

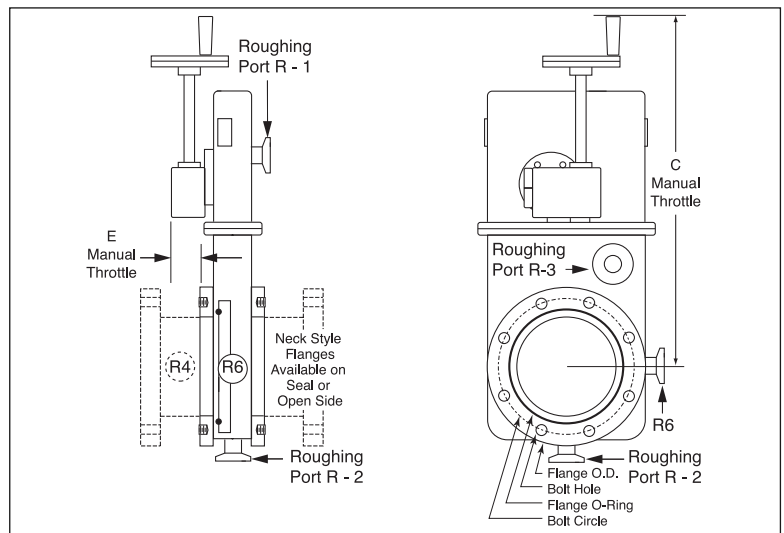


- Throttle & Leak Tight Shut Off in One Valve
- Aluminum or Stainless Steel Valves
- Seals Up To 3 Atmospheres Differential
- Vacuum or Pressure on Either Side
- ANSI Flange Sizes From 2 Inch To 20 Inch
- Tapped Hole or Neck Style ANSI Flanges
- ISO-k or f style Flanges From 63 To 500 mm
- Locks in Open and Closed Positions
- All Valves (RoHS) 2002/95/EC Compliant

Actuator handle can be easily repositioned to anywhere from left to center to right to provide the most convenient access. Valve on the left is shown with guard removed.

The Vacuum Research Manual Throttle Valves serve the dual purposes of high vacuum isolation valve with leak tight shutoff plus precision pump capacity control for sputtering or plasma. Suitable for use with turbo, diffusion or cryo pumps, and always leak tight during regeneration.

Both f and k style ISO flanges are available, as are neck style ANSI flanges. Optional ports for roughing and gauges can be located anywhere on the valve body, and sizes from NW-16 to NW-50 are available.



### ANSI Flanges

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	C Manual Throttle	E Manual Throttle	F Disassy. Clearance	Weight lbs. Net	Weight lbs. Ship	Price
2 inch	LPWA 2 N1	3.375	6.00	3.625 ID X .139	4.75	(4) 5/8-11	3.75	15.00	2.50	2.625	13	20	\$1435.
3 inch	LPWA 3 N1	4.00	7.50	4.00 ID X .139	6.00	(4) 5/8-11	3.75	15.00	2.50	2.625	15	22	\$1538.
4 inch	LPWA 4 N1	6.00	9.00	5.75 ID X .139	7.50	(8) 5/8-11	4.125	21.00	2.563	4.50	31	45	\$1657.
6 inch	LPWA 6 N1	8.00	11.00	7.50 ID X .139	9.50	(8) 3/4-10	4.375	24.00	2.563	5.50	49	60	\$1929.
8 inch	LPWA 8 N1	10.00	13.50	9.00 ID X .275	11.75	(8) 3/4-10	4.375	24.00	2.563	5.50	55	66	\$3154.
10 inch	LPWA 10 N1	12.00	16.00	12.00 ID X .275	14.25	(12) 7/8-9	4.625	27.188	1.50	4.75	109	130	\$3879.
12 inch	LPWA 12 N1	12.00	19.00	13.00 ID X .275	17.00	(12) 7/8-9	4.625	27.188	1.50	4.75	129	150	\$4800.
16 inch	LPWA 16 N1	16.00	23.50	17.00 ID X .275	21.25	(16) 1-8	6.50	37.00	1.50	7.00	200	350	\$9210.

