

VANNES A TIROIR : GAMME VITZROTECH

Vinci Technologies est partenaire de la société Vitzrotech pour la fourniture de vannes à tiroir utilisées dans les applications sous vide et ultravide,

Les vannes à ouverture totale (vannes à tiroir) sont destinées à des applications où l'on désire une grande conductance et des vides extrêmement poussés et parfaitement propres.

Ces vannes sont particulièrement adaptées aux applications telles que l'isolement des groupes de pompage secondaires et ioniques et le raccordement des chambres d'introduction ou de préparation.

La gamme Vitzrotech comprend des vannes à tiroirs circulaires et rectangulaires, à commande manuelle ou électropneumatique et de diamètre allant de 40 mm à 600 mm (CF40 à CF250 pour les brides CF)

Correspondance des diamètre en CF :

1,5"	: CF40
2,5"	: CF63
4"	: CF100
6"	: CF160
8"	: CF200
10"	: CF250



VITZROTECH

Vacuum Gate Valve Circular Type

Application



UHV Thin Films
Deposition Systems



Ion Implementation
Systems



PVD Systems



Advantages

- Features using patented locking module without link & lever
- Low vibration & less noise
- Less particles
- Brazed under vacuum at high temperature
- Easy to maintenance
- Constant leak rate

Characteristics

Sealing material

- Valve seat : Viton
- Bonnet : Viton, Metal seal
- Body : Stainless steel
- Locking module : Stainless steel
- Bellows : AM350

Leak rate & Pressure range

- Body : 1×10^{-9} mbar · l/sec
- Valve seat : 1×10^{-9} mbar · l/sec
- Pressure range : 1×10^{-9} mbar to 1.4 bar
- Differential pressure on the gate : ≤ 1.4 bar in either direction

Life cycle & Mounting position

- Cycles until first service : 100,000 cycles
- Mounting position : Any

Additional information

- Temperature
 - Body $\leq 250^{\circ}\text{C}$
 - Gate $\leq 150^{\circ}\text{C}$
- Pneumatic cylinder pressure : 3.5kgf/cm^2 to 7kgf/cm^2



Ordering

Ordering number

Port size (inch)	ISO	CF High vacuum	CF Ultra High vacuum	ASA	JIS
2"	-	VCGV02-PCF	VCGV02-PCFU	-	-
2.5"	VCGV2.5-PISO	VCGV2.5-PCF	VCGV2.5-PCFU	-	-
3"	VCGV03-PISO	-	-	-	VCGV03-PJIS
4"	VCGV04-PISO	VCGV04-PCF	VCGV04-PCFU	VCGV04-PASA	VCGV04-PJIS
5"	VCGV05-PISO	-	-	-	-
6"	VCGV06-PISO	VCGV06-PCF	VCGV06-PCFU	VCGV06-PASA	VCGV06-PJIS
8"	VCGV08-PISO	VCGV08-PCF	VCGV08-PCFU	VCGV08-PASA	VCGV08-PJIS
10"	VCGV10-PISO	VCGV10-PCF	VCGV10-PCFU	VCGV10-PASA	VCGV10-PJIS
12"	VCGV12-PISO	VCGV12-PCF	VCGV12-PCFU	VCGV12-PSAS	VCGV12-PJIS

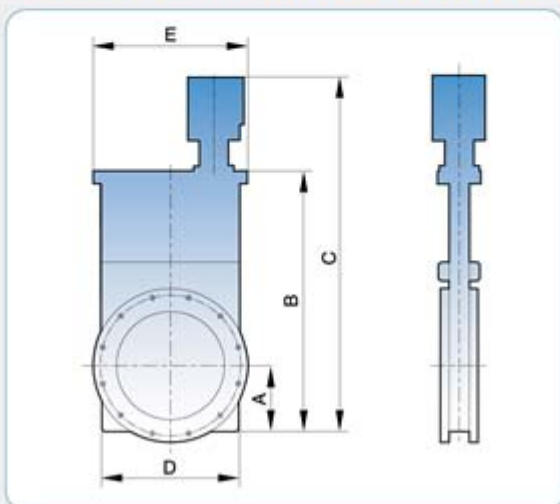
Ordering

ex) 4" Circular Gate Valve (Pneumatic, ISO Flange)

