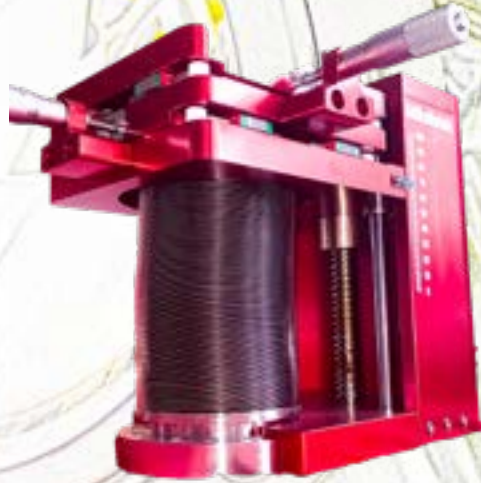


AdNaNo-tek

UHV Design & Components

Products Catalog



We are Vacuum People

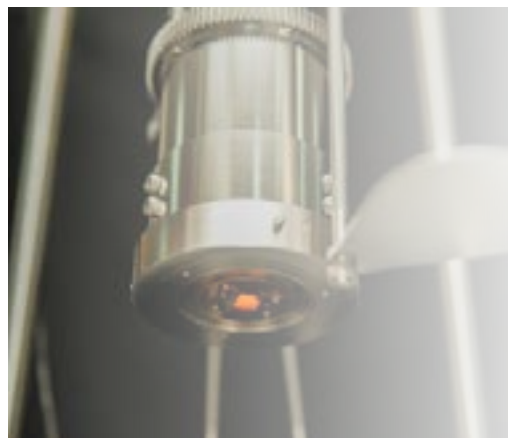
Vacuum Products

AdNaNo-Tek is famous as UHV systems provider, we are also proud to present our new product line.

We are UHV system maker, we know the components.

AdNaNo-Tek Vacuum Products Division is expert to provide best quality of components: Gate Valves, Chambers and Motion Manipulators.

As long-time experience of system building, we know how to make the components in better performance and give better solution to customers. We know how to control the clean processing during the component's fabrication and make better design for mechanism motions.





AdNaNo
UHV Deposition Equipments

AdNaNo-tek
UHV Design & Components

Vacuum Shielding Gate Valves Series

Pneumatic Shielding Gate Valve Series

Manual Shielding Gate Valve Series

AdNaNo-tek

UHV Design & Components

Introduction

**Special Design for
semiconductor sub-fab
Isolation valve for vacuum dry
pump in hash process!!!**



Shielding Gate Valves & Heating Jacket

This gate valves are special design for hash process with chemical particle in the down stream section. Most of particle may flow into the mechanism during the process, and the particles may damage bearings or other parts of mechanism.

AdNaNo-Tek provide economics solution with "Shielding plate".

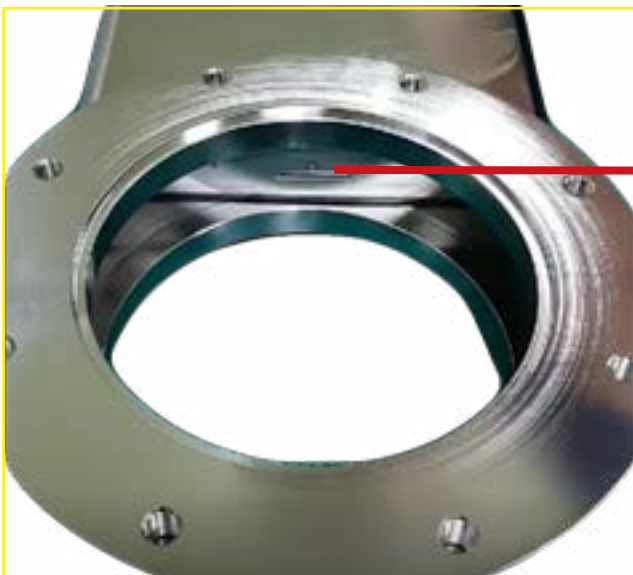
The optional Heating Jacket is helping the valve reduce particles attach on the surface of valve's mechanism.

The sheilding can isolate most of particles and protect valve's mechanism. There are different options of seal plate O-ring more than FKM, please ask our engineer for more information.



The Shielding device is installed at bottom of gate seal plate.

