



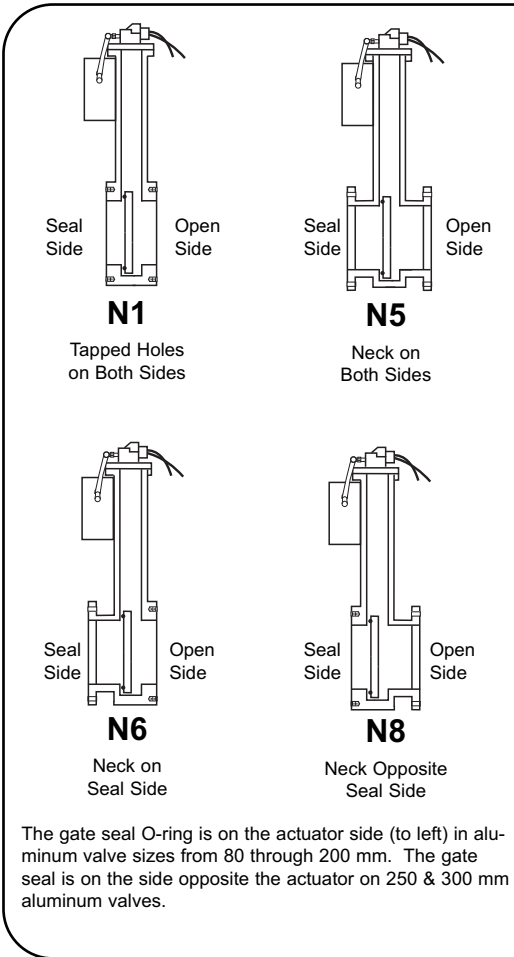
Aluminum has less outgassing than stainless steel. Up to 2 orders of magnitude less, see page 43.

- Less Outgassing Than Stainless, See Pg. 43
- 250,000 Cycle Rotary Shaft Seal
- Million Cycle Valves Also Available
- All Welded 6061 Aluminum Body
- Low Temperature Bake Out, 200 °C
- All Valves (RoHS) 2002/95/EC Compliant
- Helium Leak Less Than 5 X 10⁻¹⁰ scc/sec
- Fail Safe Design, Close On Power Loss
- Vacuum & Pressure; Optional Seal to 3 ATM.
- Optional Operation to 10 Bar, 147 PSIG

