19.1	AV-16KF-C-M	£136	€157
DN25KF	2	51.6	129.8	149.6	69.9	25.4	AV-25KF-C-M	£154	€178
DN40KF	2	61.0	168.1	199.4	85.6	38.1	AV-40KF-C-M	£223	€257
DN50KF	2	86.4	206.8	251.7	113.5	50.8	AV-50KF-C-M	£296	€341

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

Viton® Bonnet Seal, Manually Actuated



Features:

- Polished 304 stainless steel body.
- AM350 stainless steel bellows.
- Manual operation.
- Up to 500,000 cycles and ease of maintenance greatly increases system uptime.
- Viton® bonnet seal & poppet seals, 1 x 10⁻⁹ Torr vacuum rating.
- Helium leak rate 2 x 10⁻⁹ std.cc/sec.
- Rotatable flanges on CF models.
- Larger sizes and other configurations available on request.

Bakeout Specifications:

Max Temperature

Viton® bonnet & poppet seal

Open / Closed 100°C / 100°C

Actuator 80°C

Fig. 1.

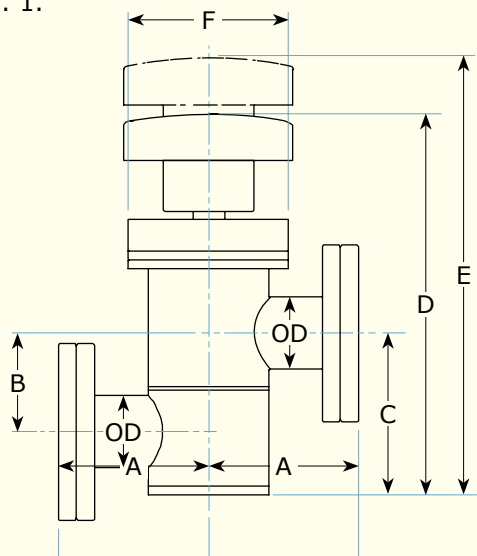
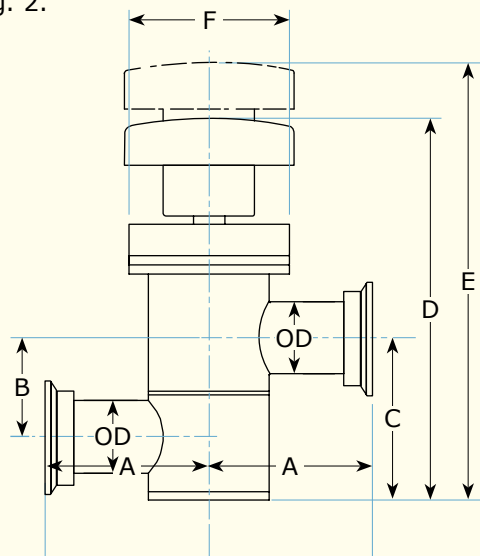


Fig. 2.



All dimensions are nominal in millimetres unless otherwise specified

CF Flanged



Flange Size	Fig.	A	B	C	D	E	F	OD	Part Code	Price £	Price €
DN16CF	1	63.5	28.7	47.5	129.3	148.8	56.9	19.1	IV-16CF-M	£164	€189
DN40CF	1	62.5	47.8	79.2	181.9	214.4	75.7	38.1	IV-40CF-M	£244	€281

KF Flanged



Flange Size	Fig.	A	B	C	D	E	F	OD	Part Code	Price £	Price €
DN16KF	2	54.6	28.7	47.5	129.3	148.8	56.9	19.1	IV-16KF-M	£157	€181
DN25KF	2	51.6	34.8	57.2	135.9	155.2	56.9	25.4	IV-25KF-M	£167	€193
DN40KF	2	61.0	47.8	79.2	181.9	214.4	75.7	38.1	IV-40KF-M	£237	€273
DN50KF	2	86.4	66.5	104.6	224.8	269.5	88.4	50.8	IV-50KF-M	£279	€321

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

Viton® Bonnet Seal, Pneumatically Actuated



Features:

- Polished 304 stainless steel body.
- AM350 stainless steel bellows.
- Electropneumatic operation.
- 24VDC air control solenoid as standard on pneumatically actuated valves.
- Up to 500,000 cycles and ease of maintenance greatly increases system uptime.
- Viton® bonnet seal & poppet seals, 1 x 10⁻⁹ Torr vacuum rating.
- Helium leak rate 2 x 10⁻⁹ std.cc/sec.
- Rotatable flanges on CF models.
- Larger sizes, reed switch position indicators and other configurations available on request.

Bakeout Specifications:

Max Temperature

Viton® bonnet & poppet seal

Open / Closed 100°C / 100°C

Solenoid 80°C

Fig. 1.

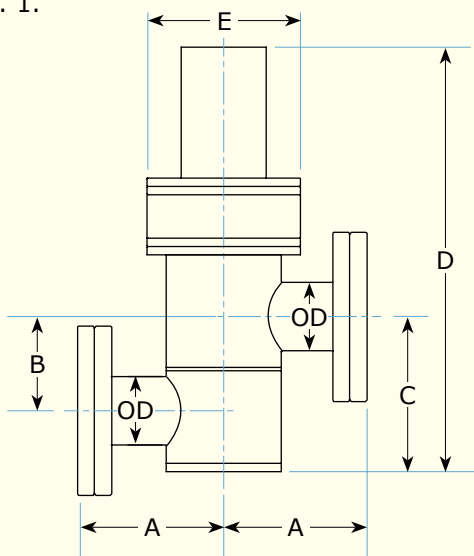
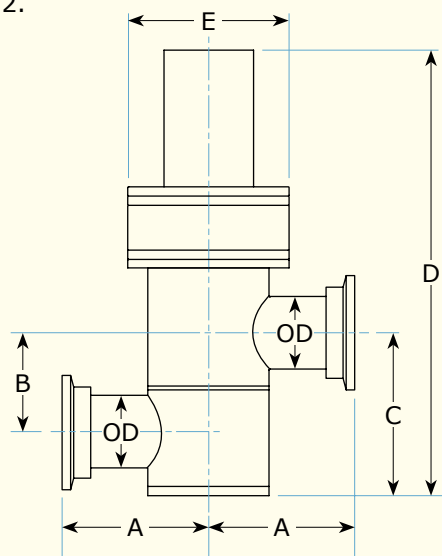


Fig. 2.



All dimensions are nominal in millimetres unless otherwise specified

CF Flanged



Flange Size	Fig.	A	B	C	D	E	OD	Part Code	Price £	Price €
DN16CF	1	63.5	28.7	47.5	149.9	56.9	19.1	IV-16CF-P	£299	€344
DN40CF	1	62.5	47.8	79.2	217.4	75.7	38.1	IV-40CF-P	£383	€441

DN16CF & DN40CF flanged valves are air to open, spring to close as standard. 50-90 psi operating pressure.