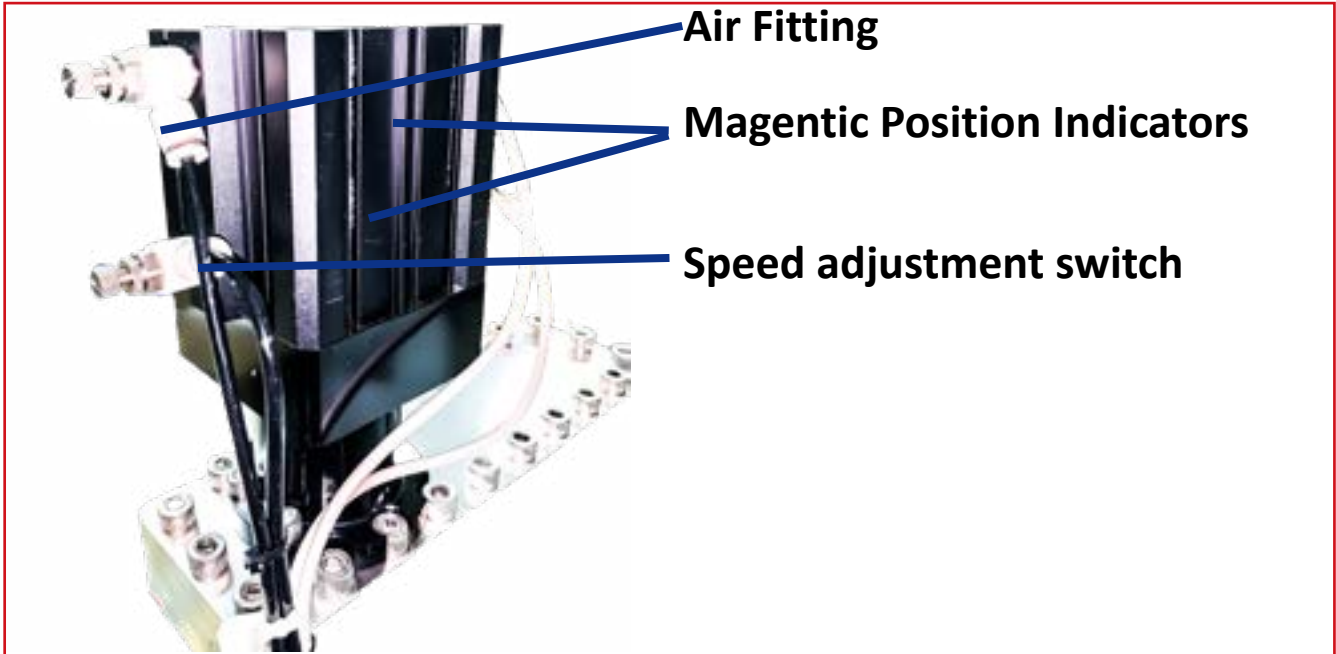
Gate seal plate's shielding



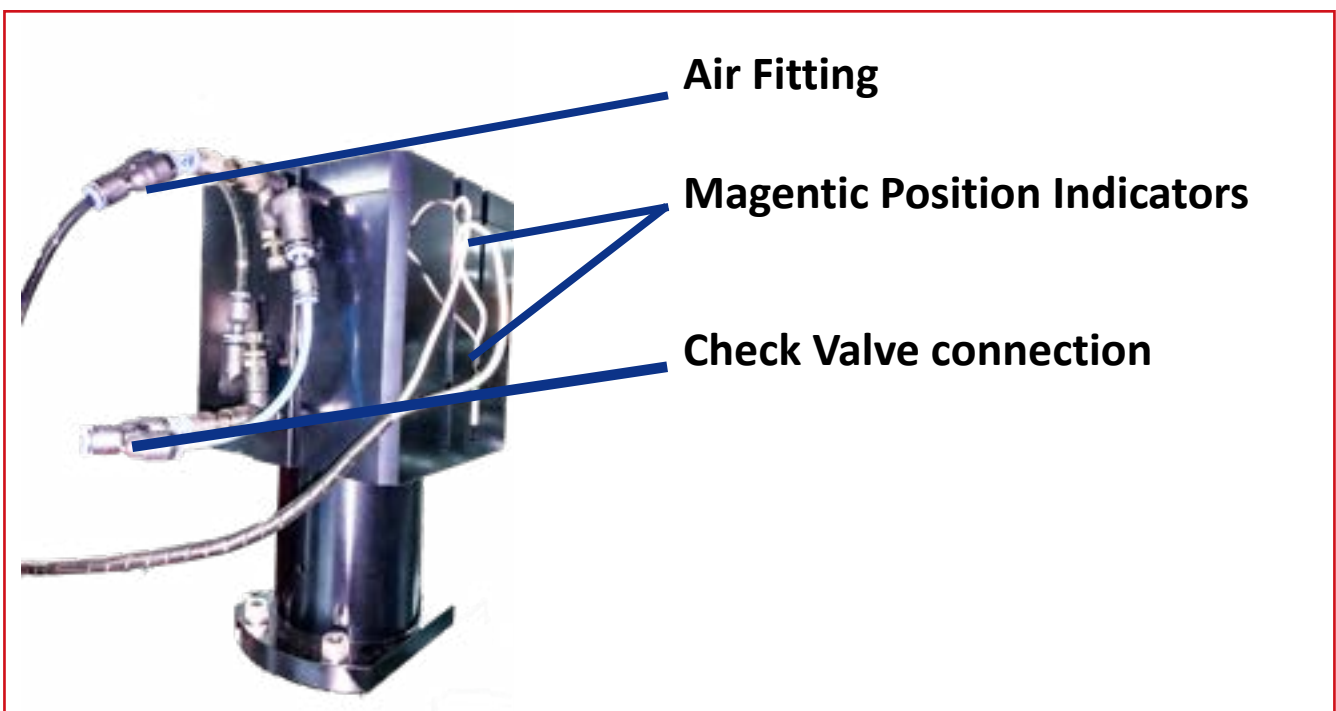
Gate seal plate's shielding

The Shielding device is blocking the particles during the pumping stage.

