

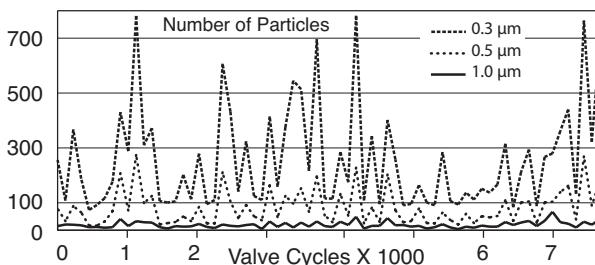


Aluminum Conflat® Flanges: The Aluminum Conflat® Flanges on the VRC valves provide an all metal reusable seal using low cost solid aluminum gaskets (available from VRC, see catalog page 16).

Mate Directly to Stainless Steel Conflat® Flanges: The bolt circle, number of holes, threads, flange diameter, etc. are the same as stainless steel CF flanges, and mate directly to stainless steel flanges using aluminum gaskets.

Less Outgassing Than Stainless Steel: Dozens of papers show the 6000 Series aluminum used in VRC valves outgasses up to 2 orders of magnitude less than 300 Series stainless steel and of course no hydrogen. A bibliography of 70 peer reviewed papers about outgassing compiled by Dr. M. Wong at Fermi Labs can be found at http://home.fnal.gov/~mlwong/outgas_rev.htm.

Low Particle Generation:



Aluminum Conflat® Valves, Electro-Pneumatic Operator

Conflat® Outside Diameter	Viton® Gate & Bonnet Seal	Price	Viton® Gate Seal, Metal Bonnet Seal Insert "Metal" in Model No.	Price
2.75 in. Outside Diameter Conflat® Flange (1.6 in. Port)	END-2.75-CF-N1-EP	\$1,496	END-2.75-CF-N1-METAL-EP	\$1,702
	END-2.75-CF-N5-EP	\$1,667	END-2.75-CF-N5-METAL-EP	\$1,871
	END-2.75-CF-N6-EP	\$1,586	END-2.75-CF-N6-METAL-EP	\$1,790
	END-2.75-CF-N8-EP	\$1,586	END-2.75-CF-N8-METAL-EP	\$1,790
3.375 in. Outside Diameter Conflat® Flange (2 in. Port)	END-3.375-CF-N1-EP	\$1,925	END-3.375-CF-N1-METAL-EP	\$2,131
	END-3.375-CF-N5-EP	\$2,198	END-3.375-CF-N5-METAL-EP	\$2,401
	END-3.375-CF-N6-EP	\$2,178	END-3.375-CF-N6-METAL-EP	\$2,382
	END-3.375-CF-N8-EP	\$2,178	END-3.375-CF-N8-METAL-EP	\$2,382
4.50 in. Outside Diameter Conflat® Flange (2.5 in. Port)	END-4.50-CF-N1-EP	\$2,245	END-4.50-CF-N1-METAL-EP	\$2,448
	END-4.50-CF-N5-EP	\$2,611	END-4.50-CF-N5-METAL-EP	\$2,777
	END-4.50-CF-N6-EP	\$2,415	END-4.50-CF-N6-METAL-EP	\$2,619
	END-4.50-CF-N6-EP	\$2,415	END-4.50-CF-N6-METAL-EP	\$2,619
6.00 in. Outside Diameter Conflat® Flange (4 in. Port)	END-6-CF-N1-EP	\$2,858	END-6-CF-N1-METAL-EP	\$3,196
	END-6-CF-N5-EP	\$3,237	END-6-CF-N5-METAL-EP	\$3,578
	END-6-CF-N6-EP	\$3,083	END-6-CF-N6-METAL-EP	\$3,421
	END-6-CF-N8-EP	\$3,083	END-6-CF-N8-METAL-EP	\$3,421
8.00 in. Outside Diameter Conflat® Flange (6 in. Port)	END-8-CF-N1-EP	\$3,592	END-8-CF-N1-METAL-EP	\$4,035
	END-8-CF-N5-EP	\$4,000	END-8-CF-N5-METAL-EP	\$4,442
	END-8-CF-N6-EP	\$3,831	END-8-CF-N6-METAL-EP	\$4,272
	END-8-CF-N8-EP	\$3,831	END-8-CF-N8-METAL-EP	\$4,272
10.00 in. Outside Diameter Conflat® Flange (8 in. Port)	END-10-CF-N1-EP	\$5,006	END-10-CF-N1-METAL-EP	\$5,584
	END-10-CF-N5-EP	\$5,482	END-10-CF-N5-METAL-EP	\$6,059
	END-10-CF-N6-EP	\$5,312	END-10-CF-N6-METAL-EP	\$5,890
	END-10-CF-N8-EP	\$5,312	END-10-CF-N8-METAL-EP	\$5,890
12.00 in. Outside Diameter Conflat® Flange (10 in. Port)	END-12-CF-N1-EP	\$6,054	END-12-CF-N1-METAL-EP	\$8,570
	END-12-CF-N5-EP	\$6,652	END-12-CF-N5-METAL-EP	\$9,113
	END-12-CF-N6-EP	\$6,530	END-12-CF-N6-METAL-EP	\$8,910
	END-12-CF-N8-EP	\$6,530	END-12-CF-N8-METAL-EP	\$8,910
Optional Operation to 10 Bar, 147 PSIG; 200 PSI Shaft Seal.....add \$296				
Aluminum Conflat Gaskets® Packs of 10, except larger sizes.....See next page				

