



High Vacuum Valves
Leader in Quality and Value

11000 Series

Stainless Steel Gate Valves

11000 Series Standard Cycle Gate Valves are designed for high vacuum and ultra high vacuum applications.

All Flange Types Available - KF, ISO-F, ISO-K, CF-F, ASA and JIS

Multi Application Use - Cryopumps, turbo pumps, ion pumps

Low Vibration/Lowest Outgassing - Proprietary vacuum brazing process

UHV Systems - Metal sealed CF flanges allow 1×10^{-10} mbar and temperatures of 200°C

Custom - Custom sizes and higher temperature options available

Size Range - Sizes range from 5/8" up to 40" (16mm - 1000mm)

11000 Series Standard Technical Specifications

Materials

Valve body and gate	304 stainless steel
Welded bellows shaft seal	AM-350

Bonnet / gate seals

HV	Viton® elastomer
UHV	copper / Viton® elastomer

Vacuum

Pressure Range	
HV	1×10^{-9} mbar
UHV	1×10^{-10} mbar
Helium leak rate	$< 2 \times 10^{-9}$ mbar l/s
Differential pressure closed	1 bar in either direction
Maximum Δ pressure before opening	≤ 30 mbar

Bakeout Temperature

Elastomer sealed bonnet	without solenoid
Metal sealed bonnet	150°C
Valve open	200°C
Valve closed	150°C

Actuator

Manual	60°C
Pneumatic	60°C

Mechanism

Pneumatic air service	80 psig
Solenoid	4.0 Watts
supplied voltage	120V AC, 50/60 Hz
optional voltages	24, 200, 240 VAC 50/60 Hz or 12, 24V DC

Position indicator, max	115 VAC or 28 VDC, 20 mA
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Mounting Position

any

Cycles Until Service

100,000 cycles
dependent on process





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Ordering Guides For Standard Sizes

Pneumatic with Viton Bonnet

DN mm inch	Model number KF / ISO-K	Model number ISO-F	Model number CF-F*
16 0.625	11212-0063	-	11212-0060
40 1.5	11212-0153R	-	11212-0150R
50 2.0	11212-0203R	-	11212-0200R
63 2.5	11212-0256R	11212-0253R	11212-0250R
80 3.0	11212-0306R	11212-0303R	11212-0300R
100 4.0	11212-0406R	11212-0403R	11212-0400R
160 6.0	11212-0606R	11212-0603R	11212-0600R
200 8.0	11212-0806R	11212-0803R	11212-0800R
250 10.0	Recommend ISO-F	11212-1003R	11212-1000R
320 12.0	Recommend ISO-F	11212-1203R	11212-1200R
350 14.0	-	-	11212-1400R
400 16.0	Recommend ISO-F	11212-1603R	-
500 20.0	Recommend ISO-F	11212-2003R	-

Includes 120V AC Solenoid. For 24V DC solenoid change to: 1121[1]-

*For Metric CF change last '0' to '4'

Manual with Viton Bonnet

DN mm inch	Model number KF / ISO-K	Model number ISO-F	Model number CF-F*
16 0.625	11110-0063	-	11110-0060
40 1.5	11110-0153	-	11110-0150
50 2.0	11110-0203	-	11110-0200
63 2.5	11110-0256	11110-0253	11110-0250
80 3.0	11110-0306	11110-0303	11110-0300
100 4.0	11110-0406	11110-0403	11110-0400
160 6.0	11110-0606	11110-0603	11110-0600
200 8.0	11110-0806	11110-0803	11110-0800
250 10.0	Recommend ISO-F	11110-1003	11110-1000
320 12.0	Recommend ISO-F	11110-1203	11110-1200

*For Metric CF change last '0' to '4'

Pneumatic with Copper Bonnet

DN mm inch	Model number CF-F (UNF)	Model number CF-F (Metric)
16 0.625	11222-0060	11222-0064
40 1.5	11222-0150R	11222-0154R
50 2.0	11222-0200R	11222-0204R
63 2.5	11222-0250R	11222-0254R
80 3.0	11222-0300R	11222-0304R
100 4.0	11222-0400R	11222-0404R
160 6.0	11222-0600R	11222-0604R
200 8.0	11222-0800R	11222-0804R
250 10.0	11222-1000R	11222-1004R
320 12.0	11222-1200R	11222-1204R
350 14.0	11222-1400R	11222-1404R

Includes 120V AC Solenoid. For 24V DC solenoid change to: 1122[1]-

Manual with Copper Bonnet

DN mm inch	Model number CF-F (UNF)	Model number CF-F (Metric)
16 0.625	11120-0060	11120-0064
40 1.5	11120-0150	11120-0154
50 2.0	11120-0200	11120-0204
63 2.5	11120-0250	11120-0254
80 3.0	11120-0300	11120-0304
100 4.0	11120-0400	11120-0404
160 6.0	11120-0600	11120-0604
200 8.0	11120-0800	11120-0804
250 10.0	11120-1000	11120-1004
320 12.0	11120-1200	11120-1204

Options: Larger Sizes Up to 50" (1250mm) on Pneumatic Versions • JIS, ANSI and Custom Flanges • Alternate o-ring materials • Roughing Ports