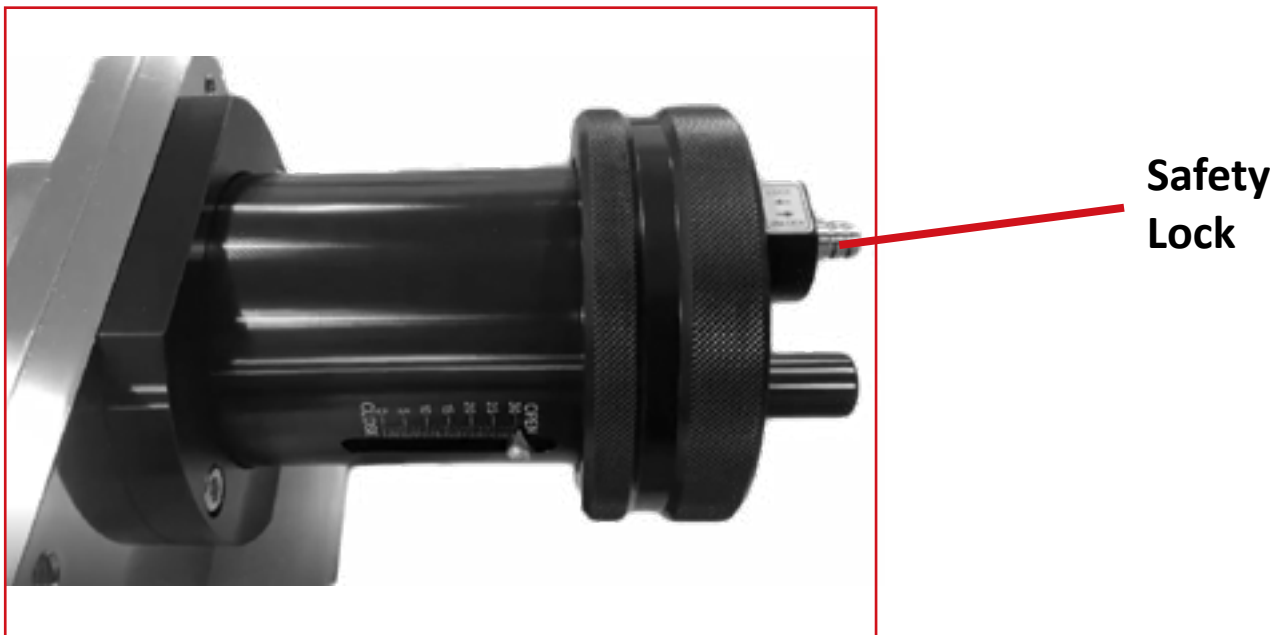
