

Oilgear Tower

Prefill & Exhaust Valves

VPE Series

Sizes 350 / 400 / 450

Innovative Fluid Power

Bulletin FV 62 09/10

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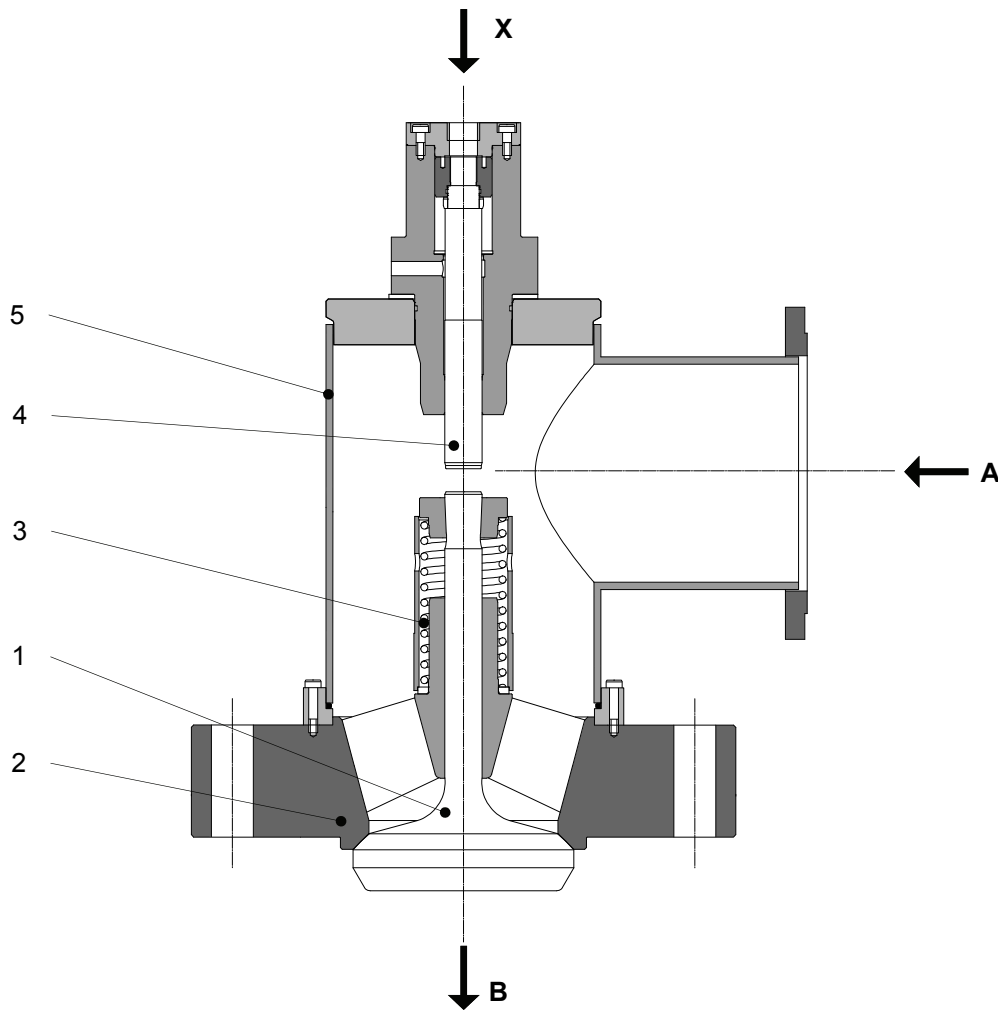
The valve consists of: Main Valve (1), Seat (2), Main Spring (3), Pilot Piston (4) and Case (5).