KF Flanged



Flange Size	Fig.	A	B	C	D	E	OD	Part Code	Price £	Price €
DN16KF	2	54.6	28.7	47.5	149.9	56.9	19.1	IV-16KF-P	£288	€332
DN25KF	2	51.6	34.8	57.2	156.0	56.9	25.4	IV-25KF-P	£290	€334
DN40KF	2	61.0	47.8	79.2	217.4	75.7	38.1	IV-40KF-P	£360	€414
DN50KF	2	86.4	66.5	104.6	280.7	88.4	50.8	IV-50KF-P	£482	€555

KF flanged valves are air to open, spring to close as standard. 50-90 psi operating pressure. Air fittings are 1/8" BSP tapered.

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

Copper Bonnet Seal, Manually Actuated



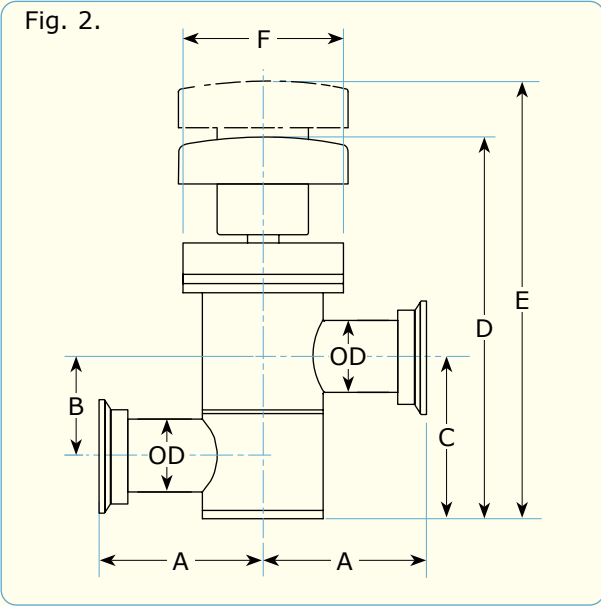
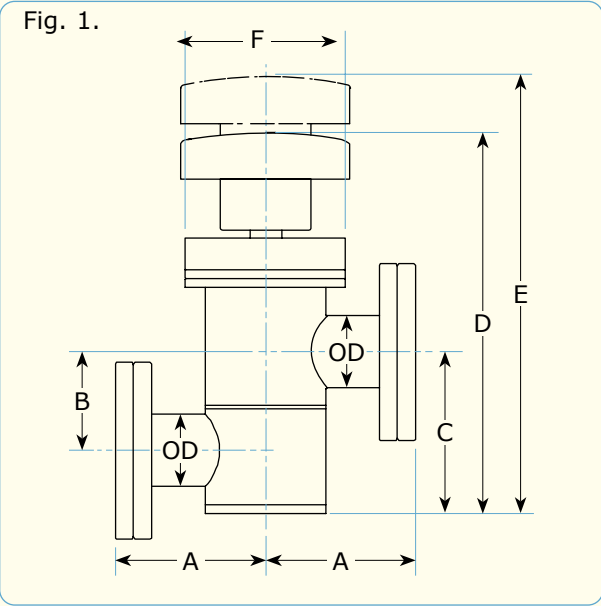
Features:

- Polished 304 stainless steel body.
- AM350 stainless steel bellows.
- Manual operation.
- Up to 500,000 cycles and ease of maintenance greatly increases system uptime.
- Copper bonnet seal, 1 x 10⁻¹⁰ Torr vacuum rating. (With CF flanges)
- Viton® poppet seal
- Helium leak rate 2 x 10⁻⁹ std.cc/sec.
- Rotatable flanges on CF models.
- Larger sizes and other configurations available on request.

Bakeout Specifications:

Max Temperature

Copper bonnet seal / Viton® poppet seal
Open / Closed 200°C / 100°C
Actuator 80°C



All dimensions are nominal in millimetres unless otherwise specified

CF Flanged



Flange Size	Fig.	A	B	C	D	E	F	OD	Part Code	Price £	Price €
DN16CF	1	63.5	28.4	47.5	128.8	148.6	69.9	19.1	IV-16CF-C-M	£193	€222
DN40CF	1	62.2	47.8	79.2	186.7	217.7	85.6	38.1	IV-40CF-C-M	£285	€328

KF Flanged



Flange Size	Fig.	A	B	C	D	E	F	OD	Part Code	Price £	Price €
DN16KF	2	54.6	28.4	47.5	128.8	148.8	69.9	19.1	IV-16KF-C-M	£170	€196
DN25KF	2	51.6	34.8	57.2	135.4	155.2	69.9	25.4	IV-25KF-C-M	£187	€216
DN40KF	2	61.0	47.8	79.2	186.7	217.7	85.6	38.1	IV-40KF-C-M	£270	€311
DN50KF	2	86.4	66.5	104.6	225.0	270.0	105.9	50.8	IV-50KF-C-M	£330	€380

Replacement Seal Kits

Please contact our sales office for details and pricing for replacement seal kits.

All dimensions are nominal in millimetres unless otherwise specified

All Metal Valves



Features:

- High quality materials.
- High build quality.
- Fully and repeatedly bakeable.
- Good conductance.
- Leak rate less than 10⁻¹⁰ mbar ls⁻¹.
- Pressure range from 10⁻¹⁰ Torr to 4 atm.
- 50 cycles to first service (poppet seal).
- Bellows sealed actuation.

