

EBCO DELAYED VALVE



The EbcO Delayed Valve is designed to offer **full flow** replenishment of water storage tanks used in high rise buildings or tanks supplied via a water softener or a pumped system. Based on the EbcO equilibrium ball float valve, the delayed valve incorporates the unique, patented ECOvalve™ fill control device, which allows the valve and the pump to operate more efficiently.

The fill control device is available in single float (fixed delay) or twin float (adjustable delay) versions. The adjustable twin float device is recommended for tank systems with a raised inlet or float valve housing, so the float can be adjusted to allow optimum main tank capacity.

Ideal for tank storage systems in high rise buildings or buildings with multiple outlets fed from storage tanks, or from pumped systems.

Incorporating Patented  ECOvalve

Key Benefits

- Valve operates with **full flow**, eliminating trickle filling and excessive valve seat wear
- Energy consumption and pump wear are reduced dramatically by the valve operating fully open on every fill cycle
- Significantly reduces water stagnation and elevated water temperatures which are commonly associated causes of Legionella bacteria
- Reduces potentially destructive 'water hammer' caused by a valve having insufficient shut off force creating rapid changes in pressure as the valve opens & closes quickly
- Operates up to 10 bar working pressure

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e-Delayed Valve Issue 1 Rev 1.0 (draft)

EBCO DELAYED VALVE

Fixed Delay / Single Float



Fixed Valve Delay

Fixed Upper water level

Part Number	VALVE SIZE	INLET *	FLOAT
BV104MS/DEL	1"	Male Threaded	SINGLE
BV105MS/DEL	1-1/4"	Male Threaded	SINGLE
BV206MS/DEL	1-1/2"	Male Threaded	SINGLE

* Flanged versions are available on request. Please contact Customer Services on +44 (0)1675 437 900

Adjustable Delay / Twin Float



Adjustable Valve Delay

Adjustable Upper & Lower water levels

Part Number	VALVE SIZE	INLET *	FLOAT
BV104MT/DEL	1"	Male Threaded	TWIN
BV105MT/DEL	1-1/4"	Male Threaded	TWIN
BV206MT/DEL	1-1/2"	Male Threaded	TWIN

* Flanged versions are available on request. Please contact Customer Services on +44 (0)1675 437 900

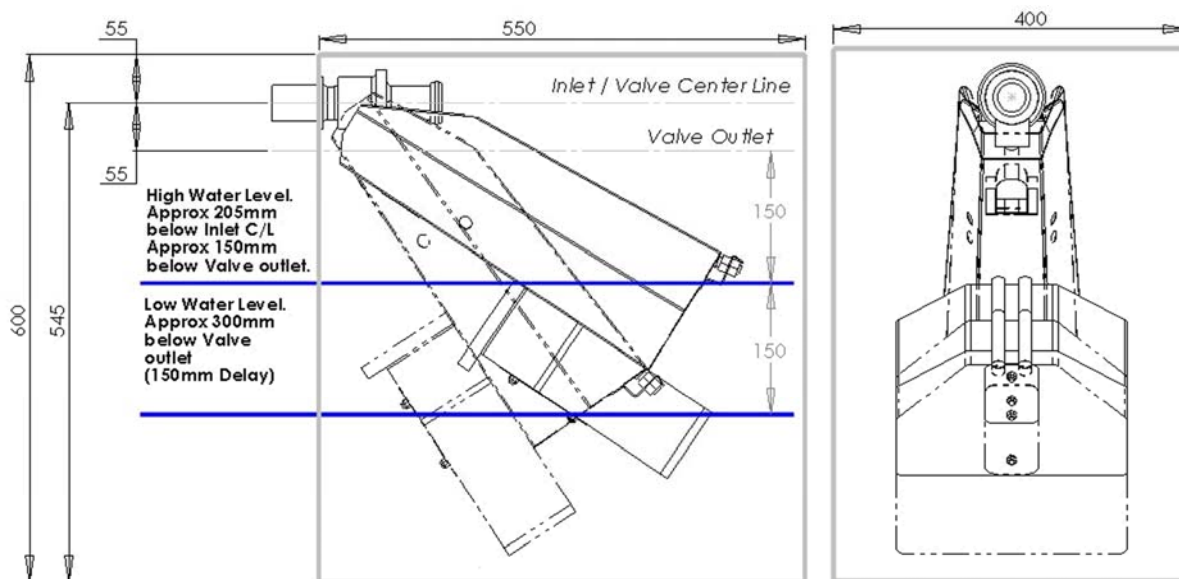
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Minimum Tank Dimensions / Fixed Delayed Valve



All dimensions mm.

