



Application

These are 4-Way, 3-Position, rotary disc, direct-operated air valves. Two different types of control are offered. The forged bronze disc and the cast iron surface upon which the disc works are ground and lapped to provide a leak-proof seal. Air pressure from the inlet port is confined beneath the disc, making the seal tighter as the pressure increases, yet friction between the lapped surfaces is so low that only 15 pounds of force is required to move the lever at 100PSI line pressure. The need for packing to seal around the stem is eliminated.

Valve can be furnished for gasketing to a manifold on customer's machine or with an adaptor for tapped bottom porting.

Valves are detented.

Operating handles may be installed in any of four positions.

Flow Ratings (Cv)

Standard Side Port	Optional Bottom Port Adapter	Optional Bottom Manifold	Cv	Port Size
PL 25 VL 25	PLD 25 VLD 25	PLA 25 VLA 25	2.5	1/4" NPT
PL 37 VL 37	PLD 37 VLD 37	PLA 37 VLA 37	3.0	3/8" NPT
PL 50 VL 50	PLD 50 VLD 50	PLA 50 VLA 50	6.2	1/2" NPT

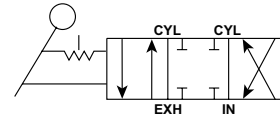
Optional Items and Accessories

Bottom Porting for gasket mounting to customer's manifold. Four holes are drilled (see following page for dimensions) through the base into the four port chambers. Side ports are plugged. Customer provides suitable means of gasketing. Specify Series PLA or VLA.

Bottom Ported Adaptor Plate, o-ring gasketed to base (four o-rings furnished). Adaptor plate has four drilled and tapped ports. Side ports are plugged. Specify Series PLD or VLD.

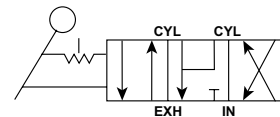
Operation Series PL

This type has a 90° lever movement. In neutral position, inlet is closed to pressure – outlets closed to exhaust. With clockwise (CW), inlet is connected to cylinder port directly opposite. Other cylinder port is connected to exhaust. With counterclockwise (CCW), inlet is connected to cylinder port diagonally opposite. Other cylinder port is connected to exhaust. Recommended for stationary air cylinders, arbor presses, and as a throttling valve for positioning air cylinders.



Series VL

This type has a 90° lever movement. In neutral position, inlet is closed to pressure – outlets open to exhaust. With clockwise (CW), inlet is connected to cylinder port directly opposite. Other cylinder port is connected to exhaust. With counterclockwise (CCW), inlet is connected to cylinder port diagonally opposite. Other cylinder port is connected to exhaust. This valve is particularly suited for pneumatic chuck operation.



Operating Pressure

0 to 150 PSI (0 to 1035 kPa)

Operating Temperature

18°F to 200°F (-8°C to 93°C)

Lubrication

Filtered and lubricated air recommended for maximum valve life and minimum maintenance.

Service Kit and Parts Available

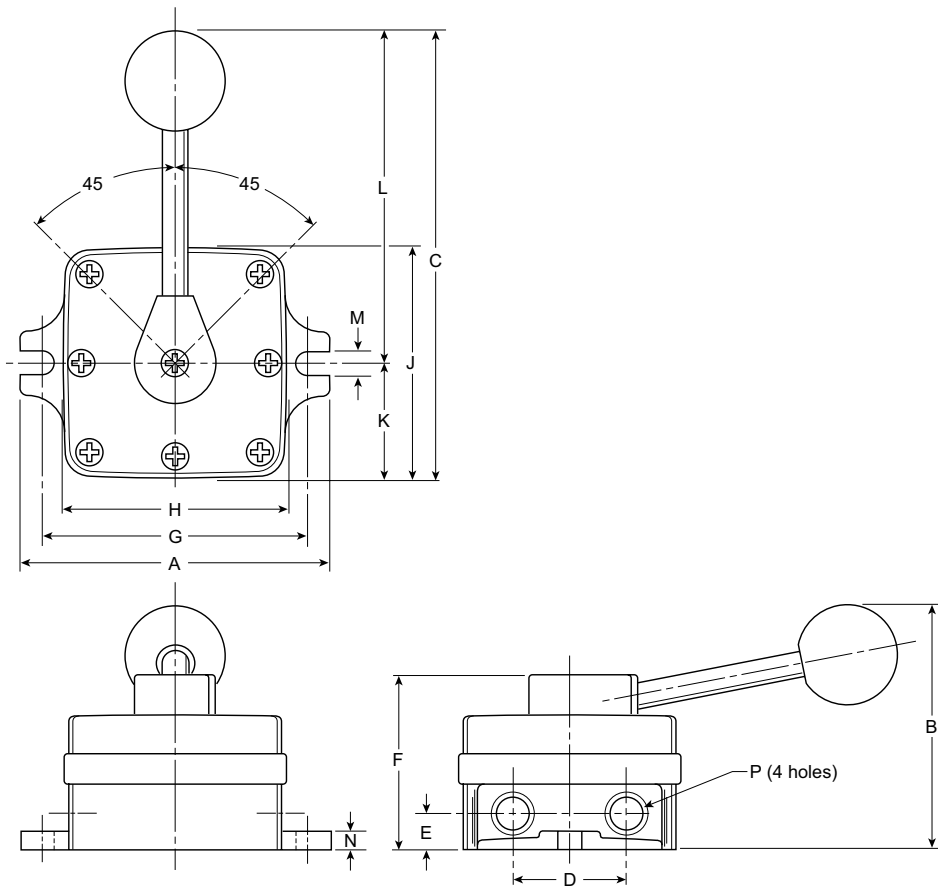
Lever Assembly Service Kits:

