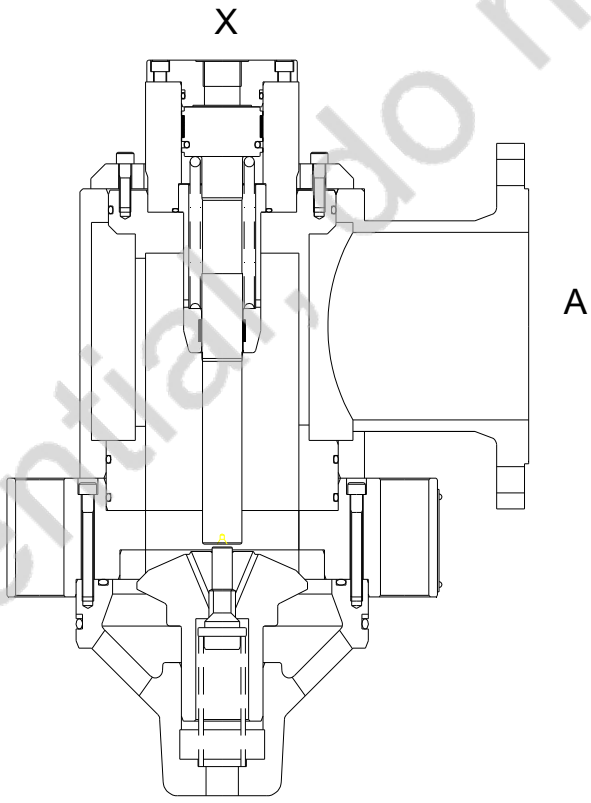
PREFILL AND EXHAUST VALVE MODEL : PEV100 TO PEV150

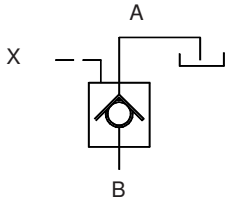
Description

Seat type construction.
Allows free flow from port A to port B.
Flow from port B to port A can be effected by applying pilot pressure to it's port X.
Model with decompression feature opens in two stages progressively, allowing smooth and rapid exhaust of the compressed oil.
Opening and closing time of the valve can be influenced by providing Throttle cum check valve in pilot line.
Flanged port A of the valve housing can be rotated around vertical axis through 360.
Encapsulated O'ring allows ease of assembly & prevents o'ring damage during assembly.
Larger suction flange reduces pressure drop in the suction line & hence increase in flow handling capacity.
Sealing on the pilot side minimises leakage across & frictional losses

Section



Hydraulic Symbol



PRISM HYDRAULICS PVT. LTD.
B-23 Angol Indl. Estate,
Udyambag,
Belgaum - 590 008. INDIA.

Phone :- +91-(0831)-2443448
Fax :- +91-(0831)-4202340
E-mail :- prismhydraulics@gmail.com