Sloping tank walls must not be more than 5° from vertical. Fit tapered washers if necessary.



Minimum Tank Size (mm)	550 L x 400 W x 600 H (approx)
Upper Water Level: Below centre line of valve	205mm
Upper Water Level: Below valve outlet	150mm
Lower Water Level: Below valve outlet	300mm
Inlet centre line to valve outlet (1-1/4" valve)	55mm

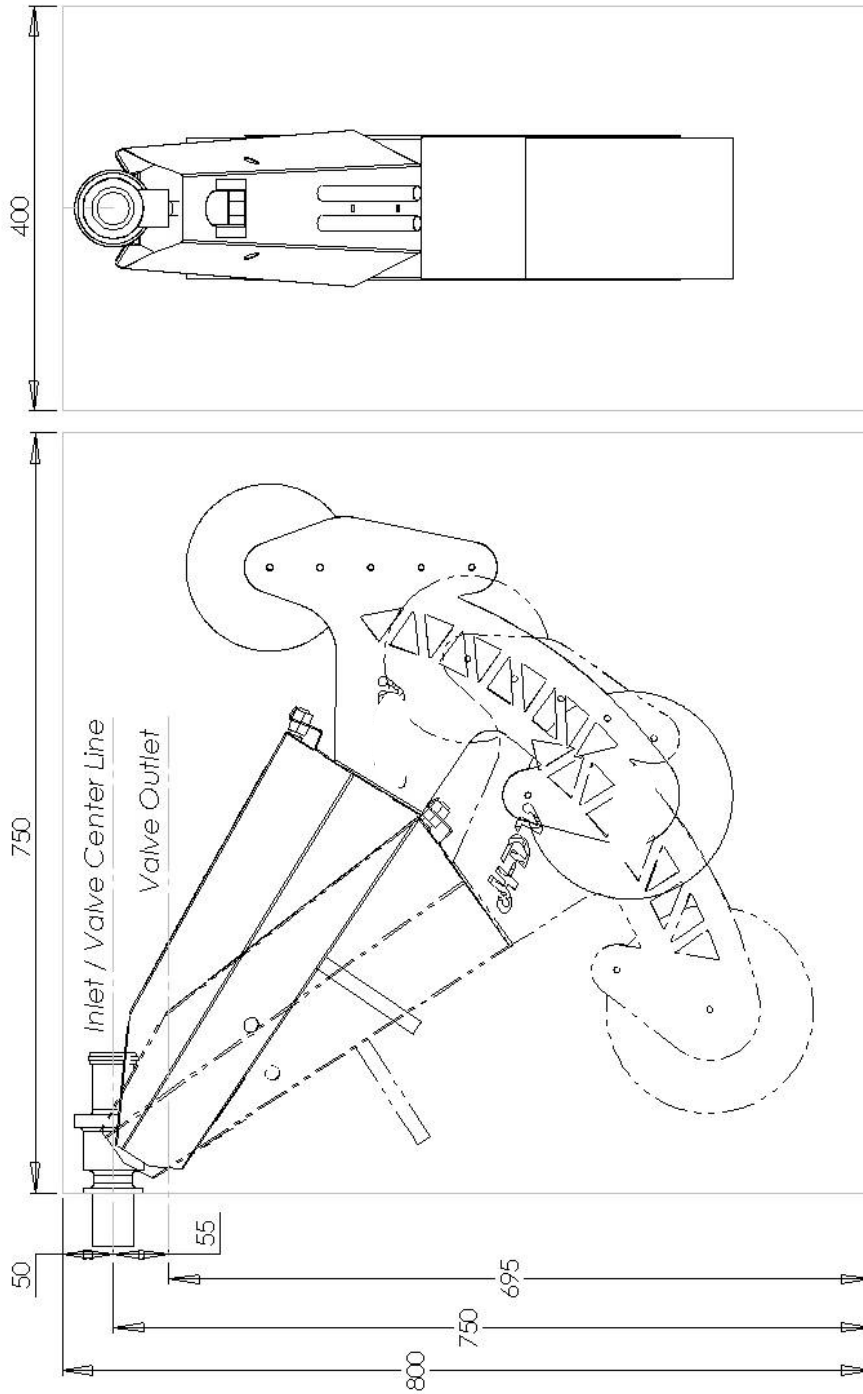
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Minimum Tank Dimensions / Adjustable Delayed Valve



Minimum Tank Size	750mm L x 400mm W x 800mm H
Inlet Valve Centre Line to Valve Outlet	55mm

All dimensions mm.

