

EXCELLENT QUALITY | TRUSTWORTHY

# Vacuum Valve Product Manual



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 **BEIJING Super Q**  
TECHNOLOGY Co.,Ltd.



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## ORDERING INFORMATION

### How to select the valves

- Please check the catalogue details for selecting a right valve
- View the technical parameters to make sure if the products are suitable. Such as cycles times, speed of opening/closing, temperature range, installation requirements
- The order number of the valve is determined by the valve body material, the driving method, the flange type, the sealing type and the nominal diameter
- Pls note the specified voltage to the order number for pneumatic valves and electric valves If need any other spare parts or other special requirements, please add the information to the order form (X) or remark it



**As the product is constantly updating, please consult the sales engineer for specific dimensions. Please subject to the final confirmed product drawings.**

### Model Number Representation

Example	EVGDQ-J16B(KF)S	
EV	East Vacuum series	
G	Vacuum range	C:Ultra High Vacuum G:High Vacuum D:Medium & Low Vacuum
D	Valve type	D:Block valve C:Gate valve F:Tipping valve
Q	Driven method	Q:Pneumatic drive D:Electric drive C:Electromagnetic drive No: Manual drive
J	Channel form	J:Right angle S:Three-way No: Straight
16	Nominal diameter (mm)	10 16 25 40 (35) 50 63 80 100 160 (150) 200 250 320 400 500 630 800 1000 1250
B	Sealing type	B:Metal Bellow No: Viton/Fluorous rubber
(KF)	Flange type	KF CF ISO-K ISO-F GB-LP
S	Valve body material	S:Stainless Steel A:Aluminum
EVGDQ-J16B(KF)S means: East Vacuum series high vacuum pneumatic block valve, right angle valve channel, nominal diameter 16mm, bellows sealed, flange type KF, valve body material stainless steel.		

## KF SERIES HIGH VACUUM BLOCK STRAIGHT VALVES



## Product Description

This series of valves is divided into manual, pneumatic and electromagnetic driven types. Features with smooth operation, small size, reliable use, good sealing performance and long service life. It is one of the preferred valves for vacuum equipment. The valve respectively rotates the handle, the compressed gas pushes the cylinder and the coil energizes to generate electromagnetic force, and the power is connected to the valve plate through the mechanism, and drives the valve plate to open and close. Applicable medium can be pure air and non-corrosive gas.

## Product features

Standard modular design, easy to replace and maintain

Easy to clean

The solenoid valve adopts energy-saving design and is small in size

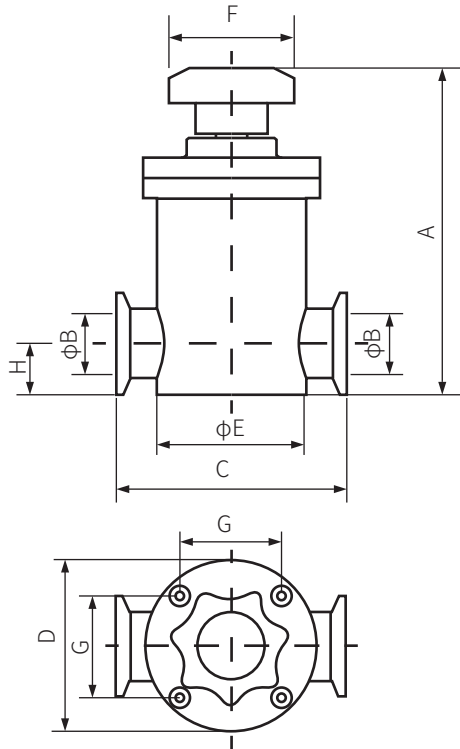
## Technical Parameters

Pressure range		1x10 <sup>-5</sup> Pa~1.2x10 <sup>5</sup> Pa (sealed with fluorine rubber ring)
		1x10 <sup>-6</sup> Pa~1.2x10 <sup>5</sup> Pa (sealed with bellows)
Differential pressure on valve plate when opening		≤1.2x10 <sup>5</sup> pa Any direction
Leak rate		<1.3x10 <sup>-7</sup> Pa·L/S
Service life until first maintenance		200,000 times
Valve body Baking Temperature		≤150°C
Compressed air (pneumatic only)		0.4~0.7MPa
Installation position	Manual drive	Anywhere
	Pneumatic drive	Anywhere
	Electromagnetic drive	Anywhere (sealed with bellows)
		The sealing surface faces the vacuum (sealed with fluorine rubber ring)
Power Supply	Pneumatic drive	AC 220V 50HZ, 6W; DC 24V, 3W
	Electromagnetic drive	AC 220V 50HZ
Opening / closing time	Pneumatic drive	≤1s
	Electromagnetic drive	open ≤0.1s;
		close ≤1s (sealed with fluorine rubber ring)
		close ≤0.5s (sealed with bellows)
Position indicator of the valve	Pneumatic drive	With open/close position indicating switch (magnetic switch)
	Electromagnetic drive	With open position indicator

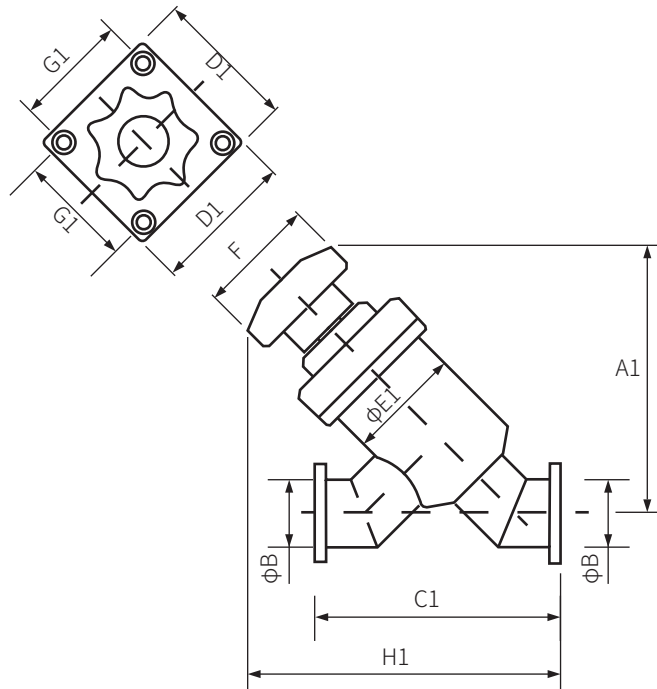
## Options

Pneumatic valve opening/closing position indicating switch

## Manual Driven Block Straight Valve External Size



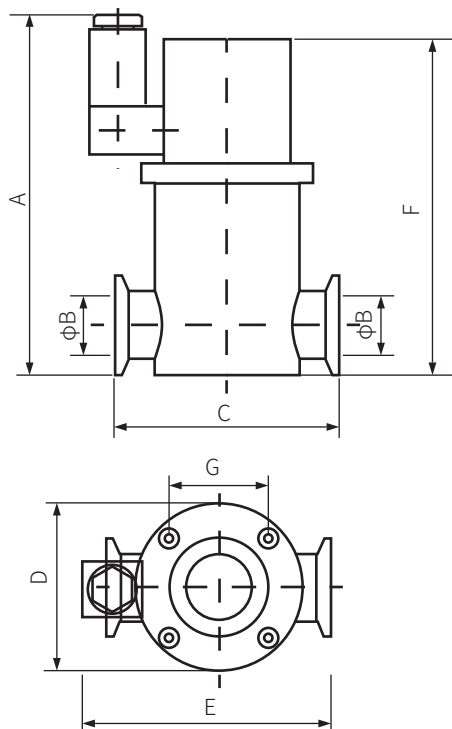
90° Straight through



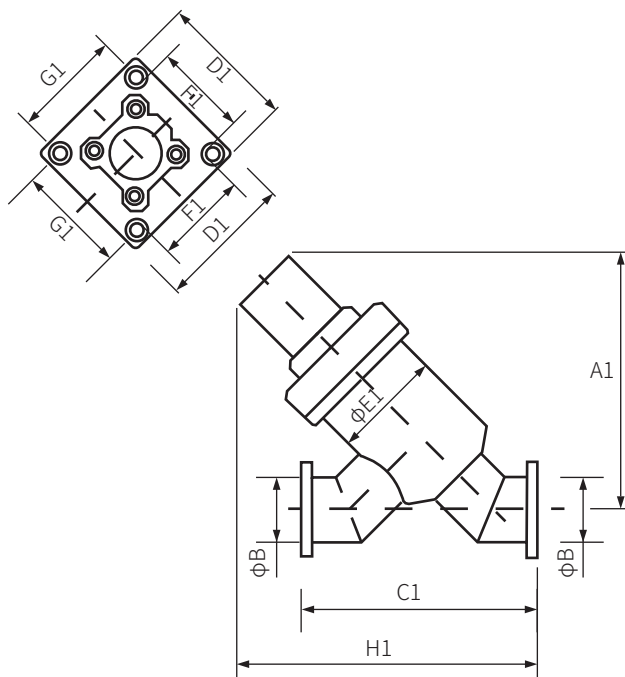
45° Straight through

MODEL	DN	SIZE (mm)														CODE
		A	A1	B	C	C1	D	D1	E	E1	F	G	G1	H	H1	
EVGD-16B(KF)S	16	105	82	16	80	80	51	38	51	34	40	28	28	16	100	V600
EVGD-16(KF)S																V601
EVGD-25B(KF)S	25	132	109	25	90	100	69	58	58	47	50	40	46	21	128	V602
EVGD-25(KF)S																V603
EVGD-40B(KF)S	40	171	127	40	120	130	82	65	86	58	63	50	52	26	153	V604
EVGD-40(KF)S																V605
EVGD-50B(KF)S	50	207	144	50	130	140	92	73	92	74	63	80	60	39	178	V606
EVGD-50(KF)S																V607

