

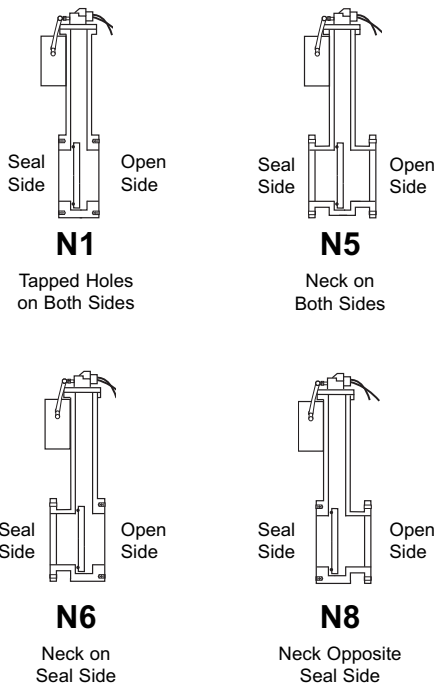
- Less Outgassing Than Stainless, See Page 43
- 250,000 Cycle Rotary Shaft Seal
- Million Cycle Valves Also Available
- All Welded 6061 Aluminum Body
- Low Temperature Bake Out, 200 °C
- High Conductance Large Port Design
- Helium Leak Less Than 5 X 10⁻¹⁰ scc/sec
- Operate Manually If Air or Power Fail
- Fail Safe Design, Close On Power Loss
- Vacuum & Pressure; Optional Seal to 3 ATM.
- All Valves (RoHS) 2002/95/EC Compliant

ORDERING INFORMATION

Model Number: Refer to page 2 for instructions on how to specify the features you need.
Electric Motor Actuators: Any Vacuum Research valve can be supplied with a high torque electric motor actuator. Refer to Electric Motor Actuator page in the Accessories & Parts section.
Special Features: Refer to pages 44 - 46 for specifications for roughing and gauge ports, position indicators & other special features.
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 . . . \$53. 6 inch valves . . . \$100. 10 inch valves . . . \$208.
 4 inch valves . . . \$81. 8 inch valves . . . \$159. 12 inch valves . . . \$267.

Aluminum has less outgassing than stainless steel. Up to 2 orders of magnitude less, see page 43.

