



HIGH QUALITY SCIENTIFIC RESOURCES

HIGH QUALITY VACUUM COMPONENTS

GATE VALVE CF-TYPE

1.0 FEATURES:

- Modular design with high conductance
- UHV compatible
- Manual or Electro-pneumatic (air-open & air-close) actuators ;
Manual to electro-pneumatic interchangeability.
- Edge welded bellow actuator seal , Metal bonnet seal &
Viton ® gate seal.
- TIG welded fusion joints
- Electro-polished internal & external surfaces

2.0 SPECIFICATIONS:

2.1 Materials:

Body	: AISI-304L
Gate & bonnet	: AISI-304
Bellow	: AISI-347
Air cylinder	: Aluminium, black anodised
Gate seal	: Viton ® elastomer
Bonnet seal	: Metal wire
Piston seal	: Viton ® elastomer
Bolts + Nuts	: AISI-304

2.2 Vacuum Range : $< 5 \times 10^{-10}$ Torr

2.3 Leak Rate : $< 2 \times 10^{-10}$ std cc/sec of Helium



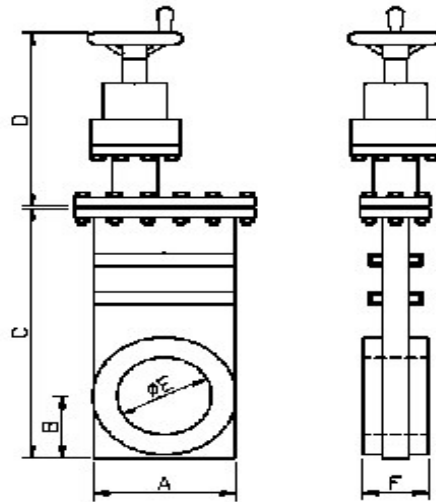
HIGH QUALITY SCIENTIFIC RESOURCES

- 2.4 Temperature Range : 200⁰ C in open condition ...manual actuation
150⁰ C in closed condition ... manual actuation

60⁰ C with solenoidelectro-pneumatic actuation ;
if solenoid is remotely mounted, same temperature
range of manual actuation is applicable.
- 2.5 Differential pressure on the gate : 1bar in either direction
- 2.6 End flanges : CF 35 to CF 150
- 2.7 Orientation : Either vertical or horizontal position
- 2.8 Manual actuation : by means of handwheel driven square threaded screw
Mechanism
- 2.9 Electro-pneumatic Valve options : Mechanical position indicators with
two micro-switches
- 2.10 Electrical power requirements : 230 V A.C. , 50Hz , 8 Watts...for electro-
pneumatic version
- 2.11 Air pressure : 5 to 7 barfor electro-pneumatic version
- 2.12 Power loss : Valve closes..... for electro-pneumatic version
- 2.13 Maintenance : Gate mechanism can be removed through bonnet flange
for seal replacement, cleaning or retrofitting without
removing the valve body from the system.
- 2.14 Weights & Dimensions : as per enclosed sheet

CF GATE VALVES:

MANUALLY OPERATED



ORDER CODE	A	B	C	D	E	F	NET WT. Kg
GMFK36	88 (2.7)	35 (1.4)	148 (5.8)	168 (6.5)	35 (1.4)	80 (2.4)	5
GMFK63	112 (4.4)	58.5 (2.3)	235.5 (9.3)	225 (8.9)	70 (2.8)	70 (2.8)	8
GMFK100	150 (5.9)	80 (3.2)	324 (12.8)	227 (8.94)	100 (3.9)	70 (2.8)	13
GMFK150	190 (7.5)	100 (3.9)	419 (16.5)	270 (10.6)	150 (5.9)	70 (2.8)	19

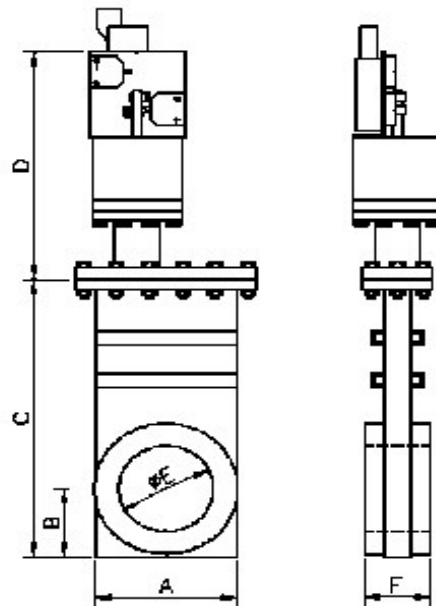
NOTE: ALL DIMENSIONS ARE IN mm & BRACKETED DIMENSIONS ARE IN INCHES.