## Pneumatic Driven Block Straight Valve External Size



90° Straight through

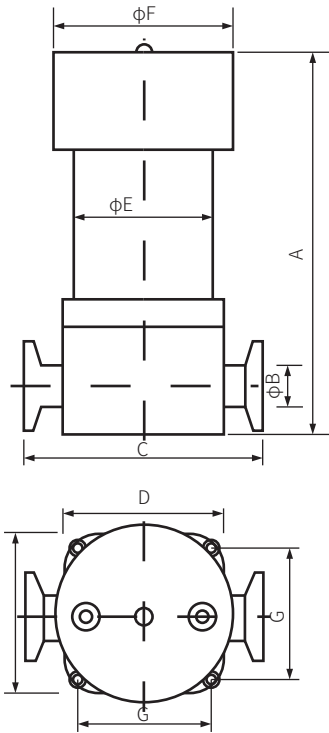


45° Straight through

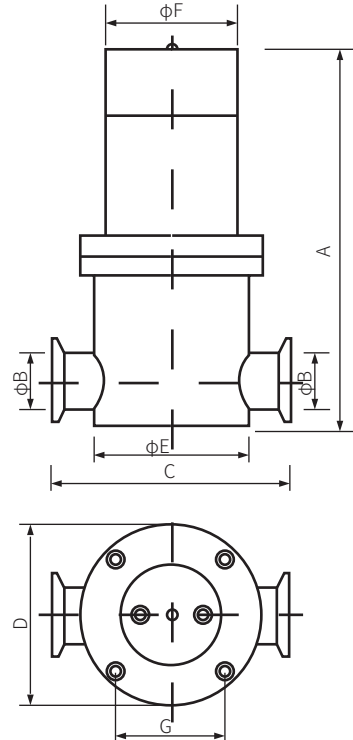
MODEL	DN	SIZE (mm)														CODE
		A	A1	B	C	C1	D	D1	E	E1	F	F1	G	G1	H1	
EVGDQ-16B(KF)S	16	123	89	16	80	80	51	38	85	34	110	40	28	28	106	V608
EVGDQ-16(KF)S																V609
EVGDQ-25B(KF)S	25	144	119	25	90	100	69	58	101	47	135	40	40	46	139	V610
EVGDQ-25(KF)S																V611
EVGDQ-40B(KF)S	40	176	135	40	120	130	82	65	124	58	175	64	40	52	167	V612
EVGDQ-40(KF)S																V613
EVGDQ-50B(KF)S	50	222	162	50	130	140	92	73	129	74	225	80	50	60	202	V614
EVGDQ-50(KF)S																V615



## Electromagnetic Driven Block Straight Valve External Size



DN 6 ~ 10



DN 16 ~ 50

MODEL	DN	SIZE (mm)							CODE
		A	B	C	D	E	F	G	
EVGDC-6(KF)A	6	128	6	66	42	38	50	33	V616
EVGDC-6(KF)S									V617
EVGDC-8(KF)A	8	128	8	66	42	38	50	33	V618
EVGDC-8(KF)S									V619
EVGDC-10(KF)A	10	128	10	66	44	38	50	34	V620
EVGDC-10(KF)S									V621
EVGDC-16B(KF)S	16	169	16	80	64	51	50	39	V622
EVGDC-16(KF)S									V623
EVGDC-25B(KF)S	25	190 (193)	25	90	69	58	50	42	V624
EVGDC-25(KF)S									V625
EVGDC-40B(KF)S	40	235 (241)	40	120	94 (102)	86	66	57 (63)	V626
EVGDC-40(KF)S									V627
EVGDC-50B(KF)S	50	275	50	130	102 (110)	92	66	63 (69)	V628
EVGDC-50(KF)S									V629



## KF SERIES HIGH VACUUM CHARGING VALVES



## Product Description

This series of valves are divided into manual and electromagnetic driving modes. They are used for aeration in high vacuum pipelines. They are small in size, reliable in use, good in sealing performance and long service life. They are one of the preferred valves for vacuum equipment. The valve is powered by hand or electromagnetic drive, which drives the spool to move and close the valve. Its working medium is air and non-corrosive gases.

## Product features

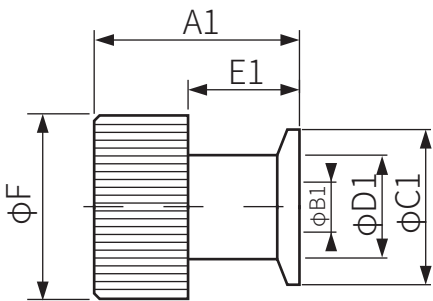
Standard modular design, easy to replace and maintain

Easy to clean

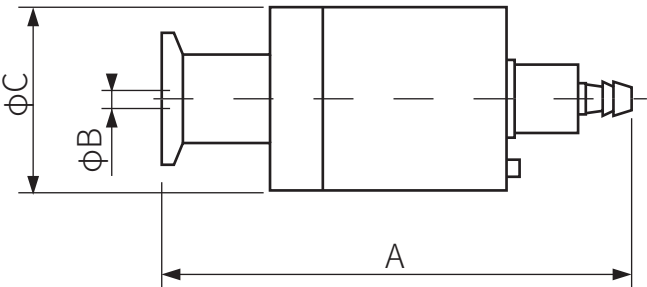
Technical Parameters

Pressure range		1x10 <sup>-5</sup> Pa~1.2x10 <sup>5</sup> Pa (sealed with fluorine rubber ring)
Differential pressure on valve plate when opening		≤1.2x10 <sup>5</sup> pa
Leak rate		<1.3x10 <sup>-7</sup> Pa·L/S
Service life until first maintenance		200,000 times
Valve body Baking Temperature		80℃
Installation position		KF flange connected to vacuum side
Power Supply	Electromagnetic drive	AC 220V 50Hz, 15W; DC 24V, 6W
Opening / closing time	Electromagnetic drive	close ≤0.5s

KF Series High Vacuum ChargingValves



Manual drive



Electric drive

## External Size

Manual drive									
MODEL	DN	FLANGE	SIZE (mm)						CODE
			A1	B1	C1	D1	E1	F	
EVGD-Q4	4	KF16	39.4	4	30	18	21.4	26	VQ109
EVGD-Q10	10	KF25	44	10	40	25	23	36	VQ108

Electric drive													
MODEL	DN	FLANGE	SIZE (mm)										CODE
			A	B	C	C1	D	D1	E	E1	F	F1	
EVGDC-Q2 (Normally Closed)	2	KF16	108	2	42	7	40	42	30	63	64	79	VQ144
EVGDC-Q2 (Normally Closed)	2	KF16	108	2	42	7	40	42	30	63	64	79	VQ145
EVGDC-Q2 (Normally open)	2	KF16	108	2	42	7	40	42	30	63	64	79	VQ154
EVGDC-Q3 (Normally Closed)	3	KF16	108	3	42	7	-	42	-	30	-	79	VQ150
EVGDC-Q3 (Normally open)	3	KF16	108	3	42	7	-	42	-	30	-	79	VQ107
EVGDC-Q4 (Normally Closed)	4	KF16	108	4	42	-	40	-	74	-	82	-	VQ146

## ANGLE VALVES SERIES



## 01 High Vacuum Angle Valves

## Product Description

This series of valves is divided into manual, pneumatic and electromagnetic driven types. Features with smooth operation, small size, reliable use, good sealing performance and long service life. It is one of the preferred valves for vacuum equipment. The valve respectively rotates the handle, the compressed gas pushes the cylinder and the coil energizes to generate electromagnetic force, and the power is connected to the valve plate through the mechanism, and drives the valve plate to open and close. Applicable medium can be pure air and non-corrosive gas.

## Product features

Standardized and modular design, easy to replace and maintain

Easy to clean

The solenoid valve adopts energy-saving design and is small in size

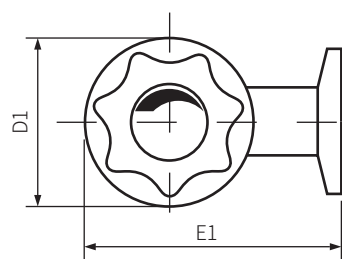
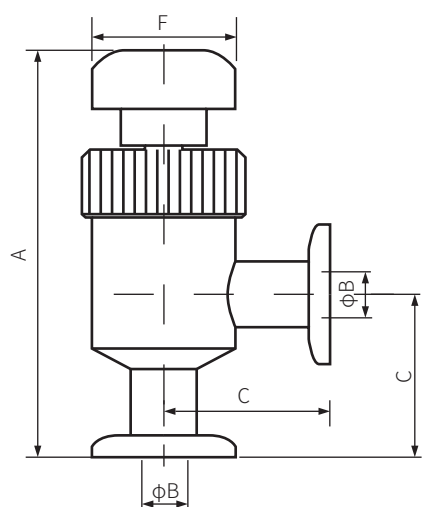
## Technical Parameters

Pressure range		1x10 <sup>-5</sup> Pa~1.2x10 <sup>5</sup> Pa ((sealed with fluorine rubber ring))
		1x10 <sup>-6</sup> Pa~1.2x10 <sup>5</sup> Pa (sealed with bellows)
Differential pressure on valve plate when opening		DN 200~250(Pneumatic drive): ≤3x10 <sup>4</sup> pa
		other: ≤1.2x10 <sup>5</sup> pa Any direction
Leak rate		1.3x10 <sup>-7</sup> Pa·L/S
Service life until first maintenance		200,000 times
Valve body Baking Temperature		≤150°C
Compressed air (pneumatic only)		0.4~0.7MPa
Installation position	Manual drive	Anywhere
	Pneumatic drive	Anywhere (DN ≤ 160)
		The sealing face faces the vacuum side (DN > 160)
	Electromagnetic drive	Anywhere (sealed with bellows)
		The sealing surface faces the vacuum (sealed with fluorine rubber ring)
Power Supply	Pneumatic drive	AC 220V 50HZ, 6W; DC 24V, 3W (customizable)
	Electromagnetic drive	AC 220V 50HZ
Opening / closing time	Pneumatic drive	DN 16 ~ DN 50 ≤ 1s
		DN 63 ~ DN 250 ≤ 3s
	Electromagnetic drive	open ≤0.1s;
		close ≤1s (sealed with fluorine rubber ring)
		close ≤0.5s (sealed with bellows)
Position indicator of the valve	Pneumatic drive	With open/close position indicating switch (magnetic switch)
	Electromagnetic drive	With open position indicator

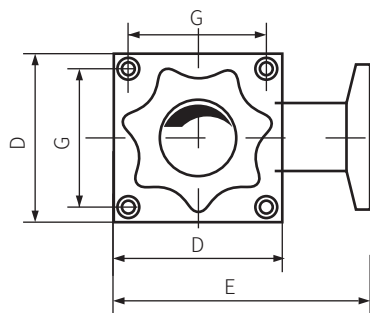
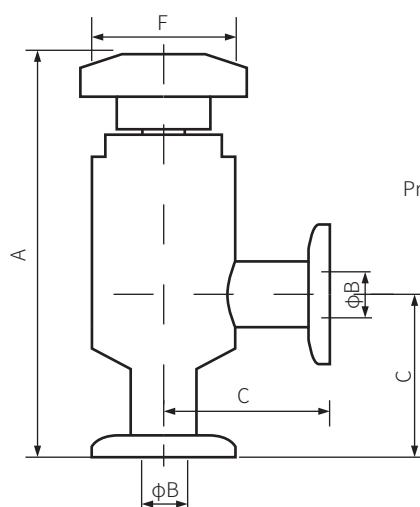
## Options

Pneumatic DN 16~50: open and close position indicating switch (magnetic switch);  
Pneumatic DN 63~250:ISO flange; two-position five-way electromagnetic reversing valve.