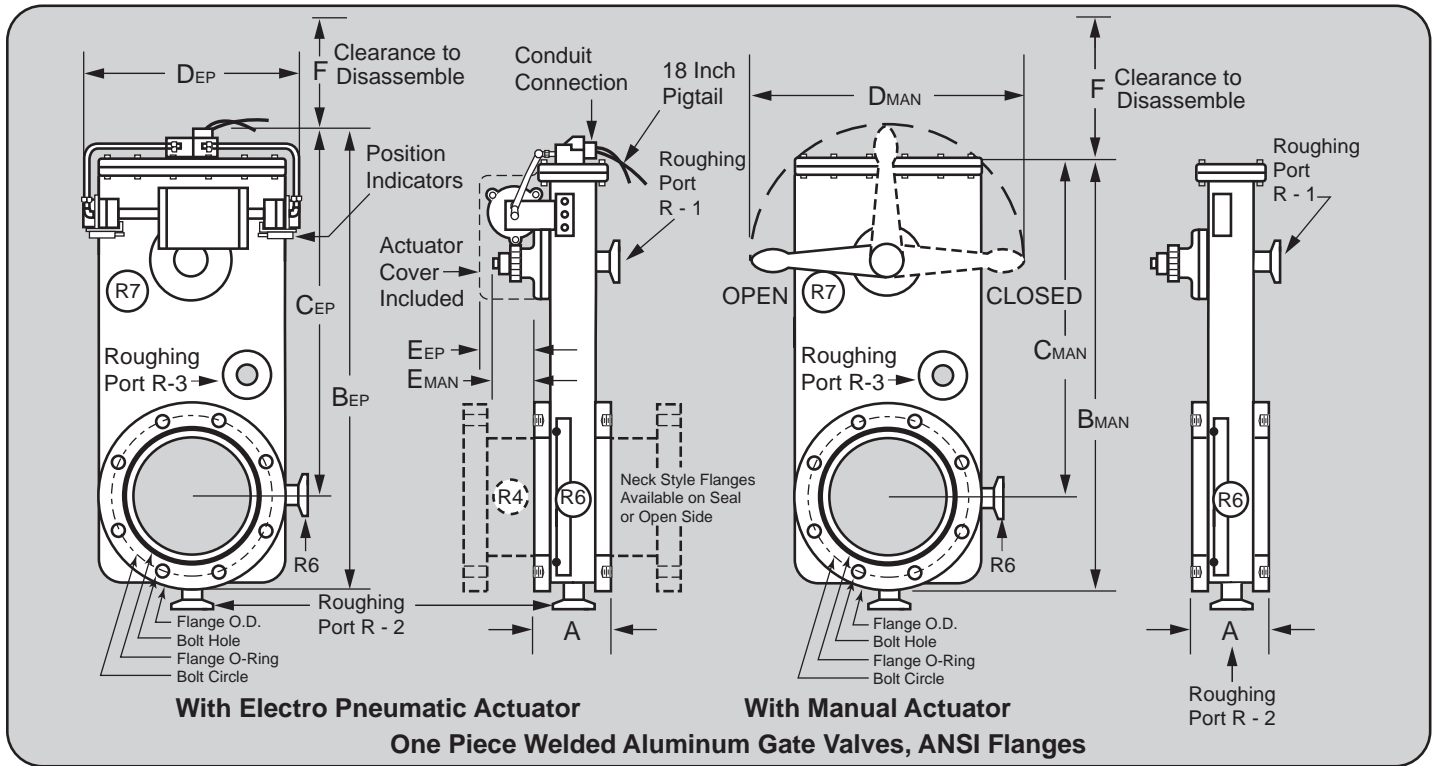
Nominal ANSI (ASA) Flange Size (Port Dia. in Paren.)	With Electro-Pneumatic Operator "EP" Suffix		With Manual Operator "M" Suffix	
	Model & Neck Style	Price	Model & Neck Style	Price
2 inch ANSI (ASA) (3 3/8" Port)	OP-2-ANSI-N1-EP	\$1523.	OP-2-ANSI-N1-M	\$1354.
	OP-2-ANSI-N5-EP	\$1692.	OP-2-ANSI-N5-M	\$1520.
	OP-2-ANSI-N6-EP	\$1614.	OP-2-ANSI-N6-M	\$1431.
	OP-2-ANSI-N8-EP	\$1614.	OP-2-ANSI-N8-M	\$1431.
3 inch ANSI (ASA) (3 3/8" Port)	OP-3-ANSI-N1-EP	\$1884.	OP-3-ANSI-N1-M	\$1546.
	OP-3-ANSI-N5-EP	\$1831.	OP-3-ANSI-N5-M	\$1712.
	OP-3-ANSI-N6-EP	\$1808.	OP-3-ANSI-N6-M	\$1570.
	OP-3-ANSI-N8-EP	\$1808.	OP-3-ANSI-N8-M	\$1570.
4 inch ANSI (ASA) (5 3/8" Port)	OP-4-ANSI-N1-EP	\$1895.	OP-4-ANSI-N1-M	\$1712.
	OP-4-ANSI-N5-EP	\$2056.	OP-4-ANSI-N5-M	\$1875.
	OP-4-ANSI-N6-EP	\$1971.	OP-4-ANSI-N6-M	\$1793.
	OP-4-ANSI-N8-EP	\$1971.	OP-4-ANSI-N8-M	\$1793.
