



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  $1 \times 10^{-10}$  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  $1 \times 10^{-9}$  mbar  
UHV  $1 \times 10^{-10}$  mbar  
Helium leak rate  $< 2 \times 10^{-9}$  mbar l/s  
Differential pressure closed 1 bar in either direction  
Maximum  $\Delta$  pressure before opening  $\leq 30$  mbar

**Bakeout Temperature**

Elastomer sealed bonnet without solenoid 150°C  
Metal sealed bonnet  
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

**Mounting Position**

any

**Cycles Until Service**

100,000 cycles  
dependent on process





### 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'

#### 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 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'

#### 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