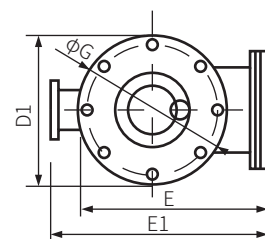
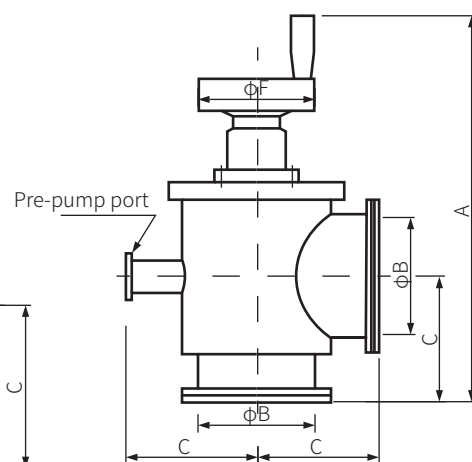
## Manual Driven Angle Valve External Size



DN6~10



DN16~50



DN63~250

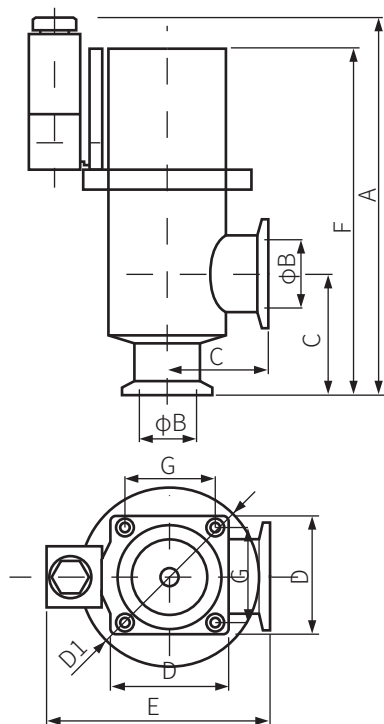
MODEL	DN	SIZE (mm)									Pre-pump port	CODE
		A	B	C	D	D1	E	E1	F	G		
EVGD-J6B(KF)S	6	90.4	6	35	—	36	53.5	53	32	—	—	V021
EVGD-J8B(KF)S	8	90.4	8	35	—	36	—	53	32	—	—	V022
EVGD-J10B(KF)S	10	90.4	10	35	—	36	—	53	32	—	—	V023
EVGD-J16B(KF)S	16	102	16	40	46	—	63	—	40	35	—	V024
EVGD-J16B(KF)A												V025
EVGD-J25B(KF)S	25	119.4	25	50	54	—	77	—	45	43	—	V026
EVGD-J25B(KF)A												V027
EVGD-J40B(KF)S	40	150.5	40	65	64	—	97	—	63	53	—	V028
EVGD-J40B(KF)A												V029
EVGD-J50B(KF)S	50	170.5	50	70	78	—	109	—	63	66	—	V030
EVGD-J50B(KF)A												V031
EVGD-J63B(ISO-K)S	63	279	63	88	—	108	—	142	80	91	—	V009
EVGD-J63B(GB-LP)S												V010
EVGD-J80B(ISO-K)S	80	338.5	80	9	—	133	—	164.5	80	121	—	V011
EVGD-J80B(GB-LP)S												V012
EVGD-J100B(ISO-K)S	100	330.5	99	108	—	137	—	176.5	100	121	—	V013
EVGD-J100B(GB-LP)S												V014

Remark:

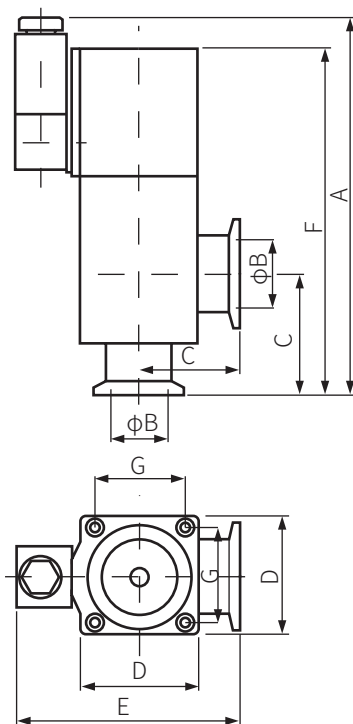
From above table D1 and E1 are for Dimensions of Stainless steel valve body, D and E are for Dimensions of Aluminum valve body. From the EV Part Number, B means bellow sealed, S means stainless steel valve body, A means Aluminium valve body.



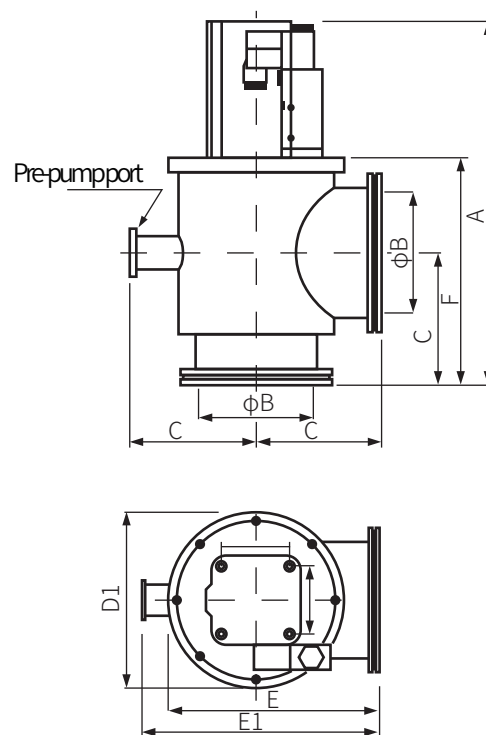
## Pneumatic Driven Angle Valve External Size



DN16 ~ 50 304



DN16~50 Aluminium



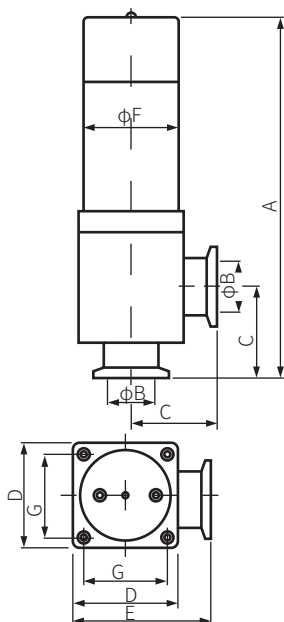
DN63~250 304

Remark:

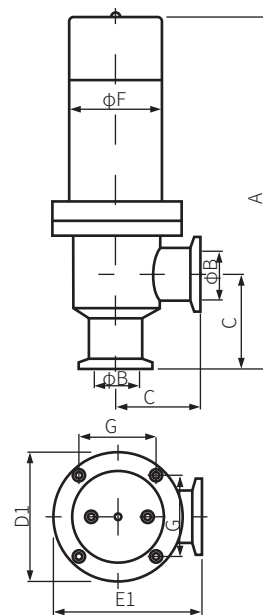
D1 is for Dimensions of Stainless steel valve body, D is for Dimensions of Aluminum valve body. From the EV Part Number, B means bellow sealed, S means stainless steel valve body, A means Aluminium valve body. If no B showed from the Part Number, it means the valve is O-ring Sealed.

MODEL	DN	SIZE(mm)								Pre-pump port	CODE
		A	B	C	D	D1	E	F	G		
EVGDQ-J16B(KF)S	16	110	16	40	46	—	86	113.5	43	—	V032
EVGDQ-J16B(KF)A											V033
EVGDQ-J16(KF)S											V034
EVGDQ-J16(KF)A											V035
EVGDQ-J25B(KF)S	25	115	25	50	54	—	96	119	43	—	V036
EVGDQ-J25B(KF)A											V037
EVGDQ-J25(KF)S											V038
EVGDQ-J25(KF)A											V039
EVGDQ-J40B(KF)S	40	137	40	65	64	—	116	159	53	—	V040
EVGDQ-J40B(KF)A											V041
EVGDQ-J40(KF)S											V042
EVGDQ-J40(KF)A											V043
EVGDQ-J50B(KF)S	50	152	50	70	78	—	128	178.5	66	—	V044
EVGDQ-J50B(KF)A											V045
EVGDQ-J50(KF)S											V046
EVGDQ-J50(KF)A											V047
EVGDQ-J63B(ISO-K)S	63	254	63	88	—	108	142	154	40	—	V048
EVGDQ-J63B(GB-LP)S											V049
EVGDQ-J63(ISO-K)S											V050
EVGDQ-J63(GB-LP)S											V051
EVGDQ-J80B(ISO-K)S	80	268.5	80	98	—	133	164.5	168.5	50	—	V052
EVGDQ-J80B(GB-LP)S											V053
EVGDQ-J80(ISO-K)S											V054
EVGDQ-J80(GB-LP)S											V055
EVGDQ-J100B(ISO-K)S	100	306	100	108	—	137	176.5	190	60	—	V056
EVGDQ-J100B(GB-LP)S											V057
EVGDQ-J100(ISO-K)S											V058
EVGDQ-J100(GB-LP)S											V059
EVGDQ-S160B(ISO-K)S	160	406.5	153	138	—	208	276	253.5	94	KF40	V060
EVGDQ-S160B(GB-LP)S											V061
EVGDQ-S160(ISO-K)S											V062
EVGDQ-S160(GB-LP)S											V063
EVGDQ-S200B(ISO-K)S	200	503	200	178	—	258	356	320	94	KF50	V064
EVGDQ-S200B(GB-LP)S											V065
EVGDQ-S200(ISO-K)S											V066
EVGDQ-S200(GB-LP)S											V067
EVGDQ-S250B(ISO-K)S	250	608	250	208	—	310	416	395	94	ISO-K63	V068
EVGDQ-S250B(GB-LP)S											V069
EVGDQ-S250(ISO-K)S											V070
EVGDQ-S250(GB-LP)S											V071