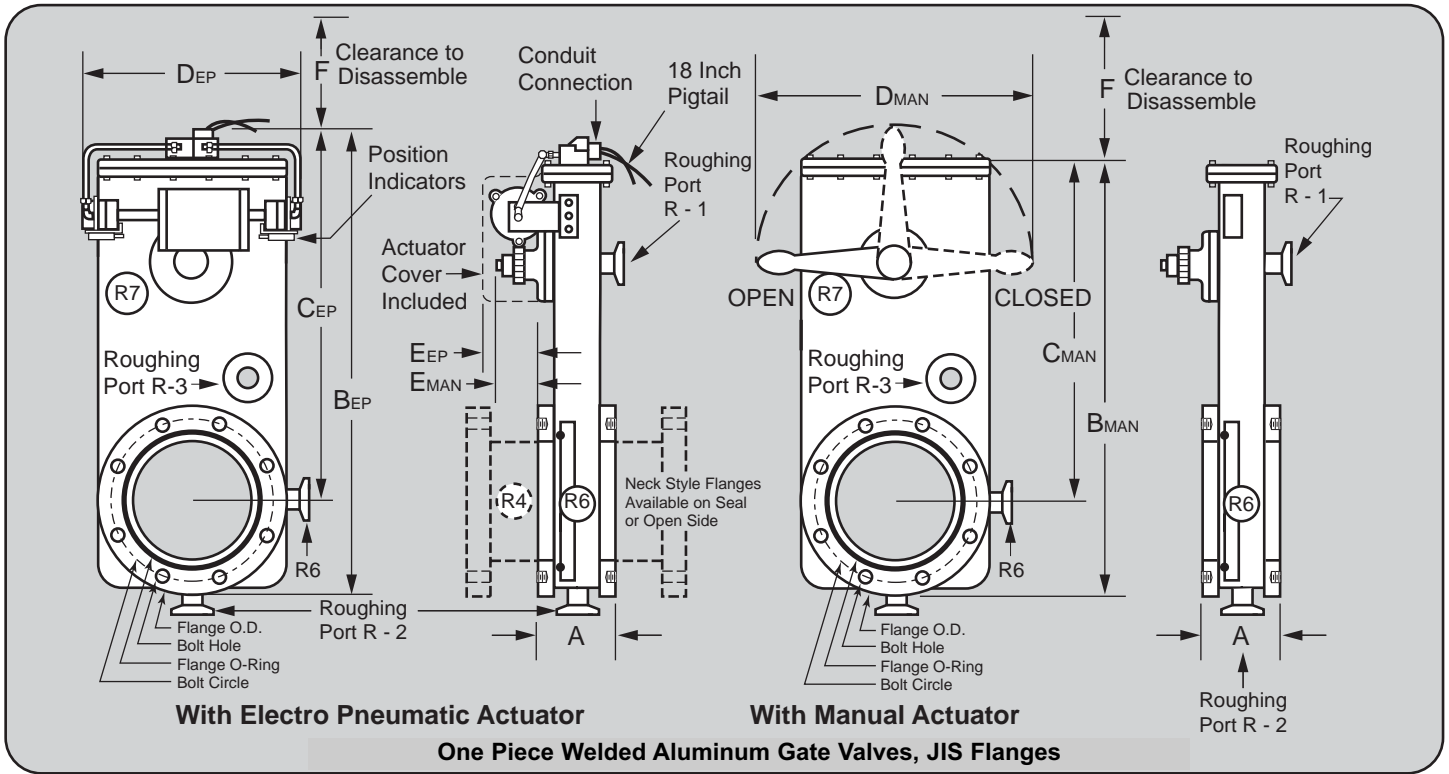
ORDERING INFORMATION

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 and 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.)

65 or 80 mm valves . . . \$53.	150 mm valves \$100.	250 mm valves \$208.
100 mm valves \$81.	200 mm valves \$159.	300 mm valves \$267.



Nominal Port Size	With Electro-Pneumatic Operator "EP" Suffix		With Manual Operator "M" Suffix	
	Model & Neck Style	Price	Model & Neck Style	Price
65 mm	OP-65-JIS-N1-EP	\$1161.	OP-65-JIS-N1-M	\$968.
	OP-65-JIS-N5-EP	\$1370.	OP-65-JIS-N5-M	\$1172.
	OP-65-JIS-N6-EP	\$1263.	OP-65-JIS-N6-M	\$1081.
	OP-65-JIS-N8-EP	\$1263.	OP-65-JIS-N8-M	\$1081.
80 mm	OP-80-JIS-N1-EP	\$1537.	OP-80-JIS-N1-M	\$1364.
	OP-80-JIS-N5-EP	\$1701.	OP-80-JIS-N5-M	\$1536.
	OP-80-JIS-N6-EP	\$1654.	OP-80-JIS-N6-M	\$1482.
	OP-80-JIS-N8-EP	\$1654.	OP-80-JIS-N8-M	\$1482.
100 mm	OP-100-JIS-N1-EP	\$1343.	OP-100-JIS-N1-M	\$1418.
	OP-100-JIS-N5-EP	\$1756.	OP-100-JIS-N5-M	\$1584.
	OP-100-JIS-N6-EP	\$1606.	OP-100-JIS-N6-M	\$1509.
	OP-100-JIS-N8-EP	\$1606.	OP-100-JIS-N8-M	\$1509.
150 mm	OP-150-JIS-N1-EP	\$1723.	OP-150-JIS-N1-M	\$1546.
	OP-150-JIS-N5-EP	\$1980.	OP-150-JIS-N5-M	\$1798.
	OP-150-JIS-N6-EP	\$1856.	OP-150-JIS-N6-M	\$1674.
	OP-150-JIS-N8-EP	\$1856.	OP-150-JIS-N8-M	\$1674.
200 mm	OP-200-JIS-N1-EP	\$3350.	OP-200-JIS-N1-M	\$3103.
	OP-200-JIS-N5-EP	\$3639.	OP-200-JIS-N5-M	\$3403.
	OP-200-JIS-N6-EP	\$3457.	OP-200-JIS-N6-M	\$3216.
	OP-200-JIS-N8-EP	\$3457.	OP-200-JIS-N8-M	\$3216.
250 mm	OP-250-JIS-N1-EP	\$4042.	OP-250-JIS-N1-M	\$3767.
	OP-250-JIS-N5-EP	\$4366.	OP-250-JIS-N5-M	\$4088.
	OP-250-JIS-N6-EP	\$4201.	OP-250-JIS-N6-M	\$3927.
	OP-250-JIS-N8-EP	\$4201.	OP-250-JIS-N8-M	\$3927.
300 mm	OP-300-JIS-N1-EP	\$5019.	OP-300-JIS-N1-M	\$4747.
	OP-300-JIS-N5-EP	\$5329.	OP-300-JIS-N5-M	\$5056.
	OP-300-JIS-N6-EP	\$5164.	OP-300-JIS-N6-M	\$4891.
	OP-300-JIS-N8-EP	\$5164.	OP-300-JIS-N8-M	\$4891.