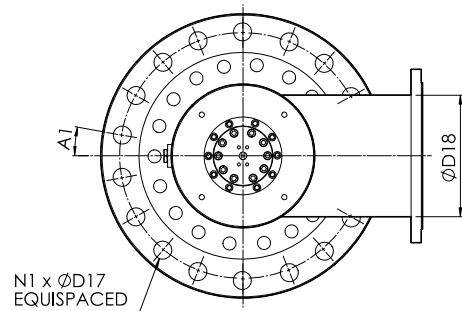
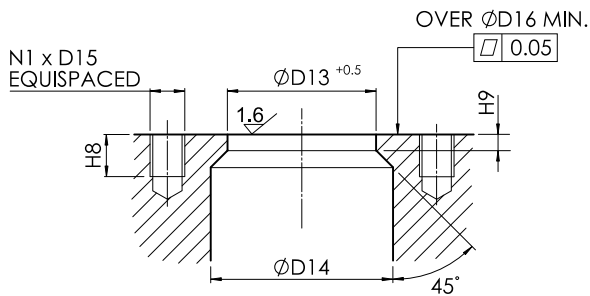
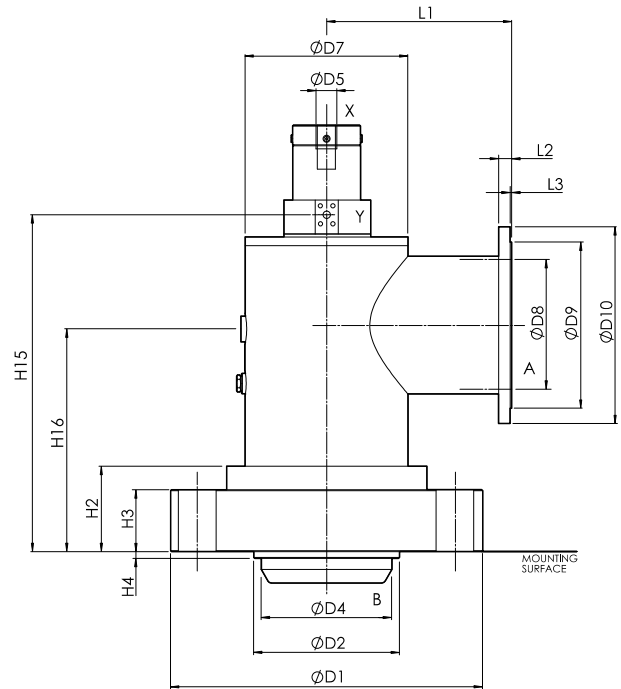
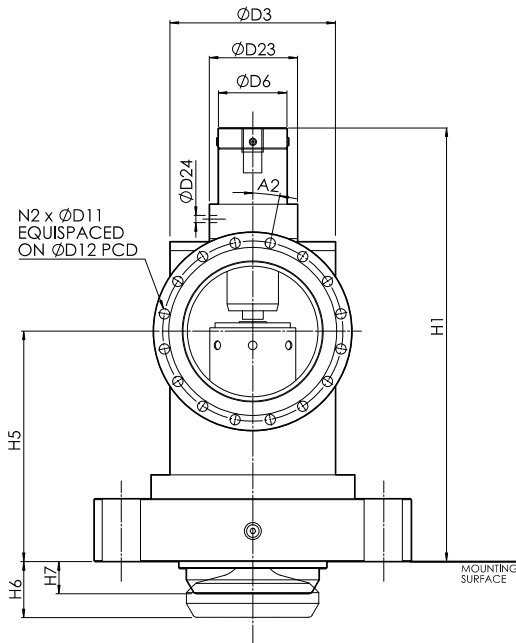
Prefilling

When the pressure at Port B falls to create a differential across the valve (from Port A to Port B) which is sufficient to overcome the force in the Main Spring (3), the Main Valve (1) will open allowing free flow from Port A to Port B.

Exhausting

The pressure acting on Port B holds the Main Valve (1) on the Seat (2), keeping the valve closed. To allow flow in the return direction (from Port A to Port B) the pressure at Port B must first be decompressed to a level which will not cause shocks in the system. Pressure can then be applied to Port X, the Pilot Piston (4) is then forced down, opening the Main Valve (1), allowing exhaust flow from Port B to Port A.





Size	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13
350	780	670	555	430	25	200	480	386	490	580	30	525	430
400	895	765	635	490	32	205	540	437	550	640	30	585	490
450	980	850	715	550	45	230	610	488	610	715	33	650	550

Size	D14	D15	D16	D17	D18	D23	D24	A1	A2	H1	H2	H3	H4
350	520	M56	785	61	406	260	25	10°	11.25°	1140	220	150	35
400	595	M64	900	70	457	285	25	10°	9°	1260	255	175	40
450	675	M64	985	70	508	310	32	9°	9°	1400	300	210	40

Size	H5	H6	H7	H8	H9	H15	H16	L1	L2	L3	N1	N2
350	560	193	88	85	40	874	586	480	38	4	18	16
400	630	220	100	100	50	980	659	540	42	4	18	20
450	690	250	105	100	50	1075	783	610	46	4	20	20