## Electromagnetic Driven Angle Valve External Size



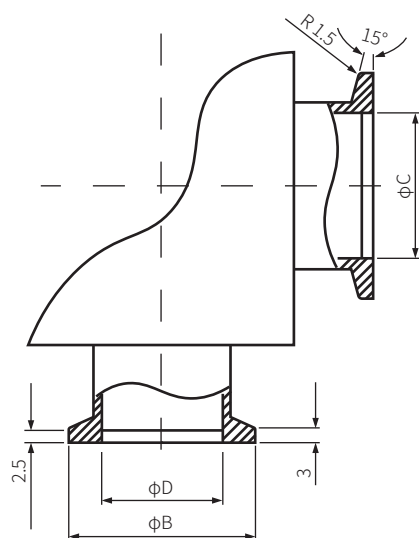
DN16 ~ 50 Al



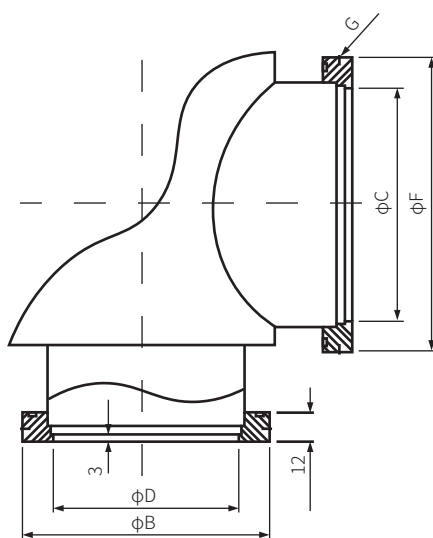
DN16~50 ss

MODEL	DN	SIZE(mm)									CODE
		A	B	C	D	D1	E	E1	F	G	
EVGDC-J16(KF)S	16	168.5	16	40	46	46	63	63	46	35	V078
EVGDC-J16(KF)A											V079
EVGDC-J16B(KF)S	16	168.5	16	40	46	46	63	63	46	35	V080
EVGDC-J16B(KF)A											V081
EVGDC-J25(KF)S	25	183	25	50	54	54	77	77	53	43	V082
EVGDC-J25(KF)A											V083
EVGDC-J25B(KF)S	25	183	25	50	54	54	77	77	53	43	V084
EVGDC-J25B(KF)A											V085
EVGDC-J40(KF)S	40	220.5	40	65	76	76	103	103	78	53	V086
EVGDC-J40(KF)A											V087
EVGDC-J40B(KF)S	40	220.5	40	65	76	76	103	103	78	53	V088
EVGDC-J40B(KF)A											V089
EVGDC-J50(KF)S	50	251.5	50	70	78	78	109	109	78	66	V090
EVGDC-J50(KF)A											V091
EVGDC-J50B(KF)S	50	251.5	50	70	78	78	109	109	78	66	V092
EVGDC-J50B(KF)A											V093

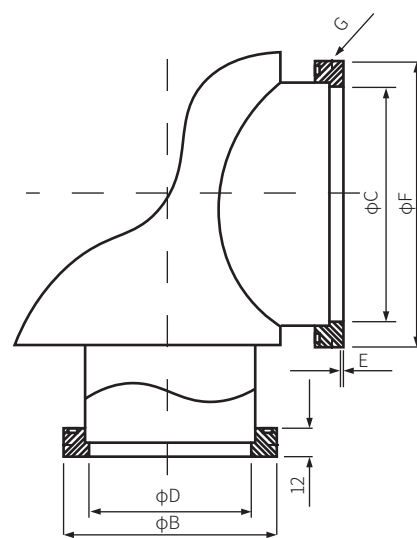
Remarks: D1 and E1 represent stainless steel valve body size, and D and E represent aluminum valve body size. According to EV part number, B represents bellows seal, S represents stainless steel valve body, and A represents aluminum valve body. If B is not shown in the part number, the valve is an O-ring.



KF flange



ISO-K flange



GB-LP flange

	KF flange				ISO-K flange						GB-LP flange					
DN	16	25	40	50	63	80	100	160	200	250	63	80	100	160	200	250
B	30	40	55	75	95	110	130	180	240	290	95	110	130	180	240	290
C	17.2	26.2	41.2	52.2	70	83.2	102.2	154	213.2	261.2	68	85	105	165	208	258
D	16	25	40	48	66	80	99	153.2	200	250	65	80	100	154	200	250
E	—	—	—	—	3	3	3	3	3	4.5	2.4	2.4	2.4	2.4	3.6	3.6
F	—	—	—	—	92	107	127	175	235	285	92	107	127	175	235	285
G	—	—	—	—	1.5	1.5	1.5	2.5	2.5	2.5	1.5	1.5	1.5	2.5	2.5	2.5

Optional parts:

Pneumatic valve DN 16~50: electromagnetic switch.

Pneumatic valve DN 63~250: ISO rotatable flange, electromagnetic directional valve.

## 02 CF Series Ultra-high Vacuum Angle Valves



### Product Description

This series of valves is suitable for interrupting pipelines in ultra-high vacuum systems. It is available in both manual and pneumatic modes. Features with stable operation, reliable use, good sealing performance and long service life. Ideal for ultra-high vacuum equipment. The manual valve is powered by the manual rotation of the rotating handle. The valve plate is opened and closed by screwing. The opening and closing direction is based on the marking on the handle; the pneumatic valve is powered by compressed air to open or close the valve plate, and loses gas. At the source, the valve plate will automatically close by the spring force. The working medium of the valve is air and a few corrosive gases.

### Product features

Standardized, modular design, easy to replace and maintain

Easy to clean

The shaft seal is a bellows seal, and the other seals are fluororubber, no lubricant

Stainless steel inside welded the valve body, low leakage rate

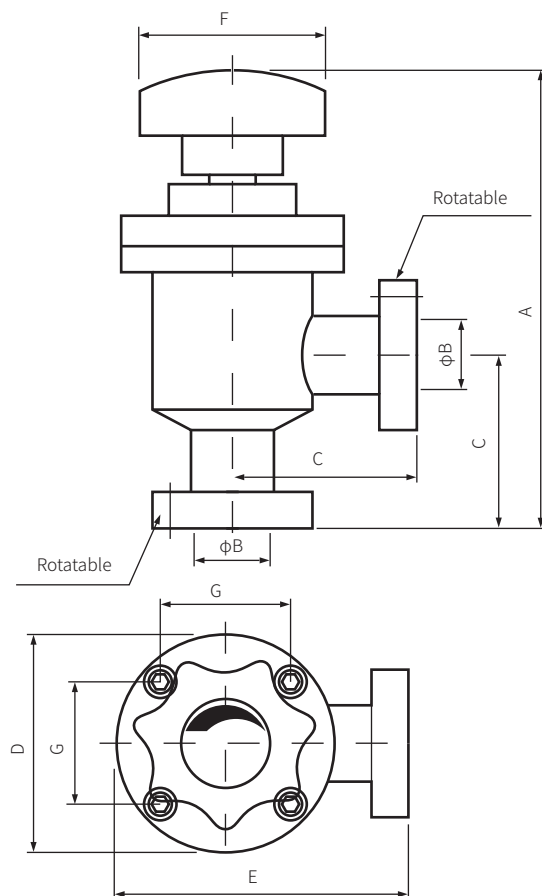
### Options

Pneumatic valve opening/closing position indicating switch (magnetic switch).

## Technical Parameters

Pressure range		$1 \times 10^{-6} \text{ Pa} \sim 1.2 \times 10^5 \text{ Pa}$ (sealed with bellows)
Differential pressure on valve plate when opening		$\leq 1.2 \times 10^5 \text{ pa}$ Any direction
Leak rate		$1.3 \times 10^{-7} \text{ Pa} \cdot \text{L/S}$
Service life until first maintenance		800,000 times
Valve body Baking Temperature		when open: $\leq 200^\circ\text{C}$
		When closed: $\leq 150^\circ\text{C}$
Installation position		Anywhere
Power Supply	Pneumatic drive	AC 220V 50HZ, 6W; DC 24V, 3W (customizable)
Compressed air (pneumatic only)		0.4~0.7MPa
Opening and closing time (only applicable to pneumatic)		$\leq 1\text{s}$
Position indicator of the valve	Pneumatic drive	With open/close position indicating switch (magnetic switch)

## Manual Driven Angle Valve External Size

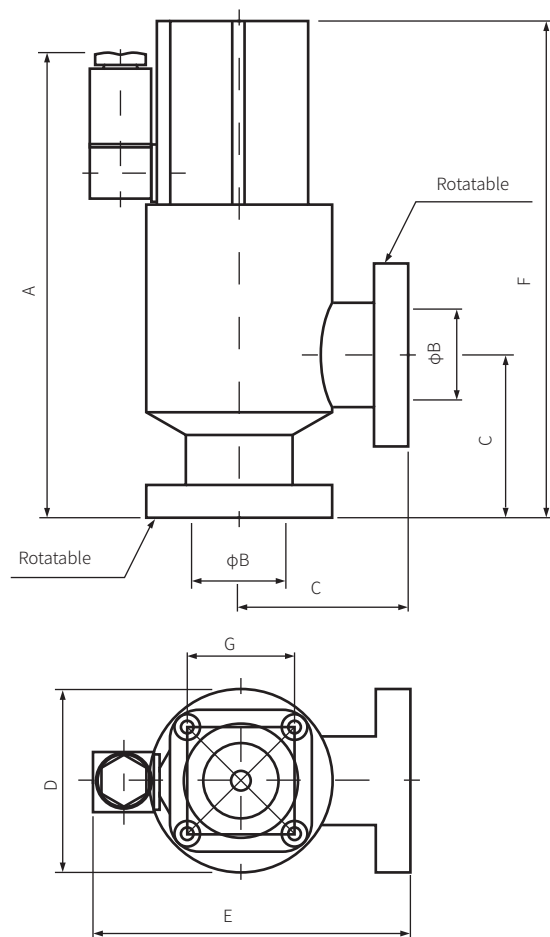


MODEL	DN	SIZE(mm)								CODE
		flange	A	B	C	D	E	F	G	
EVCD-J16B(CF)S	16	CF16	102	16	40	46	63	40	35	V094
EVCD-J25B(CF)S	25	CF25	125	25	55	54	85	50	43	V095
EVCD-J40B(CF)S	40	CF35	148.5	35	63	64	98	53	53	V096
EVCD-J50B(CF)S	50	CF50	170.5	50	80	78	123	63	66	V097