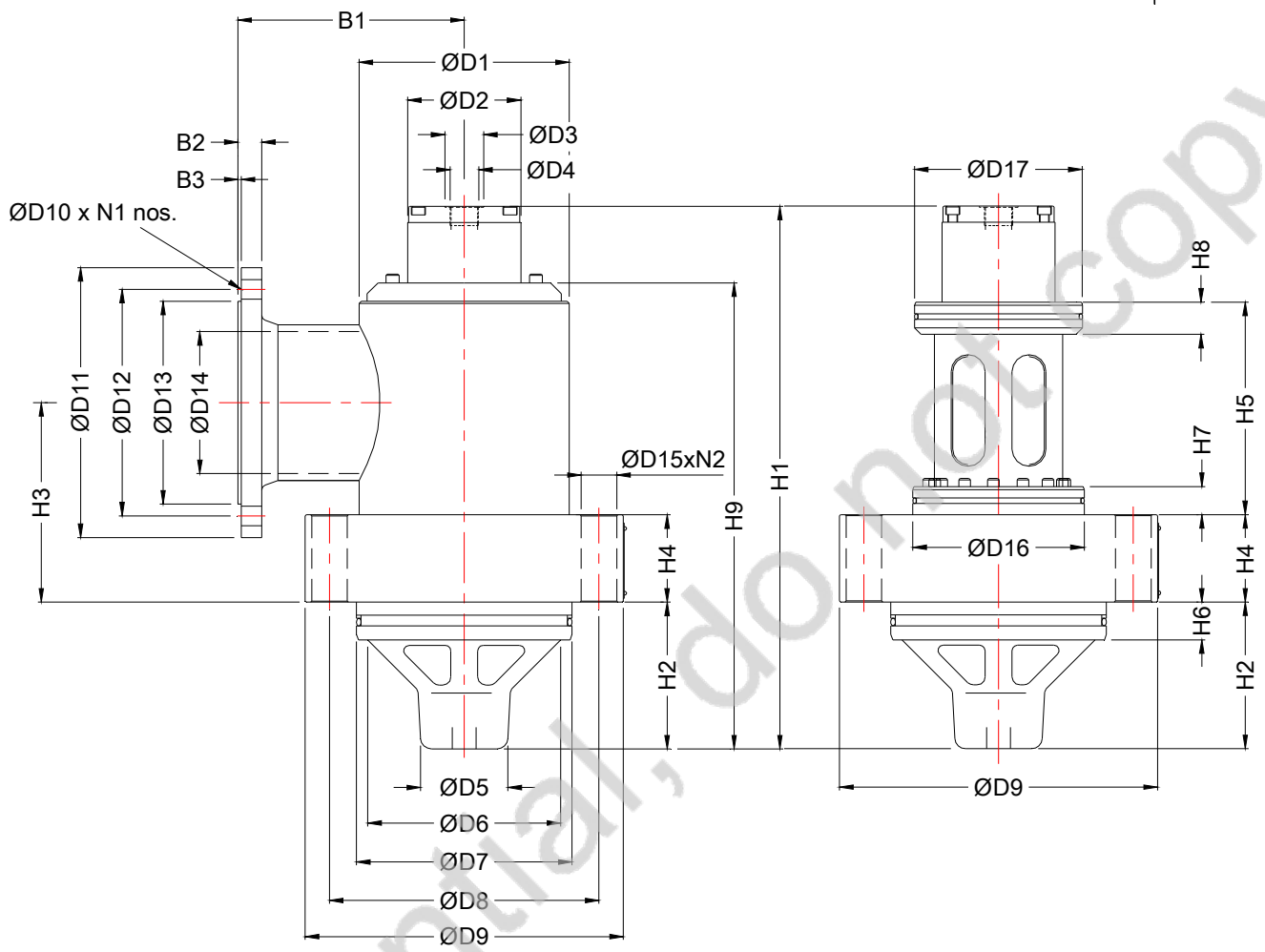
PRISM HYDRAULICS PVT. LTD.

Ref.No. P0447
Release Sept 2012

PREFILL AND EXHAUST VALVE MODEL : PEV100 TO PEV150

Unit Dimensions.

Dimensions in mm.



Model 'A'
With flange connection

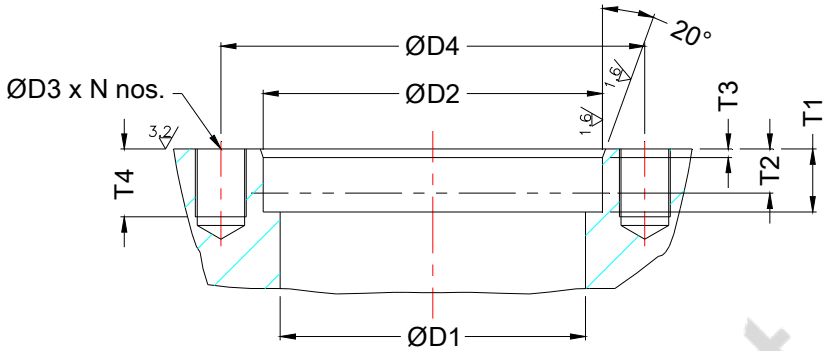
Model 'B'
With Tank mounting

Size	Mass kg.	B1	B2	B3	ØD1	ØD2	ØD3	ØD4	ØD5	ØD6	ØD7	ØD8
100	79	210	22	3	195	105	36	G3/4	80	175	200	250
125	120	250	22	3	245	135	36	G3/4	105	220	250	310
150	167.5	275	24	3	273	142	44	G1	110	265	290	350