6 inch ANSI (ASA) (7 1/8" Port)	OP-6-ANSI-N1-EP	\$2532.	OP-6-ANSI-N1-M	\$2308.
	OP-6-ANSI-N5-EP	\$2733.	OP-6-ANSI-N5-M	\$2507.
	OP-6-ANSI-N6-EP	\$2649.	OP-6-ANSI-N6-M	\$2398.
	OP-6-ANSI-N8-EP	\$2649.	OP-6-ANSI-N8-M	\$2398.
8 inch ANSI (ASA) (8" Port)	OP-8-ANSI-N1-EP	\$3287.	OP-8-ANSI-N1-M	\$3061.
	OP-8-ANSI-N5-EP	\$3385.	OP-8-ANSI-N5-M	\$3157.
	OP-8-ANSI-N6-EP	\$3338.	OP-8-ANSI-N6-M	\$3114.
	OP-8-ANSI-N8-EP	\$3338.	OP-8-ANSI-N8-M	\$3114.
10 inch ANSI (ASA) (11 5/8" Port)	OP-10-ANSI-N1-EP	\$4171.	OP-10-ANSI-N1-M	\$3874.
	OP-10-ANSI-N5-EP	\$4495.	OP-10-ANSI-N5-M	\$4221.
	OP-10-ANSI-N6-EP	\$4332.	OP-10-ANSI-N6-M	\$4061.
	OP-10-ANSI-N8-EP	\$4332.	OP-10-ANSI-N8-M	\$4061.
12 inch ANSI (ASA) (12" Port)	OP-12-ANSI-N1-EP	\$5151.	OP-12-ANSI-N1-M	\$4855.
	OP-12-ANSI-N5-EP	\$5474.	OP-12-ANSI-N5-M	\$5602.
	OP-12-ANSI-N6-EP	\$5311.	OP-12-ANSI-N6-M	\$5016.
	OP-12-ANSI-N8-EP	\$5311.	OP-12-ANSI-N8-M	\$5016.