Remarks: CF flange complies with GB/T 6071-2003



## Pneumatic Driven Angle Valve External Size



MODEL	DN	SIZE(mm)								CODE
		flange	A	B	C	D	E	F	G	
EVCDQ-J16B(CF)S	16	CF16	110.5	16	40	54	86	110.5	35	V098
EVCDQ-J25B(CF)S	25	CF25	124	25	55	54	101	124	43	V099
EVCDQ-J40B(CF)S	40	CF35	157	35	63	64	114	157	53	V100
EVCDQ-J50B(CF)S	50	CF50	161.5	50	80	92	138	188.4	86	V101

Remarks: CF flange complies with GB/T 6071-2003

## ULTRA-HIGH VACUUM GATE VALVES



## Product Description

This series of valves is divided into manual, pneumatic and motor drive modes. Featured with smooth operation, small size, reliable application, good sealing performance and long service life. It can be widely used in high vacuum equipment. The valve is powered by a manual rotating handle, a compressed gas pushing cylinder and a motor driving torque. The driving rod pushes (pulls) the moving link mechanism, and the driving body moves along the axial direction, and the driving body passes through the swing rod or the rigid ball and the valve plate. Connect to complete the valve plate opening and closing action. The medium of the valve is air and non-corrosive gas.

## Product features

- The shaft seal has two options: bellows seal and fluorine rubber ring seal. The other seals are fluorine rubber and designed without lubricant;
- The valve body is internally welded with stainless steel, with small leakage rate;
- The valve body adopts the stiffening rib structure, which is small in size, light in weight and beautiful in appearance;
- Double guide rail bearing roller mechanism is adopted to ensure smooth movement;
- The valve plate is of integral structure, with even supporting force.

## Technical Parameters

Pressure range		1x10 <sup>-5</sup> Pa~1.2x10 <sup>5</sup> Pa ((sealed with fluorine rubber ring))
		1x10 <sup>-6</sup> Pa~1.2x10 <sup>5</sup> Pa (sealed with bellows)
Differential pressure on valve plate when opening		≤3x10 <sup>3</sup> pa Any direction
Leak rate		1.3x10 <sup>-7</sup> Pa·L/S
Service life until first maintenance		100,000 times
Valve body Baking Temperature		when open : ≤200°C
		when closed : ≤150°C
Installation position		Anywhere
Opening / closing time	Pneumatic drive	DN63 ~ 250 ≤ 6s; DN320 ~ 400 ≤ 10s
	Motor drive	DN63 ~ 250 ≤ 50s; DN320~400 ≤ 60s
Power Supply	Pneumatic drive	AC 220V 50Hz 6W or DC 24V 3W
	Motor drive	DN63~250 is AC 220V 50Hz, 25W or AC 380V 50Hz, 25W
		DN320~400 is AC 220V 50Hz, 40W or AC 380V 50Hz, 40W
		Special specifications can be customized
Compressed air (pneumatic only)	DN 63 ~ 200	0.4~0.7MPa
	DN 250 ~ 400	0.5~0.7MPa
Position indicator of the valve	Manual drive	With open/close position indicating switch (mechanical type)
	Pneumatic drive	With open/close position indicating switch (magnetic switch)
	Motor drive	With open/close position indicating switch (microswitch)

## External Size



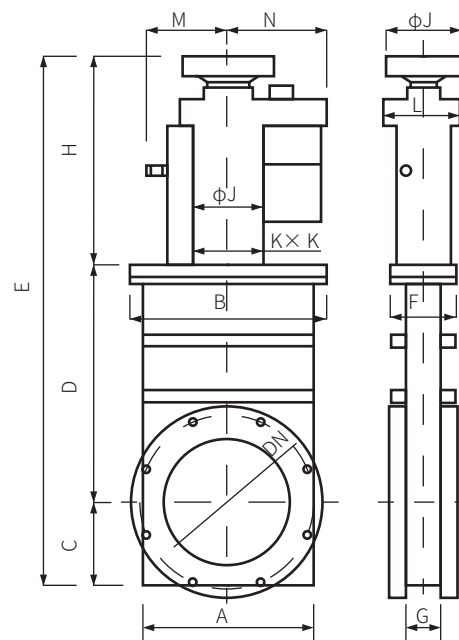
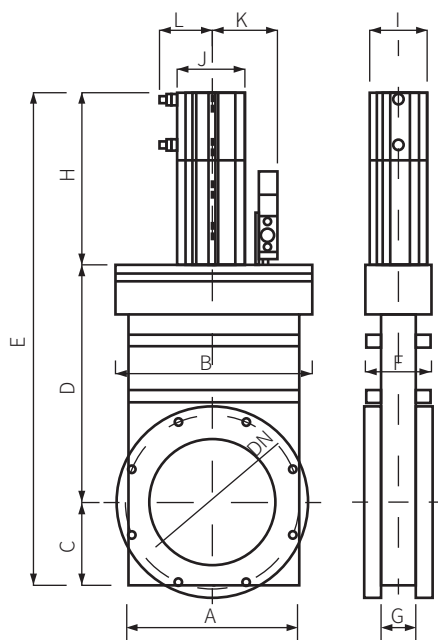
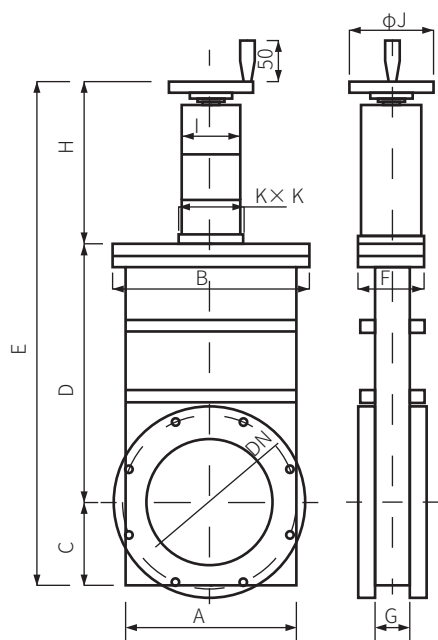
Manual drive



Pneumatic drive



Motor drive



## Manual Driven Type (Bellow seal)

MODEL	DN	SIZE(mm)											CODE
		A	B	C	D	E	F	G	H	I	J	K	
EVCC-63B(CF)	63	110	130	52	173	378	64	34	153	56	100	64	V328
EVCC-63B(ISO-K)													V329
EVCC-63B(GB-LP)													V330
EVCC-63B(ISO-F)													V331
EVCC-80B(CF)	80	130	140	57	228	461.5	75	36	176.5	69	100	75	V332
EVCC-80B(ISO-K)													V333
EVCC-80B(GB-LP)													V334
EVCC-80B(ISO-F)													V335
EVCC-100B(CF)	100	144	170	68	241	500	74	40	191	70	100	75	V336
EVCC-100B(ISO-K)													V337
EVCC-100B(GB-LP)													V338
EVCC-100B(ISO-F)													V339
EVCC-160B(CF)	160	201	226	95.5	328	652.5	76	45	229	69	100	75	V340
EVCC-160B(ISO-K)													V341
EVCC-160B(GB-LP)													V342
EVCC-160B(ISO-F)													V343
EVCC-200B(CF)	200	258	276	120	414.5	763.5	76	47	229	69	100	76	V344
EVCC-200B(ISO-K)													V345
EVCC-200B(GB-LP)													V346
EVCC-200B(ISO-F)													V347
EVCC-250B(CF)	250	310	334	146	500	957.5	87	54.5	311.5	70	125	86	V348
EVCC-250B(ISO-K)													V349
EVCC-250B(GB-LP)													V350
EVCC-250B(ISO-F)													V351
EVCC-320B(CF)	320	425	449	212.5	669.5	1191.5	138	78	309.5	75	125	118	V501
EVCC-320B(ISO-K)													V352
EVCC-320B(GB-LP)													V353
EVCC-320B(ISO-F)													V354
EVCC-400B(CF)	400	—	—	—	—	—	—	—	—	—	—	—	V502
EVCC-400B(ISO-K)													V355
EVCC-400B(GB-LP)													V356
EVCC-400B(ISO-F)													V357