V	C	GV	04	P	ISO
Company	Valve type	Product	Port dimensions	Method	Flange type
V Vitzrotech	C Circular type	GV Gate valve	02 2 inch	P pneumatic	ISO
	R Rectangular type		2.5 2.5 inch	M manual	CF
			03 3 inch		ASA
			04 4 inch		JIS
			01 1.25 × 8.75		
			02 1.8 × 9.3		
			03 50 × 336		

Dimensions

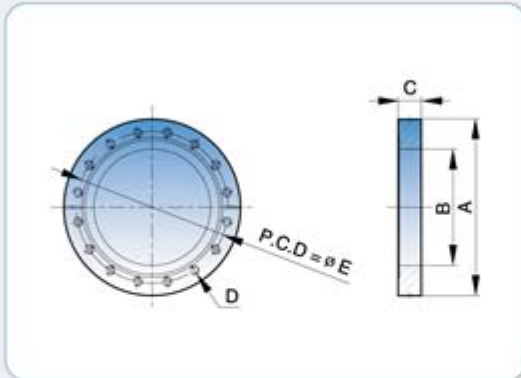
Circular Gate Valve Dimension



ID (port)	1.5"	2"	2.5"	3"	4"	6"	8"	10"	12"
A	37	60	55	59.5	71	103.5	121.8	154	185
B	122	167.5	231	252	279.2	402.9	482	637	804
C	231.5	321.7	365.9	404	445.2	568.9	656.2	862.6	1050
D	74	90	110	120	142	209.4	255	312.2	370
E	96	90	140	150	160	239.4	286	352	422

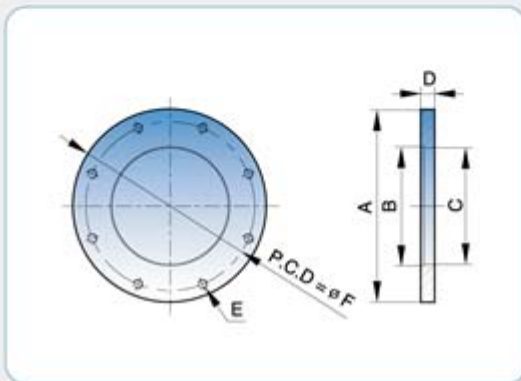
Dimensions

Flange Dimension



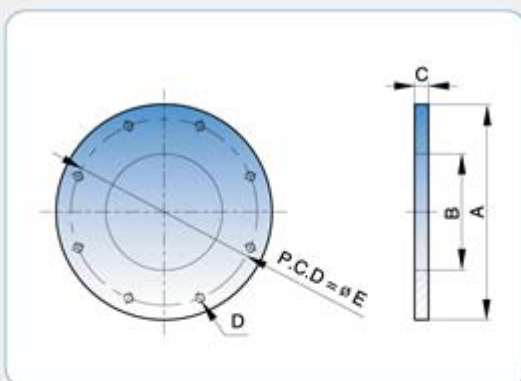
CF-F(1.5"-10")

ID (port)	1.5"	2.5"	4"	6"	8"	10"
Flange	CF2.75*	CF4.5*	CF 6*	CF 8*	CF 10*	CF 12*
A	70	113.5	152	202.4	253.2	305
B	40	63.5	100	150	200	250
C	10	17.5	20	22	24.5	28
D	6×M6	8×M8	16×M8	20×M8	24×M8	32×M8
E	58.7	92.1	130.2	181	231.8	284



