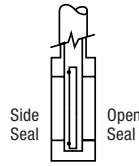


End Operated Aluminum Gate Valves; Standard Size Ports with ANSI Flanges

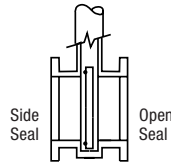


Stainless Steel Gates in Aluminum Valves: Add suffix "SS Gate" to the model number to specify a stainless steel gate in an aluminum valve. Refer to the "Optional Features and Accessories" page for pricing information.

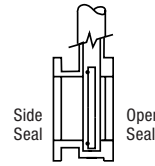
- Less Outgassing Than Stainless, See Page 40
- Seal with Vacuum or Atmosphere on Either Side
- Helium Tested to 5×10^{-10} scc per second
- All Valves (RoHS) 2015/863/EU Compliant
- Flanges to Match Diffusion & Cryo Pumps
- Closing Speeds as Fast as 75 mSec. Available
- Optional Operation to 10 Bar, 147 PSIG; \$339
- Optional Remote Position Indicators
- NW & Compression Gauge & Roughing Ports
- Automatic Closure on Power Failure



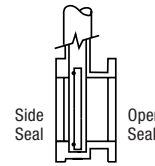
N1
Tapped Holes
Both Sides



N5
Neck on
Both Sides

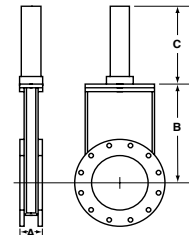


N6
Neck on
Seal Side



N8
Neck Opposite
Seal Side

Nom. Size	Model No. Dimensions in Inches	Port Diam.	Flange O.D.	Flange O-Rings	Bolt Circle	(no of bolts) x bolts size	A Flange to Flange	B	C	List Price
2 inch	END STD 2 N1	2.00	6.00	3.50 ID X .139	4.75	(4) 5/8-11	3.125	6.25	7.375	\$1,759
2 inch	END STD 2 N5	2.00	6.00	3.50 ID X .139	4.75	(4) Slotted	4.875	6.25	7.375	\$2,086
2 inch	END STD 2 N6 & N8	2.00	6.00	3.50 ID X .139	4.75	Neck Side Slotted	4.00	6.25	7.375	\$1920
3 inch	END STD 3 N1	3.00	7.50	4.00 ID X .139	6.00	(4) 5/8-11	3.75	8.375	9.406	\$2,627
3 inch	END STD 3 N5	3.00	7.50	4.00 ID X .139	6.00	(4) Slotted	6.50	8.375	9.406	\$2,793
3 inch	END STD 3 N6 & N8	3.00	7.50	4.00 ID X .139	6.00	Neck Side Slotted	5.125	8.375	9.406	\$2,727
4 inch	END STD 4 N1	4.00	9.00	5.75 ID X .139	7.50	(8) 5/8-11	4.125	8.375	9.406	\$2,698
4 inch	END STD 4 N5	4.00	9.00	5.75 ID X .139	7.50	(8) Slotted	7.125	8.375	9.406	\$3,088
4 inch	END STD 4 N6 & N8	4.00	9.00	5.75 ID X .139	7.50	Neck Side Slotted	5.625	8.375	9.406	\$2,935
6 inch	END STD 6 N1	6.00	11.00	7.50 ID X .139	9.50	(8) 3/4-10	4.375	11.375	11.656	\$2,976
6 inch	END STD 6 N5	6.00	11.00	7.50 ID X .139	9.50	(8) Slotted	7.875	11.375	11.656	\$3,460
6 inch	END STD 6 N6 & N8	6.00	11.00	7.50 ID X .139	9.50	Neck Side Slotted	6.125	11.375	11.656	\$3,185
8 inch	END STD 8 N1	8.00	13.50	9.00 ID X .275	11.75	(8) 3/4-10	4.375	14.313	13.719	\$4,546
8 inch	END STD 8 N5	8.00	13.50	9.00 ID X .275	11.75	(8) Slotted	7.785	14.313	13.719	\$4,959
8 inch	END STD 8 N6 & N8	8.00	13.50	9.00 ID X .275	11.75	Neck Side Slotted	6.125	14.313	13.719	\$4,780
10 inch	END STD 10 N1	10.00	16.00	12.00 ID X .275	14.25	(12) 7/8-9	4.625	19.063	15.969	\$6,675
10 inch	END STD 10 N5	10.00	16.00	12.00 ID X .275	14.25	(12) Slotted	8.125	19.063	15.969	\$7,164
10 inch	END STD 10 N6 & N8	10.00	16.00	12.00 ID X .275	14.25	Neck Side Slotted	6.375	19.063	15.969	\$6,900
12 inch	END STD 12 N1	12.00	19.00	13.00 ID X .275	17.00	(12) 1-8	4.625	21.00	18.00	\$8,271
12 inch	END STD 12 N5	12.00	19.00	13.00 ID X .275	17.00	(12) Slotted	8.125	21.00	18.00	\$8,796
12 inch	END STD 12 N6 & N8	12.00	19.00	13.00 ID X .275	17.00	Neck Side Slotted	6.375	21.00	18.00	\$8,542
16 inch	END STD 16 N1	16.00	23.50	17.00 ID X .275	21.25	(16) 1-8	6.50	27.625	23.03	Contact
18 inch	END STD 18 N1	18.00	25.00	19.00 ID X .275	22.75	(16)	7.81	35.56	28.50	Contact
20 inch	END STD 20 N1	20.00	27.50	22.00 ID X .275	25.00	(20) 1 1/8-7	7.88	35.75	27.031	Contact
22 inch	END APD CRYO SHI-APD CP-22	22.00	27.50	No O-Ring on Pump (Seal Side)	25.00	(20) 1 1/8-7	7.625	35.75	27.031	Contact
24 inch	END STD 24 N1	24.00	32.00	26.00 ID X .275	29.50	(20) 1 1/4-7	8.56	42.50	30.50	Contact