- PL25, PL25HP, PL37, PL37HP,
 VL25 & VL37..... PL2425BP
- PL50, PL50HP & VL50..... PL2424BP

Body Gasket:

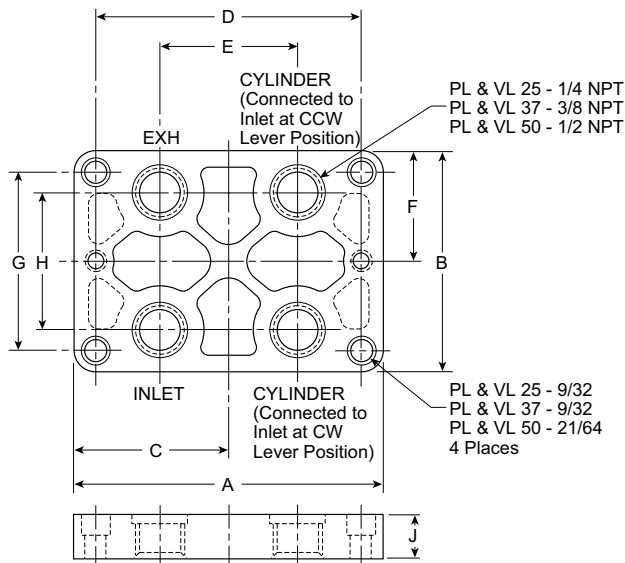
- PL25, PL25HP, PL37, PL37HP,
 VL25 & VL37..... P66837
- PL50, PL50HP & VL50..... P66829

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Dimensions

	PL-25 VL-25	PL-37 VL-37	PL-50 VL-50
A	4.75 (121)	4.75 (121)	5.62 (143)
B	3.81 (97)	3.81 (97)	4.44 (113)
C	6.81 (173)	6.81 (173)	8.94 (227)
D	1.69 (43)	1.69 (43)	2.12 (54)
E	.56 (14)	.56 (14)	.66 (17)
F	2.75 (70)	2.56 (65)	3.25 (83)
G	4.12 (105)	4.12 (105)	5.00 (127)
H	3.50 (89)	3.50 (89)	4.38 (111)
J	3.50 (89)	3.50 (89)	4.38 (111)
K	1.69 (43)	1.69 (43)	2.12 (54)
L	5.06 (129)	5.06 (129)	6.75 (171)
M	.34 (9)	.34 (9)	.34 (9)
N	.28 (7)	.28 (7)	.34 (9)
P	1/4 NPT	3/8 NPT	1/2 NPT



Adapter Plate for Series PLD and VLD

Dimensions

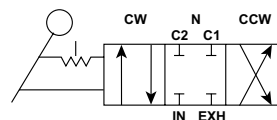
	PLD-25, PLD-37 VLD-25, VLD-37	PLD-50 VLD-50
A	4.75 (121)	5.62 (143)
B	3.38 (86)	4.25 (108)
C	2.38 (60)	2.81 (71)
D	4.12 (105)	5.00 (127)
E	2.19 (56)	2.59 (66)
F	1.69 (43)	2.12 (54)
G	2.75 (70)	3.62 (92)
H	2.06 (52)	2.81 (71)
J	.58 (15)	.70 (18)