## Pneumatic Driven Type (Bellow seal)

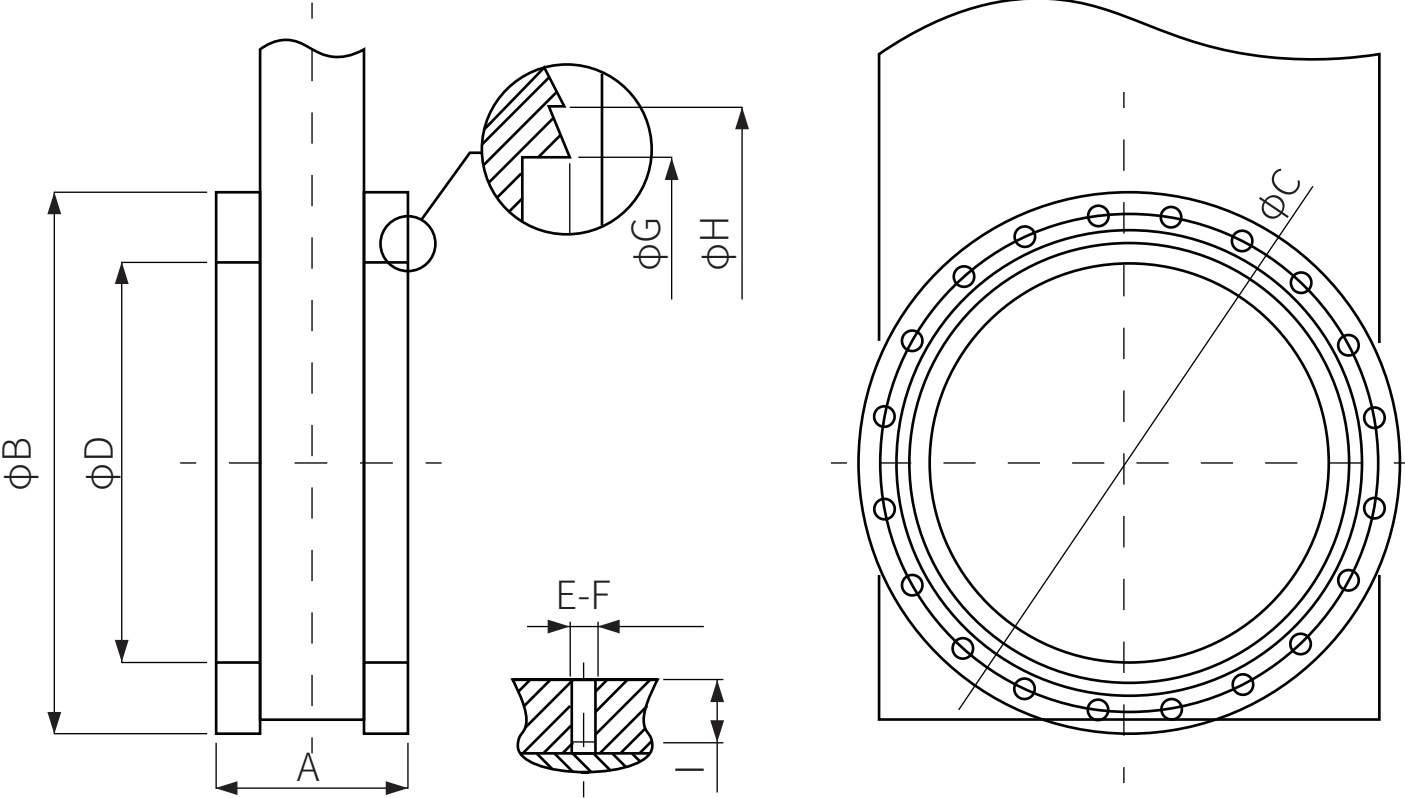
MODEL	DN	SIZE(mm)												CODE
		A	B	C	D	E	F	G	H	I	J	K	L	
EVCCQ-63B(CF)	63	110	130	52	173	365.5	64	34	140.5	64	72	76.5	40	V367
EVCCQ-63B(ISO-K)														V368
EVCCQ-63B(GB-LP)														V369
EVCCQ-63B(ISO-F)														V370
EVCCQ-80B(CF)	80	130	140	57	228	447	75	36	162	77	84	88.5	38.5	V371
EVCCQ-80B(ISO-K)														V372
EVCCQ-80B(GB-LP)														V373
EVCCQ-80B(ISO-F)														V374
EVCCQ-100B(CF)	100	144	170	68	241	615	74	40	306	97	75	86	46	V375
EVCCQ-100B(ISO-K)														V376
EVCCQ-100B(GB-LP)														V377
EVCCQ-100B(ISO-F)														V378
EVCCQ-160B(CF)	160	201	226	95.5	328	771.5	76	45	348	97	75	86	46	V379
EVCCQ-160B(ISO-K)														V380
EVCCQ-160B(GB-LP)														V381
EVCCQ-160B(ISO-F)														V382
EVCCQ-200B(CF)	200	258	276	120	414.5	897.5	76	47	363	117	95	86	54	V383
EVCCQ-200B(ISO-K)														V384
EVCCQ-200B(GB-LP)														V385
EVCCQ-200B(ISO-F)														V386
EVCCQ-250B(CF)	250	310	334	146	500	1064	87	54.5	418	143	117	96	69.5	V387
EVCCQ-250B(ISO-K)														V388
EVCCQ-250B(GB-LP)														V389
EVCCQ-250B(ISO-F)														V390
EVCCQ-320B(CF)	320	425	449	212.5	669.5	1329	138	78	447	141	115	86	64	V391
EVCCQ-320B(ISO-K)														V392
EVCCQ-320B(GB-LP)														V393
EVCCQ-320B(ISO-F)														V394
EVCCQ-400B(CF)	400	512	536	256	810	1624	138	78	558	162	140	86	79	V395
EVCCQ-400B(ISO-K)														V396
EVCCQ-400B(GB-LP)														V397
EVCCQ-400B(ISO-F)														V398

## Motor Driven Type (Bellow seal)

MODEL	DN	SIZE(mm)														CODE
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	
EVCCD-100B(CF)	100	144	170	68	241	551.5	74	40	242.5	69	100	75	86	101	106	V403
EVCCD-100B(ISO-K)																V405
EVCCD-100B(GB-LP)																V407
EVCCD-100B(ISO-F)																V409
EVCCD-160B(CF)	160	201	226	95.5	328	705.5	76	45	282	69	100	76	92	101	121	V411
EVCCD-160B(ISO-K)																V413
EVCCD-160B(GB-LP)																V415
EVCCD-160B(ISO-F)																V417
EVCCD-200B(CF)	200	258	276	120	414.5	816.5	76	47	282	69	100	76	92	101	121	V419
EVCCD-200B(ISO-K)																V421
EVCCD-200B(GB-LP)																V423
EVCCD-200B(ISO-F)																V425
EVCCD-250B(CF)	250	310	334	146	500	956	87	54.5	310	70	100	86	92	106	121	V427
EVCCD-250B(ISO-K)																V429
EVCCD-250B(GB-LP)																V431
EVCCD-250B(ISO-F)																V433
EVCCD-320B(CF)	320	425	449	212.5	669.5	1218	138	78	336	80	110	118	108	105	140	V435
EVCCD-320B(ISO-K)																V436
EVCCD-320B(GB-LP)																V437
EVCCD-320B(ISO-F)																V438
EVCCD-400B(CF)	400	512	536	256	810	1475	138	78	409	80	110	117	118	108	140	V439
EVCCD-400B(ISO-K)																V440
EVCCD-400B(GB-LP)																V441
EVCCD-400B(ISO-F)																V442

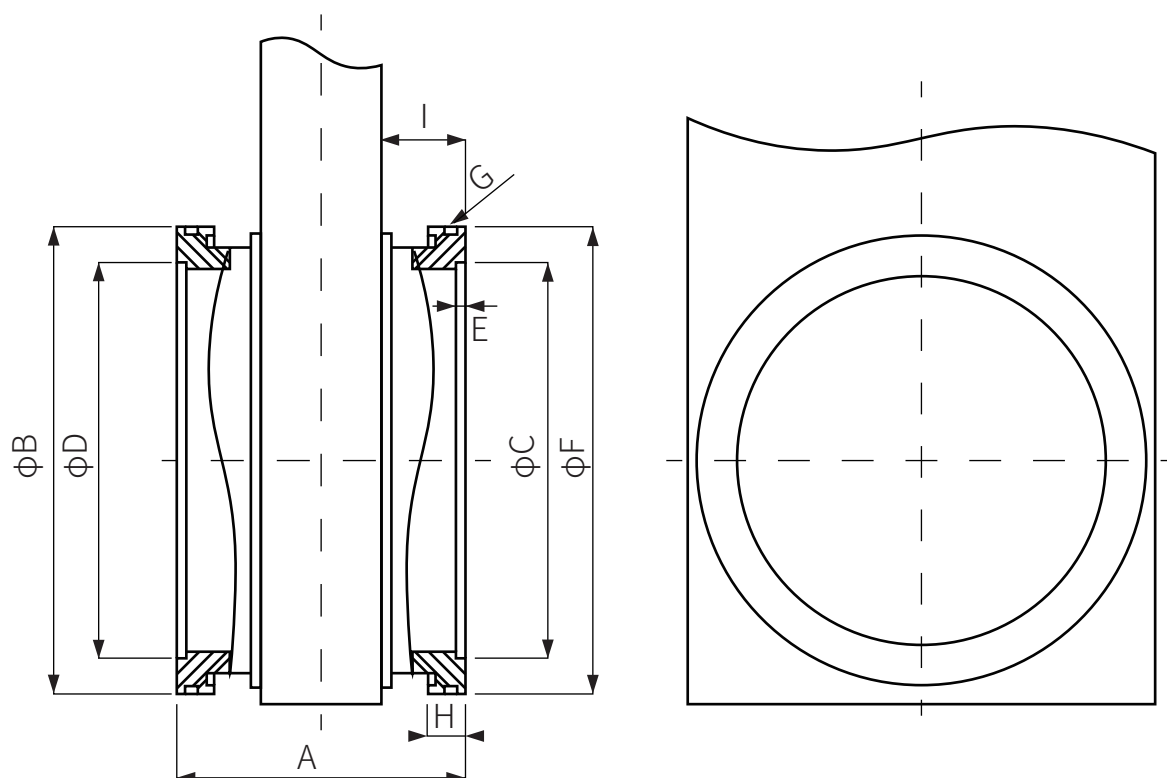


CF Flange Size (mm)