Specifications:

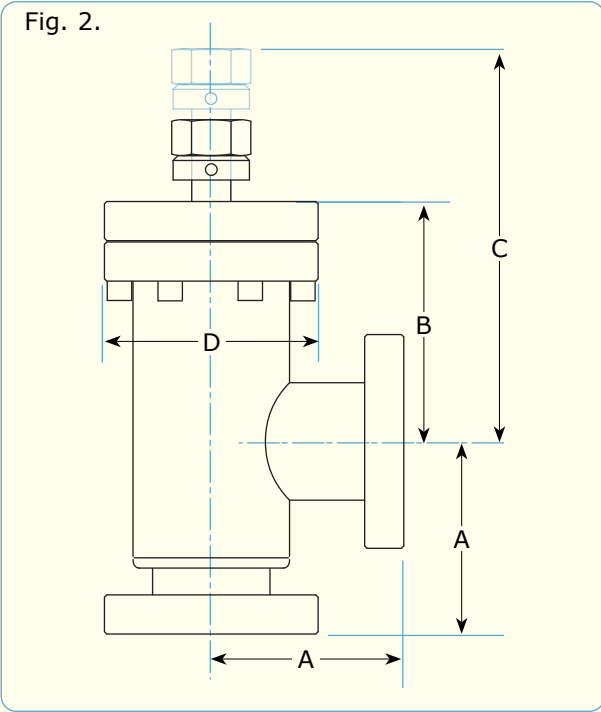
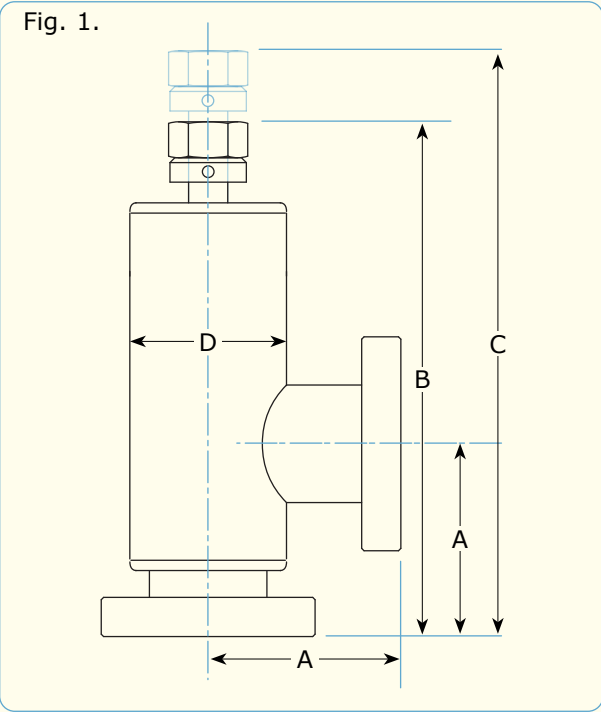
Material

Body & flanges	St.St.
Bellow	St.St.

Maximum Temperature

Open	400°C
Closed	300°C

Vacuum Range	atm to <1 x 10 ⁻¹⁰ Torr
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Welded Bonnet



Flange Size	Fig.	Tube OD	A	B	C	D	Part Code	Price £	Price €
DN16CF	1	19.1	38.0	122.2	133.0	38.1	AVM16CF	£843	€970
DN40CF	1	38.1	62.5	169.0	188.0	54.0	AVM40CF	£1177	€1,354
DN63CF	1	63.5	105.0	266.0	294.0	76.2	AVM63CF	£2214	€2,547

Demountable Bonnet



Flange Size	Fig.	Tube OD	A	B	C	D	Part Code	Price £	Price €
DN16CF	2	19.1	38.0	59.0	86.0	34.0	AVM16CFD	£1693	€1,947
DN40CF	2	41.3	63.0	69.0	109.0	70.0	AVM40CFD	£1163	€1,338
DN40CF	2	41.3	100.0	69.0	109.0	70.0	AVM40CFDL	POA	POA
DN63CF	2	63.6	105.0	106.0	156.0	114.0	AVM63CFD	POA	€0

Replacement Seal Kits, Accessories & Tools

Description	Part Code	Price £	Price €
DN16CF all metal valve replacement poppet seal pad	AVM-PS16	POA	POA
DN16CF all metal valve replacement bonnet seal	AVM-BS16	POA	POA
DN40CF all metal valve replacement poppet seal pad	AVM-PS40	POA	POA
DN40CF all metal valve replacement bonnet seal	AVM-BS40	POA	POA
DN63CF Aall metal valve replacement poppet seal pad	AVM-PS63	POA	POA
DN63CF all metal valve replacement bonnet seal	AVM-BS63	POA	POA
Movement assy for demountable DN16CF all metal angle valve	AVM-D16CF-MA	POA	POA
Movement assy for demountable DN40CF all metal angle valve	AVM-D40CF-MA	POA	POA
Movement assy for demountable DN63CF all metal angle valve	AVM-D63CF-MA	POA	POA
Tool kit for DN16CF all metal angle valve	AVM-16CF-TK	POA	POA
Tool kit for DN40CF all metal angle valve	AVM-40CF-TK	POA	POA
Tool kit for DN63CF all metal angle valve	AVM-63CF-TK	POA	POA
Handwheel for DN40/63CF all metal angle valve	AVM-HW	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

All dimensions are nominal in millimetres unless otherwise specified

KF Flanges With Viton® Seal



Features:

- Straight-through, unimpeded flow.
- Higher conductance than a comparable poppet valve.
- Poppetless design has a less wetted surface.
- 1/4 turn, quick actuation.
- "Self-cleaning" action prevents deposition buildup.
- Valves can be easily serviced with ANCORP's standard maintenance kits.
- Air-to-open, air-to-close also available.

Specifications:

Material

Body, ball, stem & flanges 316L St.St.

Seals Viton®

Seats Teflon®

Temperature Range -20°C to 150°C (200°C*)

Vacuum Range Atm to 1 x 10⁻⁸ Torr

* - Increased upper limit for intermittent use

Fig. 1.

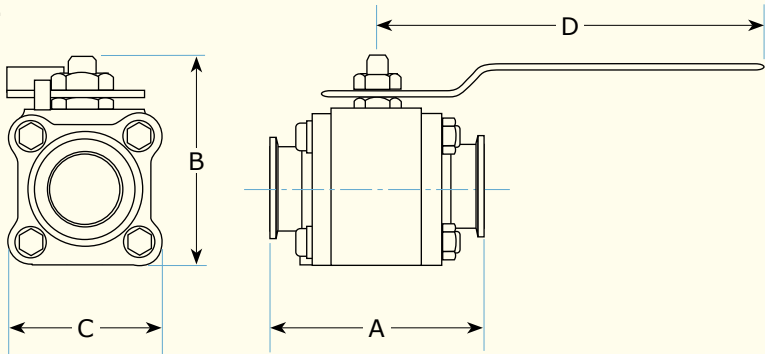
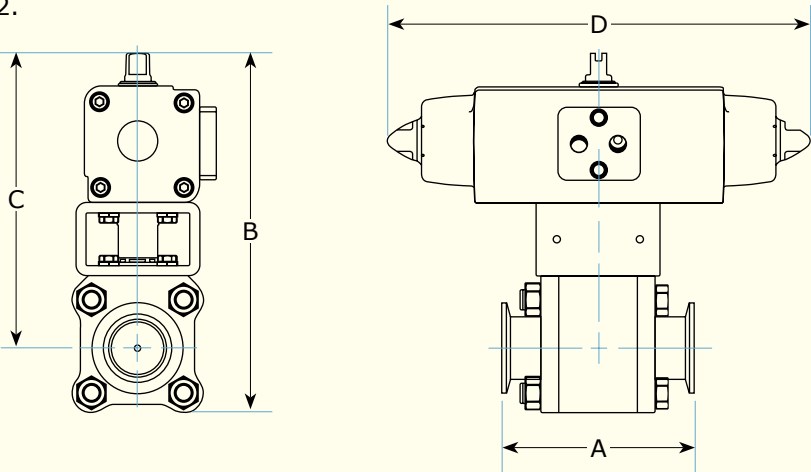
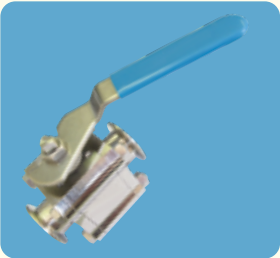


Fig. 2.