ORDERING INFORMATION

Model Number: Refer to page 2 for instructions on how to specify the features you need.

Position Indicators: Two reed switches activated by a magnet inside the pneumatic actuator provide closure for open and closed position. SPST contacts rated 0.5A @ 110 or 220 VAC non-inductive.

Add LSE to Model No..... \$221/pair

Gauge and Roughing Ports: See page 43 for sizes and prices.

200 PSI Shaft Seal\$367

Special Features: Refer to page 41 and 42 for information on special features and accessories.

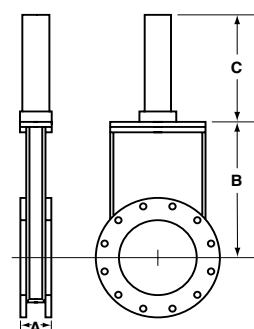
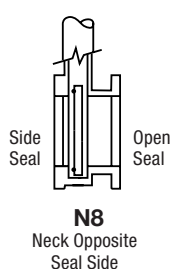
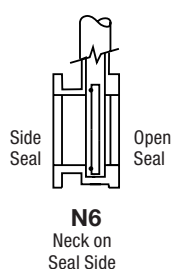
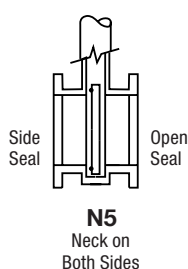
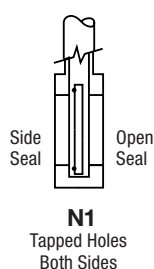
Viton® or Kalrez® or Silicone O-Rings: Our standard Valves use a Viton® O-Ring for the gate seal and Buna-N O-Rings for all other locations. You may specify Viton® (or other materials) throughout the valve with a "V", "S", or "K" in the model number. For Viton® add the following to the price. (Contact factory for Silicone or Kalrez® prices.)

- 2 or 3 in. valves \$85
- 4 in. valves\$129
- 6 in. valves\$160
- 8 in. valves \$252
- 10 in. valves \$329
- 12 in. valves \$424

End Operated Aluminum Gate Valves; Over Size Large Ports with ANSI Flanges



- Less Outgassing Than Stainless, See Page 40
- Simple End Operated Air Cylinder
- Over 100,000 Cycles Without Maintenance
- Helium Tested to 5×10^{-10} scc/s
- All Valves (RoHS) 2015/863/EU Compliant
- Flanges to Match Diffusion & Cryo Pumps
- Closing Speeds as Fast as 75 mSec. Available
- Optional Operation to 10 Bar, 147 PSIG; \$339
- Optional Remote Position Indicators
- NW & Compression Gauge & Roughing Ports
- Automatic Closure on Power Failure



Stainless Steel Gates in Aluminum Valves: To specify a stainless steel gate in an aluminum valve add suffix "SS Gate" to the model number. Refer to "Optional Features and Accessories" section of this catalog for pricing information.