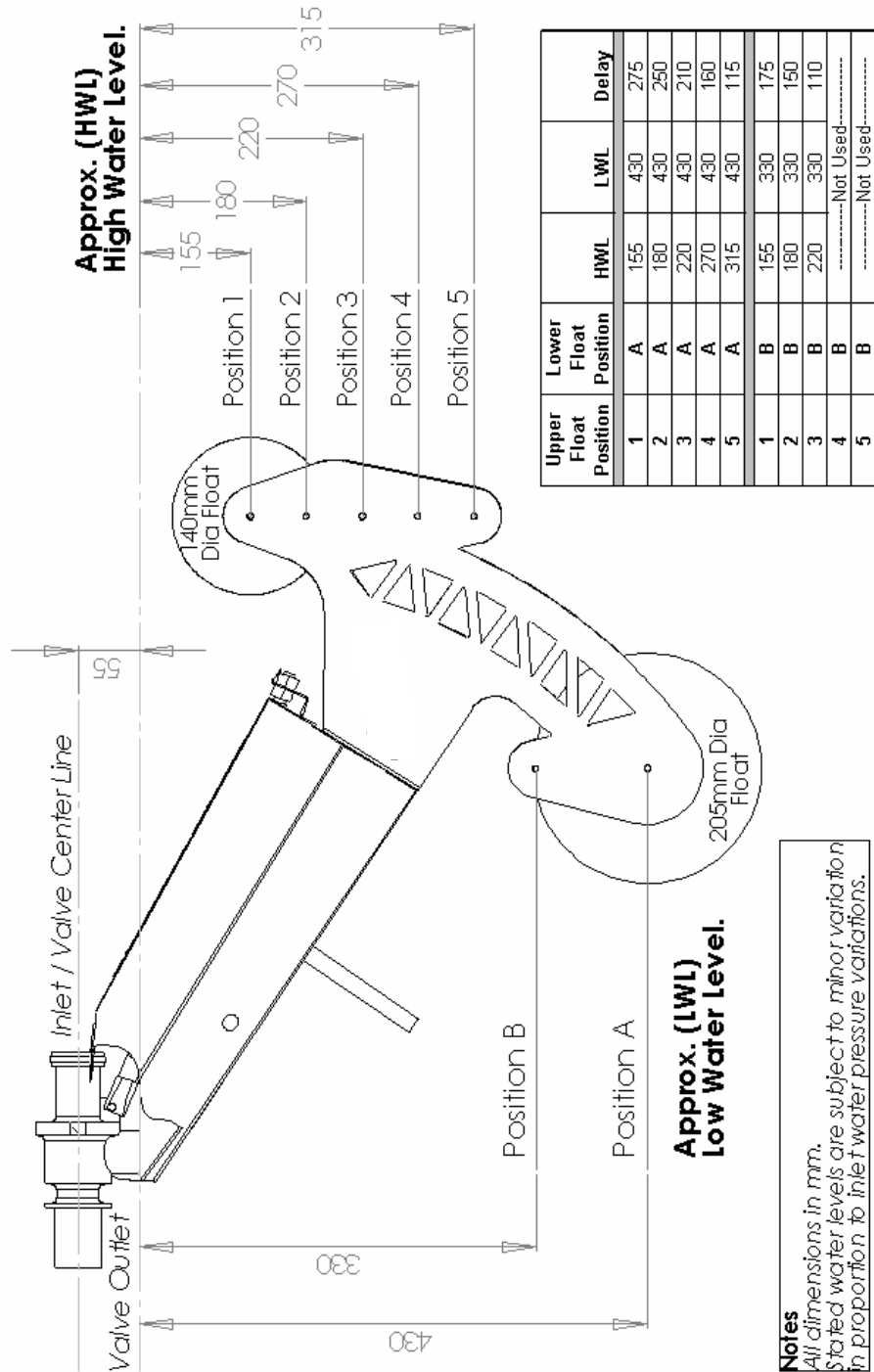
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Adjustment Range / Adjustable Delayed Valve



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Potential Energy Cost Savings

The following is intended as a guide only to potential cost savings based on a 20 unit accommodation building comprising 10 flats of 4 people and 10 flats of 2 people, with a pumped system to take mains water from ground level to a storage tank at roof level. Individual situations and therefore potential savings will vary.

