



Oilgear Tower

Prefill & Exhaust Valves

VPE Series

Sizes 130 / 190 / 250 / 300

Innovative Fluid Power

Bulletin FV 61 09/10

*Issue 1.0
09.2010*

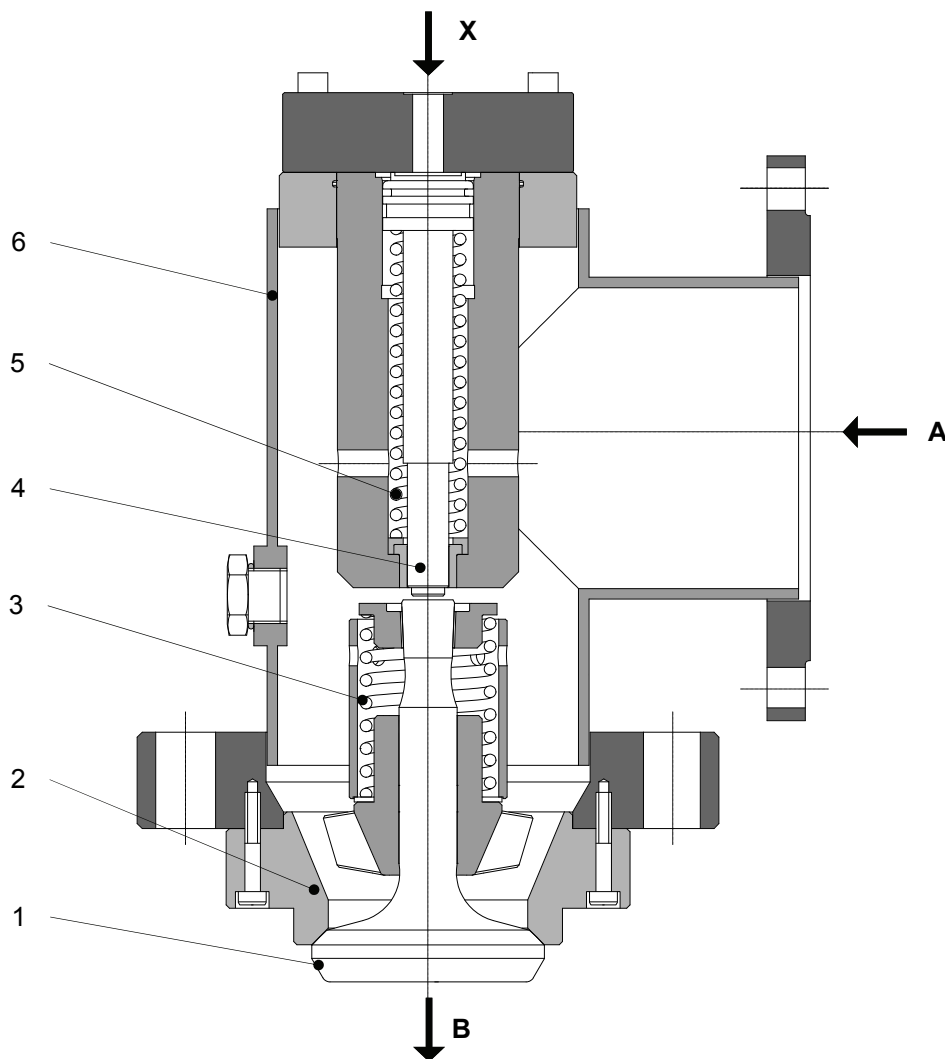
The valve consists of: Main Valve (1), Seat (2), Main Spring (3), Pilot Piston (4), Pilot Spring (5) and Case (6).