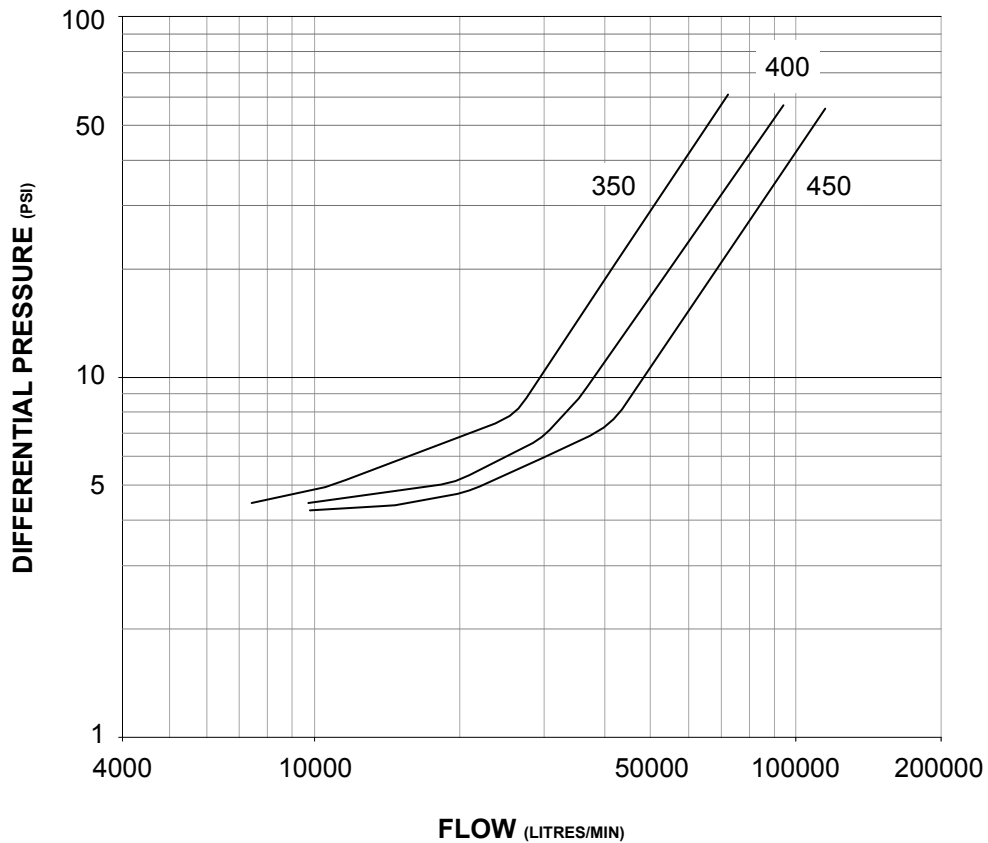
ALL DIMENSIONS IN MM

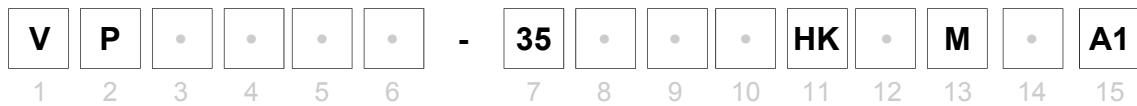
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Data and information in this document may change at any time without notification to incorporate new developments

Pressure/Flow Curve
Type VPE - CB

Flow A to B, Mounted Horizontally
The values of flow and pressure are for an oil with viscosity 40 cSt at 40°C





1 Unit
V Valve

2 Basic Form
P Prefill

3 Valve Type
E Prefill & Exhaust
P Prefill Only

4 Variation
CB 90° Bend
CC Check Valve (Not Available with Exhaust)

5 Nominal Size
350 350 mm
400 400 mm
450 450 mm

6 Mounting
B With 90° Bend only
N With Check Valve only

7 Max Working Pressure
35 350 Bar

8 Exhaust Flange
A With 90° Bend only
N With Check Valve only

9 Exhaust Mating Flange
M With Mating Flange and Fasteners (BS 4504 PN)
N Without Mating Flange

10 Pilot Connection
F For Use with Prefill & Exhaust (BSP Parallel Thread)
N For Use with Prefill Only

11 Ratio & Spring
HK Assigned by Factory

12 Additions
P Proximity Switch
N None

13 Dimensions
M Metric

14 Seals
B Buna N
E EPDM
V Viton

15 Design Series
A1 Assigned by Factory