High Speed Closing speeds as fast as 75 mSeconds available.

Fast Pumpdown VRC valve bodies are not cast. The internal surfaces are smooth extruded or machined 6061 aluminum and pump down at speeds comparable to or faster than stainless steel.

Satisfaction Guaranteed Vacuum Research has been building high vacuum valves for more than 50 years and has earned a reputation for world class product quality and customer service. If you are not satisfied with our valve just send it back.

Metal Bonnet Seals Our standard bonnet & hub seal is Viton® but metal seals are available. Kalrez® is optional.

Rotatable Flanges Rotatable flanges are available on one or both sides of all valve sizes. Our rotatable flanges have through holes. Our fixed flanges have tapped holes.

Maximum Temperature All VRC valves use Viton® for the gate seal which can operate up to 190°C (375°F). Kalrez® available.

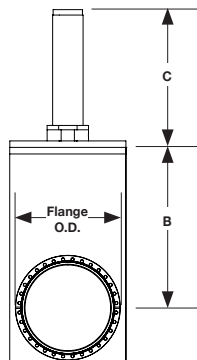
Fail Safe All Vacuum Research air operated valves can be installed for fast close on power failure.

Long Life More than 250,000 cycles for standard valves.

No Leaks All VRC valves have total leak rates of less than

5 X 10⁻¹⁰ std. cc/sec. By total leak we mean that each completed valve is tested in a He filled bag.

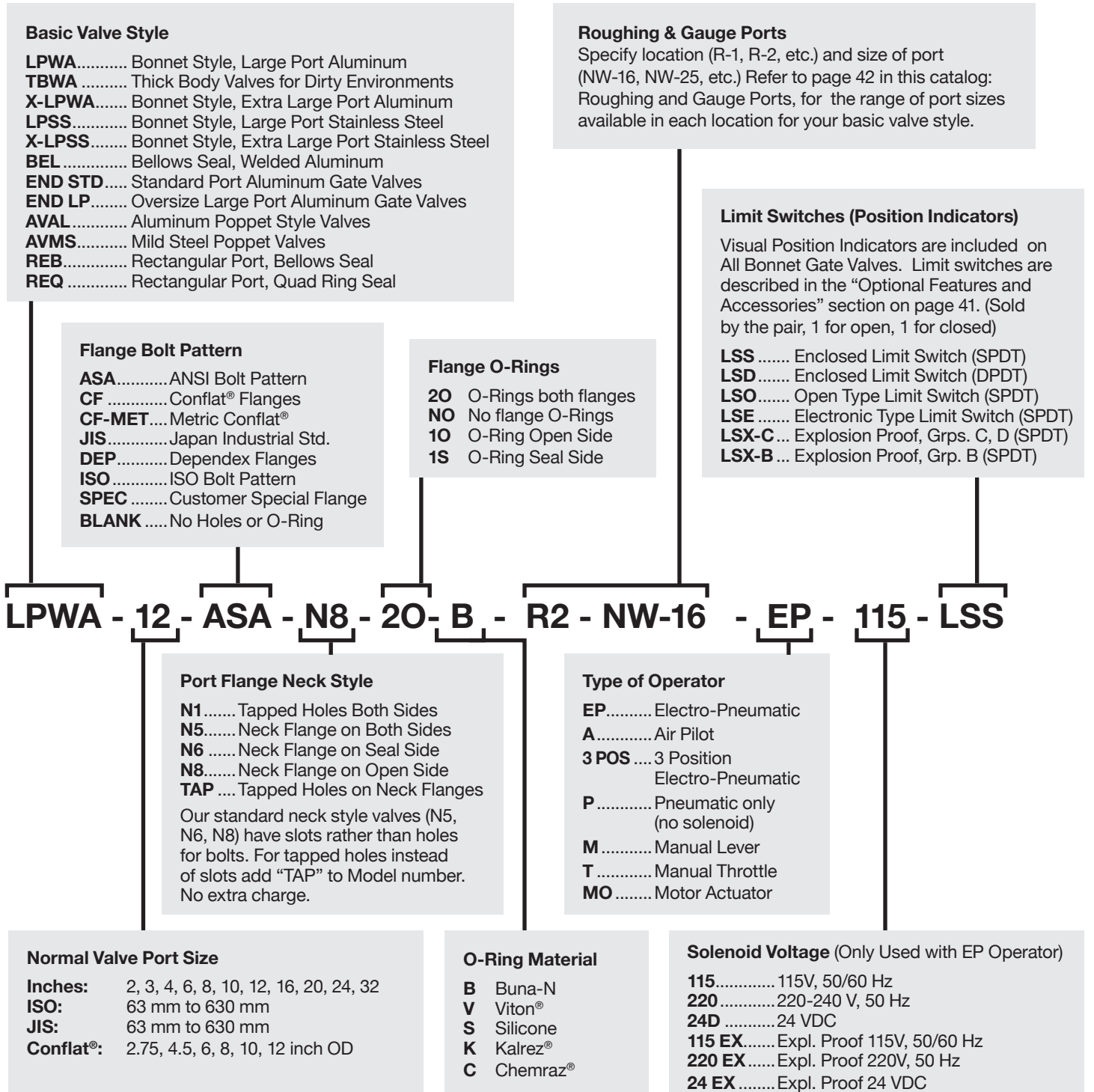
RoHS Compliant and CE Mark All Valves (RoHS) 002/95/EC Compliant, and carry the CE Mark.



Conflat® Flange O.D.	Flange to Flange	B Port C/L to Top	C Actuator Height	B Body Width	B (Number) Bolt Size
2.75 in. (1.6 in. Port)	3.1	6.3	7.4	4.63	(6) 1/4-28
3.375 in. (2 in. Port)	3.4	6.3	7.4	4.63	(8) 5/16-24
4.50 in. (2.5 in. Port)	3.5	8.38	9.4	6.48	(8) 5/16-24
6.00 in. (4 in. Port)	4.3	8.38	9.4	6.48	(16) 5/16-24
8.00 in. (6 in. Port)	4.5	11.38	11.66	9.0	(20) 5/16-24
10.00 in. (8 in. Port)	4.7	14.3	12.72	11.0	(24) 5/16-24
12.00 in. (10 in. Port)	5.0	19.0	16.0	13.63	(32) 5/16-24



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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