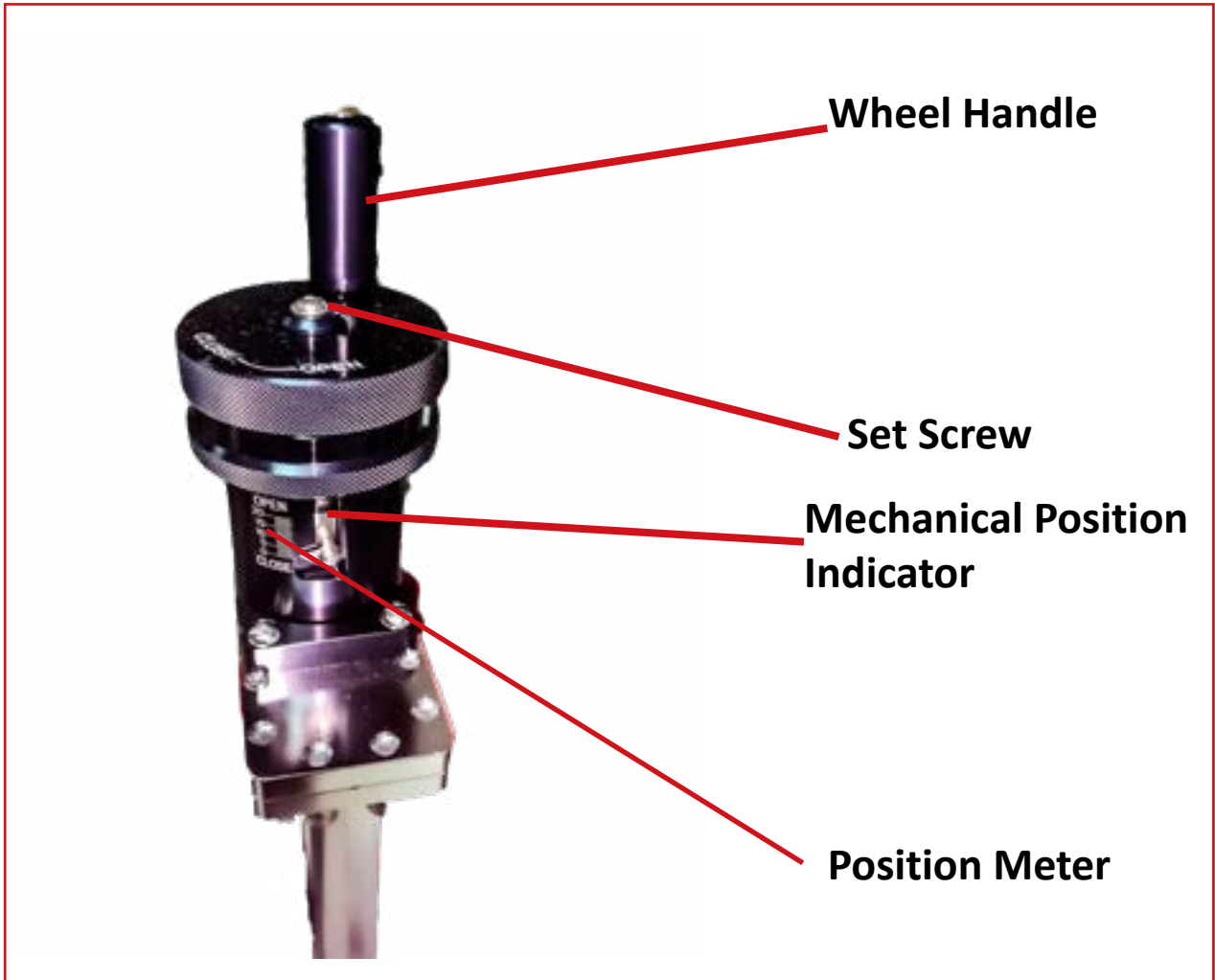
Pneumatic Actuator- Normal Version