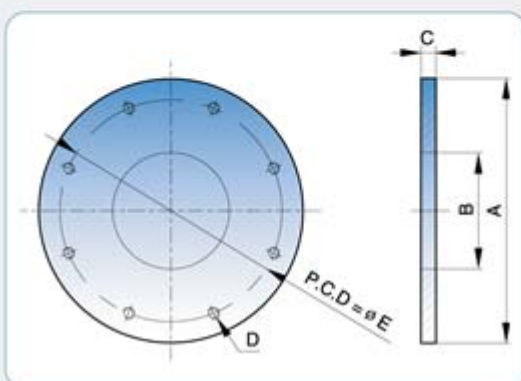
NW ISO-F(1.5"-20")

ID (port)	1.5"	2"	2.5"	3"	4"	6"	8"	10"	12"	16"	20"
Flange	NW40	NW50	ISO63	ISO80	ISO100	ISO160	ISO200	ISO250	ISO320	ISO400	ISO500
A	55	75	130	145	165	225	285	335	425	510	610
B	41.2	52	70	83	102	153	213	261	319	400	508
C	40	50	63	76	100	150	200	250	305	400	508
D	10	12	17	17	12	16	16	16	22	26	46
E	—	—	4×M8	8×M8	8×M8	8×M10	12×M10	12×M10	12×M12	16×M12	16×M12
F	—	—	110	125	145	200	260	309.9	395	480	580



JIS-F(2.5"-16")

ID (port)	2.5"	3"	4"	6"	8"	10"	12"	14"	16"
Flange	VF60	VF80	VF100	VF150	VF200	VF250	VF300	VF350	VF400
A	145	160	185	235	300	350	400	450	520
B	63	76	100	150	200	250	305	350	400
C	17	12.5	12	12	16	16	16	21	26
D	4×M10	4×M10	8×M8	8×M10	8×M12	12×M12	12×M12	12×M12	12×M16
E	120	135	160	210	270	320	370	420	480



ASA ANSI-F(2.5"-12")

ID (port)	2.5"	4"	6"	8"	10"	12"
Flange	ASA2 ANSI	ASA4 ANSI	ASA6 ANSI	ASA6 ANSI	ASA10 ANSI	ASA10 ANSI
A	152	227.6	279.4	279.4	406.4	406.4
B	63	100	150	200	250	300
C	17	12.7	19	19	25.4	25.4
D	4×M10	8×M10	8×M20	8×M20	12×M20	12×M20
E	120.7	190.5	241.3	241.3	362	362

Protection Valve System



Features

■ Features

- Fast Pneumatic Actuation-Closes in < 0.3 seconds
- Patented shielding mechanism for low particulate generation
- Bellows-sealed actuator
- Long cycle life under adverse process conditions
- Low shock/motion during open/close cycling
- Main control with status LCD display
- Easy routine maintenance
- 1, 2, 3 or 4 channel control options
- Local/Remote control with "Lock" function

Specifications

■ Specifications

- Pressure Range : 1×10^{-9} mbar to 1.4bar
- Leak Rate : 1×10^{-9} mbar \cdot l./sec
- Air Pressure : 3.5kgf/cm² to 7kgf/cm²
- **Differential Pressure:**
Gate : 1.4bar in either direction
At opening: \leq 30mbar in either direction