Operation

These closed center valves have a 90° lever movement. In neutral position, the inlet is closed to pressure and outlets are closed to exhaust. With clockwise (CW) rotation, inlet (IN) is connected to C2, C1 is connected to exhaust (EXH). With counter-clockwise (CCW) rotation, inlet (IN) is connected to C1, C2 is connected to exhaust (EXH). These valves are recommended for stationary air cylinders, and as throttling valves for positioning air cylinders. They are not to be used on punch presses or press brakes.



Features

- Compact and Simple Design
- 4-Way, 3-Position
- Rotary Disc, Direct Operated Valves
- Side Porting
- Detent Action
Smooth Lever Actuation
- General Pneumatic Applications

Operating Pressure

0 - 150 PSIG (0 - 10 bar)

Operating Temperature

32° - 166°F (0° - 60°C)

Lubrication

Filtered and lubricated air recommended for maximum valve life and minimum maintenance.

Materials

Cover Zinc
 Body Aluminum
 Seals Polyurethane

Flow Rating

Port Size	Cv (ANSI)	Cv (JIS)
1/4"	0.5	0.4
3/8"	1.4	2.72
1/2"	1.5	3.26

Service Kit & Parts Available

Disk and Seal Service Kit:

HV4200 **HVRK420001**
 HV4400 **HVRK440001**

ANSI Cv vs. JIS Cv

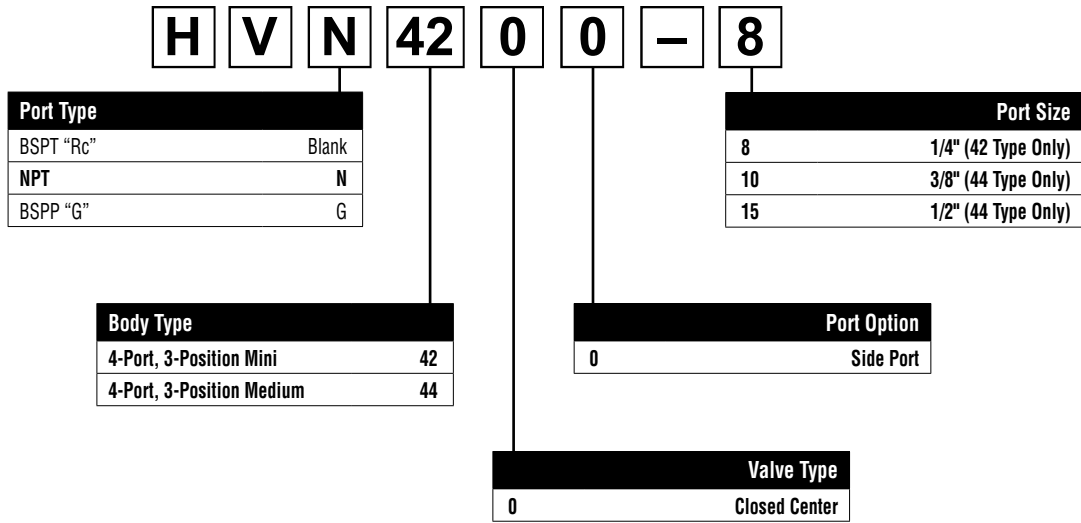
For Pneumatic Valve flow, the measurement **Cv** – Coefficient of Flow – is used to convey to the user how much air can flow through a given valve. Most valve manufacturers publish this information in their catalogs to assist the user in choosing the proper valve for their application. In publishing this data however, there are discrepancies in how the **Cv** is calculated, resulting in some **Cv**'s being **OVERSTATED** by **20 to 40%**. This can adversely affect the user's application because the valve flows **LESS** than the published **Cv**.

The reason for the large discrepancy is in the method of calculation - the ANSI (NFPA) or the JIS standard. Parker's **Cv** valve is calculated using the ANSI (NFPA)

T3.21.3-1990 standard. The ANSI (NFPA) method is a structured test using very specific tube sizes and lengths, inlet pressures and pressure drops, and volume chambers.

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HV Model Number Index



Dimensions

