Small Stainless Gate Valves

Bake to 180°C With the standard Viton® O-Ring the valves can be baked to 180°C in open or closed position.

No Leaks All Vacuum Research 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 Helium filled bag.

NW Clamps & Centering Rings Prices on page 25 for clamps from NW-16 to NW-50.

Kalrez® or Silicone Seals Available Standard Valves use all Viton® seals. Contact factory for Kalrez® and silicone prices

Small Stainless Steel Gate Valves

| NW-16 Flanges   | $1049.  | Electro-Pneumatic Actuator Add “EP” Suffix plus solenoid voltage |
| NW-25 Flanges   | $1049.  |                                                                 |
| NW-40 Flanges   | $1049.  |                                                                 |
| 2.75 Non rotatable Flanges | $1038. |                                                                |
| 2.75 Rotatable Conflat® Flanges | $1068. |                                                                |

 valves will fit even the most crowded systems. The valve body with EP actuator is only 3.75 inches wide by 10.88 inches high (95 x 275 mm).

Vacuum & Pressure Standard valves seal and open with vacuum or atmosphere on either side.

Long Life These small stainless steel valves provide straight through high conductance pumping and our usual 250,000 cycles without any need for service.

Fail Safe All Vacuum Research Valves can be installed for fast close on power failure.

Conflat® is a registered trademark of Varian Associates. Kalrez® and Viton® are registered trademarks of Dupont Corp.
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) 2002/95/EC 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

### Roughing & Gauge Ports
Specify location (R-1, R-2, etc.) and size of port (NW-16, NW-25, etc.)
Refer to page 42 in this catalog: Roughing and Gauge Ports, for the range of port sizes available in each location for your basic valve style.

### Limit Switches (Position Indicators)
Visual Position Indicators are included on All Bonnet Gate Valves. Limit switches are described in the “Optional Features and Accessories” section on page 41. (Sold by the pair, 1 for open, 1 for closed)
- **LSS** - Enclosed Limit Switch (SPDT)
- **LSD** - Enclosed Limit Switch (DPDT)
- **LSO** - Open Type Limit Switch (SPDT)
- **LSE** - Electronic Type Limit Switch (SPDT)
- **LSX-C** - Explosion Proof, Grps. C, D (SPDT)
- **LSX-B** - Explosion Proof, Grp. B (SPDT)

### 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

### 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.

**Type of Operator**
- **EP** - Electro-Pneumatic
- **A** - Air Pilot
- **3 POS** - 3 Position Electro-Pneumatic
- **P** - Pneumatic only (no solenoid)
- **M** - Manual Lever
- **T** - Manual Throttle
- **MO** - Motor Actuator

**Solenoid Voltage**
- **115** - 115V, 50/60 Hz
- **220** - 220-240 V, 50 Hz
- **24D** - 24 VDC
- **115 EX** - Expl. Proof 115V, 50/60 Hz
- **220 EX** - Expl. Proof 220V, 50 Hz
- **24 EX** - Expl. Proof 24 VDC

**Flange Bolt Pattern**
- **ASA** - ANSI Bolt Pattern
- **CF** - Conflat-Flanges
- **CF-MET** - Metric Conflat®
- **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

**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®

Kalrez® and Viton® are registered trademarks of Dupont Corp. • Conflat® is a registered trademark of Varian Associates • Chemraz® is a registered trademark of Green, Tweed & Co.