Nom. Size	Model No. Dimensions in Inches	Port Diam.	Flange O.D.	Flange O-Rings	Bolt Circle	(no of bolts) x bolts size	A Flange to Flange	B	C	List Price
2 inch	END LP2 N1	2.00	6.00	3.50 ID X .139	4.75	(4) 5/8-11	3.125	8.375	9.406	\$1,710
2 inch	END LP2 N5	2.00	6.00	3.50 ID X .139	4.75	(4) Slotted	4.875	8.375	9.406	\$2,025
2 inch	END LP2 N6 & N8	2.00	6.00	3.50 ID X .139	4.75	Neck Side Slotted	4.00	8.375	9.406	\$1,864
3 inch	END LP3 N1	4.00	7.50	4.5 ID X .139	6.00	(4) 5/8-11	3.75	8.375	9.406	\$2,550
3 inch	END LP3 N5	4.00	7.50	4.5 ID X .139	6.00	(4) Slotted	6.50	8.375	9.406	\$2,712
3 inch	END LP3 N6 & N8	4.00	7.50	4.5 ID X .139	6.00	Neck Side Slotted	5.125	8.375	9.406	\$2,649
4 inch	END LP4 N1	6.00	9.00	6.25 ID X .139	7.50	(8) 5/8-11	4.125	11.375	11.656	\$2,619
4 inch	END LP4 N5	6.00	9.00	6.25 ID X .139	7.50	(8) Slotted	7.125	11.375	11.656	\$2,997
4 inch	END LP4 N6 & N8	6.00	9.00	6.25 ID X .139	7.50	Neck Side Slotted	5.625	11.375	11.656	\$2,848
6 inch	END LP6 N1	8.00	11.00	8.25 ID X .139	9.50	(8) 3/4-10	4.375	14.313	13.719	\$2,991
6 inch	END LP6 N5	8.00	11.00	8.25 ID X .139	9.50	(8) Slotted	7.875	14.313	13.719	\$3,447
6 inch	END LP6 N6 & N8	8.00	11.00	8.25 ID X .139	9.50	Neck Side Slotted	6.125	14.313	13.719	\$3,181
8 inch	END LP8 N1	10.00	13.50	10.50 ID X .275	11.75	(8) 3/4-10	4.375	19.063	15.969	\$4,963
8 inch	END LP8 N5	10.00	13.50	10.50 ID X .275	11.75	(8) Slotted	7.785	19.063	15.969	\$5,363
8 inch	END LP8 N6 & N8	10.00	13.50	10.50 ID X .275	11.75	Neck Side Slotted	6.125	19.063	15.969	\$5,165
10 inch	END LP10 N1	12.00	16.00	12.50 ID X .275	14.25	(12) 7/8-9	4.625	21.00	18.00	\$6,122
10 inch	END LP10 N5	12.00	16.00	12.05 ID X .275	14.25	(12) Slotted	8.125	21.00	18.00	\$6,619
10 inch	END LPN6 & N8	12.00	16.00	12.05 ID X .275	14.25	Neck Side Slotted	6.375	21.00	18.00	\$6,348
22 inch	END APD CRYO SHI-APD CP-22	21.75	27.50	No O-Ring on Pump (Seal Side)	25.00	(20) 1 1/8-7	7.625	37.75	27.031	Contact

ORDERING INFORMATION

Model Number: Refer to page 2 for instructions on how to specify the features you need.

Position Indicators: Two reed switches activated by a magnet inside the pneumatic actuator provide closure for open and closed position. SPST contacts rated 0.5A @ 110 or 220 VAC non-inductive. Add LSE to Model No

Add SE to Model No. \$231/pair

Gauge and Roughing Ports: See page 43 for sizes and prices.