Pneumatic Actuator- With Check Valve function



Manual Actuator



** Safety Lock is optional.*

Optional Accessory - Heating Jacket



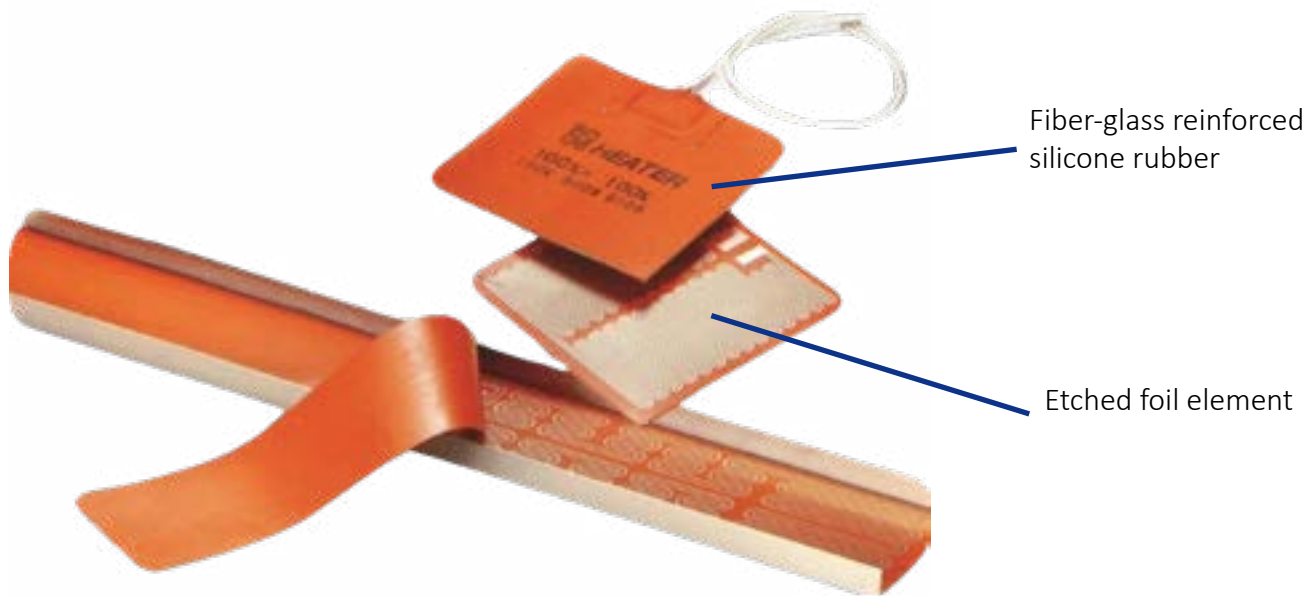
Aerogel Heating Jacket



Use of nano-aerogel super insulation material with extremely low thermal conductivity for reducing heat loss. Thermal conductivity is 2X lower than fiberglass, 4~6X lower than silicone !

Better heating uniformity and energy saving!!

Optional Accessory - Heating Jacket



Etched foil element

- Repeatable
- No variation between heaters
- Reliable
- Contact pads is significantly bigger for spot welding
- Uniform temperature
- Heating film covers >40% of heating area!
- Low cost
- Less labor intensive

Shielding Gate Valve Data Sheet

Product Series	Shielding Gate Valve
Functional Figures	
Operating Options	Pneumatic and wheel manual operating
Device Safety (Only Optional for Manual)	Mechanic lock system (Fully open and close)
Operating pressure (Pneumatic version)	4~7 kgf/cm ² / 3.92 ~6.86 bar / 56.89 ~99.56 psi
Vacuum Rate	1.4 ~ 1.33x10 ⁻⁹ mbar
Valve Body Leak Rate	5x10 ⁻⁹ mbar l/s, He
Gate Seal Leak Rate	1.33x10 ⁻⁹ mbar l/s, He
Position Indicator (Pneumatic Version)	Reed Type Sensor
Position Indicator (Wheel Manual)	Visual Device
Pneumatic Control	Solenoid DC 24V
Manual Device	Wheel handle
Optional for Position Indicator and solenoid integration in D-Sub or other options.	
Mount Direction	Any
Sealing Materials	
Mechanical Feedthrough	Welded Bellows in AM350
Bonnet Seal Material	O-ring (FKM)
Gate Seal Material	O-ring (FKM) Optional for FFKM

Shielding Gate Valve Data Sheet

Performance Figures		
Life Cycles	250,000 (Under ATM)*	
Differential Pressure at Gate	1.4 mbar	
Differential Pressure at opening	< 30 mbar	
Conductance (Molecular flow)	DN100 ISO-F	1,740 l/s
	DN160 ISO-F	5,880 l/s
	DN200 ISO-F	12,200 l/s
	DN250 ISO-F	21,690 l/s