All dimensions are nominal in millimetres unless otherwise specified

Manually Actuated With Stainless Steel Body



Flange Size	Fig. (Series)	Port size	A	B	C	D	Part Code	Price £	Price €
DN16KF	1 (B)	14.2	88.1	78.7	50.8	119.4	BV-SS-16KF-B	POA	POA
DN25KF	1 (B)	14.2	88.1	78.7	50.8	119.4	BV-SS-25KF-B	POA	POA
DN25KF	1 (C)	20.6	99.6	94.0	60.9	147.3	BV-SS-25KF-C	POA	POA
DN40KF	1 (C)	20.6	99.6	94.0	60.9	147.3	BV-SS-40KF-C	POA	POA
DN40KF	1 (D)	31.8	118.1	114.3	81.3	203.2	BV-SS-40KF-D	POA	POA
DN50KF	1 (E)	38.1	126.2	124.5	88.9	203.2	BV-SS-50KF-E	POA	POA
DN50KF	1 (F)	47.5	160.3	137.2	104.1	203.2	BV-SS-50KF-F	POA	POA

Pneumatically Actuated With Stainless Steel Body



Flange Size	Fig. (Series)	Port size	A	B	C	D	Part Code	Price £	Price €
DN16KF	2 (B)	14.2	88.1	180.3	154.9	233.7	BV-SS-16KF-B-P	POA	POA
DN25KF	2 (C)	20.6	99.6	190.5	160.0	233.7	BV-SS-25KF-C-P	POA	POA
DN40KF	2 (C)	20.6	99.6	190.5	160.0	233.7	BV-SS-40KF-C-P	POA	POA
DN40KF	2 (D)	31.8	118.1	218.4	177.8	259.1	BV-SS-40KF-D-P	POA	POA
DN50KF	2 (E)	38.1	126.2	228.6	182.9	259.1	BV-SS-50KF-E-P	POA	POA
DN50KF	2 (F)	47.5	160.3	254.0	203.2	304.8	BV-SS-50KF-F-P	POA	POA

Replacement Seal Kits

Description	Part Code	Price £	Price €
REPAIR KIT FOR SERIES B BALL VALVE	BV-B-RK-S	POA	POA
REPAIR KIT FOR SERIES C BALL VALVE	BV-C-RK-S	POA	POA
REPAIR KIT FOR SERIES D BALL VALVE	BV-D-RK-S	POA	POA
REPAIR KIT FOR SERIES E BALL VALVE	BV-E-RK-S	POA	POA
REPAIR KIT FOR SERIES F BALL VALVE	BV-F-RK-S	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

LF Flanges With Viton® Seal - High Conductance



Features:

- Two-piece body: One less potential leak path & huge maintenance cost reductions when using perfluorelastomers.
- Smooth profile: Maximizes heat transfer from heating components.
- Minimized overall length and slimmer profile: Increases conductance and reduces weight and footprint.
- Fully bored ball port: Maximizes conductance with straight-through, unimpeded flow.
- Particulate resistant ball and seat design increases service intervals.
- Extra space between body & handle brackets: Minimum of 5/8" clearance allows more room for heating components.
- Integrated handle lock: Prevents accidental opening/closing. Lock out-Tag out ready.

Specifications:

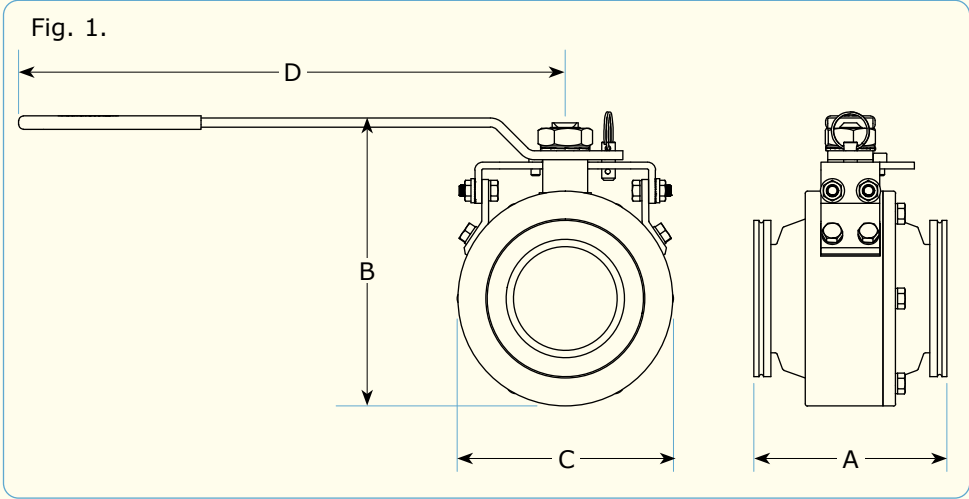
Material

Body, ball, stem & flanges	316L St.St.
Seals	Viton®
Seats	Teflon®

Temperature Range -20°C to 150°C (200°C*)