The gate seal O-ring is on the actuator side (to left) in sizes through 8 inch. The gate seal is on the side opposite the actuator on 10 & 12 inch valves.

Slots or Tapped Holes on Neck Flanges: Our standard neck style valves (N5, N6, N8) have slots rather than holes for bolts. For tapped holes instead of slots add "tapped" to Model number. No extra charge.

One Piece Aluminum Gate Valves; ANSI Flanges

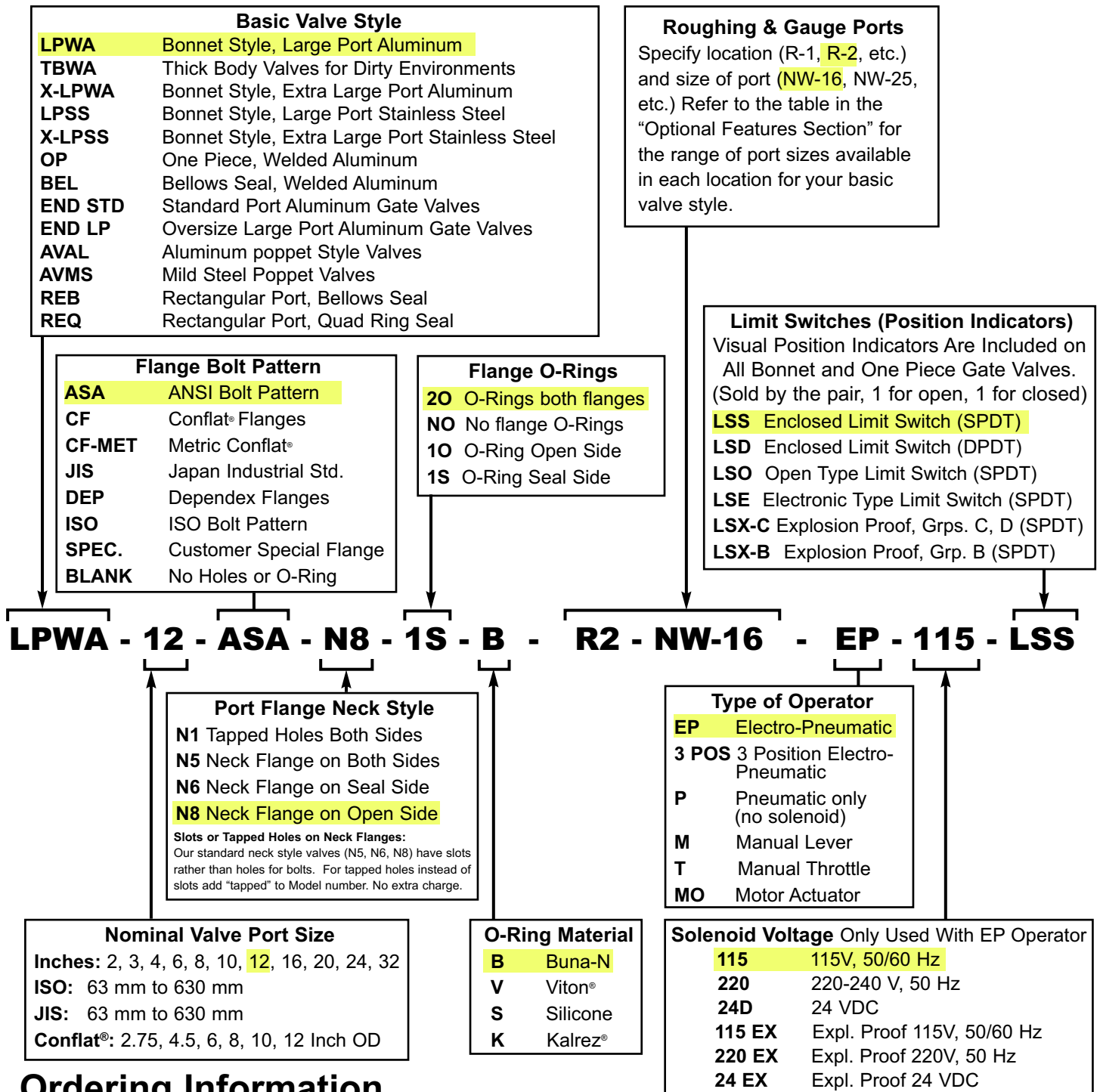


Note: All dimensions in inches. Roughing ports and position indicator limit switches optional. Flanges available without O-rings. The gate seal O-ring is on the actuator side (to left) in sizes through 8 inch. The gate seal is on the side opposite the actuator on 10 & 12 inch valves.