Order Information

Product Description	AdNaNo-Tek PN
Shielding GVP ISO100(DN100),SUS304	SGVP-HV-ISO100-SS
Shielding GVP ISO160(DN160),SUS304	SGVP-HV-ISO160-SS
Shielding GVP ISO200(DN200),SUS304	SGVP-HV-ISO200-SS
Shielding GVP ISO250(DN250),SUS304	SGVP-HV-ISO250-SS
Shielding GVM ISO100(DN100),SUS304	SGVM-HV-ISO100-SS
Shielding GVM ISO160(DN160),SUS304	SGVM-HV-ISO160-SS
Shielding GVM ISO200(DN200),SUS304	SGVM-HV-ISO200-SS
Shielding GVM ISO250(DN250),SUS304	SGVM-HV-ISO250-SS

Options	AdNaNo-Tek PN
Solenoid for 12 DC	S12
Solenoid for 24 DC	S24
Solenoid for 110 AC	S11
Solenoid for 220 AC	S22
Manual safety lock	MSL
Heating Jacket for 4", ISO100(DN100)	HJ100
Heating Jacket for 6", ISO160(DN160)	HJ160
Heating Jacket for 8", ISO200(DN200)	HJ200

Options part number add after the main product's part number.

Example: SGVP-HV-ISO100-S11, SGVM-HV-ISO160-MSL

Product Details-Shielding Gate Valve Pnuematic

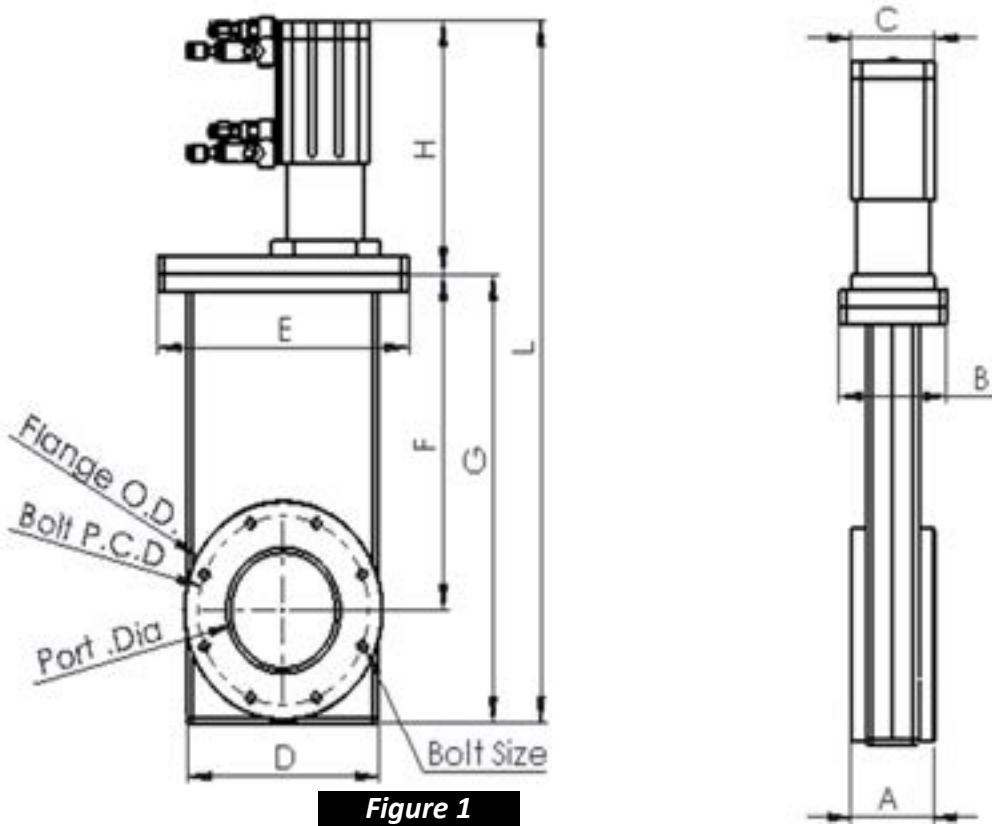


Figure 1

Normal OD	Figure	Flange O.D. mm inch	Port .Dia mm inch	Bolt P.C.D mm inch	Bolts & Bolts Number	A mm inch	B mm inch	C mm inch	D mm inch	E mm inch	F mm inch	G mm inch	H mm inch	L mm inch