HIGH QUALITY SCIENTIFIC RESOURCES

CF GATE VALVES:

ELECTRO-PNEUMATIC



ORDER CODE	A	B	C	D	E	F	NET WT. Kg
GVPFK35	65 (2.7)	35 (1.4)	148 (5.8)	305 (12)	35 (1.4)	60 (2.4)	8
GVPFK63	112 (4.4)	58.5 (2.3)	235.5 (9.3)	264 (10.4)	70 (2.8)	70 (2.8)	8.8
GVPFK100	150 (5.9)	80 (3.2)	324 (12.8)	268 (10.6)	100 (3.9)	70 (2.8)	14
GVPFK150	190 (7.5)	100 (3.9)	418 (16.5)	315 (12.5)	150 (5.9)	70 (2.8)	20

NOTE: ALL DIMENSIONS ARE IN mm & BRACKETED DIMENSIONS ARE IN INCHES.



HIGH QUALITY SCIENTIFIC RESOURCES

1.0 FEATURES:

- Modular design with high conductance
- HV series
- Manual or Electro-pneumatic (air-open & air-close) actuators ;
Manual to electro-pneumatic interchangeability.
- Edge welded bellow actuator seal , Viton ® bonnet seal &
Viton ® gate seal.
- TIG welded fusion joints
- Electro-polished internal & external surfaces

2.0 SPECIFICATIONS:

2.1 Materials:

Body	: AISI-304L
Gate & bonnet	: AISI-304
Bellow	: AISI-347
Air cylinder	: Aluminium, black anodised
Gate seal	: Viton ® elastomer
Bonnet seal	: Viton ® elastomer
Piston seal	: Viton ® elastomer
Bolts + Nuts	: AISI-304

2.2 Vacuum Range : $< 1 \times 10^{-8}$ Torr

2.3 Leak Rate : $< 2 \times 10^{-10}$ std cc/sec of Helium

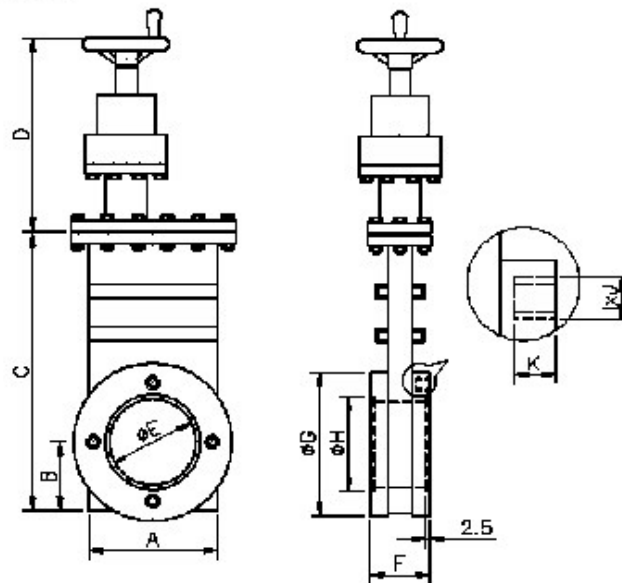
GATE VALVE ISO-TYPE

- 2.4 Temperature Range : 200⁰ C in open condition ...manual actuation
150⁰ C in closed condition ...manual actuation

60⁰ C with solenoid ...electro-pneumatic actuation ;
if solenoid is remotely mounted, same temperature
range of manual actuation is applicable.
- 2.5 Differential pressure on the gate : 1bar in either direction
- 2.6 End flanges : ISO 63 to ISO 160 F type with tapped holes
- 2.7 Orientation : Either vertical or horizontal position
- 2.8 Manual actuation : by means of handwheel driven square threaded screw
Mechanism
- 2.9 Electro-pneumatic Valve options : Mechanical position indicators with
two micro-switches
- 2.10 Electrical power requirements : 230 V A.C. , 50Hz , 8 Watts....for electro-
pneumatic version
- 2.11 Air pressure : 5 to 7 barfor electro-pneumatic version
- 2.12 Power loss : Valve closes.....for electro-pneumatic version
- 2.13 Maintenance : Gate mechanism can be removed through bonnet flange
for seal replacement, cleaning or retrofitting without
removing the valve body from the system.
- 2.14 Weights & Dimensions : as per enclosed sheet

ISO GATE VALVES:

MANUALLY OPERATED

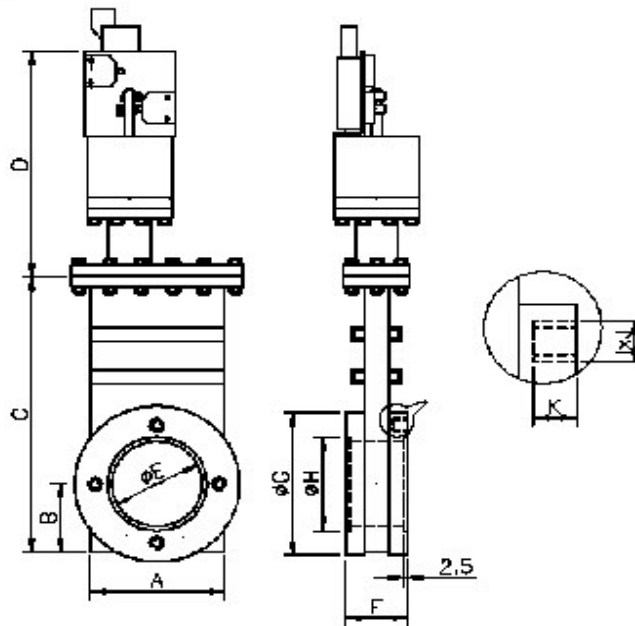


ORDER CODE	A	B	C	D	E	F	G	H	kg	K	NET WT. Kg
GVMISO53	112 (4.4)	58.5 (2.3)	235.5 (9.3)	225 (8.9)	70 (2.8)	70 (2.8)	130 (5.12)	70.4 (2.77)	4xMB	13 (0.51)	8
GVMISO100	150 (5.9)	80 (3.2)	324 (12.8)	227 (8.94)	100 (3.9)	70 (2.8)	165 (6.5)	102.4 (4.03)	8xMB	13 (0.51)	13
GVMISO150	180 (7.5)	100 (3.9)	418 (16.5)	270 (10.6)	150 (5.9)	70 (2.8)	225 (8.86)	153.8 (6.04)	8xM10	15 (0.59)	19

NOTE: ALL DIMENSIONS ARE IN mm & BRACKETED DIMENSIONS ARE IN INCHES.

ISO GATE VALVES:

ELECTRO-PNEUMATIC



ORDER CODE	A	B	C	D	E	F	G	H	ØJ	K	NET WT. Kg
GVPI5083	112 (4.4)	58.5 (2.3)	235.5 (9.3)	264 (10.4)	70 (2.8)	70 (2.8)	130 (5.12)	70.4 (2.77)	4xM8	13 (0.51)	10
GVPI50100	150 (5.9)	80 (3.2)	324 (12.8)	288 (10.6)	100 (3.9)	70 (2.8)	165 (6.5)	102.4 (4.03)	8xM8	13 (0.51)	14
GVPI50150	190 (7.5)	100 (3.9)	419 (16.5)	316 (12.5)	150 (5.9)	70 (2.8)	225 (8.86)	153.8 (6.04)	8xM10	15 (0.59)	20

NOTE: ALL DIMENSIONS ARE IN mm & BRACKETED DIMENSIONS ARE IN INCHES.



HIGH QUALITY SCIENTIFIC RESOURCES

BUTTERFLY VALVES KF-TYPE

1.0 **FEATURES:**

- Quick opening/closing
- Positive O-ring sealing
- High conductance
- 1" & 2" bore sizes

2.0 **SPECIFICATIONS:**

2.1 Materials:

Body, retainer & shaft : AISI-304

O-rings : Viton ®

2.2 Vacuum Range: 1×10^{-7} Torr

2.3 Leak Rate : $< 2 \times 10^{-10}$ std cc/sec of Helium

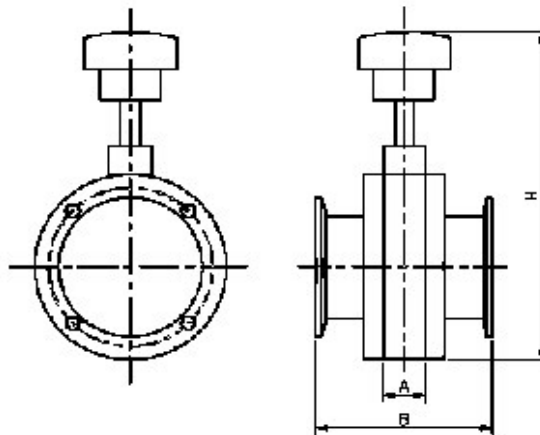
2.4 Temperature Range: 150 °C without actuator knob
100 °C with actuator knob

2.5 End flanges: KF type

2.6 Weights & Dimensions: as per enclosed sheet

KF BUTTERFLY VALVES

MANUALLY OPERATED



ORDER CODE	A	B	H	NET WT. Kg
BMDC-1"	19 (0.8)	69 (2.7)	146 (5.7)	1.2
BMDC-1.5"	21 (0.8)	82 (3.6)	113 (4.4)	2.1
BMDC-2"	22 (0.9)	92 (3.6)	163 (6.3)	2.6

NOTE: ALL DIMENSIONS ARE IN mm @ BRACKETED DIMENSIONS ARE IN INCHES.