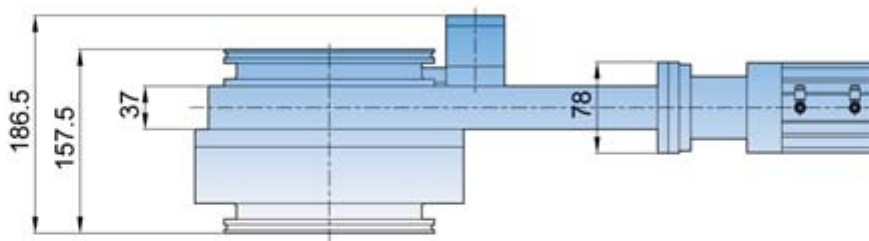
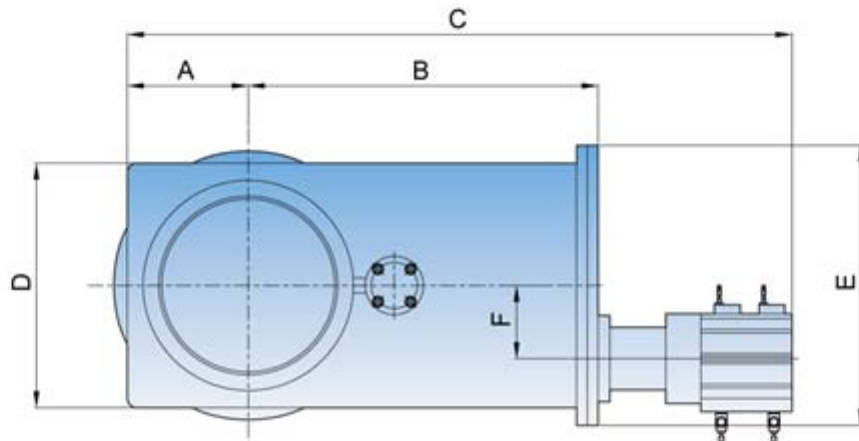
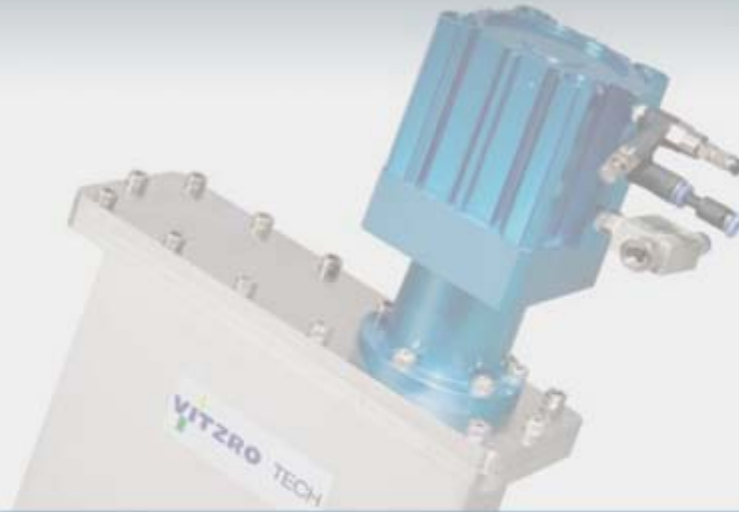
- **Material :**
Body : 304SS
Bellows : AM350
Actuator : AL-6061
Seals : Viton

- **Temperature :**
Body : <150°C
Actuator : <60°C

Applications

■ For Vacuum pump or chamber isolation in demanding processes

- Plasma etching, cleaning, and desmearing
- All CVD processes (including MO, PE, HDP, LP and AP)
- Sputter deposition and e-beam/thermal evaporation
- Nanotechnology processes with high particulate levels
- Thin film photovoltaic panels



Flange Size	Dimensions (mm)					
	A	B	C	D	E	F
ISO125	91.5	264.9	522.4	184.8	220	40
ISO160	116.5	375.5	658	228	260	76

Auto gate Valve



Features

■ Features

- Fast Pneumatic Actuation-Closes in < 0.3 seconds
- Patented shielding mechanism for low particulate generation
- Bellows-sealed actuator
- Long cycle life under adverse process conditions
- Low shock/motion during open/close cycling
- Main control with status LCD display
- Easy routine maintenance
- 1, 2, 3 or 4 channel control options
- Local/Remote control with "Lock" function