Nominal ANSI Size	Model No. ANSI Flange	Port Diameter	Flange O.D.	Flange O-Rings	Bolt Circle	(no. of bolts) x bolt size	A Flange to Flange	B _{MAN} Manual Overall Height	B _{EP} EP Overall Height	C _{EP} Port CL to Top of Valve	D _{MAN} Manual Overall Width	D _{EP} EP Overall Width	E _{MAN} Manual	E _{EP} EP	F Disassy. Clearance	Weight lbs.	
																Net	Ship
2 inch	OP 2 N1	3.375	6.00	3.625 ID X .139	4.75	(4) 5/8-11	3.75	12.875	14.25	11.25	10.00	8.50	2.063	2.375	2.625	13	20
2 inch	OP 2 N5	3.375	6.00	3.625 ID X .139	4.75	(4) Slotted	6.50	12.875	14.25	11.25	10.00	8.50	2.063	2.375	2.625	13	20
2 inch	OP 2 N6 & 8	3.375	6.00	3.625 ID X .139	4.75	Neck Side Slotted	5.125	12.875	14.25	11.25	10.00	8.50	2.063	2.375	2.625	13	20
3 inch	OP 3 N1	4.00	7.50	4.50 ID x .139	6.00	(4) 5/8-11	3.75	13.625	15.00	11.25	10.00	8.50	2.063	2.375	2.625	15	22
3 inch	OP 3 N5	4.00	7.50	4.50 ID x .139	6.00	(4) Slotted	6.50	13.625	15.00	11.25	10.00	8.50	2.063	2.375	2.625	15	22
3 inch	OP 3 N6 & 8	4.00	7.50	4.50 ID x .139	6.00	Neck Side Slotted	5.125	13.625	15.00	11.25	10.00	8.50	2.063	2.375	2.625	15	22
4 inch	OP 4 N1	6.00	9.00	6.25 ID x .139	7.50	(8) 5/8-11	4.125	20.25	21.50	17.00	16.00	10.125	2.25	3.50	4.50	31	45
4 inch	OP 4 N5	6.00	9.00	6.25 ID x .139	7.50	(8) Slotted	7.125	20.25	21.50	17.00	16.00	10.125	2.25	3.50	4.50	31	45
4 inch	OP 4 N6 & 8	6.00	9.00	6.25 ID x .139	7.50	Neck Side Slotted	5.625	20.25	21.50	17.00	16.00	10.125	2.25	3.50	4.50	31	45
6 inch	OP 6 N1	8.00	11.00	8.25 ID x .139	9.50	(8) 3/4-10	4.375	24.875	26.00	20.375	16.00	12.50	2.625	3.375	5.50	49	60
6 inch	OP 6 N5	8.00	11.00	8.25 ID x .139	9.50	(8) Slotted	7.875	24.875	26.00	20.375	16.00	12.50	2.625	3.375	5.50	49	60
6 inch	OP 6 N6 & 8	8.00	11.00	8.25 ID x .139	9.50	Neck Side Slotted	6.125	24.875	26.00	20.375	16.00	12.50	2.625	3.375	5.50	49	60
8 inch	OP 8 N1	10.00	13.50	10.50 ID x .139	11.75	(8) 3/4-10	4.375	26.125	27.25	20.375	16.00	12.50	2.625	3.375	5.50	55	66
8 inch	OP 8 N5	10.00	13.50	10.50 ID x .139	11.75	(8) Slotted	7.875	26.125	27.25	20.375	16.00	12.50	2.625	3.375	5.50	55	66
8 inch	OP 8 N6 & 8	10.00	13.50	10.50 ID x .139	11.75	Neck Side Slotted	6.125	26.125	27.25	20.375	16.00	12.50	2.625	3.375	5.50	55	66
10 inch	OP 10 N1	12.00	16.00	12.50 ID x .275	14.25	(12) 7/8-9	4.625	30.438	31.688	23.688	21.00	18.00	1.938	3.125	4.75	109	130
10 inch	OP 10 N5	12.00	16.00	12.50 ID x .275	14.25	(12) Slotted	8.125	30.438	31.688	23.688	21.00	18.00	1.938	3.125	4.75	109	130
10 inch	OP 10 N6 & 8	12.00	16.00	12.50 ID x .275	14.25	Neck Side Slotted	6.375	30.438	31.688	23.688	21.00	18.00	1.938	3.125	4.75	109	130
12 inch	OP 12 N1	12.00	19.00	13.00 ID X .275	17.00	(12) 7/8-9	4.625	32.00	33.25	23.688	21.00	18.00	1.938	3.125	4.75	129	150
12 inch	OP 12 N5	12.00	19.00	13.00 ID X .275	17.00	(12) Slotted	8.125	32.00	33.25	23.688	21.00	18.00	1.938	3.125	4.75	129	150
12 inch	OP 12 N6 & 8	12.00	19.00	13.00 ID X .275	17.00	Neck Side Slotted	6.375	32.00	33.25	23.688	21.00	18.00	1.938	3.125	4.75	129	150



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 (RoHS) 2002/95/EC Compliant.



Ordering Information



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, 2419 Smallman Street, Pittsburgh, PA 15222 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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