Size	H3	H4	H5	H6	H7	H8	H9	N1	N2
100	185	80	197	35	26	30	441	8	12
125	220	90	248	35	27	45	518	8	12
150	255	100	315	35	27	42	600	12	15

PREFILL AND EXHAUST VALVE MODEL : PEV100 TO PEV150

Mounting cavity details.



Size	D1	D2 (H7)	D3	D4	T1	T2	T3	T4	N	Valve fixing screws	
										SHCS Screw size	Tightening torque
100	180	200	M30x2	250	37	26	5	45	12	M30x2,120L	1200 Nm
125	230	250	M36x3	310	37	26	5	63	12	M36x3,150L	2250 Nm
150	270	290	M36x3	350	37	26	5	55	15	M36x3,150L	2250 Nm

Technical Specifications

Construction . . . . . Poppet type pilot operated
Mounting type . . . . . Inside oil tank mounting or flanged A port.
Special machined cavity for port B
Mounting position . . . . . .Optional.
Flow direction . . . . . Free flow from port A to port B
Piloted flow from port B to port A.
Operating pressure . . . . . For port A 16 bar, B and X 315 bar.
Cracking pressure . . . . . .0.2 bar.
Pilot pressure required to have
flow from port B to port A . . . . . Px > [(Pb-Pa) x 4] + 10 bar. to open main poppet of the valve
Px > [(Pb-Pa) ÷ 10] +10 bar. to open the decompression poppet of the valve.
Where Px = Pilot pressure at port X (bar)
Pa = Pressure at port A (bar)
Pb = Pressure at port B (bar)

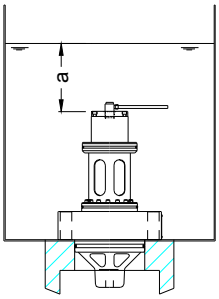
Pilot volume . . . . .

Size	100	125	150
cms^3	46.8	88.5	135.7

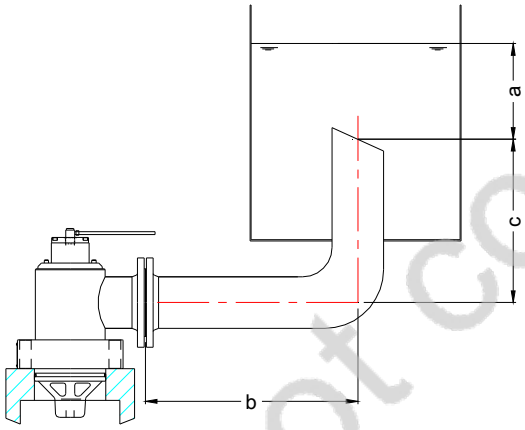
Recommended tube o.d. . . . . mm 20 20 25
Hydraulic medium . . . . . Mineral oil.
Viscosity range . . . . . 10 cSt to 380 cSt.
Temperature range . . . . . -20 °c to +70 °c.
Fluid cleanliness requiremnet . . . . . .As per ISO code 16 / 13.or better.

