## Aluminum Conflat® Valves, Electro-Pneumatic Operator

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<td>END-6.00-CF-N6-EP</td>
<td>$2717.</td>
<td>END-6.00-CF-N6-METAL-EP</td>
<td>$3016.</td>
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### 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 42).

### 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](http://home.fnal.gov/~mlwong/outgas_rev.htm).

### Low Particle Generation

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.
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.

### Basic Valve Style
- **LPWA**: Bonnet Style, Large Port Aluminum
- **TBWA**: Thick Body Valves for Dirty Environments
- **X-LPWA**: Bonnet Style, Extra Large Port Aluminum
- **LPSS**: Bonnet Style, Large Port Stainless Steel
- **X-LPSS**: Bonnet Style, Extra Large Port Stainless Steel
- **BEL**: Bellows Seal, Welded Aluminum
- **END STD**: Standard Port Aluminum Gate Valves
- **END LP**: Oversize Large Port Aluminum Gate Valves
- **AVAL**: Aluminum Poppet Style Valves
- **AVMS**: Mild Steel Poppet Valves
- **REB**: Rectangular Port, Bellows Seal
- **REQ**: Rectangular Port, Quad Ring Seal

### Flange Bolt Pattern
- **ASA**: ANSI Bolt Pattern
- **CF**: Conflats Flanges
- **CF-MET**: Metric Conflats
- **JIS**: Japan Industrial Std.
- **DEP**: Dependex Flanges
- **ISO**: ISO Bolt Pattern
- **SPEC**: Customer Special Flange
- **BLANK**: No Holes or O-Ring

### Flange O-Rings
- **2O**: O-Rings both flanges
- **NO**: No flange O-Rings
- **1O**: O-Ring Open Side
- **1S**: O-Ring Seal Side

### Nominal Valve Port Size
- **Inches**: 2, 3, 4, 6, 8, 10, 12, 16, 20, 24, 32
- **ISO**: 63 mm to 630 mm
- **JIS**: 63 mm to 630 mm
- **Conflat**: 2.75, 4.5, 6, 8, 10, 12 Inch OD

### Port Flange Neck Style
- **N1**: Tapped Holes Both Sides
- **N5**: Neck Flange on Both Sides
- **N6**: Neck Flange on Seal Side
- **N8**: Neck Flange on Open Side
- **TAP**: 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 “TAP” to Model number. No extra charge.

### O-Ring Material
- **B**: Buna-N
- **V**: Viton®
- **S**: Silicone
- **K**: Kalrez®
- **C**: Chemraz®

### 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, 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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**Model Numbering System**

**Vacuum Research Corp. • 100 Chapel Harbor Drive, #4 • Pittsburgh, PA 15238 USA • www.vacuumresearch.com**

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