	STANDARD VALVE		EBCO DELAYED VALVE	
Occupancy per flat	2 Person	4 Person	2 Person	4 Person
Water Usage per Year	180 m ³	250 m ³	180 m ³	250 m ³
Energy Usage per m ³ water	2.103 Kwh	2.103 Kwh	0.389 Kwh	0.389 Kwh
Total Energy Usage	378.54 Kwh	525.75 Kwh	70.02 Kwh	97.25 Kwh
Cost per Kwh ¹	£0.1296	£0.1296	£0.1296	£0.1296
Total Cost per Household	£49.06	£68.14	£9.07	£12.60
Number of flats	10	10	10	10
Total Cost per building	£490.59	£681.37	£90.75	£126.04
Energy Cost per Building	£1171.96		£216.79	
Energy Saving £ (%)			£955.17 (81%)	

¹ Energy cost as indicated on Energy Saving Trust website (www.energysavingtrust.org.uk) July 2009

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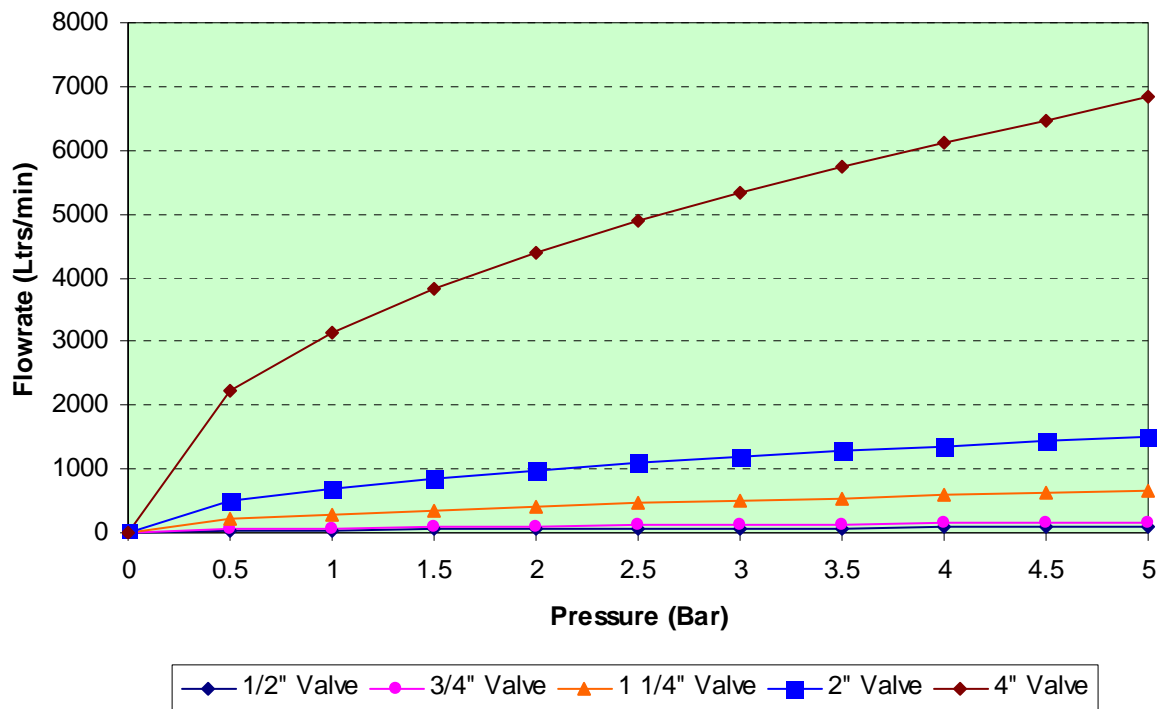
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FLOWRATE—PRESSURE RATINGS MkI Full Bore Valve

