



Valve on the left has NW-40 flange. Valve on the right has special 2.75 In. Conflat® flange. Standard practice is for bolt circle to straddle center line.

Small Size

These compact 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.

- All Stainless Steel Welded Construction
- Straight Through, High Conductance Design
- No Sliding Surfaces to Generate Particles
- 250,000 Cycle Life Before Any Maintenance
- Closing Speeds as Fast as 75 mS Available
- Optional Seal Up To 3 Atmospheres
- Vacuum or Pressure on Either Side
- Electropneumatic or Manual Actuator
- Viton® Bonnet and Gate Seals are Standard
- Metal Bonnet & Kalrez® Gate Seals Available
- All Valves (RoHS) 2002/95/EC Compliant

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

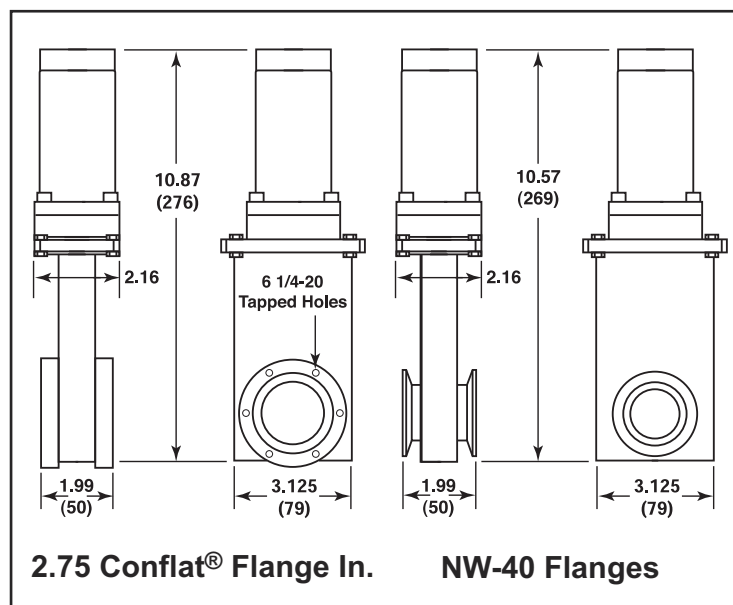
No Leaks All Vacuum Research valves have total leak rates of less than 5×10^{-10} std cc/sec. By total leak we mean that each completed valve is tested in a Helium filled bag.

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	Electro-Pneumatic Actuator Add "EP" Suffix plus solenoid voltage
NW-16 Flanges P/N Mini-SS-NW-16-	\$1049.
NW-25 Flanges P/N Mini-SS-NW-25-	\$1049.
NW-40 Flanges P/N: Mini-SS-NW 40-	\$1049.
2.75 Non rotatable Flanges P/N: Mini-SS-275-ROT-	\$1038.
2.75 Rotatable Conflat® Flanges P/N: Mini-SS-275-ROT-	\$1068.



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)

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

LPWA - 12 - ASA - N8 - 2O - B - R2 - NW-16 - EP - 115 - LSS

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.

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

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

O-Ring Material

B	Buna-N
V	Viton®
S	Silicone
K	Kalrez®
C	Chemraz®

Solenoid Voltage Only Used With EP Operator

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.



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