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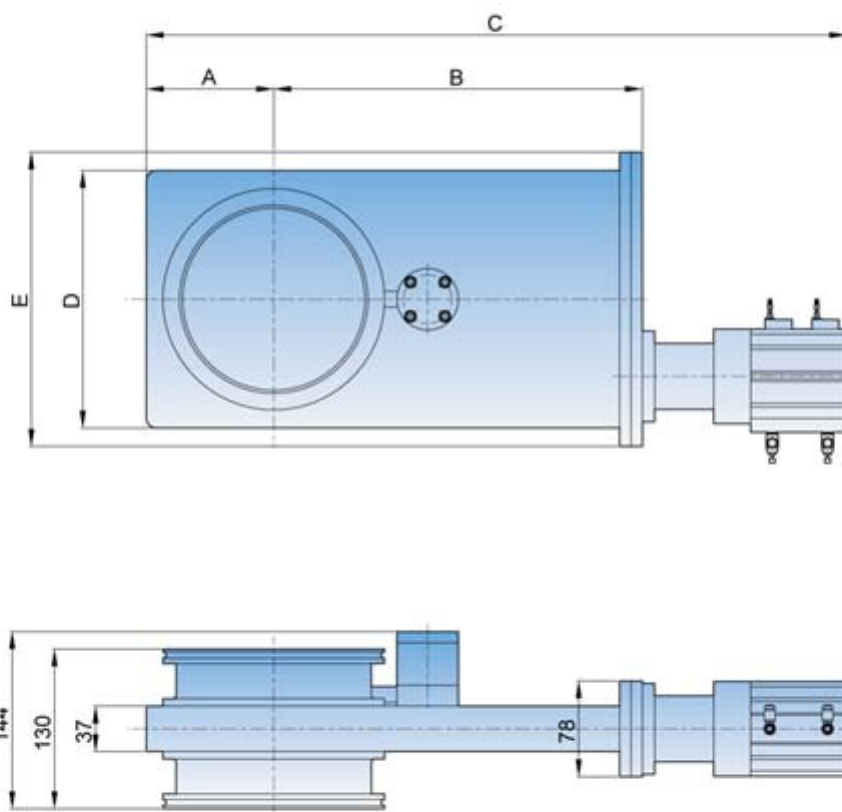
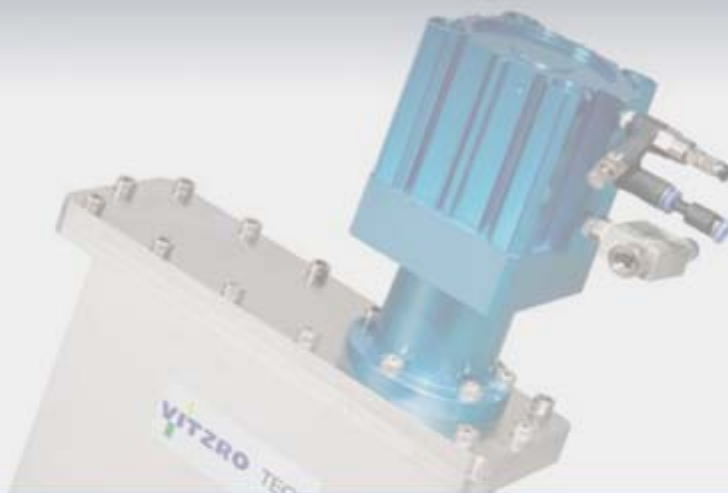
Specifications

■ Specifications

- Pressure Range : 1×10^{-9} mbar to 1.4bar
- Leak Rate : 1×10^{-9} mbar • l/sec
- Air Pressure : 3.5kgf/cm² to 7kgf/cm²
- **Differential Pressure:**
Gate : 1.4bar in either direction
At opening: ≤ 30mbar in either direction

- **Material :**
Body : 304SS
Bellows : AM350
Actuator : AL-6061
Seals : Viton

- **Temperature :**
Body : <150°C
Actuator : <60°C



Flange Size	Dimensions (mm)					
	A	B	C	D	E	F
ISO100	70	208.2	445.2	142	160	30
ISO125	91.5	258.9	516.4	184.8	220	40
ISO160	103.5	299.4	568.9	209.4	239.4	62.4