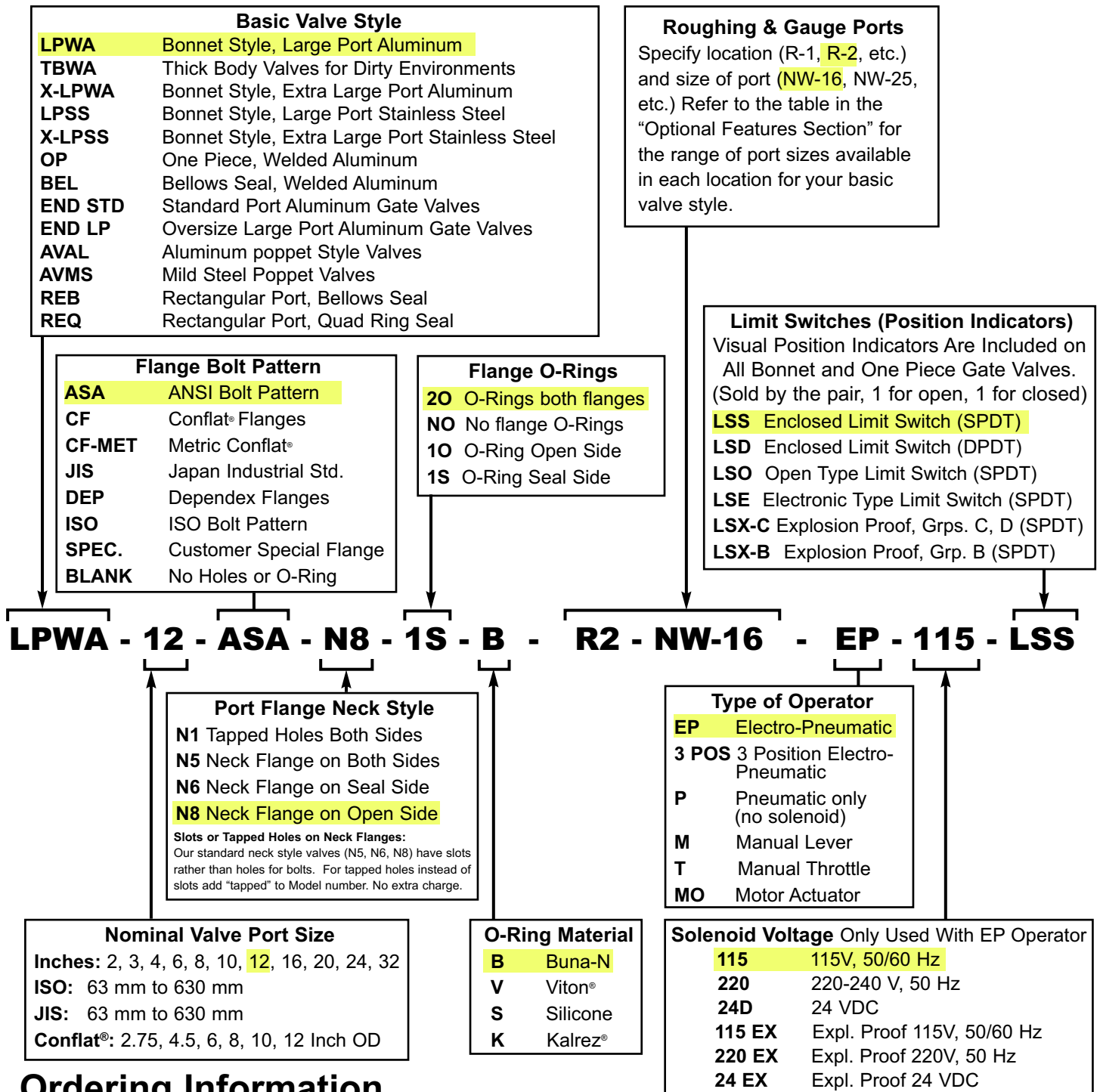


Note: All dimensions in millimeters. Roughing ports and position indicator limit switches optional. Flanges available without O-rings. The gate seal O-ring is on the actuator side (to left) in aluminum valve sizes from 80 through 200 mm. The gate seal is on the side opposite the actuator on 250 & 300 mm aluminum and stainless steel valves.