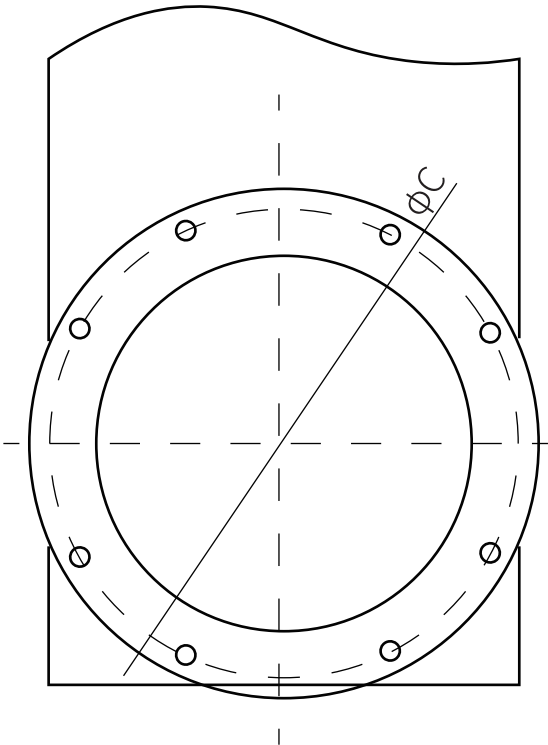
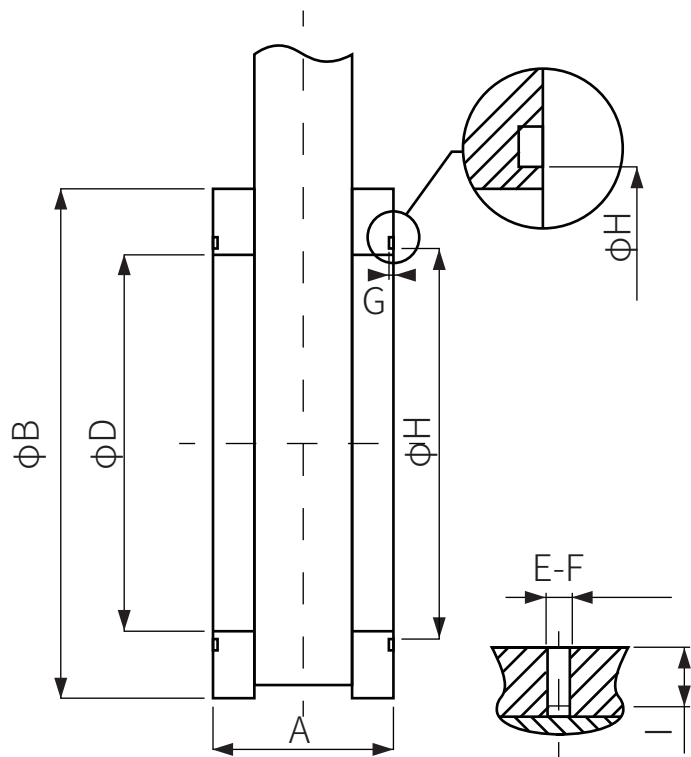
DN	63	80	100	160	200	250	320	400
A	64	72	71	81	85	97.5	130	147
B	114	130	152	202	253	305	425	512
C	92.2	110	130.3	181	231.9	284	338.1	437.9
D	63	80	100	150	200	250	300	400
E	8	16	16	20	24	32	32	40
F	M8	M8	M8	M8	M8	M8	M10	M10
G	77	93	115	166	217	267	320	419
H	82.4	99	120.6	171.4	222.1	273.1	326.4	424.4
I	12	12	12	12	15	15	18	18

## ISO-K Flange Size (mm)

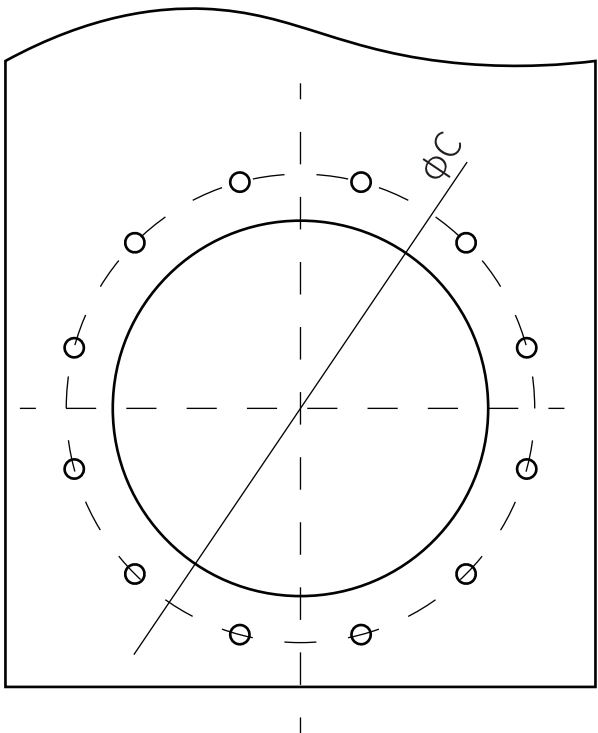
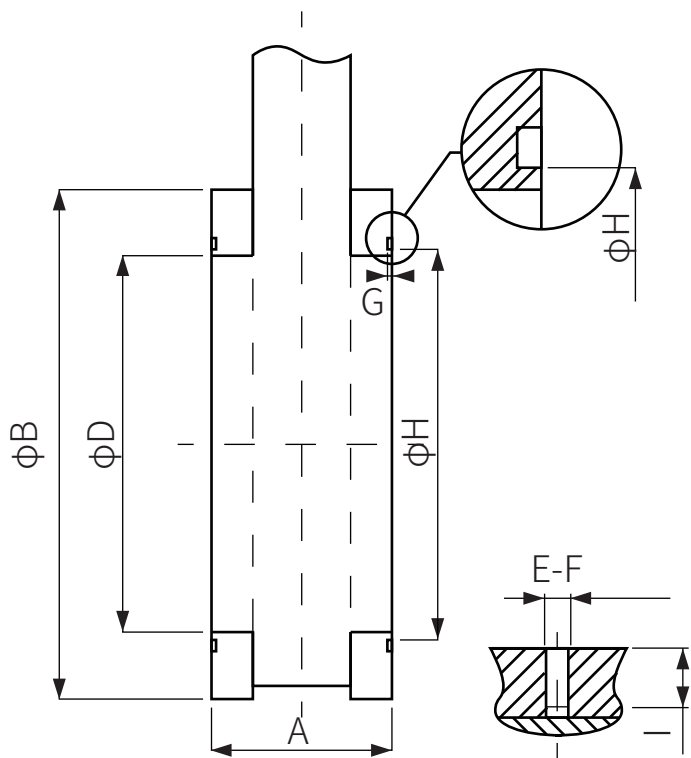


DN	63	80	100	160	200	250	320	400
A	88	90	100	105	107	114.5	164	164
B	95	110	130	180	240	290	370	450
C	70.2	83.2	102.2	153.2	213.2	261.2	318	400
D	63	80	100	150	200	250	318.2	400.2
E	3	3	3	3	2.5	2.5	4.5	4.5
F	92	107	127	175	235	285	365	442
G	1.5	1.5	1.5	2.5	2.5	2.5	2.5	4
H	12	12	12	12	12	12	17	17
I	27	27	30	30	32	32	43	43

GB-LP Flange Size (mm)



GB-LP flange DN63-250



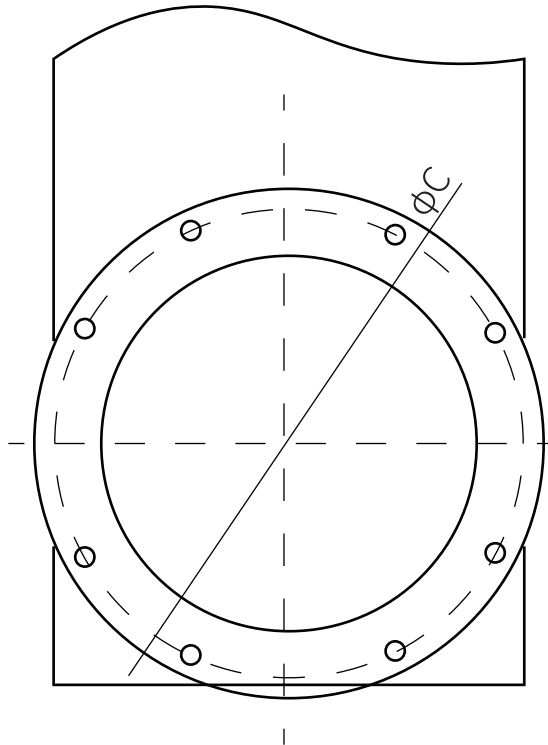
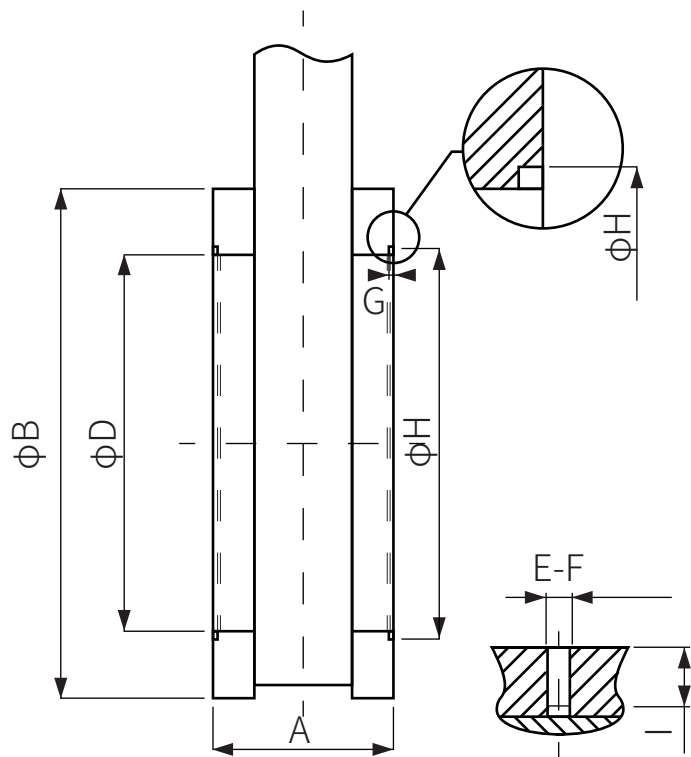
GB-LP flange DN320-400