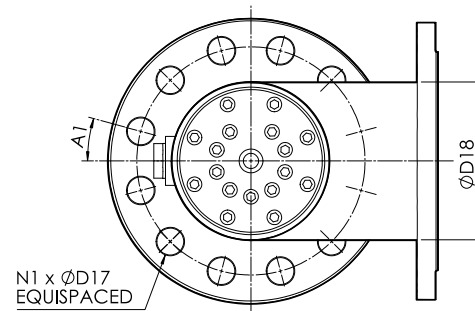
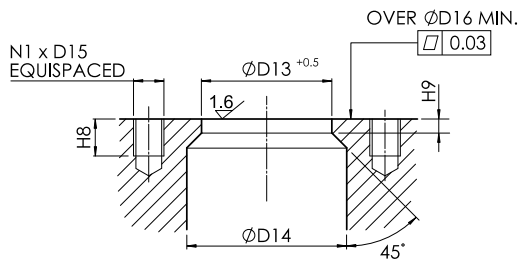
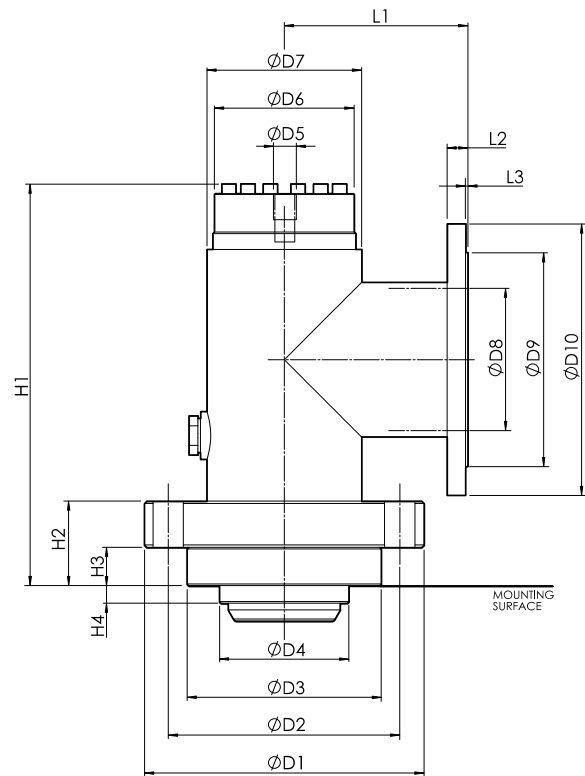
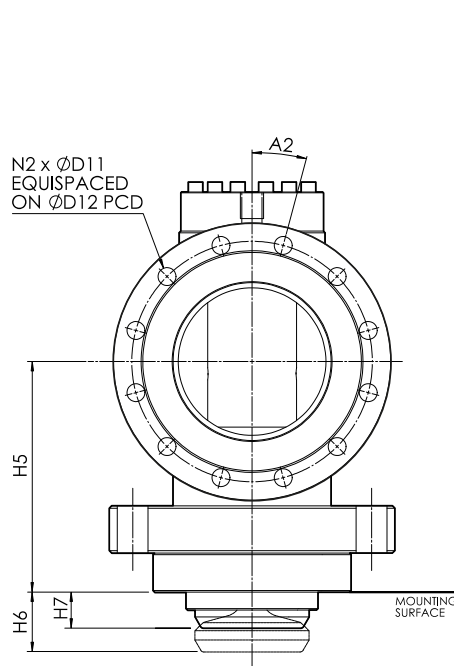
Prefilling

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 compressing the Pilot Spring (5) and 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	D14	D15	D16	D17
130	350	280	243	162	½" BSP	185	194	181	268	340	22	295	162	200	M30	245	33
190	490	400	350	240	½" BSP	220	273	225	320	405	26	355	240	270	M45	355	48
250	610	510	455	285	¾" BSP	240	324	304	378	460	26	410	285	345	M48	460	52
300	700	585	520	362	¾" BSP	260	407	381	490	580	30	525	362	440	M56	525	60