JIS Port Size	Model No.	Flange		Bolt Circle	(number of bolts) size - pitch	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 kgs.	
		Out-side Diam.	O-Ring Inside Diam.												Net	Ship
65 mm	OP 65 JIS N1, both sides tapped holes	145	85	120	(4) M 8 - 1.25	70	246	278	205	100	175	45	60	67	8	13
	OP 65 JIS N5, both sides through holes	145	85	120	thru holes 12 mm	140	246	278	205	100	175	45	60	67	8	13
	OP 65 JIS N6 & N8, 1 tapped, 1 through	145	85	120	Neck Side Slotted	105	246	278	205	100	175	45	60	67	8	13
80 mm	OP JIS 80 N1, both sides tapped holes	160	101	135	(4) M 10 - 1.5	95	360	392	312	254	228	52	60	67	10	15
	OP JIS 80 N5, both sides through holes	160	101	135	thru holes 12 mm	165	360	392	312	254	228	52	60	67	10	15
	OP JIS 80 N6 & N8, 1 tapped, 1 through	160	101	135	Neck Side Slotted	130	360	392	312	254	228	52	60	67	10	15
100 mm	OP JIS 100 N1, both sides tapped holes	185	120	160	(8) M 10 - 1.5	95	373	405	312	254	228	52	60	100	10	15
	OP JIS 100 N5, both sides through holes	185	120	160	thru holes 12 mm	165	373	405	312	254	228	52	60	100	10	15
	OP JIS 100 N6 & N8, 1 tapped, 1 through	185	120	160	Neck Side Slotted	130	373	405	312	254	228	52	60	100	10	15
150 mm	OP JIS 150 N1, both sides tapped holes	235	177	210	(8) M 10 - 1.5	105	518	550	432	406	257	57	89	114	14	21
	OP JIS 150 N5, both sides through holes	235	177	210	thru holes 12 mm	181	518	550	432	406	257	57	89	114	14	21
	OP JIS 150 N6 & N8, 1 tapped, 1 through	235	177	210	Neck Side Slotted	143	518	550	432	406	257	57	89	114	14	21
200 mm	OP JIS 200 N1, both sides tapped holes	300	228	270	(8) M 12 - 1.75	111	636	668	518	406	318	67	86	140	25	30
	OP JIS 200 N5, both sides through holes	300	228	270	thru holes 12 mm	200	636	668	518	406	318	67	86	140	25	30
	OP JIS 200 N6 & N8, 1 tapped, 1 through	300	228	270	Neck Side Slotted	156	636	668	518	406	318	67	86	140	25	30
250 mm	OP JIS 250 N1, both sides tapped holes	350	279	320	(12) M 12 - 1.75	117	745	777	602	533	458	50	79	121	50	59
	OP JIS 250 N5, both sides through holes	350	279	320	thru holes 12 mm	206	745	777	602	533	458	50	79	121	50	59
	OP JIS 250 N6 & N8, 1 tapped, 1 through	350	279	320	Neck Side Slotted	162	745	777	602	533	458	50	79	121	50	59
300 mm	OP JIS 300 N1, both sides tapped holes	400	330	370	(12) M 12 - 1.75	117	770	802	602	533	458	50	79	121	58	68
	OP JIS 300 N5, both sides through holes	400	330	370	thru holes 12 mm	206	770	802	602	533	458	50	79	121	58	68
	OP JIS 300 N6 & N8, 1 tapped, 1 through	400	330	370	Neck Side Slotted	162	770	802	602	533	458	50	79	121	58	68



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.



Kalrez® and Viton® are registered trademarks of Dupont Corp. • Conflat® is a registered trademark of Varian Associates • Throttlemaster™ is a registered trademark of Vacuum Research Corporation