## GB-LP Flange Size (mm)

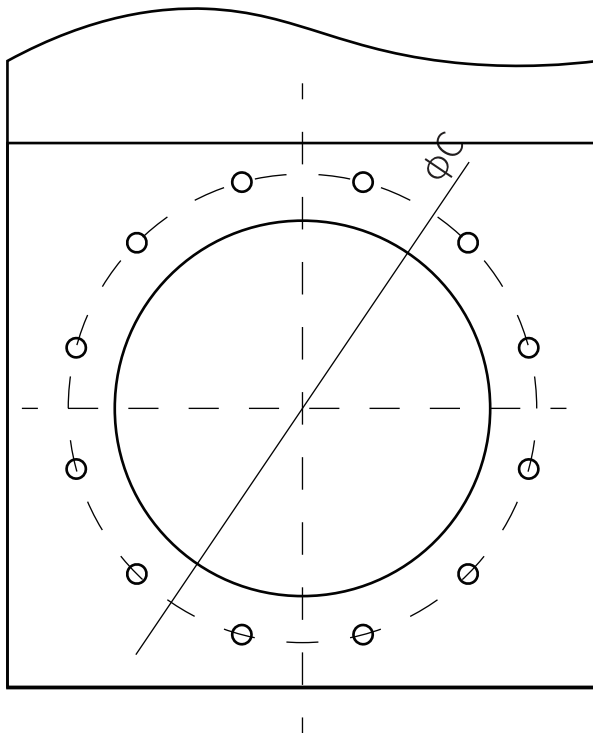
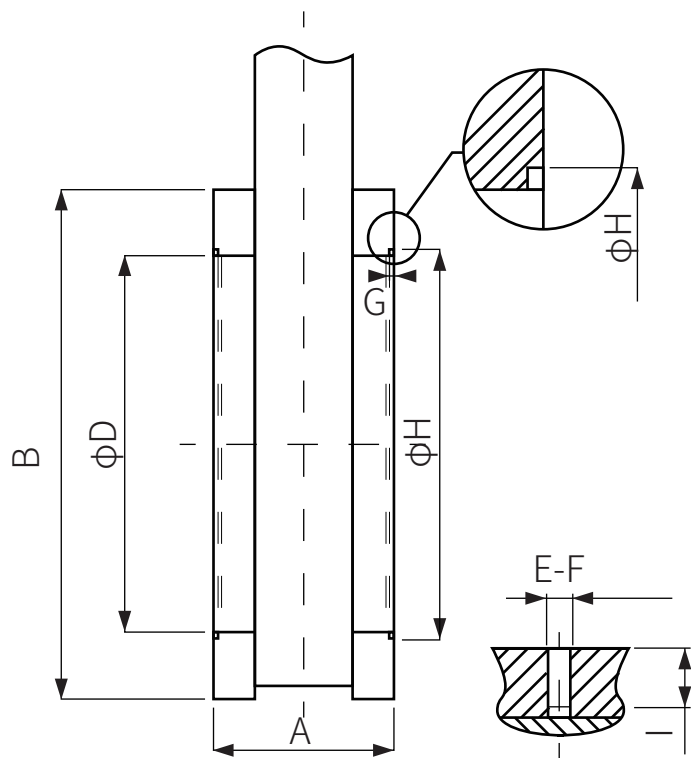
DN	63	80	100	160	200	250	320	400
A	58	60	64	77	79	90.5	108	112
B	130	145	165	225	285	335	425	512
C	110	125	145	200	260	310	395	480
D	63	80	100	150	200	250	318	400
E	4	8	8	8	12	12	12	16
F	M8	M8	M8	M10	M10	M10	M12	M12
G	2.6	2.4	2.6	2.6	3.6	3.6	4.8	4.8
H	68	85	105	165	218	268	318.2	400.2
I	10	11	10	13	13	16	15	16
I.D.	67	85	106	165	218	268	325	406
d	3.55	3.55	3.55	3.55	5.3	5.3	7	7

Remarks: GB-LP flange valve sealing surface shall face the plane flange surface.

ISO-F Flange Size (mm)



ISO-F flange DN63-250



ISO-F flange DN320-400

## ISO-F Flange Size (mm)

DN	63	80	100	160	200	250	320	400
A	58	60	64	77	79	90.5	108	112
B	130	145	165	225	285	335	425	512
C	110	125	145	200	260	310	395	480
D	63	80	100	150	200	250	318	400
E	4	8	8	8	12	12	12	16
F	M8	M8	M8	M10	M10	M10	M12	M12
G	3	3	3	3	3	3	4.5	4.5
H	70.2	83.2	102.2	153.2	213.2	261.2	318.2	400.2
I	10	10	10	13	13	15	15	16
O-ring <sup>1</sup>	67×3.55	85×3.55	106×3.55	155×3.55	206×5.3	258×5.3	325×7	406×7
I.D.×d								

Note: Viton O-rings are optional.

## HIGH VACUUM TRIMMING VALVE

**Product Description**

This series of valves are manually driven precision control valves. They are reasonable in structure design, beautiful in appearance, high precision, small size, practical and reliable, and have good sealing performance. They are used to regulate vacuum and gas flow in vacuum system. The work of the valve is driven by hand turning the adjusting knob, and the needle valve is driven up and down by threaded transmission. The working medium of the valve is air or a few corrosive gases.

**Product features**

With fine thread structure, the adjustment accuracy is high.

The shaft seal adopts fluorine rubber seal, and the valve body adopts stainless steel welding, with small leakage rate.

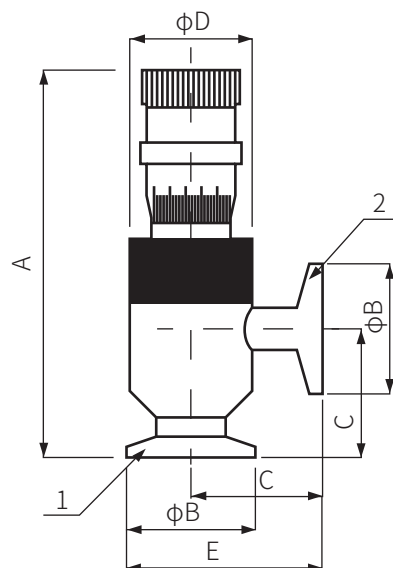
The valve needle and valve stem are designed separately, and the ball seat is installed at the joint, which extends the service life of the needle valve and valve seat, and is convenient for maintenance.



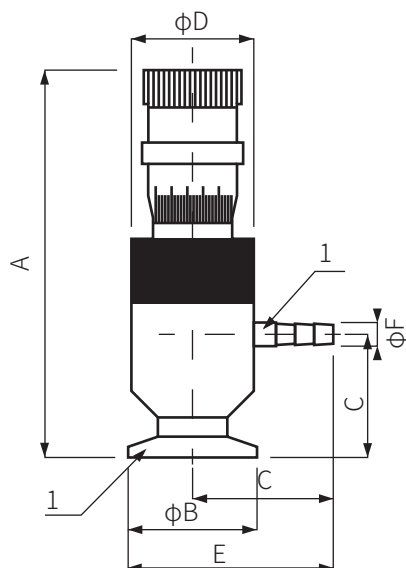
## Technical Parameters

Pressure range	$1 \times 10^{-5} \text{Pa} \sim 1.2 \times 10^5 \text{Pa}$
Minimum adjustable flow	$4.7 \times 10^{-3} \text{Pa.L/S}$
Pressure difference on opening	$\leq 1.2 \times 10^5 \text{Pa}$ Any direction
Body and seat leak rate	$1.3 \times 10^{-7} \text{Pa.L/S}$
Service life until first maintenance	3000 times
Valve body baking temperature	$\leq 150^{\circ}\text{C}$
Installation orientation	Anywhere
Valve position indication	With dial indicator

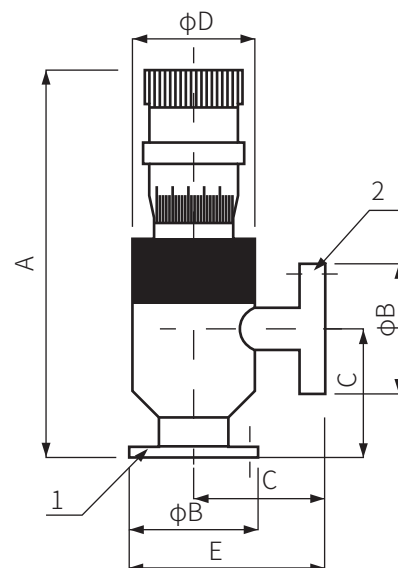
## Trimming Valves External Size



KF - KF



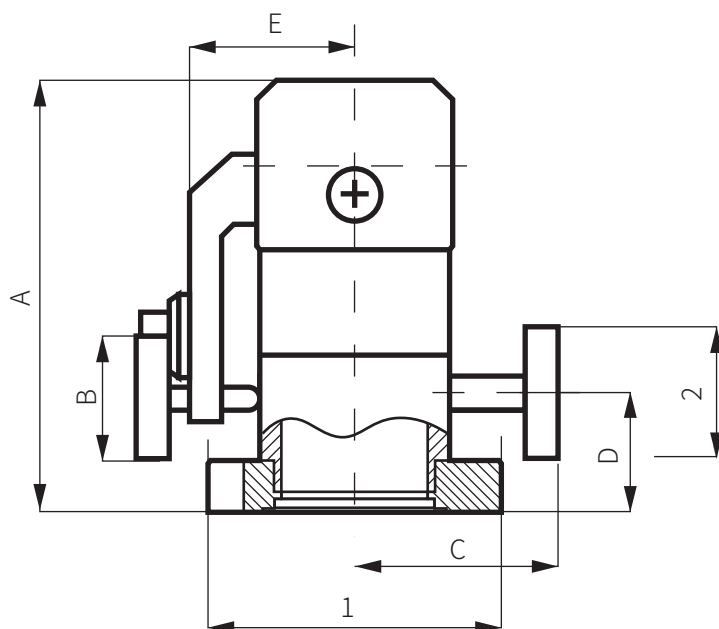
KF - Pipe fittings



CF - CF

MODEL	DN	FLANGE		SIZE(mm)						CODE
		1	2	A	B	C	D	E	F	
EVGW-J2(KF)	0.8	KF16	KF16	90	30	30	28	45	—	V908
EVGW-J2(CF)	0.8	CF16	CF16	98	34	35	28	52	—	V909
EVGW-J2(GK)	0.8	KF16	Pipe fittings	90	30	30	28	45	6	V910
EVGW-J4(KF)	1.2	KF16	KF16	93.2	30	30	28	45	—	V911
EVGW-J4(CF)	1.2	CF16	CF16	98	34	35	28	52	—	V912
EVGW-J4(GK)	1.2	KF16	Pipe fittings	90	30	30	28	45	6	V913

## HIGH VACUUM TRIMMING VALVE



### Product Description

This valve is an all metal valve used for regulating trace gas flow rate. It adopts a tight sealing form of sapphire and oxygen free copper, and the leakage rate is adjusted through a precision lever screw mechanism. Used for various types of vacuum systems that require filling a certain leakage rate of gas into the interior, with extremely high control sensitivity and high temperature resistance. The applicable working medium is various non corrosive and particle free gases.

### Technical Parameters

MODEL	FLANGE		SIZE(mm)						CODE
	1	2	A	B	C	D	E	F	
EVGWF-35(CF)	CF16	CF35	112	32	49	31	39	—	VQ214

### Product features

Superior Vacuum Range:  $10^5$  to  $10^{-9}$  Pa

Bakeable temperature: Up to  $250^{\circ}\text{C}$

Ultra-Low Leak Rate:  $10^{-11}$  Pa  $\cdot$  m<sup>3</sup>/s

All-Metal Durability: Sapphire & oxygen-free copper

Precise Adjustability: Easy control of gas flow

Chemical Compatibility: Ideal for clean gases