200 PSI Shaft Seal \$370

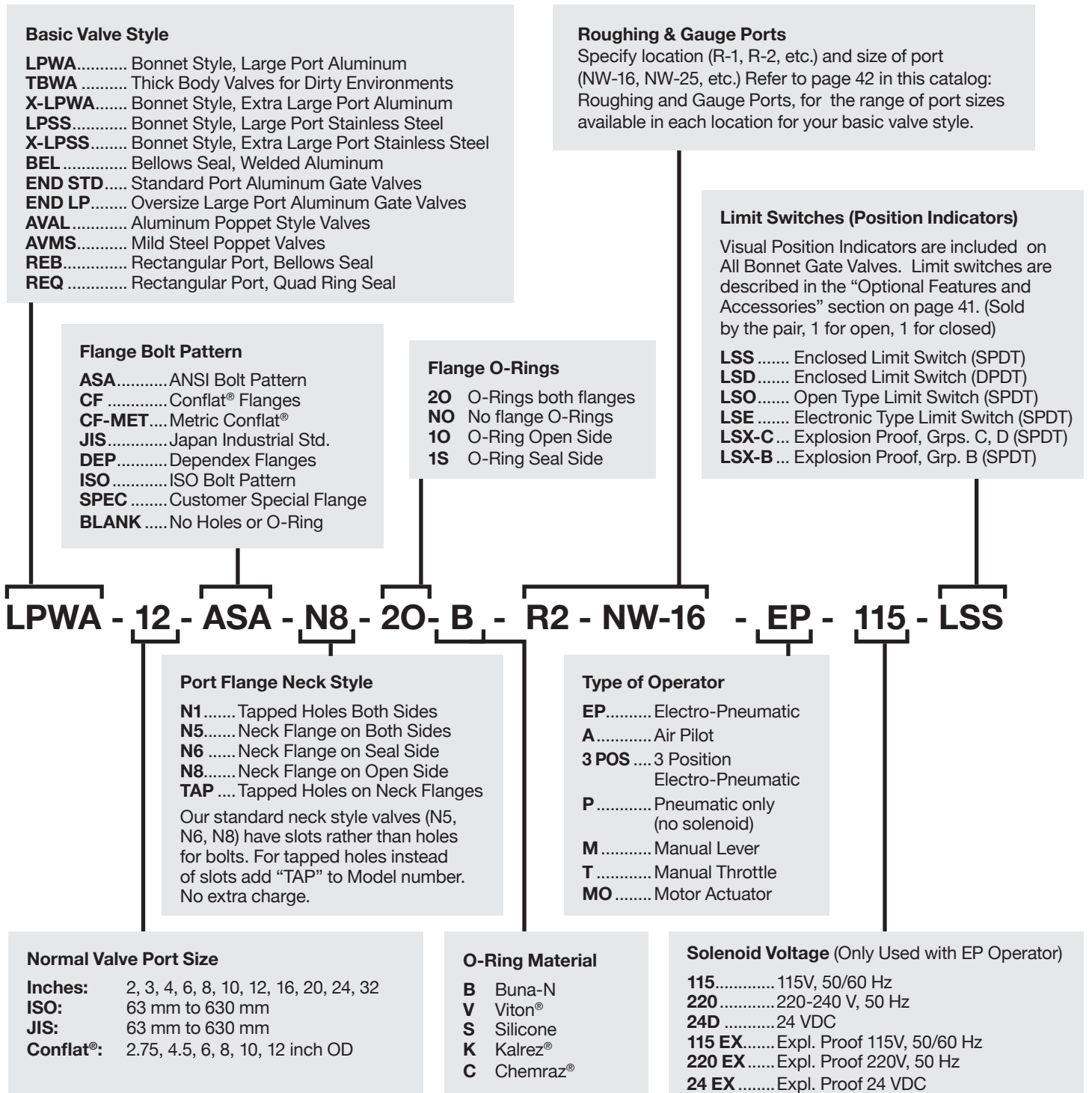
Special Features: Refer to page 41 and 42 for information on special features and accessories.

Viton® or Kalrez® or Silicone O-Rings: Viton® or Kalrez® or Silicone O-Rings: Our standard Valves use a Viton® O-Ring for the gate seal and Buna-N O-Rings for all other locations. You may specify Viton® (or other materials) throughout the valve with a "V", "S", or "K" in the model number. For Viton® add the following to the price. (For Silicone or Kalrez® contact the factory for prices.)

2 or 3 in. valves \$85
4 in. valves\$129
6 in. valves\$160
8 in. valves\$252
10 in. valves\$329
12 in. valves\$424



Vacuum Research valves are available with dozens of options to allow you to select exactly the features you need for your vacuum system. The model number system illustrated below will accurately describe most valves, but if you have any questions about the best way to specify what you need, just call or fax our customer service department and we will be happy to help you. All Valves are (RoHS) 2015/863/EU Compliant.



Call our toll free number (800) 426-9340, or (412) 261-7630 to place orders or for customer service. Our FAX number is (412) 261-7220. Address orders by mail to Vacuum Research Corporation, 100 Chapel Harbor Drive, #4, Pittsburgh, PA 15238 USA. Prices in this catalog are FOB factory. CIF or C&F prices available. Contact factory for pro forma invoice or price quotation. Terms are Net 30 days.



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