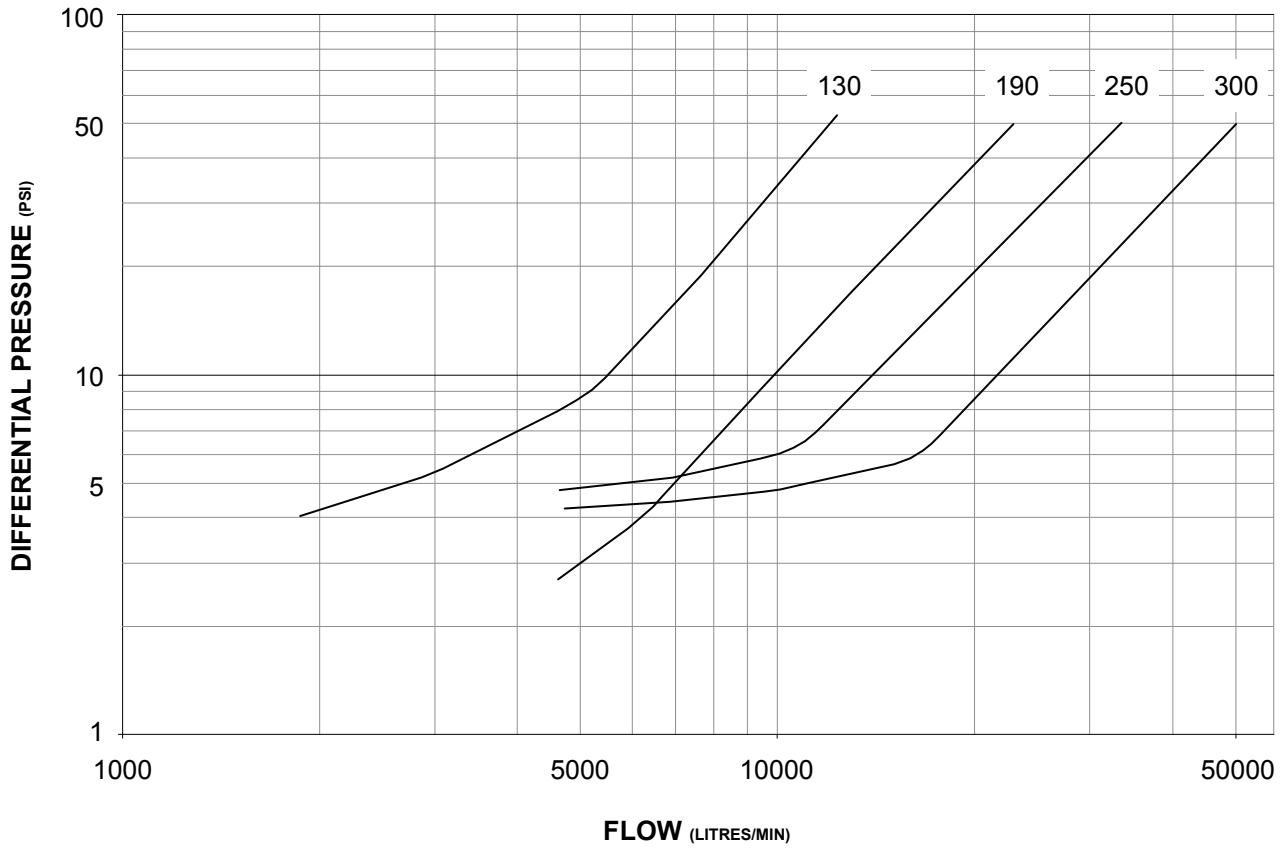
Size	D18	A1	A2	H1	H2	H3	H4	H5	H6	H7	H8	H9	L1	L2	L3	N1	N2
130	194	15°	15°	503	106	48	22	283	85	45	45	20	230	26	3	12	12
190	245	15°	15°	658	134	50	16	375	92	42	70	16	293	29	3	12	12
250	324	11.25°	15°	750	195	75	20	485	127	52	75	20	375	32	4	16	12
300	407	11.25°	11.25°	903	235	95	38	580	161	81	85	38	405	38	4	16	16

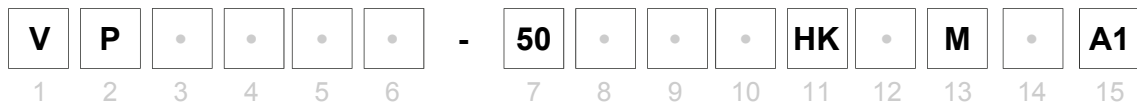
ALL DIMENSIONS IN MM

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		<p>Issue: 1.0</p>	<p>Release 09-2010</p>

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
CL Line
CT Tank
CC Check Valve (Not Available with Exhaust)
CP High Pressure Case (15 Bar)

5 Nominal Size
130 130 mm
190 190 mm
250 250 mm
300 300 mm

6 Mounting
B Sizes 130 & 300
C Sizes 190 & 250
N All Sizes (With Check Valve Only)

7 Max Working Pressure
50 500 Bar

8 Exhaust Flange
A For Variation CB, CP and CL
N For Variation CT and CC

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

10 Pilot Connection
B 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