DN100	1	165 6.50	100 3.94	145 5.71	M8x8	64 2.52	82 3.23	95 3.74	140 5.51	184 7.24	223 8.78	297.5 11.71	137 5.39	475.2 18.71
DN160	1	225 8.86	145 5.71	200 7.87	M10x8	74 2.91	82 3.23	95 3.74	190 7.48	230 9.06	305 12.01	404 15.91	137 5.39	581.7 22.90
DN200	1	285 11.22	195 7.68	260 10.24	M10x12	74 2.91	82 3.23	109 4.29	239 9.41	279 10.98	389.5 15.33	511 20.12	243.5 9.59	754.5 29.70
DN250	1	335 13.19	245 9.65	310 12.20	M10x12	80 3.15	89 3.50	110 4.33	294 11.57	334 13.15	489 19.25	638 25.12	221.7 8.73	859.7 33.85

Product Details-Shielding Gate Valve Manual

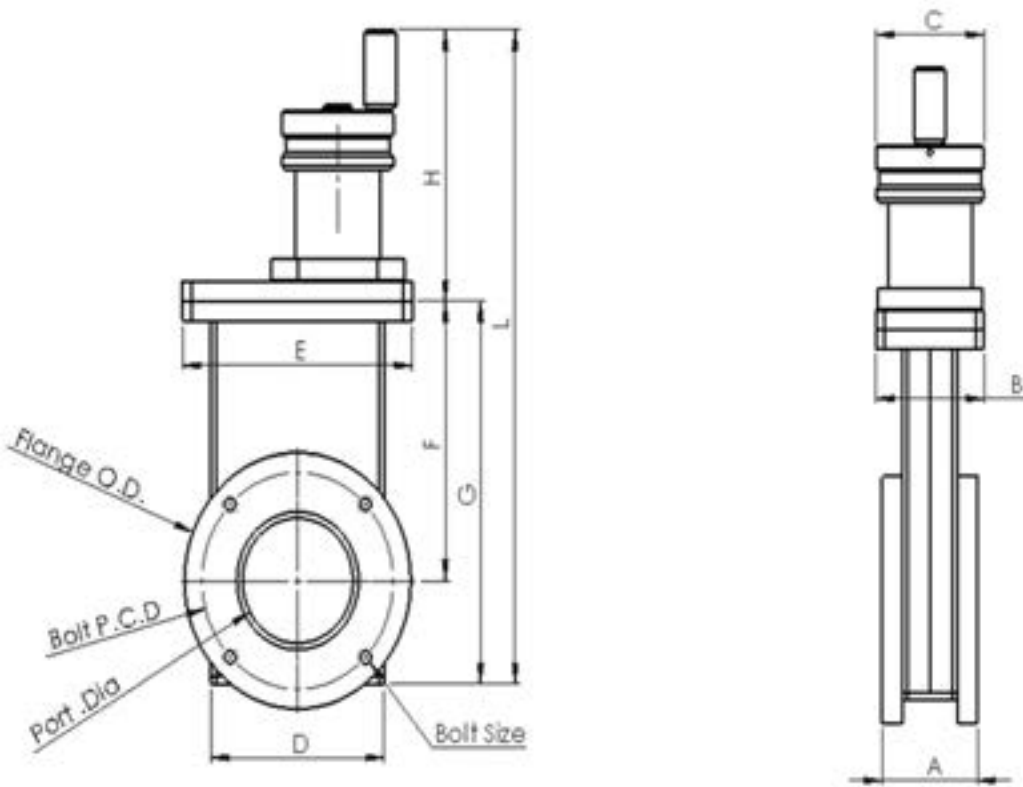


Figure 2

Normal OD	Figure	Flange O.D. mm inch	Port .Dia mm inch	Bolt P.C.D mm inch	Bolts & Bolts Number	A mm inch	B mm inch	C mm inch	D mm inch	E mm inch	F mm inch	G mm inch	H mm inch	L mm inch
DN100	2	165 6.50	100 3.94	145 5.71	M8x8	64 2.52	82 3.23	95 3.74	140 5.51	184 7.24	223 8.78	297.5 11.71	137 5.39	475.2 18.71
DN160	2	225 8.86	145 5.71	200 7.87	M10x8	74 2.91	82 3.23	95 3.74	190 7.48	230 9.06	305 12.01	404 15.91	137 5.39	581.7 22.90
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