Testing conducted by WRc—NSF Ltd

**Flowrate (Ltrs/min) - Pressure (Bar)
Mark I Full Bore Valves**

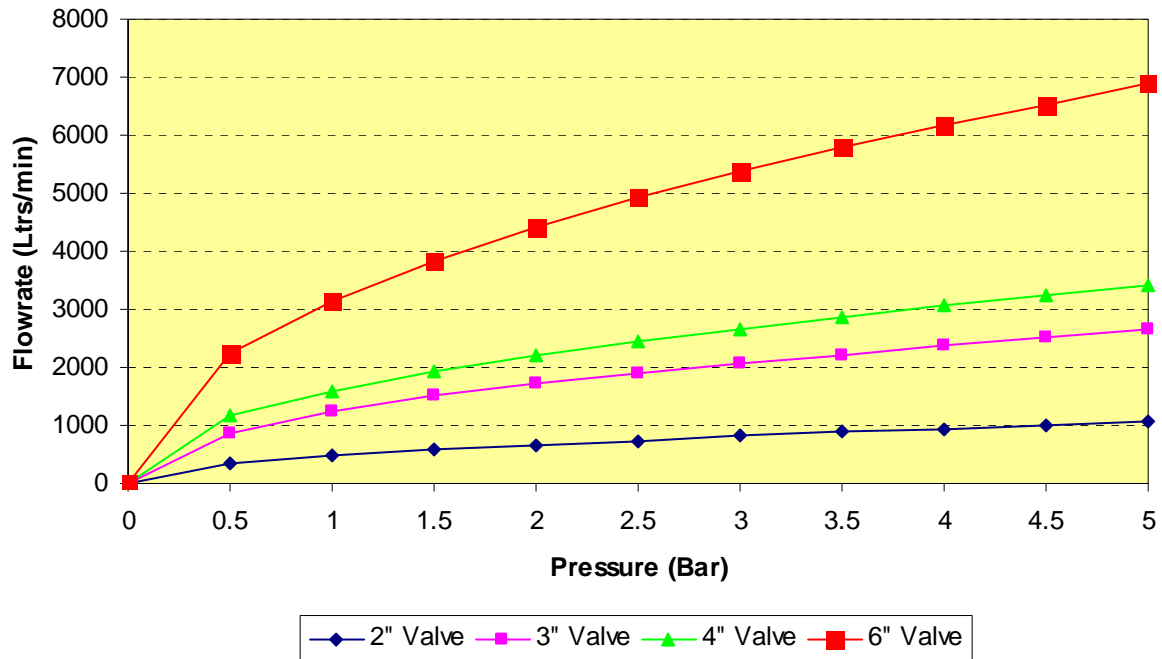


Mark I Pressure (Bar)	Flowrate (Ltrs / min)				
	1/2" Valve	3/4" Valve	1 1/4" Valve	2" Valve	4" Valve
0	0	0	0	0	0
0.5	29.8	53.9	205	497	2227
1	41.2	75	292	694	3124
1.5	50	92.34	355	852	3812
2	57.5	107.4	412	976	4380
2.5	64.2	119.5	461	1098	4879
3	70.6	130	502	1192	5328
3.5	76.6	138.8	544	1276	5738
4	82.2	146.9	582	1359	6117
4.5	87.6	154.6	616	1430	6478
5	92.6	163.3	649	1501	6841

FLOWRATE—PRESSURE RATINGS MkII Reduced Bore Valve

Testing conducted by WRc—NSF Ltd

**Flowrate (Ltrs/min) - Pressure (Bar)
Mark II Reduced Bore Valves**



Mark II	Flowrate (Ltrs / min)			
Pressure (Bar)	2" Valve	3" Valve	4" Valve	6" Valve
0	0	0	0	0
0.5	334	872	1156	2246
1	470	1256	1597	3151
1.5	578	1522	1936	3844
2	664	1736	2193	4417
2.5	740	1904	2443	4921
3	820	2064	2668	5373
3.5	886	2223	2873	5787
4	943	2370	3063	6169
4.5	1004	2509	3244	6533
5	1057	2650	3425	6899