Steel & Aluminum High Vacuum Poppet Valves, ISO-k Flanges

- Less Outgassing Than S.S., See Page 39
- 6061 Aluminum or Mild Steel
- All Valves (RoHS) 2015/863/EU Compliant
- Electroless Nickel Optional on Steel Valves
- Optional Operation to 10 Bar, 147 PSIG
- ISO-k Flanges Standard, f Style Optional
- Flanges to Match Diffusion & Cryo Pumps
- Extremely Low Outgassing Rate
- Leak Tested To 5 X 10^-10 Std. cc/sec
- Automatic Closure on Power Failure
- Optional Open/Closed Position Indicators
- High Conductance Full Opening Port

ORDERING INFORMATION

Model Number: Refer to page 2 for instructions on how to specify the features you need.
Electronic Position Indicators: Two reed switches activated by a magnet inside the pneumatic actuator provide contact closure for open and closed positions. Add 'LSE' to Model No., refer to page 40 for specifications. $162. /pair
Roughing Ports or Gauge Ports: Standard location is 180° from side port as shown in drawing. Other locations and more than one port are available.
Special Features: See pages 40 to 43 for information on special features and accessories.
Viton® or Kalrez® or Silicone O-Rings: Our standard Poppet Valves use Buna-N O-Rings. 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.)
ISO-63 ........................................ $59.
ISO-100 ......................................... $90.
ISO-160 ................................. $111.
ISO-200 ......................................... $177.
ISO-250 ......................................... $231.
ISO-320 ......................................... $297.
ISO-400 .......................................... contact factory
ISO-500 .......................................... contact factory

ISO-f flanges available for side or bottom ports at same price.

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Standard Exterior of Mild Steel Valves Painted Turbine Blue.
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**: 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

### 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®

### Order Numbering System

#### LPWA - 12 - ASA - N8 - 2O - B
- **2**: Vacuum Research Corp.
- **12**: Model Number
- **ASA**: Flange Bolt Pattern
- **N8**: Port Flange Neck Style
- **2O**: Flange O-Rings
- **B**: Type of Operator

#### R2 - NW-16 - EP - 115 - LSS
- **R2**: Type of Operator
- **NW-16**: Nominal Valve Port Size
- **EP**: Type of Operator
- **115**: Solenoid Voltage
- **LSS**: Limit Switches (Position Indicators)

### Limit Switches (Position Indicators)
- **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)

### 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

### 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.