### ISO Flanges

Nominal ISO Size	Model No. ISO Flange	Port Diameter	Flange O.D.	Flange O-Rings	Bolt Circle	(no. of bolts) x bolt size	A Flange to Flange	C Manual Throttle	E Manual Throttle	F Disassy. Clearance	Weight lbs. Net	Weight lbs. Ship	Price
63 mm	LPWA 63 N1	70	130	Use standard ISO centering rings. These are not included with the valve and should be purchased separately.	110	(4) M8-1.25	70	381	64	67	13	20	\$1110.
80 mm	LPWA 80 N1	83	145		125	(8) M8-1.25	95	381	64	67	15	22	\$1466.
100 mm	LPWA 100 N1	102	165		145	(8) M8-1.25	95	381	64	114	31	45	\$1538.
160 mm	LPWA 160 N1	153	225		200	(8) M10-1.5	105	533	65	140	49	60	\$1636.
200 mm	LPWA 200 N1	213	285		260	(12) M10-1.5	111	610	65	140	55	66	\$3205.
250 mm	LPWA 250 N1	261	335		310	(12) M10-1.5	117	690	38	120	109	130	\$3869.
320 mm	LPWA 320 N1	318	425		395	(12) M10-1.75	117	690	38	120	129	150	\$4718.
400 mm	LPWA 400 N1	400	510		480	(16) M12-1.75	165	940	38	178	200	350	\$9210.

Throttle Valves

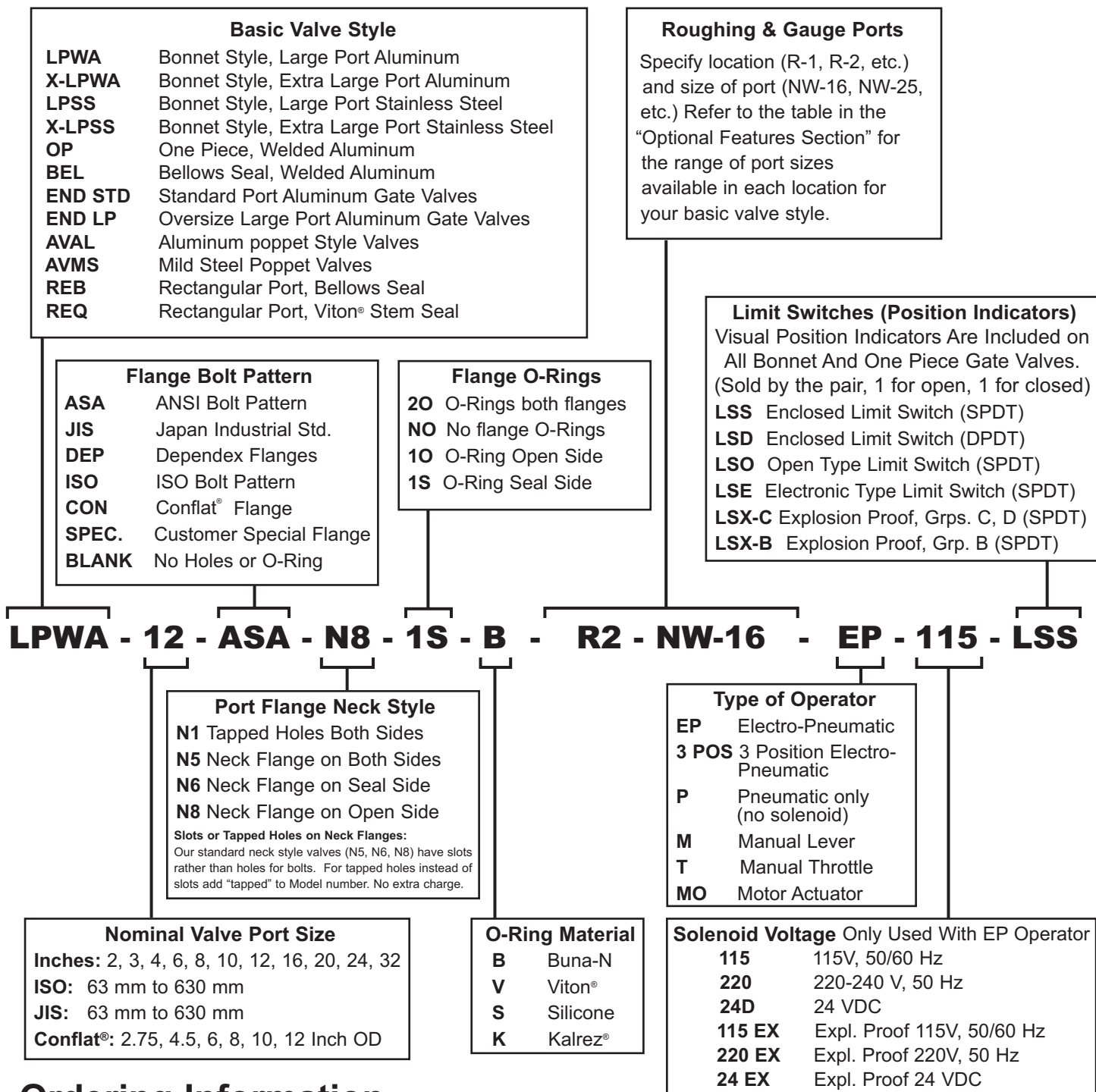


# Model Numbering System

VRC Valves are  
Manufactured in  
the USA.



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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