LL Vacuum Gate Valve

Direct Mount Type

● MT-LV-N-(Slot size)-ST



Features

■ Features

- Standard ATM-VAC Sealed Valve
- Particle Free
- Easy Maintenance

■ Specifications

Leak Rate(RT)	$\leq 1 \times 10^{-7}$ mbar·l/s, 30s, He / Air
Air Quality	Filtered(5 μ m), Unoiled Air 3~6 Bar
Differential Pressure at Opening	≤ 5 mbar
Cycle Until First Service	≥ 1 million(Unheated and Vacuum, Clean room)
Opening / Closing Time	≤ 4 sec / ≤ 3 sec
Operating Temperature	
- Seal Plate	$\leq 120^{\circ}\text{C}$
- Actuator	$\leq 60^{\circ}\text{C}$
- Pneumatic Control Unit	$\leq 50^{\circ}\text{C}$
Seal Material	Viton(Customizing)
Body Materials	Aluminum / SUS et al.
Applications	4~8G
Options	Glass / Crack / Sensor Fast Tack Time(Below 6G)

Application Field

■ Application Field

- Dry Etcher / CVD / Sputter / Plasma Asher /
- Encapsulation System / Vacuum System et al.

PM Vacuum Gate Valve

Back Pressure Type
 CP-PV-H-(Slot size)-ST



Features

■ Features

- Standard VAC-VAC Sealed Valve
- Particle Free
- Easy Maintenance

■ Specifications

Leak Rate(RT)	$\leq 1 \times 10^{-7}$ mbar·ℓ/s, 30s, He / Air
Air Quality	Filtered(5 μ m), Unooled Air 3~6 Bar
Differential Pressure at Opening	≤ 5 mbar
Cycle Until First Service	≥ 1 million(Unheated and Vacuum, Clean room)
Opening / Closing Time	≤ 4 sec / ≤ 3 sec
Operating Temperature	
- Seal Plate	$\leq 120^{\circ}$ C
- Actuator	$\leq 60^{\circ}$ C
- Pneumatic Control Unit	$\leq 50^{\circ}$ C
Seal Material	Viton(Customizing)
Body Materials	Aluminum / SUS et al.
Applications	4~8G
Options	Tack Time(Blow 6G) Ground for Impedance Mach Heating(Direct/Indirect) $\leq 100^{\circ}$ C at Seal Plate Temperature Glass Crack Sensor

Application Field

■ Application Field

- Dry Etcher / CVD / Sputter / Plasma Asher / Vacuum System et al.

TM Vacuum Gate Valve

Insert Type

- CP-TV-N-(Slot size)-ST



Features

■ Features

- Standard VAC-VAC Sealed Valve
- Particle Free
- Easy Maintenance

■ Specifications

Leak Rate(RT)	$\leq 1 \times 10^{-7}$ mbar·l/s, 30s, He / Air
Air Quality	Filtered(5 μ m), Unoiled Air 3~6 Bar
Differential Pressure at Opening	≤ 5 mbar
Cycle Until First Service	≥ 1 million(Unheated and Vacuum, Clean room)
Opening / Closing Time	≤ 4 sec / ≤ 3 sec
Operating Temperature	
- Seal Plate	$\leq 120^{\circ}$ C
- Actuator	$\leq 60^{\circ}$ C
- Pneumatic Control Unit	$\leq 50^{\circ}$ C
Seal Material	Viton(Customizing)
Body Materials	Aluminum / SUS et al.
Applications	4~8G
Options	Glass / Crack / Sensor Fast Tack Time(Below 6G)