Vacuum Range Atm to 1 x 10⁻⁸ Torr

* - Increased upper limit for intermittent use



Manually Actuated With Stainless Steel Body

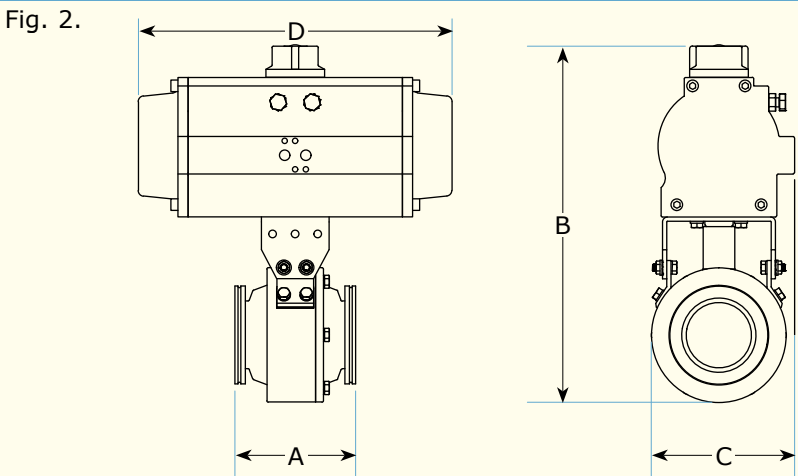


Flange Size	Fig.	Port size	A	B	C	D	Part Code	Price £	Price €
DN63LF	1	60.3	129.5	188.0	137.2	119.4	BV-SS-63LF-HC	POA	POA
DN80LF	1	73.1	135.9	203.2	152.4	127.0	BV-SS-80LF-HC	POA	POA
DN100LF	1	98.4	174.2	238.8	188.0	144.8	BV-SS-1003LF-HC	POA	POA

Pneumatically Actuated With Stainless Steel Body



Flange Size	Fig.	Port size	A	B	C	D	Part Code	Price £	Price €
DN63LF	2	60.3	129.5	342.9	276.9	274.3	BV-SS-63LF-HC-P	POA	POA
DN63LF	2	60.3	129.5	342.9	276.9	274.3	BV-SS-63LF-HC-P2	POA	POA
DN80LF	2	73.1	135.9	401.3	353.1	327.7	BV-SS-80LF-HC-P	POA	POA
DN80LF	2	73.1	135.9	401.3	353.1	327.7	BV-SS-80LF-HC-P2	POA	POA
DN100LF	2	98.4	174.2	439.4	353.1	345.4	BV-SS-100LF-HC-P	POA	POA
DN100LF	2	98.4	174.2	439.4	353.1	345.4	BV-SS-100LF-HC-P2	POA	POA



All dimensions are nominal in millimetres unless otherwise specified

All dimensions are nominal in millimetres unless otherwise specified

Compact Variable Leak Valves



Features:

- Withstands hot corrosive gasses.
- Up to 10 bar inlet pressure.
- Low internal volume.
- User servicable in the field.
- Bakeable up to 450°C.

Specifications:

Material

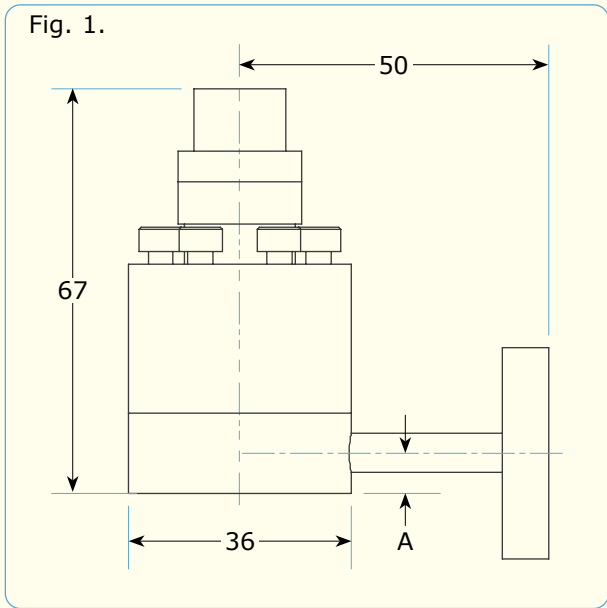
Body	St.St.
Diaphragm	Nickel
Seal knife edge	Stellite®

Bakeout Temperature

Open	450°C
Closed	250°C*

Vacuum Range Atm to 1 x 10⁻⁷ mbar

* - So long as no internal part of the valve is exposed to atmosphere during bake.



Coarse Control Variable Leak Valves



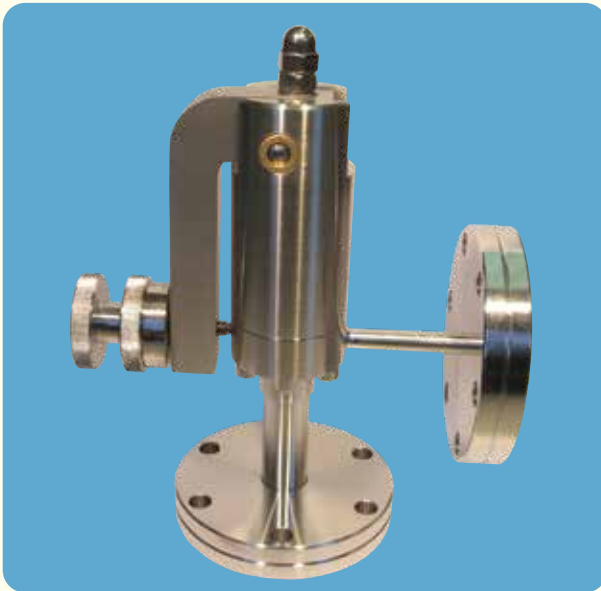
Flange Size	Fig.	A	Part Code	Price £	Price €
DN16CF	1	6.5	CLV-16CF	£2192	€2,521

Inlet flange has clearance bolt holes, outlet flange has tapped bolt holes.

Please contact our sales office for replacement seals & spare parts etc.

All dimensions are nominal in millimetres unless otherwise specified

Fine Control Variable Leak Valves



Features:

- Fine control mechanism with minimal backlash.
- Up to 10 bar inlet pressure.
- Adjustable graduated index ring.
- User serviceable in the field.
- 304L stainless steel body with Mallory pad.
- Bakeable up to 450°C.

Specifications:

Materials St.St. & Mallory

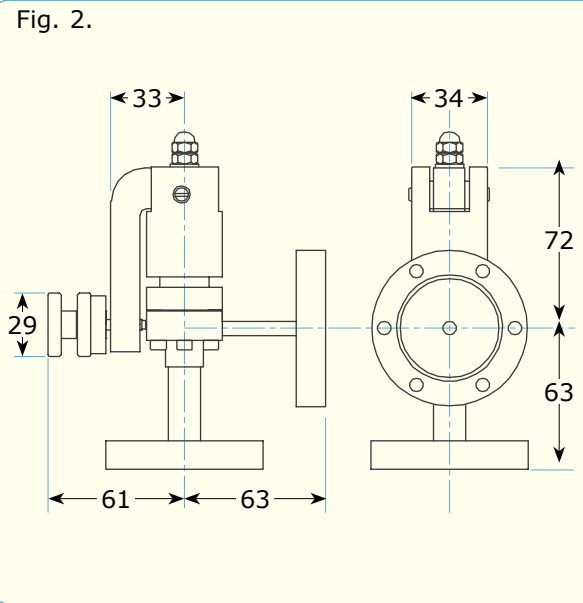
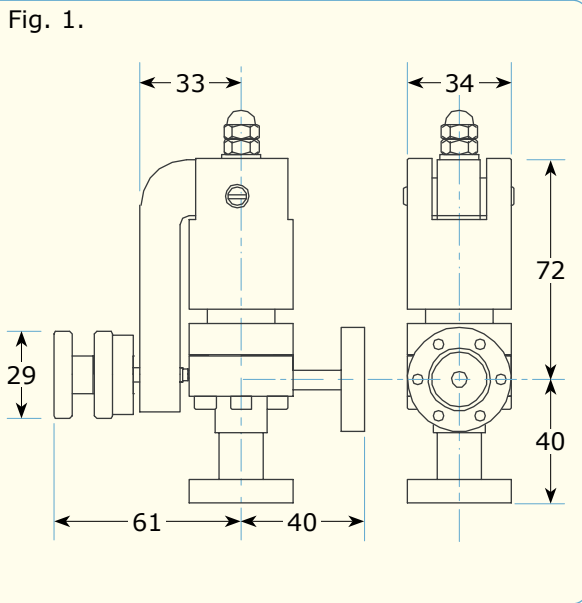
Bakeout Temperature

Open	450°C
Closed	250°C*

Vacuum Range Atm to 1 x 10⁻¹¹ mbar

Minimum leak rate 1x10⁻¹² mbar.l.s⁻¹

* - So long as no internal part of the valve is exposed to atmosphere during bake.



Fine Control Variable Leak Valves



Flange Size	Fig.	Flange type	Part Code	Price £	Price €
DN16CF	1	Rotatable	FLV-16CFR	£1369	€1,575
DN40CF	2	Rotatable	FLV-40CFR	£2089	€2,403

Please contact our sales office for replacement seals & spare parts etc.

All dimensions are nominal in millimetres unless otherwise specified

Sapphire Leak Valves



This variable leak valve consists of an adjustable piston which controls the position of an optically flat sapphire against an OFHC copper seal. The movement of the sapphire is adjusted via a threaded shaft and lever mechanism with mechanical advantage of 13,000 to 1 which allows very fine adjustment of the leak by the user. Backlash is kept to a minimum by spring-loading the lever mechanism. The sapphire and copper sealing parts have a limited life cycle and are easily replaceable by the user.

Features:

- Minimum leak rate of 1.3×10^{-10} mbar.l/ second.
- High temperature rated to 450°C.
- Replaceable sapphire and seal gasket.
- Easy to control leak adjustment with minimum backlash due to high mechanical advantage actuator arm.
- Alternative flange configurations available on request.

Specifications:

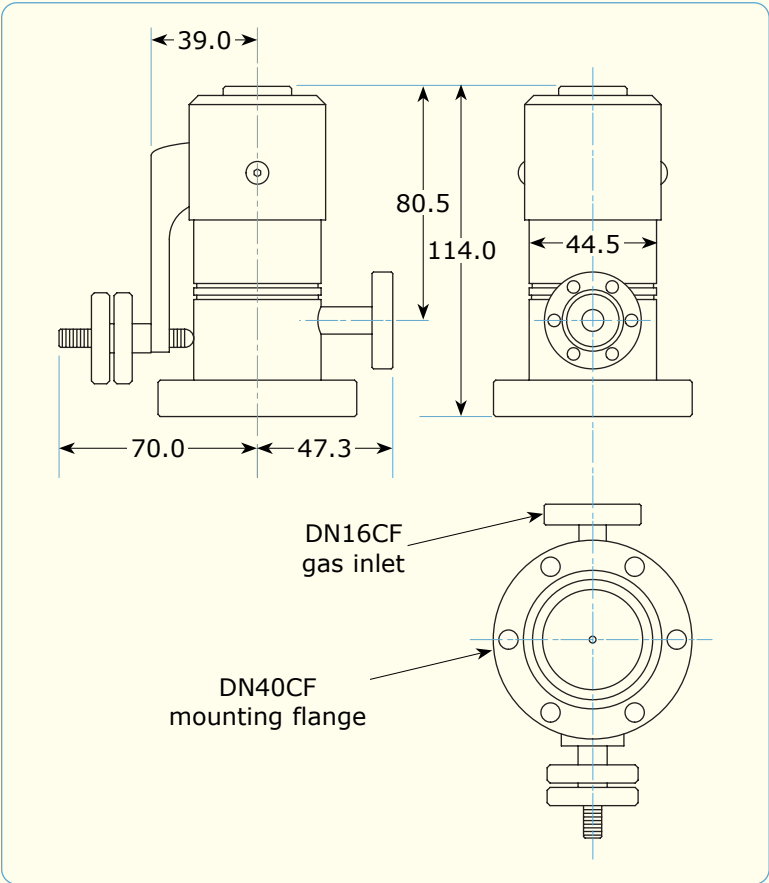
Material

Body & flanges	304 St.St.
Poppet seal	Sapphire
Seat	OFHC copper

Maximum Temperature	450°C
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Vacuum Range	Atm to 1.3×10^{-11} mbar
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Maximum Inlet Pressure	500psi
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All dimensions are nominal in millimetres unless otherwise specified

Manually Actuated With Stainless Steel Body



DESCRIPTION	Part Code	Price £	Price €
DN40CF Precision sapphire leak valve	SLV-40CF	POA	POA

Replacement Seal Kits

DESCRIPTION	Part Code	Price £	Price €
Sapphire assembly for precision leak valve SLV-40CF	SLV-SEAL	POA	POA

All dimensions are nominal in millimetres unless otherwise specified

Up To Air Valves



Features:

- Ideal for venting and gas admission.
- Bellows sealed.
- Other configurations available on request.

Specifications:

Material

Body	316 St.St.
Bellow	321 St.St.
Flange & tube	304 St.St.