PREFILL AND EXHAUST VALVE MODEL : PEV100 TO PEV150

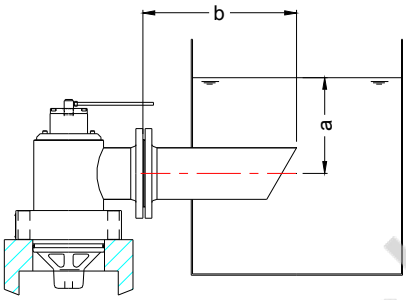
Flow handling capacity



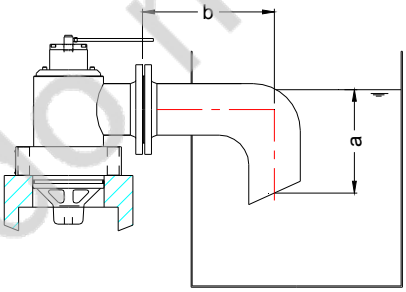
Application A



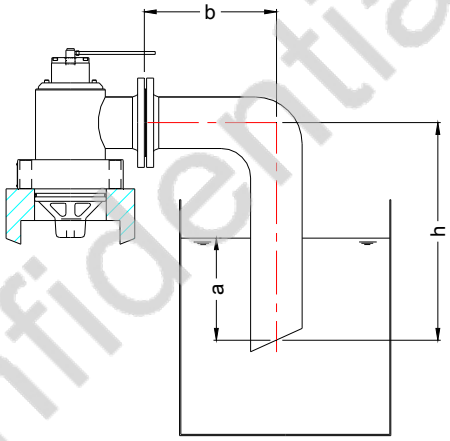
Application B



Application C



Application D



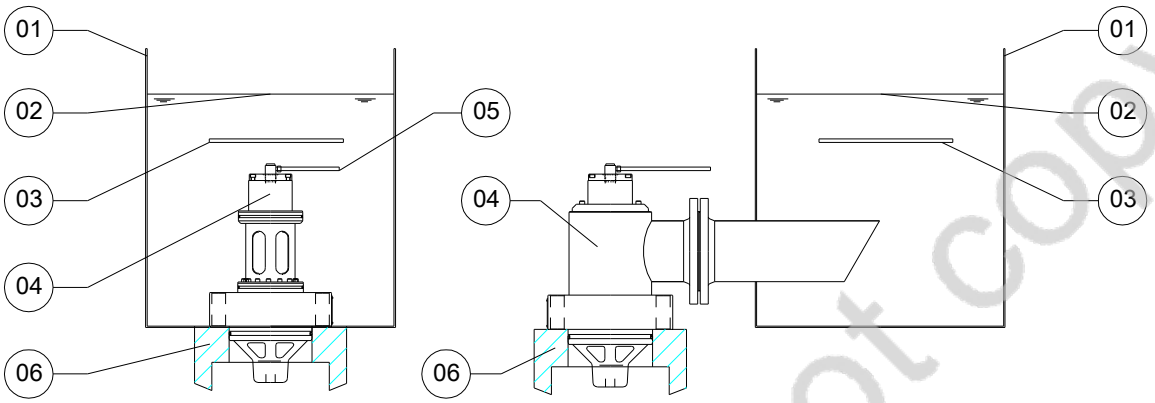
Application E

a > 300 when cylinder is extended.
b < 1000
c > 500
300 < h > 500

Maximum Flow (l/min.)					
Size	Application A (4.5 m/sec)	Application B (4.5 m/sec)	Application C (3.3 m/sec)	Application D (3 m/sec)	Application E (1.2 m/sec)
100	2120	2120	1560	1410	570
125	3310	3310	2430	2210	880
150	4770	4770	3500	3180	1270

PREFILL AND EXHAUST VALVE MODEL : PEV100 TO PEV150

Installation notes :- To avoid suction vortex



1.Oil Reservoir.
2.Oil Level
3.Baffle plate
4.Prefill valve
5.Pilot connection
6.Cylinder

Baffle plates 03 play vital role in avoiding depressed suction vortex created during prefilling when installed at appropriate positions.These are highly recommended for small reservoirs or low oil levels for both in-tank & flange mounting positions.

Ordering code

PEV	100	A	D	01

Prefill & Exhaust Valve.

Size 100,125 & 150

Mounting Style	
Flange at port A	A
For mounting inside the oil tank.	B

Design code sub to change. Installation dimns remain same for deign code 01 thru 09.

Pilot operation	
With decompression feature	D
Omit if not required.	

PREFILL AND EXHAUST VALVE MODEL : PEV100 TO PEV150

PRISM HYDRAULICS PVT. LTD.
B-23 Angol Indl. Estate,
Udyambag,
Belgaum - 590 008. INDIA.

Phone :- +91-(0831)-2443448
Fax :- +91-(0831)-4202340
E-mail :- prismhydraulics@gmail.com