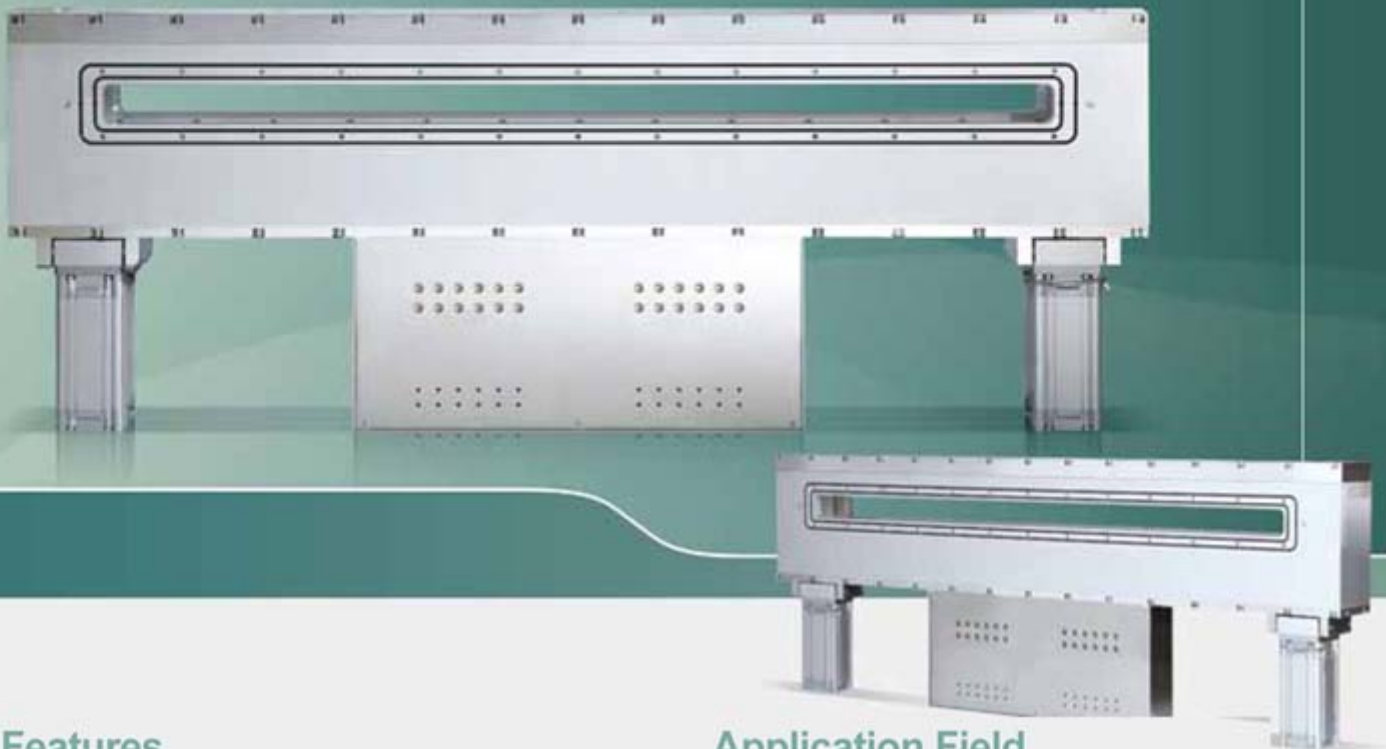
Application Field

■ Application Field

- Dry Etcher / CVD / Sputter / Plasma Asher / Encapsulation System / Vacuum System et al.

TM Vacuum Gate Valve

Housing Type
 CP-TV-N-(Slot size)-ST



Features

■ Features

- Standard VAC-VAC Sealed Valve
- Particle Free
- Easy Maintenance

■ Specifications

Leak Rate(RT)	$\leq 1 \times 10^{-7}$ mbar·ℓ/s, 30s, He / Air
Air Quality	Filtered(5/μm), Unoiled Air 3~6 Bar
Differential Pressure at Opening	≤ 5 mbar
Cycle Until First Service	≥ 1 million(Unheated and Vacuum, Clean room)
Opening / Closing Time	≤ 4 sec / ≤ 3 sec
Operating Temperature	
- Seal Plate	$\leq 120^{\circ}\text{C}$
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