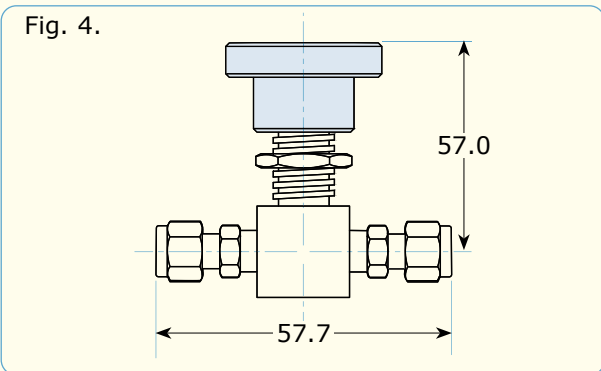
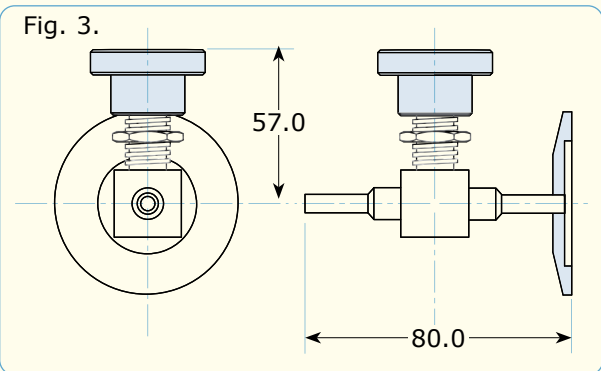
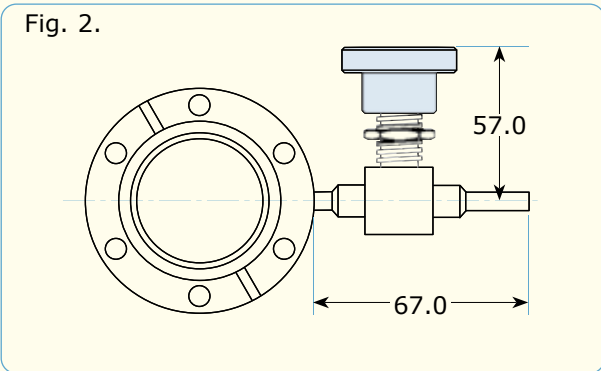
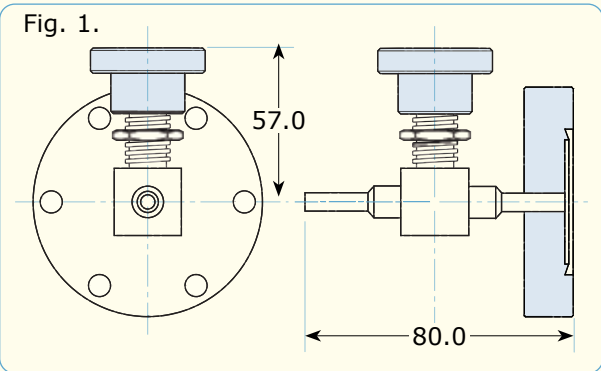
Temperature Range

CF flanged	-60°C to 315°C
KF flanged	-20°C to 150°C (200°C*)

Vacuum Range

Atm to 1 x 10⁻⁸ Torr

* - Increased upper limit for intermittant use



Manually Actuated With Stainless Steel Body



Fig.	Description	Part Code	Price £	Price €
1	Up-to-air valve mounted on DN16CF	UTAV-16CF	£321	€370
1	Up-to-air valve mounted on DN40CF	UTAV-40CF	£333	€383
2	Up-to-air valve side mounted on double sided DN16CF	UTAV-16CF-S	£333	€383
2	Up-to-air valve side mounted on double sided DN40CF	UTAV-40CF-S	£345	€397
3	Up-to-air valve mounted on DN16KF	UTAV-16KF	£321	€370
3	Up-to-air valve mounted on DN25KF	UTAV-25KF	£321	€370
3	Up-to-air valve mounted on DN40KF	UTAV-40KF	£327	€377
3	Up-to-air valve mounted on DN50KF	UTAV-50KF	£333	€383
4	Up-to-air valve 1/4" swagelok both sides	UTAV-SW-1/4	£305	€351

All dimensions are nominal in millimetres unless otherwise specified

Air Admittance Valves



Features:

- Ideal for venting.
- Viton sealed.

Specifications:

Materials Al & Viton®

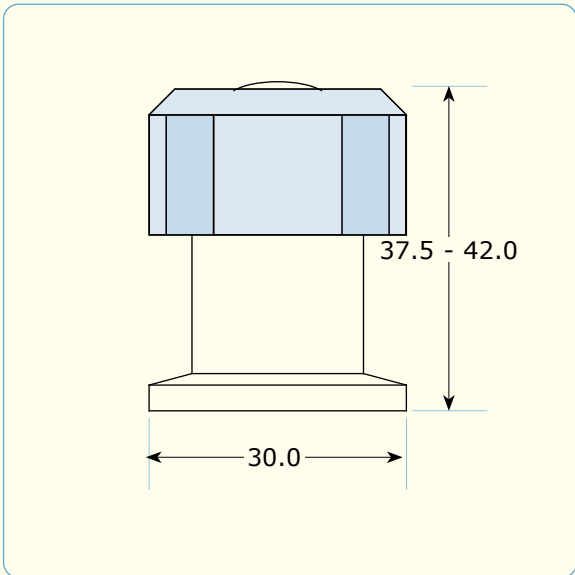
Temperature Range -20°C to 150°C (200°C*)

Vacuum Range Atm to 1 x 10⁻⁷ mbar

* - Increased upper limit for intermittant use

The AAV-10KF manual operation air admittance valve is manufactured from aluminium alloy and has a control knob attached to a screw actuated plunger housing the viton® seal.

Please call our sales office for further details.

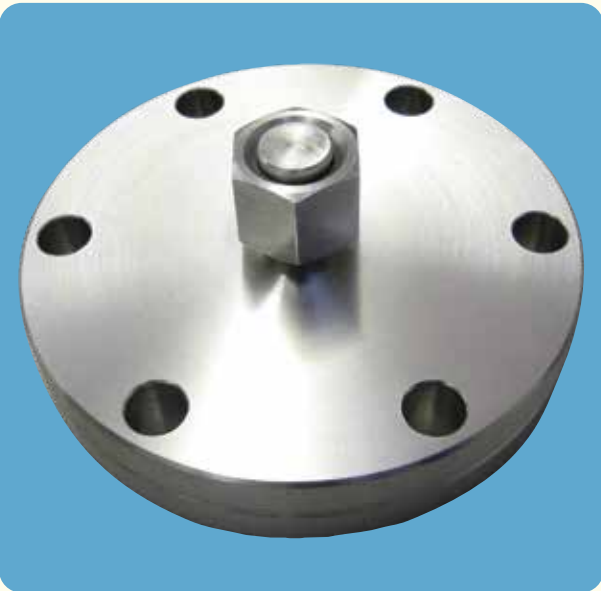


Manually Actuated With Al Body

Description	Part Code	Price £	Price €
Aluminium air admittance valve DN10KF	AAV-10KF	£112	€129

All dimensions are nominal in millimetres unless otherwise specified

Pressure Relief Valves



Features:

- Ideal for protection against system over pressure.
- Viton® sealed.
- Range of pressure settings available.
- Other configurations available on request.

Specifications:

Materials	St.St. & Viton®
Temperature Range	-20°C to 150°C (200°C*)
Vacuum Range	Atm to 1 x 10 ⁻⁸ mbar

* - Increased upper limit for intermittant use

The LewVac pressure relief valve has been developed as a safety device to protect vacuum systems from the dangers of over pressure, when back filling with gas. The overpressure valve can be supplied set for a user specified relief pressure. Once the set pressure is reached the spring pressure is overcome and the poppet will open, once the overpressure situation is relieved the poppet will close again. Once the valve has closed the system can be pumped down to vacuum once more.

Pressure relief valves are available in various sizes, pressure ratings and flange mountings for use on HV systems. Pressure relief devices for use in UHV systems can be found in section 9.5 of this catalogue.

Please call our sales office for further details.

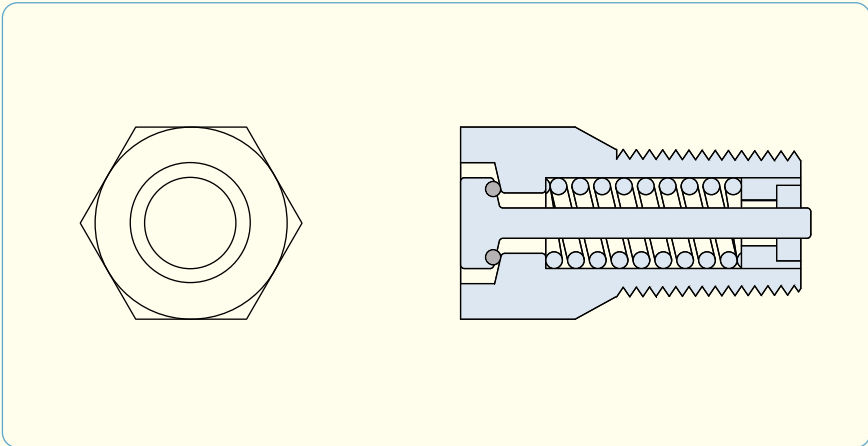


Fig.	Description	Part Code	Price £	Price €
1	DN16CF mounted pressure relief valve 1Bar (gauge)	PRV-1BAR-16CF	£226	€260
1	DN40CF mounted pressure relief valve 1Bar (gauge)	PRV-1BAR-40CF	£226	€260
2	DN16KF mounted pressure relief valve 1Bar (gauge)	PRV-1BAR-16KF	£226	€260
2	DN25KF mounted pressure relief valve 1Bar (gauge)	PRV-1BAR-25KF	£226	€260
3	DN40KF mounted pressure relief valve 1Bar (gauge)	PRV-1BAR-40KF	£226	€260

Other configurations & pressures ratings are available.

All dimensions are nominal in millimetres unless otherwise specified

Adjustable Pressure Relief Valves



Features:

- Ideal for protection against system over pressure.
- Viton® sealed.
- Adjustable pressure settings.
- Other configurations available on request.

Specifications:

Materials	St.St. & Viton®
Temperature Range	-20°C to 150°C (200°C*)
Vacuum Range	Atm to 1 x 10 ⁻⁸ mbar

* - Increased upper limit for intermittant use

Vacuum systems are only designed to operate under external (atmospheric) pressure. LewVac adjustable pressure relief valves (PRV's) offer a means of protecting vacuum vessels against internal over-pressurization. There are many scenarios in which rapid pressure buildup inside a vacuum vessel may occur, such as a runaway gas back-fill operation. In addition to protecting delicate instruments and equipment, a pressure relief valve also minimizes risk of injury to system operators and other lab personnel.

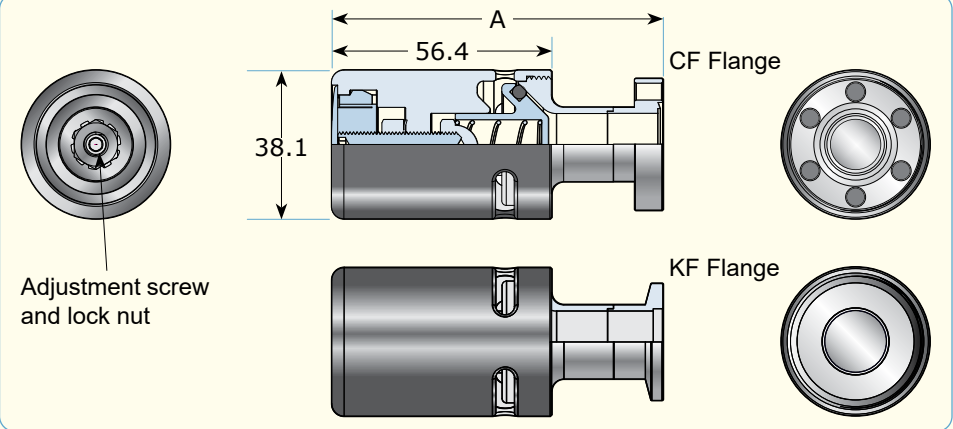
How do they work?

Pressure build-up inside a vacuum vessel pushes on a spring loaded, elastomer sealed, piston. Once the pressure relief valve's calibrated pressure limit is reached, the piston is displaced breaking (disengaging) its seal and providing instant pressure relief in the vessel. Unlike single use 'burst disc' devices, a pressure relief valve's unique design allows it to be used over and over.

For systems operating at high vacuum pressure regimes, pressure relief valves (PRV's) are the economical alternative to single-use burst disc products. Standard pressure relief valves are factory-calibrated for a 2 PSI (adjustable from 0.5-2 PSI) or 6 PSI (adjustable from 4-11 PSI).



Fig.	Description	A	Part Code	Price £	Price €
1	DN16CF mounted pressure relief valve 2 PSI (gauge)	85.1	PRV-2PSI-16CF	£300	€345
1	DN40CF mounted pressure relief valve 2 PSI (gauge)	73.9	PRV-2PSI-40CF	£311	€358
1	DN40CF mounted pressure relief valve 6 PSI (gauge)	73.9	PRV-6PSI-40CF	£311	€358
2	DN16KF mounted pressure relief valve 2 PSI (gauge)	85.1	PRV-2PSI-16KF	£300	€345
2	DN40KF mounted pressure relief valve 2 PSI (gauge)	72.6	PRV-2PSI-40KF	£311	€358
2	DN16KF mounted pressure relief valve 6 PSI (gauge)	85.1	PRV-6PSI-16KF	£300	€345



All dimensions are nominal in millimetres unless otherwise specified

